OPERATION AND MAINTENANCE MANUAL

AGRI PIVOT

ENGLISH

ATTENTION:
Always keep a copy of this manual on the machine at the operator's disposal

DIECI S.r.l. Via E. Majorana, 2-4
42027 Montecchio Emilia (RE) ITALY
Tel. +39 0522 869611 Fax +39 0522 869791
www.dieci.com - *e-mail: info@dieci.com*

AXH1189/UK

Each vehicle is equipped with:

- A copy of this manual
- A copy of the use and maintenance manual of the engine drafted by the manufacturer
- A copy of the use and maintenance manual for every device or equipment that this vehicle should be supplied with.

These manuals are drafted by the respective suppliers, i.e. reproduced accurately and in full by ***DIECI S.R.L.*** Upon their specific authorisation: they can be enhanced with further specifications drafted by ***DIECI S.R.L.***

- NOTE

All documentation provided constitutes an integral and important part of the product and must always be available to users; users must carefully read the aforementioned documentation before using the vehicle.

- FORBIDDEN

Improper, incorrect, or irrational use of the vehicle or the accessories with which it is equipped as well as modification to its physical structure or functioning is prohibited.

- FORBIDDEN

The total or partial reproduction of the contents in this manual or that of the possible multimedia attachment is prohibited: *DIECI S.R.L.* will protect the rights held on them

- ATTENTION

A copy of this manual must always be kept on board the vehicle for the operator's reference

www.dieci.com

DIECI S.R.L.

VIA E. MAJORANA, 2-4

42027 - MONTECCHIO E. (RE) - ITALY

TEL. ++39 0522-869611

FAX ++39 0522-869744

e-mail: info@dieci.com

Share Capital Fully Paid € 10.000.000,00

Business Registry R.E. N. 01283560686 - R.E.A. R.E. N. 204278

Tax Number 01283560686 - VAT 01682740350

USE AND MAINTENANCE MANUAL

1. AXH1189/IT - Edition 1
2. 01/2014

ORIGINAL LANGUAGE OF THE INSTRUCTIONS:

3. Italian

TRANSLATION OF THE ORIGINAL INSTRUCTIONS FOR:

- Agri Pivot T40
- Agri Pivot T60
- Agri Pivot T60

Edition	Version	Date	Filled-in by	Approved by	Description
01	00.00	01/2014	Alberto	Technical department	

Dear customer,

congratulations and thank you for choosing a DIECI.

This Use and Maintenance Manual has been written to help you fully appreciate your vehicle.

We strongly recommend that you read this manual in its entirety before using the vehicle.

It contains information, advice and important warnings that will help you to fully take advantage of the technical capabilities of the DIECI.

You will learn about its features and special practical information in addition to information about its maintenance, driver and operation safety to help maintain your vehicle over timeDIECI.

We are confident that you will be happy with your new vehicle and we remain at your disposal should you have any further queries.

Sincerely,

Sales Management

TABLE OF CONTENTS

1 INTRODUCTION

1.1 Manual structure

This manual is an integral part of the official documentation of the vehicle and of the equipment. It must be carefully stored and be available to the managers, the users and personnel in charge of maintenance.

1.2 Purpose and content

This manual is an integral part of the official documentation and is aimed at supplying the Operator with all the information required concerning technical aspects, operation and safety during the entire lifespan of the vehicle or equipment.

- ATTENTION

This manual must be read carefully before using or performing maintenance on the vehicle.

- NOTE

If in doubt on the correct understanding of the instructions, contact the Manufacturer for clarifications.

1.3 Preservation

The instruction manual must be kept near the equipment available to the Users (in the cab or on the equipment where set up) inside a relative envelope, protected from liquids and anything that might make it illegible.

If the manual becomes creased and/or be, even partially, damaged or illegible or in case of loss of the manual, it must be replaced immediately by contacting the ***DIECI TECHNICAL ASSISTANCE SERVICE***, giving the details of the manual found on the first page.

1.4 Addressees

This manual is addressed to the following persons:

- **Operator**: instructed person, trained with specific theoretical-practical course concerning use of the vehicle or equipment
- **Generic maintenance technician**: trained and educated person to perform routine maintenance interventions with basic mechanical, electrical and hydraulic knowledge
- **Specialised maintenance technician**: trained and educated person to perform routine and extraordinary maintenance interventions with in-depth and specific mechanical, electrical and hydraulic knowledge, normally sent or authorised by ***DIECI S.R.L.*** or the dealer.

- ATTENTION

The users must not carry out operations reserved for maintenance technicians or qualified technicians. The Manufacturer is not liable for damage deriving from the non-compliance with this prohibition.

1.4.1 Training

This manual gives the users all technical data on the vehicle or on the equipment, the presence and type of control and safety devices and the presence and meaning of the safety stickers and plates.

All vehicle or equipment users must have all necessary information, training and education in relation to the correct use conditions of the means and foreseeable anomalous risks.

The information, training and educating must be implemented upon introduction of new work equipment and for each work equipment available to users.

- NOTE

Ensure to respect the current laws and Standards in the selling country of the machine with regard to information, training and educating of personnel to use the vehicle and its equipment.

The employer must inform personnel on the following subjects on safe use:

- Risk of accident
- Individual safety devices and those of the machine, set up for operator safety
- General accident-prevention rules and/or foreseen by international directives
- Accident-prevention rules of Legislation of the Country where the vehicle is intended for use

Before starting to work the operator must know the vehicle features and must have fully read this Use and Maintenance Manual.

1.4.2 Training

- ATTENTION

The operator in charge of using the vehicle or equipment must have attended a suitable theoretical-practical course lasting as long as indicated by legal prescriptions in the Country where the vehicle or equipment is used.

Training must at least include the following subjects:

- Use and limits of the functioning and emergency controls of the equipment and of the vehicle on which the equipment is mounted.
- Knowledge and awareness of the Use and Maintenance Manual and of the control marks, of the instructions and of the warnings applied on the vehicle.
- Knowledge and understanding of the Standard on this equipment, including the educating aimed at recognising and avoiding potential dangers at work.
- Knowledge of the mechanical functioning of the vehicle sufficient for recognising a real or potential failure.
- Hints on constructive particulars of the vehicles and on static and dynamic stability concepts.
- Correct use of the vehicle procedures in safe conditions with regard to the work place and the load to be handled/lifted, capacity and guide notions.
- Knowledge and use of the PPE to be worn during use of the vehicle and of the equipment.
- Knowledge and execution of the routine maintenance to be carried out

Training must be carried out under the supervision of a qualified person in an open area and free from obstacles. At the end of this practice, the trainee must be able to safely use the equipment, and the vehicle on which it is installed.

The operator must also be trained on the responsibility and authority of not using the vehicle in case of failure or presence of unsafe conditions, and request further information from the Manufacturer or authorised dealer.

1.4.3 Qualification

The vehicle and equipment are intended for professional use; their use must therefore be entrusted to qualified figures, in particular:

- being of adult age
- be physically and psychically suitable to carry out particularly difficult technical work
- have been adequately trained on the use and maintenance of the vehicle and equipment
- have been judged suitable by the employer to carry out the work entrusted to them
- are able to understand and interpret the manual and the safety requirements
- know the emergency procedures and their activation
- have the ability of activating the specific type of vehicle or equipment
- are familiar with the specific standards of the case
- have understood the operational procedures defined by the Manufacturer of the vehicle or equipment

1.5 Terms, units of measurement and abbreviations used

	DECIMAL METRIC SYSTEM (SI)		ENGLISH IMPERIAL SYSTEM (IMP)	
	NAME	SYMBOL	NAME	SYMBOL
SURFACE				
	square meter	m^2	square foot	ft^2
ELECTRICITY				
	Ampere	A		
	Volt	V		
FORCE				
	kiloNewton	kN		
	Newton	N		
LENGTH FORCE				
	Newton/metres	N/m	pound/inch	lb/in
SURFACE FORCE - PRESSURE				
	kilopascal	kPa	Square pound/inch	psi
ROTATION FREQUENCY				
	Revolutions per minute	rpm		
LENGTH				
	kilometre	km	mile	mi
	metre	m	foot	ft
	centimetre	cm	inch	in
	millimetre	mm	inch	in
MASS				
	kilogram	kg	pound	lb
	ton	t	pound	lb
POWER				
	kilowatt	kW	horse power	HP
	Watt	W		
TEMPERATURE				
	Celsius degrees	°C	Fahrenheit degrees	°F
TORQUE				
	Newton metres	N m	pound feet	lb ft
			pound inch	lb in
SPEED				
	kilometres per hour	km/h	miles per hour	mph
	metres/second	m/s	feet/second	ft/s
VOLUME				
	cubic meter	m^3	cubic yard	yd^3
			cubic inch	in^3
	litre	l	UK gallon	UK gal

	DECIMAL METRIC SYSTEM (SI)		ENGLISH IMPERIAL SYSTEM (IMP)	
	NAME	SYMBOL	NAME	SYMBOL
TIME				
	hour	h	hour	h
	minute	min	minute	min
	second	s	second	s
VOLUME PER TIME				
	cubic metre per minute	m^3/min	cubic foot per minute	ft^3/min
	litre per minute	l/min	UK gallon per minute	UK gal^3/min
SOUND POWER AND ACOUSTIC PRESSURE				
	decibel	dB		

1.6 Used symbols

1.6.1 Symbols key in manual

Carefully read the safety regulations given and follow all recommended precautions in order to avoid potential risks and safeguard your health and safety.

The symbols listed below are inserted to highlight situations which ***DIECI S.R.L.*** considers particularly important.

However, this manual must be read completely and understood and must be kept inside the vehicle, covered and protected, available to all vehicle users.

If in doubt, contact the nearest agent or dealer.

SYMBOL	MEANING	COMMENT
	**DANGER**	Indicates an important safety message. When you see this symbol, carefully read the information that follows and inform other operators in order to prevent risks and hazards.
	**SPECIFIC DANGER**	Indicates a specific danger with risk, even serious, for the user. (Electrical danger provided as example)
	**ATTENTION**	Indicates a warning addressed to avoid a potentially dangerous situation
	**NOTE**	Indicates a WARNING or a note on key functions or on useful information.
	**PROHIBITION**	Indicates strictly prohibited actions or things that are dangerous to personnel.
	**CONSULTATION**	Indicates reference to other paragraphs or manuals.
	**MAINTENANCE**	Indicates a maintenance operation that must be carried out by a General or specialised maintenance technician.
	**OPTIONAL**	Indicates possible installation or presence of an optional available at ***DIECI S.R.L.*** distributors.

2 GUARANTEE

The guarantee is applied to all manufacturing and material defects, duly certified, and is exclusively limited to the repair or replacement of parts that, at the discretion of the Company, are acknowledged as faulty, as well as the labour necessary for such repairs or replacements, on the basis of guarantee times established by the Company.

All interventions carried out during the guarantee period must be carried out by personnel authorised by the Company (otherwise, the right to guarantee cover is declined).

2.1 Exclusions from the guarantee

Damage to the vehicle caused by the following is not included in the Guarantee:

- Operator errors
- failure to perform the maintenance stipulated in this Manual
- faults and/or breaks not attributable to its malfunction
- tampering with equipment
- normal operating wear
- deterioration of the parts that have a purely aesthetic function
- repairs by unauthorised centres or persons
- product use with methods that do not comply with the warnings provided in this User and Maintenance Manual.
- damage caused by the unsuitability of the environment in which the equipment works and phenomena that are not caused by its normal operation
- consumable components subject to wear: clutch, belts, brake pads, slide blocks, rollers, oil and liquids, filters, etc.
- the electrical components and systems.
- damage caused by: climatic agents, natural disasters, vandalism, etc.
- any other malfunction not due to a certified defect resulting from an original fault or that does not fall under the responsibility of ***DIECI S.R.L.***

The following parts are also excluded from this guarantee but are covered by the guarantee of the relevant Manufacturers:

- Diesel engine
- Axles and reduction gears
- Hydraulic pumps and engines
- Tyres

DIECI S.R.L. shall handle the application of the aforementioned guarantees.

2.2 Guarantee: duration

DIECI S.R.L. guarantees its products for 12 months from the date of delivery to the Customer or Dealer/Distributor.

If the vehicle is stored for long periods by the Dealer/Distributor at the time of sale to the customer, the Service Centre will reserve the right to verify guarantee activation.

2.3 Guarantee: validity

The guarantee is valid from the date the vehicle is shipped from the factory (sales to Distributors or Dealers). When delivery is handled by the Distributor or Dealer, ***DIECI*** reserves the right to verify that the guarantee start date corresponds to the shipping or delivery date on the transport document of the product being guaranteed, and/or to the invoice date, and can request original copies of these documents.

2.4 Guarantee: activation

The guarantee is automatically valid from the date the vehicle leaves the factory (sale to Distributors or Dealers).

2.5 Guarantee: validity

2.5.1 Guarantee in countries with assistance centres

The guarantee covers the replacement or repair of faulty parts proven defective as a result of the material used, its manufacturing or assembly.

DIECI reserves the sole right to authorise the repair or replacement of faulty parts.

DIECI shall resolve the anomaly through the means and methods it deems most appropriate

DIECI is responsible for:

- The materials used
- Labour
- Travel expenses

The Customer is responsible for:

- packing and shipping costs for replacement parts
- all other expenses not listed under those for which ***DIECI S.R.L.*** is liable

2.5.2 Guarantee in countries with NO assistance centres

Refers exclusively to the free supply, ex works by ***DIECI***, of parts no longer usable due to faulty original material, manufacturing and/or assembly.

2.5.3 Examining replaced faulty parts

Before honouring the guarantee, ***DIECI*** may ask for the faulty parts replaced during the repairs to be returned at ***DIECI'***s expense.

2.5.4 Additional guarantee for repairs and replacement parts

Repairs made under guarantee or not, and parts replaced during repair work, are guaranteed for 3 months from the date of repair or installation, even if the original guarantee has expired.

2.5.5 Intervention campaigns for faulty products

The replacement procedures of parts acknowledged to be faulty will be agreed upon by ***DIECI S.R.L.*** and its distributors/dealers/ authorised workshops.

These intervention campaigns can be followed directly by ***DIECI S.R.L.*** suppliers, who are responsible for supplying the components to be replaced (interventions authorised by ***DIECI S.R.L.***).

The above interventions will be preceded by written communication from ***DIECI S.R.L.*** to its purchasers.

Only ***DIECI S.R.L.*** can decide the intervention method (repair, replacement or modification).

2.6 Guarantee: intervention request

2.6.1 Guarantee: claim

The claim of the faulty part must be made by the Customer, Dealer, Distributor or Authorised workshop and must be sent directly to ***DIECI S.R.L.*** Customer Service within 8 days from when it is noted.

The claim must include a clear description of the defect and precise references to the vehicle (type, model, and serial number). This information can be found on the vehicle in the places indicated in the USE AND MAINTENANCE MANUAL.

2.6.2 Obligation of vehicle downtime

If there is a risk that the defect may jeopardise safety and accident prevention or may cause further damage, the vehicle must not be used until it has been repaired and tested.

Every modification made to the vehicle requires a new verification of conformity with the 2006/42/EC Machinery Directive. This procedure is also valid in the case of repairs with non-original spare parts.

In the event of any dispute, exclusive jurisdiction will be held by the Court of Reggio Emilia - ITALY.

2.7 Non-activation, failure to honour, termination

2.7.1 non-acknowledgement

The guarantee is not honoured:

- If the defect is not reported as described and within the established time limit.
- If the customer does not comply with ***DIECI S.R.L.'S*** request to return the faulty parts replaced during the repairs.
- If the customer has not complied with the obligation to stop using the vehicle after making a claim, limited to damages caused by noncompliance.

2.7.2 Guarantee: termination

The guarantee is terminated:

- If the buyer does not fulfil contractual payment obligations.
- If damage has been caused by carelessness, negligence, or by use of the vehicle for purposes not in compliance with specifications provided in the use and maintenance manual (incorrect manoeuvres, overloading, use of incorrect fuel, poor maintenance, disregard for warning indicator instruments etc.)
- If the defect is a result of applications, equipment, modifications or repairs not authorised by ***DIECI S.R.L.*** or carried out using poor quality parts. (For this reason, we recommend always using original spare parts).

Refer to the "MAINTENANCE" paragraph for information regarding recommended routine maintenance.

2.8 Final terms

In none of the cases regarding non-activation of the guarantee, it not being honoured or being terminated, the buyer cannot demand cancellation of the contract, or compensation, or an extension of the guarantee.

Any guarantee conditions other than those listed above must be agreed upon in writing and signed by both parties.

Unless agreed upon in writing by both parties; ***DIECI S.R.L.*** does not pay compensation for any type of claim caused by vehicle downtime, such as:

- Replaced or rented vehicles
- Labour
- Loss of profit

3 SAFETY REGULATIONS

3.1 General warnings

The instructions for use, maintenance and repair described in this handbook must be followed if the vehicle is to be considered as being operated in accordance with the manufacturer's intended uses.

- FORBIDDEN

THE MACHINERY AND EQUIPMENT CANNOT BE MODIFIED WITHOUT THE MANUFACTURER'S AUTHORISATION.

To guarantee your safety and that of others, do not modify the structure or adjust the various accessory components of the vehicle or equipment. The same holds true for the deactivation or modification of safety devices present.

- ATTENTION

Any modification made to the vehicle or accessories will absolve *DIECI S.R.L.* from all liability for damage or injury resulting from such modification.

- ATTENTION

Every vehicle or accessory must be used, assisted or repaired only by persons that have received training in advance on the vehicle and on its safety regulations, in addition to being authorised to use the vehicle or accessory itself.

- ATTENTION

The user must always observe the general safety regulations as well as those for accident prevention, such as traffic rules if the vehicle is used on public roads (according to the regulations in force in the country of use).

- FORBIDDEN

USE OF THE VEHICLE OR OF THE ACCESSORIES DIFFERENT TO THAT DESCRIBED IN THIS MANUAL IS PROHIBITED.

- FORBIDDEN

THE VEHICLES OR ACCESSORIES IN QUESTION ARE NOT SET-UP FOR USE IN ENVIRONMENTS OR SITES EXPOSED TO THE PRESENCE OF EXPLOSIVE GASES, THUS PROHIBITING USE IN THESE PLACES.

To operate in closed spaces, the Manufacturer must be contacted so that the necessary modifications can be made to the vehicle.

- FORBIDDEN

All functions and procedures concerning the operation and mounting of the vehicle or its equipment that are not described in this manual are strictly FORBIDDEN.

- DANGER

DO NOT USE THE VEHICLE OR THE ACCESSORIES IF YOU ARE UNDER THE EFFECT OF ALCOHOL, DRUGS OR IF YOU HAVE TAKEN MEDICINES THAT MAY MAKE YOU DROWSY OR MAY ALTER YOUR REFLEX AND REACTION TIME.

- ATTENTION

Read all of the safety stickers on the vehicle and observe all regulations printed on these stickers before starting up, running or refuelling the vehicle or before carrying out maintenance work. Immediately replace damaged, lost or illegible decals. Clean the stickers if they are covered by dirt, cement or other deposits.

- NOTE

***DIECI S.R.L.* is not liable for damage caused by negligent use of this vehicle or the accessory even if said damage is not a result of intentional improper use. Everything possible has been done during the design and construction phases of vehicles and accessories to make your job as safe as possible. Due caution, however, is indispensable and there is no better rule to prevent accidents.**

3.2 Safety indications

- ATTENTION

Carefully observe and follow all safety signals on the vehicle and on the accessories and read all safety messages in this manual.

- The safety signals must be installed, maintained and replaced when necessary.
- If a safety signal or this manual is damaged or missing, order a replacement from the ***DIECI S.R.L.*** dealer in the same manner as spare parts (make sure you provide the model and serial number of the vehicle or accessory when placing the order).
- Learn how to correctly and safely operate the vehicle and the accessories and their relative controls.
- Allow only trained, qualified and authorised personnel to operate the machine and installed accessories.
- Keep the vehicle and accessories in appropriate working conditions.
- Unauthorised modifications to the vehicle or accessories can jeopardise the functioning and/or safety and influence their life-span.
- The safety messages in this SAFETY REGULATIONS chapter illustrate the basic safety procedures of the vehicles.
- In case of doubt, contact the manager before proceeding to operate or carry out maintenance work on the vehicle or on the accessories.

3.3 Personal protective devices

3.3.1 Protective clothing

In some cases, when working in particularly uncomfortable environments, adequate clothing or equipment must be worn.

It is necessary to have:

- Protective helmet
- Accident-prevention shoes
- Protective goggles or protective face mask
- Protective gloves
- Protective headwear against noise
- Reflective clothing
- Waterproof clothing
- Breathing apparatus or filtering mask

Before operating the vehicle, it is the personnel's responsibility, to ask the safety manager about the possible risks of the work and the accident prevention clothing that must be worn.

- ATTENTION

The Personal Protective Equipment used by the operators can have different characteristics, depending on the type of construction site and risks present in the work place.

Always use PPE that is appropriate for the type of work to be performed.

- ATTENTION

Pay attention to moving parts to avoid danger of crushing or dragging of the lower and upper limbs. Avoid wearing jewellery or pendants that might be trapped in moving parts. Long hair must be tied back to avoid it being caught in moving parts.

- FORBIDDEN

Do not wear loose clothing, chains, belts or other accessories that may be caught in the control levers or in other parts of the vehicle.

- FORBIDDEN

Headphones for listening to the radio or music should not be worn while using the vehicle.

- ATTENTION

Accident prevention equipment must always be whole and in good condition. Damaged clothing cannot ensure adequate protection. Do not wear damaged clothing; always replace damaged or torn clothing before operating the vehicle.

3.3.2 Protect yourself against noise

Prolonged exposure to loud noise can damage your hearing or may cause hearing loss.

- ATTENTION

Always wear anti-noise earmuffs or earplugs to protect yourself from excessive and irritating noises.

3.3.3 Protections against the falling of objects from a height

The vehicle is equipped with a protective cab against falling objecting (FOPS).

- ATTENTION

Use of a safety helmet is required if there is a risk of falling objects.

3.3.4 Protect yourself from flying fragments

- ATTENTION

During operation in certain conditions, particles of material may be ejected. In such conditions, it is a good idea to wear protective goggles and clear the area of those people not in possession of such goggles.

3.4 Preparing for accidents

- Always be prepared in the event of a fire or an accident.
- Keep a fire extinguisher and first aid kit at hand. (Not supplied by the manufacturer, "optional accessories").
- Carry out periodic inspections to ensure that the first aid kit contains all necessary items; replenish content if necessary.
- To properly use the extinguisher, carefully read the instructions located on the extinguisher.
- Carry out periodic inspections and maintenance (six monthly) to ensure that the extinguisher is ready for use at any given moment.
- Create priority procedures to deal with fires or accidents.
- Keep emergency telephone numbers (doctors, ambulance, hospital and fire brigade) clearly visible and near the telephone.
- Adequately trained and educated personnel must be present for managing emergencies with adequate theoretical-practical course carried out on site.

Below are some First Aid procedures that can be activated in case of accident following use of the vehicle or equipment object of this use and maintenance manual.

These procedures may be useful in an emergency for the users or other operators present near-by, during use and various life-phases of the vehicle or of the equipment (transport, installation, use, maintenance, adjustment, etc.).

3.4.1 First Aider Tasks

1. Activate first aid (emergency call).
2. Evaluate the victim and, if necessary, support vital functions.
3. Stop an external haemorrhage.
4. Protect wounds and burns.
5. Protect the victim against further damages.
6. Do not perform unnecessary or damaging actions, which give beverages, move the victim, reduce dislocations and/or fractures, etc.

3.4.2 Emergency call

Good first aid intervention also depends on the timely arrival of rescuers (Italian emergency medical support) to the place of the emergency.

This is why the first aider in charge of calling the emergency must precisely indicate:

- Address of where the accident or illness took place.
- Number of injured or ill parties.
- The possible cause of the event.
- The state of the vital functions of the injured party, specifying whether the same is conscious or not and breathes normally or not.

At the end of the call it is recommended to:

- Give own details, indicating a telephone number where to be contacted.
- Wait for the rescuers outside the company (for example, near the reception).

3.4.3 Traumas

Distortions, dislocations and fractures:

immobilise the joints in the position after the trauma, using bandages or storage, supporting the analgesic position of the injured party without attempting dangerous manoeuvres. Apply the cold (with bag of ice or other systems). In case of exposed fracture, cover the wound using a sterile gauze pad, after having pressed at a distance on the specific points the relative haemorrhage.

Contusions, crushing:

in case of contusions and/or crushing of ends of the upper and lower limbs (fingers, hand, feet, etc.) it is advised to immediately place the limb underneath running water (cold) and apply ice. Also check for wounds and/or cuts in the hit area and, if necessary, disinfect with the due precautions.

3.4.4 Haemorrhages

It is necessary to press the fingers on the haemorrhage point with sterile gauze pad, lifting the limb and eventually compress upstream of the haemorrhage with tourniquet.

Treating superficial wounds:

accurately expose and clean the wound, disinfect it with physiological solution, medicate it covering it with sterile gauze pads. Bandage avoiding excessive tightening to allow good circulation.

Treating deep wounds:

It is a priority to protect yourself against the risk of infection using gloves and splash shield; pad the haemorrhage by direct pressure or using other pressure points until it stops or the arrival of the ambulance. Call the medical emergency number, informing them that you are padding an arterial haemorrhage.

Treat the wound only after the haemorrhage is under control.

- NOTE

Do not use cotton wool, methylated spirit, antibiotic powder to disinfect the wound.

3.5 Preventing fires and accidents

3.5.1 Risks of fires

- FORBIDDEN ACTION

It is forbidden to smoke or use naked flames during use of the vehicle or any maintenance operation.

- DANGER

Do not operate the vehicle without the following safety conditions:

- DANGER

1 - Fuel, oil and lubricant leaks can trigger fires and cause serious injuries.

- Ensure that there are no flammable liquids leaking.
- To avoid oil or diesel leaks, make sure that there are no loose or missing clamps, no twisted tubes and no tubes that rub up against each other.
- Do not bend any tubes/pipes under pressure.
- Never install damaged tubes.
- Do not weld tubes or pipes containing inflammable liquids.
- Do not use a torch head to cut tubes or pipes containing inflammable liquids.

- DANGER

2- Short circuits may cause fires.

- Ensure that there are no short circuits.
- Clean and interrupt all electrical connections.
- Before every work shift, make sure that there are no loose, twisted, hardened or damaged electric cables.

- DANGER

3 - Fuel, oil, grease, waste, deposits or accumulated dust or other components can cause a fire.

- Remove inflammable materials.
- Prevent fires by inspecting and cleaning the vehicle at every shift, by immediately removing inflammable components.
- Check the ignition switch: in the event of fire, failure to switch off the engine will obstruct the work of the Fire Brigade.
- Do not use mazut, petrol or inflammable liquids to clean parts of the vehicle. Only use non-flammable detergents.

- DANGER

4 - Safely handle dangerous liquids.

- Handle fuel with care, it is easily inflammable. If fuel is ignited, there may be an explosion and/or a fire.
- Do not refuel the vehicle while smoking and in presence of naked flames or sparks.
- Always stop the engine before refuelling the vehicle.
- Fill up the tank outside.
- All fuels, most lubricants and some anti-freezes are inflammable.
- Preserve the flammable fluids away from fire hazards.
- Do not burn or drill pressurised containers.
- Do not keep cloths soaked with lubricant; they may cause fires and spontaneous combustions.

3.5.2 Risks of inhaling gas

- DANGER

Exhaust engine gases are toxic and can cause damages to your health.

- If necessary to work in closed ambients, ensure it is sufficiently ventilated and equip the vehicle with special purifiers.

3.5.3 Risks of batteries exploding

- DANGER

The gas of the batteries may explode.

- Keep any sparks, open flames or lit cigarettes away from the upper part of the battery.
- Never place a metal object between the terminals to check the battery charge. Use a voltmeter or a densimeter.
- Do not create sparks in the battery connection during recharging phases or starting the engine with auxiliary battery.
- Do not charge the batteries if they are extremely cold, extremely hot or damages as they might explode.
- Heat the batteries up to 16°C.
- The electrolyte in the batteries is an extremely corrosive acid.
- Should the battery explode, the electrolyte may be sprayed in the eyes with the possibility of causing blindness.
- Ensure to be wearing protective goggles when carrying out maintenance on the batteries.
- Do not overturn or tilt the battery as acid could come out.

3.5.4 Residue risks

- KEEP AWAY FROM MOVING PARTS

Damage may be caused by entanglement in moving parts.

- AVOID BURNS

- Jets of hot fluids:

After operation, the engine cooling liquid is hot and under pressure. Contact with hot water or steam may cause serious burns.

Avoid possible injury caused by hot water jets. Do not remove the radiator cap until the engine has cooled down. To open it, unscrew the cap as far as possible. Before removing the cap, release all of the pressure.

- Hot surfaces and fluids:

The engine, reduction gears and hydraulic system oil heat up during vehicle use. The engine, rigid and flexible piping and other components heat up.

Wait until all parts cool down before beginning maintenance or repair work.

- CAUTION WITH PRESSURISED FLUIDS

Fluids such as fuel or hydraulic oil under pressure can penetrate the skin and eyes causing serious injuries.

Avoid these dangers while repairing or carrying out maintenance on the vehicle, discharging the pressures (using the hydraulic levers of the distributors) before disconnecting or repairing pipes and hydraulic parts.

Before restarting the engine, ensure that all connections have been correctly tightened.

Use a piece of cardboard to check for any leaks; make sure your hands and body are adequately protected against pressurised fluids. Wear a face mask or accident-prevention goggles to protect your eyes.

Should there be an accident, seek medical attention immediately. Any fluids that penetrate the skin must be removed surgically within a few hours to avoid infections.

- ELECTROCUTION

All maintenance and/or adjustment interventions on powered parts must be carried out only and exclusively by qualified and adequately trained personnel.

- RISK OF SLIPPING

During on site operations, the areas around the equipment may have debris and liquid (oil, water, etc.) that might make the floor slippery. Pay the utmost attention.

- RISK OF FALLING, TRIPPING

Pay the utmost attention when climbing in and out from the vehicle.

- CRUSHING OF HANDS AND FEET

The presence of moving parts during functioning can cause risks for the ground operators. During vehicle manoeuvres, carefully check no unauthorised person is within the required moving area.

3.5.5 Contact with dangerous substances

- Wear the necessary protective clothing.
- Refer to the information sheet of the product used and adopt adequate precautions when using the product.
- Avoid contact with skin and eyes.
  - In case of contact with eyes: rinse them thoroughly with plenty of water for a few minutes keeping the eyelids open and consult a doctor.
  - Should any fluid come into contact with skin, wash the area carefully, remove contaminated clothing, and when skin is dry, apply moisturising cream. Consult a doctor if necessary.
  - In the event of inhalation, move away from the contaminated area and go to a well-ventilated location. Consult a doctor in the event of respiratory problems.
  - If swallowed: immediately contact a doctor, showing the label or container. Do not induce vomiting to avoid the risk of inhalation via respiratory passageways.

3.6 Storing dangerous liquids

- NOTE

Handle fuel with care, it is easily inflammable. If fuel is ignited, there may be an explosion and/or a fire.

- DANGER FLAMMABLE MATERIAL

All fuels, most lubricants and some anti-freezes are inflammable.

- DANGER

All fluids must be kept out of the reach of children and incompetent persons.

- IT IS FORBIDDEN TO SMOKE AND HAVE OPEN FLAMES

It is forbidden to smoke or to use naked flames near fuels.

- FORBIDDEN

Different types of substances must not be stored or mixed together.

- ATTENTION

All chemical products are generally very noxious to our health, avoid contact with the skin and eyes by wearing suitable protective clothing. Do not ingest.

- ATTENTION

Comply with the following precautions to store dangerous liquids:

- All inflammable fluids must be stored in special containers, and the content of the containers must be clearly indicated. Containers must be tightly sealed.
- Store inflammable fluids in well-ventilated locations, far away from heat sources, sparks and open flames.
- Keep containers closed and covered. Other substances (e.g. foodstuffs) must not be present in this location.
- Always fill up the tank outside.
- Be careful of fumes and steam which may be formed by chemical products. Avoid inhalation.
- Do not breathe in fuel fumes.
- Ensure that these chemical products do not spill or flow into the ground, sewers or puddles. If necessary, inform the competent local authorities.
- In the event of a fire, use carbon dioxide, dry chemical powder, foam, nebulised water, sand, earth. Use jets of water to cool down surfaces exposed to the fire.
- Verify that there are no leaks of inflammable liquid (fuel, oil, grease, general lubrication leaks) in the storage containers.

Refer to the product information sheet for additional precautions and warnings that are to be adopted.

3.7 Warnings for safe working

3.7.1 Ensuring the vehicle is clean

- Clean the windows, lights and rear-view mirrors.
- Clean dirt and waste away from the engine, joints and radiator
- Make sure the cab steps and the handle are clean and dry.
- Clean all safety stickers and manoeuvring instructions. Replace any stickers that are illegible or missing.

For the cleaning procedures, refer to the "CLEANING" chapter.

- FORBIDDEN

If the vehicle or equipment is not in perfect working order its operation is strictly prohibited.

3.7.2 Checking for damage

- Make sure there are no damaged or missing parts
- Make sure all articulated pins are properly fastened.
- Make sure there are no signs of possible cracks or flaws or other damage to the windows.
- Make sure there are no oil, fuel or cooling liquid leaks underneath the vehicle.
- Make sure the wheel bolts are properly tightened.

- FORBIDDEN

If the vehicle or equipment is not in perfect working order its operation is strictly prohibited.

3.7.3 Start working with the vehicle

Regardless of their level of driving experience, operators must familiarise themselves with the position and function of all controls and instruments before operating the machine.

- Before using the vehicle, check location of personnel.
- While the vehicle is running, always keep light signals on. These serves to warn people that the vehicle is about to move.
- When working in a congested area, have another person present for signalling.
- When manoeuvring the vehicle, pay attention to bulky vehicle parts. There are parts that jut out from the cab.
- Never use controls for purposes different than those for which they were created for; e.g. to climb on or off from the vehicle or hang clothing, etc...
- Only use the vehicle from the driver's position.
- The vehicle may move suddenly if started up without following the correct procedure, thus, creating the risk of personal injury.
- Start up the engine from the driver's seat only.
- Never start the engine by causing a short circuit between the terminals on the starter.
- Before starting the engine, make sure all control levers are in a neutral position.

3.7.4 Passengers transportation

Only the operator must be on board the vehicle, passengers are not admitted.

Passengers may obstruct the operator's view, causing an unsafe operation of the vehicle.

- FORBIDDEN

Carrying people on or lifting people up with the vehicle is strictly prohibited unless the vehicle is equipped with an elevation work platform and has a special certificate of conformity regarding the transport of people.

- FORBIDDEN

It is strictly forbidden to transport persons inside the basket while the vehicle is moving even in the presence of elevation work platform and certificate of conformity. It is compulsory to use the basket only with the parking brake engaged and the outriggers lowered (if present).

3.7.5 Electrical system protection

- ATTENTION

A burnt fuse must be replaced with another fuse of the same type, amperage and class.

Other types of interventions are not allowed, even if temporary.

Do not connect or remove terminals, fuses, or connectors when the vehicle is switched on or electrically powered.

- ATTENTION

Any intervention on the electric plant must take place with the vehicle not powered electrically. Restore the power supply only after the intervention has been concluded. Remount the lids and protections.

- Use the battery isolator to cut off power to the vehicle.
- Cut off power by means of the battery cut-off even before replacing the vehicle battery.
- In the event that a connector is damaged or is no longer inserted in its housing, replace it immediately in order to avoid short circuits or sparks.

- ATTENTION

Damaged, pinched or burnt cables must be replaced immediately even if damage is only to the sheathing or outer insulation.

- Never carry out or interrupt any connection on the load circuit, including connections on the battery, with the engine running.
- Never ground (earth) short circuit any charging component.
- Do not use the auxiliary battery with nominal voltage exceeding 12 volt.
- Make sure the polarity is correct when putting in the battery or when using an auxiliary battery when starting the vehicle with cables. Follow the use and maintenance instructions of the manual when starting up the vehicle with cables.
- Always disconnect the negative cable from the battery before performing arc welding on the vehicle or on any connected attachment.
- Position the welding machine's ground terminal as close as possible to the area to be welded.

- ATTENTION

If welding is to be carried out near an electrical module, this module must be removed from the vehicle.

Only qualified and authorised personnel should carry out this operation.

- Do not allow welding machine cables go above, near or cross over any electrical cable or electronic component while welding is in progress.

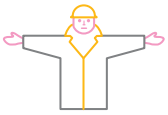
3.7.6 Signals to multiple vehicles

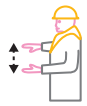
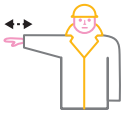
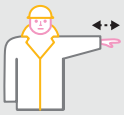
When working requiring more vehicles, give signals normally known to all employed personnel. Designate one person to signal and coordinate the work zone.

- ATTENTION

Before operating make sure that:

- The user and signaller are aware of the hand signals to be able to interact between them
- That everyone follows the directions given by the person in charge of signalling.
- The signaller must be easily identified by the user of the vehicle.
- The signaller must wear or hold one or more adequate recognition elements, like: jacket, helmet, sleeves, bracelets, signal paddles.
- The recognition elements must be bright coloured, preferably one, and reserved exclusively for the signaller.

Movement	Meaning	Description
	Start - Attention - Control socket	The two arms are open horizontally, the palm of the hands forward
	Stop - Interruption - End of motion	The right arm is stretched upwards, with palm of right hand forward
	Danger - Stop - Emergency stop	Both arms stretched upwards
	End of operations	The two hands are joint at height of chest
	Lift	The right arm, stretched upwards, with palm of right hand forward, makes a circle
	Lower	The right arm, stretched downwards, with palm of the hand towards the body, makes a circle

Movement	Meaning	Description
	Vertical distance	The hands, one on top of the other, indicate the distance
	Horizontal distance	The hands, one next to the other, indicate the distance
	Forward	Both arms are folded, the palms of the hands backwards and the forearms make slow movements towards the body
	Move back	Both arms are folded, the palms of the hands forward and the forearms make slow movements away from the body
	To the right compared to operator	The right arm, stretched horizontally, with palm of right hand downwards, slowly makes small movements towards
	To the left compared to operator	The left arm, stretched horizontally, with palm of left hand downwards, slowly makes small movements towards
	Quick motion	The conventional signals used to indicate movements are quickly made
	Slow motion	The conventional signals used to indicate movements are made very slowly

3.7.7 *Working with the danger of masses and objects falling*

- OBJECTS FALLING

When working in areas where there is a risk of falling, bouncing or interference from objects capable of hitting the operator or entering the cab:

- Mount suitable safety panels to protect the operator.
- Always close windows.
- Always ensure that other operators near-by are at a safe distance and cannot be hit by bouncing or falling objects.
- Pay careful attention to crumbling walls, landslides, falling material or objects from the installed equipment, that may hit the cab, the protective structure or windows, causing damages to the vehicle and to the operator.
- Never carry out work operations under an overhang; this could give way and fall onto the vehicle.
- Do not excessively weigh down or fill the installed equipment or transport loads that may come out or fall on the ground.

- ATTENTION

Use of a safety helmet is required if there is a risk of falling objects.

3.7.8 *Work near electrical lines*

- HIGH VOLTAGE

Before working near overhead electrical lines, check that the safety distance is sufficient, in compliance with the current Standard in the country of use. In any case, never work near electrical lines at distances shorter than those in the table below or at the minimum distances indicated by the Standards in force in the country of use of the vehicle.

Damp ground may increase the risk of electrocution.

Operating or parking the vehicle too close to electrical cables leads to increased risk of being struck by lightning or being seriously injured.

Designate someone on the ground to signal when too close to power lines.

Do not allow anyone near the vehicle when working in the vicinity of power lines. To prepare for any possible emergency situation, wear rubber shoes and gloves, cover the seat with a rubber piece of fabric and take care not to touch the chassis with any unprotected body parts.

- DANGER

Should the vehicle collide with an electrical cable, the user, to avoid electrocution, must remain inside the driver's cab until certain that the electrical power supply has been properly disconnected.

- DANGER

If operating close to overhead electrical lines, check the safety distance in the table below, reported in Legislative Decree 81/08 Enclosure IX. The table is valid if the vehicle is used on Italian territory. However, refer to the Standards in force in the country of use of the vehicle.

At (kV)	Distance
≤ 1	3 m (9.84 ft)
1 < Un ≤ 30	3.5 m (11.48 ft)
30 < Un ≤ 132	5 m (16.40 ft)
> 132	7 m (22.96 ft)

3.7.9 Working under the snow

 **- SNOW OR ICE**

Snow can hide obstacles and objects, and cover holes, dug-out areas and ditches, therefore, proceed with caution.

- FORBIDDEN

Operation of the vehicle if the quantity of snow does not allow for clear distinction of obstacles and possible dangers along the path is strictly prohibited.

- Take care when clearing snow and do not venture off the main road; that which is hidden at the sides of the road may cause vehicle overturning or damage to various components.
- Surfaces covered by snow or ice are extremely dangerous. Operate with caution, reducing vehicle speed as much as possible and engaging levers slowly.
- Operate with caution. If the vehicle should sink into the snow, it may overturn or remain buried. Do not venture from the road and avoid remaining entrapped or buried under heaps of snow.
- Extra care should be taken, when working on icy terrain. Should the temperature rise, the ice could melt and the ground could become slippery.
- Use caution in the presence of electrical cables, ditches, or freshly excavated or worked ground.
- Make sure not to cause risk to others in the area when backing up the vehicle.
- Always check the space around the vehicle before carrying out any manoeuvres.

- NOTE

If working the vehicle at low temperatures (-10°C), empty and refill the tank using lubricants, fuel or cooling liquids suitable for such temperatures.

There are accessories that can be used to facilitate working with ice or snow, contact your dealer or agent.

3.7.10 Working with scarce lighting

- ATTENTION

The standard illumination of the vehicle is not suitable in working conditions with poor visibility or for use at night. The vehicle can only be used with sufficient lighting in the work some

There are several ways to improve visibility in conditions of poor lighting. Contact your local *DIECI S.R.L.* dealer.

3.7.11 Working in closed areas or dangerous atmospheres

- FORBIDDEN

It is FORBIDDEN to use the machine in:

- Suitably ventilated closed spaces, that are nevertheless not compatible for the use of equipment with running endothermic motors.
- Spaces with dangerous or explosive atmospheres.
- Protected environments such as refineries.

- ATTENTION

The vehicle can only be used in a tunnel if it has been declared suitable for these environments. The vehicle must be appropriately modified and certified to work in environments with an explosive atmosphere.

3.7.12 Working in windy conditions

Wind speed variation can cause a number of problems including the loss of vehicle stability, load oscillation, and a decrease in visibility due to dust, leaves, etc.

Adverse factors to vehicle use are:

- Location of the work site, the aerodynamic effect of buildings, trees and other structures influence wind speed.
- The height of the extended boom: the higher the boom is raised vertically, the higher wind speed becomes.
- Load bulk area: the more space the load occupies, the more the wind force is felt.

- STRONG WIND

DIECI telescopic lifts can be used up to a wind speed of 45 Km/h, equal to 12.5 m/s (No.6 on the Beaufort scale) measured on the ground.

At 10°C temperature, wind with a speed of 32 Km/h it seems that exposed parts of the body have a temperature of 0°C. The higher you climb the faster the wind speed and the more the sensation of pressure drop increases.

- DANGER

In the presence of strong winds (no.5 Beaufort scale) never lift loads with surfaces exceeding 1 m^2..

Below you can find the graph of the Beaufort scale for an indication of the wind speed with which you are working and when to suspend operations, if wind speed should exceed determined values.

Beaufort Wind Scale			
Num	Definition	Speed	Speed (m/s)
0	Calm	Smoke rises vertically	0 - 0.2
1	Light air	Smoke drift wind direction	0.3 - 1.5
2	Light breeze	Wind felt on exposed skin. Leaves rustle; vanes begin to move.	1.6 - 3
3	Gentle breeze	Leaves and small twigs constantly moving; light flags extended.	3 - 5
4	Moderate breeze	Dust and loose paper raised. Small branches begin to move.	5 - 8
5	Fresh breeze	Small trees in leaf begin to sway; glassy water, small waves form.	8 - 11
6	Strong breeze	Large branches in motion. Whistling heard in electrical wires. Umbrella use becomes difficult.	11 - 14
7	Strong wind	Whole trees in motion. Effort needed to walk against the wind.	14 - 17
8	Fresh gale	Some twigs broken from trees. Cars veer on road.	17 - 21
9	Strong gale	Poorly attached asphalt shingles and shingles in poor condition peel off roofs.	21 - 24

3.7.13 Evaluating the soil consistency

The ground on which the vehicle can be positioned must be able to support the vehicle and its maximum carrying capacity.

- DANGER

The caving-in of the bottom of the vehicle may cause it to overturn.

- ATTENTION

Refer to a specialised technician to evaluate the consistency of the ground according to regulations in force in the country where the vehicle is used.

- NOTE

In any case, request a specialised technician to verify whether there are hidden cavities (conductors, wells, old cisterns, basements, manure heaps, etc.).

Refer to the "*Technical data*" chapter in the vehicle manual to learn the maximum load on the ground that each wheel or outrigger foot (if present) exerts while the vehicle is used.

4 GENERAL INFORMATION

4.1 General information

The purpose of this manual is to provide the Operator with efficient and safe instructions on the use and maintenance of the:

Agri Pivot T40

Agri Pivot T60

Agri Pivot T60

This vehicle has been designed and constructed for use as a self-propelled vehicle, including an operator's driving seat, with tyres, intended for use on asphalt or natural surfaces and on rough ground.

The vehicle consists of a main support structure aimed at supporting the extendible arm.

The boom head can mount forks or other equipment, only if approved by ***DIECI S.R.L.*** or if they are accompanied by a declaration of compliance issued by the manufacturer for use with the type of vehicle.

In used normally, the vehicle lifts and places down loads through the extension/withdrawal and raising/lowering of the boom.

- ATTENTION

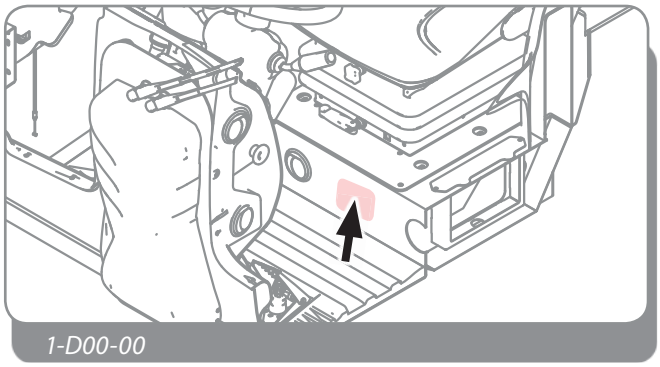
Any use other than that intended by *DIECI S.R.L.* is considered misuse and DIECI cannot be held liable for damage to property or the vehicle itself or for injury to persons in the case of such misuse.

For other controls or claims to recognised bodies, refer to local legislation in force in the country where the vehicle is used.

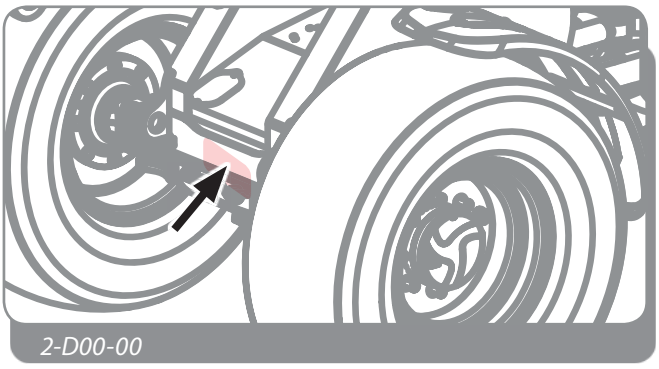
4.2 Vehicle identification

Vehicle model (Fig. 1-D00-00)	.....
Year	.....
Chassis serial number (Fig. 2-D00-00)	.....
Engine serial number (Fig. 3-D00-00)	.....
Cab serial number (Fig. 4-D00-00)	.....
Gear box serial number (Fig. 5-D00-00)	.....
Owner/ Operator	.....
Address of Dealer or agent	.....
Delivery date	.....
Guarantee expiry date	.....

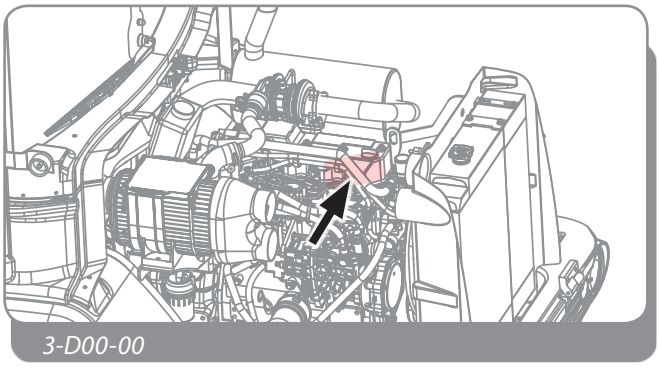
Equipment code	Serial No	Year
.....	.....	.....
.....	.....	.....
.....	.....	.....



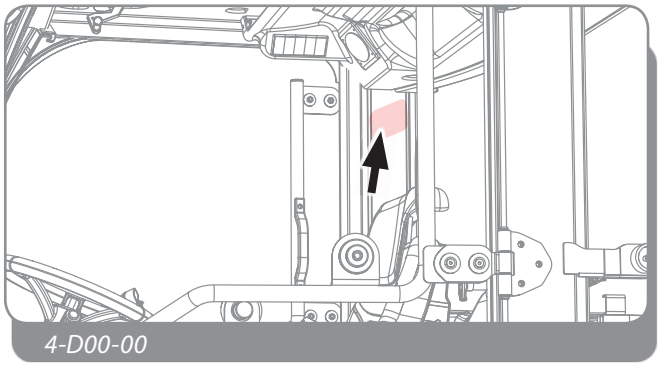
1-D00-00



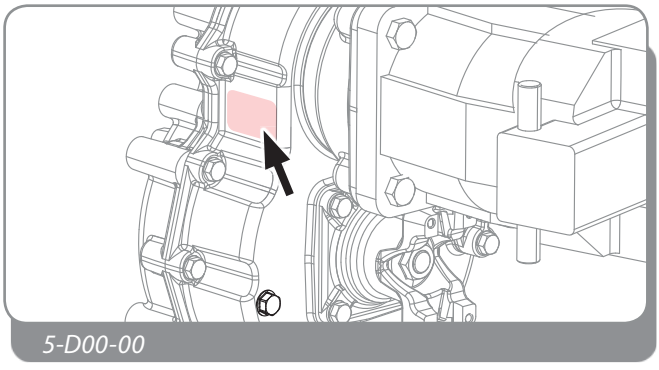
2-D00-00



3-D00-00



4-D00-00



5-D00-00

4.3 Intended Use

The vehicle referred to in this document must solely be used for the purposes stipulated in this User and Maintenance Manual.

Observance of and compliance with the conditions of use, repair and maintenance, as specified by the Manufacturer, constitute essential elements falling within the intended use.

- ATTENTION

The vehicle must ONLY be used by trained and qualified personnel who must be aware of the information in this Manual.

4.4 Contraindications of Use

The vehicle must NOT be used:

- For recipients other than those indicated in the "Recipients" chapter
- For uses other than those indicated in this manual
- In different environmental conditions to those indicated in the "Environmental conditions" chapter
- The vehicle must only be used on the road if the driver has a valid driver's licence in accordance with the regulations in force in the country of use.
- Do not use the mobile hydraulic parts of the vehicle to lift persons.

- NOTE

For every other use of the vehicle other than the above, the Manufacturer reserves the right to review the warranty conditions.

4.5 Declaration of first commissioning

Manufacturer declaration of first commissioning

DIECI S.R.L. declares that every vehicle and equipment produced in its factories is subjected to static and dynamic tests before being placed on the market in order to verify proper operation and compliance with all the relative European directives.

4.6 Liability

- The vehicles and the equipment are manufactured in compliance with EC Directives in force at the time of marketing;
- Failure to observe the user and safety regulations or use of the vehicle in less than perfect working condition may cause accidents that are punishable by law;
- The Manufacturer is not liable for damage to people, objects or animals caused by improper use of the vehicle or by unauthorised alterations to the structure, applications and transformation;
- The Manufacturer reserves the right to make possible modifications to the vehicle for any technical or commercial reason without prior notice.

4.7 Manufacturer

DIECI S.R.L.

Via E. Majorana, 2/4

42027 Montecchio Emilia (RE) ITALY

Tax Number 01283560686 VAT N. 01682740350

Tel. +39 0522 869611 - Fax +39 0522 869744

email: info@dieci.com

4.8 After-sales Centres

In case of need for use or maintenance, the User must contact the Manufacturer directly specifying the equipment identification data reported on the vehicle itself.

4.9 General warnings

- FORBIDDEN

THE MACHINERY AND EQUIPMENT CANNOT BE MODIFIED WITHOUT THE MANUFACTURER'S AUTHORISATION.

To guarantee your safety and that of others, do not modify the structure or adjust the various accessory components of the vehicle or equipment. The same holds true for the deactivation or modification of safety devices present.

- ATTENTION

Any modification made to the vehicle or accessories will absolve *DIECI S.R.L.* from all liability for damage or injury resulting from such modification.

Every machine or equipment comes with a copy of its own manual.

- FORBIDDEN

The total or partial reproduction of this manual or any multi-media enclosures is prohibited.

***DIECI S.R.L.* will protect the ownership rights of these materials.**

A copy of the use and maintenance manual relative to machine parts or equipment of the respective suppliers can be supplied. These manuals are written by the respective product suppliers and reproduced accurately and in full by ***DIECI S.R.L.*** with their specific authorisation: they can be enhanced with further specifications drawn up by ***DIECI S.R.L.***

This Use and Maintenance manual is also provided by the Dealer upon delivery of the vehicle, in order to make sure that these instructions are read and correctly understood.

Should you have trouble understanding any part of this manual, do not hesitate to contact your nearest Dealer for clarification.

All documentation provided constitutes an integral and important part of the product and must always be available to users.

The instructions for use, maintenance and repair described in this handbook must be followed if the vehicle is to be considered as being operated in accordance with the manufacturer's intended uses.

This manual assumes that the health and safety Standards in force are complied with in the place of use of the vehicle and of the equipment.

- ATTENTION

It is compulsory to read and understand this manual before using the machine or various equipment and to carefully follow the indications therein.

- ATTENTION

It is mandatory to have read and learned the machine manual before reading the manuals of the various equipment.

- NOTE

This Use and Maintenance Manual in the user's language, must be carefully stored aboard the vehicle at all times in an accessible and well known place to all users.

If the manual becomes creased and/or be, even partially, damaged or illegible or in case of loss of the manual, it must be replaced immediately by contacting the Dieci Technical Assistance Service, giving the details of the manual found in the "Introduction" chapter.

Local Dealers can supply original spare parts as well as advice and instructions for their installation and use.

- ATTENTION

Use only original spare parts when they are required.

The use of non-original spare parts may cause damage to other parts of the vehicle. Customers are advised to purchase all original spare parts required only from an authorised Agent or Dealer.

***DIECI S.R.L.* does not consider itself liable for damage deriving from the use of non-original spare parts**

- ATTENTION

Should the vehicle be destined for use in particularly severe conditions (for example in dusty environments or worksites, on argillaceous or muddy terrain), we advise consulting your nearest dealer for specific instructions. Failure to observe these instructions may result in the vehicle's guarantee being voided.

- ATTENTION

Improper, incorrect, or irrational use of the vehicle or the accessories with which it is equipped as well as modification to its physical structure or functioning is prohibited. A different use is strictly prohibited and relieves *DIECI S.R.L.* from responsibility for damage caused to persons, things or animals.

- NOTE

***DIECI S.R.L.* is not liable for damage caused by negligent use of this vehicle or the accessory even if said damage is not a result of intentional improper use. Everything possible has been done during the design and construction phases of vehicles and accessories to make your job as safe as possible. Due caution, however, is indispensable and there is no better rule to prevent accidents.**

- ATTENTION

***DIECI S.R.L.* is not liable for damage resulting from operations performed instinctively, as a reflex, while in a state of panic, or in the event of malfunctioning, accidents or anomaly, during use of the vehicle.**

The instructions for use, maintenance and repair described in this handbook must be followed if the vehicle is to be considered as being operated in accordance with the manufacturer's intended uses.

- ATTENTION

***DIECI S.R.L.* reserves the right to carry out possible modifications to the vehicle or accessories for technical or commercial reasons without prior notice.**

- ATTENTION

To correctly use the components and machine controls recalled in the following pages, refer to the specific use and maintenance manual of the machine.

- ATTENTION

Do not modify the structure or adjust the safety devices of the various machine or tool components.

- ATTENTION

Only approved equipment can be used on *DIECI* machines o that falling within the technical limits set out by *DIECI S.R.L.*.

The interchangeable equipment manufacturer must guarantee that the combination of such equipment and the basic machine on which the equipment is intended for, meets all the basic health and safety requirements, for the operator safety.

***DIECI S.R.L.* liability shall not be involved if equipment use or modifications do not comply with the above mentioned requirements.**

- ATTENTION

Before commissioning each accessory, ensure compatibility with the vehicle and calibration of the safety system relating to the used accessory.

- ATTENTION

Routine maintenance should be carried out regularly, keeping a record of the vehicle's working hours.

- ATTENTION

The right and left positions indicated in this manual refer to the view of the operator sitting in the driver's seat (looking forwards).

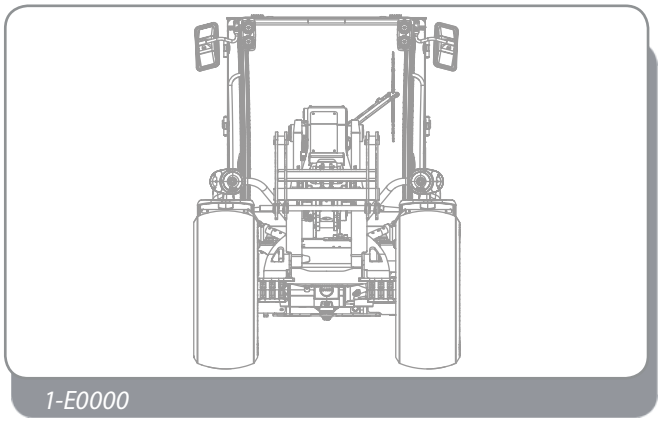
5 VEHICLE DESCRIPTION

- NOTE

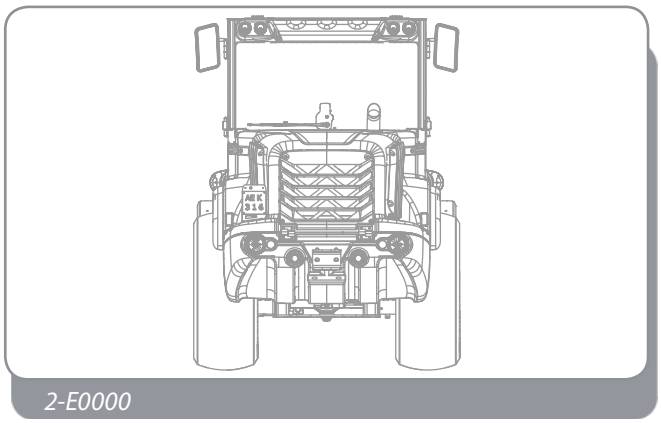
The images used to describe the components and controls refer to a vehicle complete with all the accessories; these may vary according to the set-up and selected configuration.

Positions and references used in the manual refer to the vehicle facing the normal drive direction.

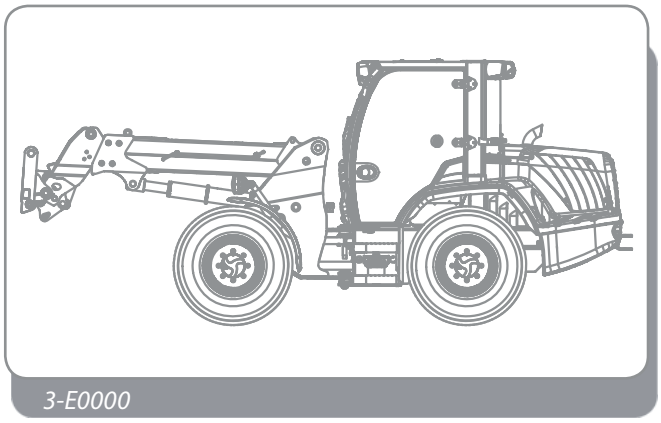
- Front view (Fig. 1-E0000)
- Rear view (Fig. 2-E0000)
- Left side view (Fig. 3-E0000)
- Right side view (Fig. 4-E0000)



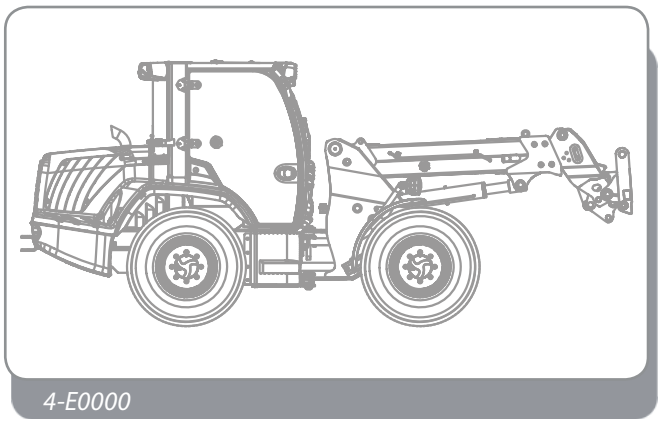
1-E0000



2-E0000

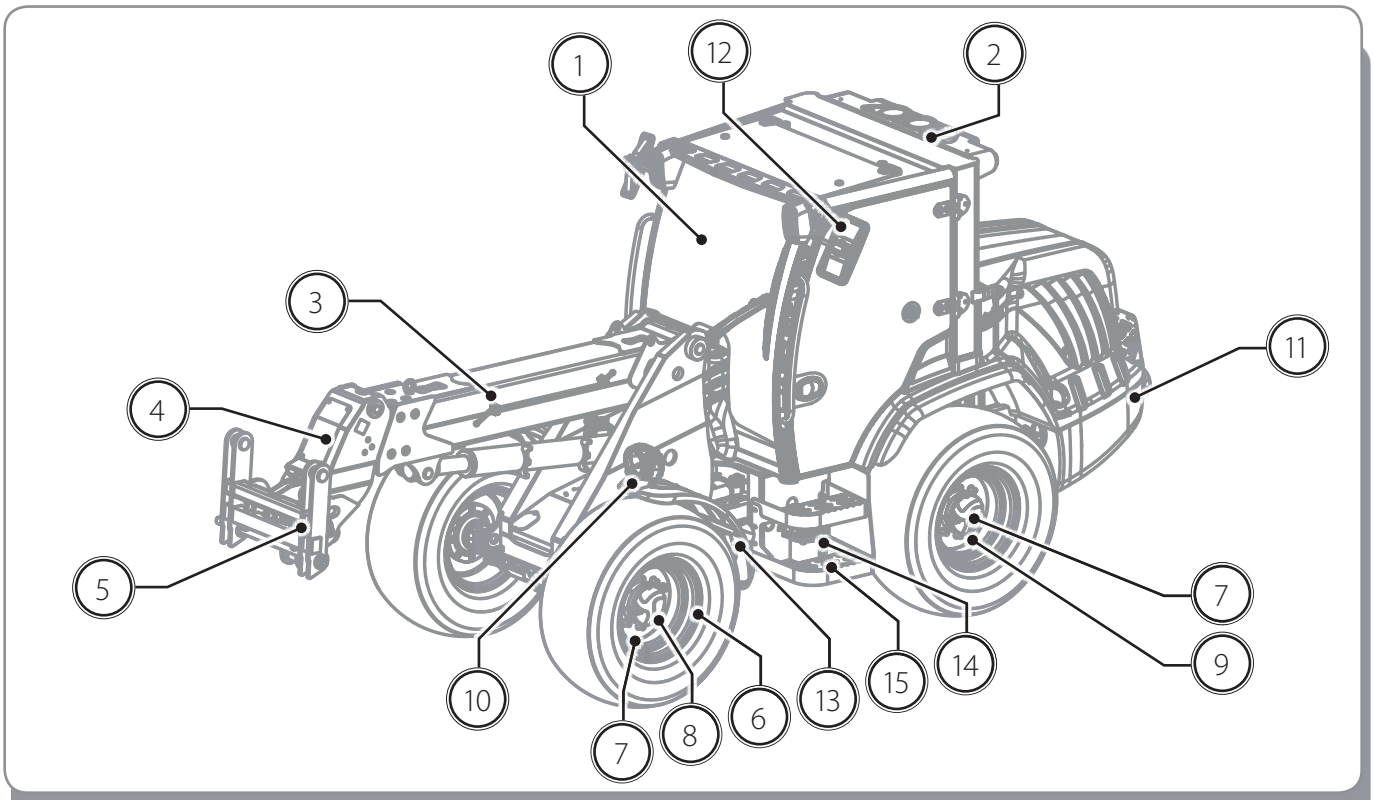


3-E0000



4-E0000

5.1 Position of the main components



5-E0000

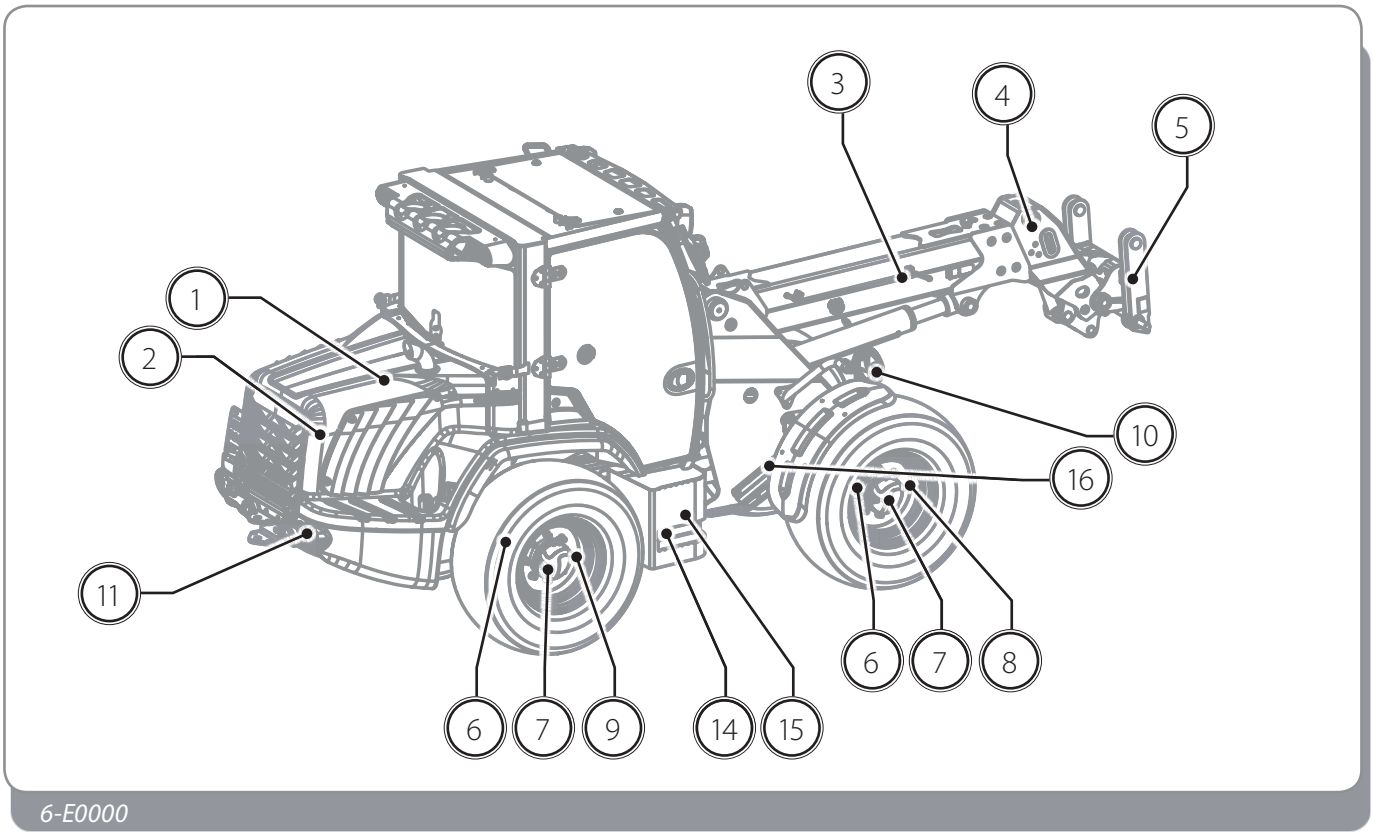
5.1.1 Left side

The following can be seen on the left side (Fig. 5-E0000):

1	Cab	
2	Air conditioning radiators	* Optional
3	Telescopic boom	
4	Boom head	
5	Attachment holding plate	
6	Wheel	
7	Epicycloidal reduction gear	
8	Front axle	

9	Rear axle	
10	Front left light	
11	Rear left light	
12	Rear view mirror	
13	Joint block	
14	Hydraulic oil filter	
15	Cab steps	

*** Optional accessories or components.**



6-E0000

5.1.2 *Right side*

The following can be seen on the right side (Fig. 6-E0000):

1	Converter		9	Rear axle	
2	Engine bonnet		10	Front right light	
3	Telescopic boom		11	Rear right light	
4	Boom head		12	Rear hydraulic sockets	* Optional
5	Attachment holding plate		13	Rear view mirror	
6	Wheel		14	Steps to climb up	
7	Epicycloidal reduction gear		15	Hydraulic oil tank	
8	Front axle		16	Supporting rod	

*** Optional accessories or components.**

5.1.3 Engine bonnet

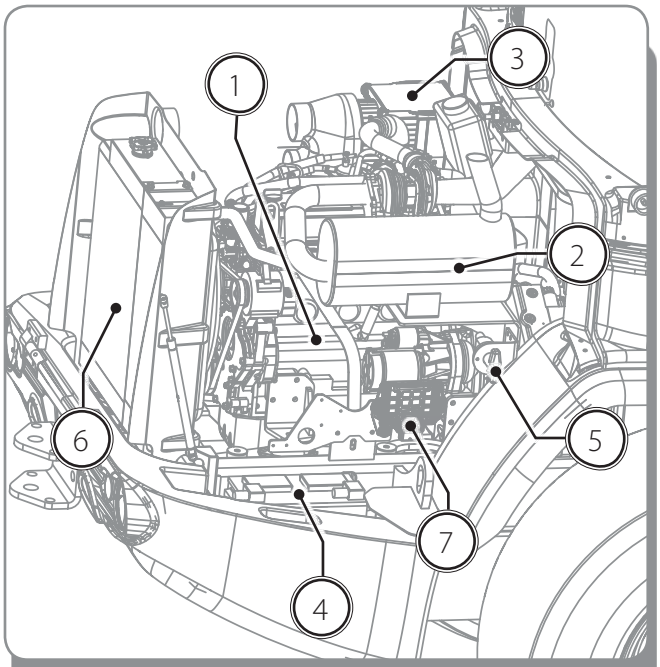
- ATTENTION

In the pictures in this manual, the engine bonnet and other protective casings have been removed to improve the visibility of the components, which otherwise would be hidden and difficult to see.

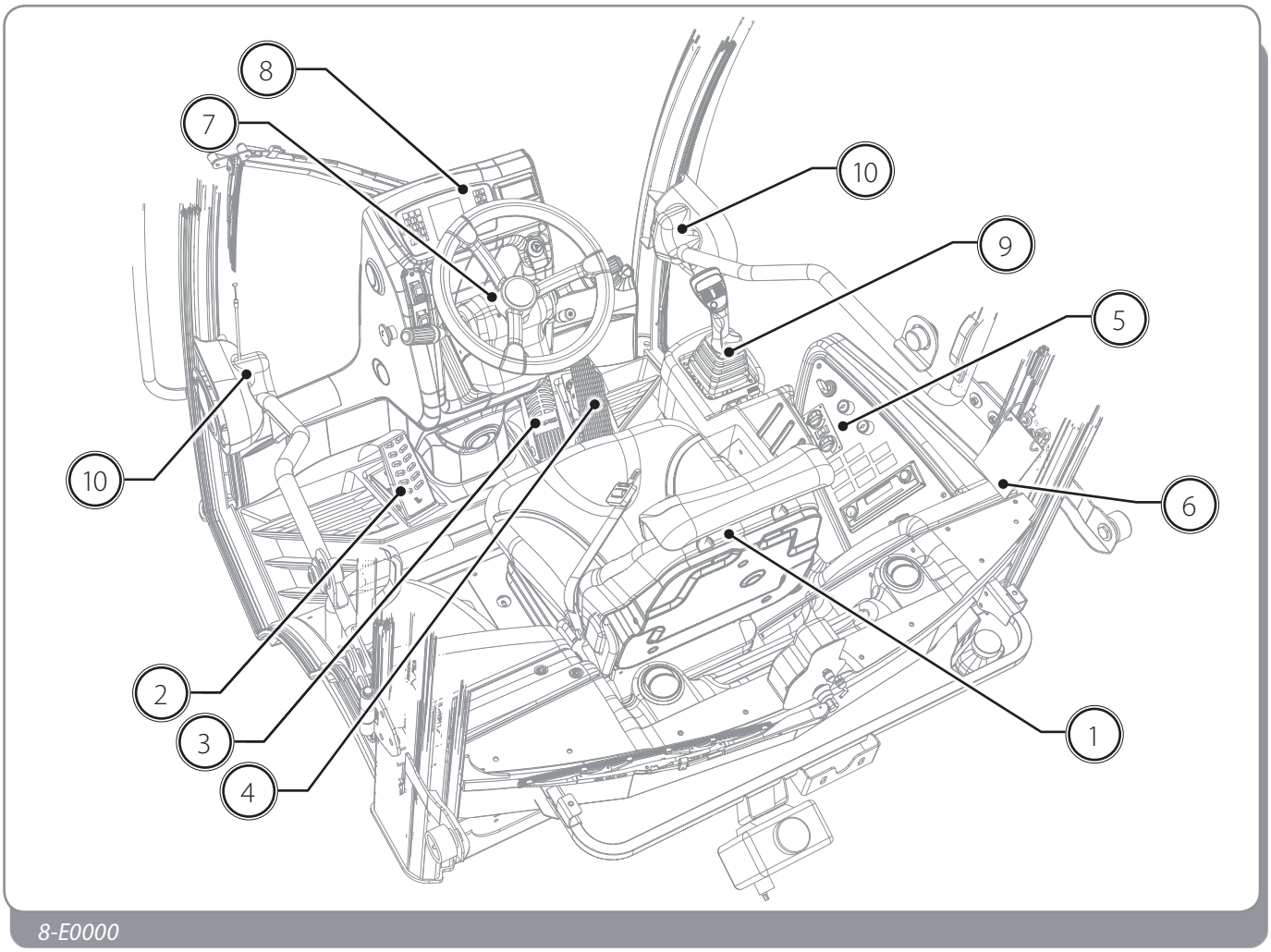
Always work safely with all the guards and casings in place.

The following can be seen under the engine hood (Fig. 7-E0000):

1	Engine
2	Converter
3	Air filter
4	Battery
5	Battery isolator switch
6	Radiator
7	Engine control unit



7-E0000



8-E0000

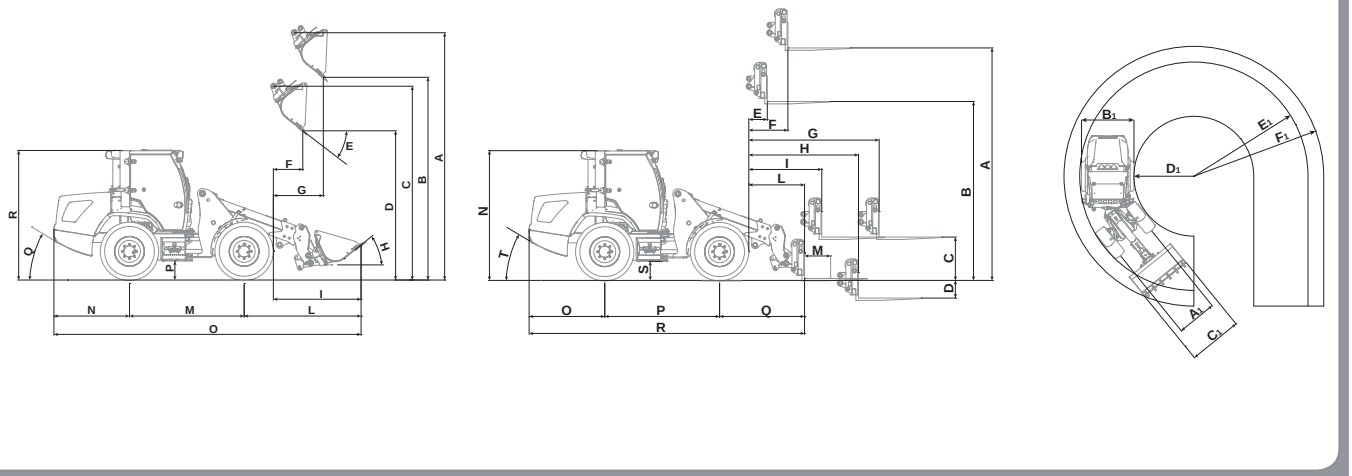
5.1.4 Cab

The following can be seen in the cab (Fig. 8-E0000):

1	Seat
2	Inching pedal
3	Brake pedal
4	Accelerator pedal
5	Right dashboard
6	Diagram notebook
7	Steering wheel
8	Central dashboard
9	Joystick
10	Door opening handle

*** Optional accessories or components.**

5.2 Technical data



1-E1301

Agri Pivot	T40	T50	T60
Technical type	500, ver. VLC - VCB	500, ver. RLM - RBM	500, ver. UCL - UVL

DIMENSIONS			
A1	4315 mm (169.88 in)	4745 mm (186.81 in)	5010 mm (197.24 in)
B1	3460 mm (136.22 in)	3890 mm (153.14 in)	4155 mm (163.58 in)
C1	3405 mm (134.05 in)	3720 mm (146.45 in)	3840 mm (151.18 in)
D1	2550 mm (100.39 in)	2860 mm (112.59 in)	2990 mm (117.71 in)
E1	40°	40°	40°
F1	4350 mm (171.25 in)	565 mm (22.24 in)	610 mm (24.01 in)
G1	785 mm (30.9 in)	960 mm (37.79 in)	1060 mm (41.73 in)
H1	40°	40°	40°
I1	1605 mm (63.18 in)	1680 mm (66.14 in)	1805 mm (71.06 in)
L1	2100 mm (82.67 in)	2240 mm (88.18 in)	2365 mm (93.11 in)
M1	2150 mm (84.64 in)	2200 mm (86.61 in)	2200 mm (86.61 in)
N1	1400 mm (55.11 in)	1450 mm (57.08 in)	1450 mm (57.08 in)
O1	5650 mm (222.44 in)	5890 mm (231.88 in)	6015 mm (236.81 in)
P1	300 mm (11.81 in)	365 mm (14.37 in)	365 mm (14.37 in)
Q1	30°	31°	31°
R1	2420 mm (95.27 in)	2490 mm (98.03 in)	2490 mm (98.03 in)

Agri Pivot	T40	T50	T60
Technical type	500, ver. VLC - VCB	500, ver. RLM - RBM	500, ver. UCL - UVL
A2	4000 mm (157.48 in)	4460 mm (175.59 in)	4720 mm (185.82 in)
B2	3070 mm (120.86 in)	3430 mm (135.03 in)	3550 mm (139.76 in)
C2	710 mm (27.95 in)	830 mm (32.67 in)	830 mm (32.67 in)
D2	365 mm (14.37 in)	340 mm (13.38 in)	435 mm (17.12 in)
E2	500 mm (19.68 in)	355 mm (13.97 in)	405 mm (15.94 in)
F2	910 mm (35.82 in)	750 mm (29.52 in)	850 mm (33.46 in)
G2	2290 mm (90.15 in)	2500 mm (98.42 in)	2780 mm (109.44 in)
H2	1910 mm (75.19 in)	2100 mm (82.67 in)	2365 mm (93.11 in)
I2	1315 mm (51.77 in)	1400 mm (55.11 in)	1530 mm (60.23 in)
L2	990 mm (38.97 in)	1070 mm (42.12 in)	1190 mm (46.85 in)
M2	500 mm (19.68 in)	500 mm (19.68 in)	500 mm (19.68 in)
N2	2420 mm (95.27 in)	2490 mm (98.03 in)	2490 mm (98.03 in)
O2	1400 mm (55.11 in)	1450 mm (57.08 in)	1450 mm (57.08 in)
P2	2150 mm (84.64 in)	2200 mm (86.61 in)	2200 mm (86.61 in)
Q2	1485 mm (58.46 in)	1630 mm (64.17 in)	1750 mm (68.89 in)
R2	5035 mm (198.22 in)	5280 mm (207.87 in)	5400 mm (212.59 in)
S2	300 mm (11.81 in)	365 mm (14.37 in)	365 mm (14.37 in)
T2	30°	31°	31°
A3	1350 mm (53.14 in)	1430 mm (56.29 in)	1430 mm (56.29 in)
B3	1675 mm (65.94 in)	1880 mm (74.01 in)	1880 mm (74.01 in)
C3	1700 mm (66.92 in)	1900 mm (74.8 in)	2000 mm (78.74 in)
D3	2120 mm (83.46 in)	2060 mm (81.1 in)	2060 mm (81.1 in)
E3	3830 mm (150.78 in)	4010 mm (157.87 in)	4010 mm (157.87 in)
F3	4370 mm (172.04 in)	4570 mm (179.92 in)	4670 mm (183.85 in)
PERFORMANCE			
Operating weight with standard bucket and quick coupling	4850 kg (10690 lb)	5470 kg (12050 lb)	6020 kg (13270 lb)
Standard bucket capacity	0.75 cm^3 (0.98 yd^3)	0.85 cm^3 (1.11 yd^3)	0.95 cm^3 (1.24 yd^3)
Jolt force	4075 daN (9160 lbf)	4550 daN (10230 lbf)	4800 daN (10800 lbf)
Maximum climb angle	60%	70%	80%
Tractive force	3400 daN (7650 lbf)	4200 daN (9450 lbf)	4700 daN (10570 lbf)
Maximum speed	22 km/h (10 mph)	30 km/h (10 mph)	40 km/h (20 mph)
Tipping load, in line, retracted	3600 kg (7930 lb)	3850 kg (8480 lb)	4050 kg (8920 lb)
Tipping load, articulated, retracted	3200 kg (7050 lb)	3400 kg (7490 lb)	3575 kg (7880 lb)
Tipping load, in line, extended	2100 kg (4620 lb)	2450 kg (5400 lb)	2350 kg (5180 lb)
Tipping load, articulated, extended	1850 kg (4070 lb)	2000 kg (4400 lb)	2050 kg (4510 lb)
Operating load EN474.3 (80%) retracted	1800 kg (3960 lb)	2200 kg (4850 lb)	2250 kg (4960 lb)
Operating load EN474.3 (60%) retracted	1350 kg (2970 lb)	1600 kg (3520 lb)	1700 kg (3740 lb)
Operating load EN474.3 (80%) extended	1250 kg (2750 lb)	1350 kg (2970 lb)	1400 kg (3080 lb)
Operating load EN474.3 (60%) extended	950 kg (2090 lb)	1000 kg (2200 lb)	1050 kg (2310 lb)

Agri Pivot	T40	T50	T60
Technical type	**500, ver. VLC - VCB**	**500, ver. RLM - RBM**	**500, ver. UCL - UVL**
JIB			
Lifting	7.3 s	5.0 s	5.4 s
Descent	3.8 s	2.7 s	2.9 s
Extension	2.6 s	2.3 s	2.5 s
Retraction	1.4 s	1.1 s	1.3 s
Arching (Recall)	2.2 s	1.9 s	1.9 s
Arching (Unload)	1.6 s	1.3 s	1.3 s
ENGINE			
Model	KUBOTA	YANMAR	YANMAR
Maximum power	36.5 kW (49 Hp)	50 kW (68 Hp)	55 kW (74 Hp)
Revolutions per minute	2700 rpm	2500 rpm	2500 rpm
Operation	4-stroke diesel	4-stroke diesel	4-stroke diesel
Injection	Mechanical direct	Mechanical direct	Mechanical direct
Number of cylinders and layout	4, vertical in line	4, vertical in line	4, vertical in line
Engine size	2615 cm^3 (3425 yd^3)	3319 cm^3 (4347 yd^3)	3319 cm^3 (4347 yd^3)
Fuel	Diesel	Diesel	Diesel
Specific consumption at 2600 rpm	235 g/kWh (386.57 lb/ Hp h)	248 g/kWh (407.96 lb/ Hp h)	254 g/kWh (417.83 lb/ Hp h)
Intake	Natural	Natural	Natural
Cooling system	Liquid	Liquid	Liquid
Start-up	12 V	12 V	12 V
TRANSMISSION			
Hydrostatics	Drive with variable displacement pump.	Drive with variable displacement pump.	Drive with variable displacement pump.
Hydraulic engine	Automatic variation	Automatic variation	Automatic variation
Number of forward/back speeds	2-2	2-2	4-4
Gear box with speed controller	No	No	Yes
Inching	Yes	Yes	Yes
HYDRAULIC SYSTEM			
Hydraulic pump	Gear driven	Gear driven	Gear driven
Maximum flow rate at standard speed	65 l/min (14.29 IMP gal/min)	98 l/min (21.55 IMP gal/min)	98 l/min (21.55 IMP gal/min)
Max operational pressure	23 MPa (3335 psi)	23 MPa (3335 psi)	23 MPa (3335 psi)
Distributor control	Joystick 4in1	Joystick 4in1	Joystick 4in1
REFUELLING			
Hydraulic system (total)	70 l (15.39 IMP gal)	78 l (17.15 IMP gal)	80 l (17.59 IMP gal)
Diesel tank	80 l (17.59 IMP gal)	100 l (21.99 IMP gal)	100 l (21.99 IMP gal)

Agri Pivot	T40	T50	T60
Technical type	500, ver. VLC - VCB	500, ver. RLM - RBM	500, ver. UCL - UVL
DIFFERENTIAL AXLES - STEERING			
Rigid axles: 2, with epicycloidal reduction gears	Yes	Yes	Yes
Front axle fitted to the chassis	Yes	Yes	Yes
Rear oscillating axle, with total excursion:	25°	25°	25°
Power-assisted oil bath service braking on the front axis	Yes	Yes	Yes
Negative action parking brake.	Yes	Yes	Yes
Articulated chassis steering, total steering angle:	80°	80°	80°
Power-assisted steering (Load Sensing)	Yes	Yes	Yes
MASS IN RUNNING ORDER			
- Empty	4880 kg (10750 lb)	5260 kg (11590 lb)	5620 kg (12380 lb)
- Maximum	6060 kg (13360 lb)	6060 kg (13360 lb)	6060 kg (13360 lb)
- Maximum for front axle	2420 kg (5330 lb)	2420 kg (5330 lb)	2420 kg (5330 lb)
- Maximum for rear axle	4600 kg (10140 lb)	5600 kg (12340 lb)	6500 kg (14330 lb)
ACOUSTIC PRESSURE			
Comply with directive 2009/63/EC			
- With vehicle stopped	82.5 dB (A)	85.2 dB (A)	85.2 dB (A)
- With vehicle in motion	83.0 dB (A)	83.2 dB (A)	83.2 dB (A)
Comply with directive 2009/76/EC			
- Perceived by operator with cab open	85.0 dB (A)	86.0 dB (A)	86.0 dB (A)
- Perceived by operator with cab closed	79.0 dB (A)	80.0 dB (A)	80.0 dB (A)
ACOUSTIC POWER			
Compliant with directive 2000/14/EC			
- Value measured	100 dB (A)	100 dB (A)	100 dB (A)
- Value guaranteed	101 dB (A)	101 dB (A)	101 dB (A)
VIBRATIONS			
Vibration emission value declared compliant with EN 12096 Values determined in conformity with EN 1032. Compliant with directive 78/764/EC			
- Seat vibrations	2.5 m/s^2 ± 0.8 m/s^2 (8.2 ft/s^2 ± 2.6 ft/s^2)	2.5 m/s^2 ± 0.8 m/s^2 (8.2 ft/s^2 ± 2.6 ft/s^2)	2.5 m/s^2 ± 0.8 m/s^2 (8.2 ft/s^2 ± 2.6 ft/s^2)
- Steering wheel vibrations	1.2 m/s^2 ± 0.6 m/s^2 (3.9 ft/s^2 ± 2.0 ft/s^2)	1.2 m/s^2 ± 0.6 m/s^2 (3.9 ft/s^2 ± 2.0 ft/s^2)	1.2 m/s^2 ± 0.6 m/s^2 (3.9 ft/s^2 ± 2.0 ft/s^2)

Agri Pivot	T40	T50	T60
Technical type	500, ver. VLC - VCB	500, ver. RLM - RBM	500, ver. UCL - UVL

EXHAUST EMISSIONS			
Compliant with directive 2000/25/CEC and amendment 2005/13/EC			
CO	1.5 g/kWh (2.46 lb/Hp)	1.54 g/kWh (2.53 lb/Hp)	1.5 g/kWh (2.46 lb/Hp)
NMHC+Nox	4.04 g/kWh (6.645 lb/Hp)	4.51 g/kWh (7.418 lb/Hp)	4.04 g/kWh (6.645 lb/Hp)
Particles	0.19 g/kWh (0.312 lb/Hp)	0.13 g/kWh (0.213 lb/Hp)	0.19 g/kWh (0.312 lb/Hp)
LOAD EXERTED ON THE GROUND			
Maximum load for a wheel	daN (0 lbf)	daN (0 lbf)	daN (0 lbf)

REFUELLING TABLE	T40	T50	T60	TYPE
Engine oil	13.2 l (2.9 IMP gal)	13.2 l (2.9 IMP gal)	13.2 l (2.9 IMP gal)	- API CI-4 - (Over 25°C) SAE30 / SAE10W-30 / SAE15W-40 - (0°C up to 25°C) SAE20 / SAE10W-30 / SAE15W-40 - (Below 0°C) SAE10W / SAE10W-30 / SAE15W-40
Front axle oil	4.2 l (0.92 IMP gal)	4.2 l (0.92 IMP gal)	4.2 l (0.92 IMP gal)	- SAE85W90 - API GL4 - MIL L-2105
Front wheels reducer oil	0.75 l (0.16 IMP gal)	0.75 l (0.16 IMP gal)	0.75 l (0.16 IMP gal)	
Rear axle oil	4.0 l (0.87 IMP gal)	4.0 l (0.87 IMP gal)	4.0 l (0.87 IMP gal)	
Rear wheels reducer oil	0.90 l (0.19 IMP gal)	0.90 l (0.19 IMP gal)	0.90 l (0.19 IMP gal)	
Gearbox oil	1.50 l (0.32 IMP gal)	1.50 l (0.32 IMP gal)	1.50 l (0.32 IMP gal)	- SAE 85W90LS - API GL5
Braking circuit oil	1.00 l (0.21 IMP gal)	1.00 l (0.21 IMP gal)	1.00 l (0.21 IMP gal)	DEXRON II
Coolant	13.0 l (2.85 IMP gal)	13.0 l (2.85 IMP gal)	13.0 l (2.85 IMP gal)	- ASTM D 3306 - ASTM D 4985 - ASTM D 1384 - CUNA NC 956-16 - B.S. 6580.92 - BS 6580 (GB) - FK Heft R 443 (D) - Afnor R 15/601 (F) - ASTM D 3306 and 4985 - SAE J 1034 - JIS K 2234 (J) - KSM 2142 (K) - NATO S 759 - CUNA NC 956/16(I) - UNE 26361-88(E) - EMPA - E/L 1415c (MIL Italy)
Grease	4.00 kg (8.81 lb)	4.00 kg (8.81 lb)	4.00 kg (8.81 lb)	NLGI - 1
Hydraulic oil	70 l (15.39 IMP gal)	78 l (17.15 IMP gal)	80 l (17.59 IMP gal)	Standard: PAKELO Hydraulic EP
Air conditioning	1.1 kg (2.42 lb)	1.1 kg (2.42 lb)	1.1 kg (2.42 lb)	- R134A

- ATTENTION

Unless indicated otherwise or the customer requests particular set-ups, the hydraulic system of the vehicle is supplied with the following oil:

Pakelo Hydraulic EP

PAKELO Hydraulic EP
Specifications: ASTM D 6080, ISO VG 46 / L32 - 42 (140), ISO 6743-4 HV, NFE 48-602, NFE 48-603 HV, NFE 48-690(dry), NFE 48-691(wet), ISO 11158, DIN 51524 Part 3 HVLP, ASTM D6158, HF-0, HF-1, HF-2

Properties	Method of analysis	Unit of measure	ISO 46 value
Density at 15°C	ASTM D1298	kg/l	0.88
Kinematic viscosity at 40°C	ASTM D445	cSt	46.6
Kinematic viscosity at 100°C	ASTM D445	cSt	8.6
Viscosity Index	ASTM D2270	-	165
Kinematic viscosity at 40°C after Sonic Shear	ASTM D445	cSt	41.6
Viscosity Index after Sonic Shear	ASTM D2270	-	144
FZG Failure Load Stage	ASTM D5182	Stage	12
Flash point (COC)	ASTM D92	°C	210
Sliding point	ASTM D97	°C	-35
750cP Brookfield viscosity temperature	ASTM D2983	°C	-9

5.2.1 Reduce the vibrations

Take into consideration the following precautions to reduce the operator's exposure to vibrations:

- Always use equipment that is appropriate for the type of work being performed.
- The driver's seat must be properly adjusted. Inspect and, if necessary, repair seat suspensions and adjustment mechanisms.
- Make sure that the vehicle is kept in good condition, follow vehicle maintenance schedule as described in this manual.
- Steer, accelerate, brake, change gears, move attachments slowly.
- While driving, adjust vehicle speed to minimise the vibration level. Reduce speed to prevent risk of jolting. Transport the vehicle if the distance between work sites is significant.
- Keep the work site in good condition, remove rocks and obstacles, fill-in depressions or holes, etc.
- To avoid back problems, use the vehicle only if in good health conditions.
- The operator should take periodic breaks to reduce the amount of time spent seated in the same position.
- Never jump down from the cab or the vehicle.
- Avoid repeatedly handling and lifting loads.

5.2.2 *Environmental conditions*

Although the vehicle can be used in the most diverse situations, the minimum operational Standards described below must be complied with for precautionary purposes:

T3-E0100 - Table of enviromental conditions

Parameter	Values allowed
Working temperature	from -15 °C to +40 °C (from 23 °F to 104 °F)
Average daily temperature	< +40 °C (< 104 °F)
Storage temperature	from -20 °C to +50 °C (from 5 °F to 122 °F)
Humidity	from 20% to 95%
Altitude	< 2500 m (< 8200 ft)

5.2.3 *Electromagnetic interference*

If supplementary equipment is installed by the customer, the user must verify whether the installation causes any type of interference with the vehicle's instruments. If so, the user must eliminate the interference.

It is important to pay careful attention to mobile equipment such as radio communication (telephones), which must be installed by qualified technicians and used with externally mounted antennas.

In general, any additional electrical equipment installed must comply with EMC Directive 2004/108/EC and must bear the CE marking.

5.2.4 *Radiation*

When the vehicle is used in normal conditions of use, it does not generate any type of radiation, ionising and non, which could cause problems for the operator.

6 SAFETY DEVICES

6.1 Safety stickers

Safety stickers have been applied on the vehicle in the positions indicated below. Their purpose is to provide a guide for your safety and that of others. Before starting to operate the vehicle, verify the content and position of the safety stickers by walking around the vehicle with this manual in hand. Re-examine the stickers with all the operators who will use the vehicle.

- ATTENTION

Make sure you have fully understood their position and content.

To ensure correct interpretation, verify that they are located in the correct position and that they are always kept clean.

- DANGER

Clean the stickers if they are covered by dirt, cement or other deposits.

- FORBIDDEN

Do not remove the safety stickers for any reason whatsoever.

- FORBIDDEN

Cleaning the stickers on the vehicle with solvents or petrol is strictly forbidden as the stickers may fade. Additional warning and safety stickers must always be treated in the same way.

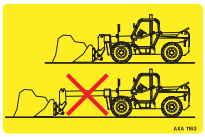
Refer to the overview table in the "Maintenance" chapter for the maintenance and inspection schedule of the safety stickers.

Replace the safety stickers is they are worn, damaged or lost, as they must always be read and interpreted correctly.

- NOTE

The stickers are ordered just like spare parts (make sure you provide the model and serial number of the vehicle when placing the order).

6.1.1 *Meaning of the safety stickers*

SIGN	CODE	DESCRIPTION
	AXA1163	Warning, keep the boom completely retracted when digging with buckets.
	AXA1425	Danger: keep a safe distance when using the loading shovel
	AXA1425	Crushing hazard; use the safety locks when performing maintenance.
	AXA1425	Danger: keep a safe distance from the vehicle
	AXA1425	Danger: moving mechanical components.
	AXA1425	Danger: stop the engine before performing any maintenance.
	AXA1425	Danger: switch the engine off and remove the ignition key during maintenance.
	AXA1425	Danger: maintain the safe distance from the power lines

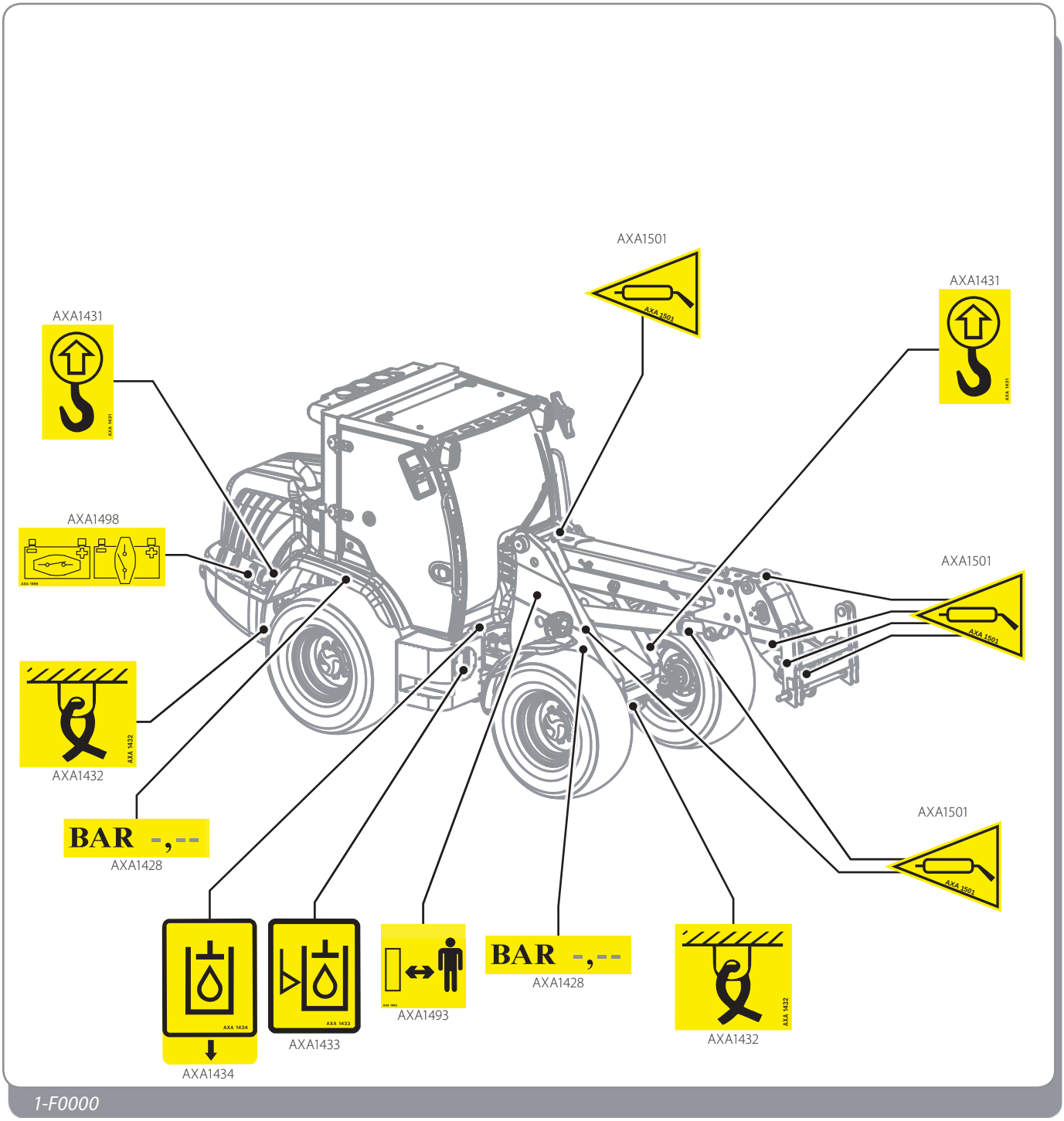
SIGN	CODE	DESCRIPTION
	AXA1427	Indicates where to refuel from
	AXA1428	Indicates the tire pressure.
	AXA1431	Indicates the lifting points.
	AXA1432	Indicates the points where the vehicle is to be anchored from to be transported or towed.
	AXA1433	Indicates where to check the hydraulic oil level.
	AXA1434	Indicates where to top up the hydraulic oil from.
	AXA1435	Danger: moving mechanical parts; do not remove the safety guards and wait for the parts to stop before performing any maintenance.
	AXA1436	Indicates the position of the safety rod for the lifting cylinders
	AXA1438	Indicates parts of the vehicle that cannot be walked on.

SIGN	CODE	DESCRIPTION
	AXA1439	Danger: moving mechanical parts.
	AXA1440	Danger: leaking hot and pressurised steam.
	AXA1441	Danger: hot surfaces.
	AXA1492	Indicates the position of the brake oil tank and the type of oil to be used.
	AXA1493	Warning: maintain the safe distance.
	AXA1498	Indicates the position and the user instructions of the battery isolator switch.
	AXA1499	Danger: maintain the safe distance from the power lines
	AXA1501	Indicates the greasing points.
	AXA1506	Mandatory use of the seatbelts
	AXA1514	Emergency exit

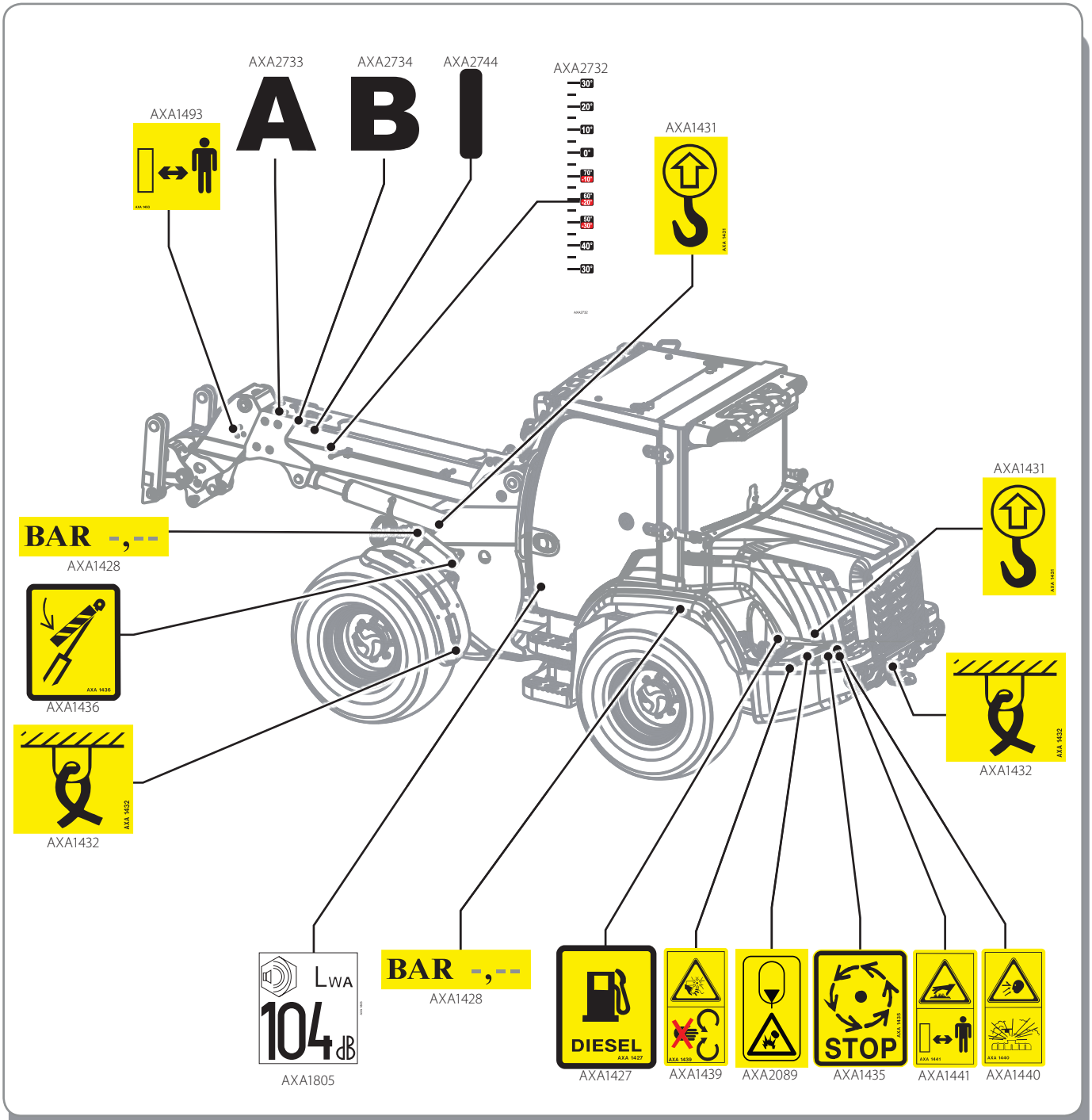
SIGN	CODE	DESCRIPTION
	AXA1515	Remove the cotter pin
	AXA1773	Danger, do not reach high speeds or over-rev the engine downhill
	AXA1805	Indicates the maximum acoustic power guaranteed
	AXA2089	Attention, hydraulic circuit with pressure accumulators
	AXA2104	Warning: maintain the safe distance.
	AXA2199	Maximum reaction on the ground.
	AXA2733	Indicates a reference to the extension of the arm.
	AXA2734	Indicates a reference to the extension of the arm.
	AXA2744	Indicates that the maximum extension of the arm for each letter.
	AXA2732	Scale for boom angle.

6.1.2 *Position of the safety stickers on the vehicle*

The positions of the safety stickers on the vehicle are indicated in the figures Fig. 1-F0000 and Fig. 2-F0000.



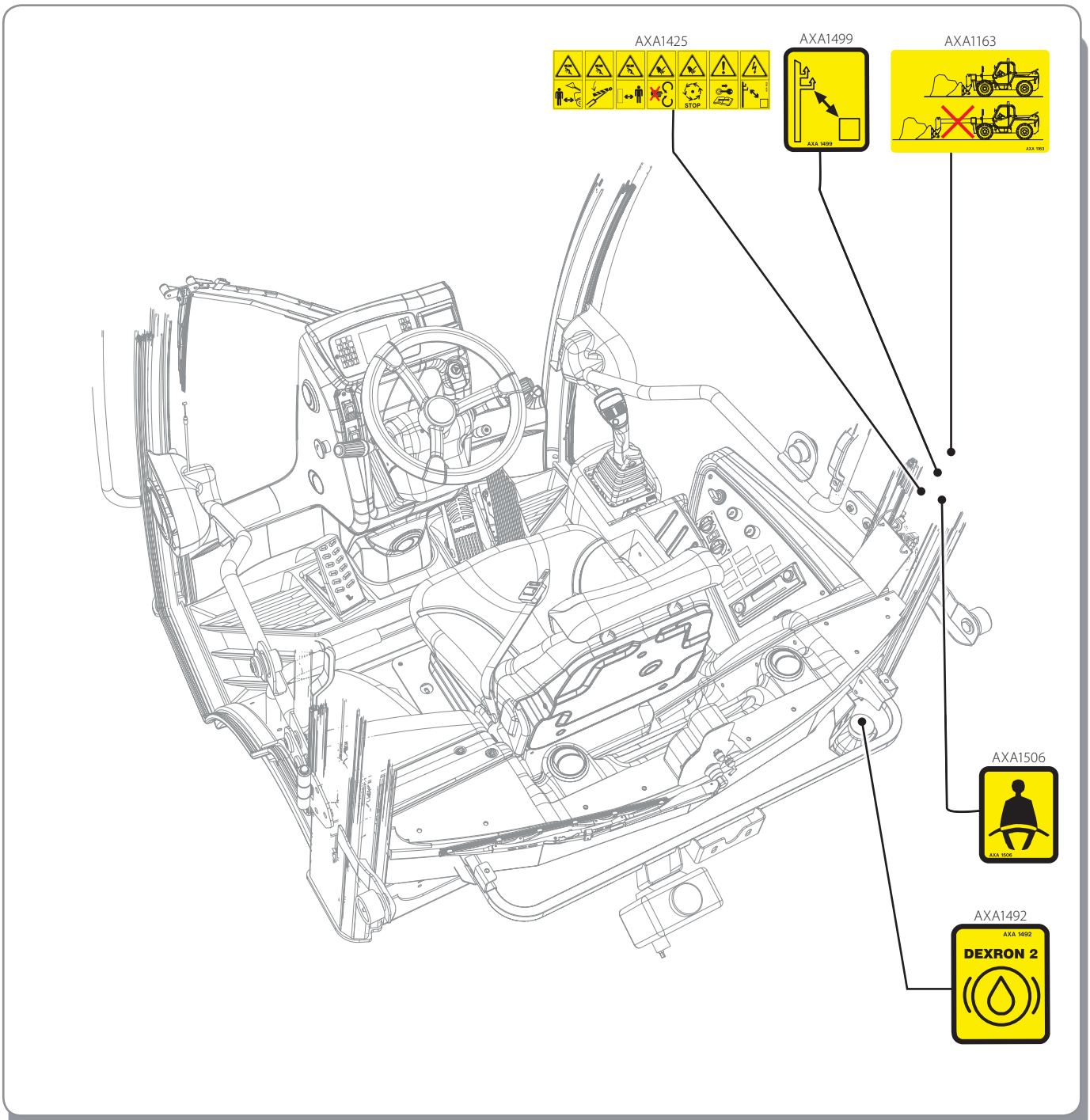
1-F0000


AXA2733
AXA2734
AXA2744
AXA2732
AXA1493
A
B
I
AXA1431
BAR -,--
AXA1428
AXA1431
AXA1436
AXA1432
AXA1432
LWA
104 dB
AXA1805
BAR -,--
AXA1428
DIESEL
AXA1427
AXA1439
AXA2089
STOP
AXA1435
AXA1441
AXA1440

2-F0000

6.1.3 *Position of the safety stickers in the cab*

The positions of the safety stickers in the cab are (Fig. 3-F0000.):



3-F0000

6.2 Safety rod

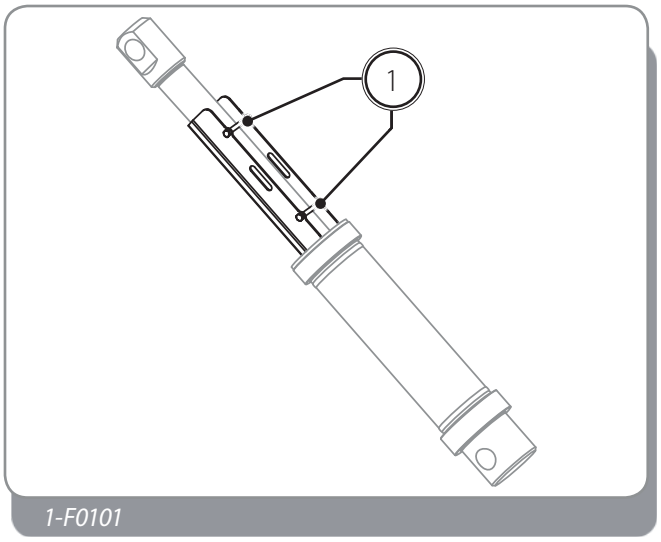
The safety rod (Fig. 1-F0101) must be used as a safety measure during maintenance to keep the boom from descending or falling in case of failures.

- ATTENTION

When carrying out maintenance work on the boom raising cylinder or on the related block valve, the boom must be supported by a suitable raising mechanism with a minimum capacity of 3 tons (6610 lb).

Do as follows to insert the safety rod:

- Completely close the boom extensions
- Raise the boom the minimum height necessary to apply the safety rod;
- Block the safety rod by means of the specific hooks **1**

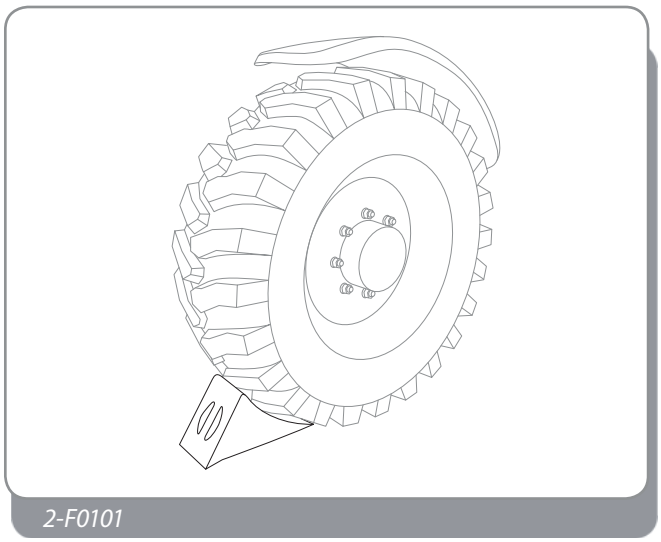


1-F0101

6.3 Wedge for wheels

The Wedge for wheels must be used as a safety measure to impede accidental or unintentional movements of the vehicle.

Its use is recommended while parking the vehicle, during long stops on slopes or during maintenance.

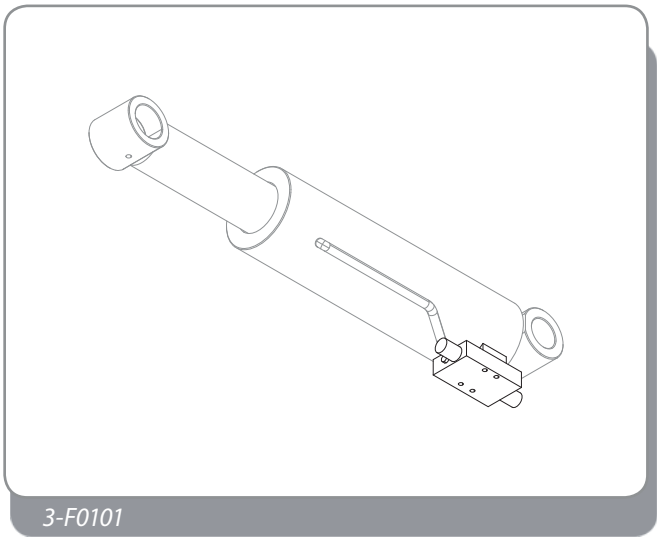


2-F0101

6.4 Lock valves

Cylinder block valves hinder uncontrolled movement of the cylinder pistons in case of lacking hydraulic or bursting pressure of a flexible pipe.

The valves are mounted directly on all cylinders.



3-F0101

6.5 ROPS - FOPS Cab

The vehicle is equipped with an approved cab:

- **ROPS** (Roll Over Protection Structure)
  OCSE code 4
- **FOPS** (Falling Objects Protective Structure)
  OCSE code 10.

The operator is therefore protected should the vehicle roll over or objects fall, as prescribed for earth movement vehicles.

- ATTENTION

The cab is a safety component and therefore must always be kept in proper conditions of use.

- FORBIDDEN

If the cab is tampered with, the manufacturer is relieved of civil liability in case of an accident. Therefore it is strictly prohibited to:

- Alter, pierce or modify the cab structure in any way.
- Weld or mechanically connect parts to the chassis of the cab.
- Use parts of the different class of resistance if you need to replace fastening bolts.
- Connect chains or ropes to the cab for towing purposes.

- DANGER

Should the vehicle roll over, the best protection is achieved by remaining inside the cab with the seat belts fastened.

If the cab shows visual damage, it must be replaced; contact an authorised service centre or authorised workshop of Dieci.

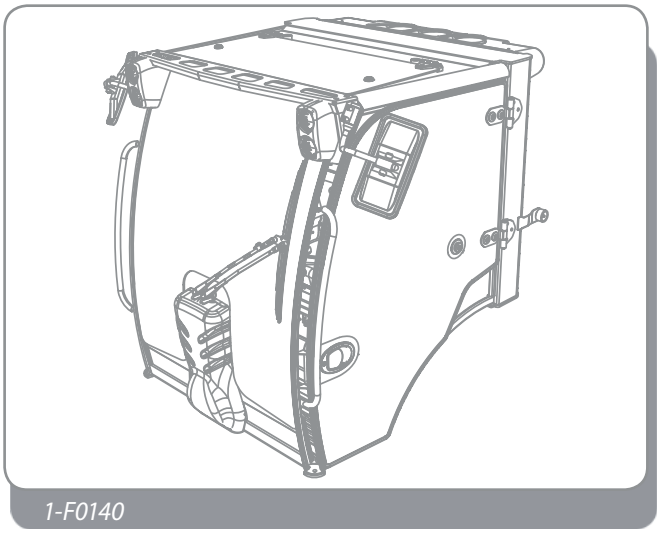
- ATTENTION

The cab is classified in:

CATEGORY "1"

The cab approved as category "1" does not provide full protection against entrance of dust, aerosol and vapours. Consult and comply with the instructions provided by the manufacturer of the chemical substances used (such as pesticides, fungicides, herbicides, etc.) and those provided by the manufacturer of the spraying machine. Use the specific personal protective equipment (PPE) when indicated in these instructions, even when inside the cab.

See the box of the product used to adopt the appropriate protective devices.



1-F0140

- DANGER

Risk of inhalation for operators and nearby persons. For protection against harmful powders, aerosol and vapours, see the instructions provided by the manufacturer of the chemical agents, the manufacturer of the spraying machine and the basic rules provided in this manual.

6.6 Emergency stop

In emergency conditions, the vehicle can be stopped by a pressing the emergency stop button located in the cab (Fig. 2-F0140); the stop is immediate.

- NOTE

The use of the Emergency stop button is recommended only in case of an immediate danger for the operator, the load and/or for the integrity of the vehicle itself.

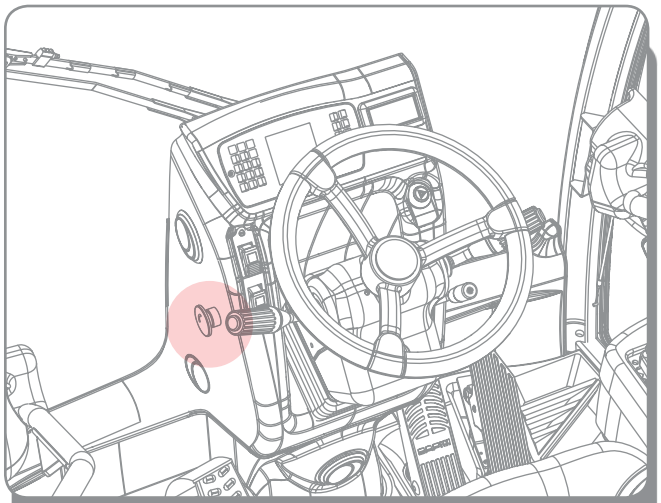
Pressing the Emergency stop button cuts-off the electric power supply and consequently switches off the vehicle and any connected equipment.

- DANGER

Return to normal working conditions after a stop with the Emergency stop button is only possible after:

- The removal of the cause that determined the stop
- Release of the emergency stop button

To release the emergency stop button, turn it in the direction indicated by the arrow stamp thereon.

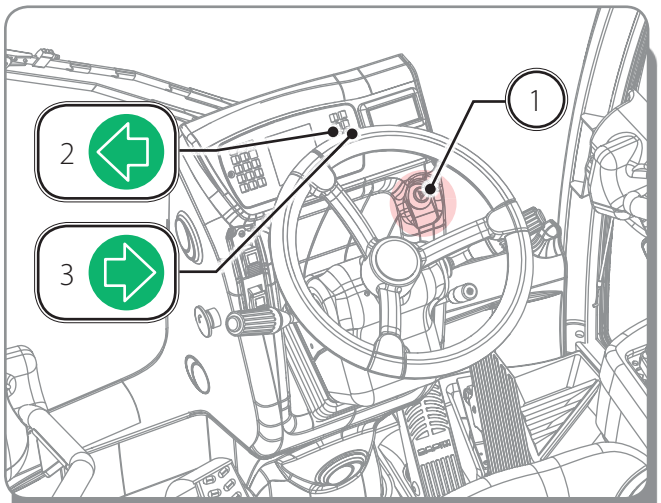


2-F0140

6.7 Emergency lights.

Press the emergency light switch "**1**" (Fig. 3-F0140) to turn on all four direction indicators.

The activation of the sidelights is indicated by the switch flashing and by the indicator light "**2**" and "**3**" on the vehicle dashboard.



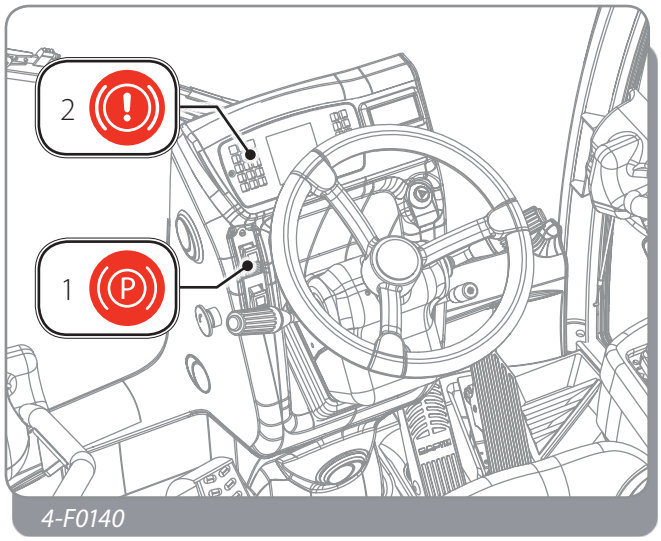
3-F0140

6.8 Parking brake

Press the "**1**" switch to engage the parking brake (Fig. 4-F0140).

The parking brake is engaged properly when the switch lights up.

When the parking brake is engaged, the vehicle cannot move; the hydrostatic drive is disengaged and the wheels are braked.



4-F0140

- NOTE

The parking brake must be engaged:

- Whenever the vehicle at is left alone, even temporarily
- Whenever the vehicle operates at a standstill with the outrigger feet lowered (if present)

The brake is automatically engaged when the engine is switched off.

Contact an authorised *DIECI*workshop to check the efficiency of the parking brake.

- DANGER

Do not use the vehicle if the parking brake is faulty.

- DANGER

Unauthorised alterations of the axle ratios, the vehicle weight, or wheel and tyre dimensions may compromise the efficiency of the parking brake.

- DANGER

If the indicator light "2" flashes, it indicates a low brake fluid level.

If the indicator light "2" switches on, the parking brake is blocked or faulty.

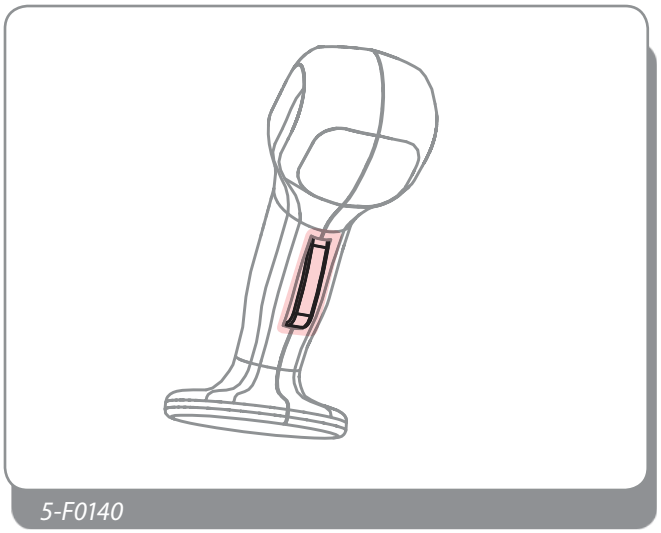
Do not use the vehicle until the problem is resolved. Contact a *DIECI* after-sales centre.

6.9 Joystick man present button

The dead man function on the joystick (Fig. 5-F0140) prevents any accidental movements of the boom.

The function must be kept activated during movement of the joystick, otherwise all joystick controls will be disabled.

There are various joysticks with different dead man functions available. Refer to the chapters on the use of the Joystick for more information.



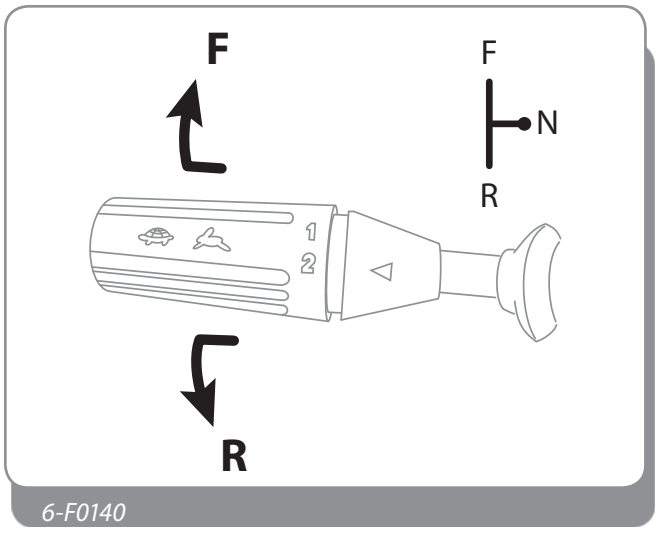
5-F0140

6.10 Gear selection lever

When the lever (Fig. 6-F0140) is kept in the intermediate position ("**N**") the drive is in neutral and the vehicle is partially braked.

The engine does not start up with the forward/reverse gear selection lever in any position other than "N".

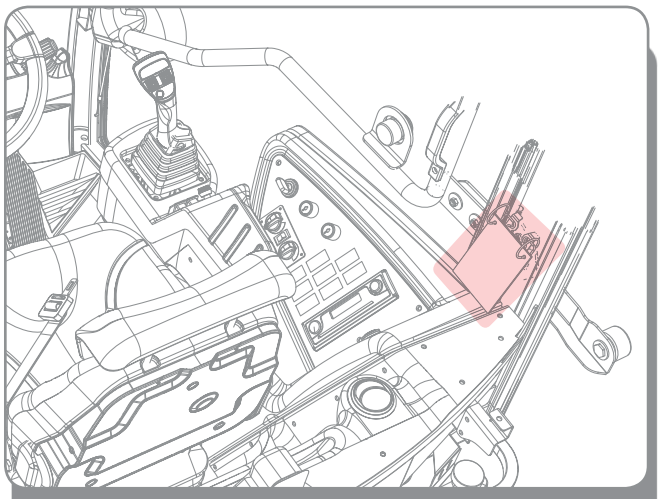
For further information, see the chapter "Vehicle description".



6-F0140

6.11 Diagram notebook

The Diagram notebook (Fig. 7-F0140) summarises the main information for safe use of the vehicle for rapid consultation by the operator during the various work phases.



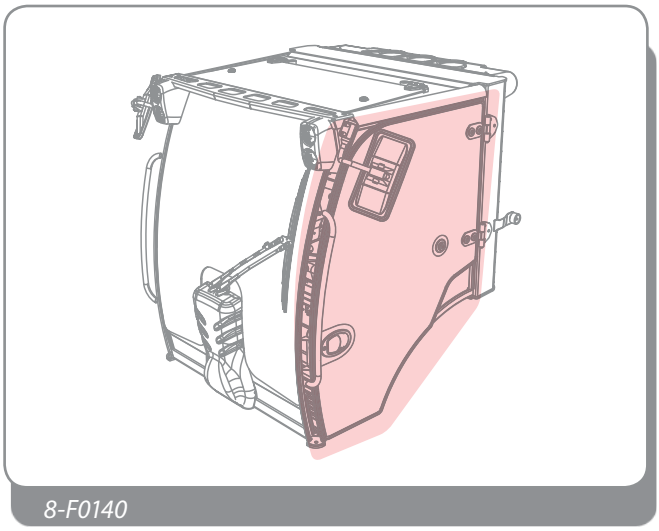
7-F0140

6.12 Emergency exit

Both cab doors (Fig. 8-F0140) can be used as emergency exits.

- ATTENTION

Pay attention when opening the door, as it may chip or shatter, resulting in risk of injury to the operator in the cab and to those in the surrounding area.



8-F0140

6.13 Seat

The seat of the vehicle is equipped with special seatbelts that protect the operator when moving or performing manoeuvres.

- ATTENTION

Always fasten the seatbelts when using the vehicle.

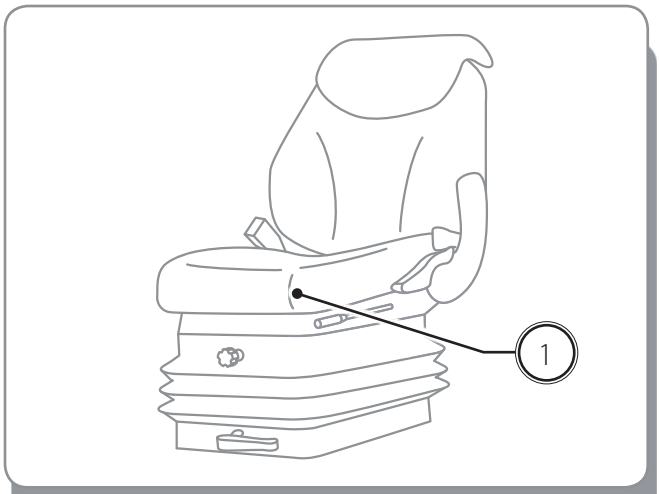
Refer to the "Component description and use" chapter for additional information.

6.13.1 Dead man seat sensor

The vehicle is equipped with a safety system called “dead man”, which consists of an electrical microswitch inside the seat cushion “**1**” (Fig. 1-F0190).

- ATTENTION

The engine can only be started if the operator is seated properly in the driver's seat and the gear lever is in the neutral "N" position.



1-F0190

6.13.2 Seat belts

The vehicle is equipped with a cab that is able to support the weight of the vehicle itself should it tip over (ROPS). It is therefore, essential that the driver remains firmly fastened in the seat thanks to the seatbelt to prevent him/her from falling out and possibly getting crushed.

Before starting up the vehicle, carefully check the belts, the buckle and the fasteners of the structure. If any part is damaged or worn, replace the seat belt or the relative part before starting up the vehicle.

Remain seated with the seat belts fastened correctly for the entire time the vehicle is used in order to reduce the risk of injury in case of an accident.

Following a significant accident replace the seat belts even if there is no apparent damage.

Proceed as follows to fasten the seat belts:

1. Insert latch "**1**" into buckle "**2**" (Fig. 2-F0190).
2. Make sure it has clicked properly, then fit the belt around your body (Fig. 3-F0190).

- ATTENTION

The seat belt is fastened properly when it fits snugly around the body.

To unfasten the seat belt (Fig. 4-F0190):

1. Press the red button "**1**" on the buckle "**2**".

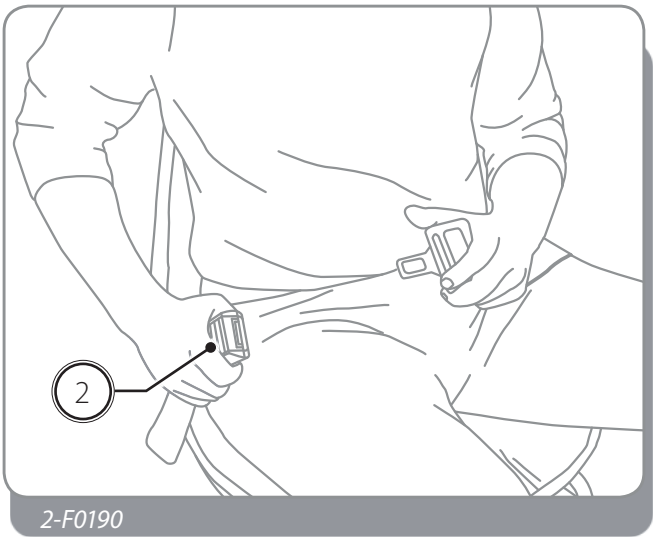
2. Then slide the latch "**3**" out.

- ATTENTION

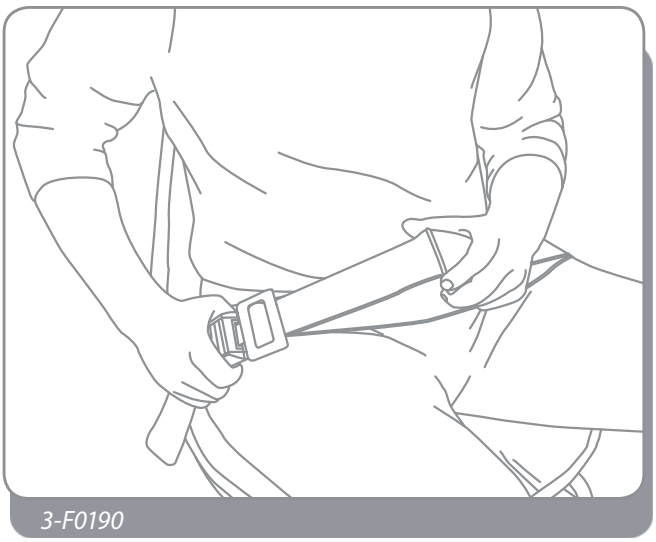
Drive the vehicle only with the seat belt properly fastened and adjusted. Driving with the seat belt unfastened increases the risk of accidents.

- FORBIDDEN

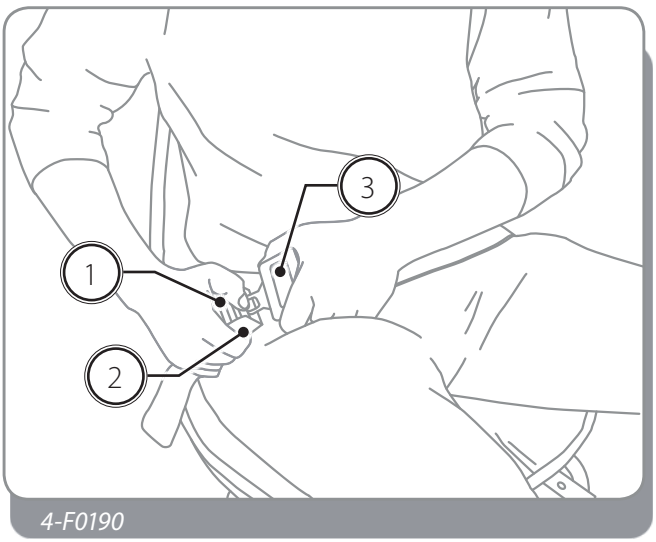
Do not use damaged or worn seat belts. Worn, damaged or weak seat belts may break or give in during a collision, causing serious injury to the operator.



2-F0190



3-F0190



4-F0190

6.13.3 *Seat adjustment*

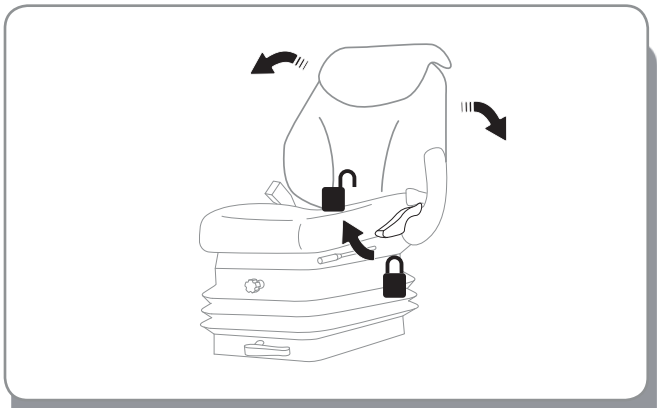
- ATTENTION

The seat has been correctly positioned when the operator is able to push the brake pedal completely down with his/her back firmly against the backrest.

The seat can be adjusted to different positions:

Backrest inclination

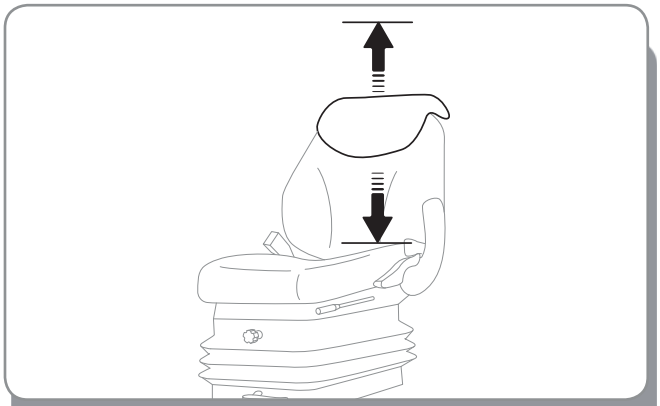
To adjust the inclination of the backrest, lift the lever on the left side (Fig. 5-F0190) and let the backrest adapt to the required position. Release the lever to block the backrest.



5-F0190

Backrest height

To adjust the height of the backrest (Fig. 6-F0190), lift or lower the backrest from the top.



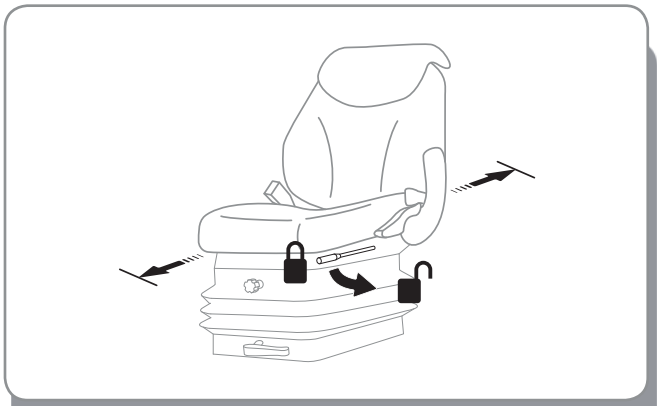
6-F0190

Horizontal position

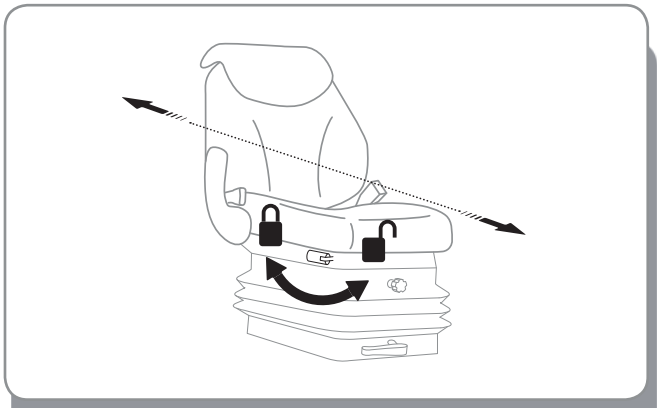
To adjust the seat forwards or backwards, move the lever (Fig. 7-F0190) to the left and make the seat slide along the guides. Release the lever when the desired position is reached. Perform small movements to make sure that the seat is fastened properly.

Horizontal suspension

To release horizontal suspension, move the lever (Fig. 8-F0190) forwards; move it backwards to lock suspension.



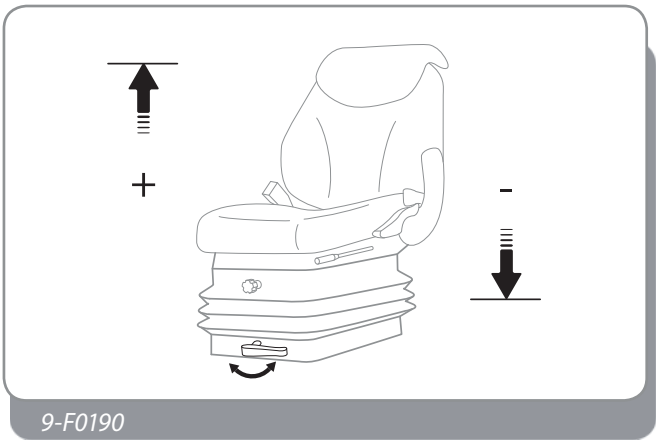
7-F0190



8-F0190

Vertical position

To adjust the height of the seat, turn the lever (Fig. 9-F0190) towards "+" printed on it, or towards "-" to lower the height.



9-F0190

Mechanical suspension degree

To adjust the degree of suspension, turn the knob (Fig. 10-F0190) towards "+" to soften the suspension. Turn the knob towards the "-" to hardened suspension.

Pneumatic suspension degree *

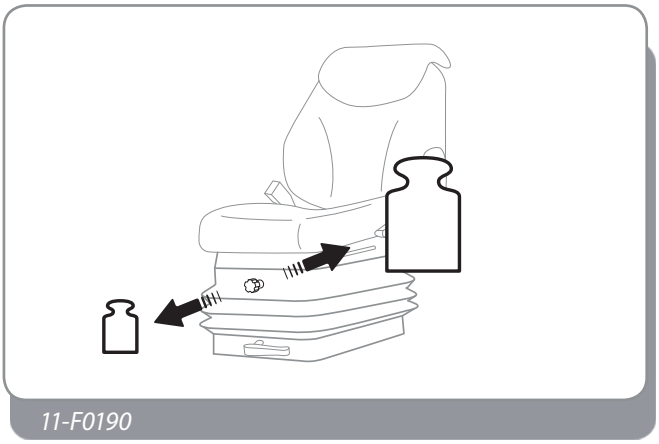
*** The pneumatic suspension of the seat is an optional accessory.**

To adjust the pneumatic spring rate, pull knob (Fig. 11-F0190) to let out pressure and soften suspension. Push the knob to add pressure and harden suspension.

- NOTE

Pneumatic adjustment can only be performed with the engine running.

10-F0190



11-F0190

6.14 Inclinometer

The inclinometer "**1**" (Fig. 3-F0301) is placed on the boom of the machine and allows the operator to know the angular inclination of the boom.

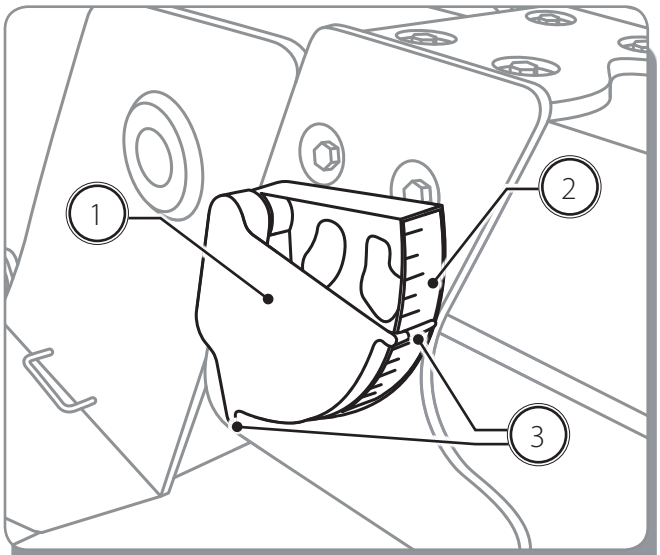
Read the angle value of the boom on the graduated scale"**2**" indicated by the arrows "**3**".

- DANGER

To know the capacity of the machine, use the loading diagrams in conjunction with inclinometer and letters on the boom extension. Handling a load that exceeds the capacity of the machine or outside of the range provided by the loading diagrams, may cause the machine overturning.

Refer to the "Loading Diagrams" chapter to learn how to use the loading diagrams.

At every return to work, check that the oscillating part with the arrows "3" can move freely. If it is blocked or does not move freely, it is necessary to repair or replace it, danger of tipping.



1-F0301

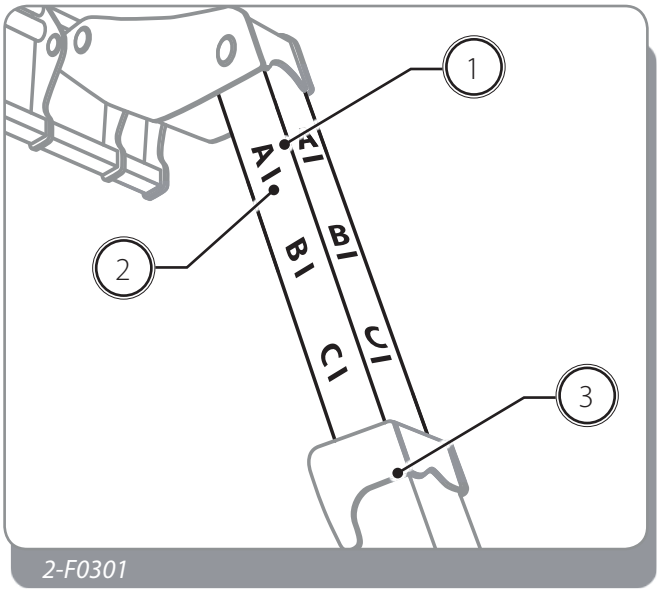
6.15 Letters on the boom extension

Letters on the boom extension "**1**" (Fig. 2-F0301) allow the operator to know the extent reached by the boom.

The maximum extension of the boom for each letter "**1**", is delimited by the related limit bar "**2**".

Proper use of the letters on the boom extension:

- Refer to the loading diagram and according to the load to be handled, deduct up to which letter it is possible to extend the boom.
- Extend the boom using the commands from the joystick.
- When the letter is visible coming out of the boom "3", slow down and proceed slowly when extending the boom, so as to be able to stop as soon as the limit bar of the related letter "2" appears.



2-F0301

- DANGER

To know the capacity of the machine, use the loading diagrams in conjunction with inclinometer and letters on the boom extension. Handling a load that exceeds the capacity of the machine or outside of the range provided by the loading diagrams, may cause the machine overturning.

Refer to the "Loading Diagrams" chapter to learn how to use the loading diagrams.

Each time work is restarted, extend the idle boom, without load and check that the letters and limit bars are in good condition. In case the letters or limit bars are damaged or missing, replace them, danger of tipping.

6.16 Loading diagrams

The Safe Working Load (SWL) of these machines depends on the extension extent and the boom angle.

The loading diagrams show the maximum height and extent allowed by certain equipment and loads, in order to work safely, without the risk of tipping of the machine during work operations.

It is necessary to use and adhere to the loading diagrams in relation to the load and type of accessory used.

- CAUTION

It is mandatory to have in the cab, the loading diagram referred to the equipment and the machine that is being used.

Refer to the correct loading diagram before handling a load.

- PROHIBITION

Do not raise or extend the boom when the machine is in motion. Fully lower and retract the boom before moving a load.

- DANGER

The loading diagrams refer to machine stopped on solid and leveled ground (slope less than 2%).

When working on uneven or rough ground, the machine loading capacity is reduced to 75%, to stay within safe conditions, danger of tipping.

- NOTE

Before handing a load, see chapter "Safe Working Procedures".

- DANGER

It is mandatory to know the weight of the load that must be handled.

If the weight of the load to be moved is not known, proceed with caution, and only with the boom fully retracted and do not perform boom extension maneuvers, danger of tipping.

- CAUTION

Locate the center of gravity of the load to be moved. The center of gravity may not be at the center of the load.

6.16.1 Read the loading diagrams

- **Machine name and model** (Fig. 3-F0301, pos. 1)

- **Equipment model** (Fig. 3-F0301, pos. 2)

Equipment model with the indications of center of the load.

For more information, refer to the "Loading diagrams legend" chapter.

- **Loading diagram code** (Fig. 3-F0301, pos. 3)

- **Equipment maximum loading capacity** (Fig. 3-F0301, pos. 4)

The maximum loading capacity of the equipment is also reported by the sticker placed on the equipment itself.

- **Boom angle** (Fig. 3-F0301, pos. 5)

The angle of the boom is indicated by the inclinometer on the left side at the end of the boom.

- **Boom extension** (Fig. 3-F0301, pos. 6)

The boom extension is indicated by letters of the alphabet (“A”, “B”, etc...). The same letters are shown as stickers on the boom extension, so that the user in the cabin can know the boom extension by reading the letters on it.

- **Machine operating mode** (Fig. 3-F0301, pos. 7)

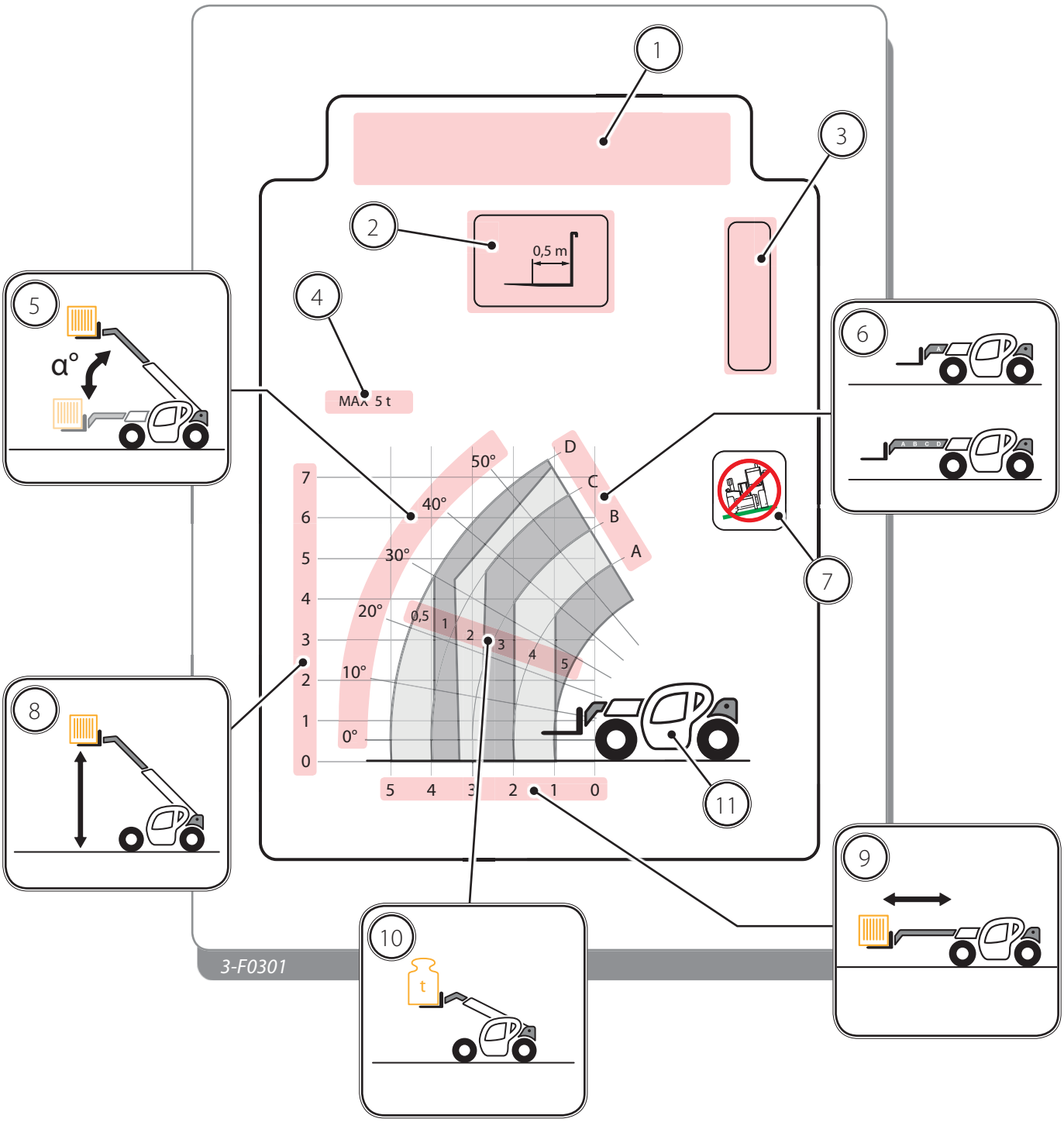
For more information, refer to the "Loading diagrams legend" chapter.

- **Load height from ground** (Fig. 3-F0301, pos. 8)

- **Horizontal distance of the machine load** (Fig. 3-F0301, pos. 9)

- **Load weight** (Fig. 3-F0301, pos. 10)

- **Machine position** (Fig. 3-F0301, pos. 11)


1
2
0,5 m
3
4
MAX 5 t
5
α°
6
7
8
9
10
t
11
50°
40°
30°
20°
10°
0°
D
C
B
A
0,5
1
2
3
4
5
7
6
5
4
3
2
1
0
3-F0301

6.16.2 *Use the loading diagrams*

The Loading diagrams indicate the areas in which it is possible to operate with machine and load in safe conditions.

- DANGER

Operating the machine without observing the Loading diagrams related to the equipment installed may result in hazardous conditions, up to the tipping limit.

The whole working area of the boom is divided into these areas (Fig. 4-F0300, pos. 1). Each area corresponds to a maximum loading capacity. The area closest to the machine will have a loading capacity equal to the maximum loading capacity of the machine; as moving away from the machine, the maximum capacity of the areas decreases.

- CAUTION

Before starting to work, it is necessary to know:

- **Load weight**
- **Height from ground at which the load must be handled**
- **Distance from the machine at which the load must be handled**

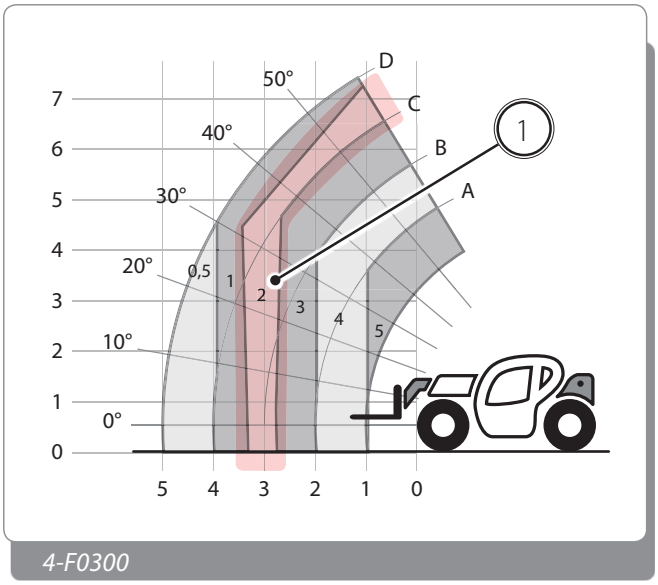
Locate the area of the loading diagram, showing a value just above the weight of the load to be handled; for example if the load should weigh 1.5 tons, the area to which it is necessary to refer is the area with a capacity of 2 tons (Fig. 4-F0300, pos. 1).

Knowing the area, the following will be known:

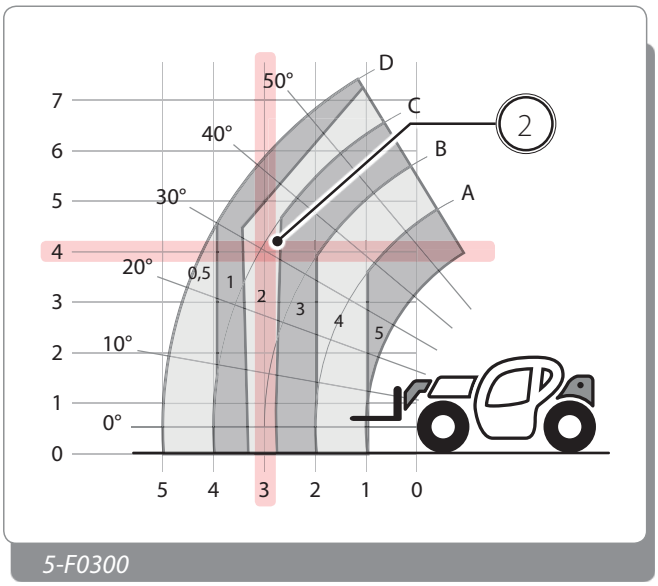
- the vertical and horizontal distance to which it will be possible to handle the load
- the boom extension and angle values at which it is possible to operate.

In order to know the vertical and horizontal distance to which it will be possible to handle the load, use the horizontal and vertical lines that cross the reference area; for example, it will be possible to carry the load at a distance of 3 m from the machine and 4 m in height remaining in safety conditions(Fig. 5-F0300, pos. 2).

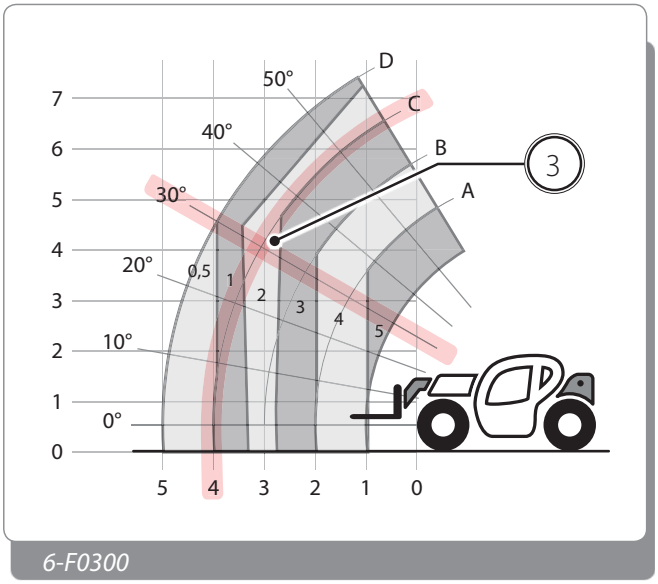
To avoid operating in conditions of tipping danger, use the boom angle and extension indications. For example, we could operate with the boom extended to letter C at an angle of 30° (Fig. 6-F0300, pos. 3).



4-F0300



5-F0300



6-F0300

- CAUTION

Taking the load beyond the permissible area, we would enter in danger conditions of tipping over.

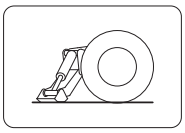
- CAUTION

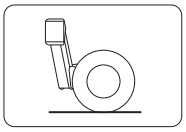
Use the loading diagrams for each load handling to determine the working area.

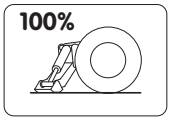
It is possible to start operating only under safety conditions and if within the predetermined safe work area.

6.16.3 Loading capacity diagrams legend

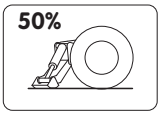
Machine operating mode


Stabilizers lowered

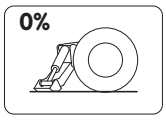

Stabilizers lifted



Stabilizers lowered, 100% extended



Stabilizers lowered, 50% extended

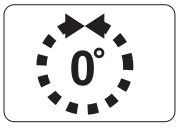


Stabilizers lowered, 0% extended

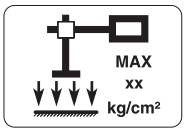

Prohibited to work on tires

In continuous Rotation

In non-continuous Rotation



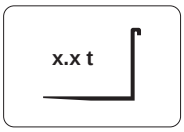
Front position



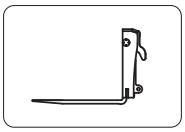
Maximum pressure applied on the ground

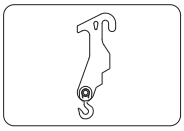

Prohibition of operating with unleveled machine

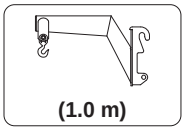
Attrezzature installate Installed equipmentУстановленное навесное оборудование



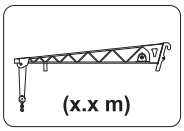
Forks torque (loading)


Forks Spreader / Translator

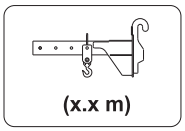

Hook for fork carrier plate



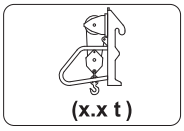
"Gooseneck" arm (Dimensions)



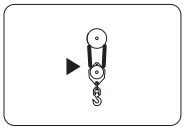
Lattice extension (Dimensions)

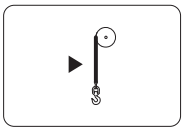


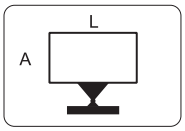
Arm with hook (Dimensions)



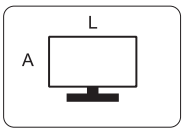
Winch (Loading capacity)


Winch method of use: Double Tow

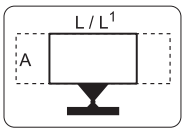

Winch method of use: Single Tow



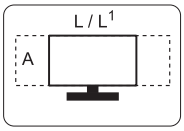
Fixed Trilateral basket



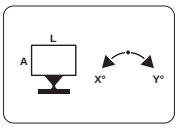
Fixed Front basket



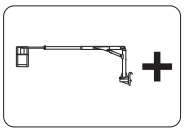
Extensible Trilateral basket

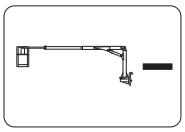


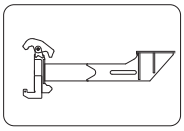
Extensible Front basket

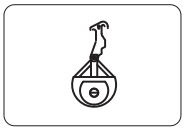


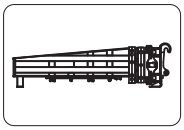
Trilateral basket (X° = Right rotation - Y° = Left rotation)

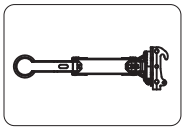

Positive arm

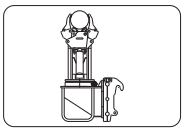

Negative arm

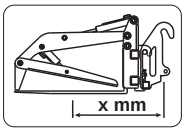

Centering layer


5 teeth polyp-grab gripper


Sheets holding gripper


Wheels manipulating gripper


Cylinders manipulating gripper



Gripper for pipe with pipe locker

7 CONTROLS USE AND DESCRIPTION

7.1 Opening door

7.1.1 External door handle

The cab door is equipped with an external locking handle (Fig. 1-G7000).

To open the door from outside:

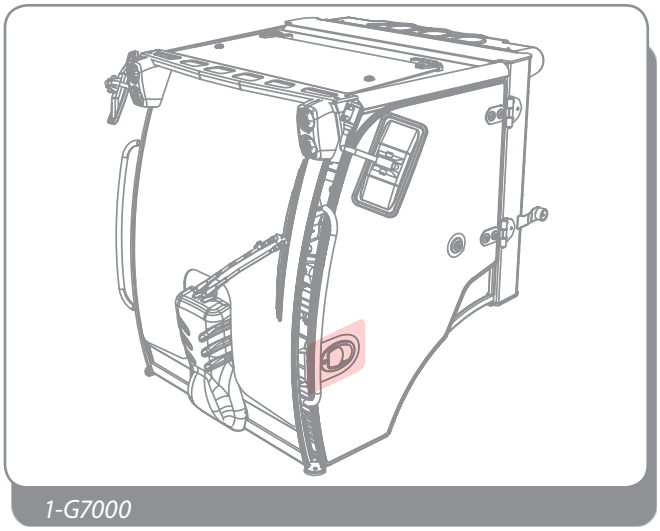
1. Insert the key in the lock and turn clockwise/ anticlockwise to engage/disengage the lock.
2. Pull the handle towards you to release the door with the lock disengaged.

- NOTE

The door will not open if the door handle is pushed when the lock is engaged.

- FORBIDDEN

Operating the vehicle with the cab door open is strictly prohibited.



1-G7000

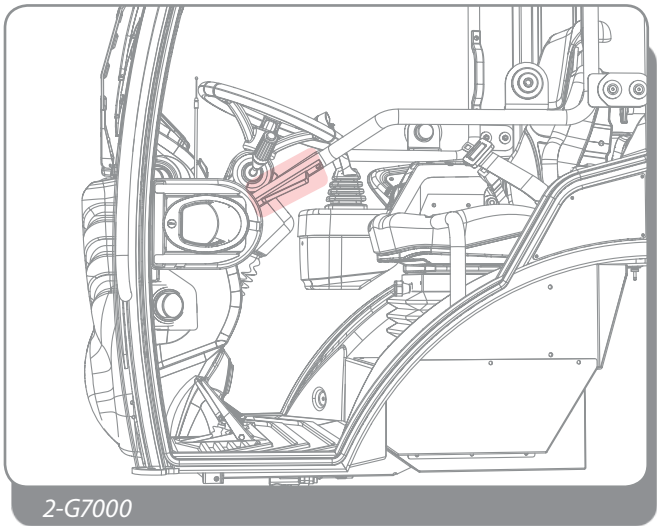
7.1.2 Internal door handle

To open the door from the inside:

1. Press the button on the handle to release the door (Fig. 2-G7000).
2. Push the door outwards to complete opening.
3. Accompany the door with a hand when opening.

- ATTENTION

Before pushing the door outward, make sure that the surrounding area is free of obstacles.



2-G7000

7.2 Ascent / descent

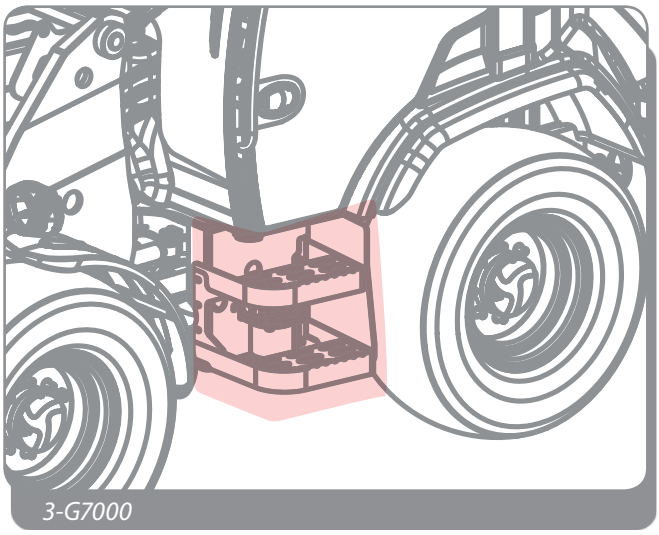
- ATTENTION

Before entering the cab, make sure that your hands and shoes are clean and dry to prevent slipping and falling.

Only use the specific handles and steps (Fig. 3-G7000) to get into the cab, do not use the controls and steering wheel inside as grips. Always face the cab when getting in or out of the vehicle.

- ATTENTION

Only get in and out of the cab when the vehicle is stopped and the parking brake is engaged. Do not carry out maintenance on a moving vehicle.



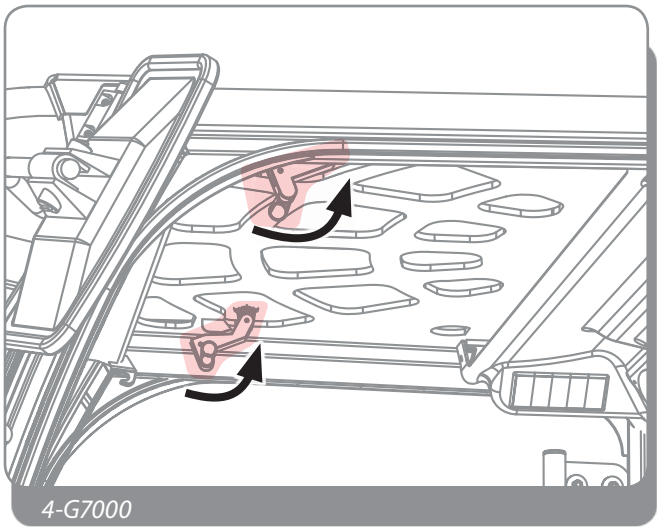
3-G7000

7.3 Roof

To open the roof, grab the handles (Fig. 4-G7000) and push upwards with a rotating movement. The rotated handles will hold the window open.

Operate inversely to close it until the handles lock.

In the event the handles should not hold the window open, replace them as soon as possible; risk of crushing.



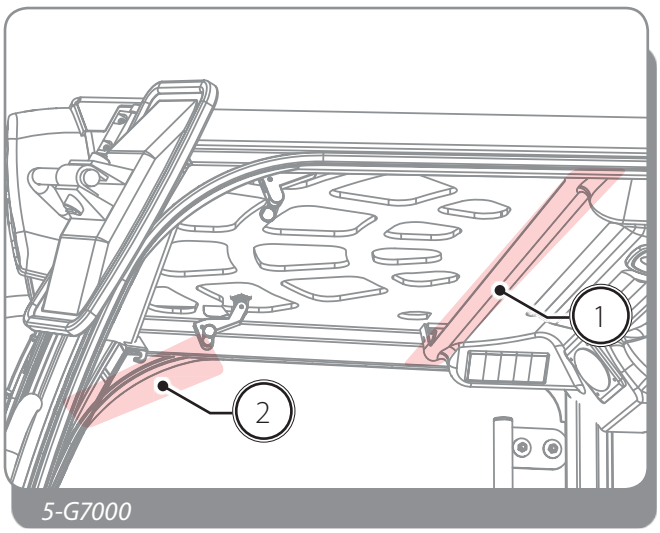
4-G7000

7.4 Sun shade

The sun shade is in the upper part of the cab (Fig. 5-G7000).

Lower the sun shade by grabbing the handle at the centre "**1**" and lowering it until it is fastened in the relative hooks "**2**".

Close the sun shade by lowering the handle "**1**" until the sun shade is released from the hooks "**2**" and hold on to the sun shade as it closes.



5-G7000

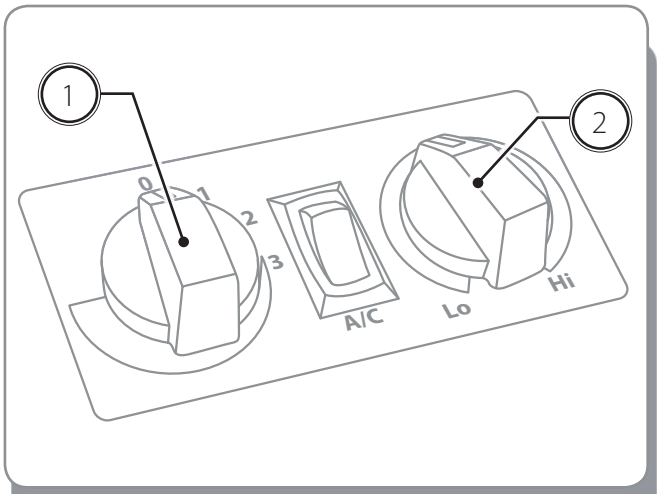
7.5 Cab ventilation

7.5.1 Ventilation adjustment

To adjust ventilation, turn the knob "**1**" (Fig. 6-G7000).

The positions indicate, respectively:

0	Off
1	First speed
2	Second speed
3	Third speed



6-G7000

7.5.2 Air temperature adjustment

To adjust the temperature of the air coming from the vents, turn the knob "**2**" (Fig. 6-G7000):

- Turning the knob clockwise (in the red part of the scale) the temperature increases.
- Turning the knob anti-clockwise (in the blue part of the scale) the temperature decreases until it is near the external temperature.

7.5.3 Air vents

To open the air vents, press down on one side of the vent and adjust the air flow direction with the tabs or turning the vent itself.

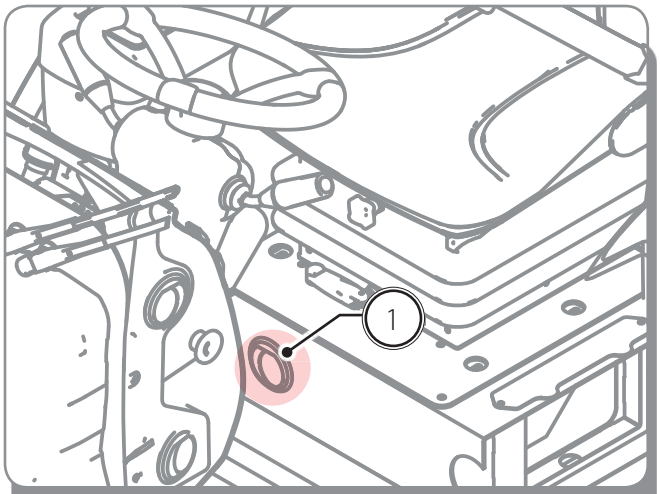
To close the vents, push the tabs until they are in a horizontal closed position.

7.5.4 Air recirculation inside the cab

To enable or disable air recirculation inside the cab open or close the intake vent "**1**" under the seat (Fig. 7-G7000):

- NOTE

The vent acts on the "suction" of air by the ventilation system. The flow of the air and the temperature must always be controlled by the ventilation system inside the cab.



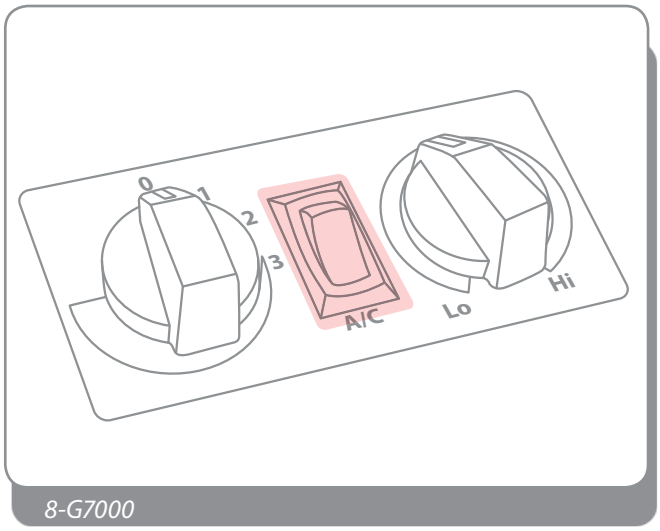
7-G7000

7.6 Air conditioning *

Air conditioning is an optional accessory.

To correctly use air conditioning, do as follows:

1. Check that all doors and windows are closed.
2. Ensure that the heater is switched off, turning the lever towards the "blue" part of the scale.
3. With the engine running, switch the air conditioning on by turning the switch to "**I**" (Fig. 8-G7000).
4. Turn the air flow adjustment knob to select the desired intensity.
5. Open and adjust the vents to obtain ideal cooling with regard to cab temperature.
6. Turn the temperature knob to obtain the desired temperature.



8-G7000

- NOTE

Switch on the air conditioning every 15 days, even in the colder months, with the engine running at minimum (without accelerating). In this way, the moveable parts like the compressor and the general system can be lubricated.

- DANGER

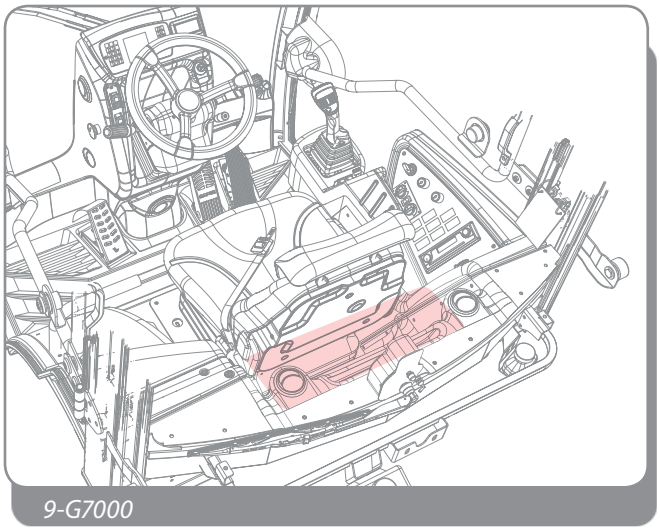
Do not loosen any of air conditioning system's tubes in order to reach the condenser, because skin contact with coolant can cause freezing.

To keep the air conditioning system efficient, service the system periodically.

For maintenance operation and relative deadlines, see the chapter "Maintenance".

7.7 Courtesy compartment

The courtesy compartment is behind the seat (Fig. 9-G7000).

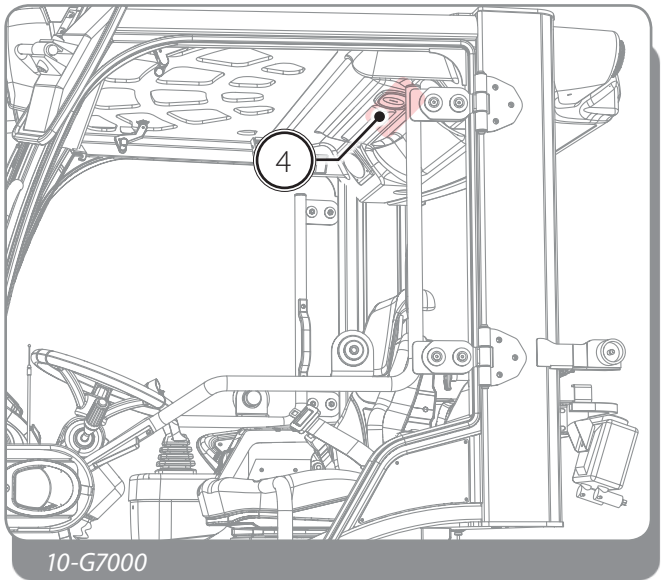


9-G7000

7.8 Cab lighting

To switch the light on inside the cab, act on the dome lamp "**1**" by pressing one of the ends (Fig. 10-G7000).

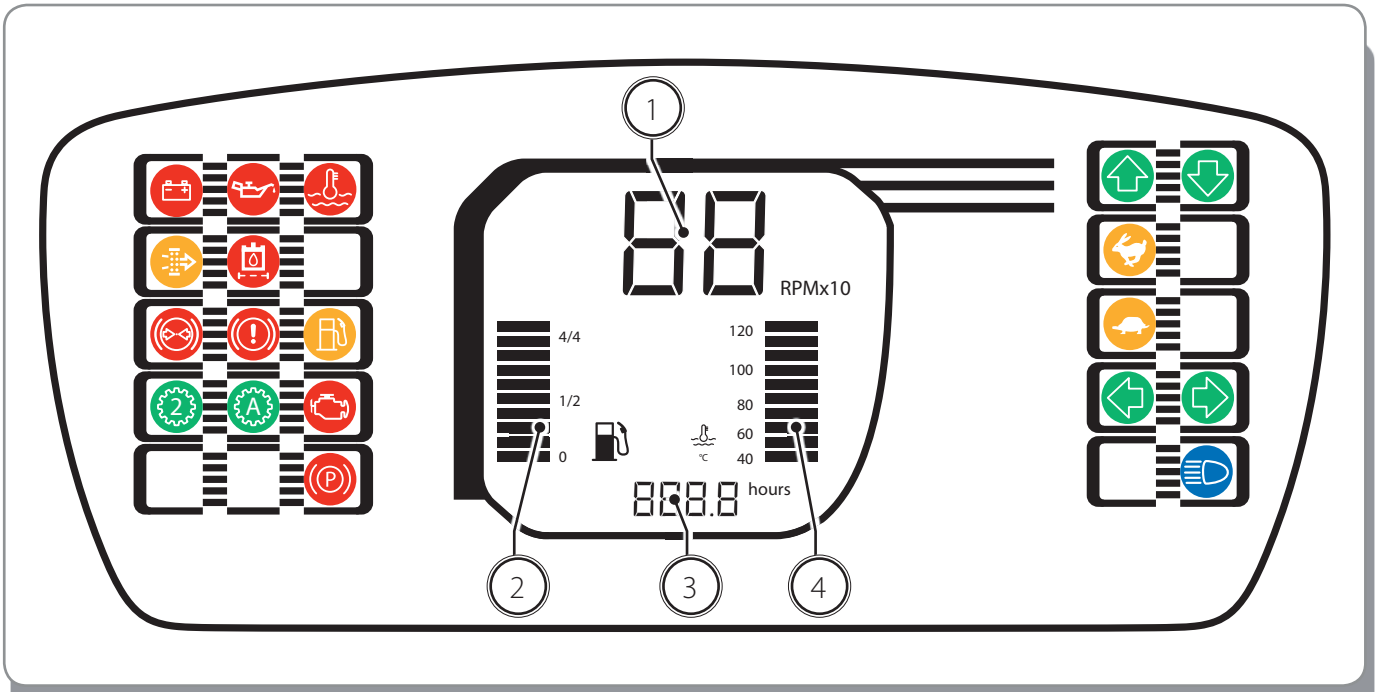
In the central position the lighting is off.



10-G7000

7.9 Central dashboard

7.9.1 Central dashboard: Indicator lights.



1-G7010

T1-G7010 - Table of dashboard LEDs

Position	LED	Colour	Start-up	Description
1		Red	Fixed	Faulty generator, battery
		Red	Fixed	Engine oil level low
		Red	Fixed	Hot engine water
		Red	Fixed	Engine air filter clogging
		Red	Fixed	Clogged hydrostatic oil filter
4		Red	Fixed	Insufficient parking brake pressure
		Red	Flashing	Low brake oil level
			Fixed	Brake system fault
3		Yellow	Fixed	Ignition plugs

Position	LED	Colour	Start-up	Description
		Green	Fixed	Fast mechanical gear engaged
		Green	Fixed	Mechanical gear engaged
		Red	Fixed	Engine errors present
		Red	Fixed	Engaged parking brake
		Green	Fixed	Forward movement engaged
		Green	Fixed	Reverse movement engaged
		Yellow	Fixed	Fast gear engaged (active with mechanical transmission)
		Yellow	Fixed	Slow gear engaged (active with mechanical transmission)
		Green	Fixed	Direction indicator, right
		Green	Fixed	Direction indicator, left
		Blue	Fixed	High beams on
1				Engine rev indicator
2				Fuel level
3				Hour meter
4				Water temperature

*** Indicator lights used by optional accessories.**

7.10 Steering wheel

The vehicle steering wheel (Fig. 1-G7100) allows you to change the direction of travel via the vehicle joint.

- DANGER

While steering, beware of objects or people near the machine joint. Risk of being crushed.

Turn the steering wheel to (Fig. 2-G7100):

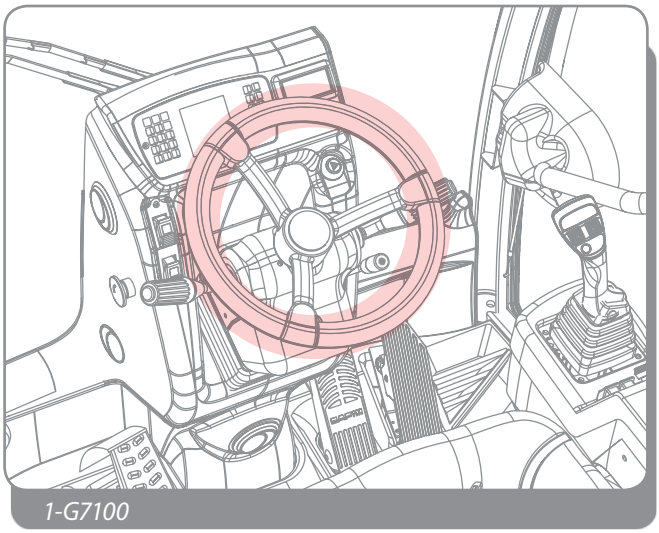
- The left, to turn the vehicle to the left.
- The right, to turn the vehicle to the right.

- ATTENTION

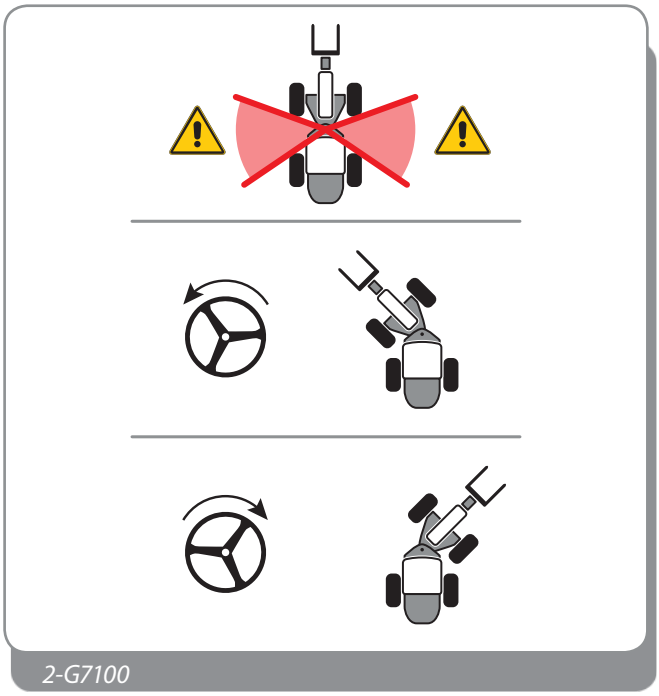
Machine capacity and stability are affected by the joint; while you are using the steering wheel, pay particular attention and move slowly.

- ATTENTION

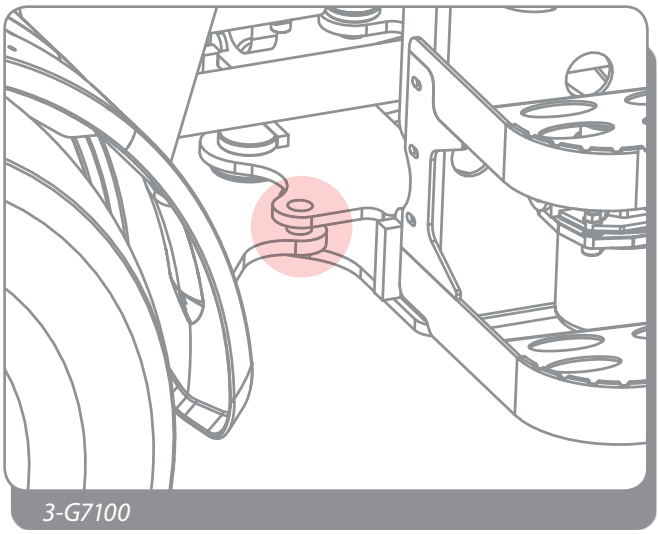
If you are using the vehicle after it has been transported or lifted, check that the safety pin is not inserted in the steering wheel joint (Fig. 3-G7100). With the pin inserted you cannot steer the machine.



1-G7100



2-G7100



3-G7100

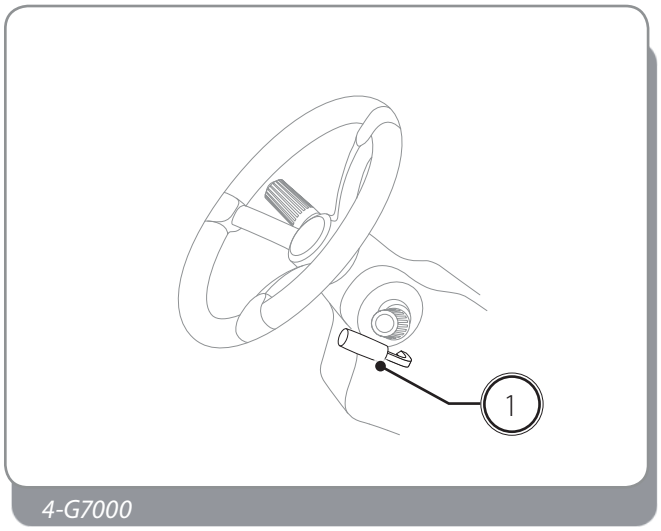
7.10.1 Steering wheel adjustment

To adjust the inclination of the steering wheel (Fig. 4-G7000 and Fig. 5-G7000):

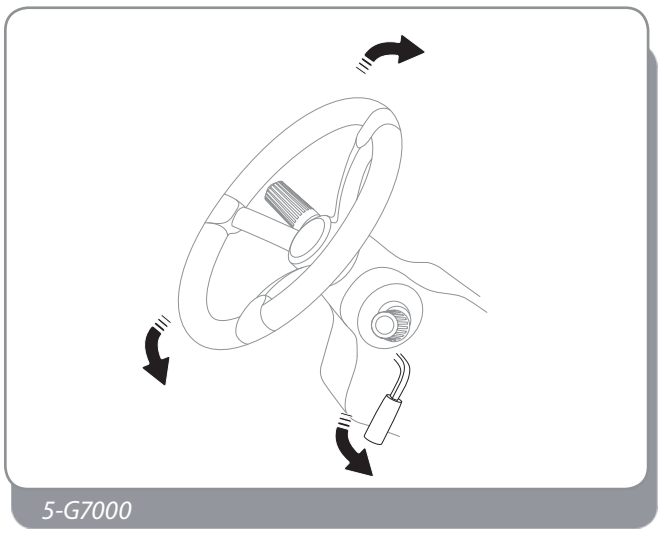
1. Turn the steering wheel adjustment lever "**1**" downwards to release the movements.
2. Push the steering wheel forward or pull it back in order to reach the desired position.
3. Push the steering wheel down or pull it up in order to reach the desired height.
4. Turn the steering wheel adjustment lever upwards to lock it in its current position. Screw in with force to lock completely.

- NOTE

The steering wheel is correctly adjusted when the operator, with his/her back resting against the back of the seat, is able to take hold of the furthest part of the steering wheel with his/her elbows slightly bent.



4-G7000



5-G7000

7.11 Multi-function lever

The multi-function lever (Fig. 1-G7200) has several functions: direction indicators, horn, switching on dipped beams, windscreen wipers and washers.

7.11.1 Direction indicators

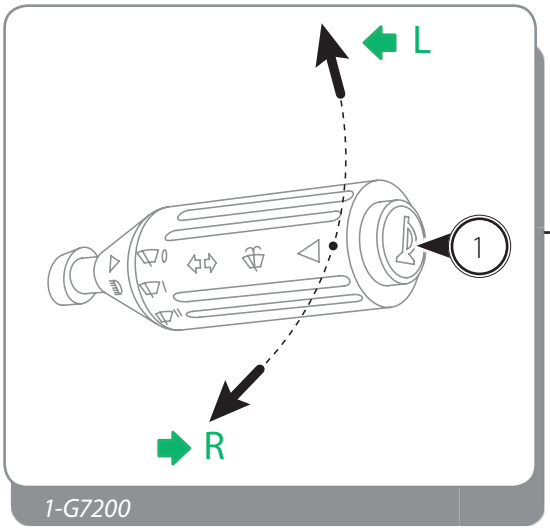
- Pull the lever towards you to signal a curve to the right (**R**).
- Push the lever forward to indicate a curve to the left (**L**).

The indicators only function if the start-up switch is in the instruments-on position.

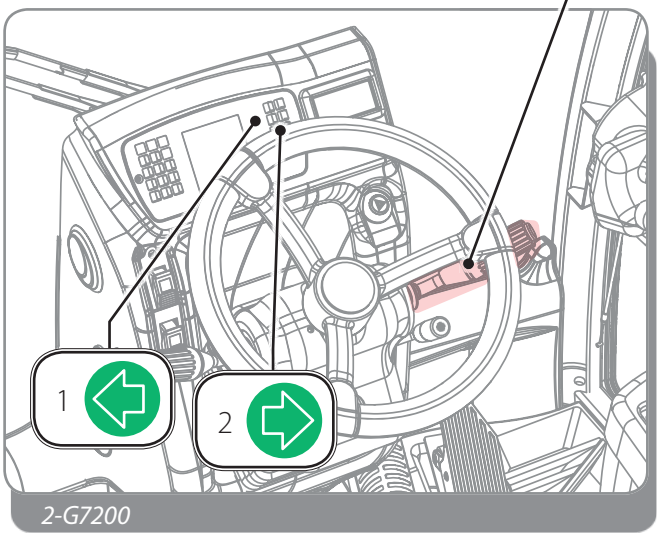
The intermittent indicator lights "**1**" and "**2**" on the dashboard (Fig. 2-G7200) will signal the activation of the direction indicators.

- ATTENTION

Bring the multi-function lever to the idle position after having performed the turn as it does not return to the neutral position automatically.



1-G7200



2-G7200

7.11.2 Horn

Press the button at the end of the lever "**1**" (Fig. 1-G7200), to sound the horn.

7.11.3 Front windscreen wipers

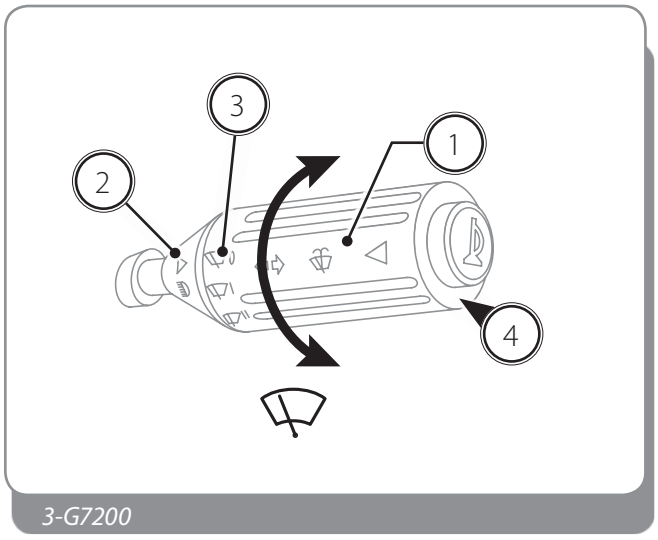
Turning the knob "**1**" (Fig. 3-G7200) the front windscreen wiper is switched on.

The arrow "**2**" indicates which mode of the windscreen wipers "**3**" are in at that moment:

0	Off
I	Slow
II	Fast

- NOTE

Worn blades may obstruct vision and scratch the glass.



3-G7200

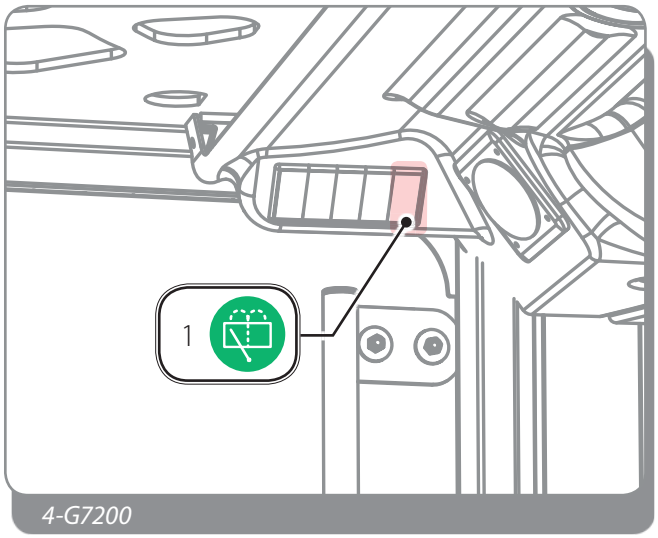
7.11.4 Windscreen washer

Press the intermediate button on the lever "**4**" (Fig. 3-G7200) to activate the front windscreen washer.

7.11.5 Rear window washer

The rear windscreen wiper-washer switch "**1**" (Fig. 4-G7200) features 3 positions, 2 of which are stable and 1 that is unstable:

1	Rear window washer off
2	Rear window washer on
(3)	Rear window washer running, as long as maintained



4-G7200

7.11.6 Windscreen washer liquid tank

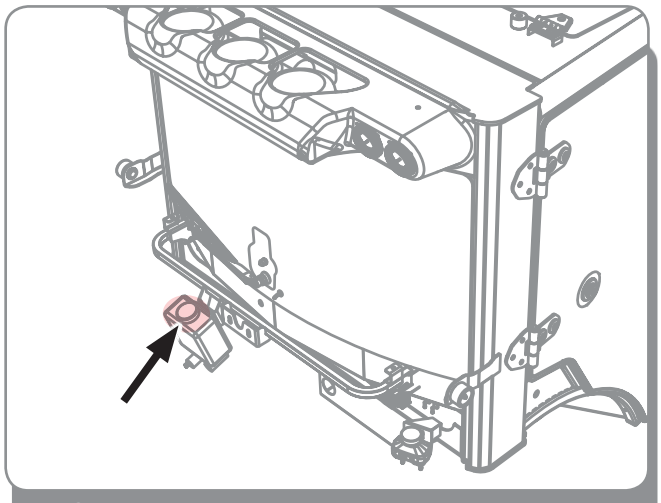
The windscreen wiper liquid is at the back of the cab, under the engine bonnet (Fig. 5-G7200).

To add liquid to the tank:

1. Remove the top-up cap.
2. Add the washing liquid until the reservoir is full.
3. Refit the cap.

- NOTE

Add liquid anti-freeze to the water during winter.



5-G7200

7.12 Switching on lights

7.12.1 Side lights and dipped beams

To switch on the front and rear sidelights of the vehicle, use the switch on the central panel "**1**" (Fig. 6-G7200).

The switch has 3 stable positions:

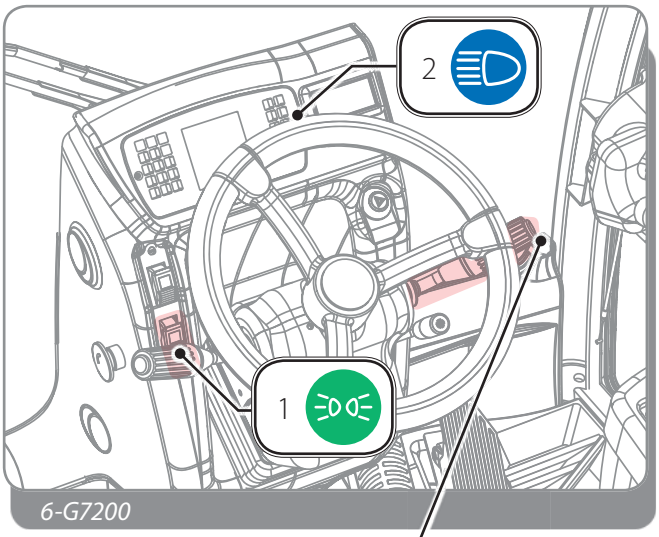
1		Lights off
2		Side lights on
3		Dipped beams on

Dipped lights on is indicated by means of the indicator light "**1**" on the switch turning on.

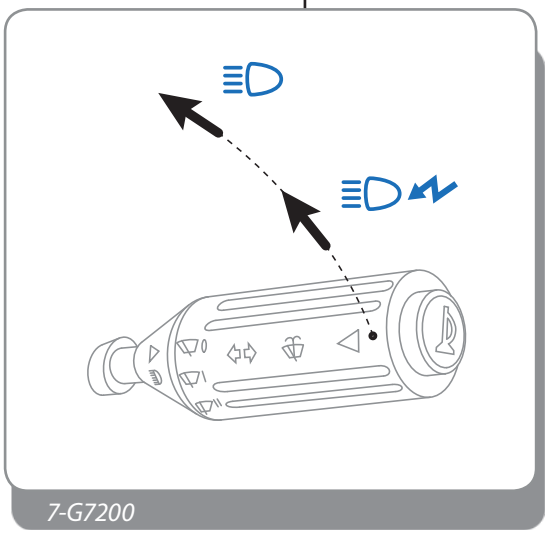
When the side lights switch on, the vehicle's dashboard is illuminated.

- NOTE

The sidelights can be switched on with the ignition key at "0", whereas it must be at "I" the switch on the dipped lights.



6-G7200



7-G7200

7.12.2 Full beam headlights

To switch on the high beam headlights, you must move the multi-function lever (Fig. 7-G7200).

- To perform individual flashes with the full beams, pull the multi function lever towards the steering wheel until it clicks. This function can also be used with the headlights off and in the ignition key at "**0**".
- To switch the full beam headlights on, pull the multi-function lever towards the steering wheel until the second click. The full beams can only be switched on with the ignition key at "**I**" and the dipped beams on. The indicator light "**2**" on the dashboard signals that the high beam headlights are on (Fig. 6-G7200).

In both cases, once the desired click has been achieved, the multi-function lever returns to the idle position.

*7.12.3 Front cab light **

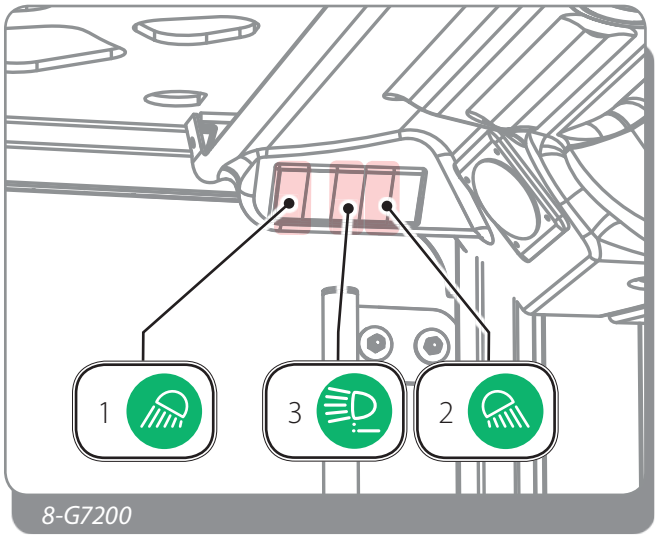
*** The front cab light is an optional accessory.**

Press switch "**1**" (Fig. 8-G7200) located on the roof panel, to turn on the front work light.

When the indicator light on the switch turns on it means that the light is on.

- NOTE

This switch the light on, move the ignition key to "I".



8-G7200

*7.12.4 Rear cab light **

*** The rear cab light is an optional accessory.**

Press switch "**2**" (Fig. 8-G7200) located on the roof panel, to turn on the rear work light.

When the indicator light on the switch turns on it means that the light is on.

- NOTE

This switch the light on, move the ignition key to "I".

*7.12.5 Boom head working light **

*** The boom head working light is an optional accessory.**

Press switch "**3**" (Fig. 8-G7200) located on the roof panel, to turn on the work light on the boom head.

When the indicator light on the switch turns on it means that the light is on.

- NOTE

This switch the light on, move the ignition key to "I".

7.12.6 Revolving light

The rotating light "**1**" (Fig. 9- G7200) must always be positioned above the driver's cab and must always be in operation both at the work site and when driving on roads.

Do as follows to position and activate the revolving light:

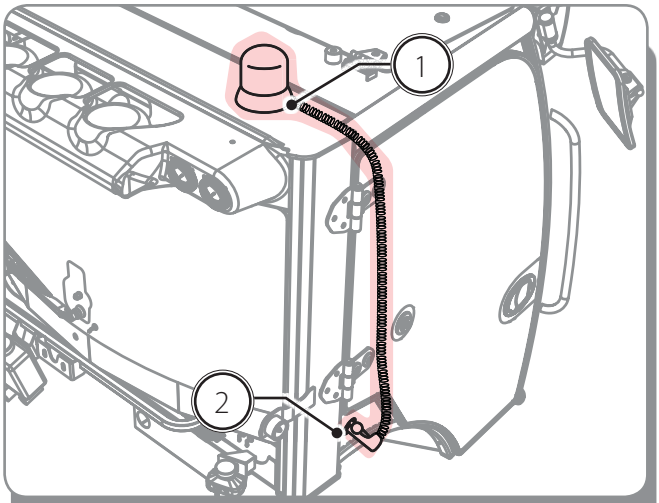
1. Clean and dry the top of the driver's cab.
2. Position the revolving light on the driver's cab.
3. Put the revolving light plug in the socket on the left rear side of the cab underneath the rear window.
4. Switch the revolving light on using the switch on the upper dashboard.

The indicator light on the switch shows whether the revolving light is on.

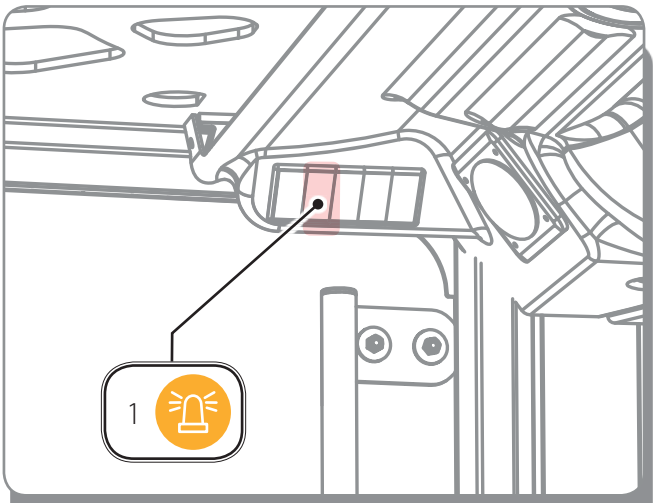
The revolving light can be switched on even with the ignition key at "0".

- ATTENTION

Do not connect users with nominal voltage exceeding 12 volts and power consumption exceeding 180W. Danger of damage to the electrical system.



9- G7200



10-G7200

7.13 Movement selection lever

The movement selection Lever, to the left of the steering wheel (Fig. 1-G7210), allows you to set the direction the vehicle will drive in.

- ATTENTION

The movement selection lever must be shifted towards the steering wheel to select a movement direction. This movement protects the lever from accidental manoeuvres.

- Pull the lever towards the steering wheel and push it forwards ("**F** direction") to move forwards.
- Pull the lever towards the steering wheel and pull it back ("**R**" direction) to go in reverse. An intermittent acoustic alarm is activated when going in reverse.

Having selected the direction of movement, the corresponding indicator lights on the dashboard switch on (Fig. 2-G7210):

- "**F**" forward movement
- "**R**" reverse movement

When the lever is kept in the intermediate position ("**N**"), the gear is in neutral and both indicator lights are off.

- NOTE

Lever movements are not active when:

- The hand brake is engaged.
- The operator is not seated correctly in the driver's seat.

- ATTENTION

The gear will disengage automatically if the operator is not seated correctly in the driver's seat. To resume moving the vehicle, the operator must sit down in the driver's seat and move the movement selection lever back to "N".

- DANGER

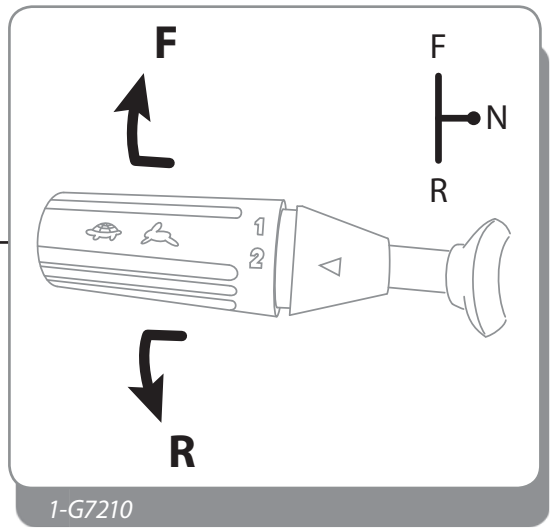
When the direction of movement has been selected, the vehicle starts to move in the direction selected. Before selecting the direction of movement, verify that no one is nearby.

- ATTENTION

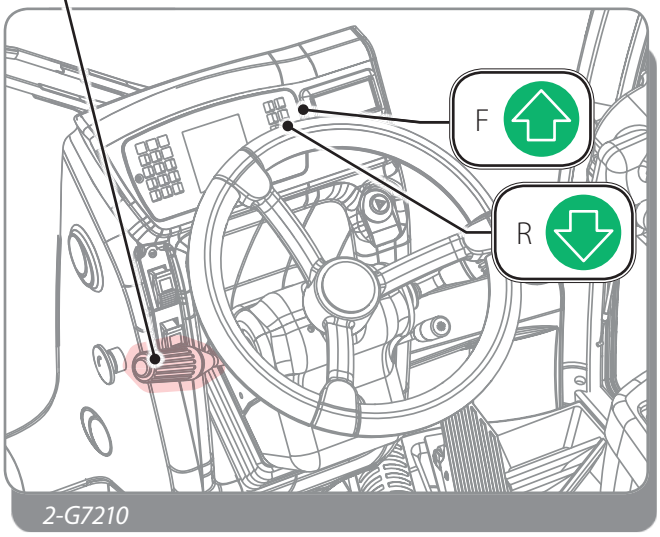
The vehicle's engine cannot be switched on if the movement selection lever is in any position other than "N".

- ATTENTION

Reduce the engine speed to a minimum and select the new direction before inverting the drive direction.



1-G7210



2-G7210

- DANGER

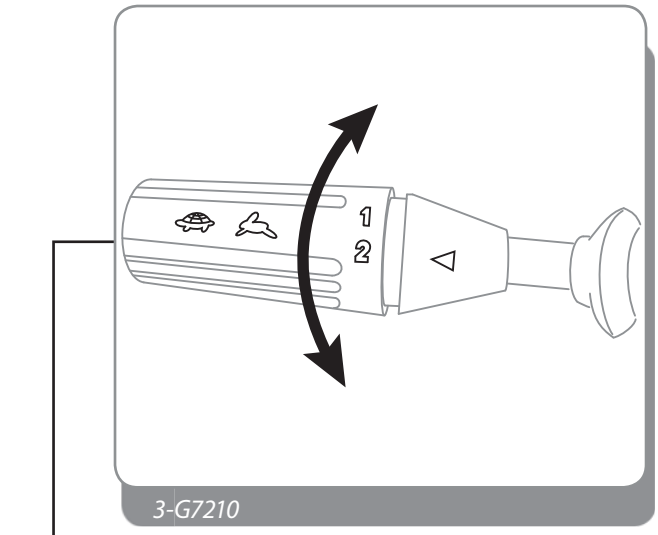
It is dangerous to operate the movement selection lever while the engine is running at high rpm or at a speed higher than 2 km/h (1.2 mph). Danger of overturning the vehicle or serious breakage of mechanical parts.

7.14 Hydraulic gear selection

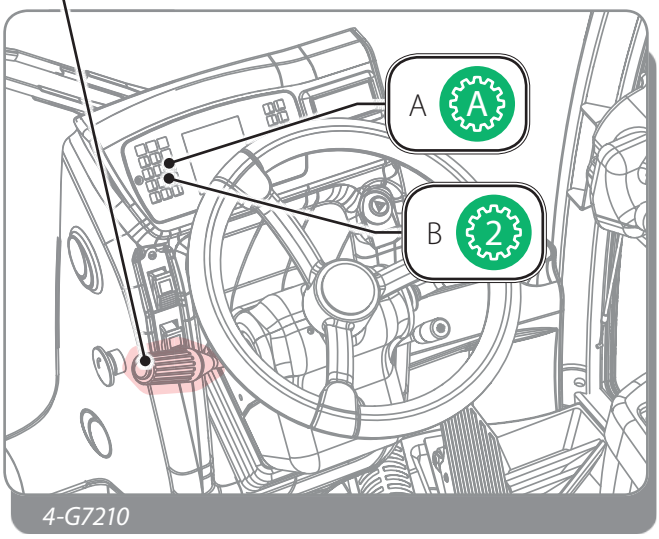
The rotary function of the selection movement lever (Fig. 3-G7210) allows the hydraulic gear change.

To change the hydraulic gear:

1. Bring the vehicle to a complete stop.
2. Press and hold down the Inching pedal.
3. Turn the movement selection lever "**1**" moving the desired gear to the arrow "**2**"
   - By inserting the **First** gear (1), the "**B**" (Fig. 4-G7210) light on the dashboard remains off.
   - When engaging **Second** gear (2), the indicator light "**B**" on the dashboard switches on.
4. Wait for the indicator light "**B**" to switch on or off.
5. Release the Inching pedal.
6. Move forward slowly and gradually to allow the gear to be engaged correctly. The indicator light "**A**" means that the gear is engaged properly.



3-G7210



4-G7210

- ATTENTION

Insert First gear to operate on the worksite.

Insert the Second gear for long transfers without a load, in unobstructed places, with good visibility with flat land without danger of pedestrian crossings.

- FORBIDDEN

Do not change gears when the vehicle is in motion.

7.15 Mechanical gear selection *

*** The Hydraulic gear selection is only available on the T60 models.**

The "**1**" (Fig. 5-G7210) button allows you to change the mechanical gear.

To change the mechanical gear (Fig. 5-G7210, Fig. 6-G7210, Fig. 7-G7210):

1. Bring the vehicle to a complete stop.
2. Press the brake pedal "**2**" all the way, press and hold
3. Press the button "**1**" for a few seconds:
   - Downwards to engage **Fast** gear; the indicator light "**A**" on the dashboard indicates the selection.
   - Upwards to engage **Slow** gear; the indicator light "**B**" on the dashboard indicates the selection.
4. Wait for the relative indicator light switch on.
5. Release the brake pedal
6. Move forward slowly and gradually to allow the gear to be engaged correctly. The indicator light "**C**" means that the gear is engaged properly.

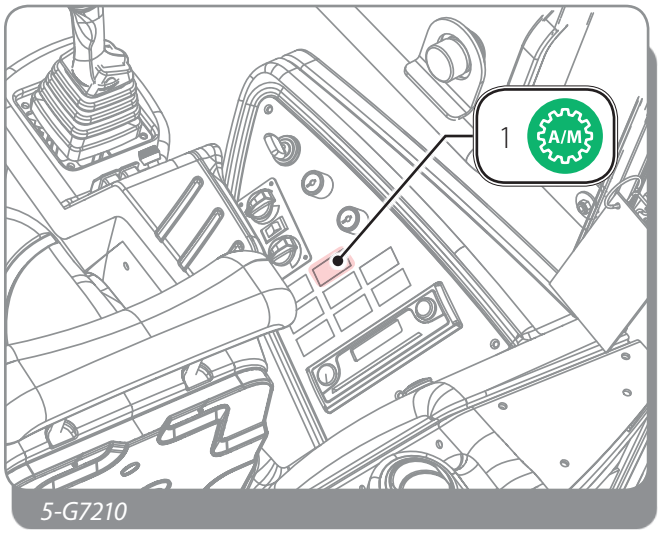
- ATTENTION

Insert First gear to operate on the worksite.

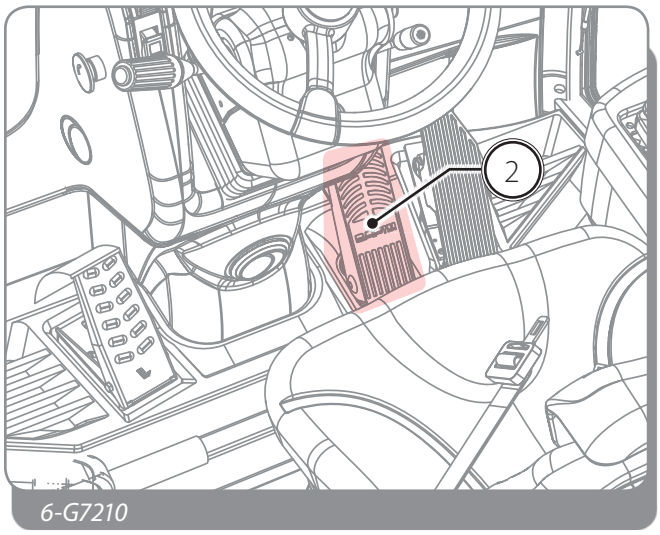
Insert the Second gear for long transfers without a load, in unobstructed places, with good visibility with flat land without danger of pedestrian crossings.

- FORBIDDEN

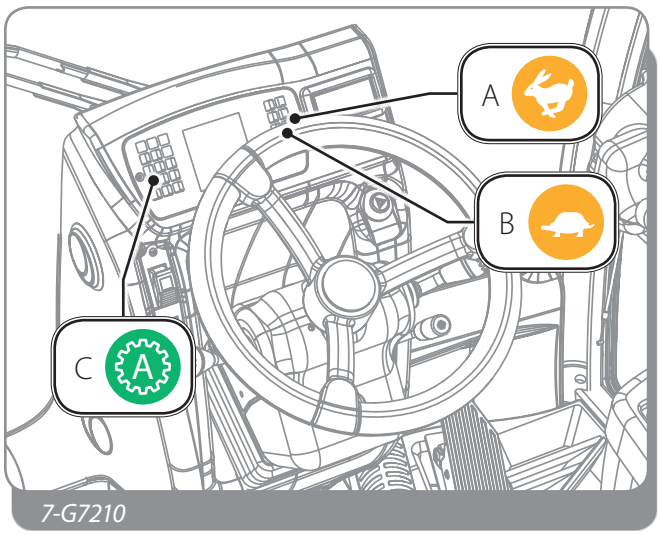
Do not change gears when the vehicle is in motion.



5-G7210



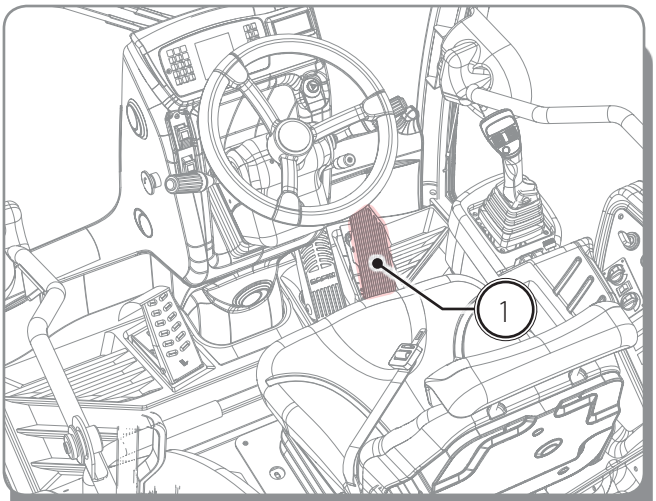
6-G7210



7-G7210

7.16 Accelerator pedal

Press the accelerator pedal "**1**" (Fig. 1-G7220) to increase engine revs. When you release the pedal, engine revs decrease.



1-G7220

- ATTENTION

If the vehicle exceeds the maximum allowed speed while running, the electronic drive control "Over speed protection" will be activated. The function automatically limits the vehicle speed in order to prevent drive and diesel overrevving. Triggering of the "Over speed protection" function is signalled by the general alarm indicator light switching on and the intermittent acoustic signal. If the function intervenes, the operator must lift his foot from the accelerator pedal and reduce the speed of the vehicle.

- NOTE

The maximum speed of the vehicle varies according to the variation of the inflation pressure and to the size and wear of the tyres.

7.17 Service brake pedal

Press the service pedal "**1**" (Fig. 2-G7220) to slow down or stop the vehicle.

The pedal operates directly on the service brakes inside the differential axles.

When the brake pedal is pushed, the rear stop lights switch on. The lights remain switched on until the pedal is released.

Periodically check that both lights are working.

- ATTENTION

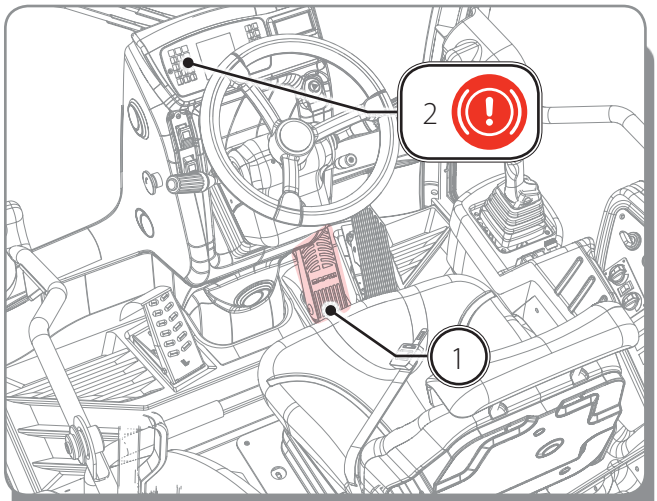
In the event of limited use of the pedal, periodically check that it is working properly. Contact a dieci after-sales centre in the event of a problem.

- DANGER

If the indicator light "2" flashes, it indicates a low brake fluid level.

If the indicator light "2" switches on, the parking brake is blocked or faulty.

Do not use the vehicle until the problem is resolved. Contact a *DIECI* after-sales centre.



2-G7220

7.18 Inching pedal

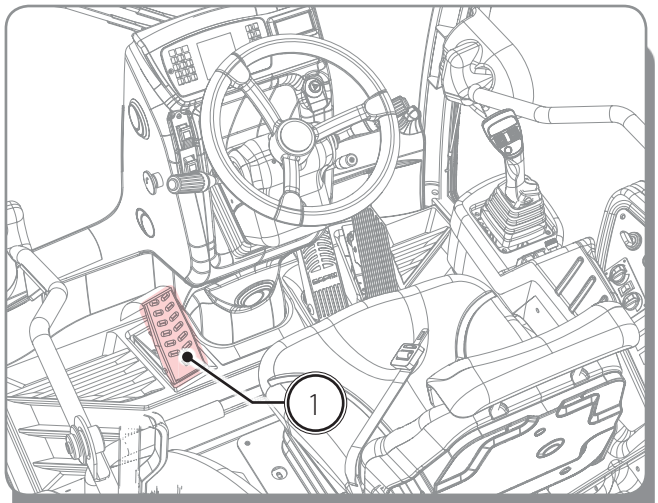
The Inching pedal "**1**" (Fig. 3-G7220) acts directly on the hydrostatic transmission, slowing down the vehicle.

The pedal allows for slow, precise movements forward even when the thermal engine is running at a high RPM.

The vehicle stops, when the pedal is fully pressed down.

- DANGER

Do not press the inching pedal at high speeds, the vehicle will brake sharply and the diesel could escape.



3-G7220

7.19 Boom suspension *

*** The boom suspension is an optional accessory.**

Boom suspension allows the operator to carry out movements with the vehicle without feeling the strong oscillations and jumps caused by the boom, in the event that the ground is not perfectly flat. It is an optional accessory.

Intervene on the specific switch to engage the boom suspension (Fig. 1-G7300). The indicator light on the same switch indicates start-up.

Boom suspension is activated only if the boom is in the horizontal position.

Boom suspension is deactivated automatically by pressing the "man in" button on the joystick.

Suspension can also be used during the transport of loads with the boom in the transport position (completely retracted and in a horizontal position).

- ATTENTION

When activating the boom suspension, the boom could have a slight but sudden upward movement.

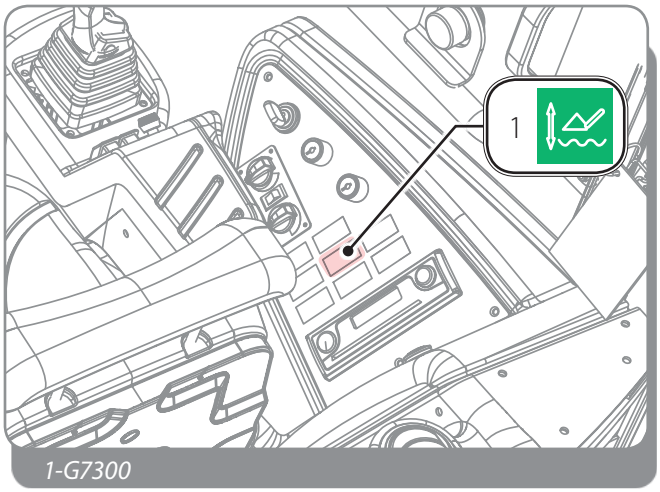
Before activating the boom suspension, make sure that the installed equipment and possible load are fastened properly to the vehicle and that no persons, animals or objects are within its range of action.

- ATTENTION

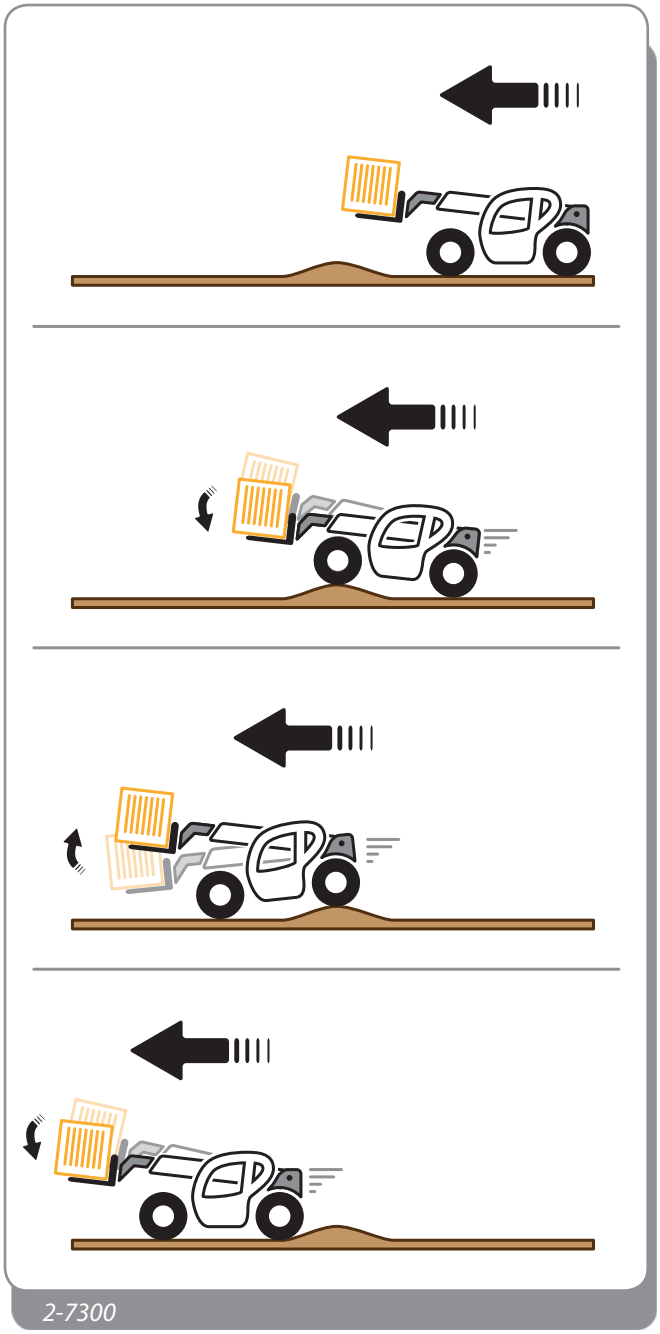
The presence of boom suspension does not cause an increase in the speed of machine transport or movement. Speed must always be proportional to the ground, to the area of use and to climatic conditions.

- NOTE

Boom suspension is a device which helps increase vehicle comfort but does not increase vehicle safety features.



1-G7300



2-7300

7.20 Trailer descent *

*** The trailer descent is an optional accessory.**

Trailer descent allows you to discharge the rear hydraulic sockets.

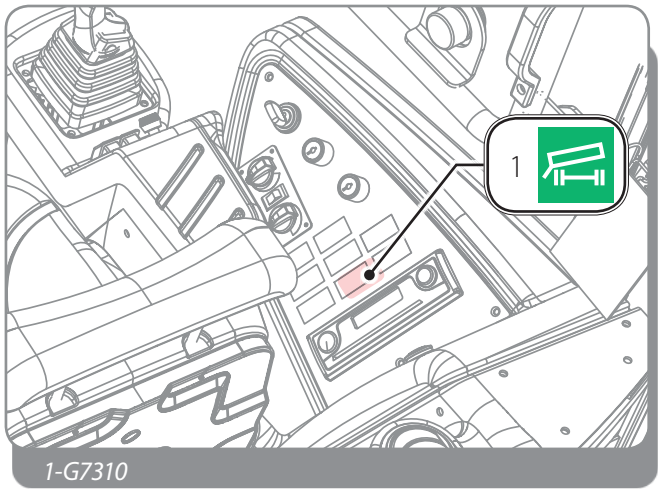
This makes it possible both to perform the hydraulic connections on the rear sockets and to lower the hitched dump body by gravity.

Press and hold the Trailer descent button "**1**" (Fig. 1-G7310) for as long as necessary.

When the indicator light on the button is on it means the trailer descent is operating.

- DANGER

What using the trailer descent, make sure no one is within the range of action of the vehicle and any equipment or trailer hitched to it. Risk of being crushed.



1-G7310

7.21 Manual accelerator

The manual accelerator keeps the engine revs runnign at a constant speed, without pressing the accelerator pedal.

The switch has 3 stable positions:

- **Position 0:** function off, engine revs set from the accelerator pedal.
- **Position 1:** Set the engine revs to 1400 rpm.
- **Position 2:** Set the engine revs to 1800 rpm.

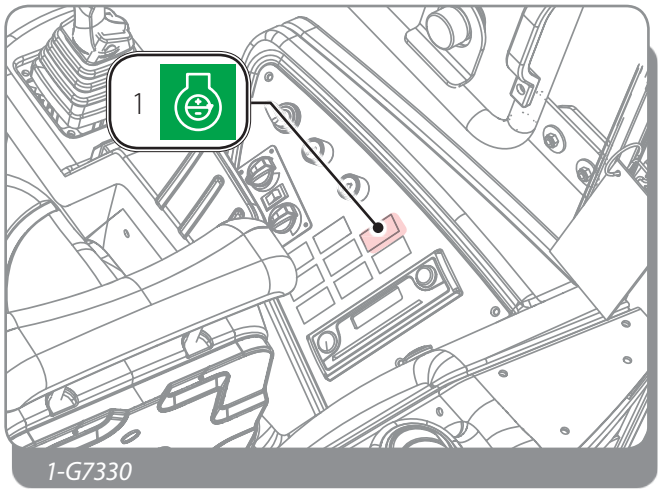
The indicator light on the same switch indicates start-up.

- NOTE

When the Accelerator is in manual operation, the vehicle drive and accelerator pedal are disbaled.

- ATTENTION

When the vehicle is switched off, the function must be disabled and the engine must be set at the minimum number of revs.



1-G7330

7.22 Fan reversal *

*** Fan reversal is an optional accessory.**

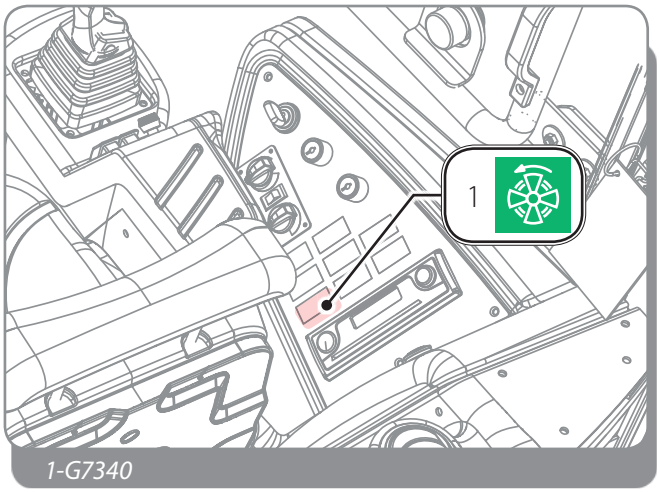
Fan reversal allows the radiator fan to be reversed in order to clean the radiator from filth deposits such as dust and straw.

Press the relevant button to activate the reversible fan (Fig. 1-G7340).

The cleaning cycle is activated automatically by pressing the button, which must not be held.

Reversal takes place automatically without having to switch off the vehicle.

The fan remains in the "cleaning" position (engine reversed) for a pre-set amount of time determined by the manufacturer.



1-G7340

- ATTENTION

The presence of fan reversal does not prevent operators from carrying out fan, radiator or engine compartment cleaning, in accordance with the required routine maintenance schedule.

7.23 Rear hydraulic sockets *

*** The presence and number of rear hydraulic sockets on the vehicle can vary depending on the optional set-ups.**

The hydraulic socket selectors (Fig. 1-G7400) allow you to select which hydraulic sockets to activate by means of the joystick and is only present on vehicles with rear hydraulic sockets and on the telescopic boom head.

Rotate the knob "**1**" (Fig. 2-G7400) to activate the different hydraulic sockets available in the vehicle:

Position	Description	Colour
A	Sockets on boom head	-
B	Rear sockets	Green
C	Rear sockets	Brown
D	Rear sockets	Grey

- NOTE

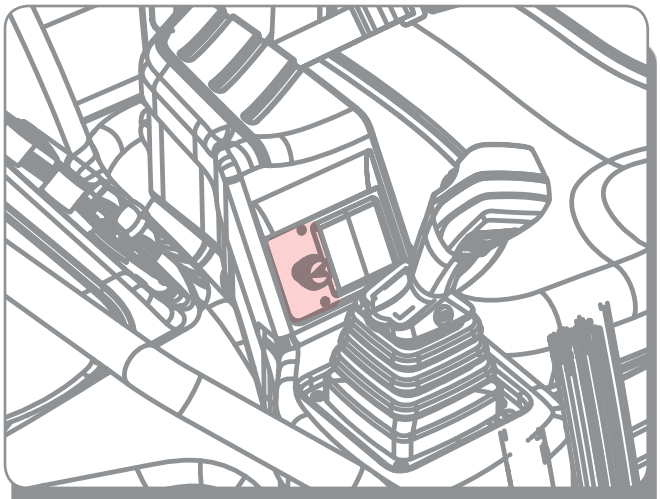
Any optional sockets on the boom are selected with the Hydraulic sockets on boom head switch - See next chapter.

- FORBIDDEN

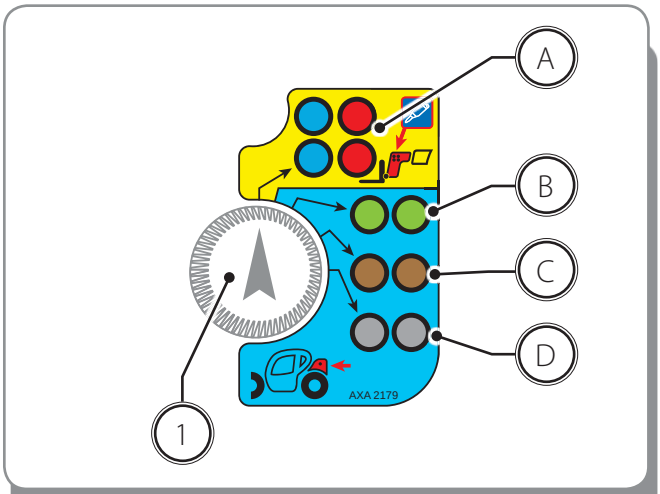
Do not activate hydraulic sockets with the joystick while selecting the hydraulic socket. Select the hydraulic sockets and use the joystick to command the selected hydraulic socket only at a later stage. Risk of the incorrect hydraulic socket moving.

- ATTENTION

After having connected the attachments to the hydraulic sockets and before starting work, go to a safe place and check that all the controls work properly. During the test, be careful not to create dangers or cause damage to persons, animals or objects.



1-G7400



2-G7400

- ATTENTION

Check the hydraulic socket couplings: by moving the service lever on the joystick forwards, oil will be sent to the sockets marked with the "+" symbol.

- NOTE

In the event the brown or grey rear sockets are not available, if selected using the knob "1", the rear green socket will be activated.

7.24 Hydraulic sockets in electric contact on boom head *

*** The installation and number of hydraulic sockets and electric contacts on the telescopic boom head varies depending on the optional set-ups.**

If the vehicle also has rear hydraulic sockets, in order to activate the hydraulic and electric sockets on the head of the telescopic boom, you must first select the sockets on the boom head by means of the hydraulic socket selector "**1**" (Fig. 3-G7400) - See previous chapter.

The sockets on the boom head switch "**2**" has different functions and positions depending on the optional setups mounted on the vehicle.

Once the hydraulic socket has been selected, use the service lever on the joystick to activate the desired movement.

- FORBIDDEN

Do not activate hydraulic sockets with the joystick while selecting the hydraulic socket.

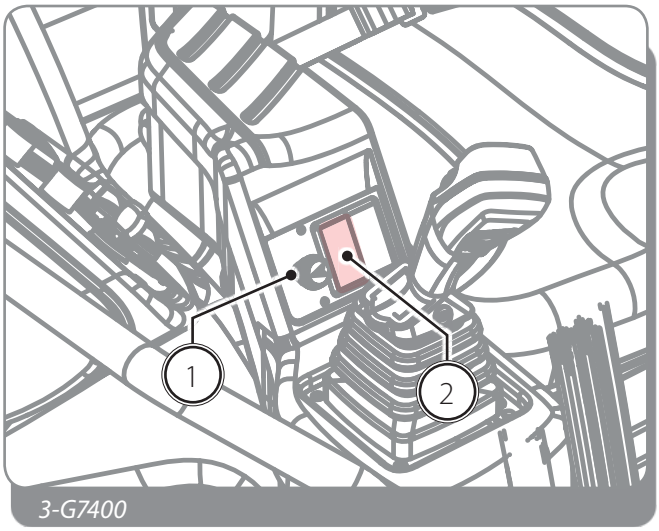
Refer to the following table depending on the accessories installed on the machine.

- ATTENTION

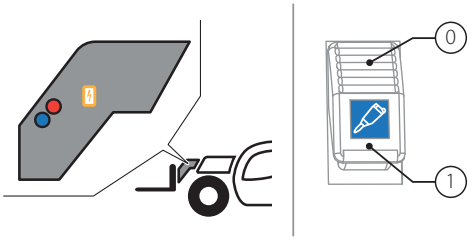
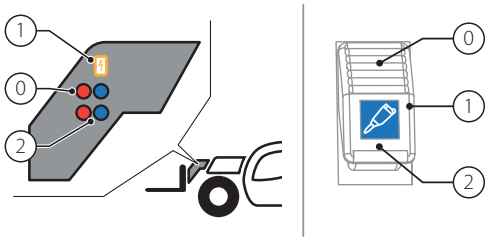
After having connected the attachments to the hydraulic sockets and before starting work, go to a safe place and check that all the controls work properly. During the test, be careful not to create dangers or cause damage to persons, animals or objects.

- ATTENTION

Pay attention that the couplings correspond to the hydraulic sockets: moving the service lever on the joystick forward, oil will be sent to the sockets marked in blue.



3-G7400

Set up	Diagram	Switch description
Standard hydraulic socket **+ Electrical contact**		0 - Electrical contact off 1 - Electrical contact on
Standard hydraulic socket **+ Supplementary hydraulic socket** **+ Electrical contact**		0 -Standard hydraulic socket 1 - Electrical contact on 2 - Supplementary hydraulic socket

7.25 Electric contact on boom head *

*** The electric Contact on the boom head is an optional accessory.**

The following can be connected to the electric Contact socket on the telescopic boom head (Fig. 4-G7400):

- The plug of the solenoid valve of the second supplementary hydraulic socket
- The plug of the equipment installed on the tool carriage plate.

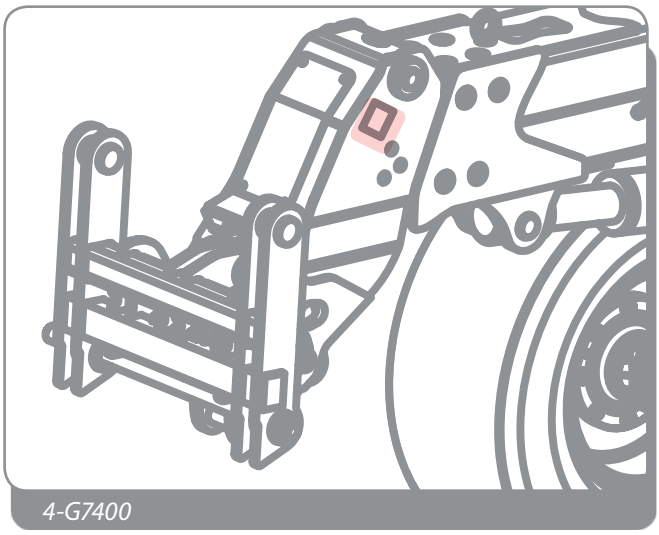
To activate the electric contact, place the socket on boom head switch at "**1**" -C table in previous paragraph.

For information concerning how to perform connections to the electric socket, see the chapter "Electric connections".

- FORBIDDEN

Do not connect users with nominal voltage exceeding 12 volts and amperage over 3 A.

Danger of damage to the electrical system.



4-G7400

7.26 Equipment quick coupling *

*** The equipment quick coupling is an optional accessory.**

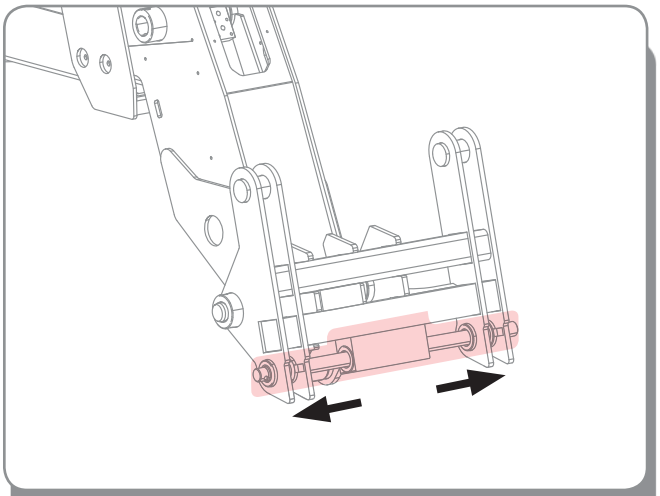
The quick equipment coupling allows you to install and fasten equipment to the tool carriage plate directly from the cab.

To use the quick coupling to install equipment, you must (Fig. 5-G7400 and Fig. 6-G7400):

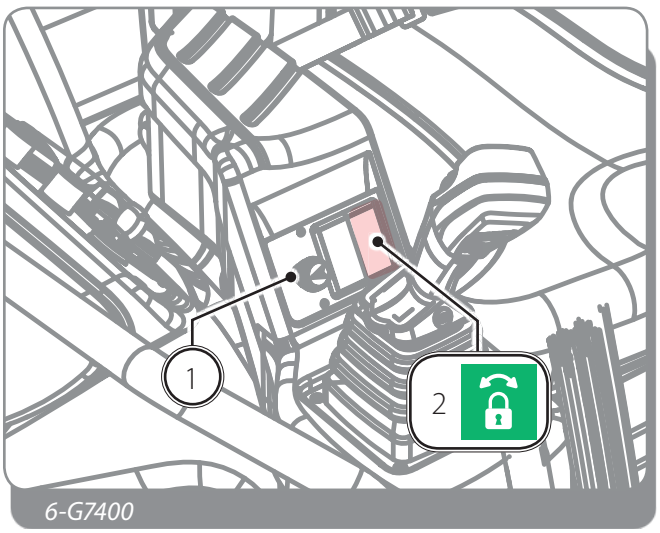
1. Carry out the normal hooking operations shown in points 1, 2, 3 and 4 in the "Equipment installation" chapter.
2. Select the boom head sockets using the Hydraulic sockets selector "**1**" (if applicable).
3. Press the Quick coupling button "**2**".
4. Activate the services roller on the joystick to open the quick coupling.
5. Keep the quick coupling open, tilt the plate upwards to make sure that the equipment rests completely on the tool carriage plate.
6. Release the services roller on the joystick and the Quick coupling button "**2**" to close the quick coupling and block the equipment.
7. If the equipment is not fastened properly, repeat the installation operations.

- DANGER

Do not operate without having properly fastened the equipment to the plate; risk of load and equipment falling.



5-G7400



6-G7400

7.27 Capacitive dead man joystick

7.27.1 Standard capacitive dead man joystick

The Joystick (Fig. 1-H0000) allows you to drive all movements of the telescopic boom.

It is composed of:

1	Grip
2	Capacitive sensor
3	Man present button
4	Extension/retraction roller
5	Service roller

- ATTENTION

Before using the boom make sure that the area surrounding the vehicle is free. Make sure that the loads to be raised correspond with the capacity diagrams of the vehicle.

- NOTE

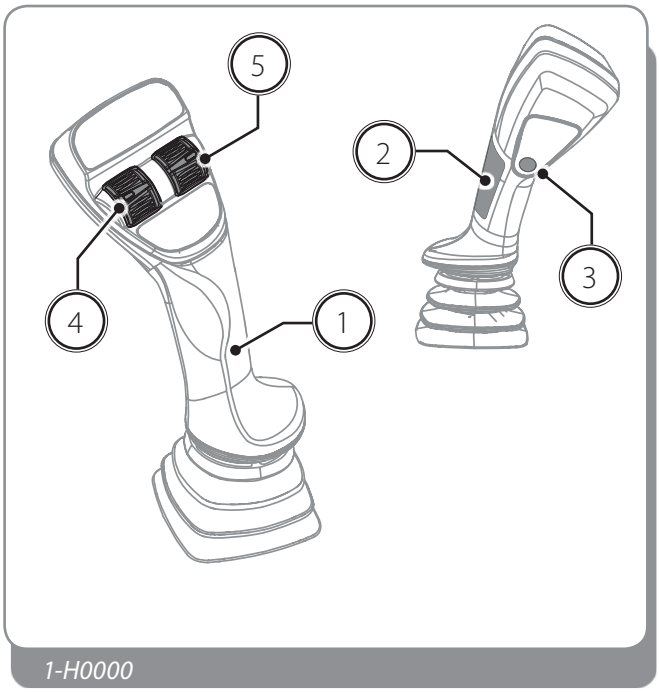
The Joystick has a capacitive "dead man" sensor: enable its function by positioning your hand correctly on handle "1" so as to activate the capacitive sensor "2".

If your hand is not rested on the capacitive sensor "2" the movements of the boom are prohibited.

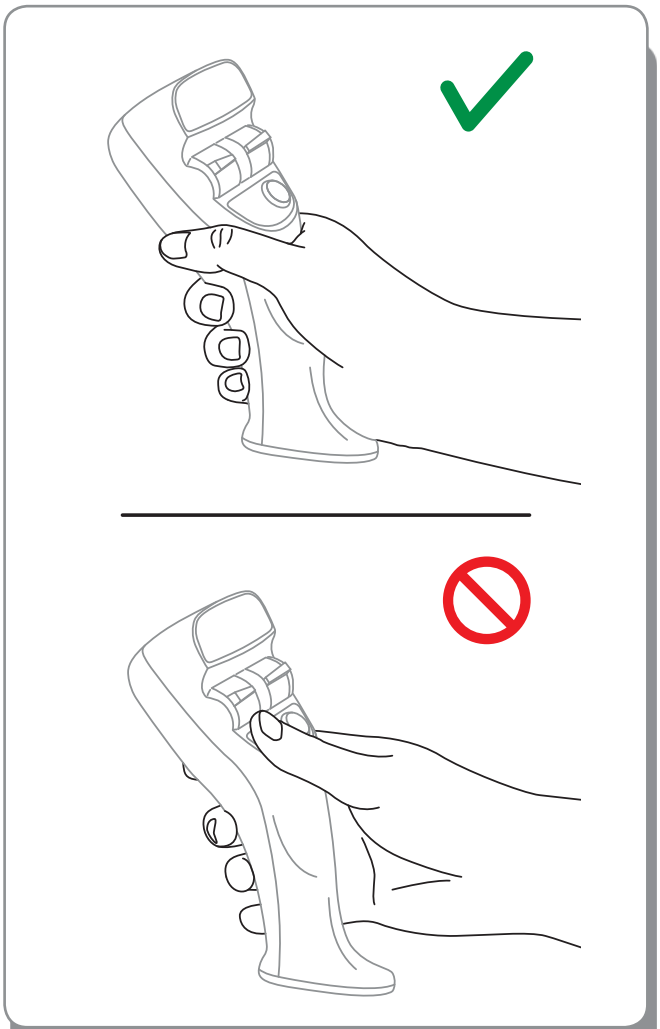
Adjust the seat so as to grasp the joystick correctly (Fig. 2-H0000).

The dead man button "**3**" can be used if sensor "**2**" malfunctions.

All joystick functions are prohibited if the joystick is not grasped correctly or if the dead man button is not pressed.



1-H0000



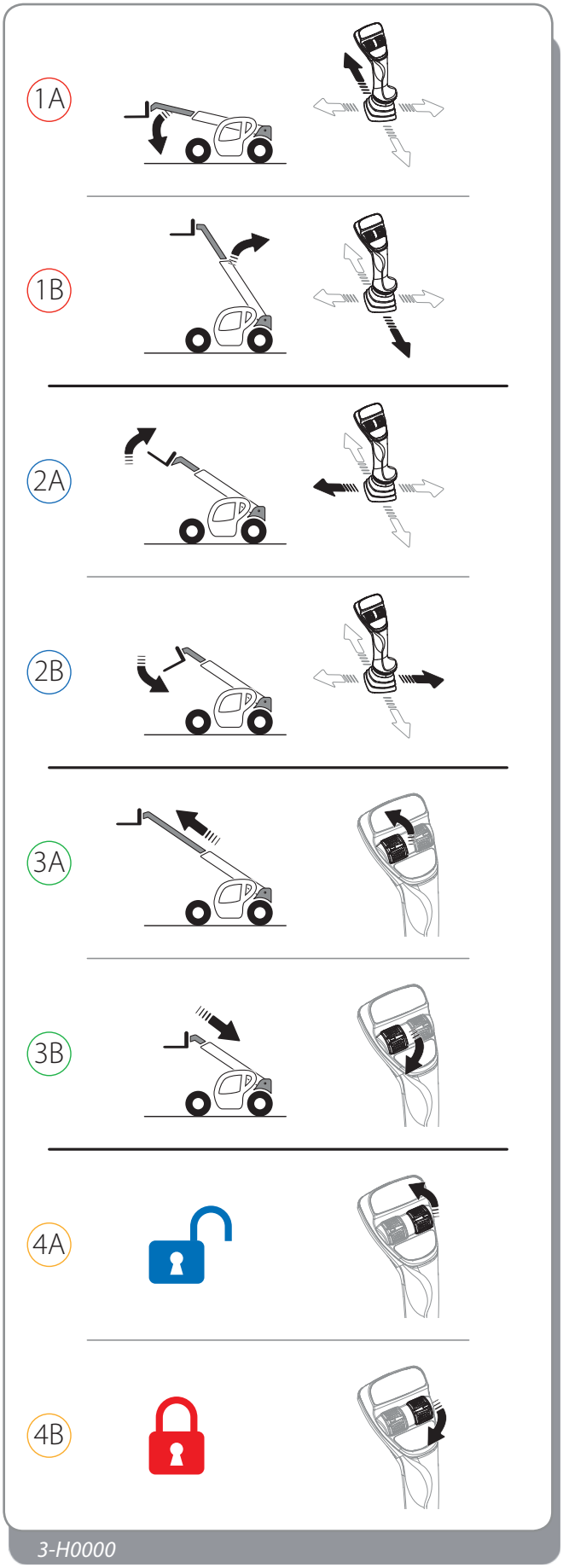
2-H0000

Movements that the joystick can perform are (Fig. 3-H0000):

	CONTROL	MOVEMENT
1A	Grip forward	Boom descent
1B	Backward handle	Boom ascent
2A	Grip to the left	Swivelling upwards
2B	Grip to the right	Swivelling downwards
3A	Extension/retraction roller backward	Boom extension
3B	Backward extension/ retraction roller	Boom retraction
4A	Service roller forward	Oil towards the selected hydraulic socket
4B	Backward services roller	Oil towards the selected hydraulic socket

- NOTE

Joystick commands correspond to proportional vehicle movements.



3-H0000

*7.27.2 Joystick with capacitive dead man sensor and continuous oil function **

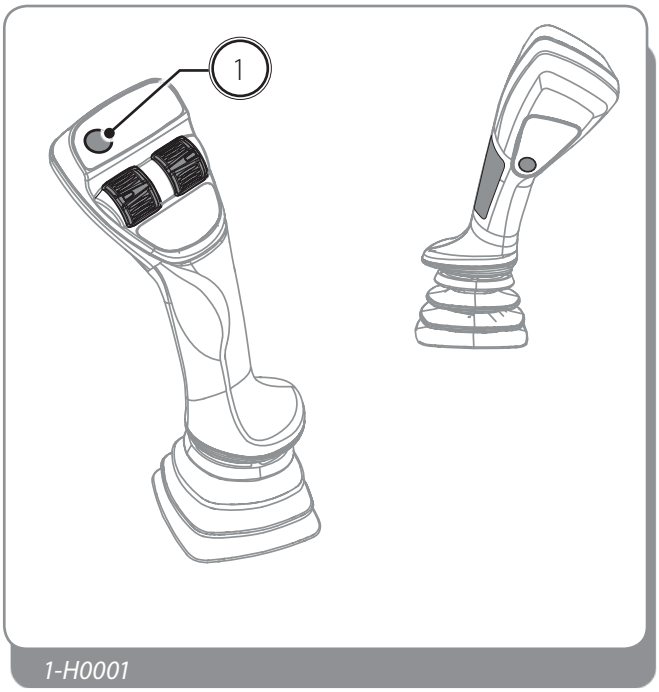
The continuous oil function is an optional accessory.

The continuous oil function allows to maintain the volume of oil transiting in the hydraulic sockets constant, without acting constantly on the Joystick selector.

To enable the continuous oil function, you must:

1. Using the hydraulic socket selector and socket switch on the boom head (if present), select the desired hydraulic socket upon which to activate the function.
2. Use the services roller on the joystick to set the desired oil flow.
3. Maintain the oil flow via the services roller and simultaneously press the button "**1**" (Fig. 1-H0001) to activate the continuous oil function.

The button lighting up "**1**" on the joystick means that the continuous oil function is active.



1-H0001

- FORBIDDEN

With the continuous oil function enabled, do not move away from the driver's cab.

- DANGER

Do not change the selection of the hydraulic sockets while using the continuous oil function; the hydraulic socket would start to work directly according to the flow set by the function. Risk of damage to objects, persons and mechanical damage to vehicle or equipment.

*7.27.3 Joystick with capacitive dead man sensor and FNR **

The Joystick with FNR (Fig. 2-H0001) allows you to move the telescopic boom and the machine.

It is composed of:

1	Grip
2	Capacitive sensor
3	Man present button
4	Extension/retraction roller
5	Service roller
6	F/R Roller (forwards/reverse)
7	Button N (neutral)
8	Continuous oil function indicator light **

** Components present depending on set up or options.

- ATTENTION

Before using the boom make sure that the area surrounding the vehicle is free. Make sure that the loads to be raised correspond with the capacity diagrams of the vehicle.

- NOTE

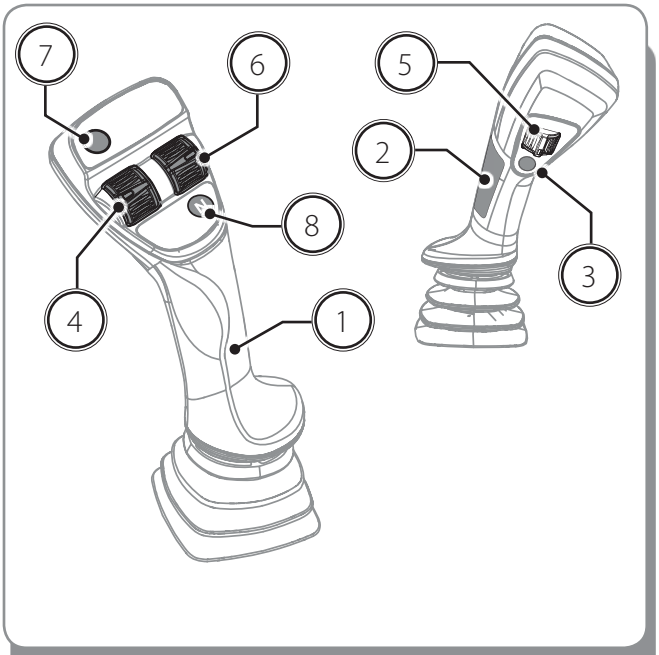
The Joystick has a capacitive "dead man" sensor: enable its function by positioning your hand correctly on handle "1" so as to activate the capacitive sensor "2".

If your hand is not rested on the capacitive sensor "2" the movements of the boom are prohibited.

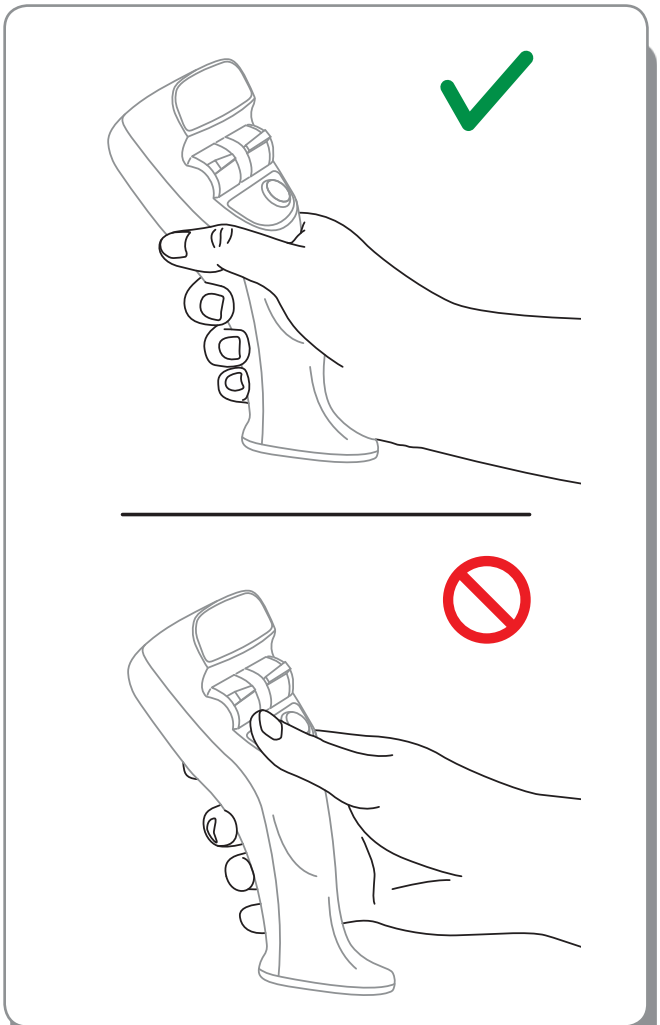
Adjust the seat so as to grasp the joystick correctly (Fig. 3-H0001).

The dead man button "**3**" can be used if sensor "**2**" malfunctions.

All joystick functions are prohibited if the joystick is not grasped correctly or if the dead man button is not pressed.



2-H0001



3-H0001

Movements that the joystick can perform are (Fig. 4-H0001):

	CONTROL	MOVEMENT
1A	Grip forward	Boom descent
1B	Backward handle	Boom ascent
2A	Grip to the left	Swivelling upwards
2B	Grip to the right	Swivelling downwards
3A	Extension/retraction roller backward	Boom extension
3B	Backward extension/ retraction roller	Boom retraction
4A	Service roller forward	Oil towards the selected hydraulic socket
4B	Backward services roller	Oil towards the selected hydraulic socket
5A	F/R Roller forwards	The machine moves forwards (F)
5B	F/R Roller reverse	The machine moves backwards in reverse (R)
6	Button N pressed	The vehicle is in neutral (N)

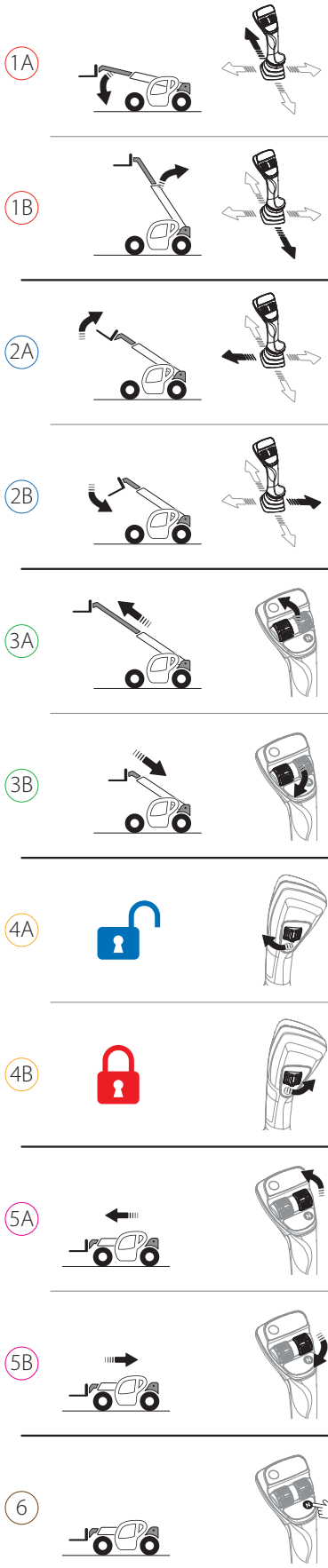
- NOTE

Joystick commands correspond to proportional vehicle boom movements.

- NOTE

To enable the F/R roller (forwards/back) keep the movement selection lever on N.

The commands given with the movement selection lever take priority over those given with the joystick.



4-H0001

8 DESCRIPTION OF COMPONENTS

8.1 Tyres

ATTENTION

Upon receiving the vehicle, check the air pressure of the tyres.

- Periodically check the air pressure of the tyres. The pressure should be checked when the tyres are cold.
- Tyre pressure must always be kept at the required levels.
- Check the size of the installed tyres and the serial number to ensure they are inflated to the correct pressure.

DANGER

Tyres that are torn or are excessively worn should be replaced immediately.

- Before each use, make sure that the sides of the tyres are not damaged.
- Keep all oils, grease and corrosive liquids away from the tyres to prevent any damage to the rubber.
- To ensure maximum efficiency do not use tyres with more than 80% tread wear.

ATTENTION

Inflating or working on tyres can be dangerous.

- Whenever possible, have specialised personnel intervene on or install tyres.
- In any case, to prevent serious or mortal injury, follow the safety precautions described below.
  - The vehicle tyres are very heavy. Handle with care and ensure that, once stored, they cannot fall and injure anyone.
  - Never attempt to repair a tyre on a public road or motorway.
  - Make sure that the car jack is positioned on a solid, flat surface.
  - Make sure that the jack is suitable to support the weight of the vehicle.
  - Use jack tripods or other locking devices suitable for supporting the vehicle while repairing tyres.
  - Never place any part of your body under the vehicle.
  - Never start up the vehicle while it is on the jack.
  - Never hit a tyre or rim with a hammer.
  - Make sure that the rim is clean, and that there is no rust or damage. Do not weld, braze, repair or use a damaged rim in any way.
  - Do not re-inflate a tyre that has travelled partially or very deflated until it has been properly inspected by a qualified technician.
  - Do not inflate a tyre unless the rim is mounted on the vehicle or secured so that it will not move in the event that the tyre or rim should suddenly rupture.
  - Never inflate tyres in excess of the pressure indicated by ***DIECI***. If the heel does not settle on the rim when this pressure level is reached, deflate the tyre and lubricate with a soapy water solution, then inflate again. Do not use oil or grease. Inflation exceeding the permitted level on unsettled heels can cause heel or rim breakage with an explosive force that can cause serious injury.
  - After having remounted the wheel, tighten the nuts between the wheel and axles. Check the torque of the nuts every day until it has stabilised.

ATTENTION

When mounting a new or repaired tyre, use an adapter for the spring valve with a distance manometer which allows the operator to keep away from the tyre during inflation. Use a safety fence system.

- FORBIDDEN

Do not mount inflated tyres with polyurethane foam unless authorised by the manufacturer.

8.1.1 Tightening the wheel nuts

Tighten the nuts in accordance with the schedule provided in the maintenance table

Refer to the relative table for the correct torque

Always tighten the nuts positioned opposite each other, not consecutively.

After having remounted the wheel, tighten the nuts between the wheel and axles. Check the torque of the nuts every day until it has stabilised.

ATTENTION

The number of axle studs must correspond to the number of tightened nuts. Therefore all nuts must be mounted on each tyre; otherwise the vehicle will not operate.

If a tyre is replaced, the vehicle or the lifted side can be set back on the ground only with tyres mounted and properly tightened.

ATTENTION

The nuts must first be tightened with the vehicle, or parts of it, lifted from the ground, and then with the vehicle on the ground.

Only use original ***DIECI*** nuts to tighten the wheels. Should even just a single nut be lost, contact the ***DIECI*** service centre.

8.1.2 Urethane foam filled tyres

Urethane foam filled tyres is an optional feature.

ATTENTION

The maximum allowed speed with the tyres filled with urethane foam is 20 km/h (12.4 mph).

- FORBIDDEN

It is forbidden to circulate on public roads when the tyres are filled with urethane foam.

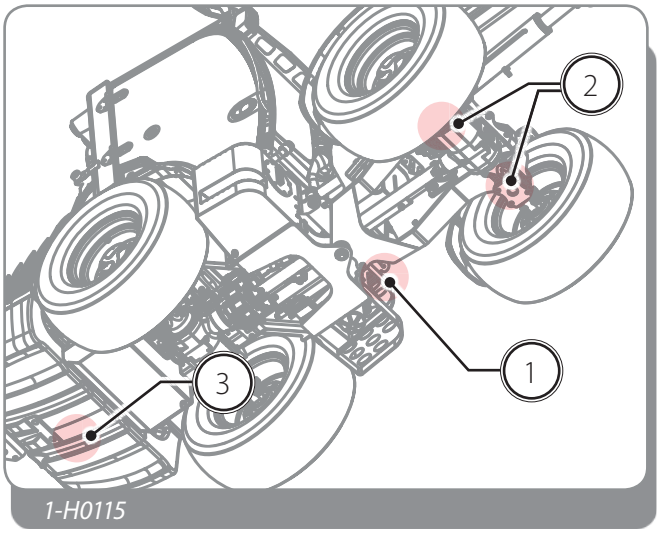
8.1.3 *Table of measurements: rims, tyres and inflation pressure*

	Tyre size	Features	Brand	Inflation pressure (Bar)	Rim size	Drawing
Agri Pivot T40						
Standard	12.5-18	12PR	MITAS	3.00	11.00 x 18	MPT-01 TL
Alternative	12.5-18	12PR	MITAS	3.00	11.00 x 18	MPT-04 TL
Alternative	365/70 R18	135B	MITAS	3.75	11.00 x 18	EM01
Alternative	405/70 R18	141B	MITAS	3.75	11.00 x 18	EM01
Alternative	500/45-20 *	160A8	MITAS	6.00	16x20	TR-12
Agri Pivot T60						
Standard	14.5-20	12PR	MITAS	3.00	11x20	MPT-03
Alternative	405/70R20 (16/70R20)	152J	MITAS	6.00	13x20	IND
Alternative	405/70-20 (16/70-20)	152B	-	3.50	13x20	-
Alternative	500/45-20 *	160A8	MITAS	6.00	16x20	TR-12
Alternative	600/40-22.5 *	169A8	MITAS	6.00	20x22.5	TR-12
Agri Pivot T60						
Standard	405/70R20 (16/70R20)	152J	MITAS	6.00	13x20	IND
Alternative	405/70-20 (16/70-20)	152B	-	3.50	13x20	-
Alternative	420/75R20 (16.5/75R20)	154A8/154B	MICHELIN	4.00	13x20	IND
Alternative	500/45-20 *	160A8	MITAS	6.00	16x20	TR-12
Alternative	600/40-22.5 *	169A8	MITAS	6.00	20x22.5	TR-12
* = Solo per uso fuori strada / Only for offroad use						

8.1.4 Changing a wheel

Do as follows to change a wheel:

- If possible, park the vehicle on flat, even ground.
- Align the wheels of the vehicle with the pin for transport (position "**1**").
- Engage the parking brake.
- Switch off the engine.
- Engage emergency lights.
- Put wedges under tyres opposite from the tyre to be replaced in order to block the vehicle from moving in both directions.
- Loosen the bolts of the tyre to be replaced.
- Position the jack (Fig. 1-H0115):
  - To change a front wheel: underneath the arm of the axle, as close to the wheel as possible (position "**1**").
  - To change a rear wheel: underneath the central rear part of the chassis (position "**2**").
- Lift the wheel until it lifts off the ground and place the safety support underneath the axle.
- Completely unscrew the bolts from the tyre and remove them.
- Remove the wheel with rotary "push and pull" movements.
- Insert the new tyre on the hub.
- Manually screw in bolts. Lubricate them with grease if necessary. Tighten bolts securely with a torque wrench.
- Remove the safety support and lower the telescopic lift with the jack.
- Re-tighten bolts to the tyre securely with a torque wrench.



1-H0115

8.2 Fuel

Before handling fuel and filling the tank, comply with the following regulations:

- FORBIDDEN

Never add different types of fuel such as petrol or alcohol to diesel.

- FORBIDDEN

It is forbidden to refuel while the engine is running

- Clean the area around the fuel cap. Refill the fuel tank at the end of every day to reduce condensation when the vehicle is at rest.
- Water and sediments must be removed before they reach the engine.
- Do not use antifreeze to remove water from diesel fuel.
- Do not rely on a filter to remove water from diesel fuel.
- Never leave the tank without a cap and always lock it. Should you lose the original cap, replace it with an original spare. Not just any cap is suitable.
- Keep the fuel pump gun under control while filling the tank.


- IT IS FORBIDDEN TO SMOKE AND HAVE OPEN FLAMES

It is forbidden to smoke when refuelling

- Do not inspect the tank with a flame.
- Do not fill up the tank completely. Leave room for expansion and immediately clean any spillage.
- Before welding the tank or its components, ensure that they contain no fuel.
- In the event of fuel leaks due to breakage, stop the leak as quickly as possible and contact DIECI customer service.

- DANGER HARMFUL VAPOURS

Inhale diesel fumes for the least time possible as they are dangerous carcinogens for your health

8.2.1 Specifications for recommended fuel

To ensure good performance, use a high quality fuel. Recommended fuel specifications are provided here below.

Cetane number

- Cetane number minimum 45.

The cetane number indicates ignition properties.

Fuel with a lower cetane number may cause problems when starting up the engine cold and could affect combustion.

Viscosity

- Viscosity 2/4.5 centistokes at 40°C.

Viscosity is the flow resistance; if the degree of viscosity is beyond the limits, it might affect engine performance.

Density

- Density 0.8201860 kg/litre at 15°C

A lower density reduces engine power; higher density increases engine power and the smokiness of exhaust fumes.

Sulphur

- Sulphur 0.20% in weight, maximum.

High sulphur content wears out the engine and increases pollution.

Distillation

- Distillation 85% at 350°C.

Distillation is an indication of the blend of different hydrocarbons in the fuel. A high proportion of light-weight hydrocarbons might affect the combustion characteristics.

Fuel for low temperatures

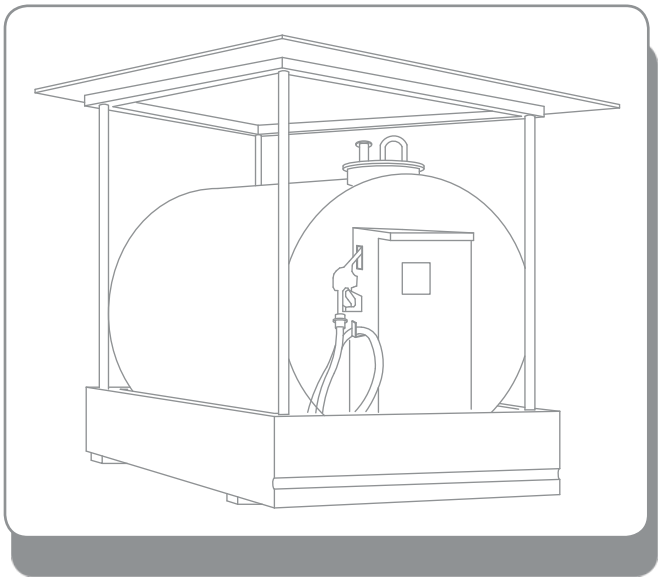
If the engine must run at temperatures below 0°C, special winter fuels can be used. These fuels have a lower degree of viscosity and restrict the formation of paraffin in the fuel. The formation of paraffin prevents the fuel from passing through the filter.

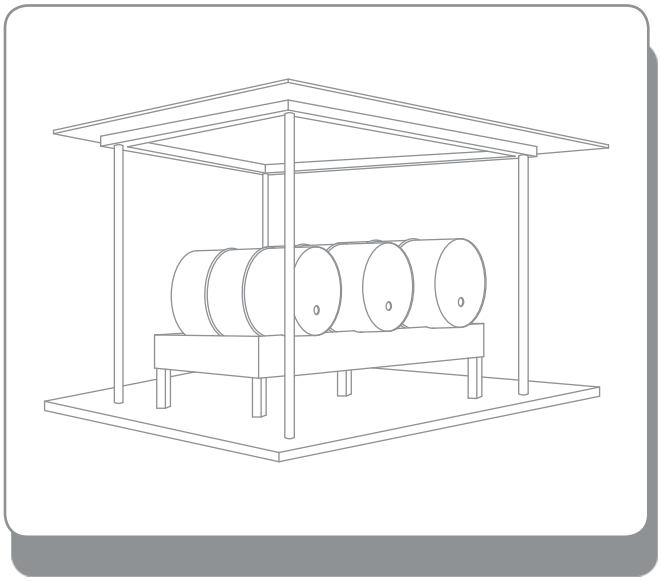
8.2.2 Cleaning and storing fuel

It is important for the fuel to be kept clean.

The advice provided below will help maintain fuel quality.

- Never use zinc-coated containers.
- Never clean the inside of containers or power supply system components with cloths that may leave deposits.
- The cistern capacity (figure at the side) must allow intervals between refuelling not to be too long. A capacity of 3,000 litres is sufficient for an average sized company.
- The storage cistern must be covered and placed on a support that is high enough to allow refuelling by means of gravity. A large basin must be placed under the cistern in case of fuel leakage. The cistern must have an opening large enough to allow someone to access it for cleaning purposes.
- The delivery tap must be larger at the bottom in order to trap any deposits; it must also be equipped with a removable filter. The cistern should be tilted 40 mm per metre towards the sedimentation drain plug.
- The fuel barrels (figure at the side) must be covered when stored to prevent water infiltration. The barrels should be slightly tilted slightly, so that any water will run to the upper rim. The fuel barrels should not be stored for too long before being used.
- If the barrels are kept outside, their caps must be tightly closed to prevent water from seeping in.
- After refuelling the storage cisterns or barrels, it is recommended to allow the fuel to set for at least two hours, thereby allowing any sediment of water and impurities to be deposited before the fuel is used.

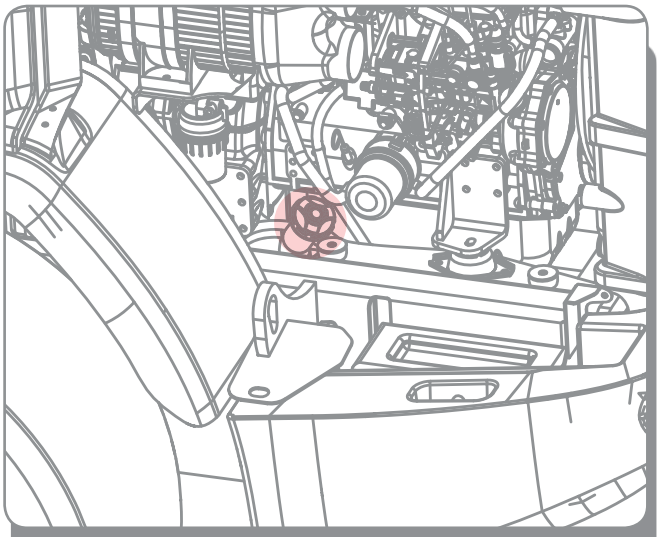




8.2.3 *Refuelling*

Proceed as follows to refuel (Fig. 1-H02-04):

- Park the vehicle and switch the engine off
- Open the engine bonnet.
- Open the fuel cap
- Refuel
- Close the fuel cap
- Close the engine bonnet.

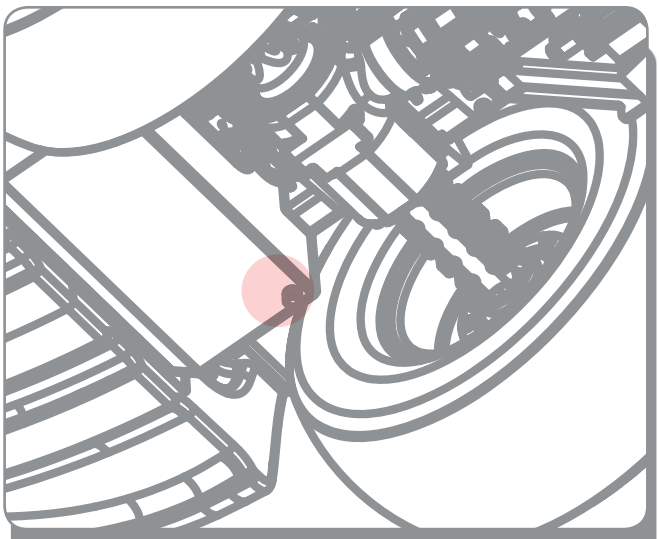


1-H02-04

8.2.4 *Fuel tank: Cleaning*

With the vehicle in the maintenance position:

- Place a suitable container under the tank.
- Remove the plug underneath the tank (Fig. 2-H02-04) and drain fuel from the tank to eliminate all impurities.
- Refit the plug and fill with clean fuel.



2-H02-04

8.3 Yanmar engine

ATTENTION

The use and maintenance manual of the engine is an integral part of the documentation supplied with the vehicle.

Refer to the engine manual or contact an authorised workshop for maintenance operations.

It is recommended to read the information in the instruction manual carefully and comply with them: thereby preventing accidents, benefitting from the manufacturer's warranty and always having an efficient engine that is ready to be used.

8.3.1 Engine errors

The engine features an electronic control unit that communicates directly with the dashboard.

Anomalies are reported by the relative indicator light on the dashboard.

The duration and number of times the warning light flashes indicate the relative error code.

1-H0303

8.3.2 *List of Yanmar engine error codes*

No. 01 Flashes/ Flashing pattern of fault indicator	Fault (alarm) location	Fault/alarm condition	Engine status	Reset condition	Availability of detection features
4	Coolant temperature sensor	Sensor voltage is over 4.8V or under 0.2V	Continues to run at a coolant temperature of 30°C.	Voltage returns to normal.	Standard
5	Accelerator sensor	Sensor voltage is over 4.8V or under 0.2V.	Continues to run at 1500 rpm.	Voltage returns to normal.	Default
6	Speed sensor	Engine start switch (E8) is on, but engine speed is zero.	Is shut down. (When optional auxiliary speed sensor is equipped:Auxiliary speed senor works in piace of faulty speed sensor and engine continues to run at up to 1800 rpm. If auxiliary sensor also fails, engine is shut down.	Key switch is turned to OFF.	Standard
		Engine speed momentarily decreased to lower than specified lower limit.			
7	Rack position sensor	Rack position relative to rack actuator is without specified limits.	Continues to run without rack position sensing at up to 150% of low idling speed or 80% of high idling speed, whichever is lower.	Key switch is turned to OFF.	Standard
8	Rack actuator	Rack actuator output is without specified limits.	Is shut down.	Key switch is turned to OFF.	Standard
		Engine accelerates even though rack actuator output is minimized.			
		Engine stalls while rack position sensor fails.			
1-3	EGR valve	LOW status was detected even though port was olf.	Continues to run at up to 92% of rated power output and up to 1800 rpm.	Key switch is turned to OFF.	Default
		HIGH status was detected even though port was ono			
1-4	CSD solenoid valve	LOW status was detected even though port was ono	Continues to run while CSD feature is canceled.	Key switch is turned to OFF.	Standard
		HIGH status was detected even though port was olf.			

No. 01 Flashes/ Flashing pattern of fault indicator	Fault (alarm) location	Fault/alarm condition	Engine status	Reset condition	Availability of detection features
1-5	Starting aid relay	LOW status was detected even though port was olf. HIGH status was detected even though port was ono	Continues to run while starting aid relay is olf.	Key switch is turned to OFF.	Optional
1-6	Main relay	Power cannot be turned off even though main relay is off.	Continues to run normally.	Relay returns to normal. This fault will persist even if key switch is turned to OFF.	Default
1-7	Rack actuator relay	LOW status was detected even though pori was off. HIGH status was detected even though pori was ono	Is shut down.	Key switch is turned to OFF.	Standard
2-1	Oil pressure switch	Oil pressure switch is not turned on while engine is stopped.	Continues to run normally. (Other option can be selected).	Key switch is turned to OFF.	Optional
2-3	Power supply voltage	An ECU supply voltage of under 1 O.OV was detected. An ECU supply voltage of over 16.0V was detected.	Continues to run normally.	Voltage returns to normal.	Standard
2-5	ECU temperature (alarm)	ECU temperature is over 105°C.	Continues to run normally. (Other option can be selected).	Temperature returns to normal; under 100°C (other optional setting is allowed).	Optional
3-1	Oil pressure	Oil pressure switch is not turned off while engine is running.	Continues to run normally. (Other option can be selected).	Pressure returns to normal.	Optional
3-2	Battery charge (alarm)	Battery changing switch is not turned off while engine is running.	Continues to run normally.	Key switch is turned to OFF.	Optional
2-2	Battery charging switch	Battery changing switch is not turned off while engine is running.	Continues to run normally.	Key switch is turned to OFF.	Optional

No. 01 Flashes/ Flashing pattern of fault indicator	Fault (alarm) location	Fault/alarm condition	Engine status	Reset condition	Availability of detection features
3-6	Coolant temperature (alarm)	Coolant temperature is over 110°C.	Continues to run normally. (Other option can be selected).	Temperature returns to normal; under 105°C (other optional setting is allowed).	Standard
4-1	ECU-ROM	Flash ROM checksum error occurred.	Is shut down.	Key switch is turned to OFF.	Standard
	ECU-EEPROM	Reading/writing error occurred.	Continues to run normally.		
		Checksum error occurred.			
	ECU-sub CPU	Communication with sub microcomputer failed.	Continues to run normally.		
	ECU-mapping format	Mapping format is invalid.	Is shut down.		
	ECU-temperature sensor	Sensor voltage is over 4.6V or under 1.0V.	Continues to run normally.	Temperature returns to normal.	

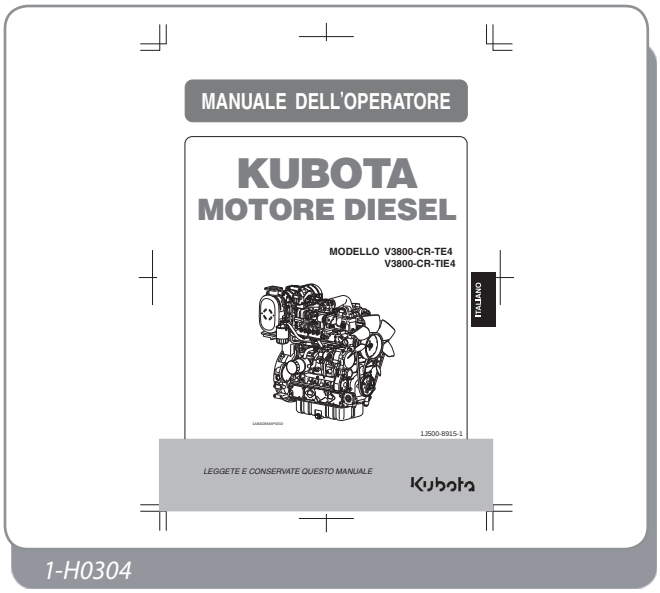
8.4 Kubota engine

ATTENTION

The use and maintenance manual of the engine is an integral part of the documentation supplied with the vehicle.

Refer to the engine manual or contact an authorised workshop for maintenance operations.

It is recommended to carefully read the information in the instruction manual and comply with it: this way accidents will be prevented, the manufacturer's warranty will apply and you will always have an efficient engine, ready for use.



1-H0304

8.5 Water heater *

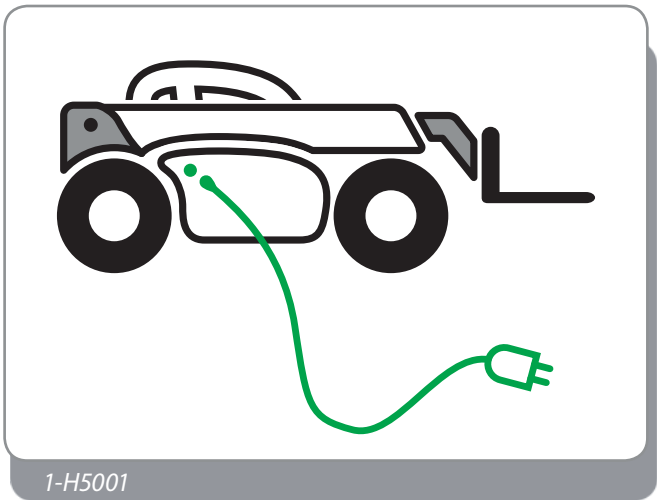
*** The water heater is an optional accessory.**

The water heater is connected to its own control unit and is used to facilitate starting up the engine during winter or in cold climates.

The water heater is located at the rear of the bonnet.

To use the water heater, you must:

1. Make sure that the vehicle is off.
2. Insert the extension cord in the socket at the rear of the bonnet.
3. Insert the extension cord in the **220 V** power socket.
4. Wait for the water to be sufficiently heated.
5. Remove the heater extension cord from the power socket and from the socket on the bonnet.



1-H5001

Make sure the power supply cable is in good conditions before starting up the device.

- DANGER

Do not use the water heater with the engine running or while the vehicle is moving.

- ATTENTION

Remove water heater power supply before switching on and moving the vehicle.

In the event of a malfunction, contact the *DIECI* service centre.

8.6 Battery

- DANGER: BATTERY EXPLOSION

To prevent the batteries from exploding:

- Keep sparks, open flames and cigarettes away from the upper part of the batteries as the gas produced by the latter is highly flammable.
- Do not recharge damaged batteries.
- Do not charge a hot battery.


- DANGER: HARMFUL SUBSTANCES

Batteries contain highly polluting substances that must not be released into the environment.

Batteries that are dead, old, damaged, etc. must be disposed of properly.

- DANGER: CORROSIVE SUBSTANCES

The battery contains sulphuric acid electrolyte, which is a corrosive substance which must be handled with caution as it can cause poisoning and serious burns.

Keep out of the reach of children.

Avoid contact with skin and eyes.

- ATTENTION

Wear protective clothing, gloves and goggles. Should contact be made with the eyes and skin, rinse immediately with plenty of water and consult a doctor. If swallowed, immediately contact a doctor.

- Do not overturn or tilt the battery as acid could come out.
- Recharge the battery in a well-ventilated place and always disconnect the power supply before disconnecting the terminals.
- Always use a voltmeter or a densimeter to check the battery charge. Should you need to check the electrolyte level, use a torch and never an open flame.
- Never place a metal object between the terminals to check the battery charge.
- DO NOT create sparks with the wire clamps while recharging the battery or while starting the vehicle engine with an auxiliary battery.
- Make sure the caps and vent covers are fitted correctly and tightened securely.
- Clean the upper part of the battery, make sure the terminals are tightened securely and cover them with a thin layer of Vaseline.
- Should the battery freeze, place it in a warm place and allow it to thaw. Do not use or recharge it; danger of explosion.
- In normal conditions, the battery is kept charged by the vehicle alternator. Should the battery run out completely as a result of prolonged inactivity or because it is at the end of its life, the alternator can no longer "regenerate" it. The battery must be replaced and recharged by means of a special battery charging instrument.

- ATTENTION

Before performing any maintenance on the vehicle, disconnect power from the electric circuits by pressing the battery isolator switch

8.6.1 Low maintenance batteries

Low maintenance batteries have been designed to avoid frequent routine maintenance interventions. Check the level of electrolyte if discharged. Contact the supplier or the manufacturer for the technical specifications.

8.6.2 "Zero maintenance" batteries

These are batteries that do require maintenance.

The battery must be replaced once it is completely discharged. Contact the supplier or the manufacturer for the technical specifications.

- FORBIDDEN

Do not perform maintenance or recovery operations on "zero maintenance" batteries.

8.6.3 Battery: Recharging the battery

- A battery is fully charged if, at a constant temperature, the electrolyte density and the tension measured at the poles does not increase within 2 hours.
- The efficiency of each recharge depends on the general conditions of the battery itself. An old battery will not be able to obtain the same life and efficiency as a new battery after recharging.
- The simplest recharging method is to charge at constant power.
- Once charging is complete, the battery charger voltage increases and creates gasification. We recommend using simple battery chargers with minimum current control and a switch-off timer.
- If the battery has a low level of electrolyte, top-up to the minimum level (just above the plate limit) and then charge. Fill up to the maximum level once charging is complete (to prevent spills).
- Overcharging must be avoided because:
  - It is a loss of energy that causes water dissociation.
  - It produces a loss of active mass due to electrode deterioration.
  - It generates the risk of explosion.
- If sulphuric batteries are recharged with no voltage limit, they will boil and heat, thereby generating the risk of explosion.
- Old batteries (sulphuric in most cases) must be charged with caution. An increase in temperature is possible even with 13.8 Volts.

Follow the instructions below to charge the battery:

1. Disconnect the wires of the vehicle from the battery to protect its electrical system.
2. Place the battery at a safe distance from the vehicle.
3. Remove the caps, if possible.
4. When possible, check the electrolyte level.
5. Clean the poles.
6. Make sure the area is sufficiently ventilated.
7. Limit the charging current to a maximum of 1/10 of the battery capacity (Ah).
8. Connect the battery to the battery charger.
9. Connect the battery charger to the mains.
10. Switch the battery charger on.
11. Battery temperature must not exceed 55°C.
12. Switch the battery charger off when finished.
13. Disconnect the battery charger from the mains.
14. Disconnect the battery from the battery charger.
15. When possible, check the electrolyte level.
16. Refit the caps.

8.6.4 *Battery isolator switch*

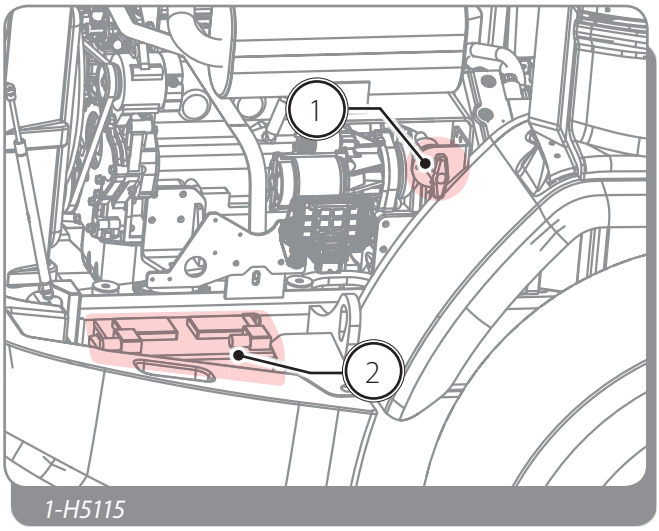
- ATTENTION

This switch must only be used when the engine is stopped.

The battery isolator switch "**1**" (Fig. 1-H5115) allows the operator to isolate the battery from the electrical circuit in case of an emergency or during maintenance.

Proceed as follows to isolate the battery:

1. Switch the engine off.
2. Bring the ignition key to the "**0**" position.
3. Open the engine bonnet.
4. Turn the battery isolator switch counter clockwise to the off position.



1-H5115

8.6.5 *Battery: replacement*

The vehicle is equipped with a battery located under the engine bonnet "**2**" (Fig. 1-H5115).

Follow the instructions in the relative chapter to disconnect the battery from the electrical circuit, via the battery isolator switch, before removing it.

Proceed as follows to remove the battery:

1. Set the vehicle in the maintenance position as described in the "Vehicle set-up for maintenance" chapter.
2. Open the engine bonnet.
3. Disconnect the NEGATIVE (black) wire from the battery.
4. Disconnect the POSITIVE (red) wire from the battery.
5. Remove the battery from the vehicle.
6. Place the new battery.
7. Connect the POSITIVE (red) wire to the battery.
8. Connect the NEGATIVE (black) wire to the battery.
9. Re-activate the battery isolator switch.
10. Close the engine bonnet.

8.7 Lighting

Vehicle lighting must always be efficient and functioning properly. Its functionality must be checked daily. Replace any damaged part of the lighting body immediately. Replace a burnt light bulb immediately.

Refer to the "Maintenance" chapter before performing any maintenance or adjustments.

- NOTE

The bulbs are very fragile. Handle them with care.

The dipped beam bulbs must not be handled with bare hands.

8.7.1 Front light

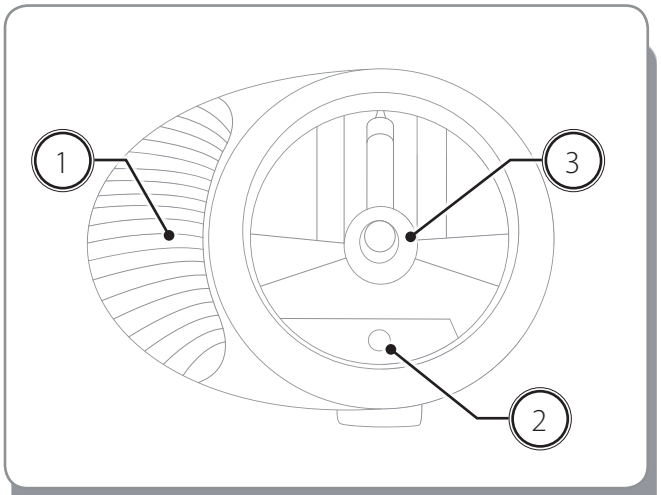
In the front headlight (Fig. 1-H5302) it is composed of:

	Description	Type
1	Direction indicator	21 W
2	Front side light	4 W
3	Dipped lights/high beams	60/55 W H4

To access the bulbs:

1. Set the vehicle in the maintenance position.
2. Act on the battery isolator switch to disconnect the supply to the electrical system.
3. Remove the power connector of the rear light.
4. Remove the front part of the light by loosening its screws located in the rear cap.

Close the light by carrying out these steps in inverse order, being careful to position the sealing gasket correctly.



1-H5302

Replacing a direction indicator bulb

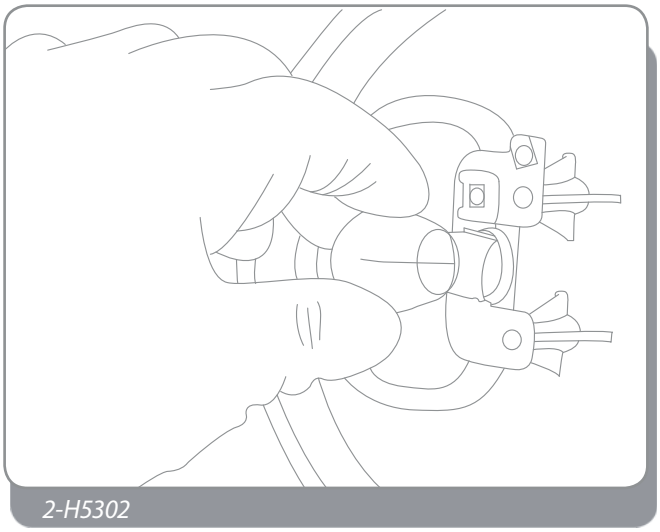
- Press the upper part of the bulb (Fig. 2-H5302).
- Turn the bulb while pressing it down to release it from the lock.
- Carry out the same steps to insert the new bulb.

Replacing a side light bulb

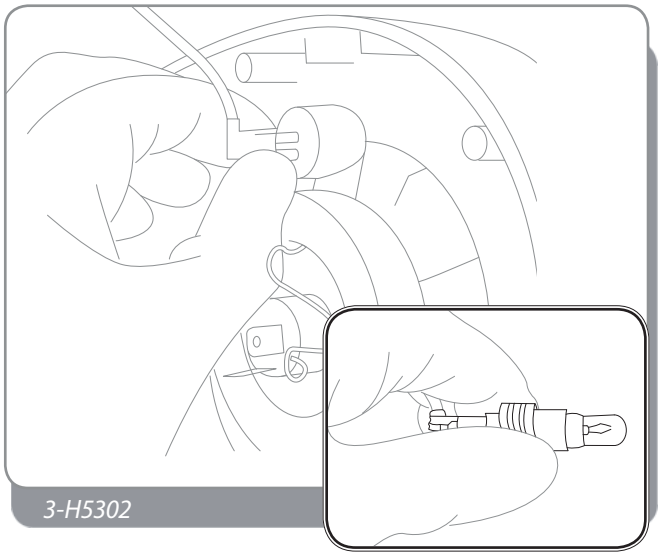
- Grasp the rear part where the electrical connections are located (Fig. 3-H5302).
- Turn and pull the rear part towards you.
- Remove the support and press the upper part of the bulb.
- Turn the bulb while pressing it down to release it from the lock.
- Carry out the same steps to insert the new bulb. Reinsert the support inside its housing.

Replacing a dipped light/high beam bulb

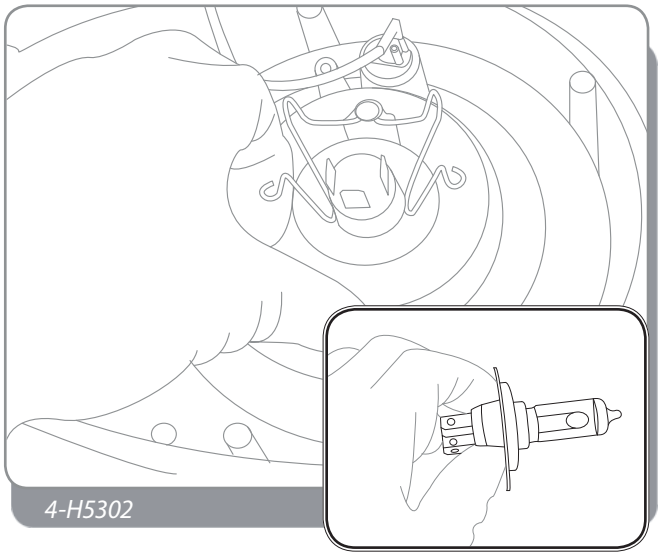
- Remove the electrical connector by pulling it towards you.
- Raise the locking tabs (Fig. 4-H5302) and move them sideways to release the bulb.
- Replace the bulb and proceed in inverse order to block and reconnect it. Observe the bulb closing mechanisms for proper insertion.



2-H5302



3-H5302

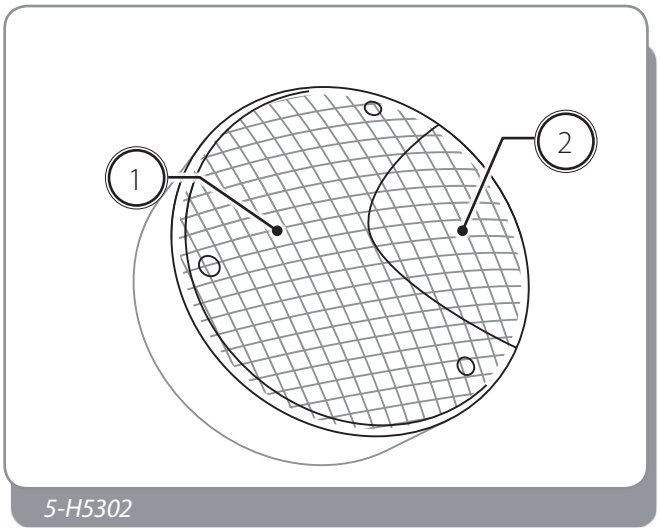


4-H5302

8.7.2 Rear light

In the front headlight (Fig. 5-H5302) it is composed of:

	Description	Type
1	Stop light	21 W
2	Direction indicator	21 W



5-H5302

To access the bulbs:

1. Set the vehicle in the maintenance position.
2. Act on the battery isolator switch to disconnect the supply to the electrical system.
3. Remove the front part of the light by loosening its screws located on the cap.

Close the light by carrying out these steps in inverse order, being careful to position the sealing gasket correctly.

Replacing the rear light bulb.

- Press the upper part of the bulb.
- Turn the bulb while pressing it down to release it from the lock.
- Carry out the same steps in inverse order to insert the new bulb.

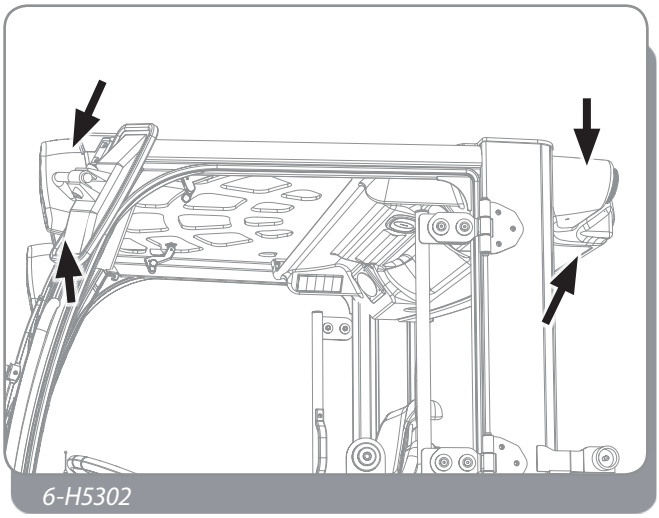
*8.7.3 Working light **

*** The work light is an optional accessory.**

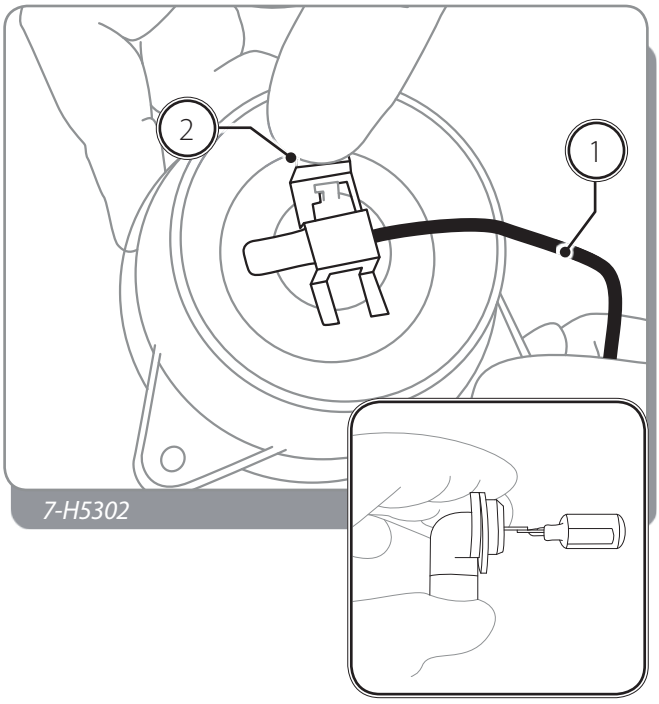
Replacing the working light bulbs

To access the bulbs:

1. Set the vehicle in the maintenance position.
2. Act on the battery isolator switch to disconnect the supply to the electrical system.
3. Undo the upper and lower screw of the protective casing of the work light (Fig. 6-H5302).
4. Remove the power connector at the back of the light "**1**" (Fig. 7-H5302).
5. Press the retainer "**2**" (Fig. 7-H5302) and pull forwards.
6. Carry out the same steps in inverse order to insert the new bulb.



6-H5302



7-H5302

9 EQUIPMENT INSTALLATION

9.1 General warnings on equipment use

- FORBIDDEN

It is strictly forbidden to modify the structure of the equipment or adjust the safety devices of the various tool components.

- ATTENTION

Only CE equipment certified by the relative manufacturer and approved can be used on *DIECI* machines o that falling within the technical limits set out by *DIECI S.R.L.*.

The interchangeable equipment manufacturer must guarantee that the combination of such equipment and the basic machine on which the equipment is intended for, meets all the basic health and safety requirements, providing an adequate evaluation procedure of compliance.

DIECI S.R.L. liability shall not be involved if equipment use or modifications do not comply with the above mentioned requirements.

- ATTENTION

The accessory mounted on the vehicle can only be used on solid ground and with vehicle levelled with maximum admitted slope of 2°.

- ATTENTION

The accessory is installed on the vehicle and is used exclusively by competent and authorised personnel who have thoroughly read this manual. If the vehicle is to be used on roads, refer to the Use and Maintenance Manual of the vehicle ensuring the operator has a valid, category B driver's license, or higher in accordance with Italian law, and that both the boom is in fully retracted position.

- NOTE

Before operating the vehicle and relative accessory, or before carrying out complicated or dangerous manoeuvres, it is essential that you practice in an empty, unobstructed part of the site.

- ATTENTION

The vehicle on which the accessory is installed and mounted must be braked and stabilised only on solid ground.

- ATTENTION

In case of poor visibility of the zone, have another person on the ground to coordinate the movements and manoeuvres to be carried out, and supervises the zone keeping any other persons away. The person on the ground must always keep at a safe distance from the moving vehicle and warn any personnel around before each manoeuvre.

- NOTE

To prevent damaging hydraulic connections when changing an attachment, stop the engine and wait a minute to remove pressure from the circuit. Always clean connectors before their reinsertion.

- NOTE

Check the cleanliness, protection and the conditions of rapid detachment connections in attachment circuits and on the boom head daily.

- DANGER

Never bring equipment near open flames.

- ATTENTION

When using this vehicle, carefully follow the respective Capacity diagrams.

- FORBIDDEN

It is strictly prohibited to work without the respective capacity diagrams for the type of vehicle and installed equipment.

- NOTE

Instructions supplied by the vehicle anti-tipping system must be considered valid for standard working conditions, on flat, even ground and with properly functioning and correctly calibrated instruments. However, the values displayed on the capacity diagrams must be respected and never be exceeded.

- ATTENTION

Each time the accessories are used, it is compulsory to insert the safety pins to fasten the accessories to the tool carriage plate.

9.1.1 Equipment pre-use checks

Refer to the pre-use safety procedures of the vehicle on which the accessory is mounted.

Before every use and every time new equipment is installed on the machine:

- Make sure the equipment is correctly hooked to all pins and that they are inserted in the correct position.
- There are no damages, deterioration, deformation of the blocking components of the equipment.
- The electric cables or hydraulic tubes (if present) are in good condition and are not an obstruction during use of the equipment.
- Check that the equipment and components are intact, perfectly functioning and not damaged.
- Verify that the equipment capacity is more than the weight of the load to be moved.
- Verify the correct functioning of the equipment and of the controls present in the vehicle's cab on which the equipment is installed in the work zone free from personnel and obstacles.
- Verify the functioning of all indicators and lights present inside the vehicle on which the accessory has been mounted.
- Check the arching when empty.
- Check the level of the hydraulic circuit oil by lifting the equipment to maximum height and extension admitted by the vehicle's boom.
- Check that the safety symbols and decals are clearly legible.
- Check the efficiency and functioning of the safety devices.
- Visually check the state of welding, inspect the vehicle and check for cavities, cracks of the welding or base metal or other inconveniences.
- Check for any deformations and/or modifications of the material due to sudden temperature changes or damage from impacts.
- Check the accessory for wear.
- Verify the use mode relating to the installed equipment has been set on the vehicle.
- Verify the Capacity diagrams relating to the vehicle and installed equipment are present on the vehicle.

In case of equipment with hydraulic connections:

- Check the tubes are in good conditions and do not obstruct the movements of the boom or of the equipment.
- Verify the correct connection of the hydraulic tubes (if present) ensuring the equipment functions are not inverted.

In case of equipment with electrical connections:

- Clean and fasten all electrical connections (if present). Before every work shift, make sure that there are no loose, twisted, hardened or damaged electric cables. Do not run the vehicle if there are loose, twisted, hardened or damaged electric cables.

In the event of control pre-arrangement from radiocontrol:

- Verify the correct functioning of the radiocontrol/push button control panel and the charge state of the batteries.

In case of using lifting equipment:

- Verify the integrity of the lifting hook, including relative catch, and of the hook bolt to the rope.

In case of using winches:

- Check that the cable is not damaged, cut, torn, frayed. On the contrary, do not use the accessory and see to its replacement. (This check can be carried out by fully extending the lift boom and unrolling the winch cord). Functioning of the end run can also be checked during this operation, which must block the cord as described in the specific paragraph.
- Verify the functioning of the extensometric transducer of the mounted attachment (if present); to do this, attempt lifting a load slightly heavier than the nominal maximum capacity of the equipment. In case the equipment is unable to lift the load, the transducer functions correctly, otherwise immediately interrupt the operation bringing the load to the ground and repair the equipment.

In case of using elevation work platforms:

- Verify functioning of the emergency button of the load limiting device and of the area limiting device at the beginning of each work cycle.
- Before using the platform ensure it is not wet, dirty with grease, oil, has icy surfaces or covered with other substances that can make the surface slippery. On the contrary, accurately clean the platform surfaces. Danger of slipping and falling.
- The vehicle on which the accessory is mounted must be braked and stabilised on solid ground. If outriggers (optional) are present, position them correctly on the ground before starting to operate.
- Before operating, ensure the platform closing bar is lowered and free from obstacles; always check correct fastening of the safety belts (PPE III cat.).

- ATTENTION

All checks must be carried out by adequately trained personnel and registered on the service register.

If damage or malfunctioning is detected, comply with the instructions contained in this manual or contact the DIECI Assistance Centre to agree the actions to be taken.

Should routine or extraordinary maintenance or technical adjustment of the accessory be required, contact exclusively personnel authorised by the DIECI Assistance Centre and make note of the intervention on the service register.

If the accessory is tampered with the guarantee is voided and the Manufacturer is relieved of all liability.

- DANGER

Operators who note anomalies on the equipment or on the vehicle on which it is installed, and does not conform to safety regulations must suspend use and immediately inform the construction site manager.

For road circulation, refer to the Use and Maintenance Manual of the vehicle that the accessory is mounted on.

9.2 Apollo and MiniAgri equipment installation procedure

Carry out the following operations to correctly install the equipment:

1. Remove the safety pins (if mounted) by removing the shear pin (Fig. 2-I0100, pos. 2) and pulling the safety pin outwards (Fig. 2-I0100, pos. 1).
2. Rest the equipment on to a flat surface, not subsiding for easy hooking with the tool carriage plate of the vehicle.
3. Position the vehicle with the boom lowered parallel to the attachment. Approach the tool carriage plate to the accessory by extending the telescopic boom.

- NOTE

The vehicle cannot extend the boom if this is completely lowered. Slightly lift the boom to extend it.

4. Turn the tool carriage plate downwards using the swivel movement. Bring the upper part of the plate underneath the attachment blocking hooks.
5. Slightly lift the boom and turn the tool carriage plate upwards, for the equipment to adhere to the tool carriage plate of the vehicle.

- DANGER

During this operation ensure no one is near the equipment or the vehicle's boom.

6. Turn off the engine and climb out of the vehicle.
7. Then, fasten the equipment to the telescopic boom plate. Insert the safety rod (Fig. 2-I0100, pos. 1) in their seat on the tool carriage plate, passing through the corresponding slot of the equipment.

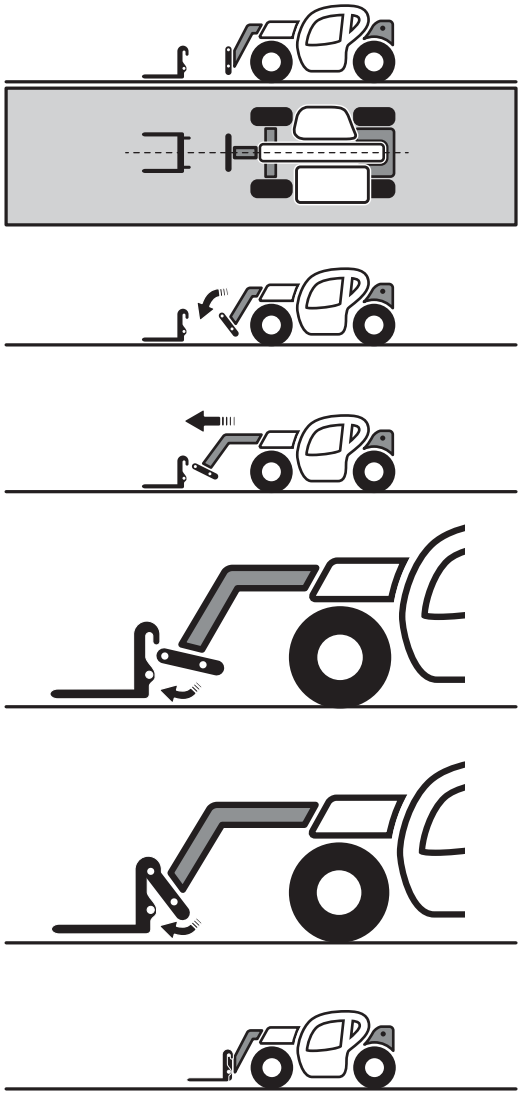
- NOTE

In the event the two holes do not match, carry out the operations described in the "Shear pin profile" chapter.

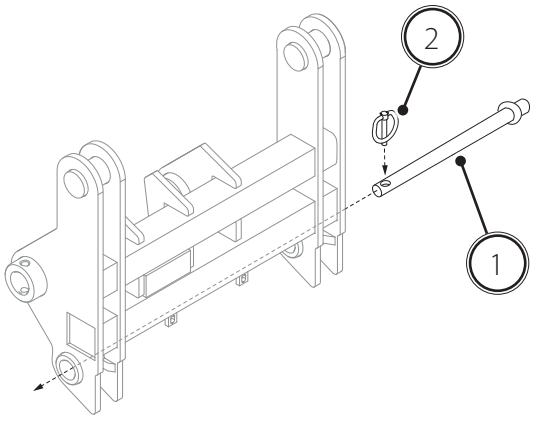
8. Insert the safety pin (Fig. 2-I0100, pos. 2) into the previously inserted rods.

- ATTENTION

If, due to deformations, the pins and relative shear pins do not reach the due position, it is strictly forbidden to use the accessory as it may dangerously detach and fall on the ground.



1-I0100



2-I0100

- FORBIDDEN

It is forbidden to work without the shear pin installed on the tool carriage plate.

9. Should the equipment require electric or hydraulic connections, consult the "Hydraulic tubes connection" and "Electrical cables connection" chapters.

- ATTENTION

When using equipment having electric or hydraulic connections, they must always be correctly connected to the vehicle. The missing connection does not allow regular functioning of the safety devices, with risk of damaging things and persons and danger of the vehicle overturning.

10. Once the equipment is correctly fixed, switch-on the vehicle and set its correct use mode relating to the just installed equipment:

See the vehicle's use and maintenance manual to set the correct operating mode.

- FORBIDDEN

It is forbidden to work with a vehicle's use mode different to the type of equipment installed. The electro-hydraulic equipment will not correctly work and the safety devices will not be on, creating a risk of damages to things and persons and the overturning of the vehicle.

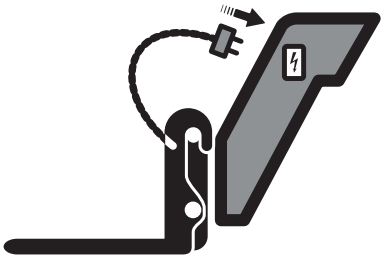
11. Verify the Capacity diagrams relating to the vehicle and the just installed equipment is present in the cab.

- FORBIDDEN

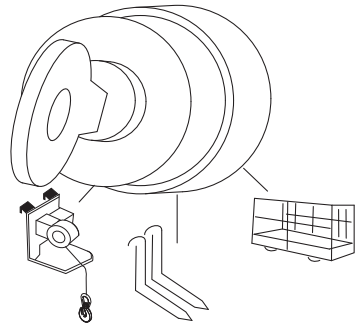
It is forbidden to work without the correct Capacity diagrams relating to the vehicle and the installed equipment.

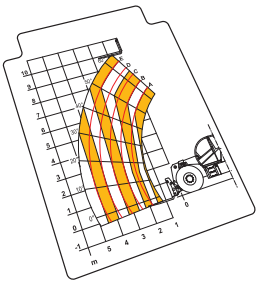
For further details on any procedures of installation of the accessory or warnings, consult the use and maintenance manual of the accessory.

3-I0100



4-I0100





- DANGER

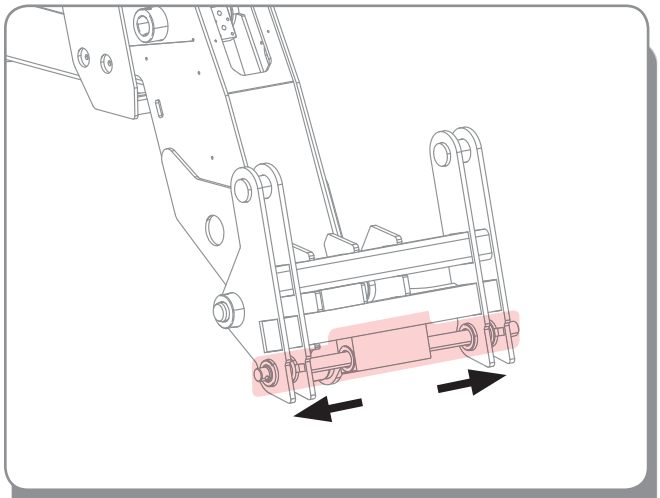
Before use check that:

- The equipment is correctly hooked to all pins and they are inserted in the correct position.
- There are no damages, deterioration, deformation of the blocking components of the equipment.
- The electric cables or hydraulic tubes (if present) are in good condition and are not an obstruction during use of the equipment.
- The use mode of the vehicle is consistent with the type of installed equipment.
- The Capacity diagrams relating to the vehicle and installed equipment are present in the cab.

*9.2.1 Plate with quick coupling **

On request there is also a telescopic boom plate with quick equipment coupling..

There are numerous models of equipment-carriage plates with quick coupling. For additional information consult the chapter on "Equipment quick coupling" in the operating and maintenance manual for the vehicle.



7-I0100

9.2.2 *Plate with ISO coupling **

*** The plate with ISO coupling is an optional accessory.**

To install the accessory on the ISO plate it is necessary to (Fig. 8-I0100 and Fig. 9-I0100):

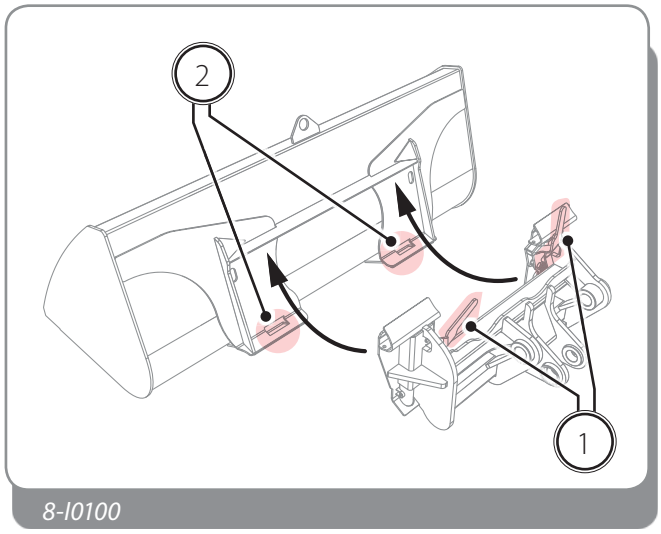
1. Move the two levers to "**1**" in open position "**A**".
2. Carry out the normal hooking operations shown in points 1, 2, 3, 4, 5 and 6 in the "*Equipment installation*" chapter.
3. To secure the equipment lower the levers all the way down "**1**" in the closed position "**B**".
4. Make sure the rods "**3**" are fitted into the equipment correctly "**2**".
5. Proceed with the usual connecting operations, as illustrated in point 9 onwards, in chapter "*Equipment Installation*".

- DANGER

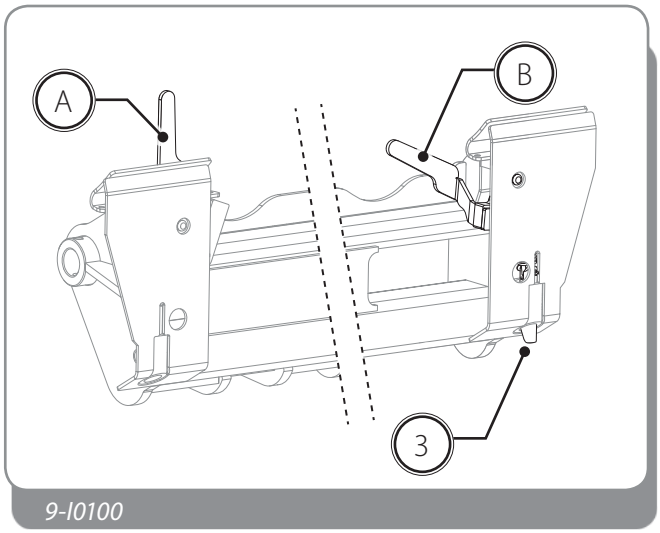
Do not operate without having properly fastened the equipment to the plate; risk of load and equipment falling.

- ATTENTION

Do not proceed if both rods "3" are not correctly locked in place.



8-I0100



9-I0100

9.3 Hydraulic connections

9.3.1 Warnings

- ATTENTION

Before making the hydraulic connections, perform the "Equipment installation procedure" and check the equipment is correctly fixed to the vehicle.

- NOTE

Always accurately clean the hydraulic connections before each coupling. If not used, both the hydraulic connections must be protected with adequate plastic caps.

- DANGER

Do not use the vehicle or the equipment if the hydraulic cables are worn or damaged, but repair or replace them.

- ATTENTION

Check the hydraulic tubes do not obstruct the movements of the vehicle or of the equipment as it may be damaged.

Consult the equipment manual to verify correct operation.

- DANGER

Once the hydraulic connections have been made, it is compulsory to verify the controls are consistent with the operations carried out on the vehicle.

By inverting the connections, the accessory functions may be inverted compared to normal use, therefore, after having completed the equipment installation procedure, test the various functions in a free zone.

- ATTENTION

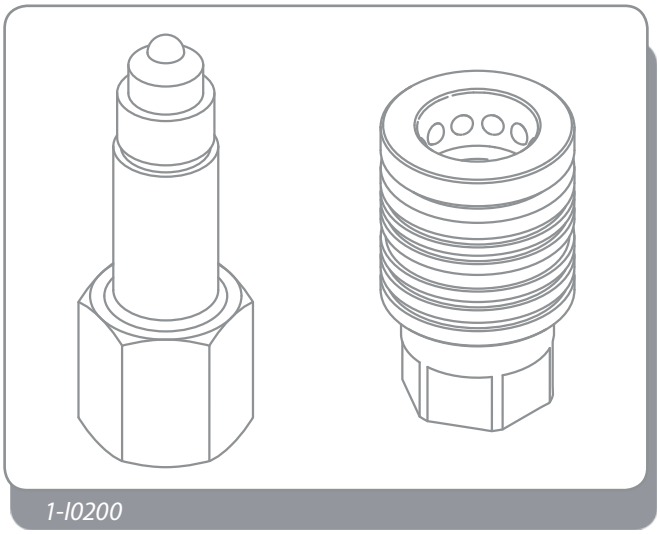
When using equipment having electric or hydraulic connections, they must always be correctly connected to the vehicle. The missing connection does not allow regular functioning of the safety devices, with risk of damaging things and persons and danger of the vehicle overturning.

9.3.2 *Type of hydraulic quick couplings*

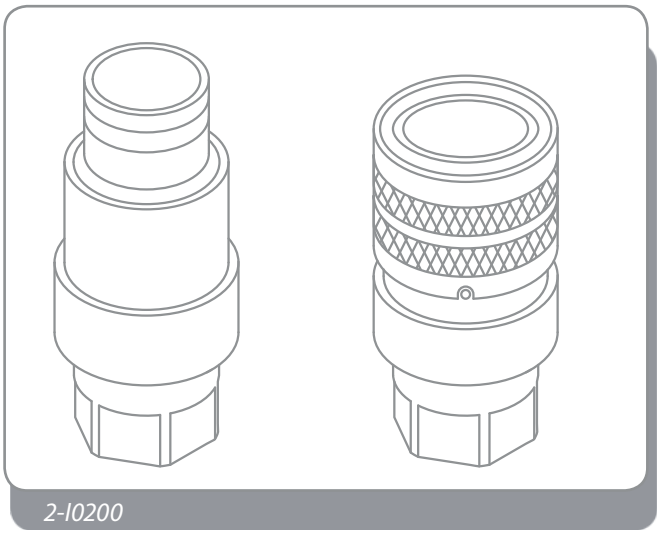
The hydraulic quick couplings at boom head can be of two types:

- Push-Pull (Fig. 1-I0200)
- Flat-Face (Fig. 2-I0200)

Unlike the Push-Pull couplings, the Flat-Face couplings have a safety device (Fig. 2-I0200, pos.3) to prevent unwanted disconnections of the couplings.



1-I0200



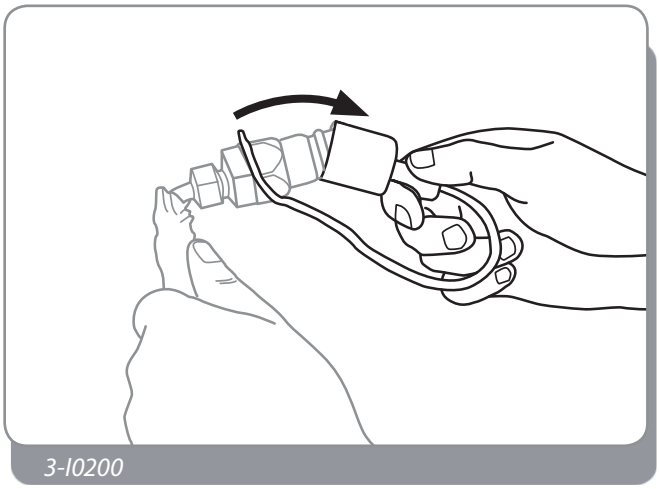
2-I0200

9.3.3 Push-Pull couplings connection

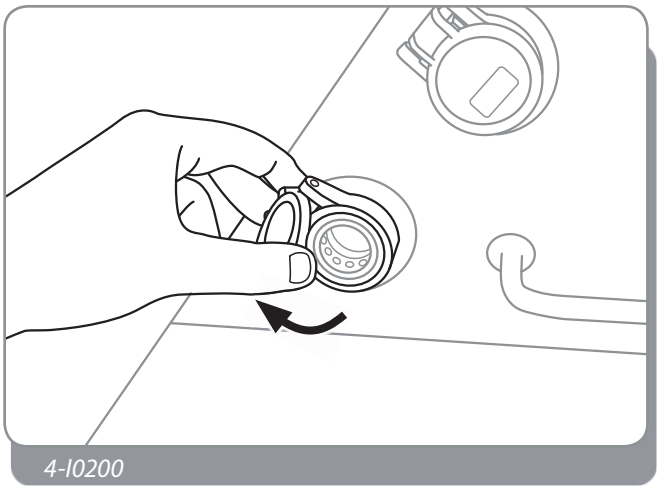
To connect the Push-Pull quick couplings to the sockets on the boom head:

1. Perform the equipment installation procedures described in the chapter: "Equipment installation procedure"
2. Switch the vehicle off
3. In case of closed centre distributor, discharge the system's residue pressure as previously described
4. Remove the protective cap from the equipment's hydraulic plugs (Fig. 3-I0200)
5. Lift the protective cover for the hydraulic socket present on the boom head (Fig. 4-I0200)
6. Clean plug and socket from any dirt
7. Place the plug inside the socket and press until the tube is blocked (Fig. 5-I0200)
8. Check the hydraulic tube is correctly fixed.
9. Carry out the same operation for both tubes

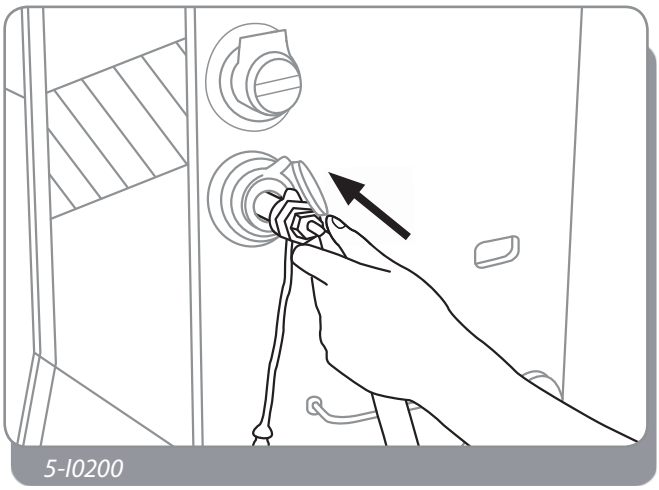
Consult the equipment manual to verify correct operation.



3-I0200



4-I0200



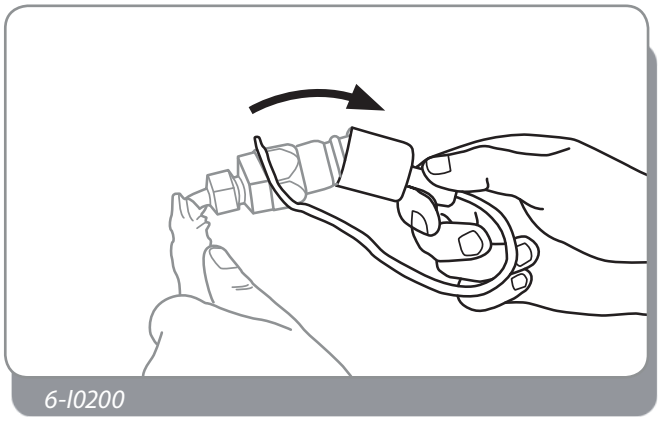
5-I0200

9.3.4 *Push-Pull couplings connection when connected to a valve*

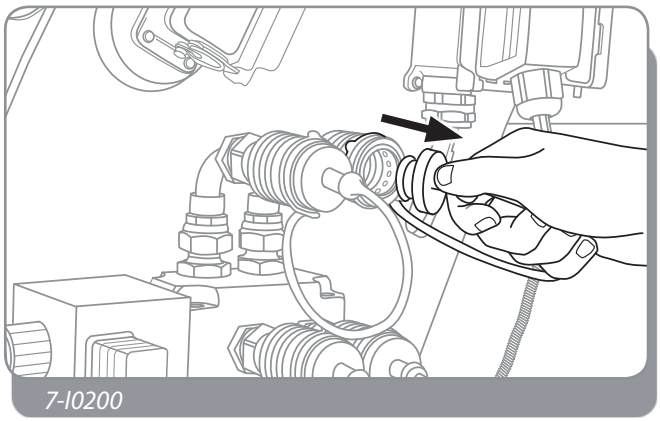
To connect the Push-Pull quick couplings to the valve on the boom head:

1. Perform the equipment installation procedures described in the chapter: "Equipment installation procedure".
2. Turn off the vehicle.
3. In case of closed centre distributor, discharge the system's residue pressure as previously described.
4. Remove the protective cap from the equipment's hydraulic plugs (Fig. 6-I0200).
5. Remove the protective cover from the hydraulic sockets installed in the valve on the boom head (Fig. 7-I0200).
6. Clean plug and socket from any dirt
7. Push the ring on the valve socket towards the boom (Fig. 8-I0200).
8. Place the plug fully inside the socket and release the ring of the valve (Fig. 9-I0200).
9. Check the hydraulic tube is correctly fixed.
10. Carry out the same operation for both tubes

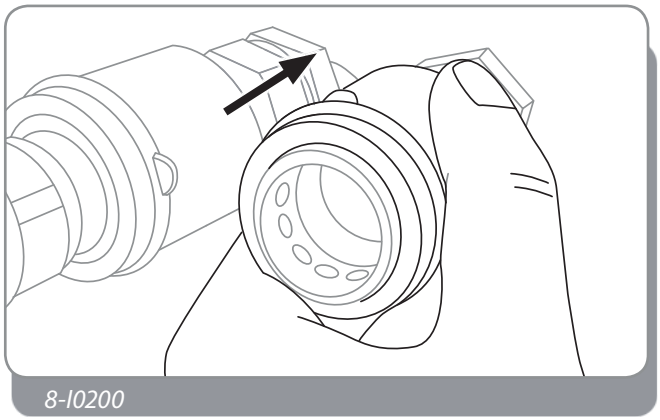
Consult the equipment manual to verify correct operation.



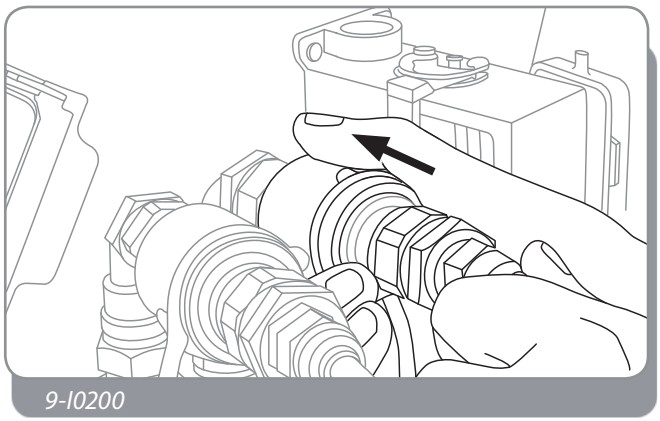
6-I0200



7-I0200



8-I0200



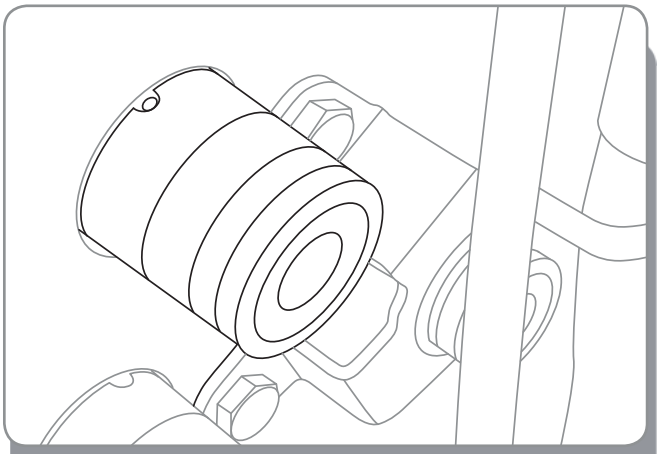
9-I0200

9.3.5 Flat-Face couplings connection

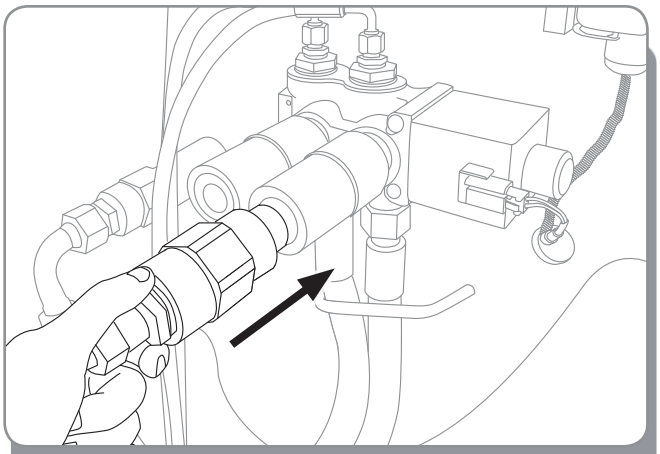
To connect the Flat-Face quick couplings:

1. Perform the equipment installation procedures described in the chapter: "Equipment installation procedure".
2. Turn off the vehicle.
3. In case of closed centre distributor, discharge the system's residue pressure as previously described.
4. Clean plug and socket from any dirt
5. Rest the plug at centre of the socket and push the fully plug (Fig. 11-I0200), until the socket ring is lifted
6. Turn the ring to block the plug inside the socket (Fig. 12-I0200).
7. Check the hydraulic tube is correctly fixed.
8. Carry out the same operation for both tubes

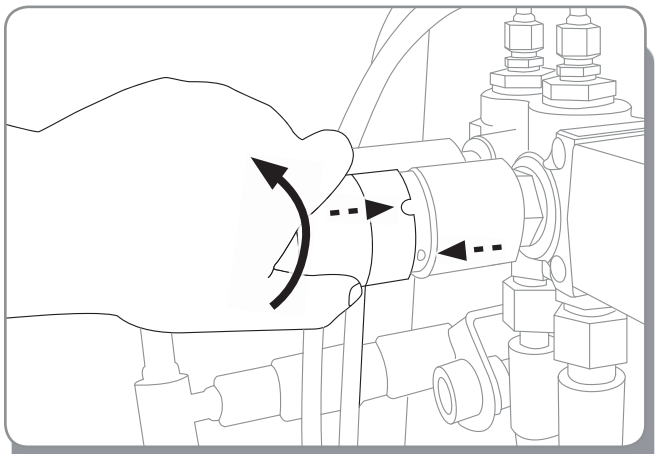
Consult the equipment manual to verify correct operation.



10-I0200



11-I0200



12-I0200

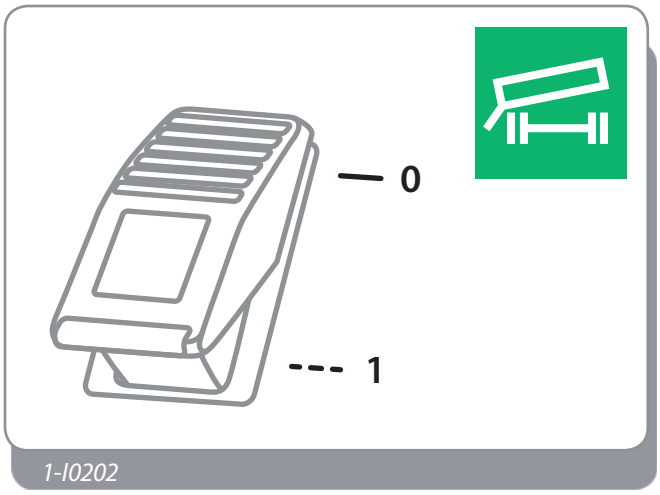
- ATTENTION

Before connecting or disconnecting the hydraulic sockets, make sure there is no residual pressure in the hydraulic circuit.

9.3.6 Closed centre distributor: Discharge pressure using the trailer descent button:

In case a hydraulic distributor with closed centre is installed on the vehicle and the "trailer descent" button is present:

1. Switch on the vehicle's engine
2. Press the "Trailer descent" button (Fig. 1-I0202) to discharge the residual pressure of the entire hydraulic system
3. Turn off the vehicle without carrying out further operations.
4. Connect the hydraulic couplings



1-I0202

9.4 Electrical connections

9.4.1 Warnings

- ATTENTION

Before making the electric connection, perform the "Equipment installation procedure" and check the equipment is correctly fixed to the vehicle.

- DANGER

Turn-off the vehicle before making the electric connection.

- DANGER

Do not use the vehicle or the equipment if the electric cables are worn or damaged, but repair or replace them.

- FORBIDDEN

Do not leave the boom plug hanging on the chain during the work operations, as this may be damaged, jeopardising vehicle start-up during use without equipment.

- ATTENTION

Check the electric cable does not obstruct the movements of the vehicle or of the equipment as it may be damaged.

- ATTENTION

When using equipment having electric or hydraulic connections, they must always be correctly connected to the vehicle. The missing connection does not allow regular functioning of the safety devices, with risk of damaging things and persons and danger of the vehicle overturning.

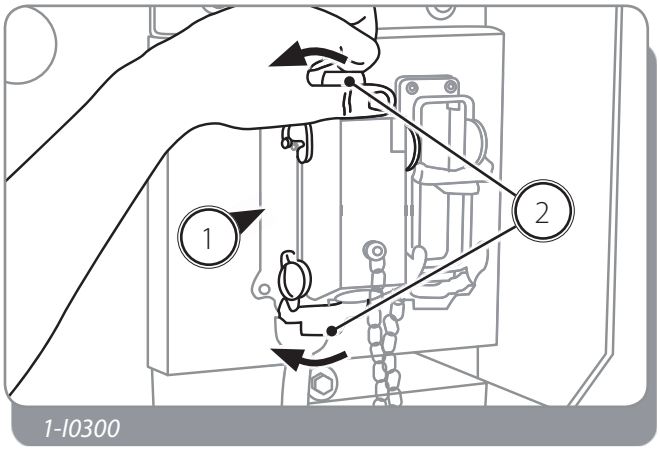
Consult the equipment manual to verify correct operation.

9.4.2 *Procedure for performing electrical connections*

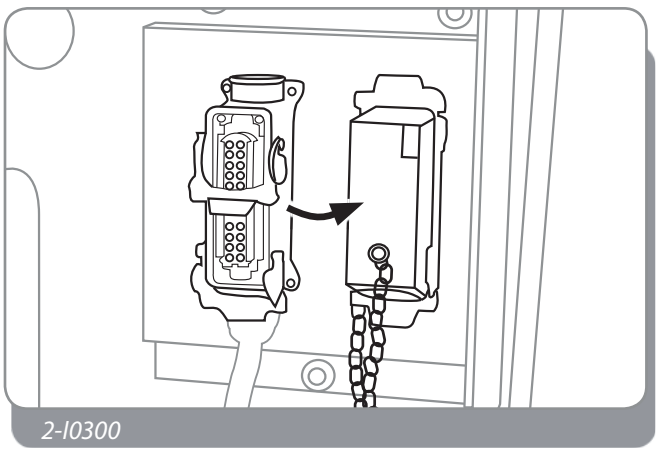
The electric connections at boom head can be 6 or 24 poles, but the connection procedure remains the same for both.

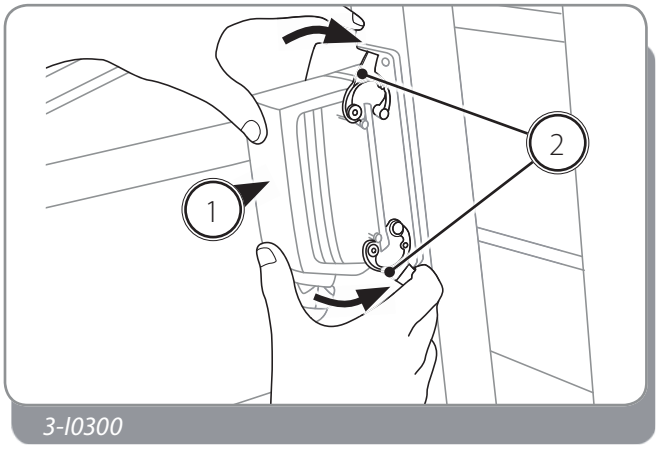
For equipment provided with electric system carry out the following operations:

- Perform the equipment installation procedures described previously.
- Turn off the vehicle.
- Pull out the plug from the boom socket (Fig. 1-I0300, pos. 1) lowering the 2 safety levers (Fig. 1-I0300, pos. 2).
- Move the plug from the boom socket into the false socket on the side (Fig. 2-I0300) and fix it with appropriate levers.
- Pull the plug from the false socket of the equipment (Fig. 3-I0300, pos. 1) lowering the 2 safety levers (Fig. 3-I0300, pos. 2).
- Connect the equipment plug on the electric boom socket fixing it by lifting the 2 safety levers (Fig. 4-I0300, pos. 1).
- Once the equipment is correctly fixed, switch-on the vehicle and set its correct use mode relating to the equipment just installed: Consult the "Equipment and operational mode selection" chapter in the use and maintenance manual of the vehicle.
- Verify the Capacity diagrams relating to the vehicle and the just installed equipment is present in the cab.

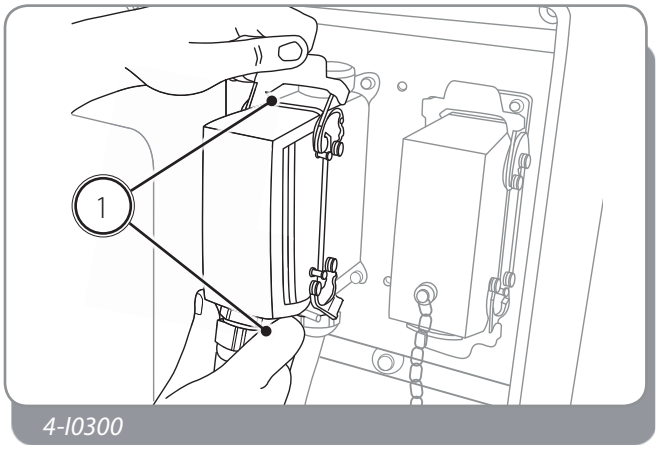


1-I0300


2-I0300



3-I0300

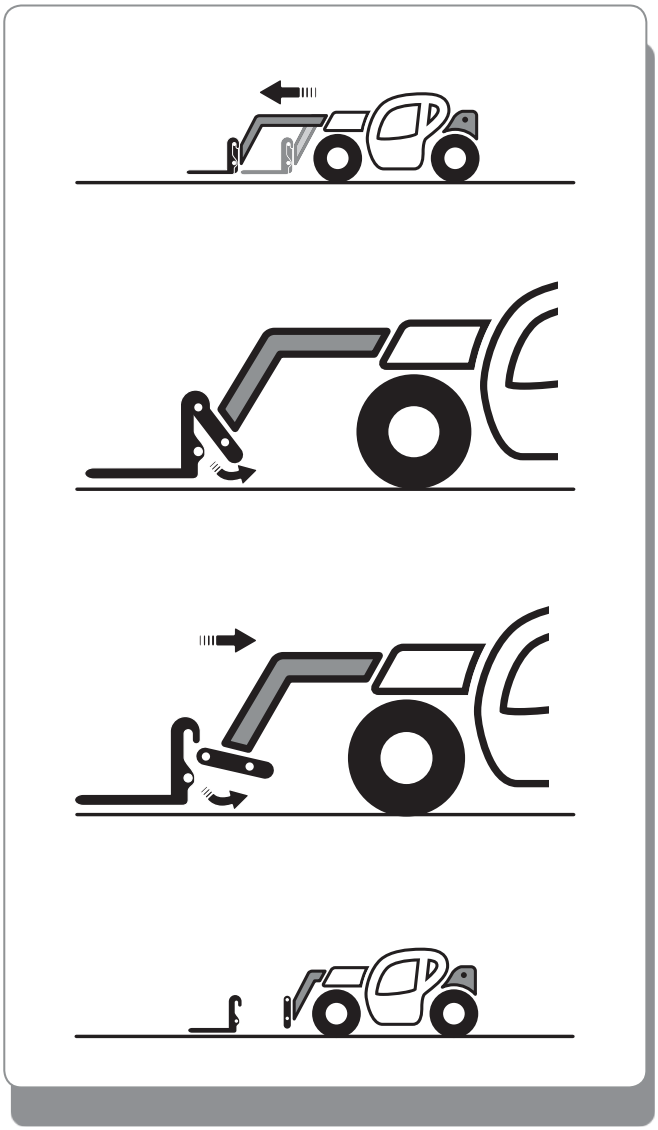


4-I0300

9.5 Equipment removal

To place the accessory back once finished using it, carry out the following operations:

1. Position the vehicle on solid and level ground.
2. Place the equipment on to a support platform to facilitate movement and transport of the individual equipment.
3. Lower and remove the vehicle boom by about one metre.
4. Switch the engine off.
5. Remove any electric connections (consult successive chapter)
6. Remove any hydraulic connections (consult the successive chapter)
7. Remove the safety pins from the pins fixing the equipment to the boom plate.
8. Remove the pins from the tool carriage plate.
9. Turn on the vehicle and swivel downwards to release the tool carriage plate from the equipment.
10. Once the tool carriage plate is freed, retract the boom from the vehicle.



- NOTE

The accessory placed on the ground must always be adequately signalled and barriers and spacers must be placed on all sides of the area it may occupy falling.

- DANGER

After having discharged the pressure from the system, always wait one minute before disconnecting the joints.

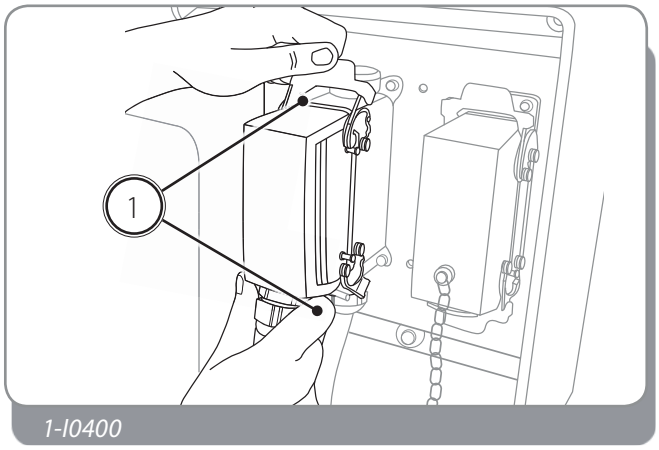
- DANGER

Always disconnect the hydraulic tubes and electric cables from the attachment before removing it from the vehicle. On the contrary, the tubes or cables may be damaged and the attachment may fall and be dragged.

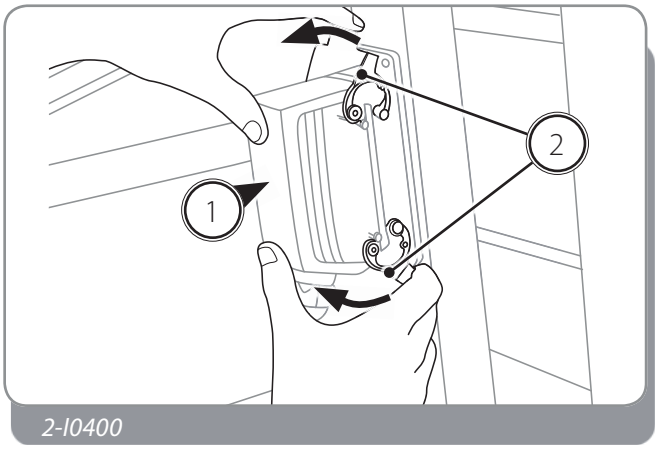
9.5.1 Electric connections removal

To remove any electric connections from the equipment:

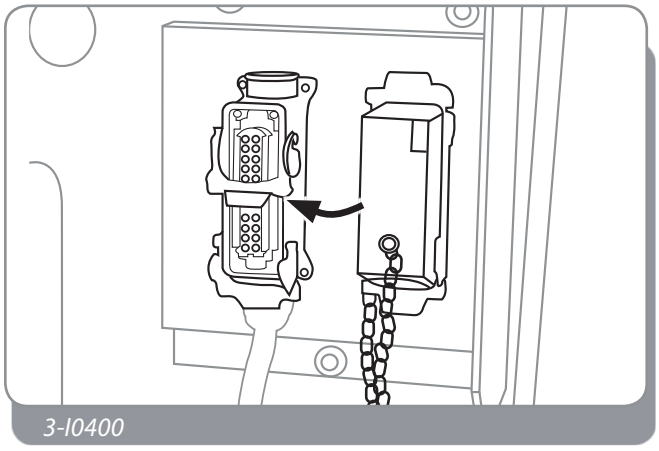
1. Execute points 1, 2, 3 and 4 of the procedure to remove the equipment from the vehicle described in previous chapter.
2. Disconnect the equipment plug from the boom by lowering the two safety levers (Fig. 1-I0400, pos.1)
3. Position the equipment plug on its false socket (Fig. 2-I0400, pos.1), using the safety levers to secure it in place (Fig. 2-I0400, pos.2)
4. Move the plug from the false socket for the boom to the electric socket (Fig. 3-I0400, pos.1)
5. Secure the plug to the boom socket (Fig. 4-I0400, pos.1) using the safety levers (Fig. 4-I0400, pos.2)
6. Check the electric cable is not caught in the tool carriage plate or crushed by the equipment when rested on to the ground.
7. Proceed with successive operations to remove the vehicle's equipment.



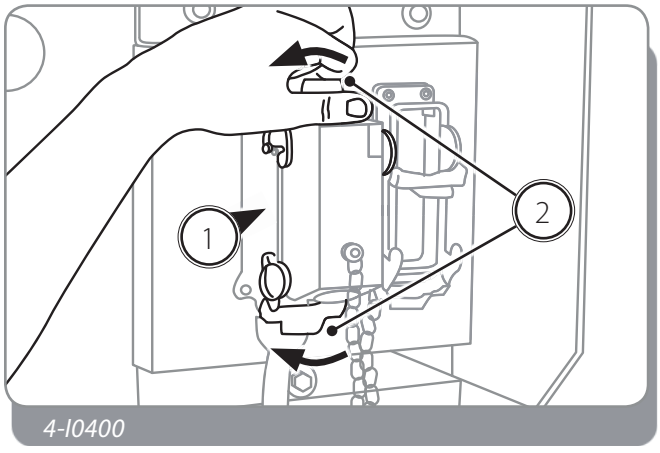
1-I0400



2-I0400



3-I0400

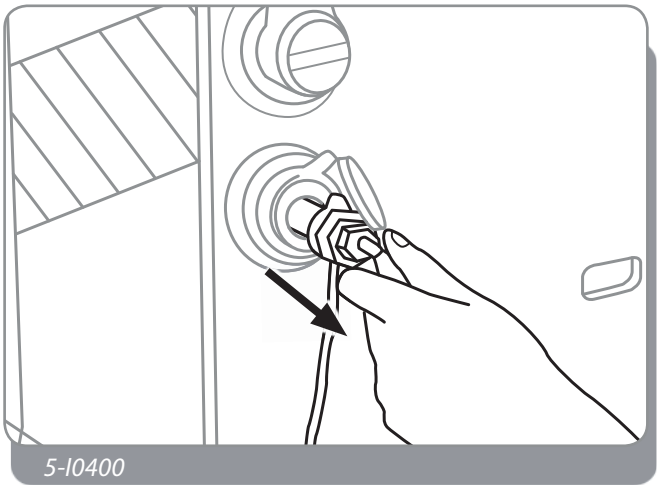


4-I0400

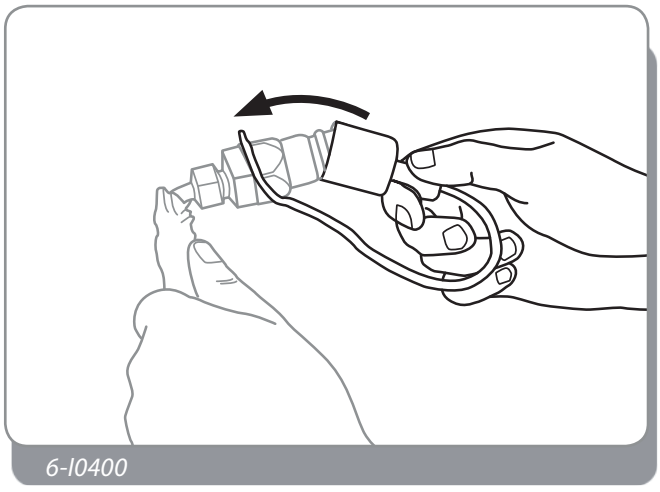
9.5.2 Push-Pull couplings removal

To disconnect the Push-Pull quick couplings from the socket on the boom head:

1. Execute points 1, 2, 3 and 4 of the procedure to remove the equipment from the vehicle described in previous chapter
2. In case a closed centre distributor is installed on the vehicle, execute the procedures described in the "Hydraulic tubes connections" chapter to discharge the pressure from inside the hydraulic circuit.
3. Switch the vehicle off
4. Pull the plug towards you to remove it from the socket (Fig. 5-I0400)
5. Clean plug and socket from any dirt
6. Place the protective cap on the equipment's hydraulic sockets (Fig. 6-I0400)
7. Carry out the same operation for both tubes
8. Check the hydraulic tubes are not caught in the tool carriage plate or crushed by the equipment when rested on to the ground
9. Proceed with successive operations to remove the vehicle's equipment



5-I0400

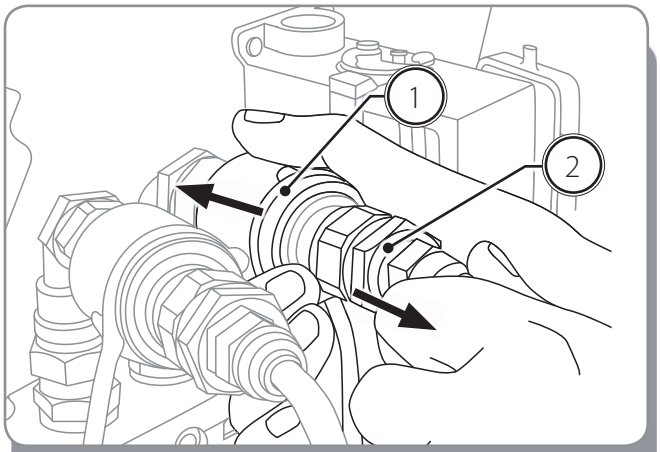


6-I0400

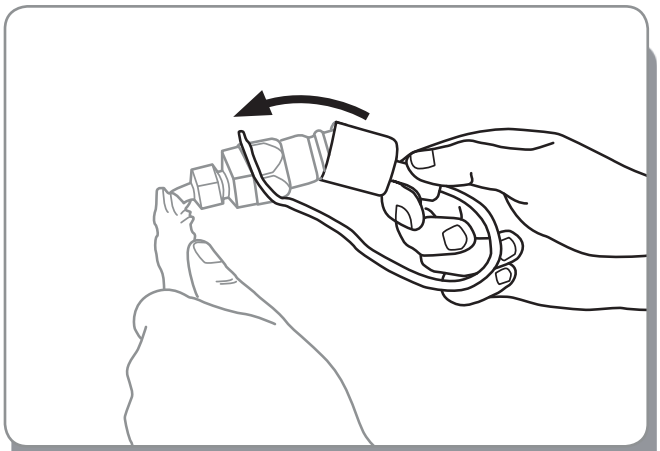
9.5.3 *Push-Pull couplings removal when connected to a valve*

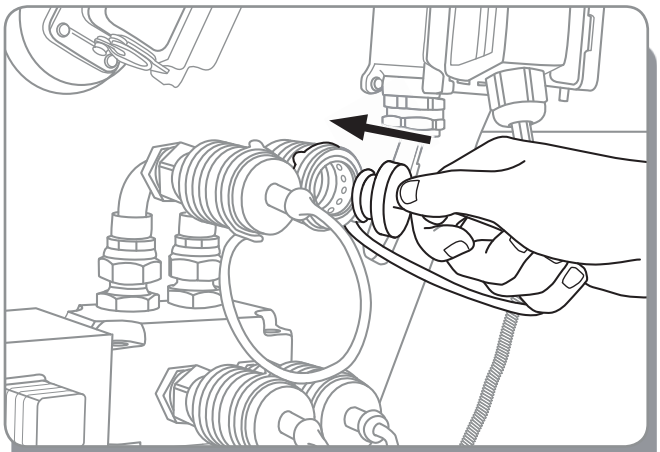
To disconnect the Push-Pull quick couplings from the valve on the boom head:

1. Execute points 1, 2, 3 and 4 of the procedure to remove the equipment from the vehicle described in previous chapter
2. In case a closed centre distributor is installed on the vehicle, execute the procedures described in the "Hydraulic tubes connections" chapter to discharge the pressure from inside the hydraulic circuit.
3. Switch the vehicle off
4. Push the socket ring towards the vehicle's boom (Fig. 7-I0400, pos.1)
5. Pull the plug towards you to remove it from the socket (Fig. 7-I0400, pos.2)
6. Clean plug and socket from any dirt
7. Place the protective cap on the equipment's hydraulic sockets (Fig. 8-I0400)
8. Place the protective cap on the valve's hydraulic sockets (Fig. 9-I0400)
9. Carry out the same operation for both tubes
10. Check the hydraulic tubes are not caught in the tool carriage plate or crushed by the equipment when rested on to the ground
11. Proceed with successive operations to remove the vehicle's equipment



7-I0400

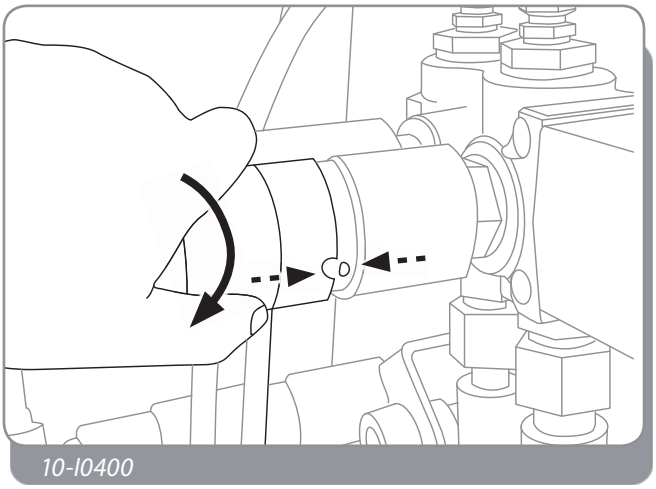

8-I0400


9-I0400

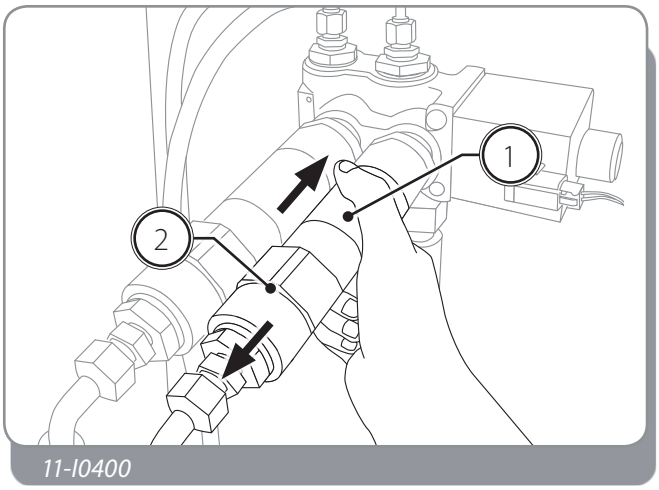
9.5.4 Flat-Face couplings removal

To disconnect the Flat-Face quick couplings:

1. Execute points 1, 2, 3 and 4 of the procedure to remove the equipment from the vehicle described in previous chapter.
2. In case a closed centre distributor is installed on the vehicle, execute the procedures described in the "Hydraulic tubes connections" chapter to discharge the pressure from inside the hydraulic circuit.
3. Switch the vehicle off
4. Turn the socket ring so the slot matches the position of the ball assembled on the socket (Fig. 10-I0400)
5. Push the socket ring (Fig. 11-I0400, pos.1)
6. Pull out the plug (Fig. 11-I0400, pos.1)
7. Clean plug and socket from any dirt
8. Carry out the same operation for both tubes
9. Check the hydraulic tubes are not caught in the tool carriage plate or crushed by the equipment when rested on to the ground.
10. Proceed with successive operations to remove the vehicle's equipment.



10-I0400



11-I0400

9.6 Forks

9.6.1 Identification

The equipment in question is a counterplate with a pair of forks of different lengths and capacities to be installed on the vehicle.

The purpose of this equipment is to lift and handle a load from the ground upwards and vice versa.

The data required for identification purposes are found on the right side of the equipment and forks, at the top (Fig. 1-I0510 pos. "A").

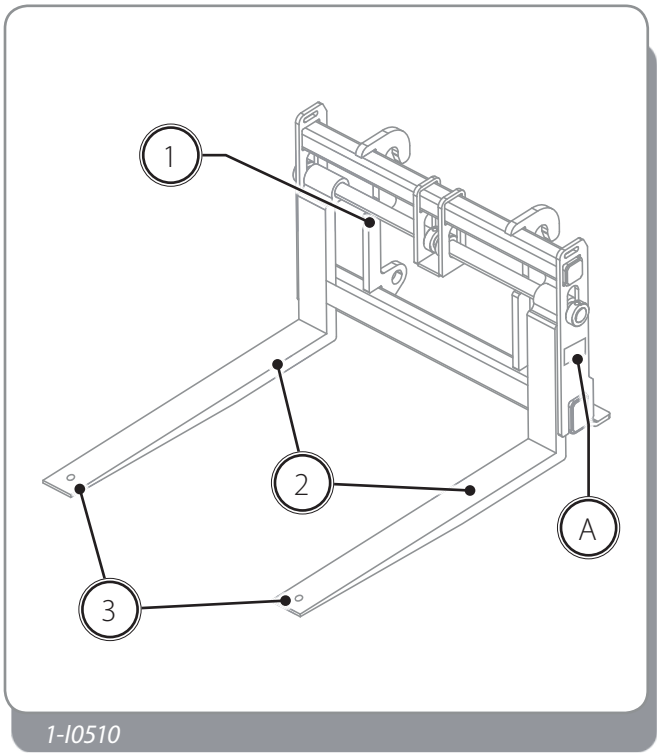
Hereunder are the identification data (the order of which could differ from that on the forks)

DIECI fork code	.....
Manufacturer Logo/Code	.....
Construction Date/Lot	.....
Maximum capacity (Kg)	.....
Load application centre of gravity (mm)*	.....

* More than 1 value may be present, depending on the load.

To ensure prompt and efficient service when ordering spare parts or when requesting information or technical explanations, always provide the identification data.

We recommend taking note of the data of your accessory for safe and quick identification in the future.



1-I0510

9.6.2 Description

The counterplate (Fig. 1-I0510) consists of the following main components:

Position	Description
1	Fork holder base
2	Forks
3	Equipment fastening hole

- NOTE

The hole to fasten the equipment found at the end of the forks can only be used to fasten certain equipment to the forks. Refer to the manual of the equipment for the fastening operations.

9.6.3 *Verification of the forks*

Refer to the "Control log" for the frequency of the fork verifications.

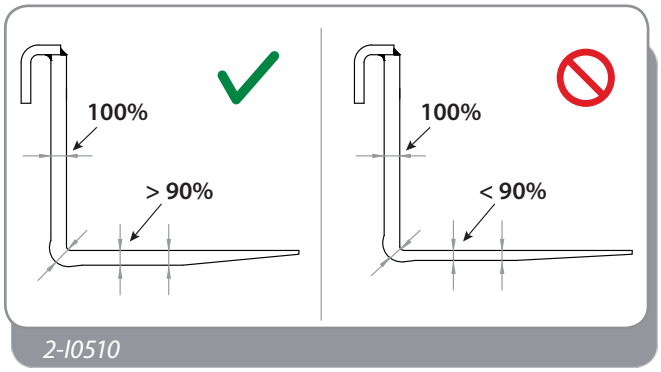
- ATTENTION

It is mandatory to use the appropriate personal protective equipment during maintenance and control.

- FORBIDDEN

It is strictly prohibited to perform any maintenance on the forks (e.g. welding, drilling, incisions, etc.).

If the forks are damaged or deformed, replace them immediately.



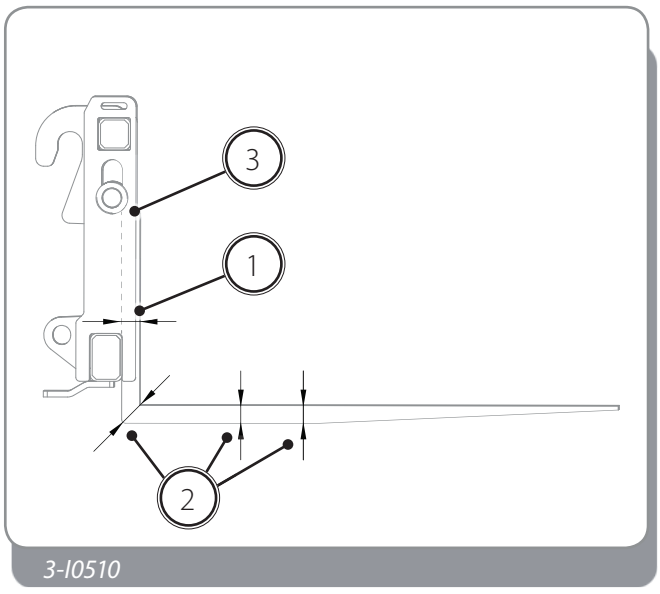
2-I0510

Check the thickness of the forks.

The maximum admitted wear amounts to **10%** (Fig. 2-I0510) .

For example, for a 70 mm-thick fork, the thickness must be no less than 63 mm. (70 - 10% = 63)

To check the fork thickness quickly, it is necessary to measure the thickness on the vertical part of the fork (Fig. 3-I0510, pos.1); this will be the measurement that we will have to refer to in order to measure fork thickness (Fig. 3-I0510, pos.2). Take at least three measurements in different points.

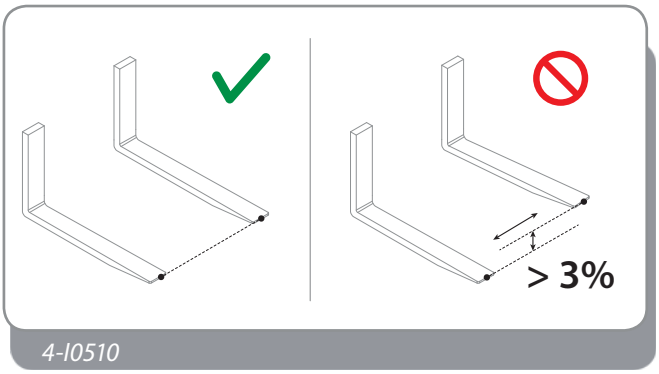


3-I0510

Check for deformation of the forks

Make sure the two forks are parallel to each other and the distance from the ground is the same for both or with a difference that is less than **3%** of the length of the fork (Fig. 4-I0510).

For example, for a 1800 mm long fork, the maximum deformation waste allowed between the ends of the forks is 54 mm (1800 x 3 / 100 = 54)



4-I0510

Verifying the integrity of the welds

Make sure that all of the welded points on the forks (Fig. 3-I0510, pos.3) are in good conditions, without any cracks or irregularities.

9.6.4 *Fork installation*

Refer to the "Equipment installation" chapter for Counterplate with side shift installation operations.

9.6.5 *Using the forks*

- ATTENTION

Before starting to use the equipment, inspect and check it as described in the "Equipment pre-use checks" paragraph.

- DANGER

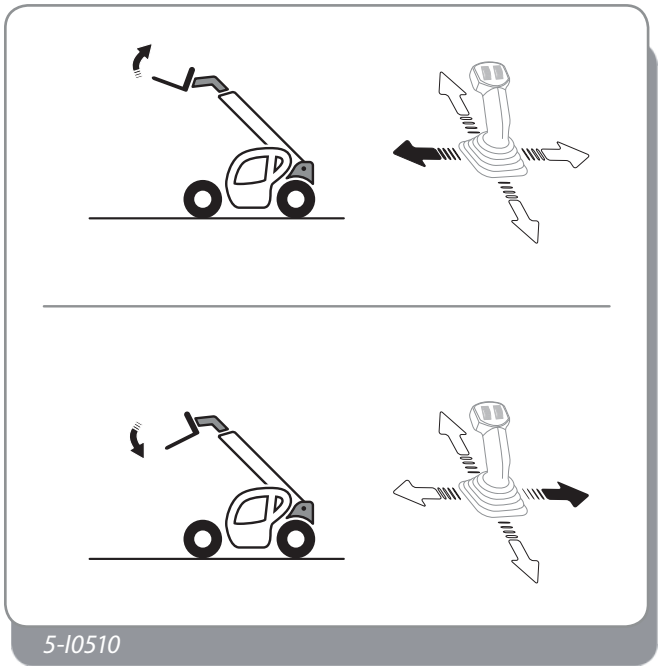
Check the wear condition of the forks before every use as they could be worn and not able to support the load that is to be handled, thereby posing a hazard.

Before starting to use the equipment, refer to the chapters:

- Safety regulations
- Safe work procedures
- Verification of the forks

To use the forks, simply move the swivelling controls of the plate.

The ends of the forks are lifted by moving the joystick to the left and they are lowered by moving the joystick to the right.



5-I0510

9.6.6 *Fork adjustment*

To adjust the position of the forks, it is necessary to:

- Place any load on the ground.
- Lower and fully retract the boom, bringing the forks to approximately 1 m from the ground.
- Turn off the vehicle.
- Get down from the vehicle and move the forks, by hand, to the required width.

9.6.7 Fork extenders

Description of the fork extenders

The fork extenders are made of the following main components (Fig. 6-I0510):

1	Extension cord
2	Locking rod
3	Safety pins

Using the fork extenders

- ATTENTION

Before starting to use the equipment, inspect and check it as described in the "Safe work procedures for forks" paragraph.

Before starting to use the equipment, refer to the "Safety regulations" and "Safe work procedures" described in the manual for the vehicle that the equipment is installed on.

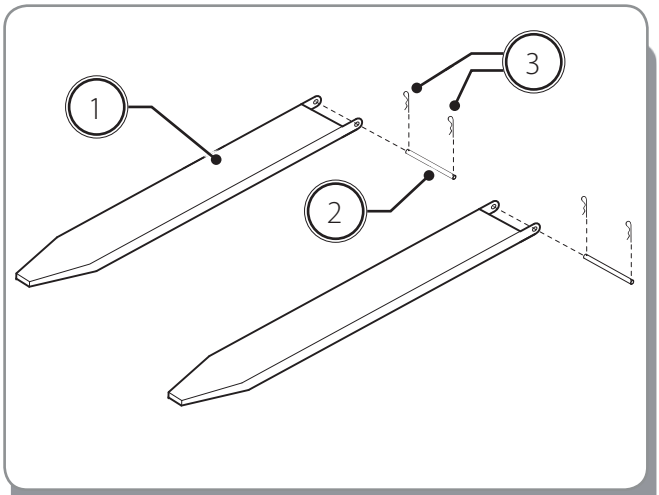
- Only use the extenders on the forks they were manufactured for
- Before use, make sure they are in good conditions
- Always apply the pin with relative safety split pin
- Do not use loads exceeding the indicated weights
- Check the stability of the load
- Do not pick up the load with a single extender
- Do not use the extenders for purposes other than the intended uses
- The telescopic lift with forks is a vehicle, accordingly, be even more careful when using the equipment

Fork extender assembly

- Fit the extenders onto the forks once you have made sure both are in good conditions
- Put in the locking pin (Fig. 6-I0510) "**2**" with relative safety split pin "**3**"

- DANGER

Dot not use, for any reason, if the forks or extenders are faulty or have been tampered with



6-I0510

Fork extender maintenance

For the maintenance operations of the forks extending/shifting plate, refer to the "Maintenance" of the forks chapter.

Checking the fork extenders

- With every use, make sure the welded points are in good conditions, and repair if necessary
- When the thickness of the bottom sheet metal reaches 80% of its original thickness

9.6.8 *Lifting the forks*

- ATTENTION

Make sure that the raising mechanism has a capacity that is appropriate for the weight of the equipment to be lifted.

- NOTE

It is recommended to use a support platform to handle and transport the equipment.

- ATTENTION

Make sure that the support platform is in good condition and has adequate capacities for the weight of the equipment to be lifted.

- FORBIDDEN

It is strictly forbidden to lift the vehicle with the accessory still installed on it.

9.6.9 *Transporting the forks*

- ATTENTION

Make sure that the transport vehicle has adequate capacity for the weight of the equipment to be transported.

- NOTE

It is recommended to use a support platform to handle and transport the equipment.

When loading or unloading a vehicle and its relative accessories from a transport vehicle, there always lies the hazard of the vehicle overturning.

Use an appropriate truck or trailer for transporting the vehicle and its relative accessories.

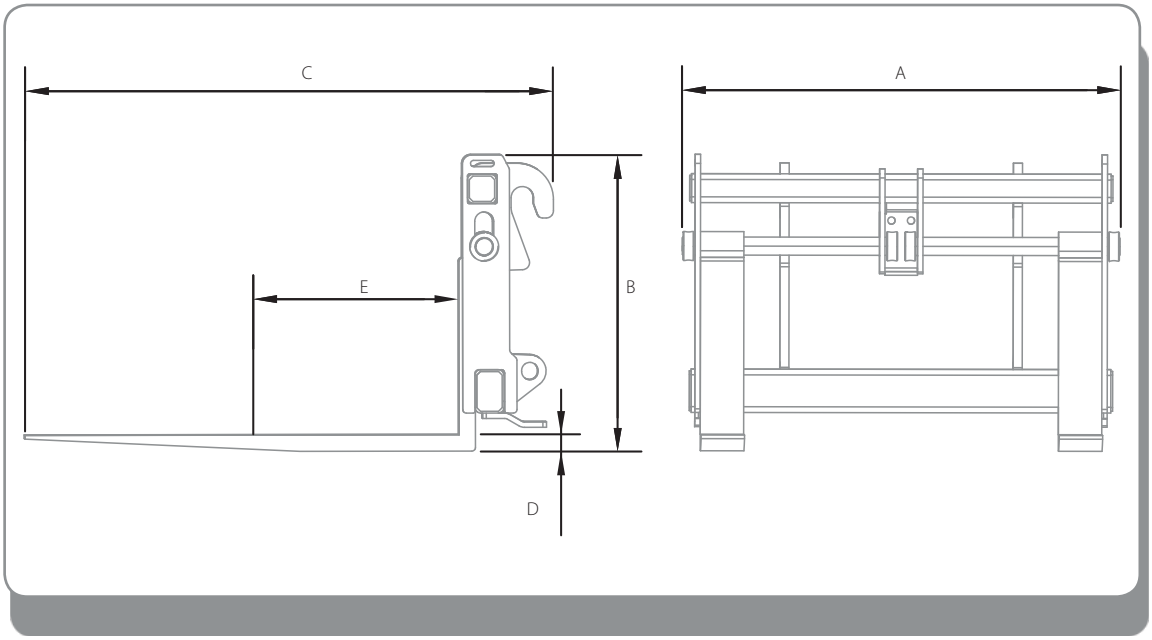
Fix the forks with appropriate slinging systems, make sure they are in good conditions and are adequate for the weight and dimensions of the forks.

- FORBIDDEN

It is strictly forbidden to transport the vehicle with the accessory still installed on it.

For details on the procedures to be followed when transporting the vehicle, refer to the Use and Maintenance Manual of the vehicle on which the accessory will be installed.

9.6.10 *Forks technical data*



Equipment model	Machine model	Capacity	A	B	C	D	E	Weight	Diagram on wheels
BCV8071	AGRI PIVOT T40	2500 kg (5510 lb)	1210 mm (47.63 in)	715 mm (28.14 in)	1468 mm (57.79 in)	120x45 mm (4.72x1.77 in)	500 mm (19.68 in)	250 kg (551 lb)	AX1550/550
BCV8071	AGRI PIVOT T50	2500 kg (5510 lb)	1210 mm (47.63 in)	715 mm (28.14 in)	1468 mm (57.79 in)	120x45 mm (4.72x1.77 in)	500 mm (19.68 in)	250 kg (551 lb)	AXB1551/550
BCV8071	AGRI PIVOT T60	2500 kg (5510 lb)	1210 mm (47.63 in)	715 mm (28.14 in)	1468 mm (57.79 in)	120x45 mm (4.72x1.77 in)	500 mm (19.68 in)	250 kg (551 lb)	AXB1552/550

9.7 Carriage with side shift and forks

The Carriage with side shift is an optional accessory.

9.7.1 Identification

The accessory in question shifts the floating forks installed on it, sideways.

The purpose of this equipment is to lift and handle a load from the ground upwards and vice versa.

The data required for identification purposes is found on the right side of the equipment at the top (Fig. 1-I0610 pos. "A").

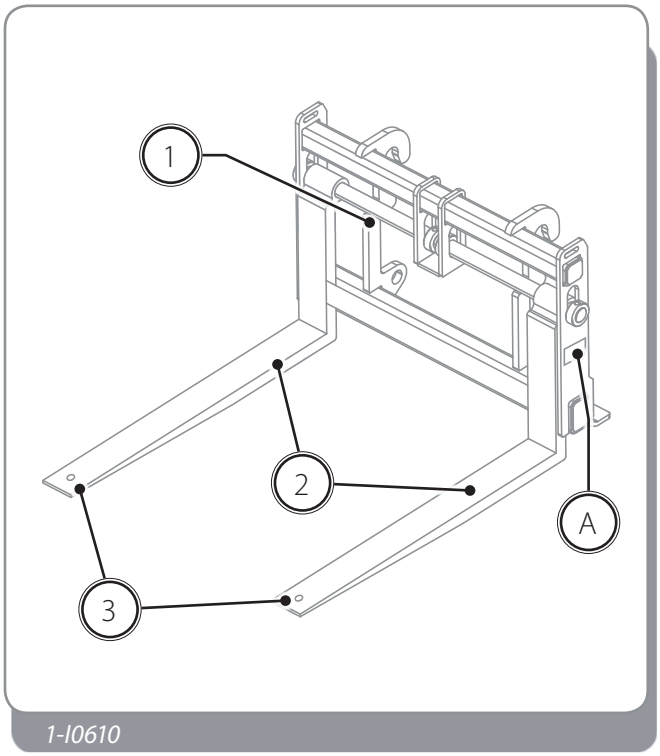
Hereunder are the identification data (the order of which could differ from that on the forks)

DIECI code	.....
Manufacturer Logo/Code	.....
Construction Date/Lot	.....
Maximum capacity (Kg)	.....
Load application centre of gravity (mm)*	.....

* More than 1 value may be present, depending on the load.

To ensure prompt and efficient service when ordering spare parts or when requesting information or technical explanations, always provide the identification data.

We recommend taking note of the data of your accessory for safe and quick identification in the future.



1-I0610

9.7.2 Description

The Counterplate (Fig. 1-I0610) consists of the following main components:

Position	Description
1	Fixed base
2	Fork holder side shift support
3	Forks
4	Equipment fastening hole

- NOTE

The hole to fasten the equipment found at the end of the forks can only be used to fasten certain equipment to the forks. Refer to the manual of the equipment for the fastening operations.

9.7.3 *Installation of Counterplate with side shift*

Refer to the "Equipment installation" chapter for Counterplate with side shift installation operations.

9.7.4 *Maintenance of Counterplate with side shift*

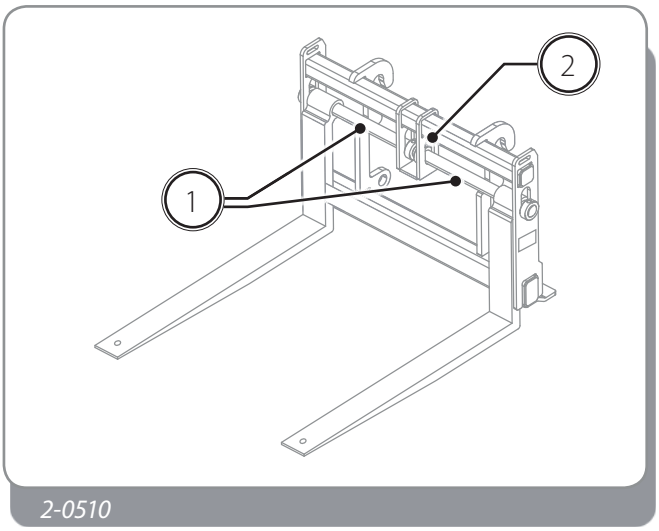
For the maintenance operations of the forks for the Counterplate with side shift, refer to the "Fork verification" chapter.

The Counterplate with side shift requires very little maintenance (Fig. 2-0510).

- Only use silicone oil to lubricate the chrome cylinders "**1**".
- Use grease to lubricate the tracks for the sliding motion between the fixed base and the translating support "**2**".

- FORBIDDEN

Do not use grease to lubricate the mobile hydraulic parts or the chrome cylinders. Use only silicone oil and clean often.



2-0510

9.7.5 Operation of the Counterplate with side shift

- ATTENTION

Before starting to use the equipment, inspect and check it as described in the "Equipment pre-use checks" paragraph.

- DANGER

Check the wear condition of the forks before every use as they could be worn and not able to support the load that is to be handled, thereby posing a hazard.

Before starting to use the equipment, refer to the chapters:

- Safety regulations
- Safe work procedures
- Verification of the forks

- ATTENTION

Before using the Counterplate with side shift, verify that its movements are correct.

- DANGER

Should the joystick controls not correspond to the correct movements of the forks, exchange the position of the two hydraulic tubes on the quick sockets at the top of the boom.

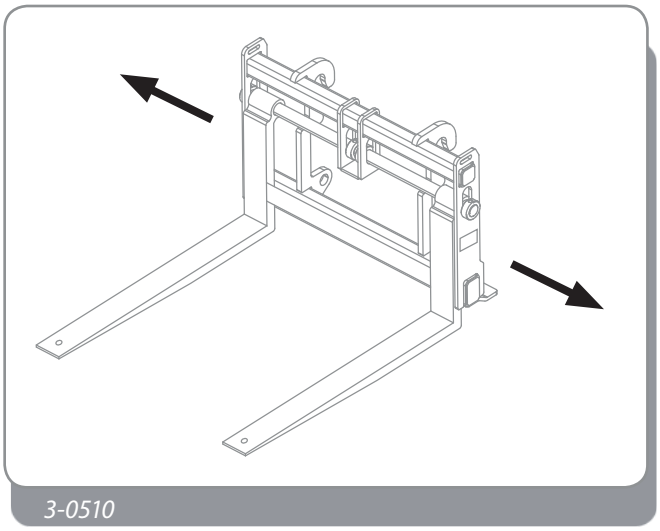
Select the hydraulic socket at the top of the relative boom and move the command intended for services in order to use the Counterplate with side shift.

Joystick 3in1:

- Move the services lever to the right to move the counterplate to the right.
- Move the services lever to the left to move the counterplate to the left.

Joystick 4in1:

- Move the services roller forwards to move the counterplate to the right.
- Move the services roller backwards to move the counterplate to the left.



3-0510

9.7.6 *Elevation of the Counterplate with side shift*

- ATTENTION

Make sure that the raising mechanism has a capacity that is appropriate for the weight of the equipment to be lifted.

- NOTE

It is recommended to use a support platform to handle and transport the equipment.

- ATTENTION

Make sure that the support platform is in good condition and has adequate capacities for the weight of the equipment to be lifted.

- FORBIDDEN

It is strictly forbidden to lift the vehicle with the accessory still installed on it.

9.7.7 *Transporting the Counterplate with side shift*

- ATTENTION

Make sure that the transport vehicle has adequate capacity for the weight of the equipment to be transported.

- NOTE

It is recommended to use a support platform to handle and transport the equipment.

When loading or unloading a vehicle and its relative accessories from a transport vehicle, there always lies the hazard of the vehicle overturning.

Use an appropriate truck or trailer for transporting the vehicle and its relative accessories.

Fix the forks with appropriate slinging systems, make sure they are in good conditions and are adequate for the weight and dimensions of the forks.

- FORBIDDEN

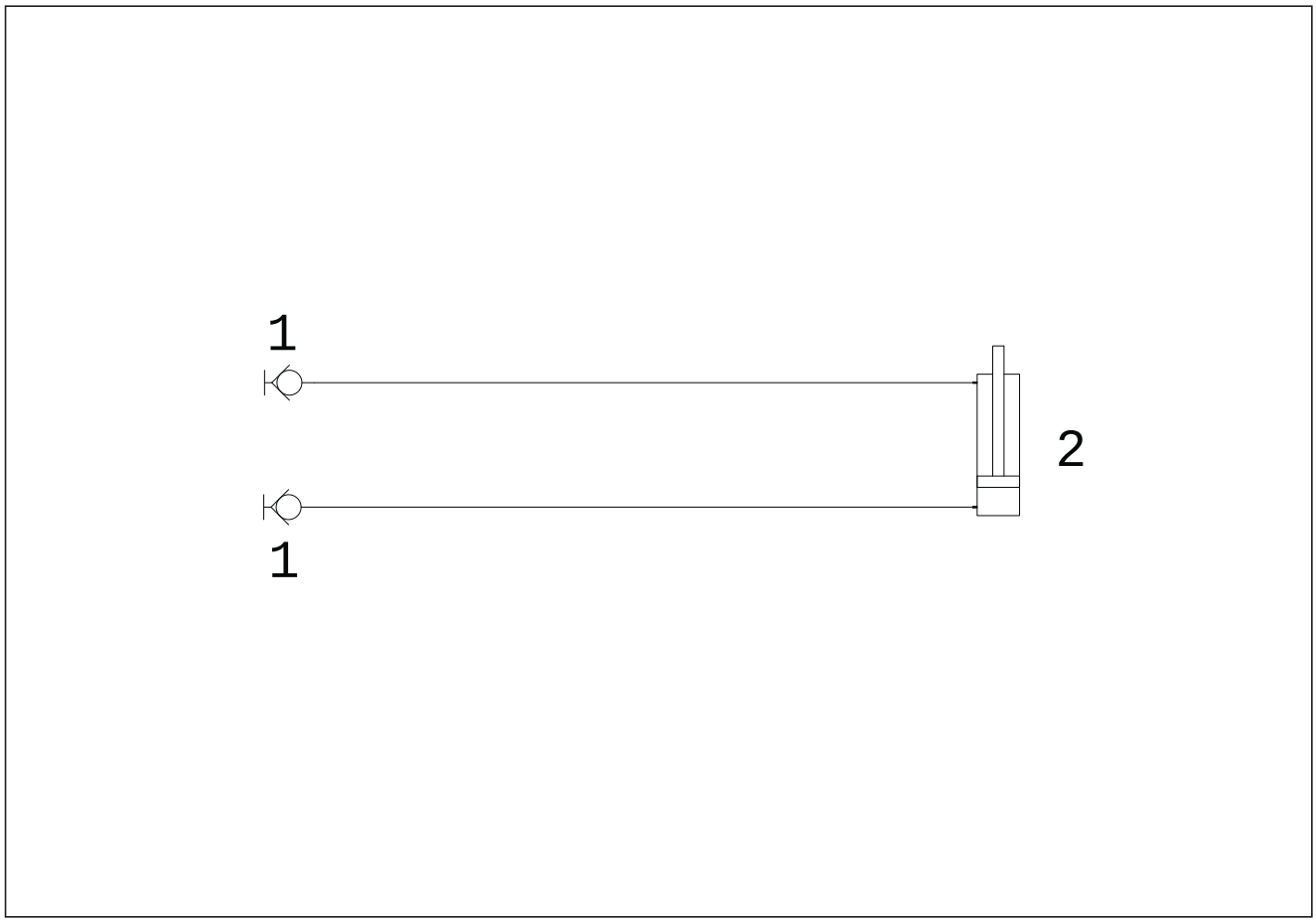
It is strictly forbidden to transport the vehicle with the accessory still installed on it.

For details on the procedures to be followed when transporting the vehicle, refer to the Use and Maintenance Manual of the vehicle on which the accessory will be installed.

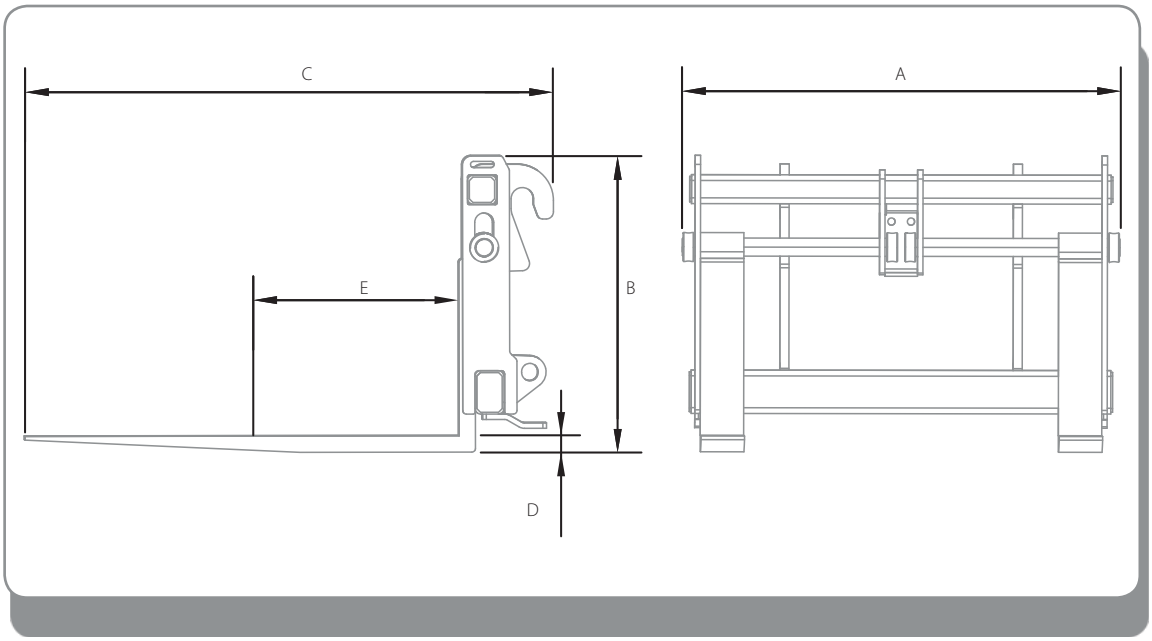
9.7.8 Hydraulic system of the Counterplate with side shift

Hydraulic diagram key:

1	Quick couplings
2	Cylinder



9.7.9 *Technical data for Counterplate with side shift*



Equipment model	Machine model	Capacity	A	B	C	D	E	Weight	Diagram on wheels
BCV8070	AGRI PIVOT T40	2500 kg (5510 lb)	1170 mm (46.06 in)	755 mm (29.72 in)	1540 mm (60.62 in)	120x45 mm (4.72x1.77 in)	500 mm (19.68 in)	320 kg (705 lb)	AXB1550/550
BCV8070	AGRI PIVOT T50	2500 kg (5510 lb)	1170 mm (46.06 in)	755 mm (29.72 in)	1540 mm (60.62 in)	120x45 mm (4.72x1.77 in)	500 mm (19.68 in)	320 kg (705 lb)	AXB1551/550
BCV8070	AGRI PIVOT T60	2500 kg (5510 lb)	1170 mm (46.06 in)	755 mm (29.72 in)	1540 mm (60.62 in)	120x45 mm (4.72x1.77 in)	500 mm (19.68 in)	320 kg (705 lb)	AXB1552/550

10 SAFE WORK PROCEDURES

10.1 General warnings

For safe working procedures in the various working conditions refer to the "Safety regulations" chapter.

- ATTENTION

Do not use the vehicle without having first read and understood all parts of this manual, and without having attended an adequate training course.

- FORBIDDEN

Do not use the machine if you are under the effect of alcohol, drugs or if you have taken medication that may make you drowsy or alter your reflexes.

- DANGER

Do not use the vehicle when hands or shoes are wet or dirty with grease or greasy substances.

- ATTENTION

Verify that all safety devices function before using the vehicle. The operator must always maintain control of the vehicle state and operation.

Use the acoustic warning device or other signals to alert people in the area before starting up the vehicle.

Inspect control instructions immediately after start up, while the engine is hot and at regular intervals during use, in order to promptly recognise and resolve any malfunctions.

- FORBIDDEN

Do not start the engine or touch the levers of the vehicle if there is a danger sticker stuck inside the cab or maintenance in progress.

- FORBIDDEN

Do not carry passengers on the vehicle or in the driver's cab or on any other part of the vehicle (including passenger conveying basket).

- FORBIDDEN

It is prohibited to use the mobile hydraulic parts of the vehicle the lift people except when using the passenger baskets with relative personal protective equipment for the operator inside.

- NOTE

Regardless of the user's experience, become familiar with the position and function of all controls and instruments in a work area free from obstacles and persons, before operating the vehicle.

- ATTENTION

Carry out all the described safety checks before resuming operations.

- NOTE

While the vehicle is running, always keep light signals on. These serve to warn people that the vehicle is about to move.

- ATTENTION

Always keep the safety distance adequate for the type of work and persons or objects in the work area.

Always look in the forward direction and maintain good road visibility.

- DANGER

Adjust movement speed based on the load carried and the type of ground; remain at low speeds to reduce the risk of the vehicle tipping over or losing the load.

Do not drive with the brake pedal pressed.

- DANGER

Do not use the vehicle's force of impact to carry out tasks. These vehicles are not designed for said use; therefore, such use may cause vehicle overturning, damage, the breakage of components and attachments, or serious personal injury for the user.

- DANGER

Always operate with the engine bonnet closed.

Do not operate with removed vehicle protective parts.

- ATTENTION

When working in a congested area, designate one person to signal and coordinate the work zone.

Make sure that everyone follows the directions given by the person in charge of signalling.

Ensure to use signals conform with the dispositions in force in the country of use of the vehicle.

For additional information with regard to the presence of a person in charge of signalling, consult the "Signals to more vehicles" chapter.

- DANGER

When working alongside excavations or on the edge of the road or soft ground, keep at a safe distance as the vehicle may overturn. Designate a person on the ground to be in charge of signalling.

have another person present on the ground.

Remember that after strong rains, the use of explosives or an earthquake, the ground is more fragile.

- DANGER

When working on the upper part or inside buildings or other structures, verify their capacity and stability before starting operations. The risk of collapse exists and can cause serious injuries or damage.

- DANGER

Working on a slope may be dangerous. The conditions of the terrain may vary according to climatic conditions (e.g. rain, snow, ice). Therefore, pay careful attention to the conditions of the terrain on which the vehicle is being used; the use of low speeds is recommended.

- ATTENTION

Drive slowly on grass, leaves or wet steel slabs. Even when operating on slight slopes the vehicle may slip, lose balance or overturn.

- ATTENTION

Tipping conditions of the vehicle can vary depending on the features of the ground, environmental conditions and the type of work.

Complying with all the safety instructions contained in this manual reduces risks for the vehicle and the operator in most operating conditions provided herein.

It is forbidden to use the tractor if there is any risk of tipping that is not covered herein, as this manual contains an incomplete list.

10.2 Inspections prior to starting-up

10.2.1 Inspecting the vehicle

Carefully inspect your vehicle every day or before every shift.

Carry out the following inspections and operating checks:

- Parking brake efficiency
- Intact condition of the tyres
- Type of tyre suitable for the type terrain
- Engine oil level (check and top-up, if necessary).
- Hydraulic oil level (check and top-up, if necessary).
- Air filter clogging indicator (check and clean, if necessary).
- Tyre inflation and pressure (check).
- Fuel level (check).
- Signalling and warning devices (check).
- Steering efficiency.
- Service brake efficiency.
- Tightness of all nuts and bolts.
- Lighting
- Direction indicators
- Emergency lights.
- Switches.
- Indicator lights.
- Windscreen wipers.
- Reverse movement alarm.
- Position and condition of rear view mirrors

- DANGER

Immediately stop using the vehicle if it malfunctions or it does not comply with safety standards.

Contact an authorised *DIECI S.R.L.* workshop if the vehicle malfunctions. Refer to the "Maintenance" chapter for information regarding routine maintenance.

A thorough inspection is required if the vehicle is not used for a prolonged period of time. A detailed description of the operations is provided in the "Vehicle storage" chapter.

10.2.2 Inspecting the work area

- Examine the work area when working at the edge of an excavation or on soft ground as the vehicle could overturn.
- Examine the conformation and condition of the terrain of the work area before beginning to operate.
- Keep the vehicle well away from the edge of the excavation and the side of the road.
- When working on a slope or near the roadside, have another person present for signalling.
- Pay utmost attention when working on icy ground. The ice will melt as the temperature rises and the ground becomes slippery.
- Check for any overhead power lines or underground piping.
- Do not work in places at risk of landslides or falling rocks.
- Take due precautions to prevent that any unauthorised persons from entering the working area.
- When moving through or operating in shallow water or soft ground, verify the shape and the conditions of the land, the depth and speed of water flow before beginning operation.

10.3 Starting and stopping the vehicle

10.3.1 General warnings regarding starting up the vehicle

- ATTENTION

Do not use the vehicle without having first read and understood all parts of this manual, and without having attended an adequate training course.

- DANGER

Before starting the engine, make sure all control levers are in a neutral position, the parking brake is engaged, the engine bonnet is closed and that there is nobody in the area surrounding the vehicle.

- DANGER

The vehicle can only be started up or manoeuvred when the operator is seated in the driver's seat, with the seat belt fastened and adjusted.

- DANGER

The vehicle may move suddenly if started up without following the correct procedure, thus, creating the risk of damage.

- FORBIDDEN

Never start the engine by causing a short circuit between the terminals on the starter.

- FORBIDDEN

Never start-up the engine by pushing or pulling the vehicle. This could seriously harm people or cause serious damage to the vehicle.

- DANGER

Be careful when using auxiliary batteries as the gas contained in these may explode, causing serious damage.

Follow the instructions provided in the "Emergency procedures" chapter, "Start-up using auxiliary batteries" paragraph to start the engine using auxiliary batteries. An incorrect procedure can cause serious damage to the electrical/electronic system, the vehicle to move suddenly, the battery to explode and damage to objects and/or people.

- FORBIDDEN

Do not start the engine or touch the levers of the vehicle if there is a danger sticker stuck inside the cab or maintenance in progress.

10.3.2 Starting-up the engine

Proceed as follows to start-up the engine of the vehicle:

1. Press the parking brake switch.
2. Bring the movement selection lever to neutral.
3. Remain seated in the driver's seat.
4. Turn the ignition key (Fig. 1-J0100) clockwise to "**1**".

With the key in this position:

- The control panel and dashboard will be powered
- A buzzer will sound, indicating the key has been inserted. This buzzer also serves to warn any persons in the surrounding area that the vehicle has been started up.
- A check-up of the instrumentation will be performed with all the indicators lighting up for about 5 seconds. Only the following must remain switched on at the end of the check-up:
  - Engine oil pressure indicator
  - Battery charge indicator
  - General alarm indicator
  - Intermittent buzzer
  - Other indicators of activated functions (e.g. Parking brake, gears engaged, etc.)

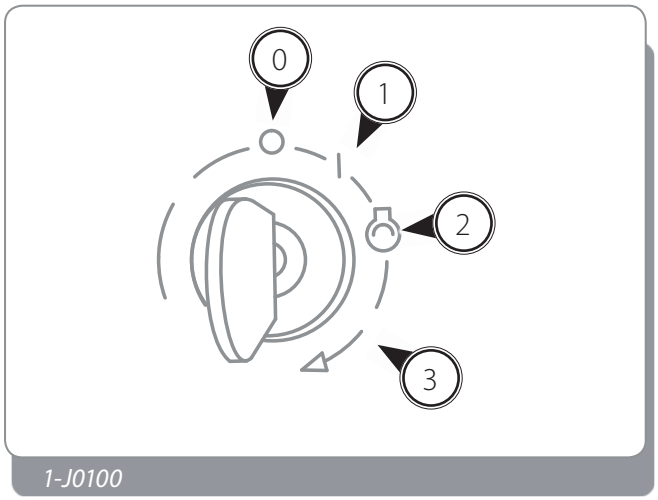
- FORBIDDEN

Should other indicators remain on signalling malfunctions or if one of the previous conditions does not occur, do NOT start-up the engine and refer to the "Maintenance" chapter or contact the Dieci after-sales centre.

5. Turn the ignition key (Fig. 1-J0100) to "**3**" to start-up the engine. Release the starter within 5 seconds.
6. Release the key once the engine has started. The indicators related to the engine oil pressure and battery charge must go off once the engine is started up.

If the engine does not start within 5 seconds, try again at regular 15 second intervals to prevent overloading the starter.

If the engine does not start at all, refer to the "Maintenance" chapter of this manual or contact the DIECI after-sales centre.



1-J0100

- NOTE

With the motor started, the automatic parking brake disengages. Always verify that the parking brake has been engaged through the button before starting up.

10.3.3 Warm-up after starting-up

During the first few minutes of use, keep the speed slow in order to warm up the engine and hydraulic oil.

- DANGER

Serious damage can be caused to the engine and the hydraulic system if the engine reaches high rpm before the operating oil temperature and pressure levels are reached.

- NOTE

Let the engine run at 1100 - 1300 rpm for about 5 minutes so as to bring the engine oil to the operating temperature, particularly, with outdoor temperatures close to 0°C.

10.3.4 Start-up at low environmental temperatures

Consider the following warnings before starting-up at low environmental temperatures and with a cold engine:

- In order to prevent draining the battery, do not prolong each attempt to start-up by more than 15 seconds; however, if the engine does not seem to be starting-up, extend the time to a maximum of 30 seconds.
- Wait at least one minute before trying to start-up again.
- It is recommended to not exceed the six start-up attempts so as not to drain the battery excessively.

- NOTE

It is recommended to use anti-freeze diesel at environmental temperatures lower than 0°C, so as to make sure the engine is optimally supplied, without reducing performance, even at environmental temperatures lower than -20°C.

10.3.5 Causes of failed start-ups

Check the following if the engine does not start-up:

- The parking brake switch is pressed
- The gear selection lever is in the neutral position
- The emergency stop buttons at the sides of the vehicle are not pressed

Once all the above-mentioned conditions are verified, eliminate the cause of the failed start-up and try to start-up once again.

If the problem persists, contact a *DIECI* after-sales centre

10.3.6 Switch the vehicle off

It is recommended to perform the following before switching the engine off:

1. Bring all the control levers to the idle position
2. Bring the ending to low rpm for at least 3 minutes
3. Bring the key to the "**0**" position.

10.4 Driving on the road

10.4.1 Warnings regarding driving on the road

- ATTENTION

Before driving the vehicle on the road, make sure the law and regulations of the relative country are complied with.

The requirements for road travel are provided on the vehicle registration certificate.

Dimmed headlights should be used during day hours and on roads where use of visual signals and lighting devices is not mandatory.

Ensure correct operation and cleaning of headlights, directional lights and windscreen wipers.

- ATTENTION

Verify that the rear view mirrors are positioned correctly.

The objects seen through the rear view mirror are closer than they appear.

When driving on the road and/or on a slope pay utmost attention to the engine rpm. A high rpm could lead to mechanical damage. Always monitor the rpm and engine speed.

Pay particular attention to loading docks, trenches, scaffolding and recently excavated or filled land.

10.4.2 Instructions regarding driving on the road

- Level the vehicle so that the wheel axles are aligned with the chassis (if present).
- Ensure that all outriggers have been perfectly retracted and raised (if present).
- Close the telescopic arm (boom) completely.
- Lower the telescopic boom completely and then raise it slightly to about 30 cm from the ground.
- Make sure the lights work properly before driving on the road. Check that the slow vehicle revolving indicator light is installed and functional. Keep it activated during both day and night use.
- Align the wheels for them to be perfectly aligned to the chassis of the vehicle.
- **It is mandatory** to set the steering as indicated on the vehicle registration certificate and to block the selection lever with the relative device.
- Make sure that the amount of fuel is sufficient.
- Fit all the accessories required to drive on the road according to the relative country.
- Install an overhanging load signal panel on the boom head before the entering onto the road.
- Always assess the route to be covered, taking into consideration overhead structures (e.g. bridges, underpasses, etc.) that could be damaged by the vehicle.
- In some countries it is mandatory to place wedges under the tyres when the vehicle is stopped.
- Make sure the vehicle complies with local regulations regarding number plates when driving on the road during the day and night.

- ATTENTION

Road transfer with equipment assembled to the fork holding plate is not allowed except those accepted by the legal authority of the country where the vehicle operates.

- FORBIDDEN

Operating the vehicle on the road when it is carrying a load is prohibited.

10.5 Temporary stop

- Gradually release the accelerator pedal.
- Bring the vehicle to a halt on flat ground.
- Engage the parking brake
- Bring the movement selection lever to "**N"**.
- During the running-in of the vehicle (50 h), do not keep the diesel engine at minimum revs for too long.

- ATTENTION

If the operator must abandon the driver's seat, he/she should follow the instructions provided in the paragraph "Parking the vehicle".

- FORBIDDEN

Never move away from the vehicle, leaving the engine running or the ignition key in the vehicle.

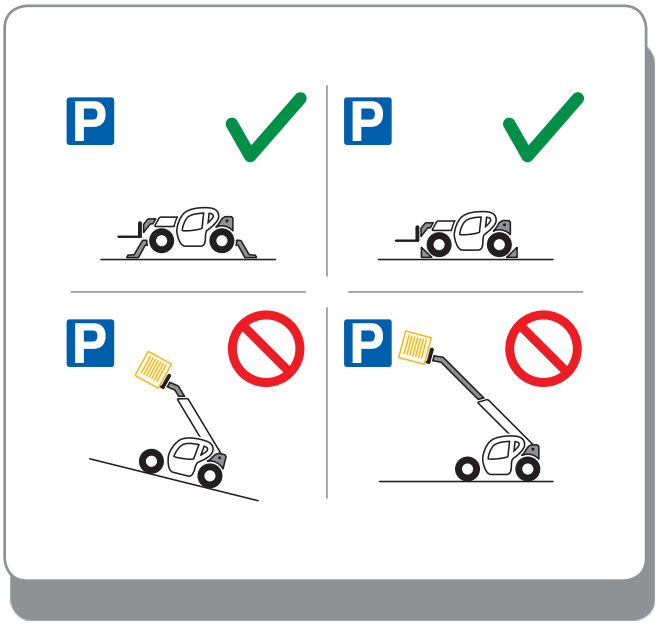
- FORBIDDEN

Do not stop and leave the vehicle parked on a slope exceeding 15%, even with the parking brake engaged.

10.6 Parking the vehicle

- FORBIDDEN

Under no circumstances is the vehicle to be parked with a raised load.



- Always park on flat, even and level ground where there is no risk of falling masses, landslides or flooding.
- Lower outriggers to the ground (if present)
- Retract the boom completely and lower it to the ground.
- Engage the parking brake
- Bring the movement selection lever to "**N"**.
- Run the engine for a minimum of 60 seconds before switching off in order to cool the engine down.
- Turn the ignition key to the engine halt position.
- Remove the key from the ignition
- Block the hydraulic controls using the relative devices (where present)
- Close and lock windows using the specially provided handles.
- Close and lock the cab door.
- Place wedges under the wheels.
- Make sure the vehicle is parked in a way that it does not block traffic and at least 5 metres away from railway tracks.

- FORBIDDEN

Do not stop and leave the vehicle parked on a slope exceeding 15%, even with the parking brake engaged.

10.7 General warnings for moving the load

For safe working procedures in the various working conditions refer to the "Safety regulations" chapter.

Always adhere to safety regulations; always transport balanced, properly arranged load to prevent overturning.

- ATTENTION

When using this machine, carefully follow diagrams of the machine with the equipment mounted at that moment.

- FORBIDDEN

It is strictly prohibited to work without the respective capacity diagrams for the equipment and the machine.

- FORBIDDEN

Do not attempt to carry out operations which exceed the capacity of the assembled equipment or of the vehicle.

- FORBIDDEN

Do not modify the structure and vehicle stability in any way by trying to add counterweights, whichever artifice is used.

- ATTENTION

Always ensure the pallet, the boxes and other supports for the load are in good conditions and adequate to the load to be lifted; the sudden collapse of a rack of material is often caused by a faulty pallet.

- FORBIDDEN

Do not move the load with boom lifted or extended.

- Manoeuvre the vehicle with the boom raised only in exceptional circumstances. In these circumstances, operate with due prudence, reduce speed as much as possible and brake delicately. Make sure that visibility is always sufficient. If necessary, ask an operator on the ground to guide operations.
- Reduce the speed as much as possible and brake gently during handling operations.

- FORBIDDEN

Do not manoeuvre loads while the vehicle is moving.

- NOTE

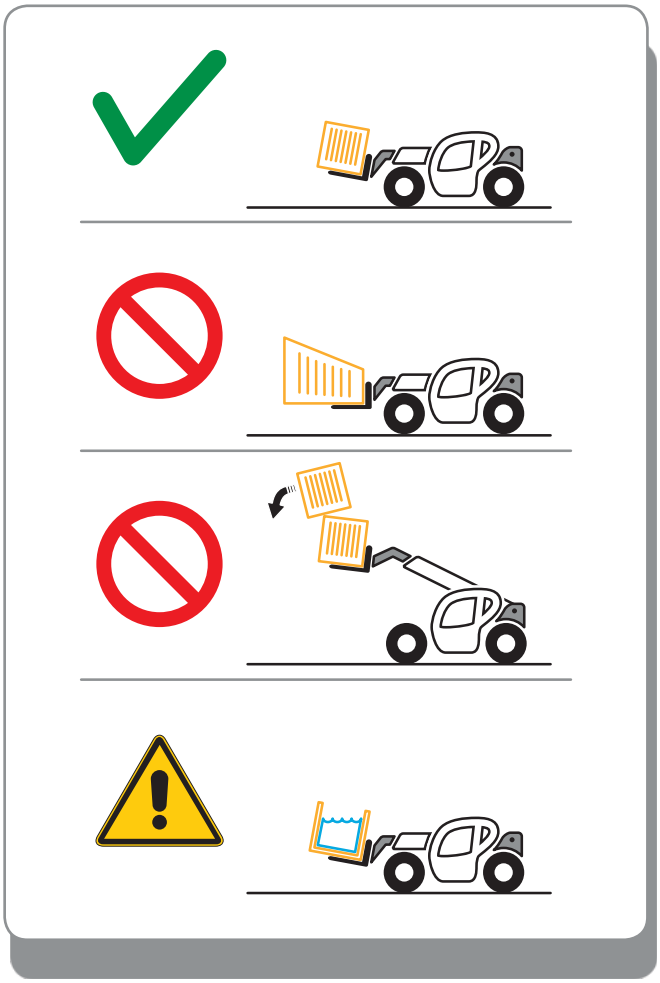
Avoid passing over unstable objects. Remove dangerous, unstable objects instead of passing over or around them. Also avoid holes and ditches that might make the load jolt. Before turning, slow down as much as possible, and monitor the load.

- Do not change direction abruptly or at high speed.
- Remember that hydraulic steering is very sensitive to steering wheel movements; steer gradually and avoid sudden movements.
- Slow down before turning.
- Pay attention to the side space, in particular if transporting wide loads. If possible, keep to the centre of the passage to avoid equipment or personnel from obstructing your path.

- ATTENTION

Handle loads with care, at low speed and without sudden or jolting movements, above all if carrying at great heights.

- Always ensure good visibility in the work area, including direct vision and visibility using rear view mirrors in order to check for the presence of people, animals, obstacles, holes and changes in slope etc.
- Decrease the working speed of the vehicle in case of rain, fog, snow or in any case where visibility is reduced.
- If visibility on the right side is limited during boom operation, before lifting the load, ensure that the work area is clear and make note of the position of any possible obstacles and irregularities in the terrain.
- Always make sure there is good visibility (clean windows, clean mirrors, clean lights that work properly, etc.)
- Maintain control of the vehicle and its speed in all circumstances. The speed of the loaded vehicle must never exceed 10 Km/h. If the load exceeds the maximum allowed load by 50%, vehicle speed must be reduced to 5 Km/h.
- Do not drive in reverse for long distances.
- Brake gradually; avoid braking abruptly.
- Always maintain the safe distance from other vehicles in order to have sufficient space to brake in every condition.



- ATTENTION

Before lifting loads, operators must be familiar with the weight of the load and its centre of gravity.

- Transport the load as close as possible to the ground. Keep the load low, at a height from the ground of 300 mm. Never move with the load lifted more than necessary.
- The load diagrams are valid for centres of gravity of standard loads. For particular loads, contact your dealer.
- Pay the utmost attention during transporting of loads with variable centre of gravity (e.g. Liquids). Operate with caution in order to limit such variations and to prevent the risk of vehicle overturning.
- Always ensure the moved load is correctly balanced and cannot fall on the ground. The loss of the load or part of it can entail a danger of damage to things and persons
- Pay the utmost attention to objects that may fall. Ensure there are no unstable objects on the upper part of the load.

- FORBIDDEN

Never lift a load when the vehicle is on a sloped surface. When on a sloped surface, pay attention to the conditions of the ground. When working with the vehicle on a sloped surface with the load high, a jolt or a hole is sufficient to make the vehicle overturn.

- FORBIDDEN

Do not lift or lower the loads when the vehicle is in motion.

10.8 Moving safely

- ATTENTION

The following operations are standard for any type of installed equipment; however, refer to any warnings present in the equipment manual.

- ATTENTION

In the event of scarce visibility, have a person operate on the ground for signalling.

10.8.1 Moving on sloped ground

Operating on sloped terrain can cause overturning or sliding. Advance and brake gradually and take all necessary cautions.

Always move in a straight line to go up or down a slope. Moving transversally or along the slope is extremely dangerous (Fig. 1-J0200).

Always use the parking brake when setting down or lifting a load on a slope.

- ATTENTION

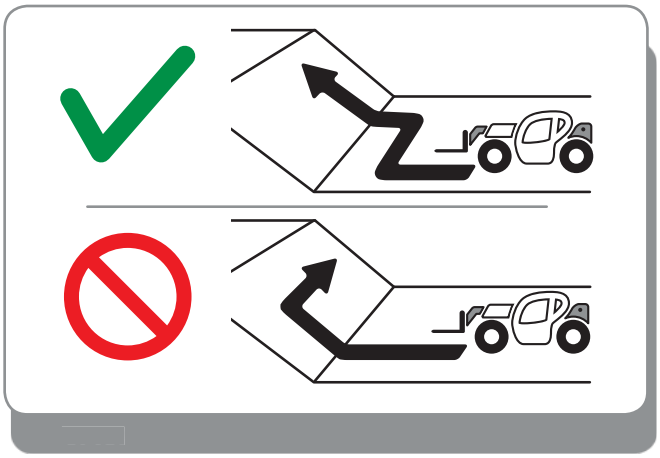
Check the vehicle is levelled before using the boom on sloped ground.

- DANGER

Do not use the boom if the vehicle has a slope greater than 2°.

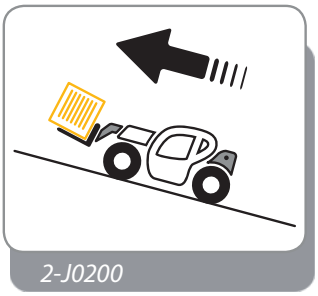
- FORBIDDEN

Do not stop and leave the vehicle parked on a slope exceeding 15%, even with the parking brake engaged.



10.8.2 Driving uphill with a full load

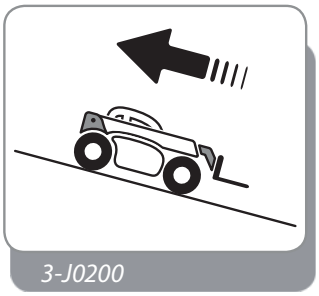
In the event of having to travel uphill while transporting a load, operate always maintaining the load towards the top of the uphill (Fig. 2-J0200).



2-J0200

10.8.3 Driving uphill without a load

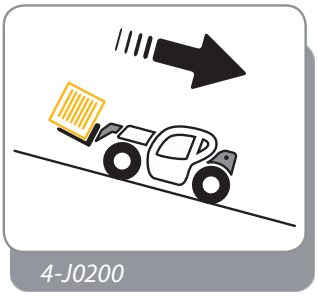
When having to drive uphill without a load, operate with the vehicle facing downhill (Fig. 3-J0200).



3-J0200

10.8.4 Driving downhill with a full load

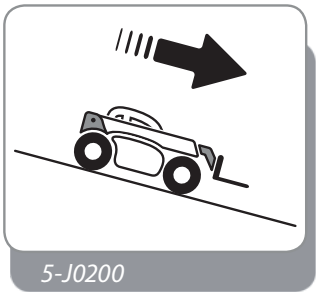
When having to drive downhill while transporting a load, operate with the load facing uphill (Fig. 4-J0200).



4-J0200

10.8.5 Driving downhill without a load

When having to drive downhill without a load, operate with the vehicle facing downhill (Fig. 5-J0200).



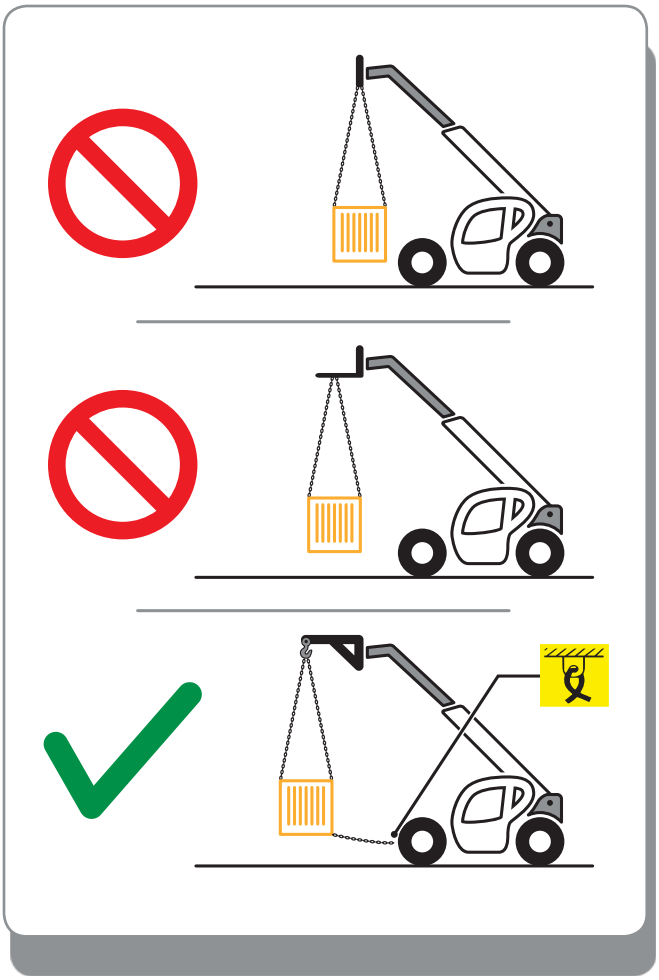
5-J0200

10.9 Use of cables, ropes and slings

- FORBIDDEN

It is strictly forbidden to lift or move load fastening ropes or chains only to the vehicle's tool carriage plate, to forks or to any other equipment not designed for this purpose.

Various equipment set-up for lifting, provided with suitable hooks for the use of cables, chains and straps are available. For further information contact your *DIECI* dealer.



10.10 Safe working procedures for forks

10.10.1 General warnings on using forks

- Always fully insert forks under loads and bring them to the transport position (forks at 300 mm from the ground and slanted backwards, boom completely retracted).

- FORBIDDEN

Never lift a load harnessed with a single fork or table.

- FORBIDDEN

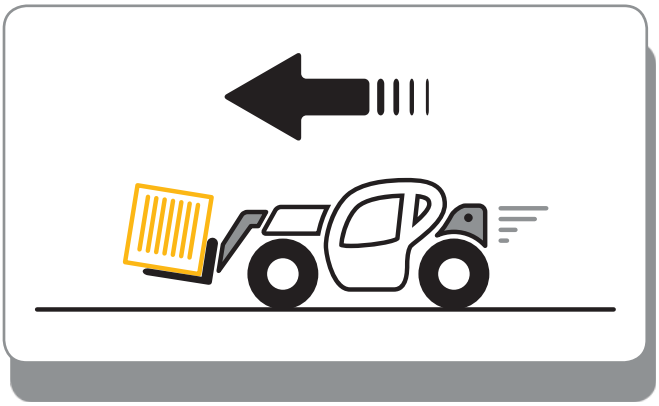
It is strictly forbidden to use the forks with hooks, straps or other material for moving suspended loads. Use adequate accessories (hook, winch, jibs).

- Load tables are valid for centres of gravity that are 500 mm from the heels of the forks. Contact your dealer for information regarding centres of gravity at greater distances.
- Take caution against the risk of limbs being crushed during manual fork adjustment operations.
- It is strictly forbidden to increase the length or width of the forks using extensions not directly provided by the Manufacturer. In this case, DIECI is absolved from any liability with regard to their use.
- Overloading and transversal stresses of the forks are strictly forbidden.
- Extend the forks to their maximum possible width. Before lifting a load ensure the width of the forks corresponds to that of the pallet or that they can support the weight of the load on the pallet. Correctly spaced forks maintain a load stable.
- For a stable balance, evenly place the loads on the forks. When having to lift wide loads or not centred and it is not possible to centre them, cautiously operate the vehicle to avoid it overturning. Cautiously lift considerably long bars.
- Do not lift the load with the tip of the forks facing downwards. The forks must always be in vertical position, or rather facing upwards; in this way the load can rest on to the forks plate. A lifted load can be tilted forward only if it has to be placed on a pile or directly on to an unloading surface.
- Do not use the vehicle with forks mounted for transporting or moving persons. Use adequate accessories.

10.10.2 Transport position of the load with forks

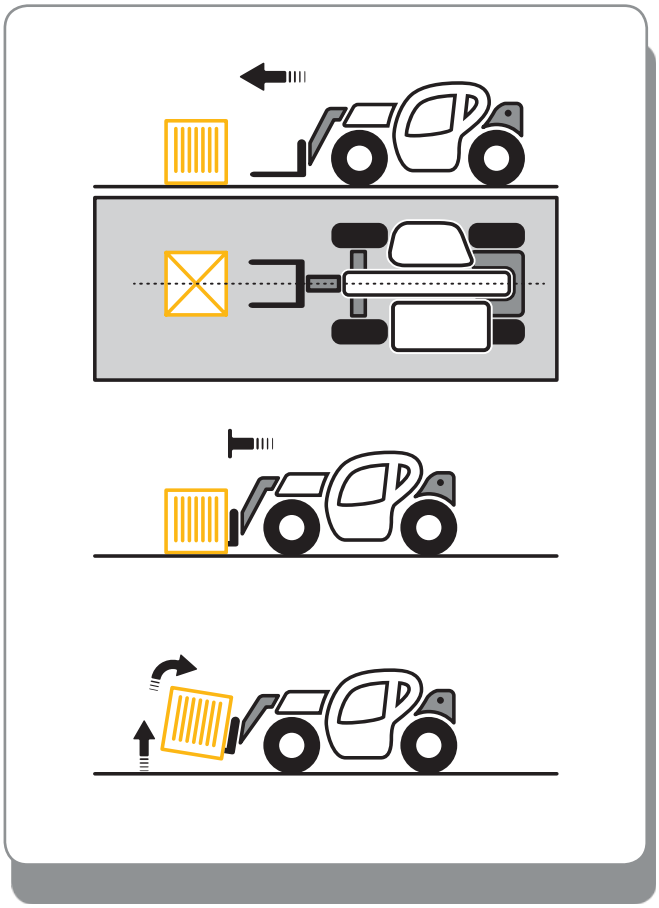
To correctly transport a load with forks:

- Fully retract the boom
- Completely lower the boom until the forks are at about 300 mm from the ground
- Tilt the tip of the forks upwards



10.10.3 Picking a load up from the ground

1. Slowly approach the vehicle to the load to be lifted with the boom completely retracted and the forks horizontally positioned at the height of the lifting position. Keep forks raised just enough to avoid contact with the ground.
2. Bring forks under load to be lifted until contact is made with the tool carriage plate.
3. Engage the parking brake and move the gear selector to neutral.
4. Slightly lift up the load and tilt the tool carriage plate backwards, bringing it to the transport position.



- ATTENTION

Always respect the load's centre of gravity, slant the forks just enough to ensure stability and prevent load loss during braking.

- DANGER

Never transport a load with the boom lifted and/or extended.

10.10.4 Picking up a load that is high up

1. Make sure that forks pass easily under the load.
2. Drive the vehicle slowly and with caution, approach the load perpendicularly with the forks horizontal.
3. Remember to maintain the distance necessary to place forks under the load, between the pile and the vehicle.
4. Extend the boom the least length possible.
5. After having positioned the forks under the load, until contact was made with the fork holding plate, insert the parking brake and move the gear selector to neutral.
6. Slightly lift up the load and tilt the fork holding plate backwards, bringing it to the transport position.
7. If possible, lower the load without moving the vehicle.
8. Raise the boom to move the load away, then retract the extensions and lower the boom to bring the load to the transport position.
9. In this is not possible, withdraw the vehicle slowly and pay careful attention, after having sufficiently moved away the load, retract the extensions and lower the boom to bring the load to the transport position.

- ATTENTION

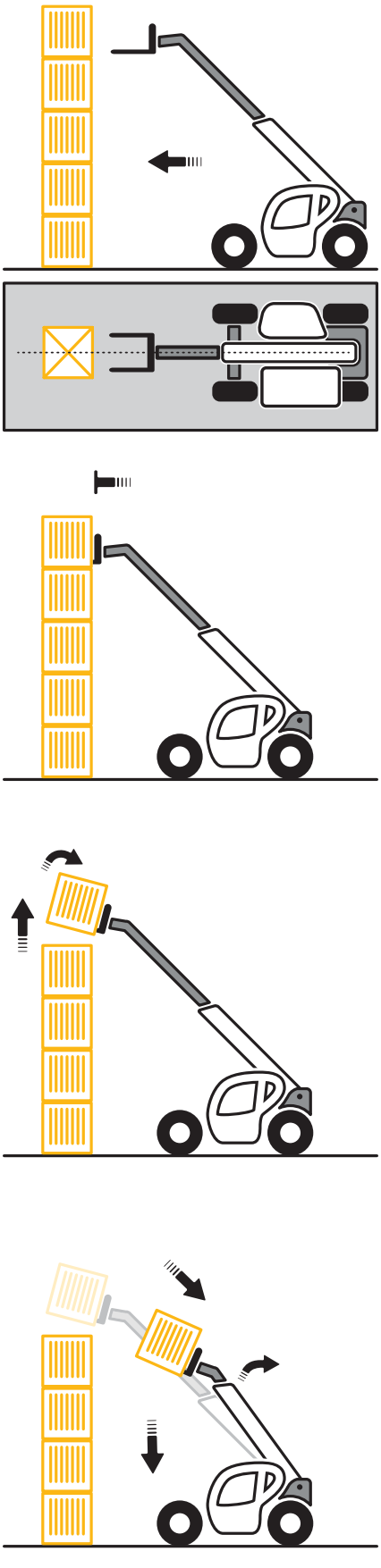
Always respect the load's centre of gravity, slant the forks just enough to ensure stability and prevent load loss during braking.

- FORBIDDEN

It is strictly forbidden to pick up a load if the vehicle is not level.

- DANGER

Never transport a load with the boom lifted and/or extended



10.10.5 Positioning a load high up

1. Move the load to the transport position in front of the pile.
2. Raise and extend the boom until the load is over the pile. If necessary, move the vehicle towards the pile very slowly and carefully.
3. Engage the parking brake and move the gear selector to neutral.
4. Position the load horizontally and place it on top of the pile. Lower the extensions and have them retract to properly position the load.
5. Free the forks having the extensions retract and lifting the boom alternatively. If possible, reverse the vehicle very slowly and very carefully.

- ATTENTION

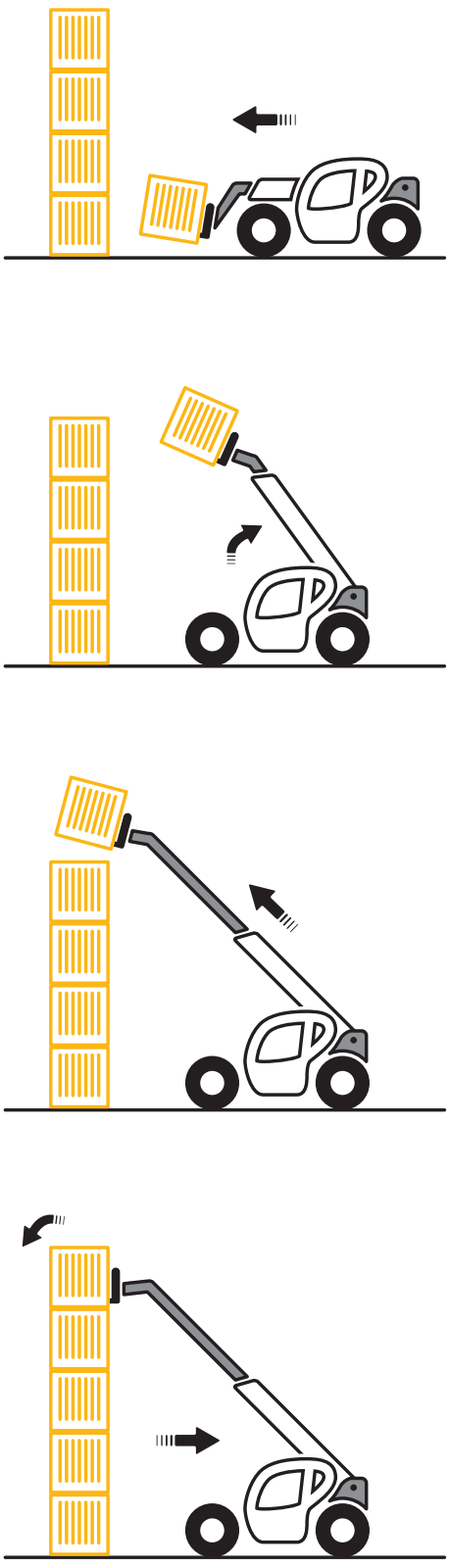
Always respect the load's centre of gravity, slant the forks just enough to ensure stability and prevent load loss during braking.

- FORBIDDEN

It is strictly forbidden to pick up a load if the vehicle is not level.

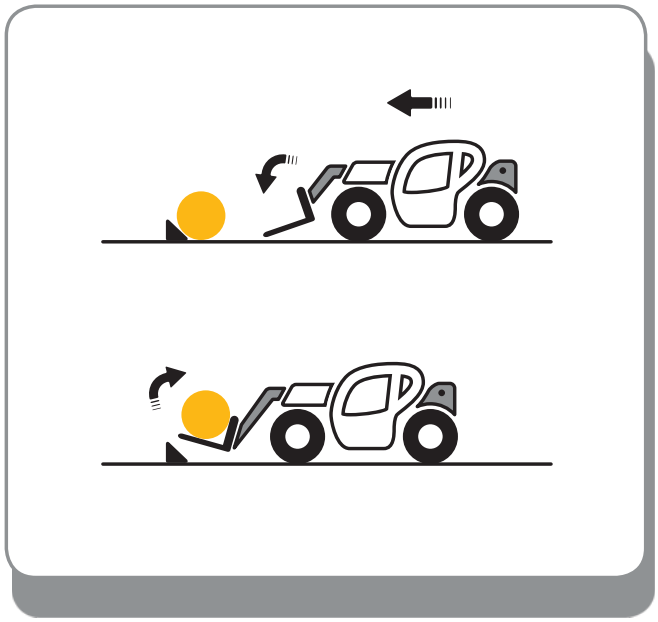
- DANGER

Never transport a load with the boom lifted and/or extended



10.10.6 Picking up round-shaped loads

1. Tilt the forks forward and remove the telescopic boom at the same time as inserting the forks underneath the load.
2. turn the fork carriage backward to make the load slide. If necessary, secure the load with wedges.



- ATTENTION

Always respect the load's centre of gravity, slant the forks just enough to ensure stability and prevent load loss during braking.

- DANGER

Never transport a load with the boom lifted and/or extended

There are various accessories, such as pliers, to facilitate work with round shaped objects; contact your Dieci dealer.

10.11 Agricultural applications

- ATTENTION

The vehicle has no protective structure against harmful powders, aerosols and vapours. Use adequate personal protective equipment even when using the vehicle inside the cab.

See the box of the product used to adopt the appropriate protective devices.

- FORBIDDEN

The vehicle dealt with in this manual is not designed to use spraying machines with harmful or hazardous substances; their use is prohibited without adopting adequate protective equipment for the operator.

- DANGER

Risk of inhalation for operators and nearby persons. For protection against harmful powders, aerosol and vapours, see the instructions provided by the manufacturer of the chemical agents, the manufacturer of the spraying machine and the basic rules provided in this manual.

10.12 Forestry applications

- ATTENTION

The vehicle is without a protective structure against the penetration of objects (OPS).

Optional set-ups for use in forestry applications are not envisioned.

- FORBIDDEN

The vehicle dealt with in this manual is not designed for heavy-duty forestry jobs; such use is prohibited.

- DANGER

The main hazards which can occur if the vehicle is used for forestry applications are trees falling on the cab and the penetration of objects in the space reserved for the operator.

11 EMERGENCY PROCEDURES

11.1 Warnings if the vehicle should overturn

- The safety belt is the best protection if the vehicle should overturn to its front or side;
- Keep calm: remain on board and do not try to jump out of the driver's seat;
- Hold the steering wheel with both hands;
- Press your feet against the floor, keeping them inside the driver's seat;
- Tilt your body in the opposite direction to that of the fall
- To avoid banging your head, near your head as much as possible to the steering wheel

11.2 Start-up using auxiliary batteries

- ATTENTION

Starting up the engine with auxiliary batteries requires two adequately trained and qualified persons.

Failure to follow correct procedure can cause serious damage to the vehicle, things or people.

- When starting the engine using another vehicle, connect up the accumulators in parallel. When connecting the cables, avoid contact between the positive cable (+) and negative cable ("-").
- Wear adequate personal protective equipment before carrying out any operation.
- Take care to avoid contact between the vehicle to be started up and the vehicle that must supply the power, in order to avoid sparks and consequently explosions caused by the hydrogen produced by the accumulators. Explosion of the accumulator may cause serious damage and injury.
- Make sure not to mix up the start-up cables; connect the ground cable first (-) and the positive cable last (+).
- Use extreme care when removing the starting cables; make sure that when the cables are disconnected from the accumulator, they do not touch other parts of the vehicle in order to avoid hydrogen explosions.

- ATTENTION

The cables and clamps must be proportional with the current load to be transferred. The accumulator used for start-up must have a greater or at least equal capacity to that of the standard accumulator.

- ATTENTION

Check that the cables and clamps are not corroded or damaged. Make sure the clamps firmly grip the terminals.

- ATTENTION

Pay great attention during the various operations. Direct or indirect contact with live parts can cause injuries and in some cases even death.

- ATTENTION

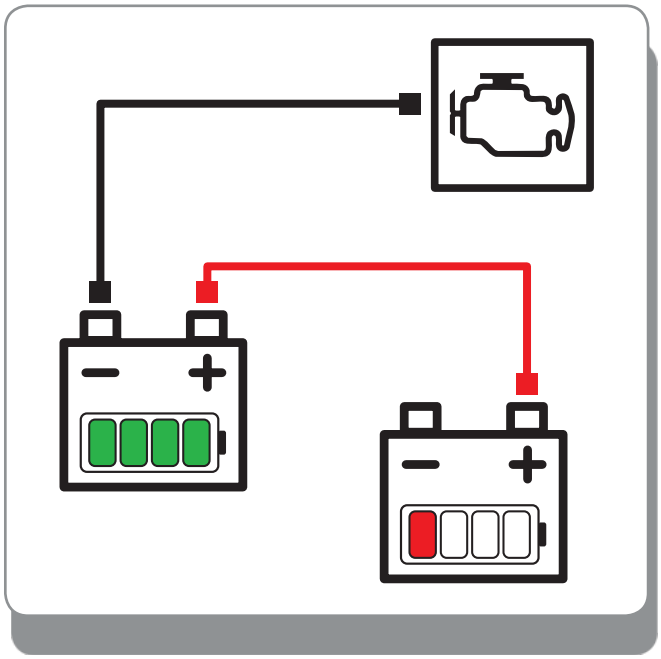
When the engine is being started up, the operator must be seated in the driver's seat in order to monitor the vehicle.

- NOTE

These operations must be carried out by competent, trained personnel.

11.2.1 *Connecting the cables and starting the engine*

1. Make sure that the ignition key is at position "O".
2. Connect the positive poles "+" of the two batteries.
3. Connect the negative terminal cable "-" of the charged battery to the block of mass of the vehicle that is to be started up.
4. If a charged battery already installed on a vehicle that operates correctly is used, start-up the engine of the latter and bring the engine to a high rpm.
5. Start up the engine of the faulty vehicle.



11.2.2 *Removing the cables*

With the engine running, remove the cables in the opposite order in which they were connected.

1. Disconnect the negative cable "-" from the block of mass of the started engine and then from the charged battery.
2. First disconnect the positive cable "+" from the battery used for start-up and then from the flat battery.

11.3 Towing the vehicle

- ATTENTION

Towing the vehicle is a delicate manoeuvre and the operator runs high risks. The manufacturer's warranty does not apply if problems or accidents arise while towing. Perform repairs on site, if possible.

- NOTE

It is recommended that the towing operations are carried out by expert personnel.

- FORBIDDEN

It is strictly prohibited:

- To try to start-up the vehicle by towing or pushing.
- To tow the vehicle on public roads and for long distances. If possible, keep the yellow flashing light and emergency lights on.
- To tow the vehicle on a slope.
- To stand between the towing vehicle and the towed vehicle.

- ATTENTION

When the engine is switched off, the steering wheel and brake servo controls do not work. If the engine cannot be kept running, when towing the vehicle keep in mind that it will be much more difficult to operate the steering wheel.

- ATTENTION

The vehicle can only be towed in an emergency and at a maximum speed of 4 km/hour (2.5 mph) and for short distances, a maximum of 50 m (164 ft).

Tow the vehicle out of the imminent danger area. Risk of damage.

Contact the *DIECI* service centre regarding towing the vehicle for long distances.

- ATTENTION

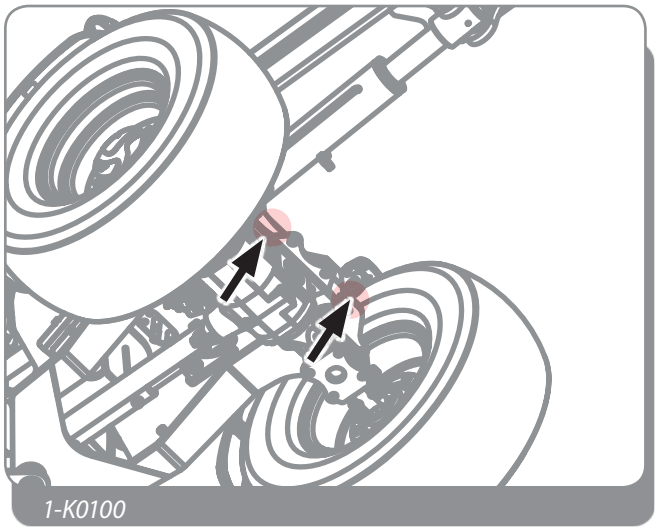
It is mandatory to tow the vehicle with the rigid towing bracket. The towing bracket must be able to support a towing weight of 10 t (22040 lb). Connect the towing bracket between the towing vehicle and the faulty vehicle, at the preset towing points.

11.3.1 *Towing the vehicle with the engine running*

Follow the steps below if the vehicle must be towed with the engine running (e.g. transmission fault):

- Connect the towing bracket between the towing vehicle and the faulty vehicle, at the preset towing points (Fig. 1-K0100).
- Move the gear selection lever to position "N"
- Disable traction using the Bypass screw on the hydrostatic transmission pump "**2**" (Fig. 3-K0100).
- Disengage the parking brake switch.
- During towing, remain seated in the driver's seat to prevent the parking brake from engaging automatically.

Follow the instructions described in the "Deactivating the drive manually" chapter.



1-K0100

11.3.2 *Towing the vehicle with a faulty engine*

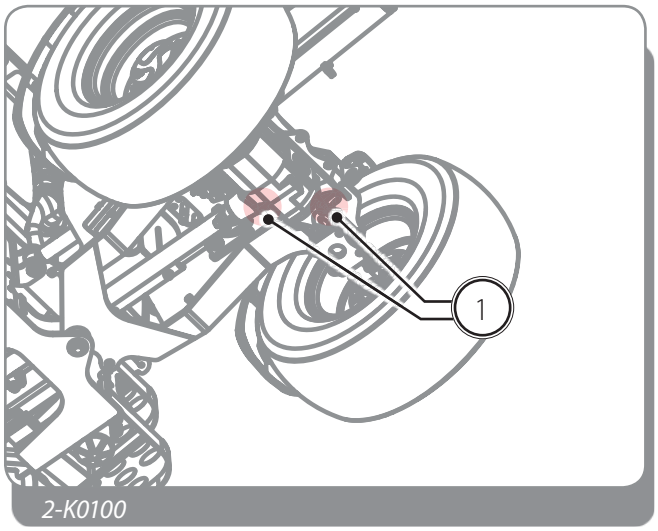
Follow the steps below if the vehicle must be towed with a faulty engine:

- Connect the towing bracket between the towing vehicle and the faulty vehicle, at the preset towing points (Fig. 1-K0100).
- Manually deactivate the parking brake on the front axle of the vehicle "**1**" (Fig. 2-K0100).
- Disable traction using the Bypass screw on the hydrostatic transmission pump "**2**" (Fig. 3-K0100).

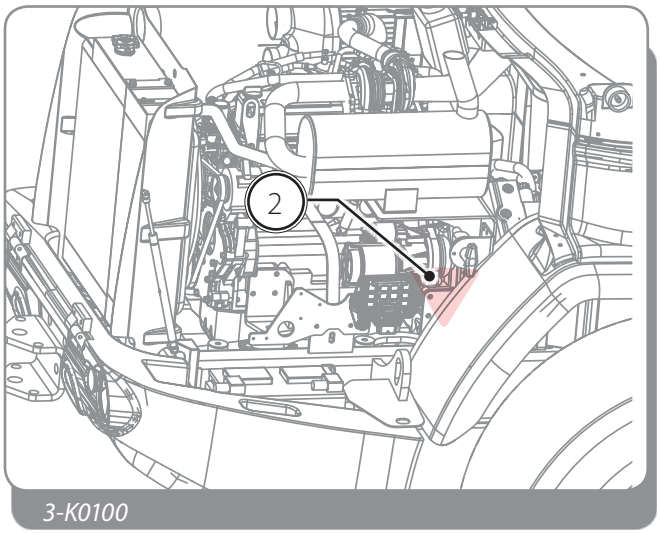
- DANGER

The parking brake and drive are still active even with the engine switched off. Serious damage can be caused to the vehicle and hazardous situations may be generated if the vehicle is towed with the drive and parking brake active.

Follow the instructions described in the "Deactivating the external parking brake manually" and "Deactivating the drive manually" chapters.



2-K0100



3-K0100

11.4 Deactivating the parking brake manually

The parking brake must be disengaged directly on the front axle with the engine off for the vehicle to be towed.

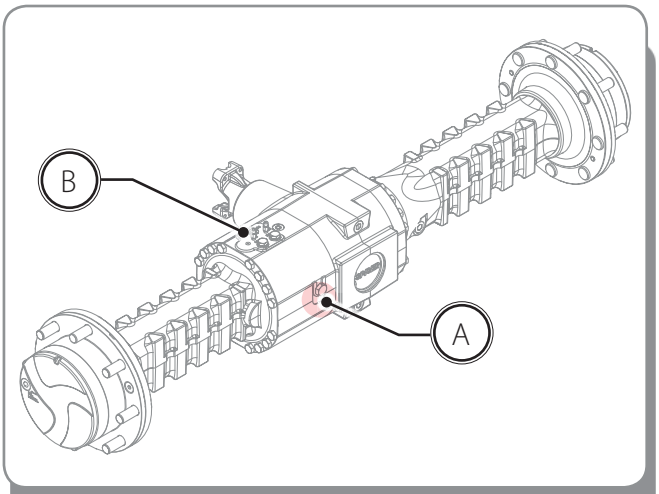
1. Place safety wedges under the wheels to prevent the vehicle from moving suddenly.
2. Loosen the bolts on both sides "**A**" and "**B**" (Fig. 1-K0101) of the central body of the front axle using a **24** spanner.
3. Loosen the bolts just enough to be able to slip off the "**U**" (Fig. 2-K0101 and Fig. 3-K0101)-shaped shims.
4. Tighten the previously loosen bolts all the way.

In these conditions it is possible to tow the vehicle.

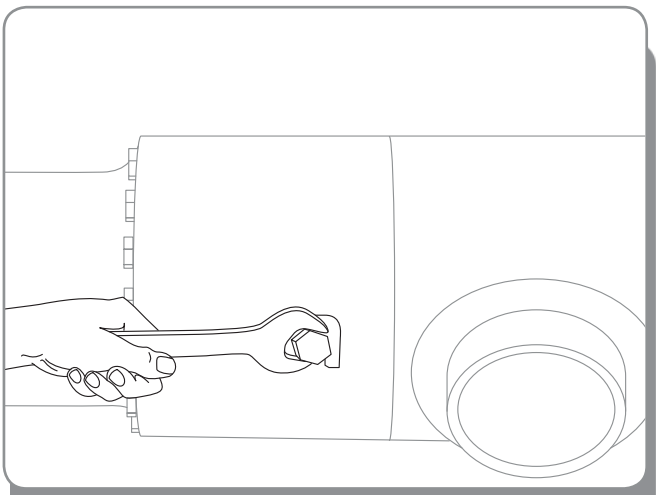
To return the brake to working condition, return in to its original conditions.

- FORBIDDEN

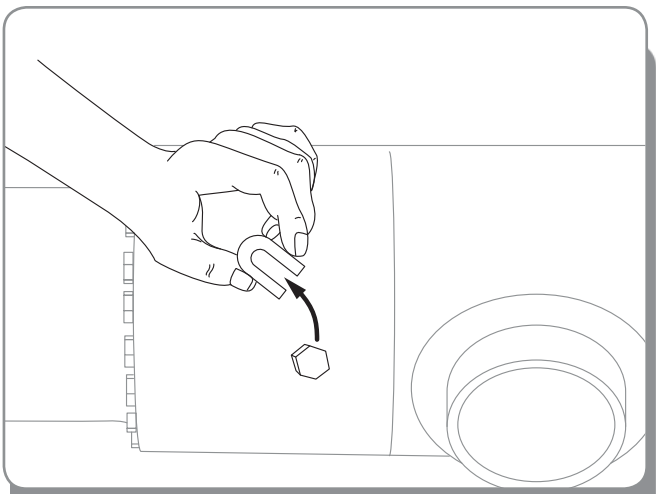
Never use the vehicle with the negative parking brake disengaged/disconnected.



1-K0101



2-K0101



3-K0101

11.5 Deactivate transmission manually

- DANGER

Only deactivate the drive if the vehicle must be towed with a faulty engine or transmission.

Transmission can be deactivated manually if the vehicle must be towed with a faulty engine or transmission.

To activate the bypass function:

- Make sure the engine of the vehicle is off
- Place wedges under the wheels to prevent the vehicle from moving suddenly
- Use a hex key (SW 8) to activate the shuttle valve "**1**", turning it anticlockwise "**2**".

The bypass function is now active.

- DANGER

The increase of the towing and trailer speed... This damages the axial piston unit. Tow the vehicle out of the imminent danger area. Risk of damage!

- DANGER

During and after towing, the axial piston units are hot. Wear protective clothing.

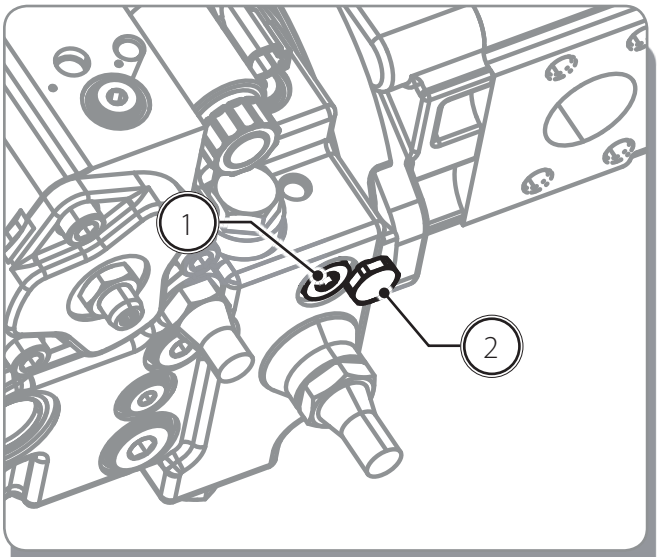
To disable the bypass function:

- Disable the bypass function immediately after towing.
- Make sure the engine of the vehicle is off
- Place wedges under the wheels to prevent the vehicle from moving suddenly
- Use a hex key (SW 8) to activate the shuttle valve "**1**", turning it clockwise until it stops and clamp with a tightening torque of 50 Nm.

The bypass function is no longer active.

- DANGER

While towing with the bypass function active, the closed hydraulic circuit is drained. This could involuntarily reactivate the tractive functions.



1-K0111

12 MAINTENANCE AND CONTROL LOGS

The Maintenance Log and Control Log are to be considered integral parts of the machine and equipment

These logs must therefore accompany the machine and equipment throughout their service life up to the final disposal.

12.1 Types of logs

12.1.1 Control Log

The Control Log contains the scheduled main inspections **on the safety devices** of the equipment, recommended by ***DIECI S.R.L.***.

These inspections guarantee that the safety devices work properly.

- ATTENTION

The inspections contained in the Control Log form part of the routine maintenance operations contained in the Equipment Maintenance Log.

12.1.2 Maintenance Log

The Maintenance Log contains all the scheduled maintenance interventions with reference to normal and not adverse conditions of use.

The intended maintenance must be performed more regularly, even daily, if required, in particularly adverse conditions of use (humidity, mud, sand, very dusty, etc.).

Consult the *DIECI* assistance centre to establish the adequate schedules when operating in particularly adverse environments.

Such maintenance allows the machine or equipment to be serviced in optimal efficiency conditions.

12.2 Instructions to complete the logs

12.2.1 Warnings on the logs

- The logs must be completed in compliance with requirements set out in the Essential Safety Requirement 4.4.2.b of Annex I of Machinery Directive 2006/42/EC, in order to prove that all maintenance and control operations regarding machine safety have been carried out correctly.
- Besides the activities regarding the service life and maintenance and use of the machine (replacing parts, servicing, faults, etc.), the logs must also include all the inspections stipulated by the regulations in force in the country where the machine is used.
- The name of the technician and the service date must also be indicated clearly.
- It is recommended to complete, update and store this control log with care for the duration of the service life of the machine.

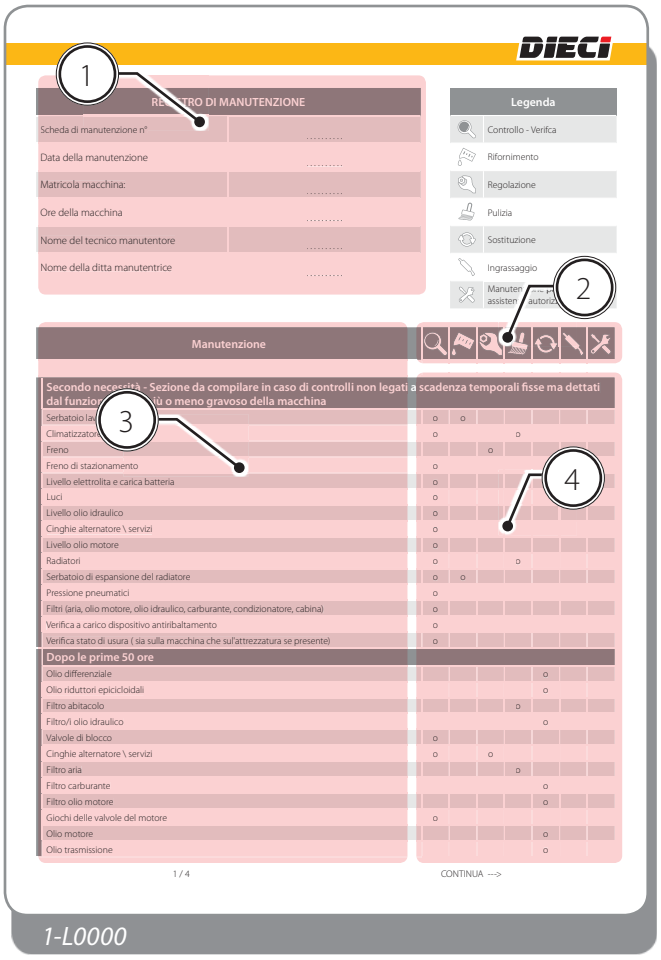
- NOTE

A few pages are found at the end of the manual for these logs to be completed.

12.2.2 *Completing the logs*

Different parts of each log (Fig. 1-L0000) are completed:

1. Log data
2. Operations to be implemented
3. Device or component to which the operation refers to
4. Space that indicates the mandatory operation marked with an "o" and the possibility of taking note of special maintenance, which is not included in the log.



1-L0000

12.2.3 *Key of the logs*

Symbol	Operation
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Intervention at an authorised service centre

12.3 Control log: inspections and deadlines

- NOTE

A few pages are found at the end of the manual for these logs to be completed.

Inspections	Notes						
Mandatory inspections to be performed every 250 hours or every two months							
Check the longitudinal load moment indicator		o					
Anti-tipping system acoustic alarm		o					
Anti-tipping system visual alarm		o					
Locking of the anti-tipping system movements		o					
Seat belts		o					
Inspecting the presence and condition of the safety stickers on the vehicle / equipment		o					
Inspecting the presence and condition of the capacity diagrams on the vehicle / equipment		o					
Inspecting the presence and condition of the use and maintenance manual on the vehicle / equipment		o					
Inspecting the presence and condition of the identification plates on the vehicle / equipment		o					
Parking brake		o					
Dead man seat micro switch		o					
Emergency recovery pump (if included)		o					
Emergency recovery button on the joystick		o					
Dead man button on the joystick		o					
Reverse drive engaged buzzer		o					
3-mode steering		o					
Spirit level calibration		o					
Inspecting the correct operation of the work modes for the installed equipment		o					
Making sure the emergency stop button is working		o					
Connection points, chain wear and setting (if present)		o		o			o
Forks (if included)		o					
Mandatory inspections to be performed every 500 hours or every 6 months							
Maximum hydraulic system pressure		o					
Calibrated power steering pressure		o					
Jack check valves		o					

12.4 Maintenance log: actions and deadlines

- NOTE

A few pages are found at the end of the manual for these logs to be completed.

Maintenance							
As required - Section to be compiled if the inspections carried out are not related to fixed schedules but due to vehicle operation							
Alternator belts \ services	o						
Air conditioner	o			o			
Filters (air, engine oil, hydraulic oil, fuel, air conditioner and cab)	o						
Brake			o				
Parking brake	o						
Electrolyte level and battery charge	o						
Hydraulic oil level	o						
Engine oil level	o						
Lights	o						
Tyre pressure	o						
Radiators	o			o			
Radiator expansion tank	o	o					
Window washer tank	o	o					
Anti-tipping device load verification	o						
Verification of wear (on the vehicle as well as on the equipment, if present)	o						
After the first 50 hours							
Alternator belts \ services	o		o				
Cab filter				o			
Air filter				o			
Fuel filter					o		
Engine oil filter					o		
Hydraulic oil filter/s					o		
Engine valve clearance	o						
Differential oil					o		
Engine oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Lock valves	o						
Every 10 hours or every month							
Metal structural frame, no cracks	o						
Boom chains (if present)	o						
Stickers	o						
Safety devices	o						
Coolant	o						
Engine oil level	o						

Maintenance							
Every 50 hours or every month							
Transmission shafts						o	
Mechanical joints						o	
Parking brake mechanical joints on the axle						o	
Cab filter				o			
Air filter				o			
Fuel filter				o			
Ropes and chains (if present)						o	
Hydraulic oil level	o						
Boom pads	o					o	
Hydraulic system leaks	o						
Tyre pressure	o						
Radiators				o			
Coolant	o						
Brake oil level	o						
Hydraulic oil level	o						
Engine oil level	o						
Tightness of the wheel nuts	o						
Every 250 hours or every 2 months							
Tightness of nuts and bolts			o				
Tightness of hydraulic fittings			o				
Boom chains (if present)			o				
Alternator belts \ services	o		o				
Seat belts	o						
Anti-tipping device	o						
YANMAR engine oil filter					o		
YANMAR engine oil					o		
Electrolyte level and battery charge	o						
Rear view mirrors	o						

Maintenance							
Every 500 hours or every 6 months							
KUBOTA engine oil					o		
KUBOTA fuel filter					o		
YANMAR fuel filter					o		
KUBOTA engine oil filter					o		
Forks: wear	o						
Cab filter					o		
Air filter					o		
Hydraulic oil filter/s					o		
Electric system	o						
Differential oil	o						
Brake oil					o		
Epicycloidal gearbox oil	o						
Transmission oil	o						
Lock valves	o						
Every 1000 hours or every year							
Telescopic boom: conditions	o						**
Telescopic boom: bearing and bushing joints	o						**
Brake oil circuit				o			**
Brake oil circuit: Pressure	o						**
Condition of the equipment	o						**
Conditions of the wheels and tyres	o						
Brake			o				**
Engine valve clearance	o						**
Electric system: condition of the cables	o						**
Electric system: Lighting and signals	o						**
Electric system: Acoustic signals	o						**
Hydraulic circuit: Jacks	o						**
Hydraulic circuit: Tubes and pipes	o						**
Hydraulic circuit: Movement speed	o						**
Coolant					o		
Differential oil					o		
Hydraulic oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Boom pads: wear	o						**
Fork holder plate: wear	o						**
Engine speeds	o						**
Fuel tank				o			
Cab structure	o						**
Chassis: bearing and bushing joints	o						**
Chassis: structure	o						**

Maintenance							
Every 2000 hours							
Alternator and starter motor	o						**
Hydraulic circuit: Capacity	o						**
Hydraulic circuit: Pressures	o						**
Axle oscillation	o					o	**
Radiators	o			o			**
Hydraulic oil tank				o			**
Every 4000 hours							
Transmission shafts	o					o	**
Gearbox Cardan shaft	o						**
Gear clearance on the wheels	o						**
Direction ball joints	o						**
Pins of the wheel gears	o					o	**
Brake discs wear	o						**
Every 2 years							
Air conditioning (if present): Heat sink filter					o		**
Air conditioning (if present): Coolant	o						**
Air conditioning (if present): Pressure switches	o		o				**
Air conditioning (if present): Coil condenser and evaporator				o			**
Air conditioning (if present): Condensate and drain valve tray				o			**

12.5 Periodic inspections and recording methods (only Italy)

- The employer/user of the vehicle is obliged to have the vehicle inspected periodically in compliance with law (MD 12/9/59 and Legislative Decree 81/08).
- The employer/user is also obliged to adhere to the maintenance and inspection schedule described in this User and Maintenance manual.
- Inspections and periodic checks, together with maintenance work must be carried out by qualified personnel or by a workshop authorised by the manufacturer DIECI S.r.l.
- The employer/user of the machine must register all inspection results in the Service Register or have qualified personnel register the results.
- Periodic inspections that must be logged in the "Service Register" are:
  - Quarterly inspections that involve the operation and/or efficiency of ropes/chains in accordance with annex VI point 3.1.2 Legislative Decree 81/08;
  - Yearly inspections that involve the operation and the preservation of the vehicle to ensure its safe functioning (annual tests, corrosion tests, calibration checks, etc.) in accordance with annex VII Legislative Decree 81/08;
- Law foresees administrative fines to the charge of those who fail to carry out these quarterly and yearly inspections.
- The Service Register, in which the inspections are to be written, must be shown on request to the inspectors in charge of ensuring that the current laws are observed.
- After the yearly inspection has been carried out, the ASL inspector (Dip.SSIA) will issue an acceptance report or will prescribe any necessary obligations that must be fulfilled. The user is obliged to keep the inspection report together with the Service Register.
- Should the local supervising authority (ASL Dip.SSIA) fail to make the yearly inspection, the user is advised to have the vehicle annual inspection carried out by a qualified technician and then record the results in the Service Register.
- Inspection results must be recorded in the reserved pages that follow, and must indicate the results of the inspection, the date, signature, and any comments made by the inspector.
- If the pages reserved within this manual are not sufficient to hold all the notes made during the life of the vehicle, use additional sheets of paper, remembering to write them out in the same manner.

12.6 Requirement and instructions on how to send in I.N.A.I.L. reports (only in Italy)

- The Ministerial Decree dated 12/09/1959, under Title II – Article 7, states that the employer and users of engine-driven lifting equipment having engine capacities greater than 200 kg and people carrying platforms, are obliged to inform the competent authority of the territory (currently the I.S.P.E.S.L. in Italy), when the vehicle is put to work, specifying the place of installation of the vehicle so that this authority may make an initial inspection.
- The declaration to I.S.P.E.S.L. must be made by enclosing a copy of the CE Declaration of conformity of the vehicle, with reference to Annex IIA of Legislative Decree 17/2010 – Machinery Directive 2006/42/EC.
- The original statements (EC Declaration of Conformity - Annex IIA) must be retained by the customer.
- The declaration shall be forwarded to I.S.P.E.S.L. by Registered mail with return receipt.
- It is the responsibility of the I.S.P.E.S.L. to inform the local supervising authority (ASL in Italy) that the machine is in use; this authority is then in charge of conducting subsequent yearly inspections.

13 MAINTENANCE

13.1 Maintenance warnings

This vehicle has been designed and built to provide maximum performance, savings and facilitate its operation in various working conditions. Before delivery, the vehicle was tested both by the Manufacturer and by the Dealer to ensure its maximum condition. To preserve these conditions and guarantee problem-free operation, it is important to carry out the routine maintenance operations described in this manual at an authorised ***DIECI*** dealer in accordance with the maintenance schedule provided.

This section of the Manual provides all the maintenance prescriptions necessary for maintaining the ***DIECI*** vehicle in perfect working condition.

The vehicle must receive regular routine maintenance in order to give the best results. It is recommended that all services be carried out as prescribed in the service schedule suggested by ***DIECI.*** Remember that it is the owner's and/or users responsibility to keep the vehicle in safe working condition and suitable to be driven on public and private roads.

Proper vehicle maintenance not only improves the vehicle reliability but it also preserves vehicle value over time.

- ATTENTION

Maintenance or adjustment operations not described in this chapter or in the rest of the manual must be carried out by qualified personnel respecting the conditions of safety in order to guarantee their safety and the safety of others. Only *DIECI* Dealer maintenance staff have been trained to carry out said interventions and only they have the special equipment and tools necessary to guarantee maximum safety, precision and efficiency.

It is mandatory to have read and learned the "Safety Standards" chapters before reading the "Maintenance".

- FORBIDDEN

It is prohibited to service the vehicle if this manual has not been read and this chapter learned.

To know the maintenance operations and timetables, see the Maintenance Register.

- ATTENTION

All maintenance operations must be recorded in the specific Maintenance Register.

- ATTENTION

In case of operating in corrosive environments, intervene with adequate modes and times of maintenance to avoid excessive wear of the equipment.

- ATTENTION

Use adequate personal protective equipment during the various inspection and maintenance operations.

- FORBIDDEN ACTION

In the event of malfunction, do not use the vehicle until it has been repaired.

- ATTENTION

Any modification made to the vehicle entails a new conformity check. This procedure is also valid in the case of repairs with non-original spare parts.

Only the following checks can be carried out by the operator: liquids level, air filter cleaning, tyre pressure These operations must be performed in compliance with safety standards as described in this manual.

13.1.1 Avoid accidents during maintenance

- Always keep the work site clean and organised in order to guarantee safe operation of the vehicle. .
- Do not leave tools or other instruments laying around in a disorderly fashion at the work site.
- Clean traces of grease, oil and other substances that could cause slipping.
- Always deposit cloths soaked with grease and/or inflammable materials in a safe container to ensure safety at the work site.
- Only use attachments that are appropriate for the job and ensure their proper use. The use of damaged, defective, makeshift, unsuitable and poor quality equipment may cause serious injuries.
- Do not hit the vehicle or its parts with a hammer or any other instrument, as projected fragments could cause injury.
- If inspection or maintenance is carried out on vehicles which are still covered with mud, oil, etc., operators risk sliding or falling and the visual analysis of components is made more difficult. Carefully clean the vehicle before repair or maintenance work is carried out.
- Ensure you are familiar with maintenance procedures before starting work.
- Keep the work zone clean and dry.
- Do not lubricate parts or carry out maintenance work with the engine running.
- Replace any worn or broken parts.
- Eliminate any grease and oil deposits.
- The knurled plates (bulb plates) and the cab floor are the only parts of the vehicle that can be stepped on. Use a ladder (suitable for the intended purpose) for maintenance of parts that cannot be reached from the ground.

- DANGER

Do not carry out maintenance on a moving vehicle. Should maintenance need to be performed with the engine running, ask at least two workers for help and observe the following instructions:

- One worker must always be seated in the driver's seat, ready to switch off the engine at any time.
- All workers must remain in contact with one another.
- Take care not to remain entrapped in components during the execution of operations performed on the fan, fan belt or other rotating parts.
- Do not touch levers or control pedals. Should a lever or pedal need to be moved, always warn operators first so they can move out of harm's way.
- Do allow instruments or other objects to fall into the vehicle's rotating parts, as these parts may break and be projected out.
- The vehicle must be outdoors when the engine is running. The vehicle can be kept in a closed area only if it is properly ventilated and the vehicle is equipped with specific purifiers.

- ATTENTION

If you need to work under raised mobile parts (booms, shovels, etc.) block them using spacers placed on cylinder rods or lean them up against appropriately sized supports.

If you need to perform repair or maintenance work under the vehicle, firmly support the equipment being used and the vehicle with blocks that are solid enough to support the weight.

- Store attachments removed from the vehicle in a safe place where they do not risk falling. Take precautions to prevent unauthorized persons from approaching the storage area.

- ELECTRICAL SYSTEM DANGER

Do not rest metal parts on the battery.

- Welding operations must always be carried out by qualified welders and in areas equipped with suitable equipment. There is danger of gas leaks, fire or electrocution during welding operations; Do not allow unqualified personnel to carry out such operations.
- Disconnect the battery wires before working on the electrical system or before carrying out arc welding on the vehicle.
- When carrying out electric welding, connect the earth of the welding machine as close as possible to the area to be welded, and prevent the electric current from passing through ball bearings, articulated joints, hydraulic cylinders or sliding parts. If welding must be done in proximity to the oil or fuel tank, empty the tanks before welding.


- ENTANGLEMENT DANGER

Damage may be caused by entanglement in moving parts. Prevent accidents while you are working by ensuring that hands, feet, clothing, jewellery and hair cannot get caught in moving parts.

- EXHAUST GAS DANGER

Exhaust gases are toxic and can damage your health.

- DANGER

The vehicle must be outdoors when the engine is running.

The vehicle can be kept in a closed area only if it is properly ventilated and the vehicle is equipped with specific purifiers.

- PRESSURISED LIQUIDS DANGER

After operation, the engine cooling liquid is hot and under pressure. Contact with hot water or steam may cause serious burns.

- Do not attempt to loosen connections, tubes or hydraulic components when circuits are under pressure.
- Avoid possible injury caused by hot water jets.
- Do not remove the radiator cap until the engine has cooled down.
- Before removing the cap, release all of the pressure.
- Prevent burns caused by oil or other hot parts during inspection or discharge by allowing the oil and cap to cool down before beginning operation.
- Even after the oil has cooled down, slightly loosen the cover or cap before removing it to mitigate pressure inside.

- BURNS DANGER

Attention to burns. Engine reduction gear oil and the hydraulic system, pipes, engine and other components heat up when the vehicle is used. Wait until all parts cool down before beginning maintenance or repair work.

- Fluids such as fuel or hydraulic oil under pressure can penetrate the skin and eyes causing serious injuries. Take care to avoid these risks when repairing or doing maintenance work on the vehicle.
- Discharge the pressure (using the hydraulic levers of the distributors) before disconnecting or repairing pipes and hydraulic parts.

- DANGER

When a hydraulic pipe needs to be disconnected, slowly loosen the fittings to discharge residual pressure.

- PRESSURISED LIQUIDS DANGER

Hydraulic energy accumulators are mounted on the vehicle. Before intervening on them, make sure to discharge any internal pressure. Danger of high pressure oil squirts.

- Before restarting the engine, ensure that all connections have been properly tightened.
- Use a piece of cardboard to check for any leaks; make sure your hands and body are adequately protected against pressurised fluids.
- Any fluids that penetrate the skin must be removed surgically. Should there be an accident, seek medical attention immediately.

- FORBIDDEN

Never touch air conditioning coolant.

- If it comes into contact with eyes, air conditioning coolant may cause blindness; it may cause freezing if it comes into contact with skin.
- When cleaning with compressed air, serious injury may be caused by flying particles.
- Always wear protective goggles, a dust mask, gloves and other protective equipment.

- ATTENTION

adjusting and/or dismantling balancing and safety valves can be dangerous.

One of the above-mentioned valves may be removed only when the concerned jack is at rest and the hydraulic circuit is not under pressure.

All other operations must be carried out by qualified, authorised personnel only.

- NOTE

Only use lubricants suggested by DIECI never utilise used lubricants.

13.2 Preliminary maintenance operations

13.2.1 Prepare the vehicle for maintenance

- ATTENTION

Before performing maintenance work on your vehicle, do the following:

- Park the vehicle on flat, even ground.
- Engage the parking brake.
- Lower and fully retract all mobile parts (booms, shovels, etc.).
- If the maintenance operation requires the mobile parts to remain up, apply the safety run.
- Run the engine at a minimum for 60 seconds to cool it down.
- Discharge residual pressure from the hydraulic circuit.
- Switch off the key in the ignition switch.
- Remove the ignition key.
- Hang up a sign that indicates maintenance work is underway. This sign can be hung on the cab door and inside the controls.
- Set up barriers and spacers to prevent unauthorised personnel from approaching the vehicle.
- Disconnect the battery isolator switch.
- Allow the engine to cool down.

- ATTENTION

Set the vehicle in the maintenance position before performing any maintenance.

- ATTENTION

Use adequate personal protective equipment during the various inspection and maintenance operations.

13.2.2 Opening the engine bonnet

- FORBIDDEN

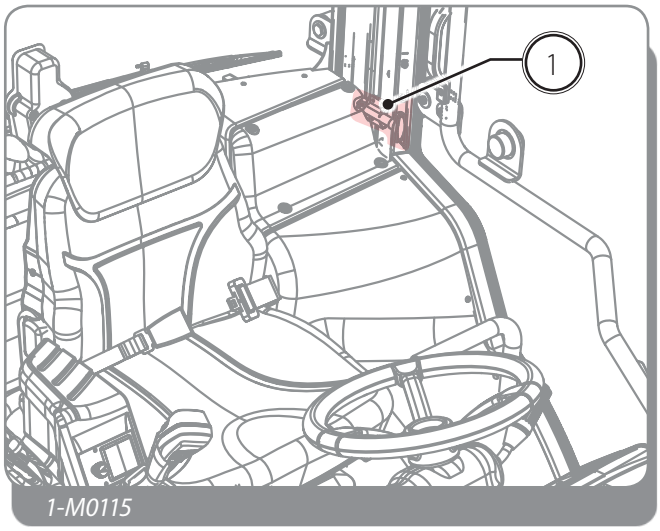
It is prohibited to open the engine bonnet with the diesel engine running. At the end of the maintenance operations, the bonnet must always be closed and locked.

To open the upper engine bonnet you need (Fig. 1-M0115 and Fig. 2-M0115):

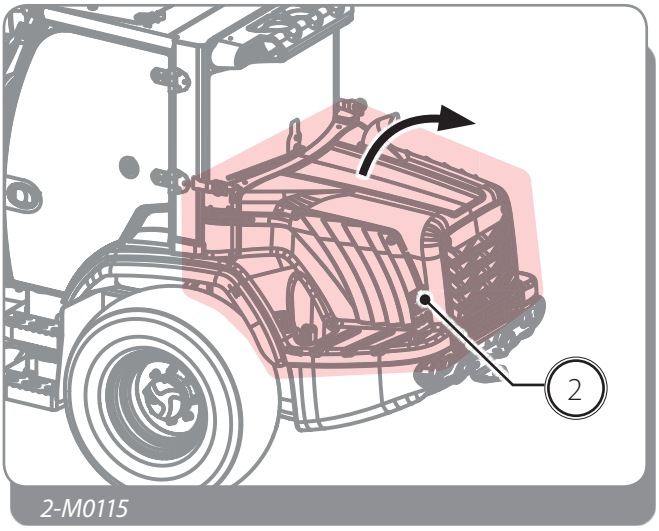
1. Switch off the Diesel engine.
2. Remove the ignition key.
3. Position a plate in the cab indicating "Maintenance in progress".
4. Disconnect the battery by acting on the battery isolator switch.
5. Pull the lever "**1**".
6. Lift the bonnet "**2**".
7. Let go of the bonnet gradually to check that the joint is at end stop properly.

To close the engine bonnet, you must (Fig. 1-M0115 and Fig. 2-M0115):

1. Lower the engine bonnet "**2**".
2. Close the engine bonnet pushing it lightly. Always check that it is closed correctly before starting to operate or before moving away from the vehicle.
3. Re-activate the battery isolator switch.



1-M0115



2-M0115

13.3 General maintenance of the vehicle

13.3.1 Tightness of nuts and bolts: Adjustment

Refer to the "Tightening torque of nuts and bolts" chapter to learn the coupling torques of the nuts and bolts of the vehicle.

13.3.2 Tightness of hydraulic fittings: Adjustment

Refer to the "Tightening torque of hydraulic fittings" chapter to learn the coupling torques of the hydraulic nuts and bolts of the vehicle.

13.3.3 Stickers: Inspection

Check that all the safety stickers are intact and in good condition.

Refer to the "Cleaning the safety stickers" chapter to learn how to clean the stickers.

13.3.4 Lights: Inspection

Make sure the light beam emitted from the various headlamps is directed and set correctly so as to prevent dazzling the drivers driving in the opposite direction.

Refer to the "Lights" chapter to learn how to replace and adjust the bulbs.

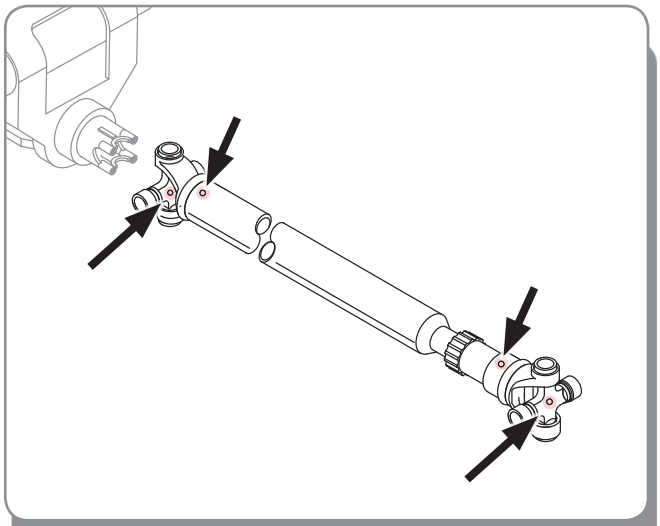
13.4 Lubrication

13.4.1 Transmission shafts: Lubrication

Lubricate the points marked in the figure (Fig. 3-M0115) until grease leaks out.

- NOTE

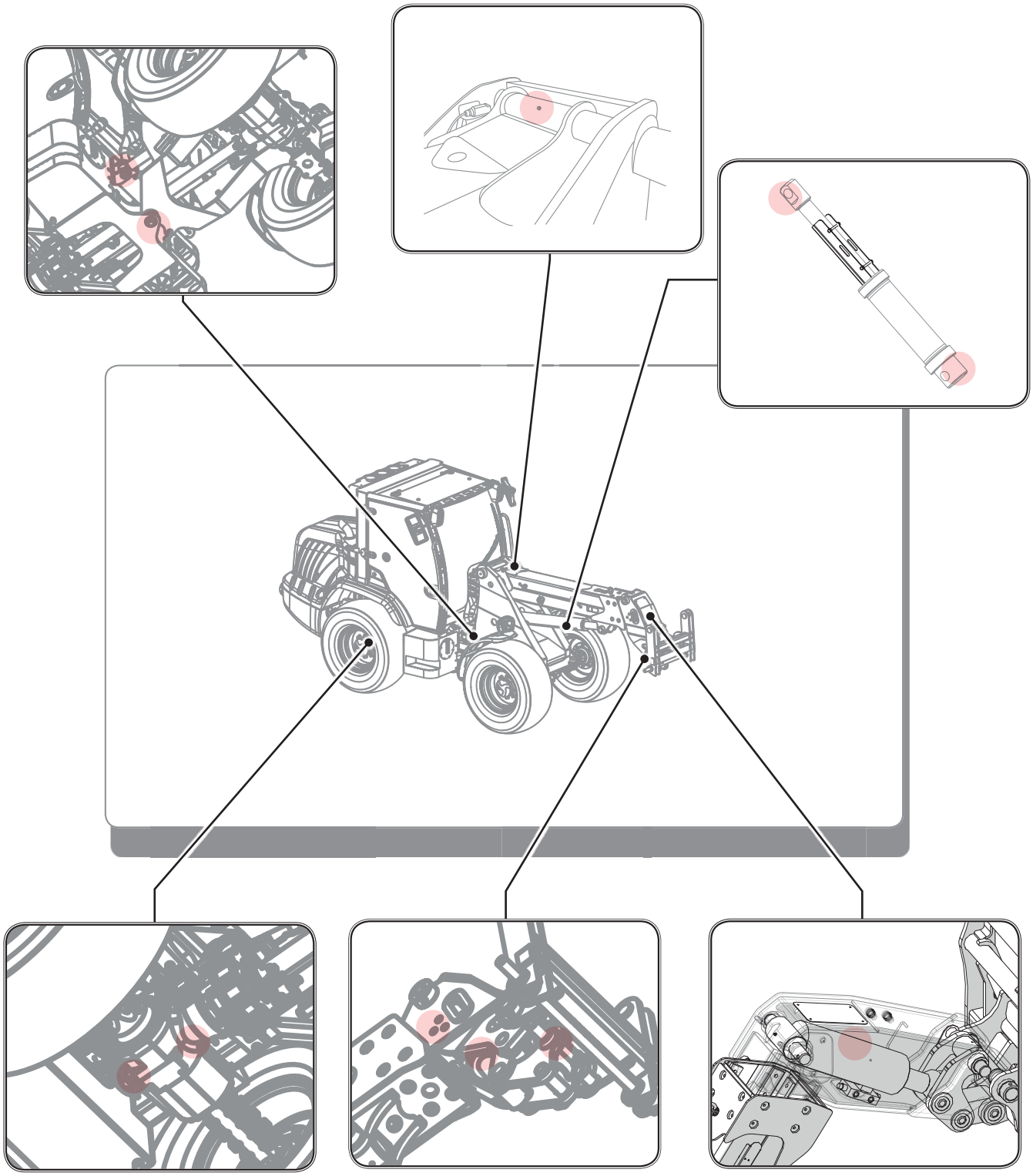
Check the tightness of the nuts and bolts on the coupling flanges of the shafts.



3-M0115

13.4.2 Mechanical joints: Lubrication

Lubricate the points indicated in the figure until the grease leaks and clean the greasing nipples from any dirt or deposits.



13.5 Engine maintenance

- ATTENTION

See the engine manual to perform maintenance on it.

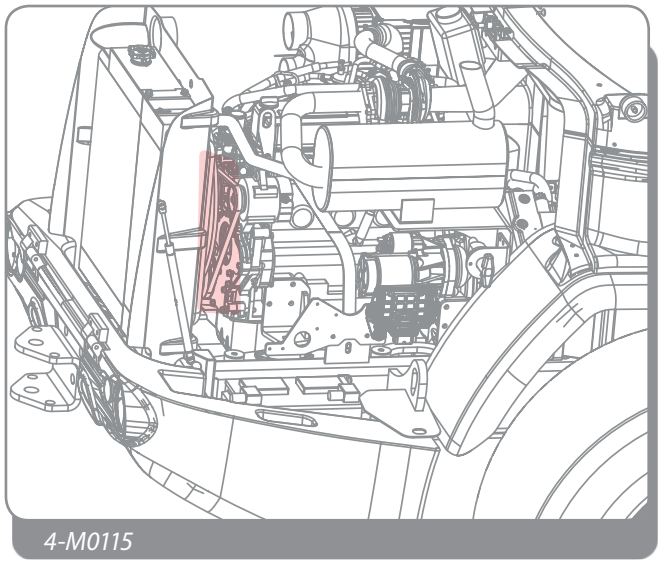
13.5.1 Belts: Inspection and adjustment

Check that the belt (Fig. 4-M0115) has no tears, cracks or signs of rubbing; if in doubt, install a new belt.

Make sure the belt fits properly on the pulleys and the tensioner works correctly.

- NOTE

If the belt does not seem to be in good conditions, replace it with a new one



4-M0115

13.5.2 Fuel filter: Replacement

Refer to the engine manual to learn how to replace the fuel filter.

13.5.3 Engine oil filter: Replacement

Refer to the engine manual to learn how to replace the engine oil filter.

13.5.4 Engine oil: Inspection and top-up

1. Check the level while the vehicle is level and the engine is off. Wait at least 5 minutes to allow the oil to settle in the sump.
2. Take out the level rod "**1**" (Fig. 5-M0115), clean it and put it all the way back in.
3. Remove it again "**1**" and check that the oil level is between the "**MIN**" e "**MAX**" notches.
4. Insert the dipstick once again completely.
5. If necessary, top up oil through the engine cap "**2**".

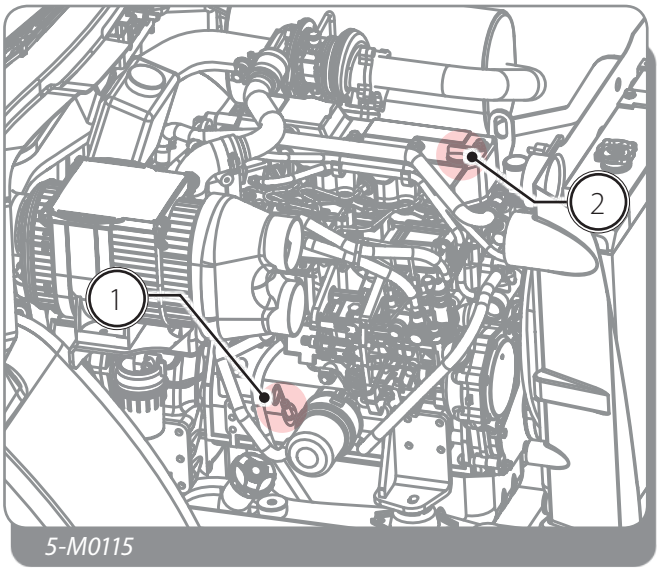
Refer to the engine manual to learn the quantities and type of oil.

- NOTE

Do not top-up above the "MAX" notch; if topped up excessively, the oil is burnt and smoke is produced, giving the false impression that the oil is being consumed.

- ATTENTION

Never use the engine if the oil level is below the "MIN" notch.



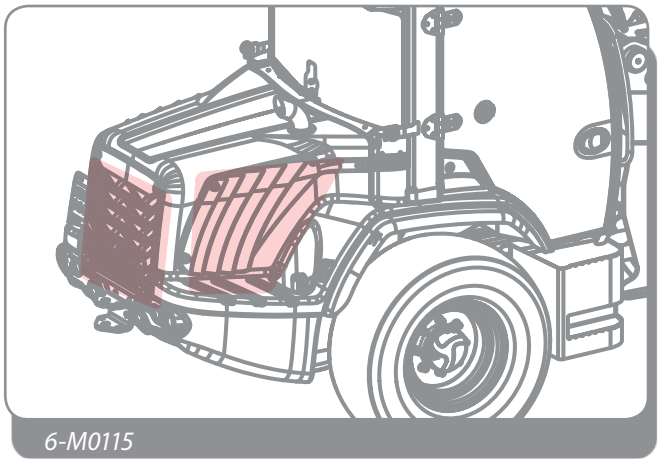
5-M0115

13.6 Radiator maintenance

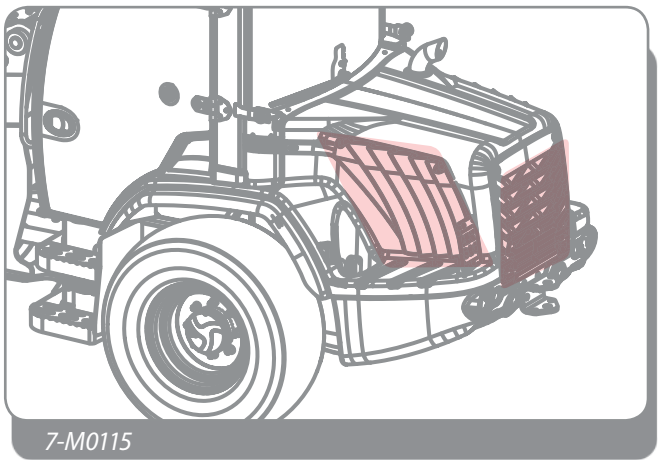
13.6.1 Air circulation grills and meshes

Check that the air circulation grills and meshes are clean and free from filth (Fig. 6-M0115, Fig. 7-M0115).

Use a low pressure air jet to clean them, directing it from the inside towards the outside of the vehicle.



6-M0115



7-M0115

13.6.2 Radiator: Inspection and cleaning

The oil and water radiator requires the following operations (Fig. 8-M0115):

Radiator check

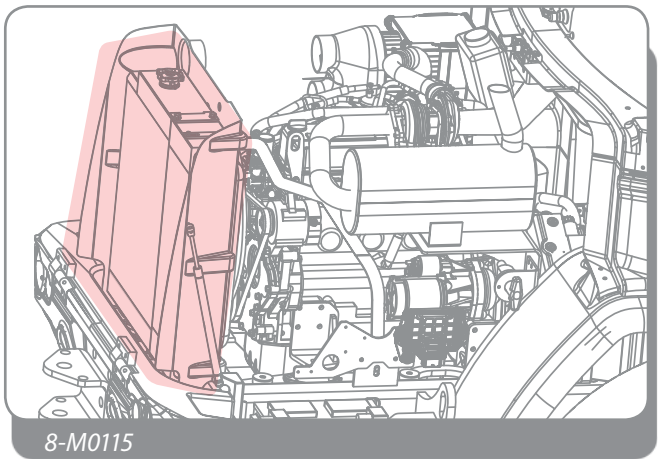
Check that the fins are not deformed; in this case, straighten them with caution.

Check that there is no accumulated dirt on the fins and that they are not blocked.

Cleaning radiators

Clean the radiator from any dirt and impurities accumulated between the cooling fins. For cleaning, use compressed air with pressure not beyond **7** bar from the inside towards the outside.

If necessary, use a detergent and then remove it with the pressure washer.



8-M0115

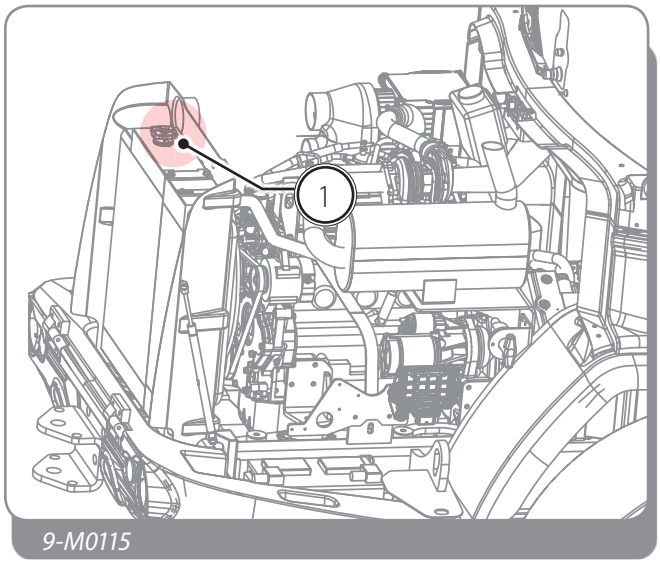
13.6.3 Radiator: Filling and replacing liquid

- RISK OF BURNS

Do not remove the radiator top-up cap when the system is hot, otherwise, boiling coolant could leak. Once the system has cooled, turn the top-up cap to the first notch and wait until the pressure is discharged completely before proceeding. Risk of burns and injury.

- DANGER: HARMFUL SUBSTANCES

The coolant can be toxic. Avoid contact with skin, eyes and clothing. If contact is made with skin or eyes, rinse with plenty of water. Consult a doctor immediately. If not used once again, dispose of according to the local environmental regulations.



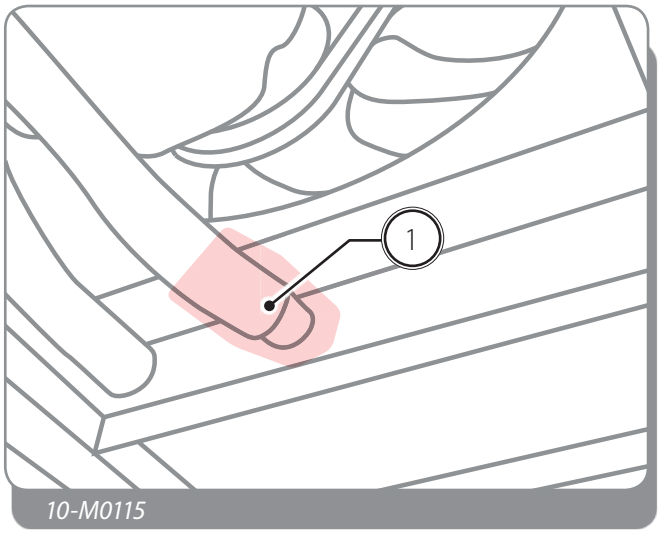
9-M0115

Top-up

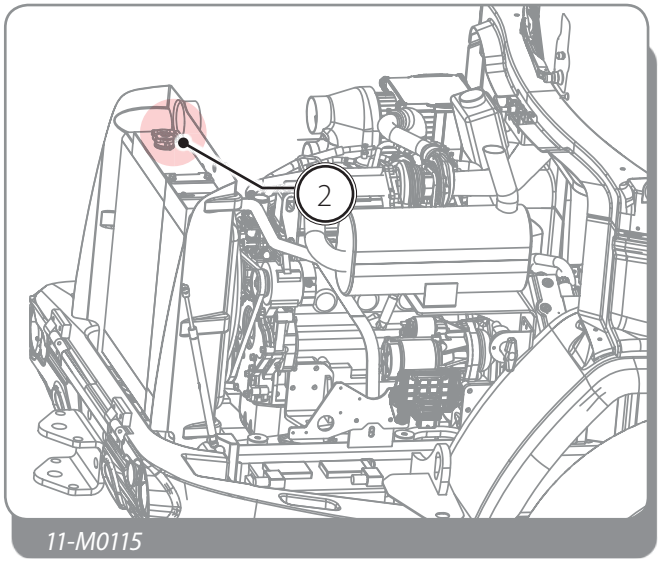
1. Set the vehicle in the maintenance position.
2. Take out the protective casing by removing the two clamping screws and access the radiator cap "**1**" (Fig. 9-M0115).
3. Slowly unscrew the filler cap "**1**" anticlockwise until reaching the safety pin.
4. Discharge residual pressure and steam.
5. Add coolant until the level reaches **30** mm (1.2 in) under the cap.
6. Refit the cap.
7. Close the protective casing back up.

Changing liquid

1. Set the vehicle in the maintenance position.
2. Open the engine bonnet.
3. Remove the sleeve "**1**" (Fig. 10-M0115) to drain water from the radiator.
4. Remove the filler cap "**2**" (Fig. 11-M0115) to empty it quicker.
5. Allow the cooling circuit to drain completely.
6. Rinse the radiator with clean demineralised water, through the filler cap "**2**" and draining it from the orifice of the sleeve "**1**". Add detergent if necessary.
7. Check the conditions of the sleeves and their fastenings. Replace them if necessary.
8. Put the drain sleeve back in place when cleaning is finished "**1**".
9. Fill the cooling system with coolant previously prepared through the filler cap "**2**" until the level is **30** mm (1.2 in) below the cap.
10. Close the filler cap "**2**".
11. Turn the engine on allowing it to run at minimum for a few minutes.
12. Make sure that there are no leaks, check the level and, if necessary, add more liquid.



10-M0115



11-M0115

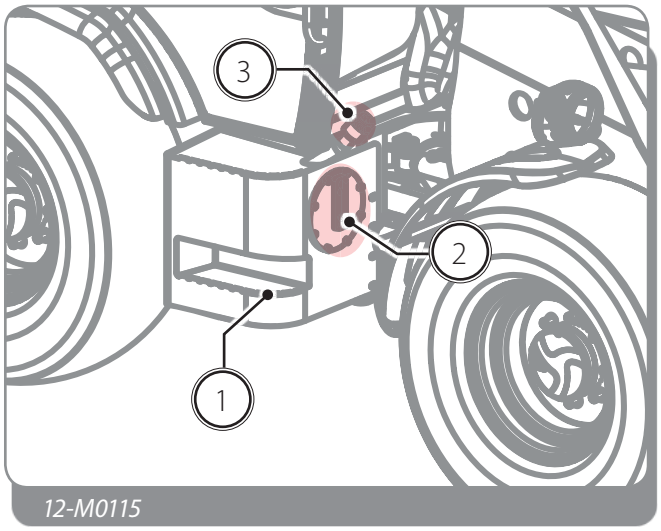
13.7 Hydraulic system maintenance

13.7.1 Hydraulic oil: Inspection and change

The hydraulic oil tank is on the left side of the vehicle "**1**" (Fig. 12-M0115).

The level can be checked via the transparent indicator "**2**" on the tank.

The level is correct when the oil can be seen through the transparent indicator "**2**" with all vehicle cylinders in transport position.



12-M0115

Inspecting the oil

The oil level must be kept in optimal condition so as to maintain the vehicle in normal conditions of use.

Proceed as follows to check the oil level in the tank (Fig. 12-M0115) correctly:

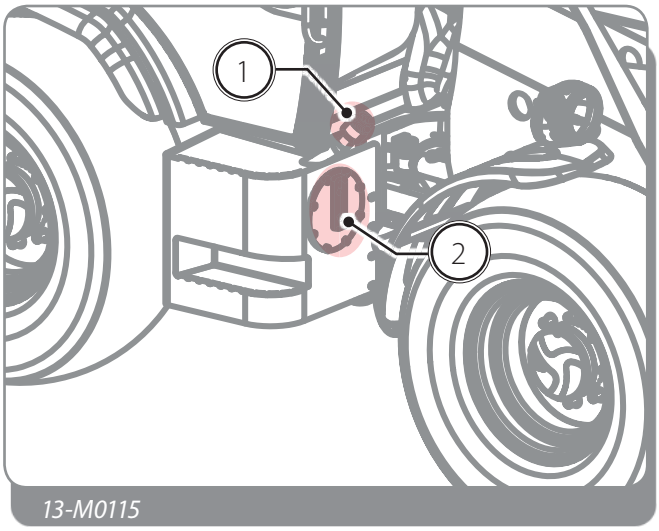
1. Set the vehicle in the maintenance position.
2. Make sure that all cylinders and jacks of the vehicle are retracted (for example: telescopic boom completely lowered and retracted, tool carriage plate inclined downwards as far as possible to avoid contact with the chassis or tyres). This will send all the oil in the hydraulic circuit to the tank.
3. Check the oil level through the transparent indicator "**2**". In optimal conditions, the oil level reaches halfway up the transparent indicator.
4. If necessary, remove the cap "**3**" and top up the oil until the correct level is reached.

Changing oil

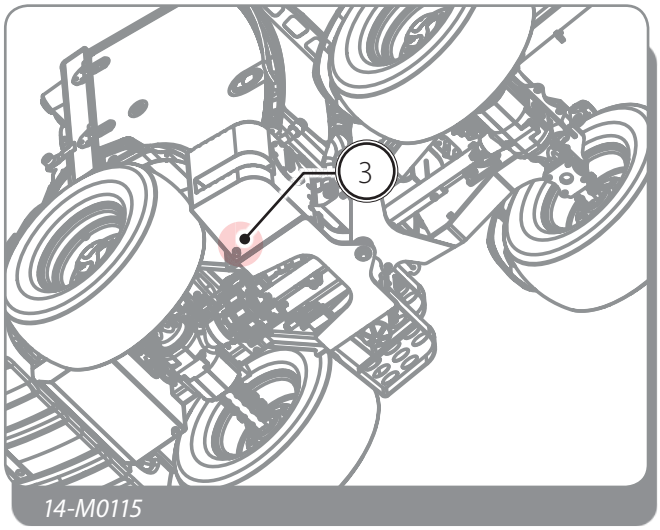
To change the oil in tank (Fig. 13-M0115, and Fig. 14-M0115) you need to:

1. Set the vehicle in the maintenance position.
2. Make sure that all cylinders and jacks of the vehicle are retracted (for example: telescopic boom completely lowered and retracted, tool carriage plate inclined downwards as far as possible to avoid contact with the chassis or tyres). This will send all the oil in the hydraulic circuit to the tank.
3. Place a container under the drain cap (under the tank).
4. Remove the filler cap "**1**"
5. Remove the drain plug to allow the oil to drain "**3**".
6. Refit the drain plug "**3**".
7. Fill the tank with indicated oil.
8. Check the level through indicator "**2**" after having started the engine and operated all the hydraulic controls to let out any air bubbles.
9. If necessary, top-up the level.

Refer to the "Technical data" chapter to find out the amount of oil required and the type of recommended oil.



13-M0115



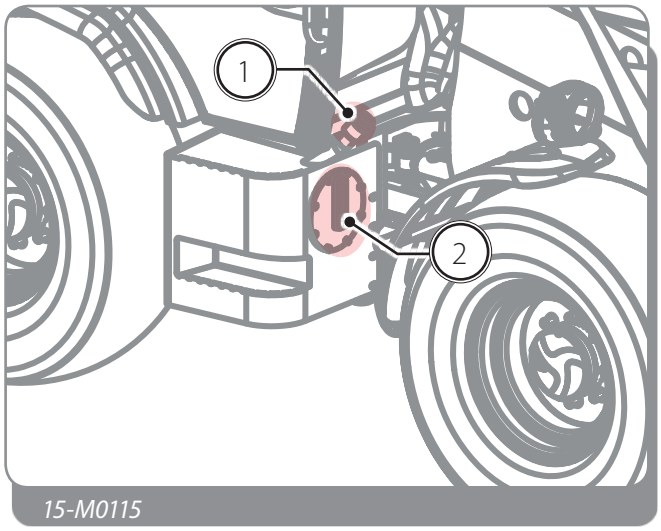
14-M0115

13.7.2 Intake hydraulic oil filter: Replacement

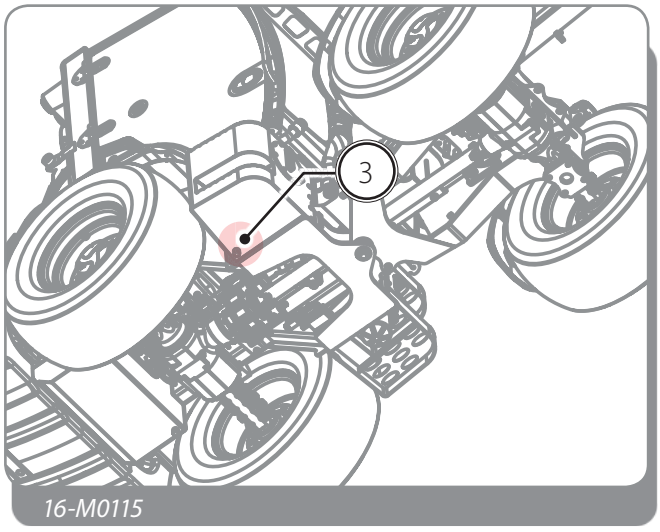
The intake hydraulic oil filters are inside the hydraulic oil tank; the tank must be emptied completely in order to replace them. It is therefore recommended to replace the intake filters when changing the oil.

Follow the instructions below to replace the intake filters (Fig. 15-M0115 and Fig. 16-M0115):

1. Set the vehicle in the maintenance position.
2. Make sure that all cylinders and jacks of the vehicle are retracted (for example: telescopic boom completely lowered and retracted, tool carriage plate inclined downwards as far as possible to avoid contact with the chassis or tyres). This will send all the oil in the hydraulic circuit to the tank.
3. Place a container under the drain cap (under the tank).
4. Remove the filler cap "**1**"
5. Remove the drain plug to allow the oil to drain "**3**".
6. When the oil is completely emptied, remove the flange "**2**" in order to access the intake filters.
7. Loosen the intake filters found inside the tank with an adjustable fork spanner.
8. Fit new filters and tighten them with the fork spanner.
9. Refit the flange "**2**".
10. Refit the drain plug "**3**".
11. Fill the tank with indicated oil.
12. Close the filler cap "**1**".
13. Check the level through indicator "**2**" after having started the engine and operated all the hydraulic controls to let out any air bubbles.
14. If necessary, top-up the level.



15-M0115

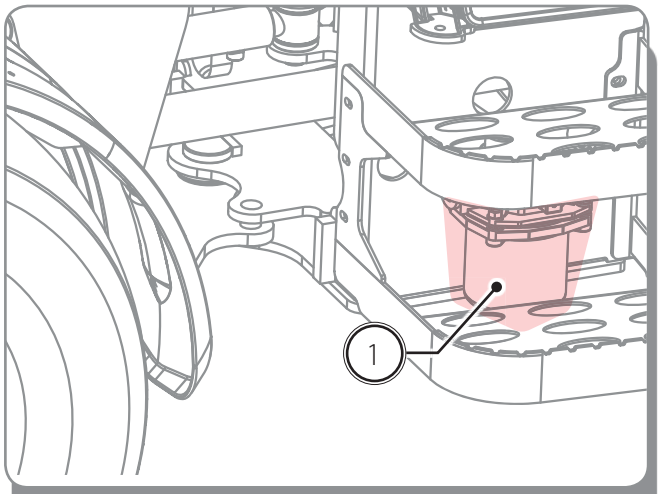


16-M0115

13.7.3 Return hydraulic oil filter: Replacement

Follow the steps below to replace the hydraulic oil filter (Fig. 17-M0115):

1. Set the vehicle in the maintenance position.
2. Place a container under the oil filter "**1**" to collect the oil that could leak when replacing it.
3. Replace the filter "**1**", lightly oil the gasket and manually tighten 3/4 of a turn.
4. Open the cock in the previously closed position "**1**" and fit a new clamp.



17-M0115

13.8 Brake maintenance

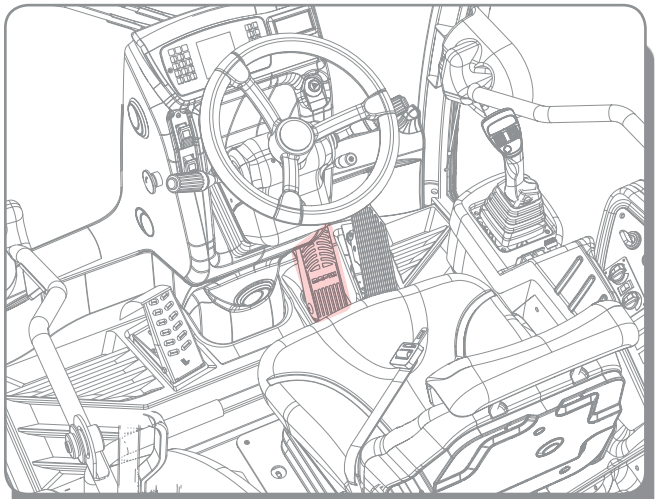
13.8.1 Brake: Inspection

Visually make sure that the joints of the pedals (Fig. 18-M0115) are not damaged and that the stroke of the pedal is not too extended or too elastic.

- ATTENTION

If irregularities occur while braking, contact qualified personnel to verify the cause of the problem.

The braking components also safeguard your safety. It is recommended to not intervene personally on the hydraulic system so as to try to eliminate any faults



18-M0115

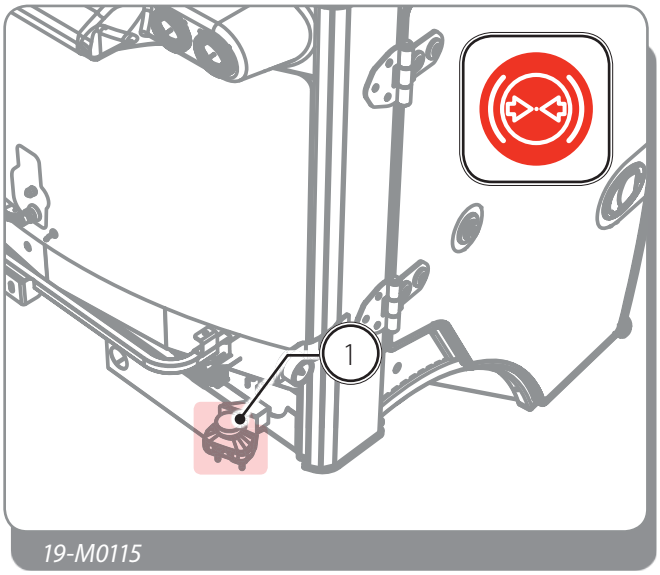
13.8.2 Brake oil: Inspection and change

When the "Insufficient parking brake pressure" indicator lights up on the central dashboard, the brake oil level has dropped below the minimum level (MIN) and needs to be topped up.

Check the reservoir "**1**" behind the seat (Fig. 19-M0115) on a regular basis. Oil must always be level; or rather the reservoir must always be full.

To add liquid to the tank:

1. Open the engine bonnet.
2. Remove the top-up cap.
3. Add the washing liquid until the reservoir is full.
4. Refit the cap.
5. Clean any spillage.
6. Close the engine bonnet.



19-M0115

- ATTENTION

If the indicator remains on even after having topped up the oil, contact an authorised Dieci after-sales centre to resolve the problem.

A slight lowering of the level is due to the normal consumption of brake pads.

Do not press the brake pedal until top-up has been completed. Check that the tank has been closed before acting on the pedal.

13.9 Air filter maintenance

13.9.1 Air filter: Cartridge Cleaning / Replacement

An air filter in poor conditions can cause a reduction in power, excessive fuel consumption and shorten engine life.

Filter clogging is signalled by an indicator light found on the central dashboard; once the indicator light switches on the vehicle can be used for a maximum of 10 hours. Maintenance must however be carried out as often as described.

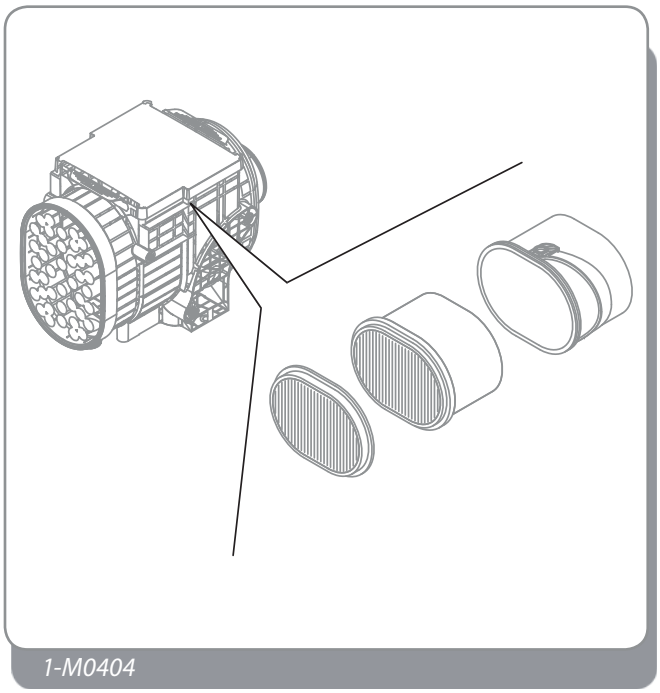
- ATTENTION:

Clean filters only when the indicator light signals clogging or at scheduled maintenance intervals. Unnecessary, frequent cleaning exposes components to handling damage which can allow dust and dirt to pass into the filtering phases, causing damage to the engine.

- ATTENTION:

Filtering components must be replaced if they come into contact with any type of liquid.

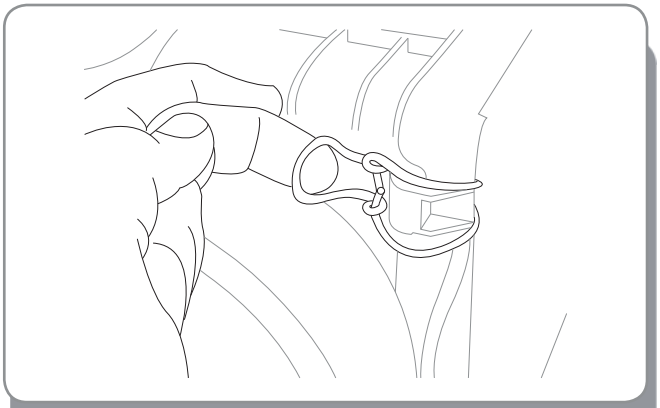
Regularly check the suction sleeves and replace them immediately if worn or damaged. Regularly check that the bolts and clamps are tightened properly. No air should be allowed to enter the engine without having first passed through the filter.



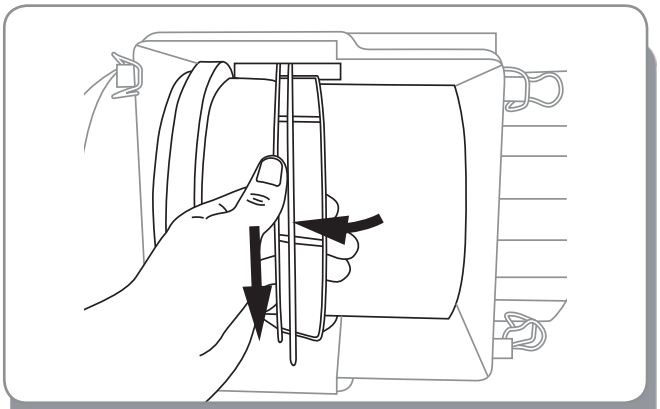
1-M0404

To correctly clean the filter, you must:

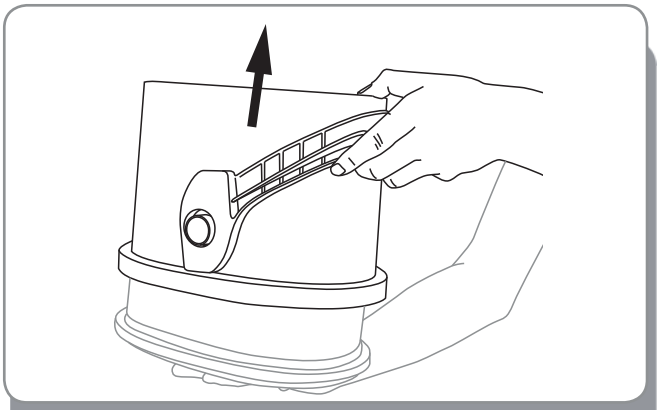
1. Set the vehicle in the maintenance position.
2. Open and lock the bonnet.
3. Open the filter cover "**1**" (Fig. 2-M0404) pulling the blocking levers on the four corners.
4. Push the handle on the filter and lift the cartridge upwards (Fig. 3-M0404).
5. Slide the secondary paper filter from the support, turning downward and over the part with a gasket. Keep one hand under it to prevent it from falling and being ruined (Fig. 4-M0404).
6. Remove the primary filter by pulling the flap on the side or the central plastic towards you (Fig. 5-M0404).
7. Use a wet cloth which will not leave residue to clean the box and cover.
8. Clean or replace the filters. Filter cleaning should be carried out with compressed air at maximum of **3 Bar** (43.5 psi), and at a distance not less than **150 mm** (5.9 in), taking due caution not to damage the filtering element.
9. Assemble all following the same operations in reverse order.



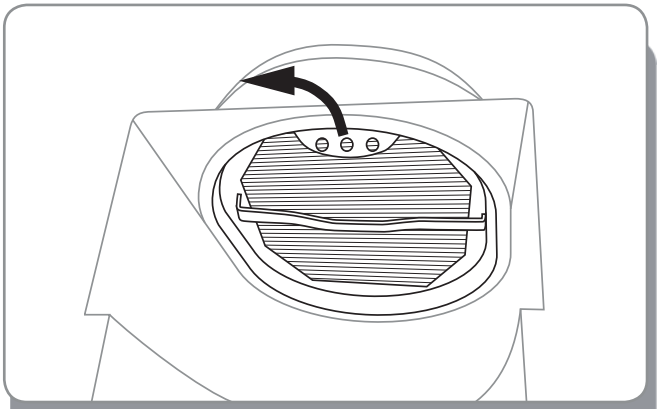
2-M0404



3-M0404



4-M0404



5-M0404

To correctly clean the suction ducts, you must:

1. Set the vehicle in the maintenance position.
2. Open and lock the bonnet.
3. Remove the air intake filter "**1**" (Fig. 6-M0404).
4. Use a wet cloth that will not leave residue. Clean every air input inlet.
5. Put the air intake filter back in its place.

- NOTE

In the event that connecting gaskets between the suction duct and filter should become worn, replace them.

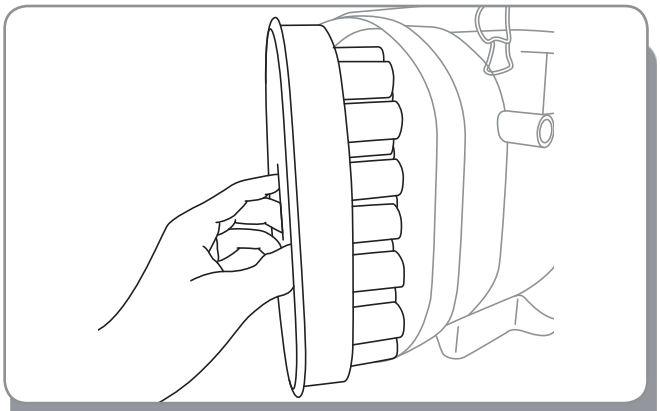
- ATTENTION

For the complete efficiency of the filter, it is advised to operate with the filter complete with all parts and components.

All worn parts should be replaced as quickly as possible.

Operating the vehicle without the engine air filter is strictly prohibited.

The engine suctions in air continuously during use. Dust that enters into circulation can cause serious system damage.

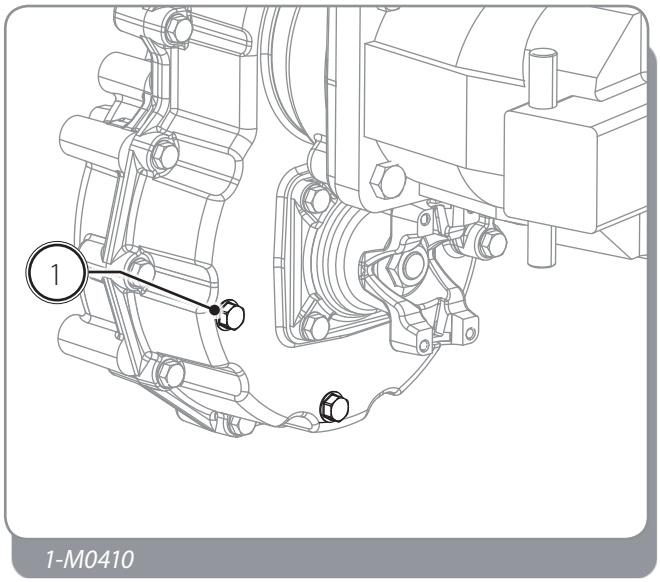


6-M0404

13.10 Transmission maintenance

13.10.1 Oil change: Inspection

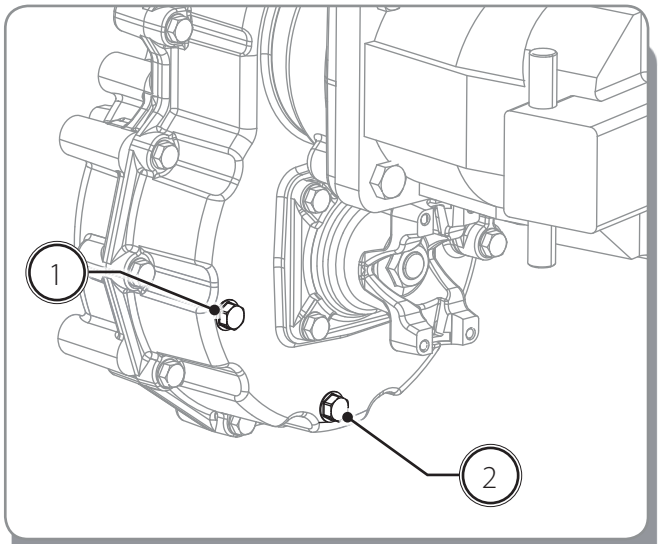
1. Set the vehicle in the maintenance position.
2. Place a container under the gearbox.
3. Take the level cap off (Fig. 1-M0410, pos.1), oil must leak out from the hole.
4. If necessary, top-up through the hole of the cap until the oil seeps through.



1-M0410

13.10.2 Oil change: Inspection and change

1. Set the vehicle in the maintenance position.
2. Place a container under the gearbox.
3. Take the level cap (Fig. 2-M0410, pos.1) and the drain cap off (Fig. 2-M0410, pos.2).
4. Allow the oil to completely drain out.
5. Refit the drain cap and tighten it securely.
6. Top-up with approved type of oil (pos.1) until the oil seeps through.

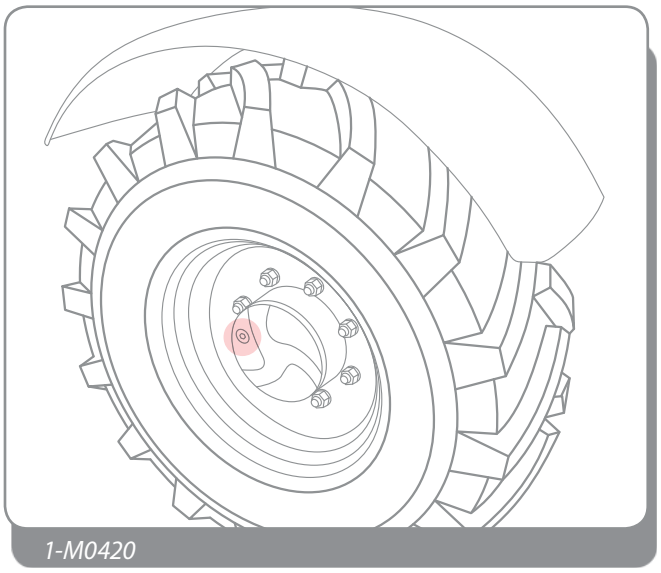


2-M0410

13.11 Wheel maintenance

13.11.1 Epicycloidal reduction gear oil: Inspection and change

The oil cap of the epicycloidal reduction gear is located on the hub of the wheel (Fig. 1-M0420):



1-M0420

When checking the oil level:

1. Set the vehicle in the maintenance position.
2. Turn the wheel for the oil cap to be in the horizontal position.
3. Place a container to collect the oil.
4. Remove the cap and verify that the oil seeps from the hole.
5. If necessary, top-up through the same hole.
6. Close the cap and tighten it securely.

When changing the oil:

1. Set the vehicle in the maintenance position.
2. Turn the wheel for the oil cap to be in the lowest possible position.
3. Place a container to collect the oil.
4. Remove the cap and let the oil drain completely.
5. Turn the wheel and bring the cap to the horizontal position.
6. Fill through the same cap with new oil until it seeps through.
7. Close the cap and tighten it securely.

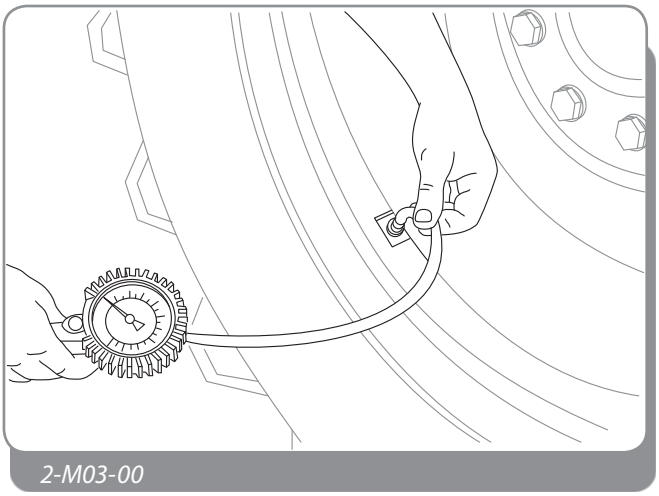
13.11.2 Tyre pressure: Inspection

Verify and adjust the pressure of the front and rear tyres.

Check that the tread and the sides are not damaged.

Connect a manometer to the tyre valve and verify that the inflation pressure is correct.

Adjust the tyre pressure according to the indications provided in the "Tyres" chapter.

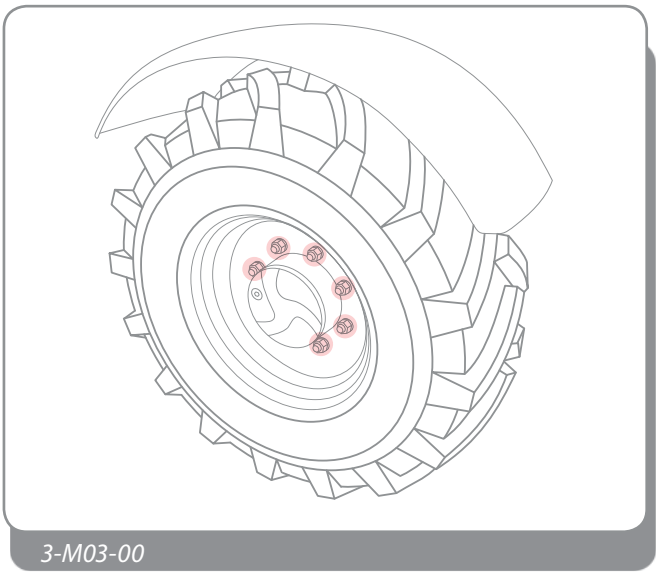


2-M03-00

13.11.3 Tightness of the wheel nuts: Inspection

Check that the nuts of the front and rear wheels are tightened well, using a torque wrench (with a torque multiplier, if necessary).

Tighten the nuts to **588 Nm (60 Kgm)**.



3-M03-00

13.12 Differential axle maintenance

13.12.1 Differential axle oil: Inspection and change

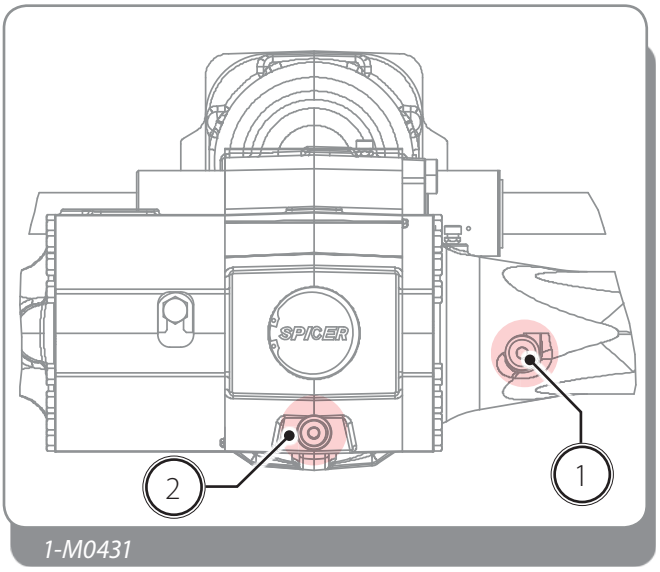
The filler, level and drain caps are in the middle part of the front (Fig. 1-M0431) and rear differential axle (Fig. 2-M0431):

When checking the oil level:

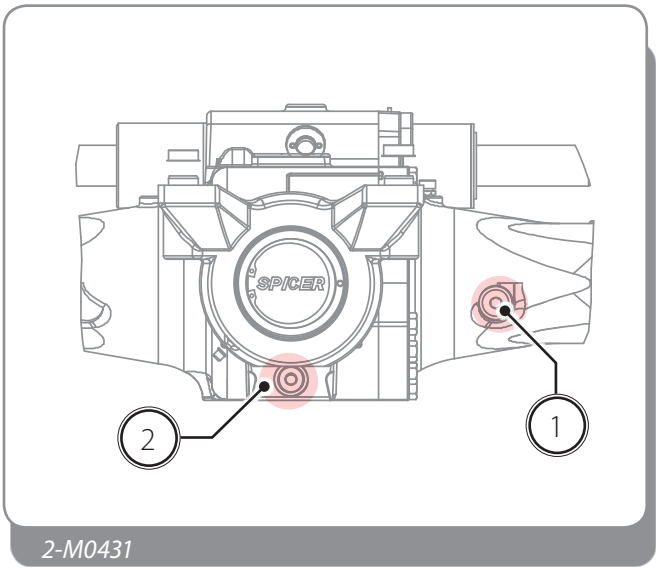
1. Set the vehicle in the maintenance position.
2. Place a container under the level cap "**1**" to collect any oil that may leak.
3. Open the level cap "**1**". In optimal conditions, the oil must seep from the hole.
4. If necessary, top-up until the oil seeps from level cap "**1**".
5. Close the caps and tighten them securely.

When changing the oil:

1. Set the vehicle in the maintenance position.
2. Place a container under the drain plug "**2**" to collect any oil that may leak.
3. Open the filler cap "**1**" and then drain plug "**2**".
4. Allow the oil to completely drain out.
5. Close the drain plug "**2**".
6. Pour new oil from the level cap "**2**" until the oil seeps.
7. Close the caps and tighten them securely.



1-M0431



2-M0431

13.13 Ventilation system maintenance

13.13.1 Cab ventilation filter: Cleaning and replacing

On changing the cab ventilation filter, clean the intake pipe using a jet of air from the inside of the cab to the outside.

1. Set the vehicle in the maintenance position.
2. Remove the casing "**1**" (Fig. 1-M0453), located to the left of the seat.
3. Remove the filter "**2**".
4. Replace or clean the filter cartridges by striking them gently on a flat surface, with the external side facing down, making sure not to damage them; or use a jet of air (less than 6.9 bar) and blow from the inner side outwards.
5. Reassemble the filter.
6. Reassemble the carter.
7. Restart the engine with the fan moving to verify that the operation is correct.

Clean the air intake grill "**3**" (Fig. 2-M0453) at the end of every working day using a jet of air.

- DANGER

Do not use diesel, petrol, solvents or water to clean the cartridges, because it could damage the filtering material and increase the risk of flammability and inhaling harmful substances.

- NOTE

In the event of vehicle use in particularly dust rich environments (haylofts, etc.); the filter life is reduced by 100 hours.

- ATTENTION

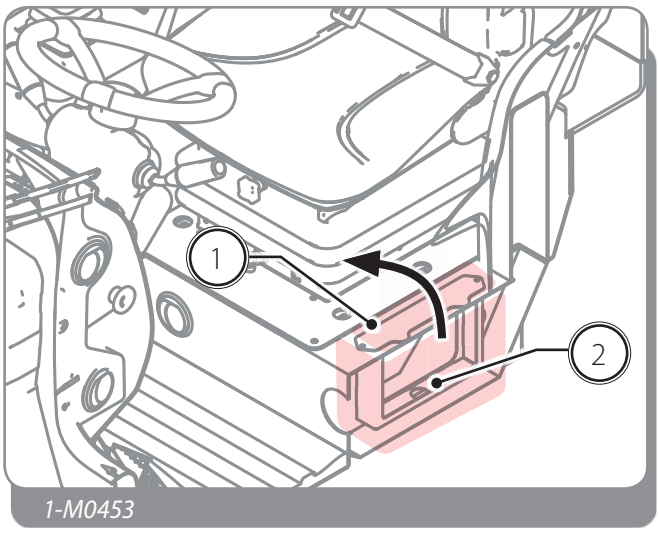
If the ventilation system malfunctions, check for filter clogging.

In the event that malfunctions persist even after filter replacement, contact a DIECI after-sales centre.

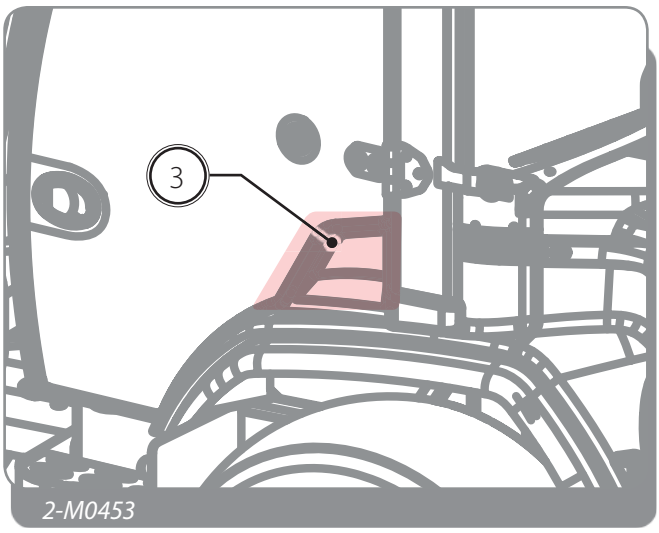
- FORBIDDEN

Do not use the vehicle without a cab filter.

Dust that enters the cab can cause health risks for the operator and ventilation system malfunction.



1-M0453



2-M0453

*13.13.2 Air conditioning: Cleaning **

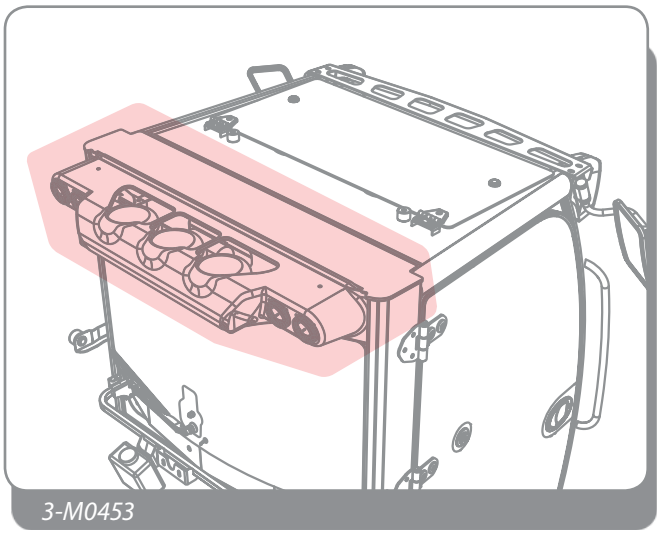
Air conditioning is an optional accessory.

1. Set the vehicle in the maintenance position.
2. Remove the protective casing (Fig. 3-M0453).
3. Clean the air conditioning radiator by directing compressed air, at a maximum pressure of **7 bar**, from the top downwards, in the direction opposite to that of the normal air flow. The jet of air must be perpendicular to the surface of the radiator.
4. Remove filth underneath the air conditioning radiator.
5. After cleaning, replace the condenser.

- NOTE

Be careful not to damage radiator fins while cleaning.

Check that the fins are not deformed; in this case, straighten them with caution.



3-M0453

13.14 Cylinder block valve maintenance

13.14.1 Cylinder block valve's action

Cylinder block valves hinder uncontrolled movement of the cylinder pistons in case of lacking hydraulic or bursting pressure of a flexible pipe.

The valves are directly mounted on the cylinders.

- DANGER

Do not allow anybody near the vehicle while these checks are being carried out.

- ATTENTION

Inspect only one valve at a time.

- DANGER

In the event of malfunction, do not use the vehicle until it has been repaired.

Boom raising cylinders:

- Start up the engine. Make sure that the parking brake is engaged and the transmission in neutral.
- Lift the boom to a 45° angle.
- With the engine running at 1400 RPM, lower the boom. During boom movement stop the engine.

The boom must slow down and stop as the engine slows down and stops.

- DANGER

If the boom continues to move even after the motor stops, the boom raising cylinders are faulty.

Repair the defect as quickly as possible, contact a *DIECI* service centre.

Boom extension cylinder:

- Start up the engine. Make sure that the parking brake is engaged and the transmission in neutral.
- Raised and extended the boom completely.
- With the engine running at 1400 RPM, retract the boom. During boom movement stop the engine.

The boom must slow down and stop as the engine slows down and stops.

- DANGER

If the boom continues to move even after the engine is switched off, the block valve is faulty.

Repair the defect as quickly as possible, contact a *DIECI* service centre.

Fork swivel cylinder:

- Start the engine, pick up a load on the forks (e.g. a load of bricks or bales of hay).
- Incline the forks completely upwards.
- Engage the parking brake and put the transmission in neutral.
- Lift the boom off the ground just enough necessary to allow the forward inclination of the forks.
- When the engine is running at 1400 RPMs, engage the control lever to tilt the forks forward. During the fork movement stop the engine.

Movement of the swivel must slow down and then stop as the engine slows down and stops.

- DANGER

If the forks continue to lower or move after the engine is switched off, the block valve is faulty.

Repair the defect as quickly as possible, contact a *DIECI* service centre.

Levelling cylinders and oscillation block (if present):

- Position the vehicle on a perfectly horizontal surface.
- Make sure that the parking brake is engaged and the transmission in neutral.
- Make sure the vehicle is in trolley mode.
- Lift the boom to about 15 cm from the ground and level the vehicle in a way that the frame is perfectly parallel to the surface (check the spirit level on the cab).
- Check that, without intervening on the levelling control, the vehicle keeps this position also after prolonged use.

- DANGER

In the event of offset of the levelling cylinder rod, without operator intervention, the lock valve is faulty.

Repair the defect as quickly as possible, contact a *DIECI* service centre.

- NOTE

Do not level the vehicle with boom lifted and extended.

13.15 Telescopic boom maintenance

13.15.1 Telescopic boom sliding blocks

Sliding block wear

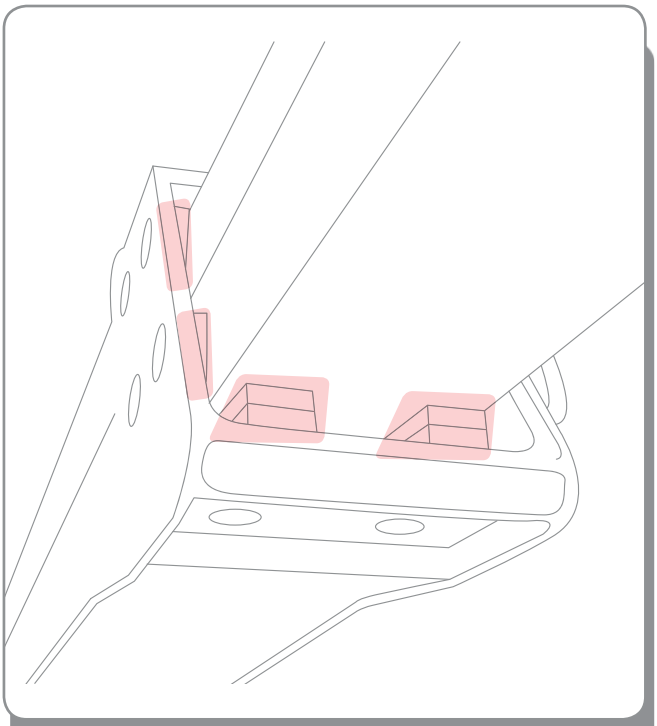
Sliding block wear can cause oscillations and slack between extensions causing a loss of accuracy in movements and the risk of load loss.

Consult the Summary Table at the start of the chapter for servicing intervals.

The more difficult the working conditions, the greater the wear and tear on the vehicle.

- ATTENTION

Boom sliding block maintenance must be carried out by an authorised *DIECI* workshop.



1-M0470

Lubrication

Boom sliding blocks must be kept lubricated to prevent deterioration as much as possible and keep movements smooth.

In the event that the layer of grease is thin or presents impurities (sand, dust, shavings, etc.) proceed as follows:

1. Set the vehicle in the maintenance position.
2. Turn on the vehicle.
3. Extend the boom completely in a horizontal position.
4. Switch off the engine and remove the ignition key, hang up a sign in the cab that reads "maintenance work under way".
5. Disconnect the battery by acting on the battery isolator switch.
6. Use a cloth to remove the layer of grease and any impurities from the surface of the extensions.
7. Use a brush to spread a layer of an approved type of grease on the four sides of the extensions.
8. Turn on the vehicle.
9. Retract and extend the boom fully several times to evenly distribute the grease.
10. Turn off the vehicle.
11. Remove any excess grease.

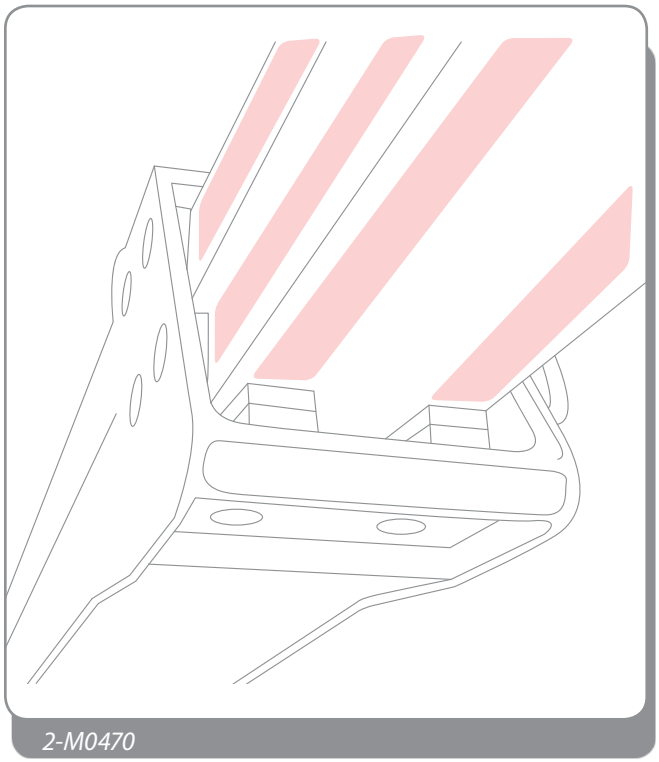
- ATTENTION

During the visual check phase and spreading the grease, the vehicle must be off and the key removed from the cab to prevent accidental manoeuvres.

Should the vehicle be used in particularly severe conditions or very dusty environments lubricate more frequently.

- ATTENTION

Use only the lubricants indicated on the *DIECI* tables. Different types of lubricants can cause serious damage to the sliding surfaces.



2-M0470

13.16 Threaded fastening torque

13.16.1 Fine pitch

	Friction coefficient	4.8		5.8		6.8		8.8		10.9		12.9	
		Preload (N)	Fastening torque (Nm)	Preload (N)	Fastening torque (Nm)	Preload (N)	Fastening torque (Nm)	Preload (N)	Fastening torque (Nm)	Preload (N)	Fastening torque (Nm)	Preload (N)	Fastening torque (Nm)
M8	0.10	9798.1	10.87	12247.6	13.59	14697.1	16.31	19596.1	21.75	27557.1	30.58	33068.5	36.70
	0.14	9079.5	13.53	11349.4	16.91	13619.3	20.29	18159.1	27.05	25536.2	38.04	30643.4	45.65
M10	0.10	15296.9	21.13	19121.1	26.41	22945.3	31.69	30593.8	42.25	43022.5	59.42	51627.0	71.30
	0.14	14175.0	26.27	17718.8	32.84	21262.6	39.41	28350.1	52.55	39867.3	73.89	47840.8	88.67
M10	0.10	16383.6	22.12	20479.5	27.66	24575.4	33.19	32767.2	44.25	46078.8	62.23	55294.6	74.67
	0.14	15221.6	27.80	19027.0	34.75	22832.5	41.70	30443.3	55.61	42810.8	78.20	51373.0	93.84
M12	0.10	22020.7	35.83	27525.9	44.79	33031.0	53.75	44041.4	71.67	61933.2	100.78	74319.8	120.94
	0.14	20405.8	44.53	25507.2	55.66	30608.7	66.79	40811.6	89.06	57391.3	125.24	68869.5	150.29
M12	0.10	23333.7	37.26	29167.1	46.57	35000.6	55.88	46667.4	74.51	65626.1	104.78	78751.3	125.74
	0.14	21669.2	46.70	27086.5	58.38	32503.8	70.06	43338.4	93.41	60944.6	131.36	73133.5	157.63
M14	0.10	31610.0	59.04	39512.5	73.80	47415.0	88.57	63220.0	118.09	88903.1	166.06	106683.7	199.27
	0.14	29345.9	73.92	36682.4	92.40	44018.9	110.89	58691.9	147.85	82535.4	207.91	99042.5	249.49
M16	0.10	42581.3	89.78	53226.6	112.23	63871.9	134.67	85162.5	179.56	119759.8	252.51	143711.8	303.02
	0.14	39587.8	113.06	49484.7	141.32	59381.6	169.59	79175.5	226.12	111340.6	317.98	133608.7	381.57
M18	0.10	51457.2	124.03	64321.5	155.03	77185.8	186.04	102914.4	248.06	144723.3	348.83	173668.0	418.59
	0.14	47751.7	155.02	59689.6	193.78	71627.5	232.53	95503.3	310.05	134301.6	436.00	161161.9	523.20
M18	0.10	55415.1	130.17	69268.9	162.72	83122.7	195.26	110830.3	260.35	155855.1	366.12	187026.1	439.34
	0.14	51577.6	164.67	64472.0	205.84	77366.4	247.01	103155.2	329.35	145062.1	463.15	174074.5	555.77
M20	0.10	65534.1	173.72	81917.7	217.16	98301.2	260.59	131068.3	347.45	184314.8	488.60	221177.8	586.32
	0.14	60886.2	218.17	76107.8	272.71	91329.3	327.26	121772.4	436.34	171242.5	613.61	205491.0	736.33
M20	0.10	70114.7	181.58	87643.3	226.97	105172.0	272.36	140229.3	363.15	197197.5	51.68	236637.0	612.82
	0.14	65319.1	230.55	81648.8	288.19	97978.6	345.82	130638.1	461.10	183709.9	648.42	220451.9	778.10
M22	0.10	81220.8	236.88	101526.0	296.10	121831.2	355.32	162441.5	473.76	228433.4	666.23	274120.1	799.48
	0.14	75533.9	298.75	94417.4	373.43	113300.9	448.12	151067.8	597.49	212439.1	840.22	254927.0	1008.27
M22	0.10	86164.2	246.02	107705.3	307.53	129246.4	369.04	172328.5	492.05	242337.0	691.94	290804.3	830.33
	0.14	80331.8	313.41	100414.7	391.76	120497.7	470.11	160663.6	626.82	225933.2	881.46	271119.8	1057.75
M24	0.10	98515.6	308.56	123144.5	385.70	147773.4	462.84	197031.1	617.12	277075.0	867.83	332490.0	1041.40
	0.14	91693.3	390.33	114616.6	487.92	137539.9	585.50	183386.5	780.67	257887.3	1097.82	309464.8	1317.38
M22	0.10	104079.4	319.62	130099.2	399.52	156119.0	479.43	208151.7	639.23	292723.2	898.92	351267.9	1878.71
	0.14	97096.0	408.12	121370.1	510.15	145644.1	612.18	194192.1	816.24	273082.6	1147.84	327699.1	1377.41
M27	0.10	127922.3	448.43	159902.9	560.54	191883.5	627.65	255844.7	896.87	359781.6	1261.22	431737.9	1513.46
	0.14	119185.0	569.67	148981.3	712.09	178777.5	854.51	238370.1	1139.34	335207.9	1602.20	402249.5	1922.64
M30	0.10	16817.5	623.80	201021.8	779.75	241226.2	935.70	321635.0	1247.60	452299.2	1754.43	542759.0	2105.32
	0.14	149957.0	795.14	187446.3	993.93	224935.5	1192.72	299914.0	1590.29	421754.2	2236.34	506105.0	2683.61

13.16.2 Wide pitch

	Friction coefficient	4.8		5.8		6.8		8.8		10.9		12.9	
		Preload (N)	Fastening torque (Nm)	Preload (N)	Fastening torque (Nm)	Preload (N)	Fastening torque (Nm)	Preload (N)	Fastening torque (Nm)	Preload (N)	Fastening torque (Nm)	Preload (N)	Fastening torque (Nm)
M3	0.10	1219.9	0.54	1524.9	0.68	1829.9	0.82	2439.9	1.09	3431.0	1.53	4117.2	1.84
	0.14	1125.9	0.60	1407.4	0.83	1688.9	1.00	2251.9	1.34	3166.7	1.88	3800.0	2.26
M3.5	0.10	1638.2	0.84	2047.8	1.05	2457.3	1.26	3276.4	1.68	4607.5	2.36	5528.9	2.84
	0.14	1511.3	1.03	1889.2	1.28	2267.0	1.54	3022.6	2.05	4250.6	2.89	5100.7	3.47
M4	0.10	2115.4	1.25	2644.3	1.56	3173.1	1.88	4230.8	2.50	5949.6	3.52	7139.5	4.22
	0.14	1950.9	1.53	2438.7	1.91	2926.4	2.29	3901.9	3.06	5487.0	4.30	6584.4	5.16
M5	0.10	3461.6	2.46	4327.0	3.08	5192.3	3.70	6923.1	4.93	9735.7	6.93	11682.8	8.32
	0.14	3196.8	3.02	3996.0	3.78	4795.2	4.53	6393.7	6.04	8991.1	8.50	10789.3	10.20
M6	0.10	4874.7	4.24	6093.4	5.30	7312.1	6.35	9749.4	8.47	13710.1	11.92	16452.2	14.30
	0.14	4499.1	5.19	5623.9	6.48	6748.6	7.78	8998.2	10.37	12653.7	14.59	15184.4	17.51
M7	0.10	7134.5	6.97	8918.2	8.71	10701.8	10.45	14269.1	13.94	20065.9	19.60	24079.1	23.52
	0.14	6599.6	8.60	8249.5	10.76	9899.4	12.90	13199.2	17.21	18561.4	24.20	22273.6	29.04
M8	0.10	8947.1	10.20	11183.9	12.75	13420.7	15.30	17894.2	20.41	25163.7	28.70	30196.5	34.44
	0.14	8265.6	12.54	10332.0	15.67	12398.4	18.80	16531.2	25.07	23247.0	35.26	27896.5	42.31
M10	0.10	14244.5	20.11	17805.6	25.14	21366.8	30.16	28489.0	40.22	40062.7	56.56	48075.3	67.87
	0.14	13167.4	24.76	16459.2	30.95	19751.1	31.14	26334.8	49.52	37033.3	69.64	44439.9	83.56
M12	0.10	20766.6	34.43	25958.3	43.03	31149.9	51.64	41533.2	68.86	58406.1	96.83	70087.3	116.20
	0.14	19204.0	42.42	24005.0	53.03	28806.0	63.63	38408.0	84.84	54011.2	119.31	64813.5	143.17
M14	0.10	28389.9	54.77	35487.4	68.46	42584.9	82.15	56779.8	109.53	79846.6	154.03	95816.0	184.84
	0.14	26261.2	67.56	32826.5	84.45	39391.8	101.34	52522.4	135.13	73859.6	190.02	88631.5	228.03
M16	0.10	39242.1	85.14	49052.7	106.43	58863.2	127.72	78484.3	170.29	110368.5	239.47	132442.2	287.36
	0.14	36364.2	105.80	45455.3	132.26	54546.3	158.71	72728.5	211.61	102274.4	297.58	122729.3	357.09
M18	0.10	47533.0	117.48	59416.3	146.85	71299.6	176.22	95066.1	234.96	133686.7	330.41	160424.1	396.49
	0.14	43986.1	145.16	54982.7	181.45	65979.2	217.74	87972.3	290.32	123711.0	402.26	148453.2	489.92
M20	0.10	61238.0	166.08	76547.5	207.61	91857.0	249.13	122476.0	332.17	172231.9	467.11	206678.2	560.54
	0.14	56747.1	206.39	70933.9	257.98	85120.6	309.58	113494.2	412.78	159601.2	580.47	191521.5	696.56
M22	0.10	76305.2	227.22	95381.5	284.02	114457.8	340.82	152610.4	454.43	214608.3	639.05	257530.0	766.85
	0.14	70791.9	283.79	88489.8	352.74	106187.8	425.69	141583.7	567.58	199102.1	798.16	238922.5	957.80
M22	0.10	88232.4	287.16	110290.5	358.94	132348.6	430.73	176464.9	574.31	248153.7	807.63	297784.4	969.15
	0.14	81761.8	356.84	102202.2	446.05	122642.7	535.26	163523.6	713.68	229955.1	1003.61	275946.1	1204.33
m27	0.10	115778.8	420.40	144723.5	525.05	173668.2	930.06	231557.6	840.08	325627.9	1181.36	390753.4	1417.63
	0.14	107441.5	525.08	134301.9	656.35	161162.2	787.62	214883.0	1050.16	302179.2	1476.79	362615.0	1772.15
M30	0.10	140999.5	572.83	176249.4	716.03	211499.3	859.24	281999.0	1145.65	396561.1	1611.08	475873.4	1933.29
	0.14	130770.6	714.49	163463.3	893.11	196155.9	1071.73	261541.2	1428.97	367792.3	2009.49	441350.8	2411.39

13.17 Tightening torque of hydraulic fittings

60° spinner inserts - BSP thread									
Threading	1/18.28	1/4.19	3/8-19	1/2-14	5/8-14	3/4-14	1"-11	1"1/4-11	121/2-11
(Nm)	12-14	14-16	25-28	45-60	55-70	90-110	120-140	170-190	200-245

60° spinner inserts - METRIC thread									
Threading	10x1	12x1.5	14x1.5	16x1.5	18x1.5	22x1.5	26x1.5	28x1.5	30x1.5
(Nm)	12-14	13-15	15-18	25-218	27-30	50-60	60-75	80-100	110-130

STANDARD / "L" RANGE										
Threading	12x1.5	14x1.5	16x1.5	18x1.5	22x1.5	26x1.5	30.2	36x1.5	45x1.5	52x1.5
(Nm)	13-15	15-18	25-28	27-30	50-60	30-75	85-105	120-140	170-190	190-230

STANDARD / "S RANGE										
Threading	14x1.5	16x1.5	18x1.5	20x1.5	22x1.5	14x1.5	30x2	36x2	42x2	52x2
(Nm)	15-18	25-28	27-30	43-54	50-62	60-75	90-110	125-145	170-190	200-245

14 TECHNICAL SERVICE CENTRE

14.1 Spare parts supply

DIECI S.R.L. guarantees the supply of original spare parts or alternatives for 10 years, starting from the date of the last manufactured model in the relative range.

In addition to this use and maintenance manual, every Dieci vehicle or equipment is supplied with a spare parts catalogue so as to be able to order all the parts required for repairs.

14.2 Assistance provided to the owner/ operator

Take note of this important information before contacting the service centre in order to obtain optimum service from your Dealer.

1. Specify your name, address and telephone number.
2. Quote the model and chassis serial number of the vehicle.
3. Quote the purchase date and operating hours.
4. Describe the type of fault.

Only DIECI Dealers have access to DIECI customer service resources. Moreover, Dealers can offer a variety of programmes regarding guarantee, fixed rate maintenance and safety checks, including tests

SERVICE DIECI

Dieci Technical Assistance Service

Via E. Majorana, 2/4

42027 Montecchio Emilia (RE) ITALY

Tel. +39 0522 869611

Fax +39 0522 869744

service@dieci.com

14.3 Troubleshooting

Troubleshooting interventions can only be carried out by the personnel in charge.

Do not intervene on faults before having read and understood the “Safety Regulations”, “Safe working procedures” and "MAINTENANCE" chapters.

This symbol means that the problem CANNOT be resolved without the intervention of an authorised *DIECI* Service Workshop

14.3.1 Engine

PROBLEM	CAUSE	SOLUTION	
The vehicle will not start	Direction lever is engaged	Set the lever in neutral	
	Operator not sitting in driver position correctly	Sit correctly in the cab	
	No fuel	Fill the tank	
	Disconnected battery isolator switch	Connect the battery isolator switch	
	Flat battery	Recharge or replace the battery	
	Burnt fuse	Replace the fuse	
	Others	Refer to the engine Use and Maintenance manual	

14.3.2 Drive hydraulic system

PROBLEM	CAUSE	SOLUTION	
The vehicle does move in any direction.	Insufficient level of hydraulic oil	Check the level of hydraulic oil	
	Electronic accelerator on (if installed)	Switch the electronic accelerator off	
	The sensor in the seat does not detect the driver’s presence.	Sit correctly in the driver's seat	
	The movement selection lever is not engaged	Set the lever in the desired position	
	The outrigger feet are lowered (if present)	Fully raise all outrigger feet.	
	Rear axle blocked (if present)	Release the axle.	
	Parking brake is engaged	Disengage the brake	
	Faulty electric circuit	Repair the circuit	
	Faulty hydrostatic transmission	Repair or replace the transmission	
	The ByPass valve to tow the vehicle is closed	Open the ByPass valve	
The vehicle loses speed	Clogged hydraulic oil inlet filter	Remove and replace the oil filter	
	Faulty hydrostatic transmission	Repair or replace the transmission	
	Inching pedal anomaly	Check the correct functioning of the pedal	

14.3.3 *Brakes*

PROBLEM	CAUSE	SOLUTION	
The vehicle does not brake	There is no oil in the oil – brake tank.	Top-up tank and/or bleed system	
	Fluid leaking from the circuit	Check for leaks	
	Worn brake pads	Change the brake pads	
	Brake pump damaged	Repair or replace	
	Unsuitable fluid in the circuit or in the differential sump	Check oil comparison table	

14.3.4 *Telescopic boom*

PROBLEM	CAUSE	SOLUTION	
The vehicle will not lift load	The safety systems are activated	See the chapter "Anti-tipping device"	
	Electrical system failure	Check fuses and the electrical system	
	Insufficient hydraulic oil level in tank	Top-up	
	Faulty relative hydraulic pump	Repair or replace the pump	
	Low distributor calibration	Check and re-calibrate the distributor	
	Internal leakage of raising cylinders.	Replace the seals	
The boom does not extend	"The safety systems are activated (Indicator light and acoustic alarm functioning)"	See the chapter "Anti-tipping device"	
The boom cannot be lowered	"The safety systems are activated (Indicator light and acoustic alarm functioning)"	See the chapter "Anti-tipping device"	

15 CLEANING

Cleaning the vehicle and all its components is fundamental for it to be kept in proper working order.

15.1 Cleaning the vehicle

Proceed as follows for a correct cleaning process:

- Switch the engine off, remove the ignition key and wait until the various components cool down.
- Wear the suitable protective clothing (gloves, masks, overalls, etc.).
- Do not use flammable liquids, acids or products that may chemically attack the vehicle components.
- Use water to soften dirt that sticks to the surface.
- Ask your ***DIECI*** dealer for touch-up paint to repair minor defects in the vehicle's bodywork.
- Check that all the safety stickers are present. Replace any that have been lost or removed for cleaning purposes.
- Use a pressure washer to clean the external part of the vehicle and the engine compartment, bearing the following in mind:
  - Make sure the top-up caps (radiator, oil tank, fuel tank, etc.) are closed well.
  - Protect the control boxes and connectors from water infiltrations.
  - Do not operate with a pressure and water temperature that exceeds 100 bar and 80°, respectively.
  - Hold the washer nozzle at a minimum distance of 40 cm from the relative surface.
  - Do not direct the jet at any single point but wash with wide strokes.
  - The inside of the vehicle is delicate and cannot be cleaned with a pressure washer.

- FORBIDDEN

Cleaning the stickers on the vehicle with solvents or petrol is strictly forbidden as the stickers may fade. Additional warning and safety stickers must always be treated in the same way.

- ELECTRICAL COMPONENTS

- If a pressurised jet is used, try not to wet the electrical components, such as the alternator and the starter motor.
- If water accidentally falls into the electrical system, it could cause the vehicle to malfunction.
- Do not use water or steam to clean the electrical system, sensors or connectors.

- MECHANICAL COMPONENTS

- Do not clean moving or overheated parts. Let the parts cool down as a temperature excursion may damage them.

15.2 Washing the windows

- The cab windows, lights and rear view mirrors must be washed often with soapy water.
- After washing has been completed, dry thoroughly; do not leave any stains or marks which may limit or obstruct the driver's visibility.

15.3 Cleaning the cab

- Clean soft upholstery in the cab with a cloth that has been dipped in a solution of water and detergent and then thoroughly wrung.
- The driver's seat and the floor must be cleaned with a vacuum cleaner and/or a stiff brush. If necessary, use a damp cloth to remove any stubborn stains.
- Clean the seat belt with a sponge that has been soaked in hot soapy water, and let it dry on its own.
- Fabric-covered seats must be cleaned with a stiff brush or vacuum cleaner. Plastic seats must be cleaned with a damp cloth.


- ELECTRICAL COMPONENTS

Do not use water jets inside the cab.

15.4 Cleaning of the safety stickers

- ATTENTION

To ensure correct interpretation, verify that they are located in the correct position and that they are always kept clean.

- DANGER

Clean the stickers if they are covered by dirt, cement or other deposits.

- FORBIDDEN

Cleaning the stickers on the vehicle with solvents or petrol is strictly forbidden as the stickers may fade. Additional warning and safety stickers must always be treated in the same way.

16 LIFTING, TRANSPORTING AND STORING

16.1 Lifting the vehicle

- DANGER

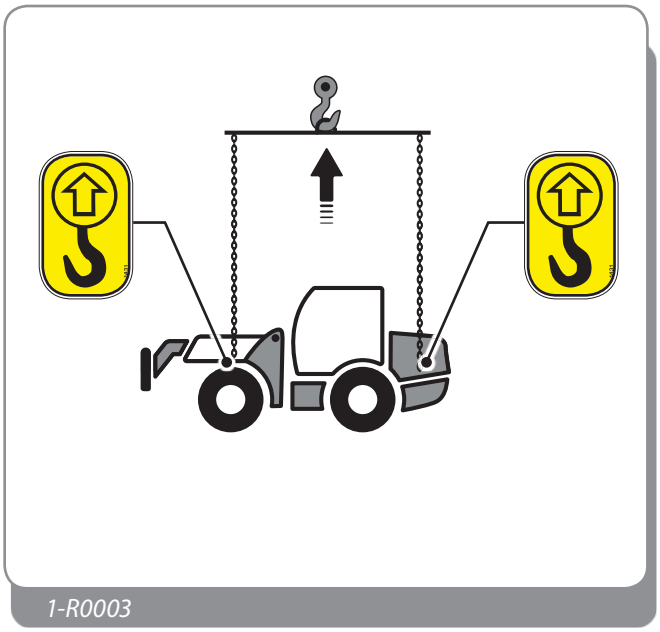
Always check the good conditions of anchorages (ropes, chains, wedges, etc.)

- ATTENTION

Make sure that the lifting mechanism has an adequate capacity for the weight of the vehicle.

The weight of the vehicle is indicated on the relative metal plate; check the overall dimensions for the minimum and maximum heights from the ground and the weight allowed.

The vehicle is fitted with lifting points, marked by special symbols (Fig. 1-R0003).



1-R0003

- DANGER

To lift the machine only use the anchor points on the machine carriage.

Attach the ropes at the points indicated in the figure, paying utmost attention during the lifting phases. Slowly proceed with the lifting.

- DANGER

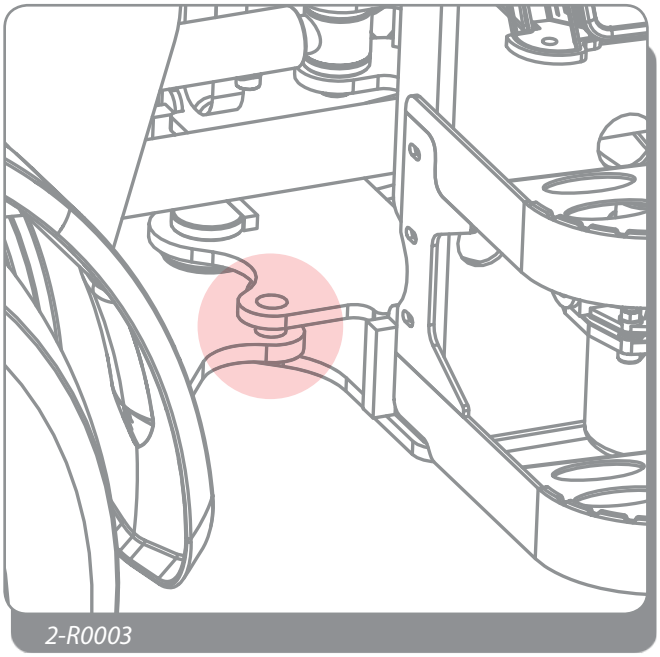
Before lifting the vehicle, make sure no unauthorised personnel are in the surrounding area.

- ATTENTION

Lifting cables with a minimum unit capacity of 6 Tonnes are required.

Before lifting the vehicle, make sure to:

- Remove any attachments installed on the vehicle.
- Retract and lower the telescopic boom completely.
- Engage the parking brake, place and the movement selection lever at "N" and switch off the vehicle.
- Close all windows and the cab door.
- Align the machine joint and block it with the relevant pin (Fig. 2-R0003).



2-R0003

16.2 Transporting the vehicle

16.2.1 Transporting the vehicle on a trailer

- DANGER

Always check the good conditions of anchorages (ropes, chains, wedges, etc.)

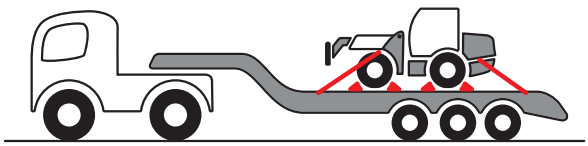
- ATTENTION

Pay attention to the following when loading the vehicle on to a trailer:

- Before using ramps or trailers to load the machine on, remove any mud, ice or oil that could cause accidents.
- Check that the axle and the transport vehicle can withstand the overall weight of the machine and any loaded equipment.
- Check the overall dimensions of the vehicle for minimum and maximum heights from the ground and the weight allowed.
- Carefully manoeuvre the machine on to the transport vehicle.
- Make sure local regulations are observed when transporting the vehicle on public roads.

- DANGER

When loading or unloading a vehicle from a transport vehicle, there is always the risk of the vehicle overturning sideways; therefore, have another person on the ground to control the manoeuvres.

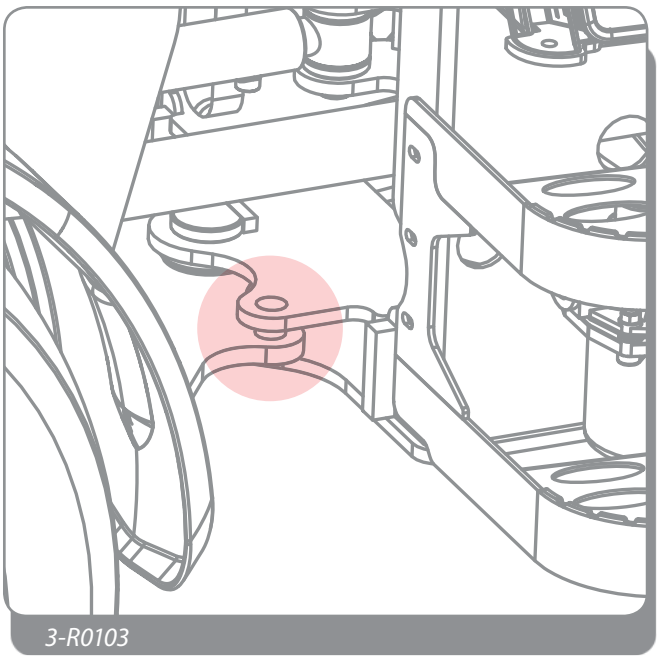


1-R0103

Take the following precautions when loading or unloading a vehicle:

1. Choose solid and level ground.
2. Remove any attachments installed on the vehicle.
3. Lower and completely retract the telescopic boom.
4. Fully retract and raise the stabilising feet
5. Use a platform or a ramp.
6. Always select the slowest speed.
7. Load the vehicle on to the transport vehicle, making sure that the ramps are positioned properly and safely.
8. Once the vehicle is in a safe position, switch the engine off and engage the parking brake.
9. Align the machine joint and block it with the relevant pin (Fig. 3-R0103).
10. Close all windows and the cab door.
11. Anchor the vehicle to the transport vehicle with chains or cables through the relative hooks (Fig. 2-R0102).
12. Apply wedges to the front and rear wheels of the transport vehicle.

2-R0102



3-R0103

17 STORING THE VEHICLE

17.1 Long period of inactivity

If the vehicle must be stored for a long period of time, certain precautions must be complied with to protect it:

- Clean the vehicle.
- Touch up the paint where necessary to prevent rust.
- Lubricate all the greasers.
- Check whether any parts are worn or damaged and replace them, if necessary.
- Check the tyres and inflate them to the recommended pressure.
- Drain the oil from the engine and replace it with new oil.
- Clean the fuel system and change the filter cartridges.
- Empty the fuel tank as usual and fill it with ten litres of special fuel for prolonged inactivity. Run the engine for ten minutes so the new solution can distribute evenly.
- Store any equipment.
- Realign and lower all the mobile parts of the vehicle completely.
- Cover the exposed rods of the hydraulic cylinders with a thin layer of grease.
- Cover the exhaust opening.
- Close and lock all the windows.
- Close and lock the door.

17.2 Restarting the vehicle

Preparing the vehicle after a long period of inactivity:

- Inflate the tyres to the correct pressure.
- Remove the jack stands from under the axles.
- Fill the fuel tank.
- Check the radiator coolant level.
- Check the level of the various oils.
- Fit a fully charged battery.
- Remove the cover of the exhaust pipe.
- Remove the layer of grease on the exposed cylinder rods.
- Start the engine and check that all the controls work properly.
- Let the engine run for a few minutes.
- Verify the efficiency of the brake system.

18 WASTE DISPOSAL

- Waste material should not be dispersed in the environment but rather disposed of appropriately. Used lubricants, batteries, rags dirty with grease, brake pads etc. should be handed over to specialised companies authorised to dispose of polluting waste.
- Improper waste disposal poses a threat to the environment. The following are potentially dangerous waste: lubricants, fuel, cooling, filters and batteries.
- Do not spill or pour waste onto the ground, into the sewers or into water beds.
- Contact your local authority or collection centres for information for how to recycle or dispose of waste properly.

18.1 Ecological considerations

A few helpful recommendations are listed below. Learn about current legislation in force in your country.

Ask suppliers for information about lubricating oils, fuels, antifreeze products, detergents, etc., about their effects on people and on the environment as well as on information regarding the regulations to be observed when using, stocking and disposing of such products.

- Do not refill the tanks using unsuitable jerry cans or pressurised combustible fuelling systems as they may cause leaks and loss of significant amounts of liquid.
- Modern lubricating oils contain additives. Do not burn contaminated combustible oils and/or oils used in conventional heating systems.
- Take care not to spill used engine cooling fluids, engine and transmission lubricating oils, hydraulic oil, brake oil etc. while pouring or draining them. Store them safely and, when it is time, dispose of them in compliance with current legislation or with local facilities.
- Modern antifreeze liquids and their solutions, such as antifreeze and other additives should be replaced every two years. Make sure such liquids are not absorbed by the soil; they should be collected and disposed of appropriately.
- Do not intervene directly with the air conditioning systems (Optional), by opening them. These systems contain gas which must not be released into the atmosphere. Contact your dealer or an expert who has the necessary special equipment and who would, in any case, have to refill the system.
- Immediately repair any leaks or faults in the cooling or engine hydraulic systems.

18.2 Protect the environment

It is illegal to pollute sewers, water sources or soil. Use only authorised dumping grounds centres, including the areas designated by the local authorities or workshops equipped with the necessary tools for the disposal of used oils. If in doubt, contact your local authority for relevant instructions.

19 DEMOLITION

To demolish the vehicle or the equipment, dismantle all components and keep the different types of materials separate for sending to the relative collection centres.

The following types of materials may be present:

- Ferrous materials (carpentries and mechanical components)
- Plastic materials (gaskets, belts, protections)
- Electric materials (cables, windings and similar)
- Oils and lubricants (hydraulic oil, reduction gear lubricants, lubricating greases)

20 ELECTRIC SYSTEM

20.1 Electric system diagram

WIRE COLOURS	
A	Light blue
B	White
C	Orange
G	Yellow
H	Grey
L	Blue
M	Brown
N	Black
R	Red
S	Pink
V	Green
Z	Violet
/	Transversal colours
-	Longitudinal colours

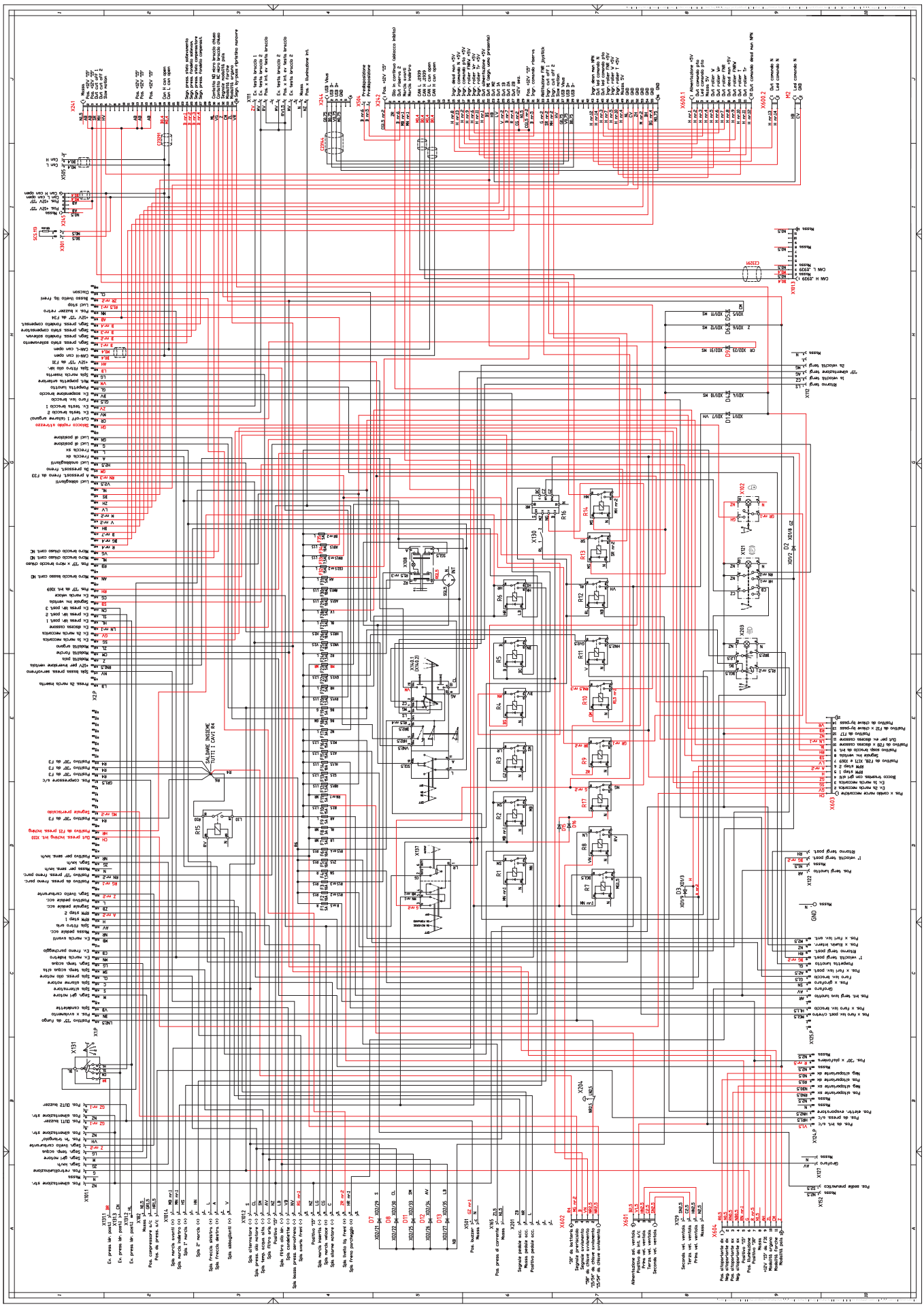
- NOTE

The colour of the two-tone wires is indicated with composition of the above-mentioned codes, using the "/" and "-" symbols

Example:

Y/G = Yellow/green transversal colour

Y-G = Yellow-green longitudinal colour



20.2 Fuses

- NOTE

Fuses must be removed with special pliers.

To replace a fuse, remove it from its seat using specific pliers and replace it with another fuse of the same class, quality and amps.

- FORBIDDEN

Do not attempt to repair fuses.

20.2.1 General control box

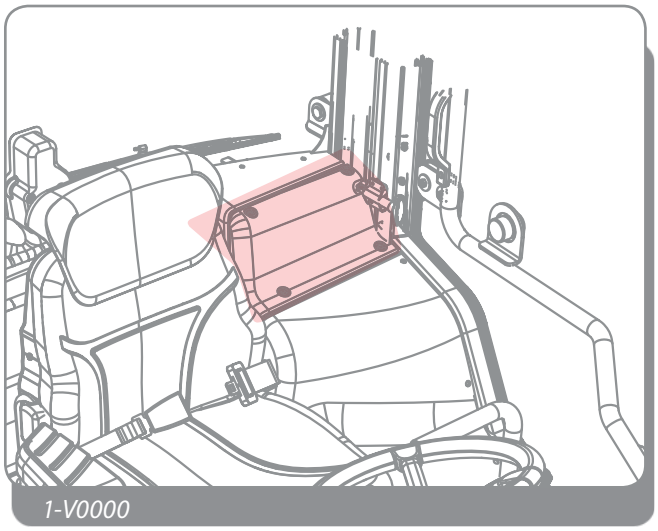
The main electric circuit is protected by fuses located in the main electronic board.

Access the electronic board by removing the plastic to the left of the operator (Fig. 1-V0000), by removing its screws.

In the event of an electrical malfunction, fuse conditions must be verified as the first troubleshooting operation.

- ATTENTION

Before accessing the fuse control unit in the cab, set the vehicle in the maintenance position.



1-V0000

20.2.2 Engine control unit

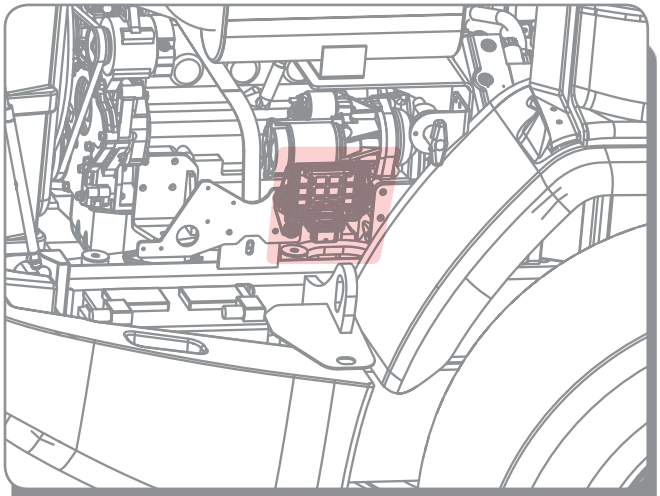
The electrical circuits in the engine and its connected components are protected by a fuse control unit set up inside the engine compartment (Fig. 2-V0000). Remove the box cover to access the fuses. In the event of an electrical malfunction, fuse conditions must be verified as the first troubleshooting operation.

- ATTENTION

Before accessing the engine control unit, set the vehicle in the maintenance position.

- NOTE

The main fuse of the vehicle is located inside the engine control unit.



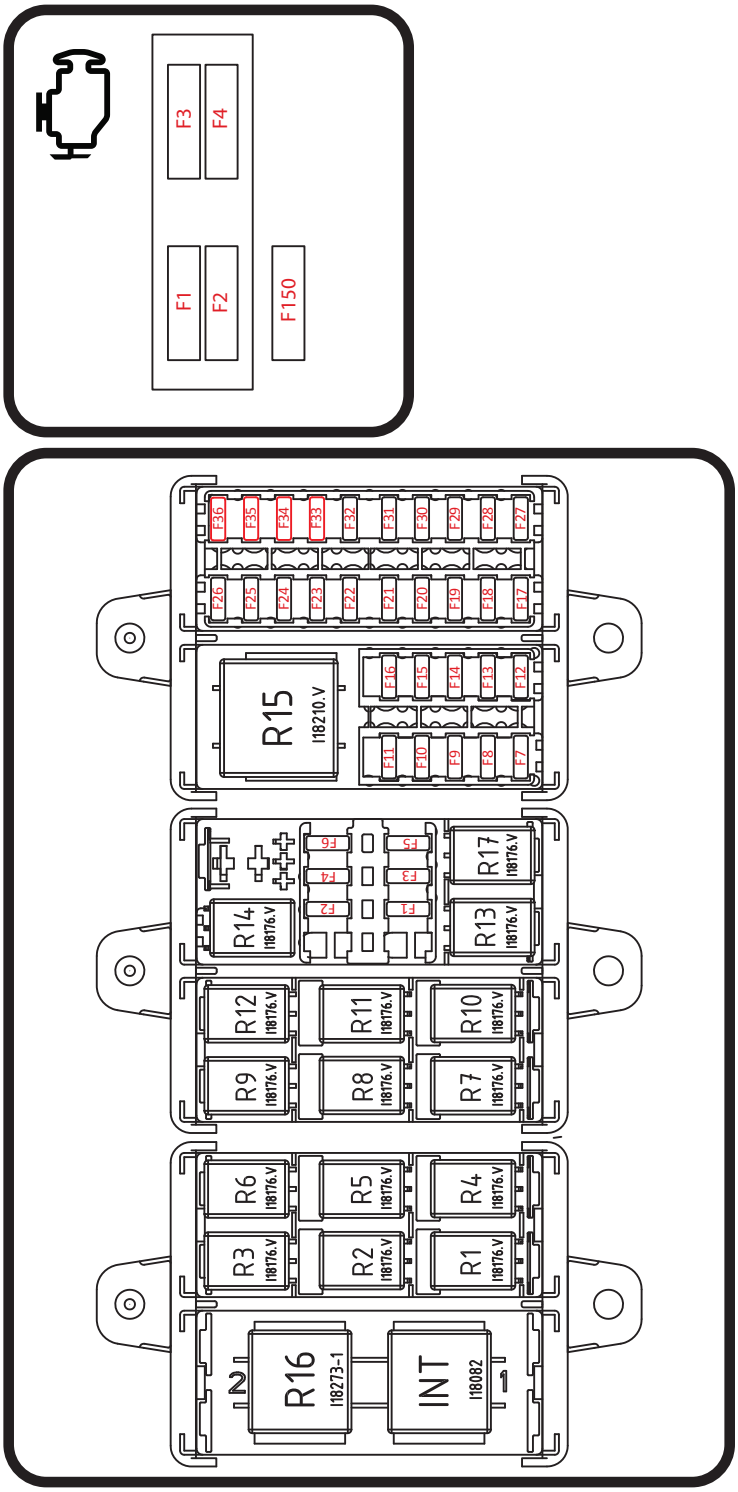
2-V0000

DIC.005.1-PR

FUSE	FUNCTION	VALUE (A)
F1	Courtesy light + radio	5
F2	Side lights + work lights w/reverse gear	10
F3	Hazard lights	10
F4	Revolving light	7.5
F5	Current socket X165	10
F6	Horn + flash. High beams	10
F7	Fast gear ev. + forward/reverse gear ev.	5
F8	Seat micro + triangle indicator light	3
F9	Rear windscreen wiper/washer	5
F10	Fan Heating	15
F11	"15" radio	5
F12	Boom low and boom closed micro + by-pass	7.5
F13	Pneumatic seat	15
F14	Boom work light	10
F15	Rear work lights	15
F16	Front work lights	15
F17	Instrument + lighting power supply Switches.	3
F18	Pos. lights Front Left + Rear Right + number plate light	5
F19	Pos. lights Front Right + rear Left + backlighting	5
F20	Boom head additional solenoid valve	7.5
F21	Mechanical gear box	5
F22	Air conditioning evaporator	15
F23	Module R16 power supply	5
F24	"15" direction indicators	7.5
F25	Full beam headlights	10
F26	Dipped lights	10
F27	Dump body + rear hydr. sockets ev.	5
F28	Boom suspension ev.	5
F29	Windscreen washer/wiper + brake lights	10
F30	Fan reversal	10
F31	Mode selector + cut off 1 and 2	5
F32	Sarl + joystick + sarl calibration	5

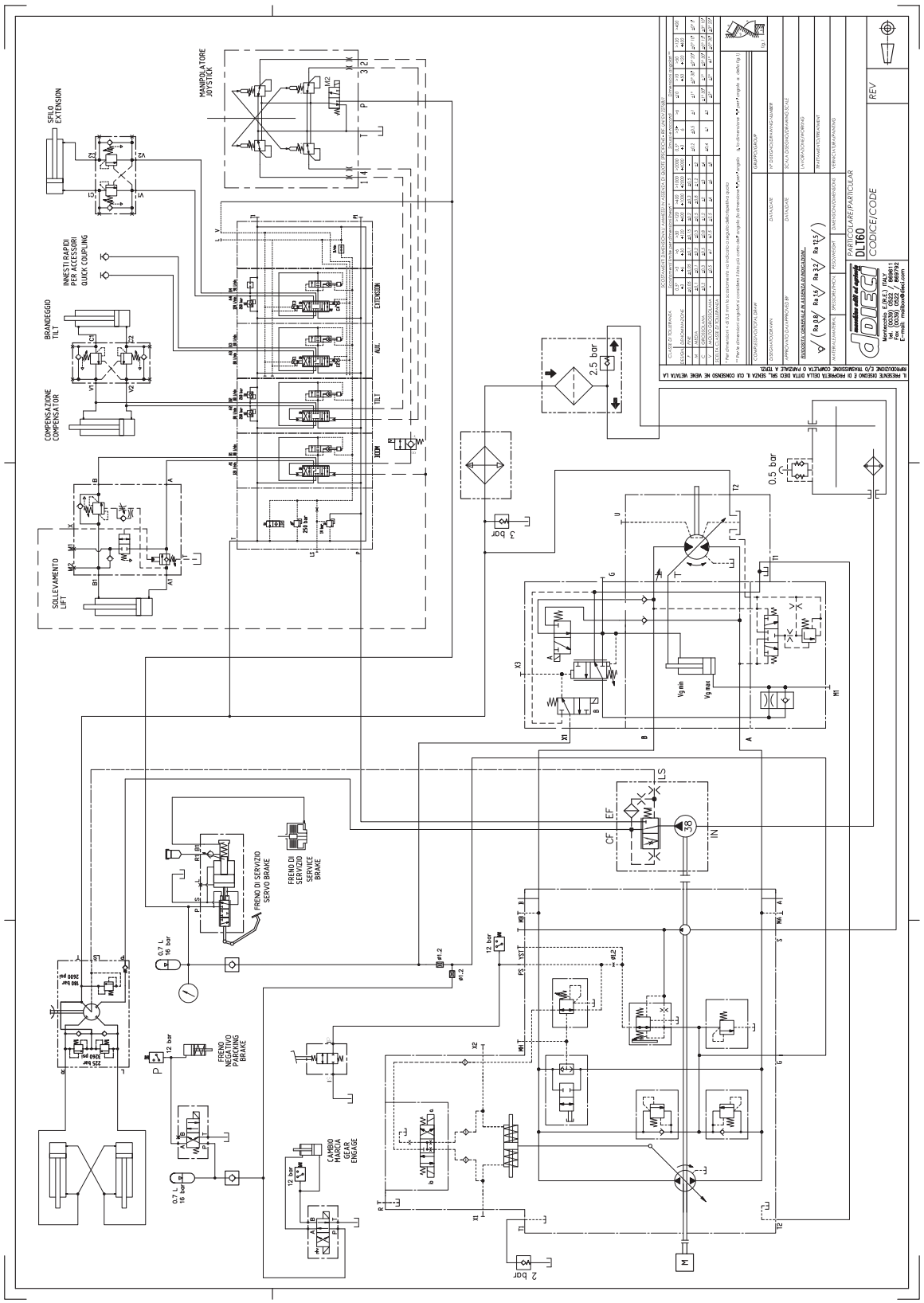
DIC.005.1-PR

RELAY	FUNCTION	RELAY SOCKET
R1	Reverse gear	micro
R2	Forward gear	micro
R3	Transmission block	micro
R4	Man not present (joystick)	micro
R5	Start-up enabling Pos.	micro
R6	Slow/fast speed light	micro
R7	Work lights with back	micro
R8	Enabling for "15" with ign. key in position 1	micro
R9	Boom low micro	micro
R10	cut off1 and cut off2 union relay	micro
R11	A/c evaporator	micro
R12	Emergency indicator light L6	micro
R13	Cut off 1	micro
R14	Cut off 2	micro
R15	Positive "15"	maxi
R16	Parking brake, transmission block and start-up signal control	mini
INT	Intermittent direction lights	mini

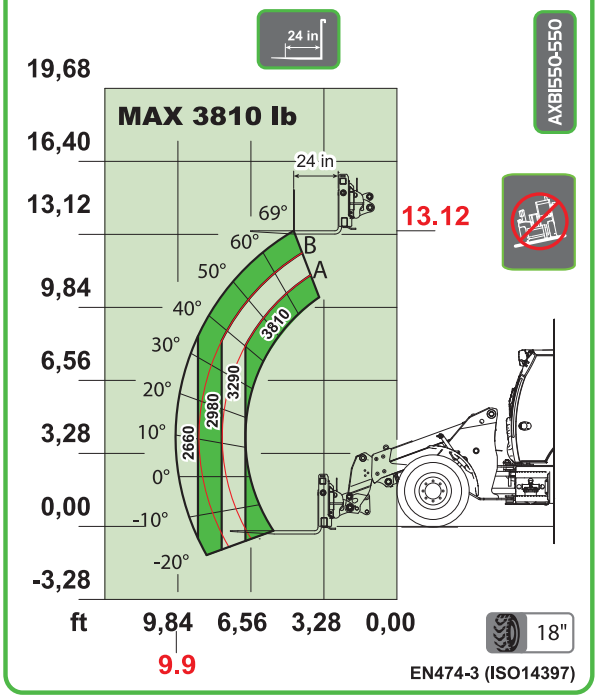

F3
F4
F1
F2
F150
F36
F35
F34
F33
F32
F31
F30
F29
F28
F27
F26
F25
F24
F23
F22
F21
F20
F19
F18
F17
F16
F15
F14
F13
F12
F11
F10
F9
F8
F7
R15
I18210.V
F6
F5
F4
F3
F2
F1
R14
I18176.V
R17
I18176.V
R13
I18176.V
R12
I18176.V
R11
I18176.V
R10
I18176.V
R9
I18176.V
R8
I18176.V
R7
I18176.V
R6
I18176.V
R5
I18176.V
R4
I18176.V
R3
I18176.V
R2
I18176.V
R1
I18176.V
R16
I18273-1
2
INT
I18082
1

21 HYDRAULIC SYSTEM DIAGRAM

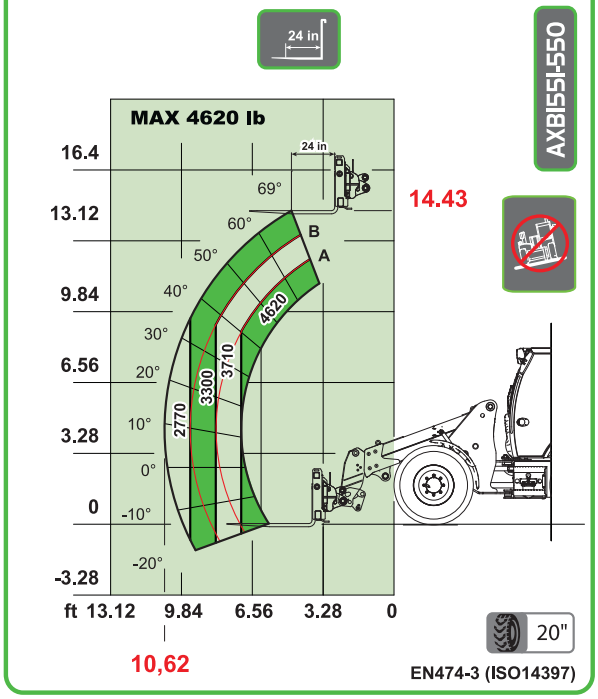
21.1 Hydraulic system key



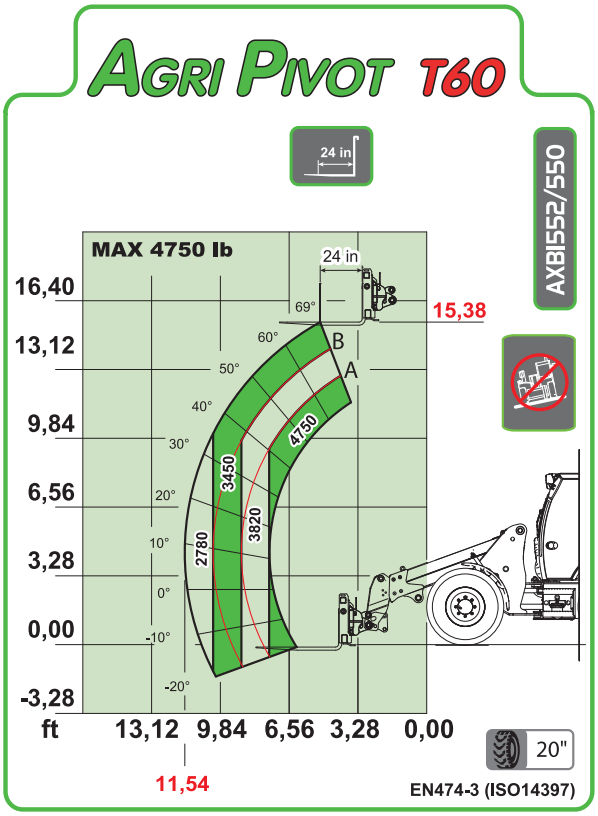
AGRI PIVOT T40



AGRI PIVOT T50



AGRI PIVOT T60



22 CONTROL LOG

Hereunder are a few data sheets to complete the Control Log for fixed machines.

Refer to the "Maintenance and Control Logs" chapter for more information on how to complete the Control Log.

CONTROL LOG	
Control Data Sheet No.	.....
Inspection date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Inspections	Notes						
Mandatory inspections to be performed every 250 hours or every two months							
Check the longitudinal load moment indicator		o					
Anti-tipping system acoustic alarm		o					
Anti-tipping system visual alarm		o					
Locking of the anti-tipping system movements		o					
Seat belts		o					
Inspecting the presence and condition of the safety stickers on the vehicle / equipment		o					
Inspecting the presence and condition of the capacity diagrams on the vehicle / equipment		o					
Inspecting the presence and condition of the use and maintenance manual on the vehicle / equipment		o					
Inspecting the presence and condition of the identification plates on the vehicle / equipment		o					
Parking brake		o					
Dead man seat micro switch		o					
Emergency recovery pump (if included)		o					
Emergency recovery button on the joystick		o					
Dead man button on the joystick		o					
Reverse drive engaged buzzer		o					
3-mode steering		o					
Spirit level calibration		o					
Inspecting the correct operation of the work modes for the installed equipment		o					
Making sure the emergency stop button is working		o					
Connection points, chain wear and setting (if present)		o		o			o
Forks (if included)		o					
Mandatory inspections to be performed every 500 hours or every 6 months							
Maximum hydraulic system pressure		o					
Calibrated power steering pressure		o					
Jack check valves		o					

Notes	Stamp and signature

CONTROL LOG	
Control Data Sheet No.	.....
Inspection date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Inspections	Notes						
Mandatory inspections to be performed every 250 hours or every two months							
Check the longitudinal load moment indicator		o					
Anti-tipping system acoustic alarm		o					
Anti-tipping system visual alarm		o					
Locking of the anti-tipping system movements		o					
Seat belts		o					
Inspecting the presence and condition of the safety stickers on the vehicle / equipment		o					
Inspecting the presence and condition of the capacity diagrams on the vehicle / equipment		o					
Inspecting the presence and condition of the use and maintenance manual on the vehicle / equipment		o					
Inspecting the presence and condition of the identification plates on the vehicle / equipment		o					
Parking brake		o					
Dead man seat micro switch		o					
Emergency recovery pump (if included)		o					
Emergency recovery button on the joystick		o					
Dead man button on the joystick		o					
Reverse drive engaged buzzer		o					
3-mode steering		o					
Spirit level calibration		o					
Inspecting the correct operation of the work modes for the installed equipment		o					
Making sure the emergency stop button is working		o					
Connection points, chain wear and setting (if present)		o		o			o
Forks (if included)		o					
Mandatory inspections to be performed every 500 hours or every 6 months							
Maximum hydraulic system pressure		o					
Calibrated power steering pressure		o					
Jack check valves		o					

Notes	Stamp and signature

CONTROL LOG	
Control Data Sheet No.	.....
Inspection date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Inspections	Notes						
Mandatory inspections to be performed every 250 hours or every two months							
Check the longitudinal load moment indicator		o					
Anti-tipping system acoustic alarm		o					
Anti-tipping system visual alarm		o					
Locking of the anti-tipping system movements		o					
Seat belts		o					
Inspecting the presence and condition of the safety stickers on the vehicle / equipment		o					
Inspecting the presence and condition of the capacity diagrams on the vehicle / equipment		o					
Inspecting the presence and condition of the use and maintenance manual on the vehicle / equipment		o					
Inspecting the presence and condition of the identification plates on the vehicle / equipment		o					
Parking brake		o					
Dead man seat micro switch		o					
Emergency recovery pump (if included)		o					
Emergency recovery button on the joystick		o					
Dead man button on the joystick		o					
Reverse drive engaged buzzer		o					
3-mode steering		o					
Spirit level calibration		o					
Inspecting the correct operation of the work modes for the installed equipment		o					
Making sure the emergency stop button is working		o					
Connection points, chain wear and setting (if present)		o		o			o
Forks (if included)		o					
Mandatory inspections to be performed every 500 hours or every 6 months							
Maximum hydraulic system pressure		o					
Calibrated power steering pressure		o					
Jack check valves		o					

Notes	Stamp and signature

CONTROL LOG	
Control Data Sheet No.	.....
Inspection date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Inspections	Notes						
Mandatory inspections to be performed every 250 hours or every two months							
Check the longitudinal load moment indicator		o					
Anti-tipping system acoustic alarm		o					
Anti-tipping system visual alarm		o					
Locking of the anti-tipping system movements		o					
Seat belts		o					
Inspecting the presence and condition of the safety stickers on the vehicle / equipment		o					
Inspecting the presence and condition of the capacity diagrams on the vehicle / equipment		o					
Inspecting the presence and condition of the use and maintenance manual on the vehicle / equipment		o					
Inspecting the presence and condition of the identification plates on the vehicle / equipment		o					
Parking brake		o					
Dead man seat micro switch		o					
Emergency recovery pump (if included)		o					
Emergency recovery button on the joystick		o					
Dead man button on the joystick		o					
Reverse drive engaged buzzer		o					
3-mode steering		o					
Spirit level calibration		o					
Inspecting the correct operation of the work modes for the installed equipment		o					
Making sure the emergency stop button is working		o					
Connection points, chain wear and setting (if present)		o		o			o
Forks (if included)		o					
Mandatory inspections to be performed every 500 hours or every 6 months							
Maximum hydraulic system pressure		o					
Calibrated power steering pressure		o					
Jack check valves		o					

Notes	Stamp and signature

CONTROL LOG	
Control Data Sheet No.	.....
Inspection date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Inspections	Notes						
Mandatory inspections to be performed every 250 hours or every two months							
Check the longitudinal load moment indicator		o					
Anti-tipping system acoustic alarm		o					
Anti-tipping system visual alarm		o					
Locking of the anti-tipping system movements		o					
Seat belts		o					
Inspecting the presence and condition of the safety stickers on the vehicle / equipment		o					
Inspecting the presence and condition of the capacity diagrams on the vehicle / equipment		o					
Inspecting the presence and condition of the use and maintenance manual on the vehicle / equipment		o					
Inspecting the presence and condition of the identification plates on the vehicle / equipment		o					
Parking brake		o					
Dead man seat micro switch		o					
Emergency recovery pump (if included)		o					
Emergency recovery button on the joystick		o					
Dead man button on the joystick		o					
Reverse drive engaged buzzer		o					
3-mode steering		o					
Spirit level calibration		o					
Inspecting the correct operation of the work modes for the installed equipment		o					
Making sure the emergency stop button is working		o					
Connection points, chain wear and setting (if present)		o		o			o
Forks (if included)		o					
Mandatory inspections to be performed every 500 hours or every 6 months							
Maximum hydraulic system pressure		o					
Calibrated power steering pressure		o					
Jack check valves		o					

Notes	Stamp and signature

CONTROL LOG	
Control Data Sheet No.	.....
Inspection date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Inspections	Notes						
Mandatory inspections to be performed every 250 hours or every two months							
Check the longitudinal load moment indicator		o					
Anti-tipping system acoustic alarm		o					
Anti-tipping system visual alarm		o					
Locking of the anti-tipping system movements		o					
Seat belts		o					
Inspecting the presence and condition of the safety stickers on the vehicle / equipment		o					
Inspecting the presence and condition of the capacity diagrams on the vehicle / equipment		o					
Inspecting the presence and condition of the use and maintenance manual on the vehicle / equipment		o					
Inspecting the presence and condition of the identification plates on the vehicle / equipment		o					
Parking brake		o					
Dead man seat micro switch		o					
Emergency recovery pump (if included)		o					
Emergency recovery button on the joystick		o					
Dead man button on the joystick		o					
Reverse drive engaged buzzer		o					
3-mode steering		o					
Spirit level calibration		o					
Inspecting the correct operation of the work modes for the installed equipment		o					
Making sure the emergency stop button is working		o					
Connection points, chain wear and setting (if present)		o		o			o
Forks (if included)		o					
Mandatory inspections to be performed every 500 hours or every 6 months							
Maximum hydraulic system pressure		o					
Calibrated power steering pressure		o					
Jack check valves		o					

Notes	Stamp and signature

CONTROL LOG	
Control Data Sheet No.	.....
Inspection date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Inspections	Notes						
Mandatory inspections to be performed every 250 hours or every two months							
Check the longitudinal load moment indicator		o					
Anti-tipping system acoustic alarm		o					
Anti-tipping system visual alarm		o					
Locking of the anti-tipping system movements		o					
Seat belts		o					
Inspecting the presence and condition of the safety stickers on the vehicle / equipment		o					
Inspecting the presence and condition of the capacity diagrams on the vehicle / equipment		o					
Inspecting the presence and condition of the use and maintenance manual on the vehicle / equipment		o					
Inspecting the presence and condition of the identification plates on the vehicle / equipment		o					
Parking brake		o					
Dead man seat micro switch		o					
Emergency recovery pump (if included)		o					
Emergency recovery button on the joystick		o					
Dead man button on the joystick		o					
Reverse drive engaged buzzer		o					
3-mode steering		o					
Spirit level calibration		o					
Inspecting the correct operation of the work modes for the installed equipment		o					
Making sure the emergency stop button is working		o					
Connection points, chain wear and setting (if present)		o		o			o
Forks (if included)		o					
Mandatory inspections to be performed every 500 hours or every 6 months							
Maximum hydraulic system pressure		o					
Calibrated power steering pressure		o					
Jack check valves		o					

Notes	Stamp and signature

CONTROL LOG	
Control Data Sheet No.	.....
Inspection date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Inspections	Notes						
Mandatory inspections to be performed every 250 hours or every two months							
Check the longitudinal load moment indicator		o					
Anti-tipping system acoustic alarm		o					
Anti-tipping system visual alarm		o					
Locking of the anti-tipping system movements		o					
Seat belts		o					
Inspecting the presence and condition of the safety stickers on the vehicle / equipment		o					
Inspecting the presence and condition of the capacity diagrams on the vehicle / equipment		o					
Inspecting the presence and condition of the use and maintenance manual on the vehicle / equipment		o					
Inspecting the presence and condition of the identification plates on the vehicle / equipment		o					
Parking brake		o					
Dead man seat micro switch		o					
Emergency recovery pump (if included)		o					
Emergency recovery button on the joystick		o					
Dead man button on the joystick		o					
Reverse drive engaged buzzer		o					
3-mode steering		o					
Spirit level calibration		o					
Inspecting the correct operation of the work modes for the installed equipment		o					
Making sure the emergency stop button is working		o					
Connection points, chain wear and setting (if present)		o		o			o
Forks (if included)		o					
Mandatory inspections to be performed every 500 hours or every 6 months							
Maximum hydraulic system pressure		o					
Calibrated power steering pressure		o					
Jack check valves		o					

Notes	Stamp and signature

CONTROL LOG	
Control Data Sheet No.	.....
Inspection date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Inspections	Notes						
Mandatory inspections to be performed every 250 hours or every two months							
Check the longitudinal load moment indicator		o					
Anti-tipping system acoustic alarm		o					
Anti-tipping system visual alarm		o					
Locking of the anti-tipping system movements		o					
Seat belts		o					
Inspecting the presence and condition of the safety stickers on the vehicle / equipment		o					
Inspecting the presence and condition of the capacity diagrams on the vehicle / equipment		o					
Inspecting the presence and condition of the use and maintenance manual on the vehicle / equipment		o					
Inspecting the presence and condition of the identification plates on the vehicle / equipment		o					
Parking brake		o					
Dead man seat micro switch		o					
Emergency recovery pump (if included)		o					
Emergency recovery button on the joystick		o					
Dead man button on the joystick		o					
Reverse drive engaged buzzer		o					
3-mode steering		o					
Spirit level calibration		o					
Inspecting the correct operation of the work modes for the installed equipment		o					
Making sure the emergency stop button is working		o					
Connection points, chain wear and setting (if present)		o		o			o
Forks (if included)		o					
Mandatory inspections to be performed every 500 hours or every 6 months							
Maximum hydraulic system pressure		o					
Calibrated power steering pressure		o					
Jack check valves		o					

Notes	Stamp and signature

CONTROL LOG	
Control Data Sheet No.	.....
Inspection date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Inspections	Notes						
Mandatory inspections to be performed every 250 hours or every two months							
Check the longitudinal load moment indicator		o					
Anti-tipping system acoustic alarm		o					
Anti-tipping system visual alarm		o					
Locking of the anti-tipping system movements		o					
Seat belts		o					
Inspecting the presence and condition of the safety stickers on the vehicle / equipment		o					
Inspecting the presence and condition of the capacity diagrams on the vehicle / equipment		o					
Inspecting the presence and condition of the use and maintenance manual on the vehicle / equipment		o					
Inspecting the presence and condition of the identification plates on the vehicle / equipment		o					
Parking brake		o					
Dead man seat micro switch		o					
Emergency recovery pump (if included)		o					
Emergency recovery button on the joystick		o					
Dead man button on the joystick		o					
Reverse drive engaged buzzer		o					
3-mode steering		o					
Spirit level calibration		o					
Inspecting the correct operation of the work modes for the installed equipment		o					
Making sure the emergency stop button is working		o					
Connection points, chain wear and setting (if present)		o		o			o
Forks (if included)		o					
Mandatory inspections to be performed every 500 hours or every 6 months							
Maximum hydraulic system pressure		o					
Calibrated power steering pressure		o					
Jack check valves		o					

Notes	Stamp and signature

23 MAINTENANCE LOG

Hereunder are a few data sheets to complete the Maintenance Log for fixed machines.

Refer to the "Maintenance and Control Logs" chapter for more information on how to complete the Maintenance Log.

MAINTENANCE LOG	
Maintenance Data Sheet no.	.....
Maintenance date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Maintenance							
As required - Section to be compiled if the inspections carried out are not related to fixed schedules but due to vehicle operation							
Alternator belts \ services	o						
Air conditioner	o			o			
Filters (air, engine oil, hydraulic oil, fuel, air conditioner and cab)	o						
Brake			o				
Parking brake	o						
Electrolyte level and battery charge	o						
Hydraulic oil level	o						
Engine oil level	o						
Lights	o						
Tyre pressure	o						
Radiators	o			o			
Radiator expansion tank	o	o					
Window washer tank	o	o					
Anti-tipping device load verification	o						
Verification of wear (on the vehicle as well as on the equipment, if present)	o						
After the first 50 hours							
Alternator belts \ services	o		o				
Cab filter				o			
Air filter				o			
Fuel filter					o		
Engine oil filter					o		
Hydraulic oil filter/s					o		
Engine valve clearance	o						
Differential oil					o		
Engine oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Lock valves	o						

CONTINUES -->

Maintenance							
Every 10 hours or every month							
Metal structural frame, no cracks	o						
Boom chains (if present)	o						
Stickers	o						
Safety devices	o						
Coolant	o						
Engine oil level	o						
Every 50 hours or every month							
Transmission shafts						o	
Mechanical joints						o	
Parking brake mechanical joints on the axle						o	
Cab filter				o			
Air filter				o			
Fuel filter				o			
Ropes and chains (if present)						o	
Hydraulic oil level	o						
Boom pads	o					o	
Hydraulic system leaks	o						
Tyre pressure	o						
Radiators				o			
Coolant	o						
Brake oil level	o						
Hydraulic oil level	o						
Engine oil level	o						
Tightness of the wheel nuts	o						
Every 250 hours or every 2 months							
Tightness of nuts and bolts			o				
Tightness of hydraulic fittings			o				
Boom chains (if present)			o				
Alternator belts \ services	o		o				
Seat belts	o						
Anti-tipping device	o						
YANMAR engine oil filter					o		
YANMAR engine oil					o		
Electrolyte level and battery charge	o						
Rear view mirrors	o						

CONTINUES -->

Maintenance							
Every 500 hours or every 6 months							
KUBOTA engine oil					o		
KUBOTA fuel filter					o		
YANMAR fuel filter					o		
KUBOTA engine oil filter					o		
Forks: wear	o						
Cab filter					o		
Air filter					o		
Hydraulic oil filter/s					o		
Electric system	o						
Differential oil	o						
Brake oil					o		
Epicycloidal gearbox oil	o						
Transmission oil	o						
Lock valves	o						
Every 1000 hours or every year							
Telescopic boom: conditions	o						**
Telescopic boom: bearing and bushing joints	o						**
Brake oil circuit				o			**
Brake oil circuit: Pressure	o						**
Condition of the equipment	o						**
Conditions of the wheels and tyres	o						
Brake			o				**
Engine valve clearance	o						**
Electric system: condition of the cables	o						**
Electric system: Lighting and signals	o						**
Electric system: Acoustic signals	o						**
Hydraulic circuit: Jacks	o						**
Hydraulic circuit: Tubes and pipes	o						**
Hydraulic circuit: Movement speed	o						**
Coolant					o		
Differential oil					o		
Hydraulic oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Boom pads: wear	o						**
Fork holder plate: wear	o						**
Engine speeds	o						**
Fuel tank				o			
Cab structure	o						**
Chassis: bearing and bushing joints	o						**
Chassis: structure	o						**

CONTINUES -->

Maintenance							
Every 2000 hours							
Alternator and starter motor	o						**
Hydraulic circuit: Capacity	o						**
Hydraulic circuit: Pressures	o						**
Axle oscillation	o					o	**
Radiators	o			o			**
Hydraulic oil tank				o			**
Every 4000 hours							
Transmission shafts	o					o	**
Gearbox Cardan shaft	o						**
Gear clearance on the wheels	o						**
Direction ball joints	o						**
Pins of the wheel gears	o					o	**
Brake discs wear	o						**
Every 2 years							
Air conditioning (if present): Heat sink filter					o		**
Air conditioning (if present): Coolant	o						**
Air conditioning (if present): Pressure switches	o		o				**
Air conditioning (if present): Coil condenser and evaporator				o			**
Air conditioning (if present): Condensate and drain valve tray				o			**

Notes	Stamp and signature

MAINTENANCE LOG	
Maintenance Data Sheet no.	.....
Maintenance date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Maintenance							
As required - Section to be compiled if the inspections carried out are not related to fixed schedules but due to vehicle operation							
Alternator belts \ services	o						
Air conditioner	o			o			
Filters (air, engine oil, hydraulic oil, fuel, air conditioner and cab)	o						
Brake			o				
Parking brake	o						
Electrolyte level and battery charge	o						
Hydraulic oil level	o						
Engine oil level	o						
Lights	o						
Tyre pressure	o						
Radiators	o			o			
Radiator expansion tank	o	o					
Window washer tank	o	o					
Anti-tipping device load verification	o						
Verification of wear (on the vehicle as well as on the equipment, if present)	o						
After the first 50 hours							
Alternator belts \ services	o		o				
Cab filter				o			
Air filter				o			
Fuel filter					o		
Engine oil filter					o		
Hydraulic oil filter/s					o		
Engine valve clearance	o						
Differential oil					o		
Engine oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Lock valves	o						

CONTINUES -->

Maintenance							
Every 10 hours or every month							
Metal structural frame, no cracks	o						
Boom chains (if present)	o						
Stickers	o						
Safety devices	o						
Coolant	o						
Engine oil level	o						
Every 50 hours or every month							
Transmission shafts						o	
Mechanical joints						o	
Parking brake mechanical joints on the axle						o	
Cab filter				o			
Air filter				o			
Fuel filter				o			
Ropes and chains (if present)						o	
Hydraulic oil level	o						
Boom pads	o					o	
Hydraulic system leaks	o						
Tyre pressure	o						
Radiators				o			
Coolant	o						
Brake oil level	o						
Hydraulic oil level	o						
Engine oil level	o						
Tightness of the wheel nuts	o						
Every 250 hours or every 2 months							
Tightness of nuts and bolts			o				
Tightness of hydraulic fittings			o				
Boom chains (if present)			o				
Alternator belts \ services	o		o				
Seat belts	o						
Anti-tipping device	o						
YANMAR engine oil filter					o		
YANMAR engine oil					o		
Electrolyte level and battery charge	o						
Rear view mirrors	o						

CONTINUES -->

Maintenance							
Every 500 hours or every 6 months							
KUBOTA engine oil					o		
KUBOTA fuel filter					o		
YANMAR fuel filter					o		
KUBOTA engine oil filter					o		
Forks: wear	o						
Cab filter					o		
Air filter					o		
Hydraulic oil filter/s					o		
Electric system	o						
Differential oil	o						
Brake oil					o		
Epicycloidal gearbox oil	o						
Transmission oil	o						
Lock valves	o						
Every 1000 hours or every year							
Telescopic boom: conditions	o						**
Telescopic boom: bearing and bushing joints	o						**
Brake oil circuit				o			**
Brake oil circuit: Pressure	o						**
Condition of the equipment	o						**
Conditions of the wheels and tyres	o						
Brake			o				**
Engine valve clearance	o						**
Electric system: condition of the cables	o						**
Electric system: Lighting and signals	o						**
Electric system: Acoustic signals	o						**
Hydraulic circuit: Jacks	o						**
Hydraulic circuit: Tubes and pipes	o						**
Hydraulic circuit: Movement speed	o						**
Coolant					o		
Differential oil					o		
Hydraulic oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Boom pads: wear	o						**
Fork holder plate: wear	o						**
Engine speeds	o						**
Fuel tank				o			
Cab structure	o						**
Chassis: bearing and bushing joints	o						**
Chassis: structure	o						**

CONTINUES -->

Maintenance							
Every 2000 hours							
Alternator and starter motor	o						**
Hydraulic circuit: Capacity	o						**
Hydraulic circuit: Pressures	o						**
Axle oscillation	o					o	**
Radiators	o			o			**
Hydraulic oil tank				o			**
Every 4000 hours							
Transmission shafts	o					o	**
Gearbox Cardan shaft	o						**
Gear clearance on the wheels	o						**
Direction ball joints	o						**
Pins of the wheel gears	o					o	**
Brake discs wear	o						**
Every 2 years							
Air conditioning (if present): Heat sink filter					o		**
Air conditioning (if present): Coolant	o						**
Air conditioning (if present): Pressure switches	o		o				**
Air conditioning (if present): Coil condenser and evaporator				o			**
Air conditioning (if present): Condensate and drain valve tray				o			**

Notes	Stamp and signature

MAINTENANCE LOG	
Maintenance Data Sheet no.	.....
Maintenance date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Maintenance							
As required - Section to be compiled if the inspections carried out are not related to fixed schedules but due to vehicle operation							
Alternator belts \ services	o						
Air conditioner	o			o			
Filters (air, engine oil, hydraulic oil, fuel, air conditioner and cab)	o						
Brake			o				
Parking brake	o						
Electrolyte level and battery charge	o						
Hydraulic oil level	o						
Engine oil level	o						
Lights	o						
Tyre pressure	o						
Radiators	o			o			
Radiator expansion tank	o	o					
Window washer tank	o	o					
Anti-tipping device load verification	o						
Verification of wear (on the vehicle as well as on the equipment, if present)	o						
After the first 50 hours							
Alternator belts \ services	o		o				
Cab filter				o			
Air filter				o			
Fuel filter					o		
Engine oil filter					o		
Hydraulic oil filter/s					o		
Engine valve clearance	o						
Differential oil					o		
Engine oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Lock valves	o						

CONTINUES --->

Maintenance							
Every 10 hours or every month							
Metal structural frame, no cracks	o						
Boom chains (if present)	o						
Stickers	o						
Safety devices	o						
Coolant	o						
Engine oil level	o						
Every 50 hours or every month							
Transmission shafts						o	
Mechanical joints						o	
Parking brake mechanical joints on the axle						o	
Cab filter				o			
Air filter				o			
Fuel filter				o			
Ropes and chains (if present)						o	
Hydraulic oil level	o						
Boom pads	o					o	
Hydraulic system leaks	o						
Tyre pressure	o						
Radiators				o			
Coolant	o						
Brake oil level	o						
Hydraulic oil level	o						
Engine oil level	o						
Tightness of the wheel nuts	o						
Every 250 hours or every 2 months							
Tightness of nuts and bolts			o				
Tightness of hydraulic fittings			o				
Boom chains (if present)			o				
Alternator belts \ services	o		o				
Seat belts	o						
Anti-tipping device	o						
YANMAR engine oil filter					o		
YANMAR engine oil					o		
Electrolyte level and battery charge	o						
Rear view mirrors	o						

CONTINUES -->

Maintenance							
Every 500 hours or every 6 months							
KUBOTA engine oil					o		
KUBOTA fuel filter					o		
YANMAR fuel filter					o		
KUBOTA engine oil filter					o		
Forks: wear	o						
Cab filter					o		
Air filter					o		
Hydraulic oil filter/s					o		
Electric system	o						
Differential oil	o						
Brake oil					o		
Epicycloidal gearbox oil	o						
Transmission oil	o						
Lock valves	o						
Every 1000 hours or every year							
Telescopic boom: conditions	o						**
Telescopic boom: bearing and bushing joints	o						**
Brake oil circuit				o			**
Brake oil circuit: Pressure	o						**
Condition of the equipment	o						**
Conditions of the wheels and tyres	o						
Brake			o				**
Engine valve clearance	o						**
Electric system: condition of the cables	o						**
Electric system: Lighting and signals	o						**
Electric system: Acoustic signals	o						**
Hydraulic circuit: Jacks	o						**
Hydraulic circuit: Tubes and pipes	o						**
Hydraulic circuit: Movement speed	o						**
Coolant					o		
Differential oil					o		
Hydraulic oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Boom pads: wear	o						**
Fork holder plate: wear	o						**
Engine speeds	o						**
Fuel tank				o			
Cab structure	o						**
Chassis: bearing and bushing joints	o						**
Chassis: structure	o						**

CONTINUES -->

Maintenance							
Every 2000 hours							
Alternator and starter motor	o						**
Hydraulic circuit: Capacity	o						**
Hydraulic circuit: Pressures	o						**
Axle oscillation	o					o	**
Radiators	o			o			**
Hydraulic oil tank				o			**
Every 4000 hours							
Transmission shafts	o					o	**
Gearbox Cardan shaft	o						**
Gear clearance on the wheels	o						**
Direction ball joints	o						**
Pins of the wheel gears	o					o	**
Brake discs wear	o						**
Every 2 years							
Air conditioning (if present): Heat sink filter					o		**
Air conditioning (if present): Coolant	o						**
Air conditioning (if present): Pressure switches	o		o				**
Air conditioning (if present): Coil condenser and evaporator				o			**
Air conditioning (if present): Condensate and drain valve tray				o			**

Notes	Stamp and signature

MAINTENANCE LOG	
Maintenance Data Sheet no.	.....
Maintenance date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Maintenance							
As required - Section to be compiled if the inspections carried out are not related to fixed schedules but due to vehicle operation							
Alternator belts \ services	o						
Air conditioner	o			o			
Filters (air, engine oil, hydraulic oil, fuel, air conditioner and cab)	o						
Brake			o				
Parking brake	o						
Electrolyte level and battery charge	o						
Hydraulic oil level	o						
Engine oil level	o						
Lights	o						
Tyre pressure	o						
Radiators	o			o			
Radiator expansion tank	o	o					
Window washer tank	o	o					
Anti-tipping device load verification	o						
Verification of wear (on the vehicle as well as on the equipment, if present)	o						
After the first 50 hours							
Alternator belts \ services	o		o				
Cab filter				o			
Air filter				o			
Fuel filter					o		
Engine oil filter					o		
Hydraulic oil filter/s					o		
Engine valve clearance	o						
Differential oil					o		
Engine oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Lock valves	o						

CONTINUES -->

Maintenance							
Every 10 hours or every month							
Metal structural frame, no cracks	o						
Boom chains (if present)	o						
Stickers	o						
Safety devices	o						
Coolant	o						
Engine oil level	o						
Every 50 hours or every month							
Transmission shafts						o	
Mechanical joints						o	
Parking brake mechanical joints on the axle						o	
Cab filter				o			
Air filter				o			
Fuel filter				o			
Ropes and chains (if present)						o	
Hydraulic oil level	o						
Boom pads	o					o	
Hydraulic system leaks	o						
Tyre pressure	o						
Radiators				o			
Coolant	o						
Brake oil level	o						
Hydraulic oil level	o						
Engine oil level	o						
Tightness of the wheel nuts	o						
Every 250 hours or every 2 months							
Tightness of nuts and bolts			o				
Tightness of hydraulic fittings			o				
Boom chains (if present)			o				
Alternator belts \ services	o		o				
Seat belts	o						
Anti-tipping device	o						
YANMAR engine oil filter					o		
YANMAR engine oil					o		
Electrolyte level and battery charge	o						
Rear view mirrors	o						

CONTINUES -->

Maintenance							
Every 500 hours or every 6 months							
KUBOTA engine oil					o		
KUBOTA fuel filter					o		
YANMAR fuel filter					o		
KUBOTA engine oil filter					o		
Forks: wear	o						
Cab filter					o		
Air filter					o		
Hydraulic oil filter/s					o		
Electric system	o						
Differential oil	o						
Brake oil					o		
Epicycloidal gearbox oil	o						
Transmission oil	o						
Lock valves	o						
Every 1000 hours or every year							
Telescopic boom: conditions	o						**
Telescopic boom: bearing and bushing joints	o						**
Brake oil circuit				o			**
Brake oil circuit: Pressure	o						**
Condition of the equipment	o						**
Conditions of the wheels and tyres	o						
Brake			o				**
Engine valve clearance	o						**
Electric system: condition of the cables	o						**
Electric system: Lighting and signals	o						**
Electric system: Acoustic signals	o						**
Hydraulic circuit: Jacks	o						**
Hydraulic circuit: Tubes and pipes	o						**
Hydraulic circuit: Movement speed	o						**
Coolant					o		
Differential oil					o		
Hydraulic oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Boom pads: wear	o						**
Fork holder plate: wear	o						**
Engine speeds	o						**
Fuel tank				o			
Cab structure	o						**
Chassis: bearing and bushing joints	o						**
Chassis: structure	o						**

CONTINUES -->

Maintenance							
Every 2000 hours							
Alternator and starter motor	o						**
Hydraulic circuit: Capacity	o						**
Hydraulic circuit: Pressures	o						**
Axle oscillation	o					o	**
Radiators	o			o			**
Hydraulic oil tank				o			**
Every 4000 hours							
Transmission shafts	o					o	**
Gearbox Cardan shaft	o						**
Gear clearance on the wheels	o						**
Direction ball joints	o						**
Pins of the wheel gears	o					o	**
Brake discs wear	o						**
Every 2 years							
Air conditioning (if present): Heat sink filter					o		**
Air conditioning (if present): Coolant	o						**
Air conditioning (if present): Pressure switches	o		o				**
Air conditioning (if present): Coil condenser and evaporator				o			**
Air conditioning (if present): Condensate and drain valve tray				o			**

Notes	Stamp and signature

MAINTENANCE LOG	
Maintenance Data Sheet no.	.....
Maintenance date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Maintenance							
As required - Section to be compiled if the inspections carried out are not related to fixed schedules but due to vehicle operation							
Alternator belts \ services	o						
Air conditioner	o			o			
Filters (air, engine oil, hydraulic oil, fuel, air conditioner and cab)	o						
Brake			o				
Parking brake	o						
Electrolyte level and battery charge	o						
Hydraulic oil level	o						
Engine oil level	o						
Lights	o						
Tyre pressure	o						
Radiators	o			o			
Radiator expansion tank	o	o					
Window washer tank	o	o					
Anti-tipping device load verification	o						
Verification of wear (on the vehicle as well as on the equipment, if present)	o						
After the first 50 hours							
Alternator belts \ services	o		o				
Cab filter				o			
Air filter				o			
Fuel filter					o		
Engine oil filter					o		
Hydraulic oil filter/s					o		
Engine valve clearance	o						
Differential oil					o		
Engine oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Lock valves	o						

CONTINUES -->

Maintenance							
Every 10 hours or every month							
Metal structural frame, no cracks	o						
Boom chains (if present)	o						
Stickers	o						
Safety devices	o						
Coolant	o						
Engine oil level	o						
Every 50 hours or every month							
Transmission shafts						o	
Mechanical joints						o	
Parking brake mechanical joints on the axle						o	
Cab filter				o			
Air filter				o			
Fuel filter				o			
Ropes and chains (if present)						o	
Hydraulic oil level	o						
Boom pads	o					o	
Hydraulic system leaks	o						
Tyre pressure	o						
Radiators				o			
Coolant	o						
Brake oil level	o						
Hydraulic oil level	o						
Engine oil level	o						
Tightness of the wheel nuts	o						
Every 250 hours or every 2 months							
Tightness of nuts and bolts			o				
Tightness of hydraulic fittings			o				
Boom chains (if present)			o				
Alternator belts \ services	o		o				
Seat belts	o						
Anti-tipping device	o						
YANMAR engine oil filter					o		
YANMAR engine oil					o		
Electrolyte level and battery charge	o						
Rear view mirrors	o						

CONTINUES -->

Maintenance							
Every 500 hours or every 6 months							
KUBOTA engine oil					o		
KUBOTA fuel filter					o		
YANMAR fuel filter					o		
KUBOTA engine oil filter					o		
Forks: wear	o						
Cab filter					o		
Air filter					o		
Hydraulic oil filter/s					o		
Electric system	o						
Differential oil	o						
Brake oil					o		
Epicycloidal gearbox oil	o						
Transmission oil	o						
Lock valves	o						
Every 1000 hours or every year							
Telescopic boom: conditions	o						**
Telescopic boom: bearing and bushing joints	o						**
Brake oil circuit				o			**
Brake oil circuit: Pressure	o						**
Condition of the equipment	o						**
Conditions of the wheels and tyres	o						
Brake			o				**
Engine valve clearance	o						**
Electric system: condition of the cables	o						**
Electric system: Lighting and signals	o						**
Electric system: Acoustic signals	o						**
Hydraulic circuit: Jacks	o						**
Hydraulic circuit: Tubes and pipes	o						**
Hydraulic circuit: Movement speed	o						**
Coolant					o		
Differential oil					o		
Hydraulic oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Boom pads: wear	o						**
Fork holder plate: wear	o						**
Engine speeds	o						**
Fuel tank				o			
Cab structure	o						**
Chassis: bearing and bushing joints	o						**
Chassis: structure	o						**

CONTINUES -->

Maintenance							
Every 2000 hours							
Alternator and starter motor	o						**
Hydraulic circuit: Capacity	o						**
Hydraulic circuit: Pressures	o						**
Axle oscillation	o					o	**
Radiators	o			o			**
Hydraulic oil tank				o			**
Every 4000 hours							
Transmission shafts	o					o	**
Gearbox Cardan shaft	o						**
Gear clearance on the wheels	o						**
Direction ball joints	o						**
Pins of the wheel gears	o					o	**
Brake discs wear	o						**
Every 2 years							
Air conditioning (if present): Heat sink filter					o		**
Air conditioning (if present): Coolant	o						**
Air conditioning (if present): Pressure switches	o		o				**
Air conditioning (if present): Coil condenser and evaporator				o			**
Air conditioning (if present): Condensate and drain valve tray				o			**

Notes	Stamp and signature

MAINTENANCE LOG	
Maintenance Data Sheet no.	.....
Maintenance date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Maintenance							
As required - Section to be compiled if the inspections carried out are not related to fixed schedules but due to vehicle operation							
Alternator belts \ services	o						
Air conditioner	o			o			
Filters (air, engine oil, hydraulic oil, fuel, air conditioner and cab)	o						
Brake			o				
Parking brake	o						
Electrolyte level and battery charge	o						
Hydraulic oil level	o						
Engine oil level	o						
Lights	o						
Tyre pressure	o						
Radiators	o			o			
Radiator expansion tank	o	o					
Window washer tank	o	o					
Anti-tipping device load verification	o						
Verification of wear (on the vehicle as well as on the equipment, if present)	o						
After the first 50 hours							
Alternator belts \ services	o		o				
Cab filter				o			
Air filter				o			
Fuel filter					o		
Engine oil filter					o		
Hydraulic oil filter/s					o		
Engine valve clearance	o						
Differential oil					o		
Engine oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Lock valves	o						

CONTINUES -->

Maintenance							
Every 10 hours or every month							
Metal structural frame, no cracks	o						
Boom chains (if present)	o						
Stickers	o						
Safety devices	o						
Coolant	o						
Engine oil level	o						
Every 50 hours or every month							
Transmission shafts						o	
Mechanical joints						o	
Parking brake mechanical joints on the axle						o	
Cab filter				o			
Air filter				o			
Fuel filter				o			
Ropes and chains (if present)						o	
Hydraulic oil level	o						
Boom pads	o					o	
Hydraulic system leaks	o						
Tyre pressure	o						
Radiators				o			
Coolant	o						
Brake oil level	o						
Hydraulic oil level	o						
Engine oil level	o						
Tightness of the wheel nuts	o						
Every 250 hours or every 2 months							
Tightness of nuts and bolts			o				
Tightness of hydraulic fittings			o				
Boom chains (if present)			o				
Alternator belts \ services	o		o				
Seat belts	o						
Anti-tipping device	o						
YANMAR engine oil filter					o		
YANMAR engine oil					o		
Electrolyte level and battery charge	o						
Rear view mirrors	o						

CONTINUES -->

Maintenance							
Every 500 hours or every 6 months							
KUBOTA engine oil					o		
KUBOTA fuel filter					o		
YANMAR fuel filter					o		
KUBOTA engine oil filter					o		
Forks: wear	o						
Cab filter					o		
Air filter					o		
Hydraulic oil filter/s					o		
Electric system	o						
Differential oil	o						
Brake oil					o		
Epicycloidal gearbox oil	o						
Transmission oil	o						
Lock valves	o						
Every 1000 hours or every year							
Telescopic boom: conditions	o						**
Telescopic boom: bearing and bushing joints	o						**
Brake oil circuit				o			**
Brake oil circuit: Pressure	o						**
Condition of the equipment	o						**
Conditions of the wheels and tyres	o						
Brake			o				**
Engine valve clearance	o						**
Electric system: condition of the cables	o						**
Electric system: Lighting and signals	o						**
Electric system: Acoustic signals	o						**
Hydraulic circuit: Jacks	o						**
Hydraulic circuit: Tubes and pipes	o						**
Hydraulic circuit: Movement speed	o						**
Coolant					o		
Differential oil					o		
Hydraulic oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Boom pads: wear	o						**
Fork holder plate: wear	o						**
Engine speeds	o						**
Fuel tank				o			
Cab structure	o						**
Chassis: bearing and bushing joints	o						**
Chassis: structure	o						**

CONTINUES -->

Maintenance							
Every 2000 hours							
Alternator and starter motor	o						**
Hydraulic circuit: Capacity	o						**
Hydraulic circuit: Pressures	o						**
Axle oscillation	o					o	**
Radiators	o			o			**
Hydraulic oil tank				o			**
Every 4000 hours							
Transmission shafts	o					o	**
Gearbox Cardan shaft	o						**
Gear clearance on the wheels	o						**
Direction ball joints	o						**
Pins of the wheel gears	o					o	**
Brake discs wear	o						**
Every 2 years							
Air conditioning (if present): Heat sink filter					o		**
Air conditioning (if present): Coolant	o						**
Air conditioning (if present): Pressure switches	o		o				**
Air conditioning (if present): Coil condenser and evaporator				o			**
Air conditioning (if present): Condensate and drain valve tray				o			**

Notes	Stamp and signature

MAINTENANCE LOG	
Maintenance Data Sheet no.	.....
Maintenance date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Maintenance							
As required - Section to be compiled if the inspections carried out are not related to fixed schedules but due to vehicle operation							
Alternator belts \ services	o						
Air conditioner	o			o			
Filters (air, engine oil, hydraulic oil, fuel, air conditioner and cab)	o						
Brake			o				
Parking brake	o						
Electrolyte level and battery charge	o						
Hydraulic oil level	o						
Engine oil level	o						
Lights	o						
Tyre pressure	o						
Radiators	o			o			
Radiator expansion tank	o	o					
Window washer tank	o	o					
Anti-tipping device load verification	o						
Verification of wear (on the vehicle as well as on the equipment, if present)	o						
After the first 50 hours							
Alternator belts \ services	o		o				
Cab filter				o			
Air filter				o			
Fuel filter					o		
Engine oil filter					o		
Hydraulic oil filter/s					o		
Engine valve clearance	o						
Differential oil					o		
Engine oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Lock valves	o						

CONTINUES -->

Maintenance							
Every 10 hours or every month							
Metal structural frame, no cracks	o						
Boom chains (if present)	o						
Stickers	o						
Safety devices	o						
Coolant	o						
Engine oil level	o						
Every 50 hours or every month							
Transmission shafts						o	
Mechanical joints						o	
Parking brake mechanical joints on the axle						o	
Cab filter				o			
Air filter				o			
Fuel filter				o			
Ropes and chains (if present)						o	
Hydraulic oil level	o						
Boom pads	o					o	
Hydraulic system leaks	o						
Tyre pressure	o						
Radiators				o			
Coolant	o						
Brake oil level	o						
Hydraulic oil level	o						
Engine oil level	o						
Tightness of the wheel nuts	o						
Every 250 hours or every 2 months							
Tightness of nuts and bolts			o				
Tightness of hydraulic fittings			o				
Boom chains (if present)			o				
Alternator belts \ services	o		o				
Seat belts	o						
Anti-tipping device	o						
YANMAR engine oil filter					o		
YANMAR engine oil					o		
Electrolyte level and battery charge	o						
Rear view mirrors	o						

CONTINUES -->

Maintenance							
Every 500 hours or every 6 months							
KUBOTA engine oil					o		
KUBOTA fuel filter					o		
YANMAR fuel filter					o		
KUBOTA engine oil filter					o		
Forks: wear	o						
Cab filter					o		
Air filter					o		
Hydraulic oil filter/s					o		
Electric system	o						
Differential oil	o						
Brake oil					o		
Epicycloidal gearbox oil	o						
Transmission oil	o						
Lock valves	o						
Every 1000 hours or every year							
Telescopic boom: conditions	o						**
Telescopic boom: bearing and bushing joints	o						**
Brake oil circuit				o			**
Brake oil circuit: Pressure	o						**
Condition of the equipment	o						**
Conditions of the wheels and tyres	o						
Brake			o				**
Engine valve clearance	o						**
Electric system: condition of the cables	o						**
Electric system: Lighting and signals	o						**
Electric system: Acoustic signals	o						**
Hydraulic circuit: Jacks	o						**
Hydraulic circuit: Tubes and pipes	o						**
Hydraulic circuit: Movement speed	o						**
Coolant					o		
Differential oil					o		
Hydraulic oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Boom pads: wear	o						**
Fork holder plate: wear	o						**
Engine speeds	o						**
Fuel tank				o			
Cab structure	o						**
Chassis: bearing and bushing joints	o						**
Chassis: structure	o						**

CONTINUES -->

Maintenance							
Every 2000 hours							
Alternator and starter motor	o						**
Hydraulic circuit: Capacity	o						**
Hydraulic circuit: Pressures	o						**
Axle oscillation	o					o	**
Radiators	o			o			**
Hydraulic oil tank				o			**
Every 4000 hours							
Transmission shafts	o					o	**
Gearbox Cardan shaft	o						**
Gear clearance on the wheels	o						**
Direction ball joints	o						**
Pins of the wheel gears	o					o	**
Brake discs wear	o						**
Every 2 years							
Air conditioning (if present): Heat sink filter					o		**
Air conditioning (if present): Coolant	o						**
Air conditioning (if present): Pressure switches	o		o				**
Air conditioning (if present): Coil condenser and evaporator				o			**
Air conditioning (if present): Condensate and drain valve tray				o			**

Notes	Stamp and signature

MAINTENANCE LOG	
Maintenance Data Sheet no.	.....
Maintenance date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Maintenance							
As required - Section to be compiled if the inspections carried out are not related to fixed schedules but due to vehicle operation							
Alternator belts \ services	o						
Air conditioner	o			o			
Filters (air, engine oil, hydraulic oil, fuel, air conditioner and cab)	o						
Brake			o				
Parking brake	o						
Electrolyte level and battery charge	o						
Hydraulic oil level	o						
Engine oil level	o						
Lights	o						
Tyre pressure	o						
Radiators	o			o			
Radiator expansion tank	o	o					
Window washer tank	o	o					
Anti-tipping device load verification	o						
Verification of wear (on the vehicle as well as on the equipment, if present)	o						
After the first 50 hours							
Alternator belts \ services	o		o				
Cab filter				o			
Air filter				o			
Fuel filter					o		
Engine oil filter					o		
Hydraulic oil filter/s					o		
Engine valve clearance	o						
Differential oil					o		
Engine oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Lock valves	o						

CONTINUES -->

Maintenance							
Every 10 hours or every month							
Metal structural frame, no cracks	o						
Boom chains (if present)	o						
Stickers	o						
Safety devices	o						
Coolant	o						
Engine oil level	o						
Every 50 hours or every month							
Transmission shafts						o	
Mechanical joints						o	
Parking brake mechanical joints on the axle						o	
Cab filter				o			
Air filter				o			
Fuel filter				o			
Ropes and chains (if present)						o	
Hydraulic oil level	o						
Boom pads	o					o	
Hydraulic system leaks	o						
Tyre pressure	o						
Radiators				o			
Coolant	o						
Brake oil level	o						
Hydraulic oil level	o						
Engine oil level	o						
Tightness of the wheel nuts	o						
Every 250 hours or every 2 months							
Tightness of nuts and bolts			o				
Tightness of hydraulic fittings			o				
Boom chains (if present)			o				
Alternator belts \ services	o		o				
Seat belts	o						
Anti-tipping device	o						
YANMAR engine oil filter					o		
YANMAR engine oil					o		
Electrolyte level and battery charge	o						
Rear view mirrors	o						

CONTINUES -->

Maintenance							
Every 500 hours or every 6 months							
KUBOTA engine oil					o		
KUBOTA fuel filter					o		
YANMAR fuel filter					o		
KUBOTA engine oil filter					o		
Forks: wear	o						
Cab filter					o		
Air filter					o		
Hydraulic oil filter/s					o		
Electric system	o						
Differential oil	o						
Brake oil					o		
Epicycloidal gearbox oil	o						
Transmission oil	o						
Lock valves	o						
Every 1000 hours or every year							
Telescopic boom: conditions	o						**
Telescopic boom: bearing and bushing joints	o						**
Brake oil circuit				o			**
Brake oil circuit: Pressure	o						**
Condition of the equipment	o						**
Conditions of the wheels and tyres	o						
Brake			o				**
Engine valve clearance	o						**
Electric system: condition of the cables	o						**
Electric system: Lighting and signals	o						**
Electric system: Acoustic signals	o						**
Hydraulic circuit: Jacks	o						**
Hydraulic circuit: Tubes and pipes	o						**
Hydraulic circuit: Movement speed	o						**
Coolant					o		
Differential oil					o		
Hydraulic oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Boom pads: wear	o						**
Fork holder plate: wear	o						**
Engine speeds	o						**
Fuel tank				o			
Cab structure	o						**
Chassis: bearing and bushing joints	o						**
Chassis: structure	o						**

CONTINUES -->

Maintenance							
Every 2000 hours							
Alternator and starter motor	o						**
Hydraulic circuit: Capacity	o						**
Hydraulic circuit: Pressures	o						**
Axle oscillation	o					o	**
Radiators	o			o			**
Hydraulic oil tank				o			**
Every 4000 hours							
Transmission shafts	o					o	**
Gearbox Cardan shaft	o						**
Gear clearance on the wheels	o						**
Direction ball joints	o						**
Pins of the wheel gears	o					o	**
Brake discs wear	o						**
Every 2 years							
Air conditioning (if present): Heat sink filter					o		**
Air conditioning (if present): Coolant	o						**
Air conditioning (if present): Pressure switches	o		o				**
Air conditioning (if present): Coil condenser and evaporator				o			**
Air conditioning (if present): Condensate and drain valve tray				o			**

Notes	Stamp and signature

MAINTENANCE LOG	
Maintenance Data Sheet no.	.....
Maintenance date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Maintenance							
As required - Section to be compiled if the inspections carried out are not related to fixed schedules but due to vehicle operation							
Alternator belts \ services	o						
Air conditioner	o			o			
Filters (air, engine oil, hydraulic oil, fuel, air conditioner and cab)	o						
Brake			o				
Parking brake	o						
Electrolyte level and battery charge	o						
Hydraulic oil level	o						
Engine oil level	o						
Lights	o						
Tyre pressure	o						
Radiators	o			o			
Radiator expansion tank	o	o					
Window washer tank	o	o					
Anti-tipping device load verification	o						
Verification of wear (on the vehicle as well as on the equipment, if present)	o						
After the first 50 hours							
Alternator belts \ services	o		o				
Cab filter				o			
Air filter				o			
Fuel filter					o		
Engine oil filter					o		
Hydraulic oil filter/s					o		
Engine valve clearance	o						
Differential oil					o		
Engine oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Lock valves	o						

CONTINUES -->

Maintenance							
Every 10 hours or every month							
Metal structural frame, no cracks	o						
Boom chains (if present)	o						
Stickers	o						
Safety devices	o						
Coolant	o						
Engine oil level	o						
Every 50 hours or every month							
Transmission shafts						o	
Mechanical joints						o	
Parking brake mechanical joints on the axle						o	
Cab filter				o			
Air filter				o			
Fuel filter				o			
Ropes and chains (if present)						o	
Hydraulic oil level	o						
Boom pads	o					o	
Hydraulic system leaks	o						
Tyre pressure	o						
Radiators				o			
Coolant	o						
Brake oil level	o						
Hydraulic oil level	o						
Engine oil level	o						
Tightness of the wheel nuts	o						
Every 250 hours or every 2 months							
Tightness of nuts and bolts			o				
Tightness of hydraulic fittings			o				
Boom chains (if present)			o				
Alternator belts \ services	o		o				
Seat belts	o						
Anti-tipping device	o						
YANMAR engine oil filter					o		
YANMAR engine oil					o		
Electrolyte level and battery charge	o						
Rear view mirrors	o						

CONTINUES -->

Maintenance							
Every 500 hours or every 6 months							
KUBOTA engine oil					o		
KUBOTA fuel filter					o		
YANMAR fuel filter					o		
KUBOTA engine oil filter					o		
Forks: wear	o						
Cab filter					o		
Air filter					o		
Hydraulic oil filter/s					o		
Electric system	o						
Differential oil	o						
Brake oil					o		
Epicycloidal gearbox oil	o						
Transmission oil	o						
Lock valves	o						
Every 1000 hours or every year							
Telescopic boom: conditions	o						**
Telescopic boom: bearing and bushing joints	o						**
Brake oil circuit				o			**
Brake oil circuit: Pressure	o						**
Condition of the equipment	o						**
Conditions of the wheels and tyres	o						
Brake			o				**
Engine valve clearance	o						**
Electric system: condition of the cables	o						**
Electric system: Lighting and signals	o						**
Electric system: Acoustic signals	o						**
Hydraulic circuit: Jacks	o						**
Hydraulic circuit: Tubes and pipes	o						**
Hydraulic circuit: Movement speed	o						**
Coolant					o		
Differential oil					o		
Hydraulic oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Boom pads: wear	o						**
Fork holder plate: wear	o						**
Engine speeds	o						**
Fuel tank				o			
Cab structure	o						**
Chassis: bearing and bushing joints	o						**
Chassis: structure	o						**

CONTINUES -->

Maintenance							
Every 2000 hours							
Alternator and starter motor	o						**
Hydraulic circuit: Capacity	o						**
Hydraulic circuit: Pressures	o						**
Axle oscillation	o					o	**
Radiators	o			o			**
Hydraulic oil tank				o			**
Every 4000 hours							
Transmission shafts	o					o	**
Gearbox Cardan shaft	o						**
Gear clearance on the wheels	o						**
Direction ball joints	o						**
Pins of the wheel gears	o					o	**
Brake discs wear	o						**
Every 2 years							
Air conditioning (if present): Heat sink filter					o		**
Air conditioning (if present): Coolant	o						**
Air conditioning (if present): Pressure switches	o		o				**
Air conditioning (if present): Coil condenser and evaporator				o			**
Air conditioning (if present): Condensate and drain valve tray				o			**

Notes	Stamp and signature

MAINTENANCE LOG	
Maintenance Data Sheet no.	.....
Maintenance date	.....
Vehicle serial No.:	.....
Vehicle hours	.....
Name of the maintenance technician	.....
Name of the maintenance company	.....

Key	
	Control - Inspection
	Refuel
	Adjustment
	Cleaning
	Replacement
	Lubrication
	Maintenance at an authorised service centre

Maintenance							
As required - Section to be compiled if the inspections carried out are not related to fixed schedules but due to vehicle operation							
Alternator belts \ services	o						
Air conditioner	o			o			
Filters (air, engine oil, hydraulic oil, fuel, air conditioner and cab)	o						
Brake			o				
Parking brake	o						
Electrolyte level and battery charge	o						
Hydraulic oil level	o						
Engine oil level	o						
Lights	o						
Tyre pressure	o						
Radiators	o			o			
Radiator expansion tank	o	o					
Window washer tank	o	o					
Anti-tipping device load verification	o						
Verification of wear (on the vehicle as well as on the equipment, if present)	o						
After the first 50 hours							
Alternator belts \ services	o		o				
Cab filter				o			
Air filter				o			
Fuel filter					o		
Engine oil filter					o		
Hydraulic oil filter/s					o		
Engine valve clearance	o						
Differential oil					o		
Engine oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Lock valves	o						

CONTINUES -->

Maintenance							
Every 10 hours or every month							
Metal structural frame, no cracks	o						
Boom chains (if present)	o						
Stickers	o						
Safety devices	o						
Coolant	o						
Engine oil level	o						
Every 50 hours or every month							
Transmission shafts						o	
Mechanical joints						o	
Parking brake mechanical joints on the axle						o	
Cab filter				o			
Air filter				o			
Fuel filter				o			
Ropes and chains (if present)						o	
Hydraulic oil level	o						
Boom pads	o					o	
Hydraulic system leaks	o						
Tyre pressure	o						
Radiators				o			
Coolant	o						
Brake oil level	o						
Hydraulic oil level	o						
Engine oil level	o						
Tightness of the wheel nuts	o						
Every 250 hours or every 2 months							
Tightness of nuts and bolts			o				
Tightness of hydraulic fittings			o				
Boom chains (if present)			o				
Alternator belts \ services	o		o				
Seat belts	o						
Anti-tipping device	o						
YANMAR engine oil filter					o		
YANMAR engine oil					o		
Electrolyte level and battery charge	o						
Rear view mirrors	o						

CONTINUES -->

Maintenance							
Every 500 hours or every 6 months							
KUBOTA engine oil					o		
KUBOTA fuel filter					o		
YANMAR fuel filter					o		
KUBOTA engine oil filter					o		
Forks: wear	o						
Cab filter					o		
Air filter					o		
Hydraulic oil filter/s					o		
Electric system	o						
Differential oil	o						
Brake oil					o		
Epicycloidal gearbox oil	o						
Transmission oil	o						
Lock valves	o						
Every 1000 hours or every year							
Telescopic boom: conditions	o						**
Telescopic boom: bearing and bushing joints	o						**
Brake oil circuit				o			**
Brake oil circuit: Pressure	o						**
Condition of the equipment	o						**
Conditions of the wheels and tyres	o						
Brake			o				**
Engine valve clearance	o						**
Electric system: condition of the cables	o						**
Electric system: Lighting and signals	o						**
Electric system: Acoustic signals	o						**
Hydraulic circuit: Jacks	o						**
Hydraulic circuit: Tubes and pipes	o						**
Hydraulic circuit: Movement speed	o						**
Coolant					o		
Differential oil					o		
Hydraulic oil					o		
Epicycloidal gearbox oil					o		
Transmission oil					o		
Boom pads: wear	o						**
Fork holder plate: wear	o						**
Engine speeds	o						**
Fuel tank				o			
Cab structure	o						**
Chassis: bearing and bushing joints	o						**
Chassis: structure	o						**

CONTINUES -->

Maintenance							
Every 2000 hours							
Alternator and starter motor	o						**
Hydraulic circuit: Capacity	o						**
Hydraulic circuit: Pressures	o						**
Axle oscillation	o					o	**
Radiators	o			o			**
Hydraulic oil tank				o			**
Every 4000 hours							
Transmission shafts	o					o	**
Gearbox Cardan shaft	o						**
Gear clearance on the wheels	o						**
Direction ball joints	o						**
Pins of the wheel gears	o					o	**
Brake discs wear	o						**
Every 2 years							
Air conditioning (if present): Heat sink filter					o		**
Air conditioning (if present): Coolant	o						**
Air conditioning (if present): Pressure switches	o		o				**
Air conditioning (if present): Coil condenser and evaporator				o			**
Air conditioning (if present): Condensate and drain valve tray				o			**

Notes	Stamp and signature

INDEX IN ALPHABETICAL ORDER

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

Q

R

S

T

U

V

W

Y

Z

24 NOTES