



52754187 EN-USM1 (C-05/2025)

MLT 850 145 V+ Y ST5 S1

OPERATOR'S MANUAL
(ORIGINAL MANUAL)

IMPORTANT

Carefully read and understand this instruction manual before using this machine.

It contains all information relating to operation, handling and equipment, as well as important recommendations to be followed.

This document also contains precautions for use, as well as information on the service and routine maintenance required to ensure the machine's continued reliability and safety of use.

WHENEVER YOU SEE THIS SYMBOL, IT MEANS:



PLEASE NOTE! BE CAREFUL! YOUR SAFETY, THAT OF OTHERS, OR THE SAFETY OF THE MACHINE IS AT RISK.

- This manual has been produced based on the equipment list and technical characteristics given at the time of its design.
- The machine's equipment level depends on the options chosen and the country of sale.
- Depending on the machine's options and the date of sale, certain equipment or functions described in this manual may not be present on this machine.
- Descriptions and figures are non-binding.
- MANITOU reserves the right to change its models and their equipment without being required to update this manual.
- The MANITOU network, consisting exclusively of qualified professionals, is available to answer all your questions.
- This manual is an integral part of the machine.
- It is to be kept in its storage location at all times for ease of reference.
- Give this manual to the new owner if the machine is resold.

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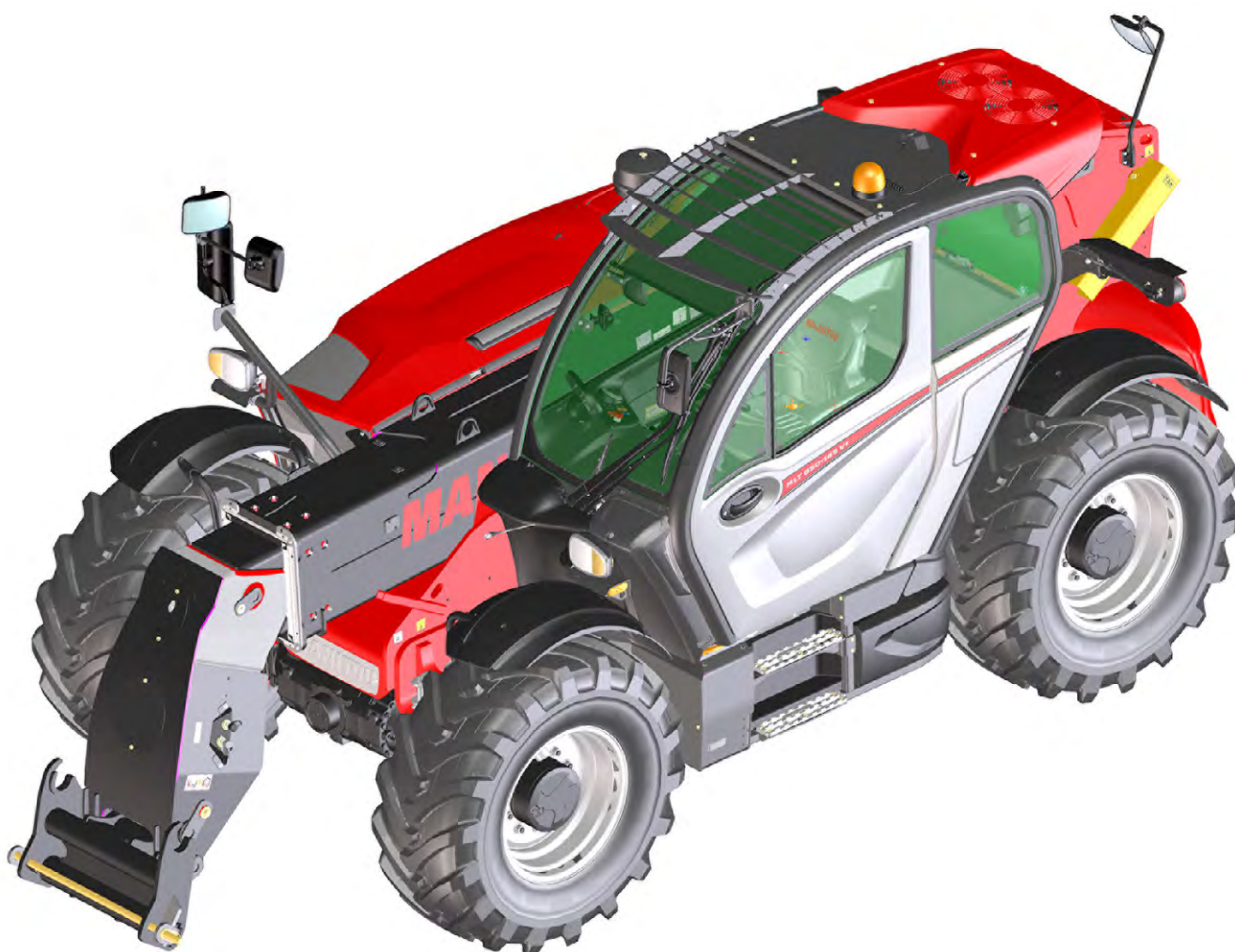
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2 - DESCRIPTION

3 - MAINTENANCE

4 - ATTACHMENTS



1 - OPERATING AND SAFETY INSTRUCTIONS

1 - OPERATING AND SAFETY INSTRUCTIONS

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INSTRUCTIONS TO THE COMPANY MANAGER

THE SITE

Proper management of the machine's area of travel will reduce the risk of accidents:

- ground not unnecessarily uneven or obstructed,
- no excessive slopes,
- pedestrian traffic controlled, etc.

THE OPERATOR

- Only qualified, authorized personnel can use the machine. This authorization is given in writing by the appropriate person in the establishment where the machine is to be used and must be carried permanently by the operator.

⚠ IMPORTANT ⚠

Experience has shown that there are a number of inappropriate ways in which the machine might be operated. Such foreseeable misuse, of which the main examples are listed below, are strictly forbidden.

- The foreseeable abnormal behavior resulting from ordinary negligence, but not from any intentional misuse of the equipment.

- The reflex reactions of a person in the event of a malfunction, incident, fault, etc. during operation of the machine.

- Behavior resulting from application of the "principle of least effort" when performing a task.

- *For certain machines, the foreseeable behavior of such persons as: apprentices, teenagers, handicapped persons, trainees tempted to drive a machine, operators tempted to operate a machine to win a bet, in competition or for their own personal experience.*

The person in charge of the equipment must take these criteria into account when assessing whether or not a person will make a suitable driver.

THE MACHINE

A - SUITABILITY OF THE MACHINE FOR THE TASK

- MANITOU has ensured that this machine is suitable for use under the standard operating conditions defined in this operator's manual, with a **STATIC TEST COEFFICIENT OF 1.25** and a **DYNAMIC TEST COEFFICIENT OF 1**, as specified in harmonized standard **EN 1459** for variable reach machines.
- Before commissioning, the facility manager must make sure that the machine is appropriate for the work to be done, and perform certain tests (in accordance with applicable legislation).

B - ADAPTING THE MACHINE TO USUAL ENVIRONMENTAL CONDITIONS

⚠ IMPORTANT ⚠

For operation under average climatic conditions, lubricants are topped up to the correct levels in the factory, i.e. between -15 °C to +35 °C

For operation under more severe climatic conditions, before starting up, drain all circuits then fill using lubricants suitable for the ambient temperatures.

The same applies to the coolant.

⚠ IMPORTANT ⚠

The machines are designed for outdoor use under normal atmospheric conditions and indoor use in suitably aerated and ventilated premises. It is prohibited to operate the machine in areas which presents a risk of fire or which are potentially explosive (e.g. refineries, fuel or gas depots, stores of flammable products, etc.).

Specialized equipment is available when operating in these areas (ask your dealer for information).

- Our machines are designed to be used within a temperature range of -18 °C to +43 °C.
- In addition to the standard equipment fitted on your machine, many options are available, such as: road lighting, stop lights, rotating beacon light, reverse lights, front worklight, rear worklight, lifting structure worklight, etc. (depending on machine model).
- The operator must take into account the operating conditions to specify the machine's signaling and lighting equipment. Consult your dealer.
- Take into account the climatic and atmospheric conditions of the operation site. Consult your dealer for the suitability of lubricants and frost protection.
- Take into account the fire risk associated with use in dusty and flammable conditions (e.g. straw, flour, sawdust, organic waste, etc.).
- A machine operating in an area without fire extinguishing equipment must be equipped with an individual extinguisher. Solutions exist, consult your dealer.

Our machines comply with Directive 2014/30/EU (2015/208/EU for our type-approved "TRACTOR" machines) concerning electromagnetic compatibility (EMC), (UK : Electromagnetic Compatibility Regulations 2016) and with the corresponding harmonized standard EN 12895. Their correct operation is no longer guaranteed if they are used within areas in which the electromagnetic fields exceed the limit specified by this standard (20 V/m).

- Directive 2002/44/EC requires company managers to not expose their employees to excessive vibration doses. There is no recognized code of measurement for comparing the machines of different manufacturers. The actual doses received cannot therefore be measured under actual operating conditions at the user's premises.
- The following are some tips for minimizing these vibration doses:
 - Select the most suitable machine and attachment for the intended use.
 - Adapt the seat adjustment to the operator's weight (**depending on machine model**) and maintain it in good condition, as well as the cab suspensions. Inflate the tires in accordance with recommendations.
 - The seat is an essential way of reducing the vibrations transmitted to the operator. In the event of seat replacement, please contact MANITOU.
 - Ensure that the operators adapt their operating speed to suit the conditions on site.
 - As far as possible, arrange the site in such a way as to provide a flat running surface and remove obstacles and harmful potholes.

C - MODIFYING THE MACHINE



Modifying the structure and settings of the various components of your machine (hydraulic pressure, taring of limiters, engine speed, sensors, addition of extra equipment, addition of counterweights, unapproved and unauthorized attachments, alarm systems, etc.) yourself is strictly prohibited. In this case, the manufacturer cannot be held responsible.

D - FRENCH ROAD TRAFFIC RULES

(or see current legislation in other countries)

- Only one EC declaration of conformity is issued. It must be kept in a safe place.
- The road traffic rules for the machines are subject to the provisions of the highway code, according to the following categories:
 - Construction machinery (MT range): public works vehicle not predominantly for use on roads (point 6.9 of Article R.311-1 of the French Highway Code). The machine must have a 25 disc displayed on the rear of the machine and an operating license plate.
 - Non-type-approved "Tractor" machinery for agricultural work: (point 6.2 of Article R.311-1 of the French Highway Code). The machine must be fitted with an operating license plate.
 - Type-approved "Tractor" machinery for agricultural work: Agricultural tractor type T1a (point 5.1.1 of Article R.311-1 of the French Highway Code). The machine must be licensed.

SPECIAL INSTRUCTIONS APPLICABLE TO TYPE-APPROVED "TRACTOR" MACHINES

- All approved machines are supplied with a "Tractor" certificate of compliance with Regulation 167/2013, to be retained by the owner, and a page of administrative details together with a CNIT number (national type approval code) for registration at the prefecture.
- The owner of the machine is responsible for carrying out the necessary procedures for obtaining the vehicle registration document within the time limit defined by the regulations.
- The operator must hold a category B driver's license, unless granted an exemption.
- The machine must be driven on the public highway in accordance with the instructions given in the operator's manual supplied with the machine (Gross weight, Gross combination weight, towing load, axle loads, maximum speeds, etc. according to the type/version). The operator must be in possession of the machine's registration document.



When towing a trailer or agricultural equipment, the traveling speed of the machine is limited to 25 km/h.

In this case, a "25" disc must be affixed to the rear of the convoy.

E - MACHINE CAB PROTECTION

- All machines comply with standard ISO 3471 Roll-over Protective Structures (ROPS)
- All machines comply with standard ISO 3449 Falling-Object Protective Structures (FOPS) (Level I or II) (↖ 2 - DESCRIPTION OF STICKERS AND PLATES)
- The windows used on our machines comply with standard ECE-R43 Operator Protective Structures (OPS).
- Approved "TRACTOR" machines also comply with the regulations:
 - (appendix 1322/2014-OCDE Code 4).
 - (appendix 1322/2014-OCDE Code 10).



Structural damage or overturning, a modification, changes or a poorly executed repair can reduce the protective efficiency of the cab, canceling its compliance.

Do not perform welding or drilling on the cab structure.

Consult your dealer to determine the limits of this structure without canceling its compliance.

INSTRUCTIONS

- The operator's manual must always be in good condition, in the language of the operator and placed in the storage compartment provided.
- You must replace the operator's manual, as well as any plates or stickers, if they are damaged or no longer legible.

MAINTENANCE

⚠ IMPORTANT ⚠

Refer to chapter: MACHINE MAINTENANCE INSTRUCTIONS.

⚠ IMPORTANT ⚠

Your machine must be periodically inspected to ensure its continued compliance.

The frequency of this inspection is defined by the legislation in force in the country in which the machine is used.

- Maintenance or repairs other than those detailed in Part: 3 - MAINTENANCE must be carried out by qualified personnel (consult your dealer) and in the necessary safety conditions to preserve the health of the operator and any third party.
- Example for France "The manager in charge of the establishment using a machine must open and maintain a maintenance log for each machine (order of March 2, 2004) and undergo a general periodic inspection every 6 months (order of March 1, 2004)".

INSTRUCTIONS FOR THE OPERATOR

FOREWORD

⚠ IMPORTANT ⚠

The risk of accident while using, servicing or repairing this machine can be reduced if you follow the safety instructions and preventive measures detailed in this operator's manual.

Failure to respect the safety and operating instructions, or the instructions for repairing or servicing this machine may lead to serious accidents or even death.

⚠ IMPORTANT ⚠

In order to reduce or prevent any danger with a MANITOU-approved attachment, follow the instructions in paragraph: 4 - ADAPTABLE ATTACHMENTS AVAILABLE ON THE RANGE: INTRODUCTION.

- Only the operations and maneuvers described in this operator's manual must be performed. The manufacturer cannot predict all possible risky situations. Consequently, the safety instructions given in this operator's manual and on the machine itself are not exhaustive.
- As an operator, you must at all times give reasonable consideration to the possible risks to yourself, to others or to the machine when you use it.
- The operator is responsible for the machine in all circumstances, regardless of whether he is present in the driver's cab.

GENERAL INSTRUCTIONS

A - OPERATOR'S MANUAL

⚠ IMPORTANT ⚠

Carefully read and understand this operator's manual before operating this machine.

- The operator's manual must always be in good condition, in the language of the operator and placed in the storage compartment provided.
- You must replace the operator's manual, as well as any plates or stickers, if they are no longer legible, missing or damaged.
- Any operations or maneuvers not described in the operator's manual are forbidden.
- Follow the safety advice and the instructions described on the machine's decals.
- Familiarize yourself with the machine on the ground where it will be operated.
- The machine must also be operated in accordance with the professional standards.

B - AUTHORIZATION FOR USE IN FRANCE

(or see current legislation in other countries).

- Only qualified, authorized operators may use this machine. Qualified operators must have been trained for the type of machine used. This authorization is given in writing by the appropriate person in the establishment where the machine is to be used and must be carried by the operators at all times.
- The operator is not cleared to authorize the driving of the machine by another person.

C - MAINTENANCE



Do not use the machine if the wheels are damaged or excessively worn, because this could put your own safety or that of others at risk, or cause damage to the machine.

- The operator must carry out the daily maintenance (↖ 3 - MAINTENANCE) before using the machine in his place of work.
- If the operator sees that the machine is not in good working order or does not comply with the safety instructions, he must inform his manager of this immediately.
- The operator is prohibited from carrying out any repairs or adjustments himself, unless he has been trained for this purpose. He must keep the machine properly cleaned if this is his responsibility.
- The operator is responsible for deciding and adjusting the frequency and type of the cleaning needed to prevent the risk of fire ensuing from the build-up of flammable material(s). The operator should pay special attention to all the areas of the machine where these high-risk materials are likely to accumulate (e.g. engine compartment, under the lifting structure, above the axles, inside the chassis, etc.).

D - TIRES



Do not use the machine if the tires are damaged or excessively worn, because this could put your own safety or that of others at risk, or cause damage to the machine itself.

The fitting of foam inflated tires is prohibited and is not guaranteed by the manufacturer unless with prior authorization.

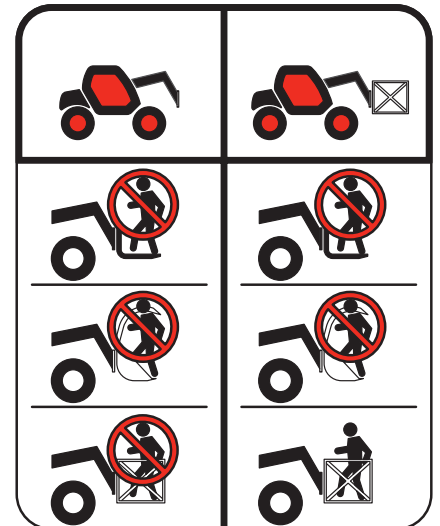
- The operator must ensure tires are suitable for the nature of the ground (see contact surface with the ground for the tires in the chapter: 2 - DESCRIPTION: TIRES). Optional solutions are available, please consult your dealer.
 - SAND tires.
 - FARM tires.
 - Snow chains.
- The machine's four tires must be the same brand, the same dimensions, the same structure (radial or diagonal) and the same usage category (normal, snow or special), and must have the same degree of tread wear.
- In the event of tire replacement, use tires authorized by MANITOU that are the same type and dimensions. Using different tires voids the machine's type approval and you may be liable.
- If you are replacing just one of the machine's tires (e.g. because it is damaged), we recommend choosing a tire with the same degree of wear as the remaining tires so as not to damage the transmission's kinematic chain.

E - MODIFYING THE MACHINE

- ↖ INSTRUCTIONS TO THE COMPANY MANAGER: ↖ C - MODIFYING THE MACHINE.

F - LIFTING PEOPLE

- The use of working equipment and load lifting attachments to lift people is:
 - either forbidden
 - or authorized exceptionally and under certain conditions (↖ regulations in force in the country in which the machine is used).
- The pictogram posted at the operator station reminds you that:
 - Left-hand column
 - It is forbidden to lift people, with any kind of attachment, using a non PLATFORM-fitted machine.
 - Right-hand column
 - With a PLATFORM-fitted machine, people can only be lifted using platforms designed by MANITOU for this purpose.
- MANITOU sells equipment specifically designed for lifting people (OPTION PLATFORM-fitted machine; contact your dealer).



A - BEFORE OPERATING THE MACHINE

- Make sure that the driver's cab is clean, particularly the floor and floor mat. Check that no movable object may hinder the operation of the machine.
- Make sure the lights, turn signals and windshield wipers are working properly.
- Make sure the rear-view mirrors are in good condition, clean and properly adjusted.
- Make sure the horn works.
- Perform the daily maintenance operations (≤ 3 - MAINTENANCE).

B - AVAILABLE IN THE DRIVER'S CAB

- Whatever his experience, the operator is advised to familiarize himself with the position and operation of all the controls and instruments before operating the machine.
- Wear clothes suitable for driving the machine, avoid loose clothing.
- Make sure you have the appropriate protective equipment for the task to be performed.
- Prolonged exposure to high noise levels may cause hearing problems. It is recommended to wear ear muffs to protect against excessive noise.
- Always face the driver's cab access when getting in and out of the lift truck and use the handle(s) provided for this purpose. Do not jump out of the machine.
- Remain alert at all times when using the machine. Do not listen to the radio or music using headphones or earphones.
- Never use the machine with hands or shoes that are wet or soiled with greasy substances.
- For increased comfort, adjust the seat to your requirements and adopt the correct position in the driver's cab.



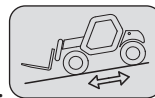
Under no circumstances must the seat be adjusted while the machine is moving.

- The operator must always be in his normal position in the driver's cab: Arms and legs, and generally any part of the body, should be kept inside the driver's cab of the machine.
- The safety belt must be worn and adjusted to the operator's size.
- The control units must never be used for any other than their intended purposes (e.g. Climbing onto or down from the machine, coat hanger, etc.).
- If the control components are fitted with a forced operation (lever lock) device, it is forbidden to leave the cab without first putting these controls in neutral.
- It is prohibited to carry passengers either on the machine or in the cab.

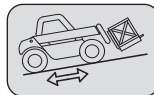
C - ENVIRONMENT

- Comply with site safety regulations.
- If you have to use the machine in a dark area or at night, make sure it is equipped with worklights.
- During handling operations, make sure that no one is in the way of the machine and its load.
- Do not allow anybody to come near the working area of the machine or pass beneath an elevated load.
- The maximum slope on which the machine can be used in relation to the capacity of the brake is 20%.
- When using the lift truck on a transverse slope, before lifting the lifting structures, observe the instructions given in the paragraph: INSTRUCTIONS FOR HANDLING A LOAD: D - LATERAL TILTING OF THE MACHINE.
- Traveling on a longitudinal slope:
 - Drive and brake gently.

- Moving without load: Forks or attachment facing downhill.



- Moving with load: Forks or attachment facing uphill.



- Take into account the machine's dimensions and its load before trying to negotiate a narrow or low passageway.
- Never move onto a load bridge without having first checked:
 - That it is suitably positioned and made fast.
 - That the unit to which it is connected (wagon, truck, etc.) will not shift.
 - That this bridge is prescribed for the total weight of the machine, laden or unladen.
 - That this bridge is prescribed for the size of the machine.

- Never move onto a foot bridge, floor or freight lift, without ensuring that they are suitable for the mass and size of the machine, and without checking that they are in good condition.
- Be careful in the area of loading bays, trenches, scaffolding, soft ground and manholes.
- Make sure that the ground is stable and firm under the wheels and/or stabilizers before lifting or extending the telescopic boom. If necessary, add appropriate wedging under the stabilizers (depending on the model).
- Make sure that the scaffolding, loading platform, pilings or ground is capable of bearing the load.
- Never stack loads on uneven ground, they may tip over.

⚠ IMPORTANT ⚠

If the load or the attachment must remain above a structure for a prolonged period of time, there is the risk that it will bear on the structure as the lifting structure descends due to cooling of the oil in the cylinders.

To eliminate this risk:

- Regularly check the distance between the load or the attachment and the structure and readjust this if necessary.

- If possible use the machine at an oil temperature as close as possible to ambient temperature.

- In the case of work near to overhead lines, ensure that the safety distance is sufficient between the machine's working area and the overhead line.

⚠ IMPORTANT ⚠

Do not operate this machine during thunderstorms, snowstorms, periods of frost, or in hazardous weather conditions.

⚠ IMPORTANT ⚠

You must consult your local electrical supplier.

You could be electrocuted or seriously injured if you operate or park the machine too close to power lines.

In the event of high winds, do not carry out handling work that jeopardizes the stability of the machine and its load, particularly if the load catches the wind badly.

- Prevent the fire risk associated with use in dusty and flammable conditions (e.g. straw, flour, sawdust, organic waste, etc.).

D - VISIBILITY

- The safety of people within the machine's working area, as well as that of the machine itself and the operator, are dependent on good operator visibility of the machine's immediate surroundings in all situations and at all times.
- This machine has been designed to allow good operator visibility (direct or indirect by means of rear view mirrors) of the immediate surroundings of the machine while driving unladen and with the lifting structure in the transport position.
- Special precautions must be taken if the size of the load restricts visibility towards the front:
 - moving in reverse,
 - site layout,
 - assisted by a person directing the operation (while standing outside the machine's area of travel), making sure to keep this person clearly in view at all times,
 - in any case, avoid reversing over long distances.
- Some attachments require the lifting structure to be raised in order to move the machine. In such cases, visibility on the right hand side is restricted, and special precautions must be taken:
 - site layout,
 - assisted by a person directing the operation (while standing outside the machine's area of travel).
 - replacement of a suspended load by a load on a pallet.
- If visibility of your road is inadequate, ask someone to assist by directing the operation (while standing outside the machine's area of travel), making sure to keep this person clearly in view at all times.
- Keep all components affecting visibility in a clean, properly adjusted state and in good working order (e.g. windshields, windows, windshield wipers, windshield washers, driving lights and worklights, rear-view mirrors).

E - STARTING THE MACHINE

SAFETY INSTRUCTIONS

⚠ IMPORTANT ⚠

The machine must only be started up or maneuvered when the operator is sitting in the driver's cab with seat belt fastened and adjusted.

- Never try to start the machine by pushing or pulling it. Such an operation may cause severe damage to the transmission. If necessary, towing requires the transmission to be put in neutral (↩ 3 - MAINTENANCE).
- If using an emergency battery for start-up, use a battery with the same characteristics and respect battery polarity when connecting it. Connect at first the positive terminals before the negative terminals.

⚠ IMPORTANT ⚠

Failure to respect polarity between batteries can cause serious damage to the electrical circuit.

The electrolyte in the battery may produce an explosive gas. Avoid flames and generation of sparks close to the batteries.

Never disconnect a battery while it is in charge.

INSTRUCTIONS

- Check the closing and locking of the hood(s).
- Check that the cab door is closed.
- Firmly press and hold down the brake pedal.
- Turn the ignition key to position (I) to switch on the machine and the engine preheat system.
- Check that the forward/reverse selector is in neutral, and that the manual parking brake is on.
- Check the fuel level on the dashboard gauge.
- Check the DEF (diesel exhaust fluid) level on the dashboard gauge. (depending on machine model)
- Turn the ignition key to position (III) for no longer than 15 seconds. The engine should then start. Release the ignition key and let the engine run at idling speed.
- Preheat the engine between each start attempt.
- Make sure all the signal lights on the control instrument panel are off.
- Check the longitudinal stability limiter and warning device (↩ 3 - MAINTENANCE).
- Do not use a machine that is non-compliant.
- Check all control instruments when the engine is warm and at regular intervals during use, so as to quickly detect any faults and to be able to correct them without any delay.
- If an instrument does not show the correct display, stop the engine and immediately carry out the necessary operations.

F - OPERATING THE MACHINE

SAFETY INSTRUCTIONS

⚠ IMPORTANT ⚠

We would like to draw the operators' attention to the risks involved in using the machine, in particular:

- Risk of losing control.

- Risk of loss of lateral and frontal stability of the machine.

The operator must remain in control of the machine.

In the event of the machine overturning, do not try to leave the cab during the incident.

YOUR BEST PROTECTION IS TO STAY FASTENED IN THE CAB.

- Observe the company's traffic regulations or, by default, the public highway code.
- Do not carry out operations which exceed the capacities of your machine or attachment.
- Always drive the machine with the forks or attachment in the transport position, i.e., 300 mm from the ground, the telescopic arm retracted and the forks carriage sloping backward.
- Only carry loads which are balanced and properly anchored to avoid any risk of a load falling off.
- Ensure that pallets, cases, etc. are in good order and suitable for the load to be lifted.
- Familiarize yourself with the machine on the terrain where it will be used.
- Ensure that the brakes are working properly.
- The loaded machine must not travel at speeds in excess of 12 km/h.
- Drive smoothly at an appropriate speed for the operating conditions (land configuration, load on the machine).
- Do not use the hydraulic telescopic boom controls when the machine is moving.
- Never change the steering mode whilst driving.
- Ensure that visibility is adequate.
- Do not maneuver the machine with the lifting structure in the raised position unless under exceptional circumstances and then with extreme caution, at very low speed and using gentle braking.
- Take bends slowly.

- In all circumstances make sure you are in control of your speed.
- On damp, slippery or uneven terrain, drive slowly.
- Brake gently, never abruptly.
- Only use the machine's forward/reverse selector from a stationary position and never do so abruptly.
- Do not drive with your foot on the brake pedal.
- Always remember that hydrostatic type steering is extremely sensitive to movement of the steering wheel, so turn it gently and not jerkily.
- Never leave the engine on when the lift truck is unattended.
- Do not leave the cab when the machine has a raised load.
- Look where you are going and always make sure you have good visibility along the route.
- Use the rear-view mirrors frequently.
- Drive around obstacles.
- Never drive on the edge of a ditch or steep slope.
- It is dangerous to use two machines simultaneously to handle heavy or bulky loads, since this operation requires particular precautions to be taken. It must only be used exceptionally and after risk analysis.
- The ignition switch has an emergency stop mechanism in case of an operating anomaly occurring in the case of machines not fitted with a punch-operated cut-out.

INSTRUCTIONS

- Always drive the machine with the forks or attachment in the transport position, i.e., 300 mm from the ground, the telescopic arm retracted and the forks carriage sloping backward.
- For machines with gearboxes, use the recommended gear (↩ 2 - DESCRIPTION: INSTRUMENTS AND CONTROLS).
- Select the steering mode appropriate for the use and/or working conditions (↩ 2 - DESCRIPTION: INSTRUMENTS AND CONTROLS) (depending on machine model).
- Deactivate the parking brake.
- Shift the forward/reverse selector to the selected direction of travel and accelerate gradually until the machine moves off.

⚠ IMPORTANT ⚠

Starting and moving the machine on a slope may be a real hazard.

If the machine is parked or stopped, adhere scrupulously to the following instructions for moving it:

- Press the brake pedal.

- Release the parking brake.

- Engage the appropriate gear. (depending on machine model)

- Select forward or reverse direction.

- Ensure that there is no one or anything impeding the movement of the machine.

- Release the brake pedal and accelerate the engine.

The use of the machine loaded or with a trailer increases the risk. In this case, remain extremely vigilant.

Each braking system operates independently.

In an emergency, use the brake pedal and/or the manual parking brake to immobilize the machine.

With the engine off, release the manual parking brake only after restarting the engine and making sure that the brake pedal is functional.

G - STOPPING THE MACHINE

SAFETY INSTRUCTIONS

- Never leave the ignition key in the machine during the operator's absence.
- When the machine is stationary, or if the operator has to leave his cab (even for a moment), place the forks or attachment on the ground, apply the parking brake and place the forward/reverse selector in neutral.
- Make sure that the machine is not stopped in any position that will interfere with the traffic flow and at less than one meter from the track of a railway.
- In the event of prolonged parking on a site, protect the machine from bad weather, particularly from frost (check the level of antifreeze), and close and lock all the machine accesses (doors, windows, cowls, etc.).

INSTRUCTIONS

- Park the machine on level ground.
- When parking on slopes of less than 15%, position the machine perpendicular to the slope.
- The slope must not exceed 15%.
- Press and hold the brake pedal.
- Set the forward/reverse selector to neutral.
- Activate the parking brake.
- Release the brake pedal.
- The machine must be stationary before leaving the driver's cab.
- Fully retract the telescopic arm.
- Lower the forks or attachment to rest on the ground.
- When using an attachment with a grab or jaws, or a bucket with hydraulic opening, close the attachment fully.
- Before stopping the machine after intensive work, leave the engine idling for a few moments to allow the coolant and oil to lower the temperature of the engine and transmission. Do not forget this precaution, in the event of frequent stops or warm stalling of the engine, or else the temperature of certain parts will rise significantly due to the stopping of the cooling system, with the risk of badly damaging such parts.
- Stop the engine with the ignition switch and remove the key.
- Lock all the openings to the machine (doors, windows, cowls, etc.).
- Turn the battery cut-off to the "OFF" position in accordance with the recommendations (↖ 2 - DESCRIPTION).

H - DRIVING THE MACHINE ON THE PUBLIC HIGHWAY

(or see current legislation in other countries)

FRENCH ROAD TRAFFIC RULES

- The driving of non-type-approved "Tractor" machines on the public highway is subject to the provisions of the French Highway Code relating to special machines, defined in Article R.311-1 of the French Highway Code, in category B of the Equipment Order of November 20, 1969, which determines the procedures applicable to special machines. The machine must be fitted with an operating license plate.
- The driving of type-approved "Tractor" machines on the public highway is subject to the provisions of the French Highway Code relating to agricultural tractors, defined in Article R.311-1 of the French Highway Code. The machine must be licensed.
- The machine must be driven on the public highway in accordance with the instructions given in the operator's manual supplied with the machine (Gross weight, Gross combination weight, towing load, axle loads, maximum speeds, etc. according to the type/version). The operator must be in possession of the machine's registration document.
- The operator must hold an HGV license, unless granted an exemption.
- When towing a trailer or agricultural equipment, the travel speed of the machine is limited to 25 km/h. In this case, a "25" disc must be affixed to the rear of the convoy.

GERMAN ROAD TRAFFIC RULES

⚠ IMPORTANT ⚠

For machines with the "Allgemeine Betriebserlaubnis" (general operating permit or ABE, in accordance with Article 20 of the StVZO "Straßenverkehrs-Zulassungsordnung"), follow the instructions below:

- Disconnect the reversing sound alarm before using a machine with a general operating permit (ABE) on the public highway.

⚠ IMPORTANT ⚠

Always reconnect the sound alarm before handling on private roads.

- Before you use the machine for handling operations on private roads:
 - Make sure that the machine's reversing sound alarm is connected and working properly.
 - Perform a functional test by putting the machine into reverse gear.
 - The audible alarm sounds.
 - Do not use the machine if the audible alarm is not working. Check the audible alarm's connection and repeat the test. Consult your dealer if the problem persists.

SAFETY INSTRUCTIONS

- Operators driving on the public highway must comply with current highway code legislation.
- The machine must comply with current road legislation. If necessary, there are optional solutions. Contact your dealer.

INSTRUCTIONS

- Make sure the revolving light is in place, switch it on and verify its operation.
- Make sure the lights, turn signals and windshield wipers are working properly.
- Check the cleanliness of the machine's mudguards.
- Check the general cleanliness of the machine before driving on public roads.
- Switch off the worklights if the machine is fitted with them.
- Select the steering mode "HIGHWAY TRAFFIC" (↩ 2 - DESCRIPTION: INSTRUMENTS AND CONTROLS) (depending on machine model).
- Fully retract the telescopic arm and set the attachment approximately 300 mm off the ground.
- Put the frame leveling in the central position, i.e., the transverse axis of the axles parallel to the frame (depending on the machine model).
- Fully raise the stabilizers and turn the shoes inwards (depending on the machine model).

⚠ IMPORTANT ⚠

Never coast in neutral (forward/reverse selector or gear lever in neutral or transmission cut-off button pressed) to preserve the machine's engine brake.

Failure to observe this instruction on a slope will lead to excessive speed, which may make the machine uncontrollable (steering, brakes) and cause serious mechanical damage.

DRIVING THE MACHINE WITH A FRONT-MOUNTED ATTACHMENT

- You must comply with current regulations in your country, covering the possibility of driving on the public highway with a front-mounted attachment on your machine.
- If road legislation in your country authorizes circulation with a front-mounted attachment, you must at least:
 - Protect and report any sharp and/or dangerous edges on the attachment (◀ 4 - ADAPTABLE ATTACHMENTS AVAILABLE ON THE RANGE).
 - The attachment must not be loaded.
 - Make sure that the attachment does not mask the lighting range of the forward lights.
 - Make sure that current legislation in your country does not require other obligations.

OPERATING THE MACHINE WITH A TRAILER

- For using a trailer, observe the regulations in force in your country (maximum travel speed, braking, maximum weight of trailer, etc.).
- Do not forget to connect the trailer's electrical equipment to that of the machine.
- The trailer's braking system must comply with current legislation.
- If pulling a trailer with assisted braking, the tractor machine must be equipped with a trailer braking mechanism. In this case, do not forget to connect the trailer braking equipment to that of the machine.
- The vertical force on the towing hook must not exceed the maximum authorized by the manufacturer (consult the manufacturer's plate on your machine).
- The authorized gross vehicle weight must not exceed the maximum weight authorized by the manufacturer (◀ 2 - DESCRIPTION: SPECIFICATIONS).

IF NECESSARY, CONSULT YOUR DEALER.

INSTRUCTIONS FOR HANDLING A LOAD

A - CHOICE OF ATTACHMENTS

- Only attachments approved and authorized by MANITOU can be used on its machines.
- Make sure the attachment is suitable for the work to be done (↖ 4 - ADAPTABLE ATTACHMENTS AS OPTIONS ON THE RANGE).
- If the machine is equipped with the single sideshift attachment OPTION (TSDL), use only the authorized attachments (↖ 4 - ADAPTABLE ATTACHMENTS AS OPTIONS ON THE RANGE).
- Make sure the attachment is correctly installed and locked onto the machine carriage.
- Make sure that your machine attachments are working properly.
- Comply with the load chart limits for the machine for the attachment used.
- Do not exceed the rated capacity of the attachment.
- Never lift a slung load without the attachment provided for the purpose, as there is a risk of the sling slipping (↖ INSTRUCTIONS FOR HANDLING A LOAD: H - PICKING UP AND PUTTING DOWN A SUSPENDED LOAD).
- Do not handle loads suspended by straps directly on the forks (e.g. big bags), as there is a risk of shearing on sharp edges. Use an attachment designed for this purpose.

B - WEIGHT OF LOAD AND CENTER OF GRAVITY

- Before picking up a load, you must know its weight and its center of gravity.
- The longitudinal position of the center of gravity in relation to the heel of the forks (Fig. B1) is defined on the load chart for your machine (↖ 2 - DESCRIPTION: DIMENSIONS AND LOAD CHARTS). For loads with center of gravity exceeding this distance, contact your dealer.
- For irregular loads, determine the transverse center of gravity before any handling (fig. B2) and set it in the longitudinal axis of the machine.

⚠ IMPORTANT ⚠

It is forbidden to handle a load heavier than the effective capacity defined on the machine load chart.

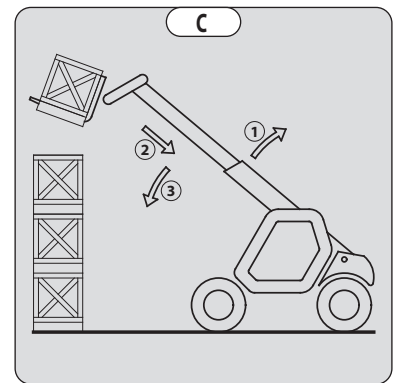
For loads with a moving center of gravity (e.g. liquids), take account of the variations in the center of gravity in order to determine the load to be handled and be extra vigilant and careful to limit these variations as far as possible.



C - LONGITUDINAL STABILITY LIMITER AND WARNING DEVICE

This device gives an indication of the longitudinal stability of the machine, and limits hydraulic movements in order to ensure this stability, at least under the following operating conditions:

- when the machine is at a standstill,
 - when the machine is on firm, stable and consolidated ground,
 - when the machine is performing handling and placing operations.
- Move the lifting structure very carefully when approaching the authorized load limit (↖ 2 - DESCRIPTION: INSTRUMENTS AND CONTROLS).
 - Always watch this device during handling operations.
 - If the "AGGRAVATING" hydraulic movements are cut off, perform only de-aggravating hydraulic movements in the following order (Fig. C): if necessary, raise the lifting structure (1), retract the telescopic boom as far as possible (2) and lower the lifting structure (3) to put down the load.



⚠ IMPORTANT ⚠

The instrument reading may be erroneous when the steering is at full lock or the rear axle is oscillated to its maximum extent.

Before lifting a load, ensure that the machine is not in any of these situations.

D - LATERAL TILTING OF THE MACHINE

Depending on machine model

Lateral tilting is the transverse slope of the chassis with respect to the horizontal. Raising the lifting structure reduces the machine's lateral stability. The machine's lateral tilting must be set with the lifting structure in the down position as follows:

1 - MACHINE WITHOUT FRAME LEVELING USED ON TIRES

- Position the machine so that the bubble in the level is between the two lines (↩ 2 - DESCRIPTION: INSTRUMENTS AND CONTROLS).

2 - MACHINE WITH FRAME LEVELING USED ON TIRES

- Correct the tilt using the hydraulic control and check the horizontality with the spirit level. The bubble of the level must be between the two lines (↩ 2 - DESCRIPTION: INSTRUMENTS AND CONTROLS).

3 - MACHINE USED ON STABILIZERS

- Set the two stabilizers on the ground and raise the two front wheels of the machine (fig. D1).
- Correct the tilt using the stabilizers (Fig. D2) and check the horizontality with the spirit level. The bubble of the level must be between the two lines (↩ 2 - DESCRIPTION: INSTRUMENTS AND CONTROLS). In this position, the two front wheels must be off the ground.

E - PICKING UP A LOAD ON THE GROUND

- Approach the machine perpendicular to the load, with the telescopic boom retracted and the forks in a horizontal position (fig. E1).
- Adjust the fork spacing and centering relative to the load to ensure stability (Fig. E2) (optional solutions exist, consult your dealer).
- Never lift a load with a single fork.

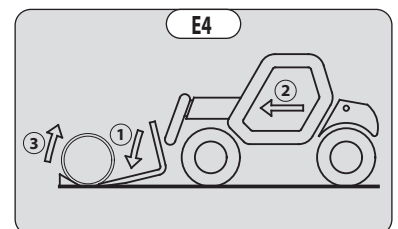
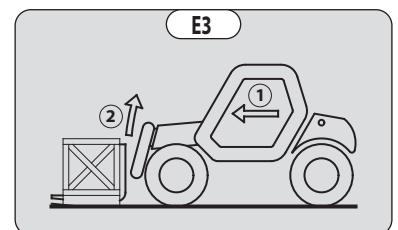
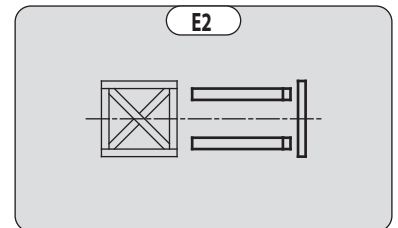
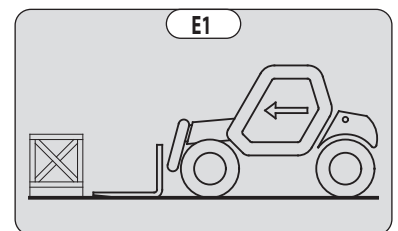
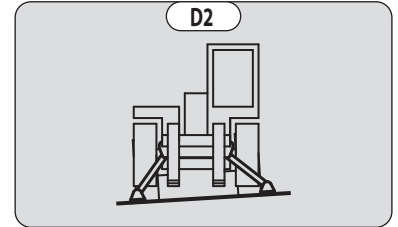
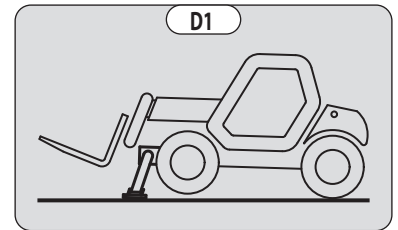
⚠ IMPORTANT ⚠

Beware of the risks of trapping or squashing limbs when manually adjusting the forks.

- Move the machine forward slowly (1) and bring the forks up to the stop in front of the load (fig. E3). If necessary, raise the lifting structure (2) slightly while picking up the load.
- Position the load in the transport position.
- Tilt the load far enough backward to ensure stability (loss of load on braking or going downhill).

FOR A NON-PALLETIZED LOAD

- Tilt the carriage (1) forward and move the machine slowly forward (2) to position the fork under the load (fig. E4) (chock the load if necessary).
- Continue to move the machine (2) forward, tilting the carriage (3) (fig. E4) backward to position the load on the forks and check the load's longitudinal and lateral stability.



F - PICKING UP AND PUTTING DOWN A HIGH LOAD ON TIRES

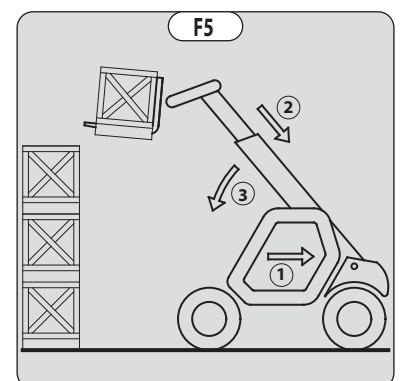
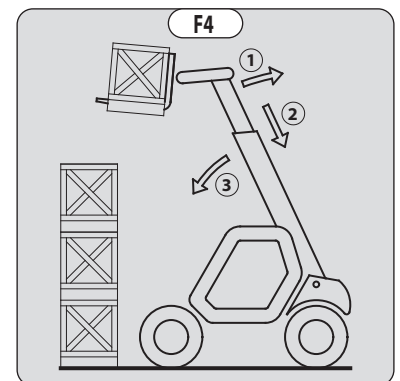
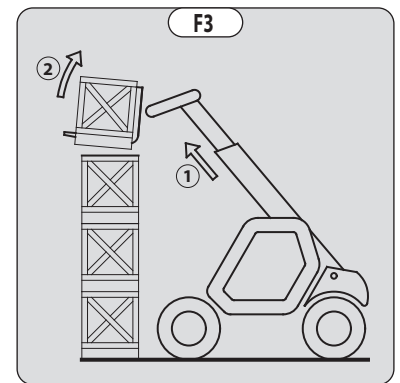
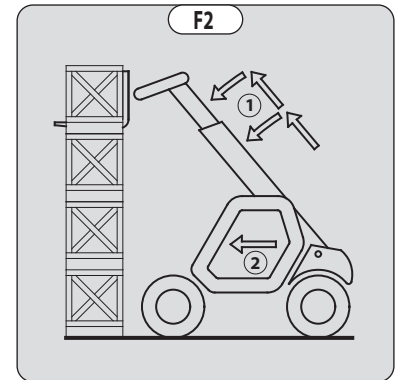
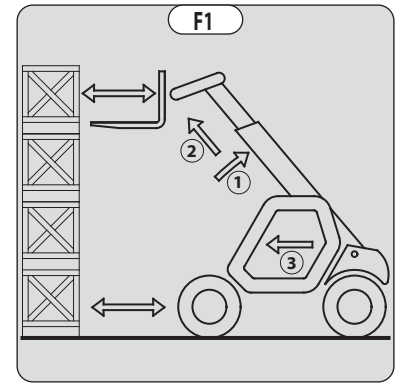
⚠ IMPORTANT ⚠

You must not raise the lifting structure if you have not checked the lateral tilting of the machine (← INSTRUCTIONS FOR HANDLING A LOAD: D - LATERAL TILTING OF THE MACHINE).

REMINDER: Make sure that the following operations can be performed with good visibility (← OPERATING INSTRUCTIONS UNLADEN AND LADEN: D - VISIBILITY).

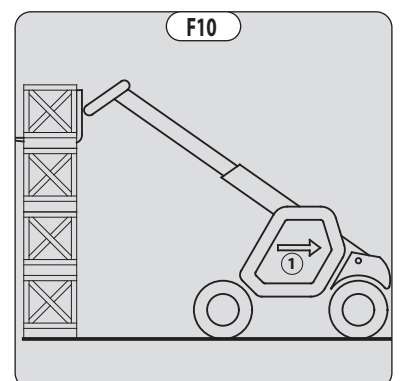
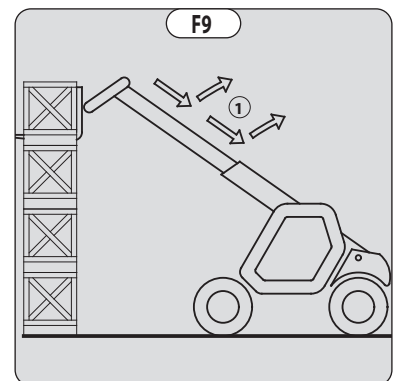
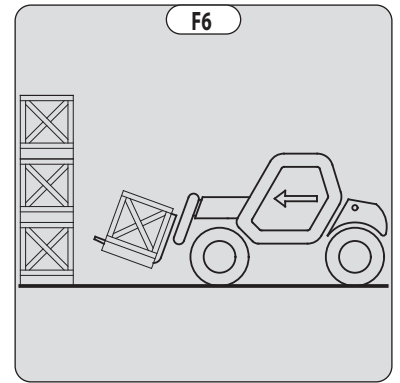
PICKING UP A HIGH LOAD ON TIRES

- Ensure that the forks will easily pass under the load.
- Raise and extend the telescopic boom (1) (2) until the forks are level with the load. If necessary, move the machine (3) forward (fig. F1), driving very slowly and carefully.
- Always remember to keep the distance necessary for inserting the forks under the load, between the stack and the machine (fig. F1) and use the shortest possible length of lifting structure.
- Bring the forks up to the front of the load by alternately extending and lowering the telescopic boom (1) or, if necessary, by moving the machine forward (2). Activate the parking brake and place the forward/reverse selector in neutral.
- Lift the load slightly (1) and tilt the carriage (2) backwards to stabilize the load (Fig. F3).
- Tilt the load sufficiently backward to ensure its stability.
- Monitor the longitudinal stability limiter and warning device (← INSTRUCTIONS FOR HANDLING A LOAD: C - LONGITUDINAL STABILITY LIMITER AND WARNING DEVICE). If it is overloaded, set the load back down in the place from which it was picked up.
- If possible, lower the load without moving the machine. Raise the lifting structure (1) to release the load, retract (2) and lower the lifting structure (3) to put the load into the transport position (fig. F4).
- If this is not possible, reverse the machine (1), maneuvering very gently and carefully to release the load. Retract (2) and lower the lifting structure (3) to bring the load into the transport position (fig. F5).



PUTTING DOWN A HIGH LOAD ON TIRES

- Approach the load in the transport position in front of the stack (Fig. F6).
- Activate the parking brake and place the forward/reverse selector in neutral.
- Raise and extend the telescopic boom (1) (2) until the load is above the stack, while monitoring the longitudinal stability limiter and warning device (← INSTRUCTIONS FOR HANDLING A LOAD: C - LONGITUDINAL STABILITY LIMITER AND WARNING DEVICE). If necessary, move the machine (3) forward (fig. F7), driving very slowly and carefully.
- Place the load in a horizontal position and put it down on the pile by lowering and retracting the telescopic boom (1) (2) in order to position the load correctly (fig. F8).
- If possible, release the forks by alternately retracting and raising the telescopic boom (1) (fig. F9). Then set the forks in the transport position.
- If this is not possible, reverse the machine (1), maneuvering very slowly and carefully to release the forks (fig. F10). Then set the forks in the transport position.



G - PICKING UP AND PUTTING DOWN A HIGH LOAD ON STABILIZERS

Depending on machine model

⚠ IMPORTANT ⚠

You must not raise the lifting structure if you have not checked the lateral tilting of the machine (← INSTRUCTIONS FOR HANDLING A LOAD: D - LATERAL TILTING OF THE MACHINE).

REMINDER: Make sure that the following operations can be performed with good visibility (← OPERATING INSTRUCTIONS UNLADEN AND LADEN: D - VISIBILITY).

The stabilizers are used to optimize the machine's lifting performance (← 2 - DESCRIPTION: INSTRUMENTS AND CONTROLS).

POSITIONING THE STABILIZERS WITH THE FORKS IN TRANSPORT POSITION (UNLADEN AND LADEN)

- Set the forks in the transport position in front of the elevation.
- Stay far enough away to allow the telescopic boom to be raised.
- Activate the parking brake and place the forward/reverse selector in neutral.
- Set the two stabilizers on the ground and lift the two front wheels of the machine (fig. G1), while maintaining its lateral tilting.

RAISING THE STABILIZERS WITH THE FORKS IN TRANSPORT POSITION (UNLADEN AND LADEN)

- Raise both stabilizers fully and at the same time.

LOWERING THE STABILIZERS WITH LIFTING STRUCTURE UP (UNLADEN AND LADEN)

⚠ IMPORTANT ⚠

This operation must be exceptional and performed with great care.

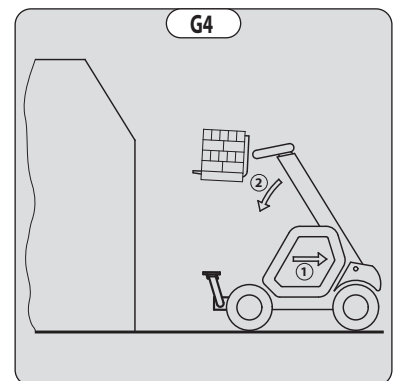
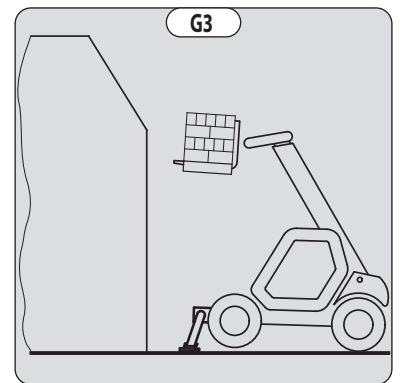
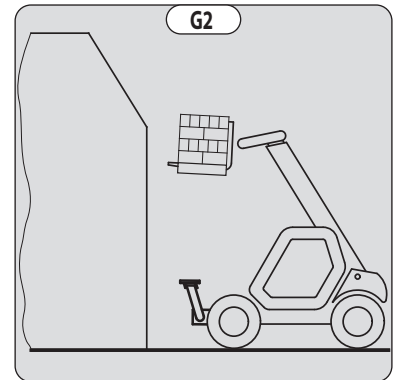
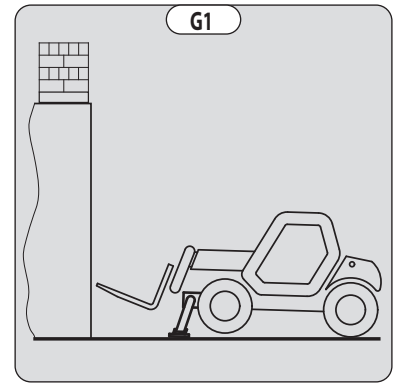
- Raise the lifting structure and fully retract the telescopic boom.
- Set the machine in position in front of the elevation (fig. G2), moving very slowly and carefully.
- Activate the parking brake and place the forward/reverse selector in neutral.
- Move the stabilizers very slowly and gradually as soon as they are close to the ground or in contact with it.
- Lower the two stabilizers and lift the two front wheels of the machine (fig. G3). During this operation, lateral tilting must be permanently maintained: the bubble in the level must be kept between the two lines.

LIFTING THE STABILIZERS WITH THE LIFTING STRUCTURE UP (UNLADEN AND LADEN)

⚠ IMPORTANT ⚠

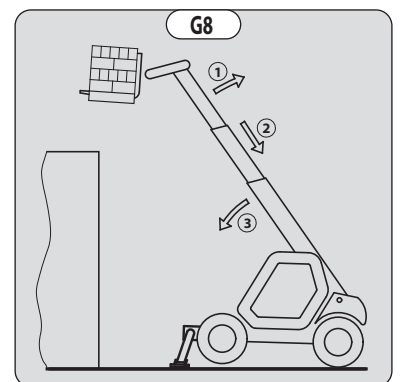
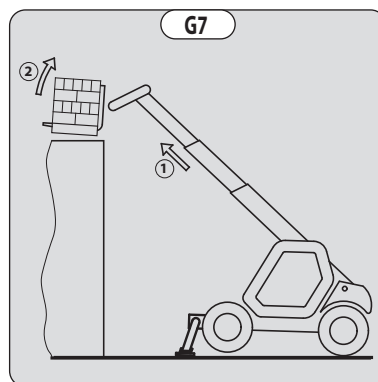
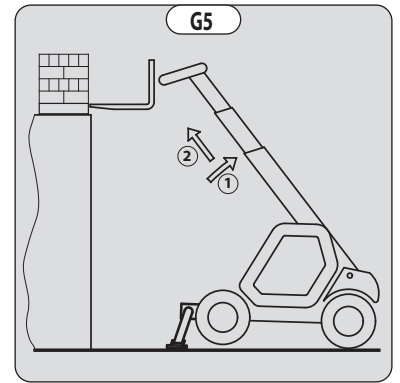
This operation must be exceptional and performed with great care.

- Keep the lifting structure raised and retract the telescopic booms completely (fig. G3).
- Move the stabilizers very slowly and gradually as soon as they are in contact with the ground and when they leave the ground. During this operation, lateral tilting must be permanently maintained: the bubble in the level must be kept between the two lines.
- Raise both stabilizers completely.
- Deactivate the parking brake and reverse the machine (1) very slowly and carefully to release it and lower the forks (2) into transport position (fig. G4).



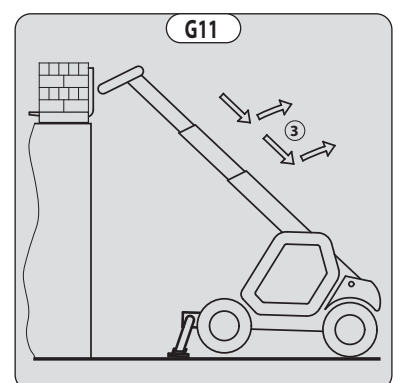
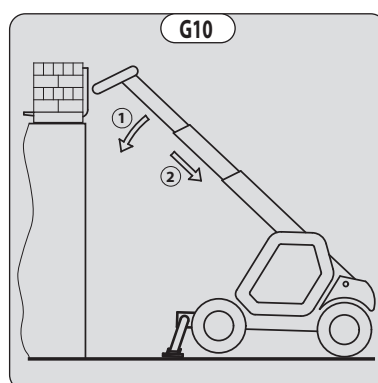
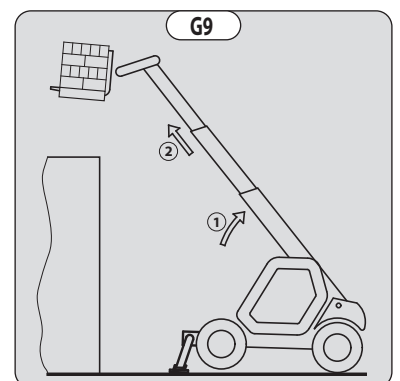
PICKING UP A HIGH LOAD ON STABILIZERS

- Ensure that the forks will easily pass under the load.
- Check the position of the machine with respect to the load and make a test run, if necessary, without picking up the load.
- Raise and extend the telescopic boom (1) (2) until the forks are level with the load (fig. G5).
- Bring the forks to the stop in front of the load by alternately extending and lowering the telescopic boom (1) (fig. G6).
- Lift the load slightly (1) and tilt the carriage (2) backwards to stabilize the load (Fig. G7).
- Monitor the longitudinal stability limiter and warning device (← INSTRUCTIONS FOR HANDLING A LOAD: C - LONGITUDINAL STABILITY LIMITER AND WARNING DEVICE). If it is overloaded, set the load back down in the place from which it was picked up.
- If possible, lower the load without moving the machine. Raise the lifting structure (1) to release the load, retract (2) and lower the lifting structure (3) to put the load into the transport position (fig. G8).



SETTING DOWN A HIGH LOAD ON STABILIZERS

- Raise and extend the telescopic boom (1) (2) until the load is above the elevation (fig. G9), while monitoring the longitudinal stability limiter and warning device (← INSTRUCTIONS FOR HANDLING A LOAD: C - LONGITUDINAL STABILITY LIMITER AND WARNING DEVICE).
- Position the load horizontally and set it down by lowering and retracting the telescopic boom (1) (2) to position the load correctly (fig. G10).
- Free the forks by alternately retracting and raising the telescopic boom (3) (fig. G11).
- If possible, set the lifting structure in the transport position without moving the machine.



H - PICKING UP AND PUTTING DOWN A SUSPENDED LOAD

⚠ IMPORTANT ⚠

Failure to follow the above instructions may lead the machine to lose stability and overturn.

MUST be used with a machine equipped with an operational hydraulic movement cut-off device.

CONDITIONS OF USE

- The length of the sling or the chain shall be as short as possible to limit swinging of the load.
- Lift the load vertically along its axis, never by pulling sideways or lengthways.

HANDLING WITHOUT MOVING THE MACHINE

- Whether on stabilizers or on tires, the lateral attitude must not exceed 1% and the longitudinal attitude must not exceed 5%: the bubble of the level must be held at "0".
- Ensure that the wind speed is not higher than 10 m/s.
- Ensure that there is no one between the load and the machine.

I - TRAVELING WITH A SUSPENDED LOAD

- Before moving, inspect the terrain in order to avoid excessive slopes and cross-falls, bumps and potholes, or soft ground.
- Ensure that the wind speed is not higher than 36 km/h.
- The machine must not travel at more than 0.4 m/s (1.4 km/h, i.e. one quarter walking speed).
- Drive and stop the machine gently and smoothly to minimize swinging of the load.
- Carry the load a few centimeters above the ground (max. 30 cm) with the shortest possible length. Do not exceed the offset indicated on the load chart. If the load begins to swing excessively, do not hesitate to stop and lower the lifting structure to set down the load.
- Before moving the machine, check the longitudinal stability limiter and warning device (☞ 2 - DESCRIPTION: INSTRUMENTS AND CONTROLS), only the green LEDs and possible the yellow LEDs should be lit
- During transport, the lift truck operator must be assisted by a person on the ground (standing a minimum of 3 m from the load), who will limit swinging of the load using a bar or a rope. Ensure that this person is always clearly in view.
- Lateral tilting must not exceed 5% and the bubble in the level must be kept between the two "MAX" marks.
- Longitudinal tilting must not exceed 15% with the load facing uphill and 10% with the load facing downhill.
- The telescopic boom angle must not exceed 45°.
- If the first red LED of the longitudinal stability limiter and warning device (☞ 2 - DESCRIPTION: INSTRUMENTS AND CONTROLS) comes on while traveling, gently bring the machine to a halt and stabilize the load. Retract the telescopic arm to reduce the offset of the load.

INSTRUCTIONS FOR USE AS A LOADER

For agricultural-type machines (MLT range)

A - LOADING

⚠ IMPORTANT ⚠

You must not raise the lifting structure if you have not checked the lateral tilting of the machine (← INSTRUCTIONS FOR HANDLING A LOAD: D - LATERAL TILTING OF THE MACHINE).

REMINDER: Make sure that the following operations can be performed with good visibility (← OPERATING INSTRUCTIONS UNLADEN AND LADEN: D - VISIBILITY).

FILLING THE BUCKET

- Place the bottom of the bucket in a horizontal position, just in contact with the ground (1) (Fig. A1).
- Move forward gradually (2) while simultaneously raising the lifting structure and tilting the bucket backward (3), for improved filling and breakout (fig. A1).
- Reverse the machine (1) very carefully and gently to free the bucket. Lower the lifting structure (2) into the transport position (fig. A2).

⚠ IMPORTANT ⚠

Tilt the bucket sufficiently back to avoid spilling product and ensure its stability (loss of product under braking).

LOADING A TRAILER

- Approach the side of the trailer in the transport position (Fig. A3).
- Raise and extend the telescopic boom (1) (2) until the bucket is above the trailer, while monitoring the longitudinal stability limiter and warning device (← INSTRUCTIONS FOR HANDLING A LOAD: C - LONGITUDINAL STABILITY LIMITER AND WARNING DEVICE) (Fig. A4).
- Drive the machine forward (3) very carefully and gently so that the bucket empties its load in the center of the trailer (Fig. A4).
- Immobilize the machine with the brake pedal and put the reversing shift lever in neutral.

N.B.: Immobilizing the machine with the brake pedal means that the transmission should be in neutral. Failure to follow this recommendation may lead to overheating and damage to the brakes.

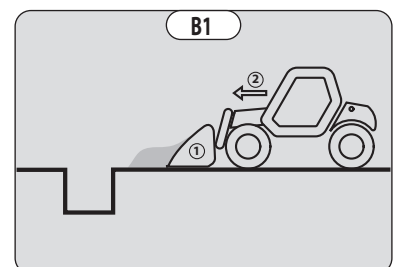
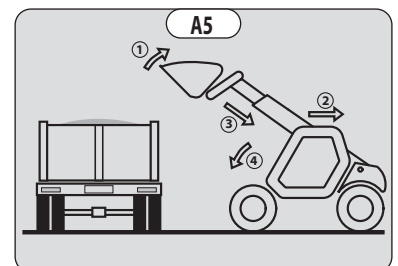
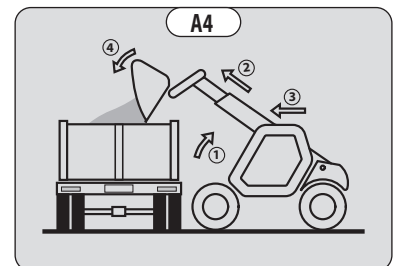
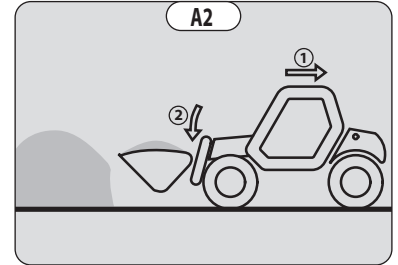
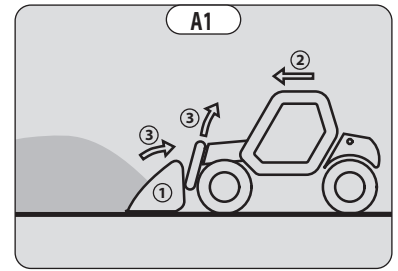
- Slowly discharge the product (4) (Fig. A4).
- Tilt the bucket backwards (1) and reverse the machine (2) very carefully and gently (Fig. A5).
- Retract (3) and lower the lifting structure (4) into the transport position (fig. A5).

B - BACKFILLING

- Place the bottom of the bucket in a horizontal position, just in contact with the ground (1) (Fig. B1).
- Drive forward gradually (2). Once filled, the bucket will act as a leveling blade (Fig. B1).

⚠ IMPORTANT ⚠

When driving, beware of trenches as well as recently excavated and/or backfilled ground.



OPERATING INSTRUCTIONS FOR MACHINE WITH PLATFORM

For machines equipped with a MEWP (Mobile Elevating Work Platform)

A - AUTHORIZATION TO OPERATE THE MACHINE WITH PLATFORM

- Operation of the platform requires further authorization in addition to that of the machine.

B - SUITABILITY OF THE MACHINE FOR PLATFORM USE

- Our machines fitted with mobile elevating work platforms are compliant with standard **EN 280-1** for Europe and standard **AS/NZS 1418.10:2011** for Australia, corresponding to the classification of Group C1 to C3 in accordance with this standard.
- MANITOU has ensured that this machine equipped with a platform is suitable for use under the normal operating conditions provided in this operator's manual, with a STATIC TEST COEFFICIENT OF 1.25 and a DYNAMIC TEST COEFFICIENT OF 1.1 as specified in harmonized European standard **EN 280-1** for machines equipped with a mobile elevating work platform.
- Before commissioning, the company manager must make sure that the machine equipped with a platform is appropriate for the work to be done, and perform certain tests (in accordance with current legislation).

C - PROVIDED ON THE PLATFORM

- Wear suitable clothing when using the platform, avoid loose-fitting garments.
- Never use the platform with hands or shoes that are wet or soiled with greasy substances.
- Remain alert at all times when using the platform. Do not listen to the radio or music using headphones or earphones.
- MANITOU strongly recommends wearing a safety harness attached to an attachment point in the platform. Wearing a safety harness or other personal protection equipment against falls may be compulsory. Comply with local, government and national regulations in force, employer's safety rules and work site regulations .
- The safety harness or other personal protection equipment against falls must comply with local, government, and national regulations in force. They must be inspected in accordance with the regulations in force.
- The control units must never be used for any other than their intended purposes (e.g. Climbing onto or down from the machine, coat hanger, etc.).
- Safety helmets must be worn.
- Make sure you have the appropriate protective equipment for the job to be done.
- Prolonged exposure to high noise levels may cause hearing problems. It is recommended to wear ear muffs to protect against excessive noise.
- The operator must always be in his normal position in the driver's cab: it is prohibited to have arms or legs, or generally any part of the body, outside the platform.
- Ensure that materials loaded onto the platform (pipes, cables, containers, etc.) cannot fall out. Do not pile these materials to the point where it is necessary to step over them.

D - USING THE PLATFORM

- However experienced they may be, operators must acquaint themselves with the emplacement and operation of all control instruments prior to operating the platform.
- Check before use that the platform has been correctly assembled and locked onto the machine.
- Do not enter or exit the platform unless it is fully lowered.
- Always enter and exit the platform through the gate or using the sliding mid rails (depending on the model).
- Always enter and exit facing the interior of the platform.
- Always use 3 support points, either both hands and one foot or both feet and one hand, to get in and out of the platform.
- Make sure that the sliding intermediate cross members (depending on the model) are in the lower position and that the gate is properly closed (depending on the model) before using this platform.
- Do not attach the sliding mid rails in the high position.
- The platform should be operated in an area free of any obstructions or danger when it is lowered to the ground.
- The operator using the platform must be aided by someone on the ground with adequate training.
- Comply with the load chart for machines equipped with a mobile elevating work platform (MEWP).
- The lateral constraints are limited (↩ 2 - DESCRIPTION: SPECIFICATIONS).
- It is strictly forbidden to suspend a load from the platform or the machine's lifting structure without an attachment provided for the purpose (↩ INSTRUCTIONS FOR HANDLING A LOAD: H - PICKING UP AND PUTTING DOWN A SUSPENDED LOAD).
- The platform cannot be used as a crane or a lift for permanently transporting people or materials, nor as jacks or supports.

- The machine must not be moved with one (or more) person(s) on the platform.
- It is forbidden to transport people on the platform using the hydraulic controls in the machine's cab (except in case of rescue).
- The operator must not climb onto or off the platform when it is not at ground level (lifting structure retracted and in the down position).
- The machine must not be fitted with unauthorized attachments that increase the windage of the assembly.
- Do not use ladders or improvised structures on the platform to gain extra height.
- Do not climb onto the rails of the platform to gain extra height.
- It is forbidden to use the platform on forks. The fork slots are only to be used for storing the platform and not for lifting people under any circumstances.

E - ENVIRONMENT

⚠ IMPORTANT ⚠

If the platform must remain stationary over a structure for a long period, there is a risk that the platform will lower and rest on this structure due to the oil cooling in the cylinders or a minor leak in the cylinder locking system. To eliminate this risk:

- *regularly check the distance between the platform and the structure, readjust if necessary,*
- *if possible, use the machine at an oil temperature as close as possible to ambient temperature.*

⚠ IMPORTANT ⚠

Operating the machine close to power lines is forbidden. Respect the safety distances.

You must consult your local electrical supplier.

You could be electrocuted or seriously injured if you operate or park the machine too close to power lines.

If the machine is in contact with power lines, push in the emergency stop button.

Call for help, warn people on the ground not to touch the machine, and ask them to switch off the power supply to the cables or have it switched off.

⚠ IMPORTANT ⚠

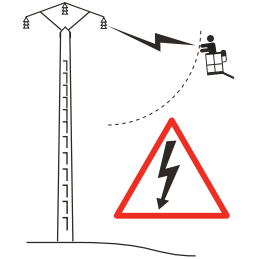
Do not operate this machine during thunderstorms, snowstorms, periods of frost, or in hazardous weather conditions. In the event of strong wind exceeding 45 km/h, do not make any movements which can compromise the machine stability.

- Respect a safety distance between power lines or live components and any part of the body, any conductive object or any part of the machine, unless the local, government and national applicable regulations, the safety rules of the employer or construction site regulations are more strict in terms of distance required.
- Allow for platform movement and swaying or sagging power lines.

⚠ IMPORTANT ⚠

It is forbidden to use the platform close to electricity cables. Maintain the specified safe distances.

RATED VOLTAGE (VOLTS)	SAFETY DISTANCE (METERS)
50 < U < 1000	2,30 M
1000 < U < 30000	2,50 M
30000 < U < 45000	2,60 M
45000 < U < 63000	2,80 M
63000 < U < 90000	3,00 M
90000 < U < 150000	3,40 M
150000 < U < 225000	4,00 M
225000 < U < 400000	5,30 M
400000 < U < 750000	7,90 M



⚠ IMPORTANT ⚠

It is strictly forbidden to use the platform when the wind speed exceeds 45 km/h.

- To visually recognize this wind speed, refer to the empirical wind evaluation scale below:

BEAUFORT scale (wind speed at a height of 10 m on a flat site)						
Force	Type of wind	Speed (knots)	Speed (km/h)	Speed (m/s)	Effects on Land	Sea conditions
0	Calm	0 - 1	0 - 1	< 0.3	Smoke rises vertically.	Sea is like a mirror.
1	Light air	1 - 3	1 - 5	0.3 - 1.5	Smoke indicates direction of wind.	Ripples with appearance of scale, no foam crests.
2	Light breeze	4 - 6	6 - 11	1.6 - 3.3	Wind felt on face, leaves rustle.	Short wavelets, but pronounced.
3	Gentle breeze	7 - 10	12 - 19	3.4 - 5.4	Leaves and small twigs in constant motion.	Very small waves, crests begin to break.
4	Moderate breeze	11 - 16	20 - 28	5.5 - 7.9	Wind raises dust and loose pieces of paper; small branches are moved.	Small waves, becoming longer, numerous whitecaps.
5	Fresh breeze	17 - 21	29 - 38	8 - 10.7	Small trees in leaf begin to sway.	Wavelets form on inland waters; moderate waves, taking longer form.
6	Strong breeze	22 - 27	39 - 49	10.8 - 13.8	Large branches in motion, whistling heard in overhead wires, umbrella use becomes difficult.	Larger waves forming, whitecaps everywhere, some spray.
7	Near gale	28 - 33	50 - 61	13.9 - 17.1	Whole trees in motion, inconvenience felt when walking against the wind.	Sea heaps up; white foam from breaking waves begins to be blown in streaks along the direction of the wind.
8	Gale	34 - 40	62 - 74	17.2 - 20.7	Wind breaks twigs off trees; impedes progress.	Moderately high waves of greater length; edges of crests begin to break into spindrift.
9	Strong gale	41 - 47	75 - 88	20.8 - 24.4	Wind damages roofs (chimneys, slates, etc.).	High waves, crests of waves begin to topple, streaks of foam; reduced visibility.
10	Storm	48 - 55	89 - 102	24.5 - 28.4	Seldom experienced inland; trees uprooted; considerable structural damage occurs.	Very high waves; white streaks of foam; reduced visibility.
11	Violent storm	56 - 63	103 - 117	28.5 - 32.6	Very rare, widespread damage.	Exceptionally high waves able to hide medium sized ships from view, reduced visibility.
12	Hurricane	64 +	118 +	32.7 +	Devastating damage.	Sea completely white; air filled with foam and spray, very reduced visibility.

F - MAINTENANCE

⚠ IMPORTANT ⚠

Your platform must be periodically inspected to ensure its continued compliance.

The frequency of this inspection is defined by the legislation in force in the country in which the platform is used.

In France, a general periodic inspection every 6 months (Decree of March 1, 2004).

INSTRUCTIONS FOR USING THE RADIO-CONTROL

For machines with RC radio control

HOW TO USE THE RADIO-CONTROL

SAFETY INSTRUCTIONS

⚠ IMPORTANT ⚠

It is prohibited to lift people in the platform using the radio-control.

It is prohibited to use the radio-control from the platform:

- This radio-control consists of electronic and mechanical safety elements. It cannot receive commands from another transmitter because the internal encoding is unique to each radio-control.

⚠ IMPORTANT ⚠

If it is used improperly or incorrectly, there is a risk of danger to:

- *The physical and mental health of the user or others.*
- *The machine and other neighboring items.*

Everyone working with this radio-control:

- *Must be qualified in line with current regulations and trained accordingly.*
- *Must follow this operator's manual as closely as possible.*

- The system is used to control the machine remotely via radio waves. Commands are also transmitted if the machine is out of sight (behind an obstacle or a building for example), this is why:
 - After stopping the truck and removing the key switch (only possible when it is stationary), always place the transmitter in a safe, dry place.
 - Before performing any installation, servicing or repair work, always switch off power sources (in particular, electric welding devices and electric head units on hydraulic distributors must be disconnected at each section).
 - Never remove or alter the safety devices (such as the hand-guard frame, key, emergency stop button, etc.).

⚠ IMPORTANT ⚠

Never operate the machine if it is not continuously and perfectly within view of the operator.

- Before leaving the transmitter, the operator must make sure that it cannot be used by an unauthorized third person: either by removing the key button from the transmitter or locking it in an inaccessible place.
- The user must ensure that the operator's manual is accessible at all times and that operators have read and understood it.

INSTRUCTIONS

- Take up position in a stable place with no risk of slipping.
- Before using the transmitter, make sure there is nobody within the working area.
- Only use the transmitter with its carrying device or installed correctly on the platform.

⚠ IMPORTANT ⚠

When you remove the transmitter, remove the battery and the key button so that it cannot be used accidentally or deliberately by anyone else.

SAFETY DEVICES

- The machine will be immobilized within a maximum of 450 milliseconds (approx. 0.5 second):
 - If the emergency stop button of the transmitter is pressed (50 milliseconds), or that of the machine.
 - If the transmission distance of the radio waves is exceeded.
 - If the transmitter is faulty.
 - If an interfering radio signal is received from elsewhere.
 - If the battery is removed from its housing in the transmitter.
 - If the battery has no more charge.
 - If the transmitter is switched off by turning the key switch to the off position.
- These protective devices are provided for the safety of personnel and property and must never be modified, removed or bypassed in any way whatsoever!
- The hand-guard frame prevents external action on a joystick (e.g. if the transmitter is dropped, or if the operator leans on a guard-rail).
- An electronic safety device prevents radio transmission from being initiated if the joysticks are not mechanically and electrically at rest and if the internal combustion engine speed selector is not set to idle.

⚠ IMPORTANT ⚠

In an emergency, press the transmitter emergency stop button immediately, then follow the instructions in the operator's manual (↩ 2 - DESCRIPTION: INSTRUMENTS AND CONTROLS).

MACHINE MAINTENANCE INSTRUCTIONS

GENERAL INSTRUCTIONS

⚠ IMPORTANT ⚠

Carefully read and understand this operator's manual before doing any work on this machine.

Carry out all repairs immediately, even if the repairs concerned are minor.

Repair all leaks immediately, even if the leak concerned is minor.

Be careful of the risk of burns and splashing (exhaust, radiator, engine, hydraulic oil, etc.).

- Make sure the area is adequately ventilated before starting up the machine.
- Wear clothes suitable for the maintenance of the machine. Avoid wearing jewelry and loose clothes. Tie back and protect your hair, if necessary.
- Stop the engine and remove the ignition key before carrying out any work.

PLACING THE LIFTING STRUCTURE SAFETY WEDGE

- The machine is equipped with a lifting structure safety wedge (2 - DESCRIPTION: INSTRUMENTS AND CONTROLS) that must be installed on the lifting cylinder rod when working beneath the lifting structure.
- Telescopic arm retracted without forks or attachments.

ACCORDING TO INSTALLATION

FITTING THE WEDGE

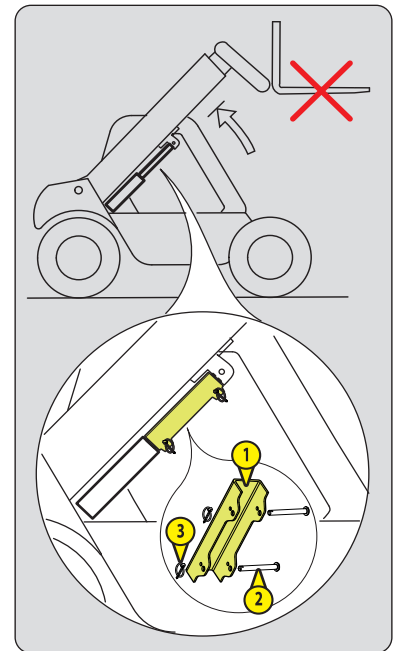
- Raise the lifting structure all the way up.
- Place the safety wedge 1 on the rod of the lifting cylinder and secure with the rod 2 and the pin 3.
- Slowly lower the lifting structure, then stop the hydraulic movements before it comes into contact with the wedge.

REMOVING THE WEDGE

- Raise the lifting structure all the way up.
- Remove the pin and the rod.
- Return the safety wedge to the storage location provided on the machine.

⚠ IMPORTANT ⚠

Only use the wedge supplied with the machine.



ACCORDING TO INSTALLATION

FITTING THE WEDGE

- Raise the lifting structure all the way up.
- Loosen the thumbwheels 1.
- Assemble the parts of the safety wedge 2 around the cylinder rod and lock with the pins 3.

NOTE: the stop flats 4 of the safety wedge must be located towards the bottom of the lifting cylinder 5.

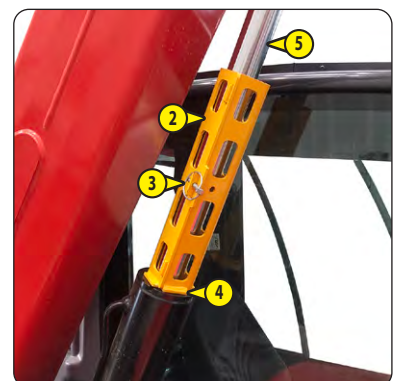
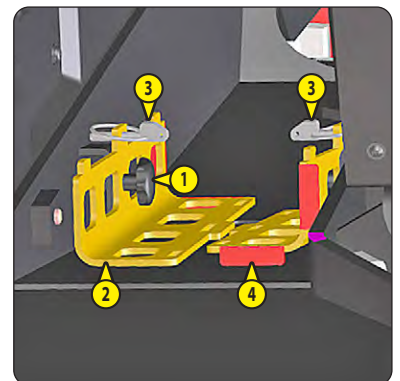
- Slowly lower the lifting structure, then stop the hydraulic movements before it comes into contact with the wedge.

REMOVING THE WEDGE

- Raise the lifting structure all the way up.
- Remove the pins 3.
- Put the parts of the safety wedge 2 back on the machine and lock them with the thumbwheels 1.
- Replace the pins 3 on the parts of the safety wedge.

⚠ IMPORTANT ⚠

Only use the wedge supplied with the machine.



MAINTENANCE

- Perform the periodic service (↩ 3 - MAINTENANCE) to keep your machine in good working order. Failure to perform periodic maintenance may invalidate the contractual warranty.

MAINTENANCE LOGBOOK

- The maintenance operations carried out in accordance with the recommendations given in section 3 - MAINTENANCE and the other inspection, servicing or repair operations or modifications performed on the machine shall be recorded in a maintenance logbook.
- The entry for each operation should include the date of the work, the names of the individuals or companies having performed them, the type of operation and its frequency, if applicable.
- If machine elements are replaced, the part numbers of these elements shall be indicated.

LUBRICANT AND FUEL LEVELS

- Use the recommended lubricants (never use contaminated lubricants).
- Do not fill the fuel tank when the engine is running.
- Only fill up the fuel tank in areas specified for this purpose.
- Do not fill the fuel tank to the maximum level.
- Do not smoke or approach the machine with a flame when the fuel tank is open or is being filled.

HYDRAULICS

- Any work on the load handling hydraulic circuit is forbidden except for the operations described in chapter: 3 - MAINTENANCE.
- Do not attempt to loosen unions, hoses or any hydraulic component with the circuit under pressure.



COUNTERBALANCE VALVE: *it is dangerous to change the setting or remove the counterbalance valves or safety valves which may be fitted to the cylinders of your machine.*

HYDRAULIC ACCUMULATOR: *dismantling hydraulic accumulators and their pipes which may be fitted on your machine is dangerous. Such operations must only be performed by approved personnel (consult your dealer).*

ELECTRICITY

- Do not short-circuit the starter relay to start the engine. If the forward/reverse selector is not in neutral and the parking brake is not on, the machine may suddenly start to move.
- Do not place metal items on the battery.
- Disconnect the battery before working on the electrical circuit.

WELDING ON THE MACHINE



Welding operations on the machine for the purposes of maintenance or repairs must only be carried out by people authorized by MANITOU.

- Disconnect the battery before any welding operations on the machine.
- When carrying out electric welding work on the machine, connect the negative cable from the equipment directly to the part being welded so as to avoid very high current passing through the alternator.
- Never carry out welding or work which gives off heat on an assembled tire. The heat would increase the pressure which could cause the tire to explode.
- If the machine is equipped with an electronic control unit, disconnect it before starting to weld so as to avoid the risk of causing irreparable damage to electronic components.

WASHING THE MACHINE

⚠ IMPORTANT ⚠

When washing with a high pressure cleaner, avoid the engine air intakes, the cylinder rod wiper seals, the hinges, the structural components and the electrical connections, etc.

- Clean the machine or at least the area concerned before any intervention.
- Remember to close and lock all openings on the machine (doors, windows, cowls, etc.).
- If necessary, protect against penetration of water, steam or cleaning agents, components susceptible of being damaged, particularly electrical components and connections and the injection pump.
- Clean the machine of any traces of fuel, oil or grease.

TRANSPORTING THE MACHINE

⚠ IMPORTANT ⚠

Transporting the machine involves real risks for the operator and others involved.

- Towing, winching, slinging or transporting the machine (⚠ 3 - MAINTENANCE).

PROLONGED MACHINE SHUTDOWN

INTRODUCTION

⚠ IMPORTANT ⚠

Procedures to follow for long duration standstill and for bringing back the machine into service must be performed by your dealership.

This period of long duration standstill must not exceed 12 months.

After 12 months, repeat the procedures for putting the machine back into service and long-term shutdown.

The recommendations below are intended to prevent the machine from being damaged when it is not used for a period of more than 3 months.

PREPARATION OF THE MACHINE

- Clean the machine thoroughly.
- Check and repair any fuel, oil, water or air leaks.
- Replace or repair any worn or damaged parts.
- Wash the painted surfaces of the machine in clear and cold water and wipe them.
- Touch up the paintwork if necessary.
- Lower the lifting structure fully.
- Retract the telescopic arms.
- Release the pressure in the hydraulic circuits.
- Shut down the machine.

DEF (Diesel Exhaust Fluid) TANK

Depending on machine model

- Drain down and rinse the DEF (Diesel Exhaust Fluid) tank.
- Replace the "DEF" (Diesel Exhaust Fluid) feed pump filter (⚠ 3 - MAINTENANCE).
- Slowly fill the tank with new DEF up to the bottom of the filler neck.
- Start up the machine to pressurize the circuit and bring it up to working temperature, then shut down the engine.
- If necessary, top up the tank.

PROTECTING THE ENGINE

- Contact your dealer to obtain the procedure for protecting the inside of the engine (use of protection product).
- Fill the tank with fuel (3 - MAINTENANCE).
- Replace the engine oil and oil filter (3 - MAINTENANCE).
- Replace the coolant (3 - MAINTENANCE).
- Leave the engine running at idling speed for a few minutes, then switch off.
- Run the engine for a short time so that the oil and cooling liquid circulate inside.
- Disconnect the battery and store it in a safe place away from the cold, after charging it to maximum capacity.
- Block the outlet with waterproof adhesive tape.
- Remove the drive belts and store them in a safe place.
- Disconnect the engine cut-off solenoid on the injection pump and carefully insulate the connection.

MACHINE PROTECTION

Place the machine on level ground.

- Set the machine on axle stands so that the tires are off the ground.
- Deactivate the parking brake (*depending on machine model*).
- Protect cylinder rods which will not be retracted from corrosion.
- Wrap the wheels.

N.B.: If the machine is to be stored outdoors, cover it with a waterproof tarpaulin.

RETURNING THE MACHINE TO SERVICE



Make sure the area is adequately ventilated before starting up the machine.

- Remove the waterproof adhesive tape from all the orifices.
- Remove the protection from the cylinder rods and wheels.
- Refit and reconnect the battery.
- Activate the parking brake and remove the axle stands.
- Perform the daily maintenance operations (3 - MAINTENANCE).
- Perform the weekly maintenance operations (3 - MAINTENANCE).
- Drain and clean the fuel tank (3 - MAINTENANCE).
- Fill the fuel tank with clean diesel filtered through the filler port.
- Replace the fuel filter (3 - MAINTENANCE).
- Replace the fuel pre-filter (3 - MAINTENANCE) (*depending on the model of machine*).
- Drain and rinse the DEF tank (*depending on the machine model*).
- Top up, slowly fill the tank with new "DEF" (Diesel Exhaust Fluid) up to the bottom of the filler neck (*depending on the machine model*).
- Refit and set the tension in the belts. (3 - MAINTENANCE).
- Turn the engine over with the starter, to allow the oil pressure to rise.
- Reconnect the engine cut-off solenoid.
- Lubricate the machine completely (3 - MAINTENANCE).
- Start up the machine, following the operating and safety instructions (OPERATING INSTRUCTIONS UNLADEN AND LADEN).
- Perform all the lifting structure's hydraulic movements up to the end position for each cylinder.

DISPOSING OF THE MACHINE



Consult your dealer before disposing of the machine.

RECYCLING OF MATERIALS

METALS

- Metals are 100% recoverable and recyclable.

PLASTICS

- Plastic parts are identified with a marking in accordance with current regulations.
- A limited range of materials is used to simplify the recycling process.
- The majority of the plastic components are made of "thermoplastic" plastics, which are easily recycled by melting, granulating or grinding.

RUBBER

- Tires and seals can be ground for use in cement manufacture or to obtain reusable granules.

GLASS

- Glass items can be removed and collected for processing by glaziers.

ENVIRONMENTAL PROTECTION

By entrusting the maintenance of your machine to the MANITOU network, the risk of pollution is limited and the contribution to environmental protection is made.

WORN OR DAMAGED PARTS

- Do not dump them in the countryside.
- MANITOU and its network have signed-up to a scheme of environmental protection through recycling.

USED OIL

- The MANITOU network organizes the collection and processing of used oil.
- By handing over your waste oil to MANITOU, the risk of pollution is limited.

USED BATTERIES

- Do not throw away batteries, as they contain metals that are harmful for the environment.
- Return them to the MANITOU network or any other approved collection point.

N.B.: MANITOU aims to manufacture machines that provide the best performance and limit polluting emissions.

2 - DESCRIPTION

2 - DESCRIPTION

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EC DECLARATION OF CONFORMITY

This document is a specimen of the EC Declaration of Conformity and includes the contents of the original declaration supplied with the machine.

This specimen and the original document may contain fields that are not applicable to your machine. These fields are left blank if not applicable.

Refer to the original Declaration of Conformity for all data applicable to your machine.

1) **DÉCLARATION «CE» DE CONFORMITÉ (originale)** **«EC» DECLARATION OF CONFORMITY (original)**

2) Constructeur, *Manufacturer* : **MANITOU BF**

3) Adresse, *Address* : **430, RUE DE L'AUBINIÈRE - B.P 10249
44158 - ANCENIS - CEDEX - FRANCE**

4) Titulaire du dossier technique, *Holder of the technical file* : **MANITOU BF**

3) Adresse, *Address* : **430, RUE DE L'AUBINIÈRE - B.P 10249
44158 - ANCENIS - CEDEX - FRANCE**

5) Le constructeur déclare que la machine décrite ci-après, *The manufacturer declares that the machine described below* :

Rough-terrain variable-reach truck

MLT 850 145 V+ Y ST5 S1

6) Est conforme aux directives suivantes et à leurs transpositions en droit national (si applicables),
Complies with the following directives and their transpositions into national law (if applicable) :

2006/42/CE

7) Pour les machines annexe IV, *For annex IV machines* : Non applicable

8) Numéro d'attestation, *Certificate number* : Non applicable

9) Organisme notifié, *Notified body* : Non applicable

2000/14/CE + 2005/88/CE

10) Procédure appliquée, *Applied procedure* : ANNEXE VIII

9) Organisme notifié, *Notified body* : **SNCH
11 ROUTE DU LUXEMBOURG
5201 SANDWEILER - LUXEMBOURG**

11) Niveau de puissance acoustique, *Sound power level* :

12) Mesuré, *Measured* : dB (A)

13) Garanti, *Guaranteed* : dB (A)

2014/30/UE

14) Normes harmonisées utilisées, *Harmonised standards used* :

EN1459 ; EN 12895

15) Normes ou dispositions techniques utilisées, *Standards or technical provisions used* :

16) Fait à, *Done at* :

17) Date, *Date* :

18) Nom du signataire, *Name of signatory* :

19) Fonction, *Function* :

20) Société, *Company* :

21) Signature, *Signature* :

bg : 1) удостоверение за « CE » съответствие (оригинална), 2) Фирмата, 3) Адрес, 4) Техническо досие, 5) Фабрикант на описаната по-долу машина, 6) Обявява, че тази машина, 7) товара на следните директиви и на тяхното съответствие национално право, 8) За машините към допълнение IV, 9) Номер на удостоверението, 10) Наименована фирма, 15) хармонизирани стандарти използвани, 16) стандарти или технически правила, използвани, 17) Изработено в, 18) Дата, 19) Име на разписалия се, 20) Функция, 21) Функция.

cs : 1) ES prohlášení o shodě (původní), 2) Název společnosti, 3) Adresa, 4) Technická dokumentace, 5) Výrobce níže uvedeného stroje, 6) Prohlašuje, že tento stroj, 7) Je v souladu s následujícími směrnicemi a směrnicemi transponovanými do vnitrostátního práva, 8) Pro stroje v příloze IV, 9) Číslo certifikátu, 10) Notifikační orgán, 15) harmonizované normy použity, 16) Normy a technických pravidel používaných, 17) Místo vydání, 18) Datum vydání, 19) Jméno podepsaného, 20) Funkce, 21) Podpis.

da : 1) EF Overensstemmelseserklæring (original), 2) Firmaet, 3) Adresse, 4) tekniske dossier, 5) Konstruktor af nedenfor beskrevne maskine, 6) Erklærer, at denne maskine, 7) Overholder nedennævnte direktiver og disses gennemførelse til national ret, 8) For maskiner under bilag IV, 9) Certifikat nummer, 10) Bemyndigede organ, 15) harmoniserede standarder, der anvendes, 16) standarder eller tekniske regler, 17) Udfærdiget i, 18) Dato, 19) Underskrivers navn, 20) Funktion, 21) Underskrift.

de : 1) EG-Konformitätserklärung (original), 2) Die Firma, 3) Adresse, 4) Technischen Unterlagen, 5) Hersteller der nachfolgend beschriebenen Maschine, 6) Erklärt, dass diese Maschine, 7) den folgenden Richtlinien und deren Umsetzung in die nationale Gesetzgebung entspricht, 8) Für die Maschinen laut Anhang IV, 9) Bescheinigungsnummer, 10) Organismo notificado, 15) angewandten harmonisierten Normen, 16) angewandten sonstigen technischen Normen und Spezifikationen, 17) Ausgestellt in, 18) Datum, 19) Name des Unterzeichners, 20) Funktion, 21) Unterschrift.

el : 1) Δήλωση συμμόρφωσης CE (πρωτότυπο), 2) Η εταιρεία, 3) Διεύθυνση, 4) τεχνικό φάκελο, 5) Κατασκευάστρια του εξής περιγραφόμενου μηχανήματος, 6) Δηλώνει ότι αυτό το μηχάνημα, 7) Είναι σύμφωνο με τις εξής οδηγίες και τις προσαρμογές τους στο εθνικό δίκαιο, 8) Για τα μηχανήματα παραρτήματος IV, 9) Αριθμός δήλωσης, 10) Κοινοποιημένος φορέας, 15) εναρμονισμένα πρότυπα που χρησιμοποιούνται, 16) Πρότυπα ή τεχνικούς κανόνες που χρησιμοποιούνται, 16) Είναι σύμφωνο με τα εξής πρότυπα και τεχνικές διατάξεις, 17) Έν, 18) Ημερομηνία, 19) Ονομα του υπογράφοντος, 20) Θέση, 21) Υπογραφή.

es : Declaración DE de conformidad (original), 2) La sociedad, 3) Dirección, 4) expediente técnico, 5) Constructor de la máquina descrita a continuación, 6) Declara que esta máquina, 7) Está conforme a las siguientes directivas y a sus transposiciones en derecho nacional, 8) Para las máquinas anexo IV, 9) Número de certificación, 10) Organismo notificado, 15) normas armonizadas utilizadas, 16) Otras normas o especificaciones técnicas utilizadas, 17) Hecho en, 18) Fecha, 19) Nombre del signatario, 20) Función, 21) Firma.

et : 1) EÜ vastavusdeklaratsioon (algupärane), 2) Äriühing, 3) Aadress, 4) Tehniline dokumentatsioon, 5) Seadme tootja, 6) Kinnitab, et see loode, 7) On vastavuses järgmiste direktiivide ja nende riigisisesesse õigusesse ülevõtmiseks vastuvõetud õigusaktidega, 8) IV lisas loetletud seadmete puhul, 9) Tunnistuse number, 10) Tunnistuse aeg, 15) kasutatud ühtlustatud standardite, 16) Muud standardites või spetsifikatsioonides kasutatakse, 17) Väljaandmise koht, 18) Väljaandmise aeg, 19) Alkiri, 20) Amet, 21) Alkiri.

fi : 1) EY-vaatimustenmukaisuusvakuutus (alkuperäiset), 2) Yritys, 3) Osoite, 4) teknisen eritelmän, 5) Jäljessä kuvatun koneen valmistaja, 6) Vakuuttaa, että tämä kone, 7) Täyttää seuraavien direktiivien sekä niitä vastaavien kansallisten säännösten vaatimukset, 8) Liitteen IV koneiden osalta, 9) Todistuksen numero, 10) Ilmoitettu laitos, 15) yhdenmukaistettuja standardeja käytetään, 16) muita standardeja tai eritelmiä, 17) Paikka, 18) Aika, 19) Allekirjoittajan nimi, 20) Toimi, 21) Allekirjoitus.

ga : 1) « CE » dearbhú comhréireachta (bunaidh), 2) An comhlacht, 3) Seoladh, 4) comhad teicniúil, 5) Déantóir an innill a thuariscítear thíos, 6) Dearbhaíonn sé go bhfuil an t-inneall, 7) Go gcoíonn sé le na teoracha seo a leanas agus a trasúimh isteach i ndlí náisiúnta, 8) Le haghaidh innill an agusín IV, 9) Uimhir teastais, 10) Comhlacht a chuireadh i bhfios, 15) caighdeán comhchuibhíne a úsáidtear, 16) caighdeán eile nó sonraíochtaí teicniúla a úsáidtear, 17) Déanta ag, 18) Dáta, 19) Ainm an tsinitheora, 20) Feidhm, 21) Síniú.

hu : 1) CE megfelelősségi nyilatkozat (eredeti), 2) A vállalat, 3) Cím, 4) műszaki dokumentáció, 5) Az alábbi gép gyártója, 6) Kijelenti, hogy a gép, 7) Megfelel az alábbi irányelveknek valamint azok hozosított előírásainak, 8) A IV. melléklet gépeihez, 9) Bizonylati szám, 10) Értécsített szervezet, 15) felhasznált harmonizált szabványok, 16) egyéb felhasznált műszaki szabványok és előírások hivatkozásai, 17) Kelt (hely), 18) Dátum, 19) Aláíró neve, 20) Funkció, 21) Aláírás.

is : 1) (Samræmisvottorð ESB (upprunalega), 2) Fyrirtæki, 3) Aðsetur, 4) Tæknilegar skrá, 5) Smíður tækisins sem lýst er hér á eftir, 6) Staðfestir að tæki, 7) Samræmist eftirfarandi stöðlum og staðfarsum þeirra með hljóðun af þjóðarrétti, 8) Fyrir tækin í aukakafla IV, 9) Staðfestingarnúmer, 10) Tilkynnt til, 15) samhæfða staða sem notaðir, 16) önnur staðlar eða forskrifir notað, 17) Staður, 18) Dagsetning, 19) Nafn undirritaðs, 20) Staða, 21) Undirskrift.

it : 1) Dichiarazione CE di conformità (originale), 2) La società, 3) Indirizzo, 4) fascicolo tecnico, 5) Costruttore della macchina descritta di seguito, 6) Dichiara che questa macchina, 7) È conforme alle direttive seguenti e alle relative trasposizioni nel diritto nazionale, 8) Per le macchine Allegato IV, 9) Numero di Attestazione, 10) Organismo notificato, 15) norme armonizzate applicate, 16) altre norme e specifiche tecniche applicate, 17) Stabilita a, 18) Data, 19) Nome del firmatario, 20) Funzione, 21) Firma.

lt : 1) CE atitikties deklaracija (originalas), 2) Bendrovė, 3) Adresas, 4) Techninė byla, 5) Žemiau nurodytas įrenginio gamintojas, 6) Pareiškia, kad šis įrenginys, 7) Atitinka toliau nurodytas direktyvas ir į nacionalinius teisės aktus perkeltas jų nuostatas, 8) Iškartam IV priedas dël mašinų, 9) Certifikato Nr, 10) Paskelbtoji įstaiga, 15) suderintus standartus naudojamus, 16) kiti standartai ir technines specifikacijos, 17) Pasirašyta, 18) Data, 19) Pasirašiusio asmens vardas ir pavardė, 20) Pareigos, 21) Parašas.

lv : 1) EK atbilstības deklarācija (oriģināls), 2) Uzņēmums, 3) Adrese, 4) tehniskās lietas, 5) Tālāk aprakstītās iekārtas ražotājs, 6) Apliecinā, ka šī iekārtā, 7) Ir atbilstoša tālāk norādītajām direktīvām un to transpozīcijai nacionālajā likumdošanā, 8) Iekārtām IV pielikumā, 9) Iekārtām IV pielikumā, 9) Reģistrētā organizācija, 15) lietotajiem saskaņotajiem standartiem, 16) lietotajiem tehniskajiem standartiem un specifikācijām, 17) Sastādīts, 18) Datums, 19) Parakstītāja vārds, 20) Amats, 21) Paraksts.

mt : 1) Dikjarazzjoni ta' Konformità KE (oriġinali), 2) Il-kumpanija, 3) Indirizz, 4) fajl tekniku, 5) Manifattriċi tal-magna deskritta hawn isfel, 6) Tiddikjara li din il-magna, 7) Hija konformi hija konformi mad-Direttivi segwenti u li-ġigjet li jimplimentawhom fil-ġieji nazzjonali, 8) Għall-magni fl-Anness IV, 9) Numru taċ-certifikat, 10) Entità nnotifikata, 15) li-standardi armonizzati użati, 16) standardi tekniċi u speċifikazzjonijiet oħra użati, 17) Magħmul f', 18) Data, 19) Isem il-firmatarju, 20) Kariga, 21) Firma.

nl : 1) EG-verklaring van overeenstemming (oorspronkelijke), 2) Het bedrijf, 3) Adres, 4) technische dossier, 5) Constructeur van de hierna genoemde machine, 6) Verklaart dat deze machine, 7) In overeenstemming is met de volgende richtlijnen en hun omzettingen in het nationale recht, 8) Voor machines van bijlage IV, 9) Goedkeuringsnummer, 10) Aangezegde instelling, 15) gehanteerde geharmoniseerde normen, 16) andere gehanteerde technische normen en specificaties, 17) Opgemaakt te, 18) Datum, 19) Naam van ondergetekende, 20) Functie, 21) Handtekening.

no : 1) CE-samsvarserklæring (original), 2) Selskapet, 3) Adresse, 4) tekniske arkiv, 5) Fabrikant av følgende maskin, 6) Erklærer at denne maskinen, 7) Oppfyller kravene i følgende direktiver, med nasjonale gjennomføringsbestemmelser, 8) For maskinene i tillegg IV, 9) Attestnummer, 10) Notifisert organ, 15) harmoniserte standarder som brukes, 16) Andre standarder og spesifikasjoner brukt, 17) Utstedt i, 18) Dato, 19) Underskriverens navn, 20) Stilling, 21) Underskrift.

pl : 1) Deklaracja zgodności CE (oryginalne), 2) Spółka, 3) Adres, 4) dokumentacji technicznej, 5) Wykonawca maszyny opisanej poniżej, 6) Oświadca, że ta maszyna, 7) Jest zgodna z następującymi dyrektywami i odpowiadającymi przepisami prawa krajowego, 8) Dla maszyn załącznik IV, 9) Numer certyfikatu, 10) Jednostka certyfikująca, 15) zastosowanych norm zharmonizowanych, 16) innych zastosowanych norm technicznych i specyfikacji, 17) Sporządzono w, 18) Data, 19) Nazwisko podpisującego, 20) Stanowisko, 21) Podpis.

pt : 1) Declaração de conformidade CE (original), 2) A empresa, 3) Morada, 4) processo técnico, 5) Fabricante da máquina descrita abaixo, 6) Declara que esta máquina, 7) Está em conformidade às directivas seguintes e às suas transposições para o direito nacional, 8) Para as máquinas no anexo IV, 9) Número de certificado, 10) Entidade notificada, 15) normas harmonizadas utilizadas, 16) outras normas e especificações técnicas utilizadas, 17) Elaborado em, 18) Data, 19) Nome do signatário, 20) Cargo, 21) Assinatura.

ro : 1) Declarație de conformitate CE (originală), 2) Societatea, 3) Adresa, 4) cârtili tehnice, 5) Constructor al mașinii descrise mai jos, 6) Declară că prezenta mașină, 7) Este conformă cu directivele următoare și cu transpunerea lor în dreptul național, 8) Pentru mașinile din anexa IV, 9) Număr de atestare, 10) Organism notificat, 15) standardele armonizate utilizate, 16) alte standarde și specificații tehnice utilizate, 17) Intocmit la, 18) Data, 19) Numele persoanei care semnează, 20) Funcția, 21) Semnătură.

sk : 1) ES vyhlásenie o zhode (pôvodný), 2) Názov spoločnosti, 3) Adresa, 4) technickej dokumentácie, 5) Výrobca nižšie opísaného stroja, 6) Vyhlasuje, že tento stroj, 7) Je v súlade s nasledujúcimi smernicami a smernicami transponovanými do vnitrostátného práva, 8) Pre stroje v prílohe IV, 9) Číslo certifikátu, 10) Notifikačný orgán, 15) použité harmonizované normy, 16) použité iné technické normy a predpisy, 17) Miesto vydania, 18) Dátum vydania, 19) Meno podpisujúceho, 20) Funkcia, 21) Podpis.

sl : 1) ES Izjava o ustreznosti (izvirna), 2) Družba, 3) Naslov, 4) tehnične dokumentacije, 5) Proizvajalac tukaj opisanega stroja, 6) Izjavlja, da je ta stroj, 7) Ustreza naslednjim direktivam in njihovi transpoziciji v državno pravo, 8) Za stroje priloga IV, 9) Številka potrdila, 10) Obvestilo organu, 15) uporabljene harmonizirane standarde, 16) druge uporabljene tehnične standarde in zahteve, 17) V, 18) Datum, 19) Ime podpisnika, 20) Funkcija, 21) Podpis.

sv : 1) CE-försäkran om överensstämmelse (original), 2) Företaget, 3) Adress, 4) tekniska dokumentationen, 5) Konstruktor av nedan beskrivna maskin, 6) Försäkrar att denna maskin, 7) Överensstämmer med nedanstående direktiv och införlivandet av dem i nationell rätt, 8) För maskinerna i bilaga IV, 9) Nummer för godkännande, 10) Organism som underrättats, 15) Harmoniserade standarder som använts, 16) andra tekniska standarder och specifikationer som använts, 17) Upprättat i, 18) Datum, 19) Namn på den som undertecknat, 20) Befattning, 21) Namnteckning.

CE DECLARATION OF CONFORMITY (TRACTOR TYPE APPROVAL)

This document is a specimen of the EC Declaration of Conformity and includes the contents of the original declaration supplied with the machine.

This specimen and the original document may contain fields that are not applicable to your machine. These fields are left blank if not applicable.

Refer to the original Declaration of Conformity for all data applicable to your machine.

1) **DÉCLARATION «CE» DE CONFORMITÉ (originale)** **«EC» DECLARATION OF CONFORMITY (original)**

2) Constructeur, *Manufacturer* : **MANITOU BF**

3) Adresse, *Address* : **430, RUE DE L'AUBINIÈRE - B.P 10249
44158 - ANCENIS - CEDEX - FRANCE**

4) Titulaire du dossier technique, *Holder of the technical file* : **MANITOU BF**

3) Adresse, *Address* : **430, RUE DE L'AUBINIÈRE - B.P 10249
44158 - ANCENIS - CEDEX - FRANCE**

5) Le constructeur déclare que la machine décrite ci-après, *The manufacturer declares that the machine described below* :

Permanently mounted equipment for telescopic loader tractor type T1a

MLT 850 145 V+ Y ST5 S1

6) Est conforme aux directives suivantes et à leurs transpositions en droit national (si applicables),
Complies with the following directives and their transpositions into national law (if applicable) :

2006/42/CE

7) Pour les machines annexe IV, *For annex IV machines* : **Non applicable**

8) Numéro d'attestation, *Certificate number* : **Non applicable**

9) Organisme notifié, *Notified body* : **Non applicable**

10) Procédure appliquée, *Applied procedure* :

9) Organisme notifié, *Notified body* :

11) Niveau de puissance acoustique, *Sound power level* :

12) Mesuré, *Measured* : dB (A)

13) Garanti, *Guaranteed* : dB (A)

2014/30/UE

14) Normes harmonisées utilisées, *Harmonised standards used* :

EN1459 ; EN 12895

15) Normes ou dispositions techniques utilisées, *Standards or technical provisions used* :

16) Fait à, *Done at* :

17) Date, *Date* :

18) Nom du signataire, *Name of signatory* :

19) Fonction, *Function* :

20) Société, *Company* :

21) Signature, *Signature* :

bg : 1) удостоверение за « CE » съответствие (оригинална), 2) Фирмата, 3) Адрес, 4) Техническо досие, 5) Фабрикант на описаната по-долу машина, 6) Обявява, че тази машина, 7) товара на следните директиви и на тяхното съответствие национално право, 8) За машините към допълнение IV, 9) Номер на удостоверението, 10) Наименована фирма, 15) хармонизирани стандарти използвани, 16) стандарти или технически правила, използвани, 17) Изработено в, 18) Дата, 19) Име на разписалия се, 20) Функция, 21) Функция.

cs : 1) ES prohlášení o shodě (původní), 2) Název společnosti, 3) Adresa, 4) Technická dokumentace, 5) Výrobce níže uvedeného stroje, 6) Prohlašuje, že tento stroj, 7) Je v souladu s následujícími směrnici a směrnici transponovanými do vnitrostátního práva, 8) Pro stroje v příloze IV, 9) Číslo certifikátu, 10) Notifikační orgán, 15) harmonizované normy použity, 16) Norem a technických pravidel používaných, 17) Místo vydání, 18) Datum vydání, 19) Jméno podepsaného, 20) Funkce, 21) Podpis.

da : 1) EF Overensstemmelseserklæring (original), 2) Firmaet, 3) Adresse, 4) tekniske dossier, 5) Konstruktor af nedenfor beskrevne maskine, 6) Erklærer, at denne maskine, 7) Overholder nedennævnte direktiver og disses gennemførelse til national ret, 8) For maskiner under bilag IV, 9) Certifikat nummer, 10) Bemyndigede organ, 15) harmoniserede standarder, der anvendes, 16) standarder eller tekniske regler, 17) Udfærdiget i, 18) Dato, 19) Underskrivers navn, 20) Funktion, 21) Underskrift.

de : 1) EG-Konformitätserklärung (original), 2) Die Firma, 3) Adresse, 4) Technischen Unterlagen, 5) Hersteller der nachfolgend beschriebenen Maschine, 6) Erklärt, dass diese Maschine, 7) den folgenden Richtlinien und deren Umsetzung in die nationale Gesetzgebung entspricht, 8) Für die Maschinen laut Anhang IV, 9) Bescheinigungsnummer, 10) Benannte Stelle, 15) angewandten harmonisierten Normen, 16) angewandten sonstigen technischen Normen und Spezifikationen, 17) Ausgestellt in, 18) Datum, 19) Name des Unterzeichners, 20) Funktion, 21) Unterschrift.

el : 1) Δήλωση συμμόρφωσης CE (πρωτότυπο), 2) Η εταιρεία, 3) Διεύθυνση, 4) τεχνικό φάκελο, 5) Κατασκευάστρια του εξής περιγραφόμενου μηχανήματος, 6) Δηλώνει ότι αυτό το μηχάνημα, 7) Είναι σύμφωνο με τις εξής οδηγίες και τις προσαρμογές τους στο εθνικό δίκαιο, 8) Για τα μηχανήματα παραρτήματος IV, 9) Αριθμός δήλωσης, 10) Κοινοποιημένος φορέας, 15) εναρμονισμένα πρότυπα που χρησιμοποιούνται, 16) Πρότυπα ή τεχνικούς κανόνες που χρησιμοποιούνται, 16) Είναι σύμφωνο με τα εξής πρότυπα και τεχνικές διατάξεις, 17) Έν, 18) Ημερομηνία, 19) Όνομα του υπογράφοντος, 20) Θέση, 21) Υπογραφή.

es : Declaración DE de conformidad (original), 2) La sociedad, 3) Dirección, 4) expediente técnico, 5) Constructor de la máquina descrita a continuación, 6) Declara que esta máquina, 7) Está conforme a las siguientes directivas y a sus transposiciones en derecho nacional, 8) Para las máquinas anexo IV, 9) Número de certificación, 10) Organismo notificado, 15) normas armonizadas utilizadas, 16) Otras normas o especificaciones técnicas utilizadas, 17) Hecho en, 18) Fecha, 19) Nombre del signatario, 20) Función, 21) Firma.

et : 1) EÜ vastavusdeklaratsioon (algupärane), 2) Äriühing, 3) Aadress, 4) Tehniline dokumentatsioon, 5) Seadme tootja, 6) Kinnitab, et see loode, 7) On vastavuses järgmiste direktiivide ja nende riigisisesesse õigusesse ülevõtmiseks vastuvõetud õigusaktidega, 8) IV lisas loetletud seadmete puhul, 9) Tunnistuse number, 10) Tunnistuse aeg, 15) kasutatud ühtlustatud standardite, 16) Muud standardites või spetsifikatsioonides kasutatakse, 17) Väljaandmise koht, 18) Väljaandmise aeg, 19) Allkirjastaja nimi, 20) Amet, 21) Allkiri.

fi : 1) EY-vaatimustenmukaisuusvakuutus (alkuperäiset), 2) Yritys, 3) Osoite, 4) teknisen eritelmän, 5) Jäljessä kuvattun koneen valmistaja, 6) Vakuuttaa, että tämä kone, 7) Täyttää seuraavien direktiivien sekä niitä vastaavien kansallisten säännösten vaatimukset, 8) Liitteen IV koneiden osalta, 9) Todistuksen numero, 10) Ilmoitettu laitos, 15) yhdenmukaistettuja standardeja käytetään, 16) muita standardeja tai eritelmiä, 17) Paikka, 18) Aika, 19) Allekirjoittajan nimi, 20) Toimi, 21) Allekirjoitus.

ga : 1) « CE » dearbhú comhréireachta (bunaidh), 2) An comhlacht, 3) Seoladh, 4) comhad teicniúil, 5) Déantóir an innill a thuariscítear thíos, 6) Dearbhaionn sé go bhfuil an t-inneall, 7) Go gcoinnn sé le na teoracha seo a leanas agus a trasuimh isteach i ndlí náisiúnta, 8) Le haghaidh innill an aguisín IV, 9) Uimhir teastais, 10) Comhlacht a chuireadh i bhfios, 15) caighdeán comhchuíbhíne a úsáidtear, 16) caighdeán eile nó sonraíochtaí teicniúla a úsáidtear, 17) Déanta ag, 18) Dáta, 19) Ainm an tsinitheora, 20) Feidhm, 21) Síniú.

hu : 1) CE megfelelőségi nyilatkozat (eredeti), 2) A vállalat, 3) Cím, 4) műszaki dokumentáció, 5) Az alábbi gép gyártója, 6) Kijelenti, hogy a gép, 7) Megfelel az alábbi irányelveknek valamint azok hozosított előírásainak, 8) A IV. melléklet gépeihez, 9) Bizonylati szám, 10) Értécsített szervezet, 15) felhasznált harmonizált szabványok, 16) egyéb felhasznált műszaki szabványok és előírások hivatkozásai, 17) Kelt (hely), 18) Dátum, 19) Aláíró neve, 20) Funkció, 21) Aláírás.

is : 1) (Samræmisvottorð ESB (upprunalega), 2) Fyrirtækið, 3) Aðsetur, 4) Tæknilegar skrá, 5) Smíður tækisins sem lýst er hér á eftir, 6) Staðfestir að tækið, 7) Samræmist eftirfarandi stöðlum og staðfarslu þeirra með hljóðsjón af þjóðarrétti, 8) Fyrir tækin í aukakafla IV, 9) Staðfestingarnúmer, 10) Tilkynnt til, 15) samhæfða staða sem notaðir, 16) önnur staðlar eða forskrifir notað, 17) Staður, 18) Dagsetning, 19) Nafn undirritaðs, 20) Staða, 21) Undirskrift.

it : 1) Dichiarazione CE di conformità (originale), 2) La società, 3) Indirizzo, 4) fascicolo tecnico, 5) Costruttore della macchina descritta di seguito, 6) Dichiara che questa macchina, 7) È conforme alle direttive seguenti e alle relative trasposizioni nel diritto nazionale, 8) Per le macchine Allegato IV, 9) Numero di Attestazione, 10) Organismo notificato, 15) norme armonizzate applicate, 16) altre norme e specifiche tecniche applicate, 17) Stabilita a, 18) Data, 19) Nome del firmatario, 20) Funzione, 21) Firma.

lt : 1) CE atitikties deklaracija (originalas), 2) Bendrovė, 3) Adresas, 4) Techninė byla, 5) Žemiau nurodytas įrenginio gamintojas, 6) Pareiškia, kad šis įrenginys, 7) Atitinka toliau nurodytas direktyvas ir į nacionalinius teisės aktus perkeltas jų nuostatas, 8) Iškartam IV priedas dël mašinų, 9) Certifikato Nr, 10) Paskelbtaji staigija, 15) suderintus standartus naudojamus, 16) Kiti standartai ir technines specifikacijos, 17) Pasirašyta, 18) Data, 19) Pasirašiusio asmens vardas ir pavardė, 20) Pareigos, 21) Parašas.

lv : 1) EK atbilstības deklarācija (oriģināls), 2) Uzņēmums, 3) Adrese, 4) tehniskās lietas, 5) Tālāk aprakstītās iekārtas ražotājs, 6) Apliecinā, ka šī iekārtā, 7) Ir atbilstoša tālāk norādītajām direktīvām un to transpozīcijai nacionālajā likumdošanā, 8) Iekārtām IV pielikumā, 9) Iekārtām IV pielikumā, 9) Reģistrētā organizācija, 15) Lietotajiem saskaņotajiem standartiem, 16) lietotajiem tehniskajiem standartiem un specifikācijām, 17) Sastādīts, 18) Datums, 19) Parakstītāja vārds, 20) Amats, 21) Paraksts.

mt : 1) Dikjarazzjoni ta' Konformità KE (oriġinali), 2) Il-kumpanija, 3) Indirizz, 4) fajl tekniku, 5) Manifattriċi tal-magna deskritta hawn isfel, 6) Tidlikjara li din il-magna, 7) Hija konformi hija konformi mad-Direttivi segwenti u li-ġigjet li jimplimentawhom fil-ġiegi nazzjonali, 8) Għall-magni fl-Anness IV, 9) Numru taċ-certifikat, 10) Entità nnotifikata, 15) li-standardi armonizzati użati, 16) standards tekniċi u specifikazzjonijiet oħra użati, 17) Magħmul f, 18) Data, 19) Isem il-firmatarju, 20) Kariga, 21) Firma.

nl : 1) EG-verklaring van overeenstemming (oorspronkelijke), 2) Het bedrijf, 3) Adres, 4) technisch dossier, 5) Constructeur van de hierna genoemde machine, 6) Verklaart dat deze machine, 7) In overeenstemming is met de volgende richtlijnen en hun omzettingen in het nationale recht, 8) Voor machines van bijlage IV, 9) Goedkeuringsnummer, 10) Aangezegde instelling, 15) gehanteerde geharmoniseerde normen, 16) andere gehanteerde technische normen en specificaties, 17) Opgemaakt te, 18) Datum, 19) Naam van ondergetekende, 20) Functie, 21) Handtekening.

no : 1) CE-samsvarserklæring (original), 2) Selskapet, 3) Adresse, 4) tekniske arkiv, 5) Fabrikant av følgende maskin, 6) Erklærer at denne maskinen, 7) Oppfyller kravene i følgende direktiver, med nasjonale gjennomføringsbestemmelser, 8) For maskinene i tillegg IV, 9) Attestnummer, 10) Notifisert organ, 15) harmoniserte standarder som brukes, 16) Andre standarder og spesifikasjoner brukt, 17) Utstedt i, 18) Dato, 19) Underskrivers navn, 20) Stilling, 21) Underskrift.

pl : 1) Deklaracja zgodności CE (oryginalne), 2) Spółka, 3) Adres, 4) dokumentacja technicznej, 5) Wykonawca maszyny opisanej poniżej, 6) Oświadca, że ta maszyna, 7) Jest zgodna z następującymi dyrektywami i odpowiadającymi przepisami prawa krajowego, 8) Dla maszyn załącznik IV, 9) Numer certyfikatu, 10) Jednostka certyfikująca, 15) zastosowanych norm zharmonizowanych, 16) innych zastosowanych norm technicznych i specyfikacji, 17) Sporządzono w, 18) Data, 19) Nazwisko podpisującego, 20) Stanowisko, 21) Podpis.

pt : 1) Declaração de conformidade CE (original), 2) A empresa, 3) Morada, 4) processo técnico, 5) Fabricante da máquina descrita abaixo, 6) Declara que esta máquina, 7) Está em conformidade às diretrizes seguintes e às suas transposições para o direito nacional, 8) Para as máquinas no anexo IV, 9) Número de certificado, 10) Entidade notificada, 15) normas harmonizadas utilizadas, 16) outras normas e especificações técnicas utilizadas, 17) Elaborado em, 18) Data, 19) Nome do signatário, 20) Cargo, 21) Assinatura.

ro : 1) Declarație de conformitate CE (originală), 2) Societatea, 3) Adresa, 4) cârtil tehnice, 5) Constructor al mașinii descrise mai jos, 6) Declară că prezenta mașină, 7) Este conformă cu directivele următoare și cu transpunerea lor în dreptul național, 8) Pentru mașinile din anexa IV, 9) Număr de atestare, 10) Organism notificat, 15) standardele armonizate utilizate, 16) alte standarde și specificații tehnice utilizate, 17) Intocmit la, 18) Data, 19) Numele persoanei care semnează, 20) Funcția, 21) Semnătură.

sk : 1) ES vyhlásenie o zhode (pôvodný), 2) Názov spoločnosti, 3) Adresa, 4) technickej dokumentácie, 5) Výrobca nižšie opísaného stroja, 6) Vyhlasuje, že tento stroj, 7) Je v súlade s nasledujúcimi smernicami a smernicami transponovanými do vnitrostátného práva, 8) Pre stroje v prílohe IV, 9) Číslo certifikátu, 10) Notifikačný orgán, 15) použité harmonizované normy, 16) použité iné technické normy a predpisy, 17) Miesto vydania, 18) Dátum vydania, 19) Meno podpisujúceho, 20) Funkcia, 21) Podpis.

sl : 1) ES Izjava o ustreznosti (izvirna), 2) Družba, 3) Naslov, 4) tehnične dokumentacije, 5) Proizvajalac tukaj opisanega stroja, 6) Izjavlja, da je ta stroj, 7) Ustreza naslednjim direktivam in njihovi transpoziciji v državno pravo, 8) Za stroje priloga IV, 9) Številka potrdila, 10) Obvestilo organu, 15) uporabljene harmonizirane standarde, 16) druge uporabljene tehnične standarde in zahteve, 17) V, 18) Datum, 19) Ime podpisnika, 20) Funkcija, 21) Podpis.

sv : 1) CE-försäkran om överensstämmelse (original), 2) Företaget, 3) Adress, 4) tekniska dokumentationen, 5) Konstruktor av nedan beskrivna maskin, 6) Försäkrar att denna maskin, 7) Överensstämmer med nedanstående direktiv och införlivandet av dem i nationell rätt, 8) För maskinerna i bilaga IV, 9) Nummer för godkännande, 10) Organism som underrättats, 15) Harmoniserade standarder som använts, 16) andra tekniska standarder och specifikationer som använts, 17) Upprättat i, 18) Datum, 19) Namn på den som undertecknat, 20) Befattning, 21) Namnteckning.

UKCA DECLARATION OF CONFORMITY

This document is a specimen of the UKCA Declaration of Conformity and includes the contents of the original declaration supplied with the machine.

This specimen and the original document may contain fields that are not applicable to your machine. These fields are left blank if not applicable.

Refer to the original Declaration of Conformity for all data applicable to your machine.

UKCA DECLARATION OF CONFORMITY

Manufacturer: **MANITOU BF**
Address: **430, RUE DE L'AUBINIÈRE - BP 10249
44158 ANCENIS CEDEX - FRANCE**
Authorized representative: **MANITOU UK
Ebbleke Industrial Estate - Dorset BH 31 6BB
Verwood - United Kingdom**

The manufacturer declares that the below described machinery:

Rough-terrain variable-reach truck

MLT 850 145 V+ Y ST5 S1

Complies with the following legislation:

The supply of Machinery (Safety) Regulations 2008, as amended

The machine is designed for the lifting of persons:

Applied procedure: Non applicable
Certificate number: Non applicable
Dated:
Approved body: Non applicable

Noise Emission in the Environment by Equipment for use Outdoors Regulations 2001, as amended

Applied procedure: Schedule 9
Approved body: ECO CERTIFICAZIONI S.P.A.
VIA MENGOLINA, 33.5
48018 FAENZA-RA - ITALIA

Sound power level:

Measured: dB (A)
Guaranteed: dB (A)

Electromagnetic Compatibility Regulations 2016, as amended

The following designated standards have been addressed:

EN1459 ; EN 12895

The following standards or technical guidance have been addressed:

At: Date:
Name of signatory:
Position:
Company:
Signature:

UKCA DECLARATION OF CONFORMITY (TRACTOR TYPE APPROVAL)

This document is a specimen of the UKCA Declaration of Conformity and includes the contents of the original declaration supplied with the machine.

This specimen and the original document may contain fields that are not applicable to your machine. These fields are left blank if not applicable.

Refer to the original Declaration of Conformity for all data applicable to your machine.

UKCA DECLARATION OF CONFORMITY

Manufacturer: **MANITOU BF**
Address: **430, RUE DE L'AUBINIÈRE - BP 10249
44158 ANCENIS CEDEX - FRANCE**
Authorized representative: **MANITOU UK
Ebblake Industrial Estate - Dorset BH 31 6BB
Verwood - United Kingdom**

The manufacturer declares that the below described machinery:
**Permanently mounted equipment for telescopic loader tractor type T1a
MLT 850 145 V+ Y ST5 S1**

Complies with the following legislation:

The supply of Machinery (Safety) Regulations 2008, as amended

The machine is designed for the lifting of persons:

Applied procedure: Non applicable
Certificate number: Non applicable
Dated:
Approved body: Non applicable

Applied procedure: Schedule 9
Approved body: ECO CERTIFICAZIONI S.P.A.
VIA MENGOLINA, 33.5
48018 FAENZA-RA - ITALIA

Sound power level:

Measured: dB (A)
Guaranteed: dB (A)

Electromagnetic Compatibility Regulations 2016, as amended

The following designated standards have been addressed:

EN1459 ; EN 12895

The following standards or technical guidance have been addressed:

At: _____ Date: _____
Name of signatory: _____
Position: _____
Company: _____
Signature: _____

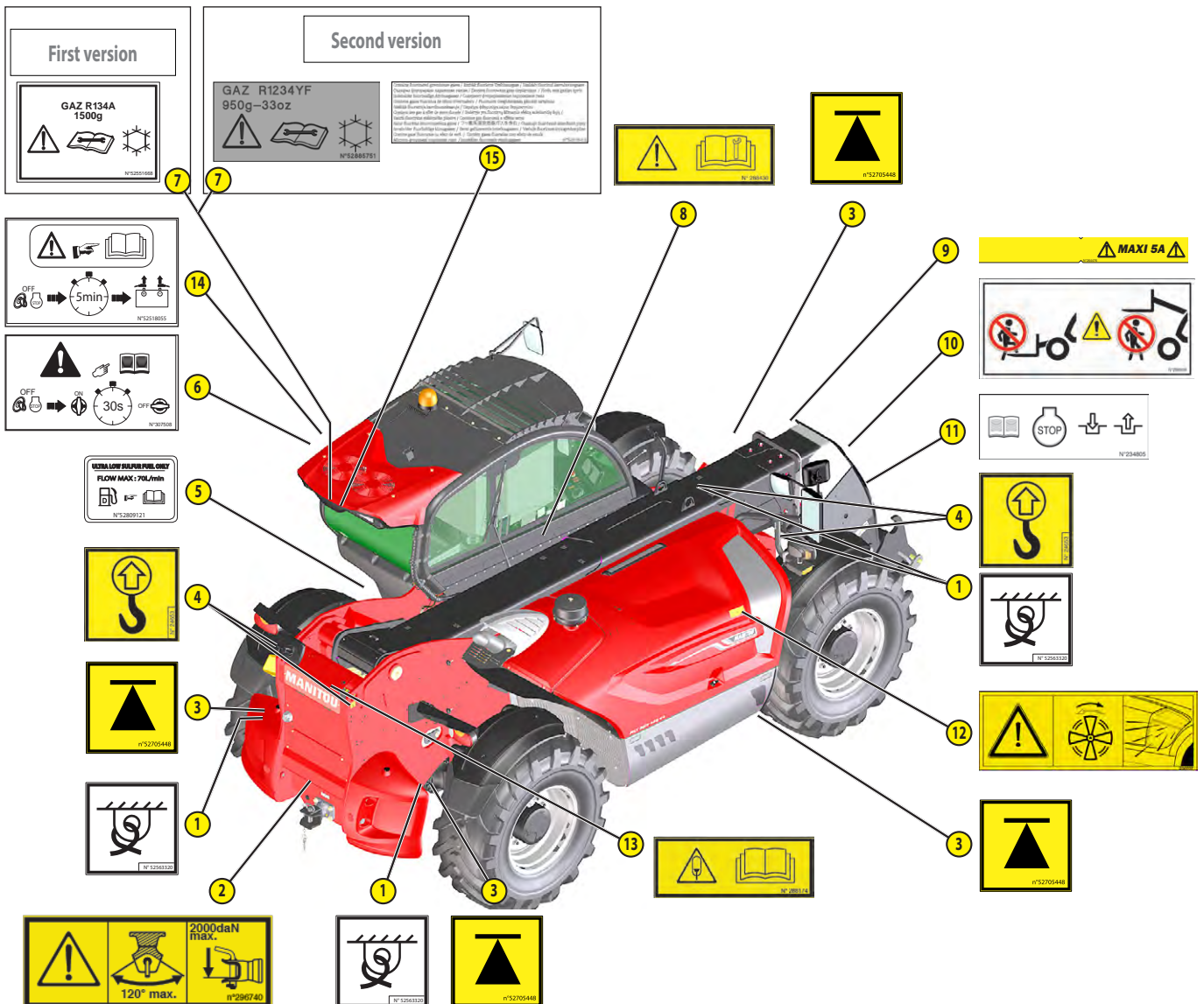
SAFETY PLATES AND STICKERS

⚠ IMPORTANT ⚠

Clean all stickers and safety plates so that they are legible.
 Any safety plates and stickers which are illegible or damaged must be replaced.
 Check that stickers and safety plates are present after replacing any spare parts.

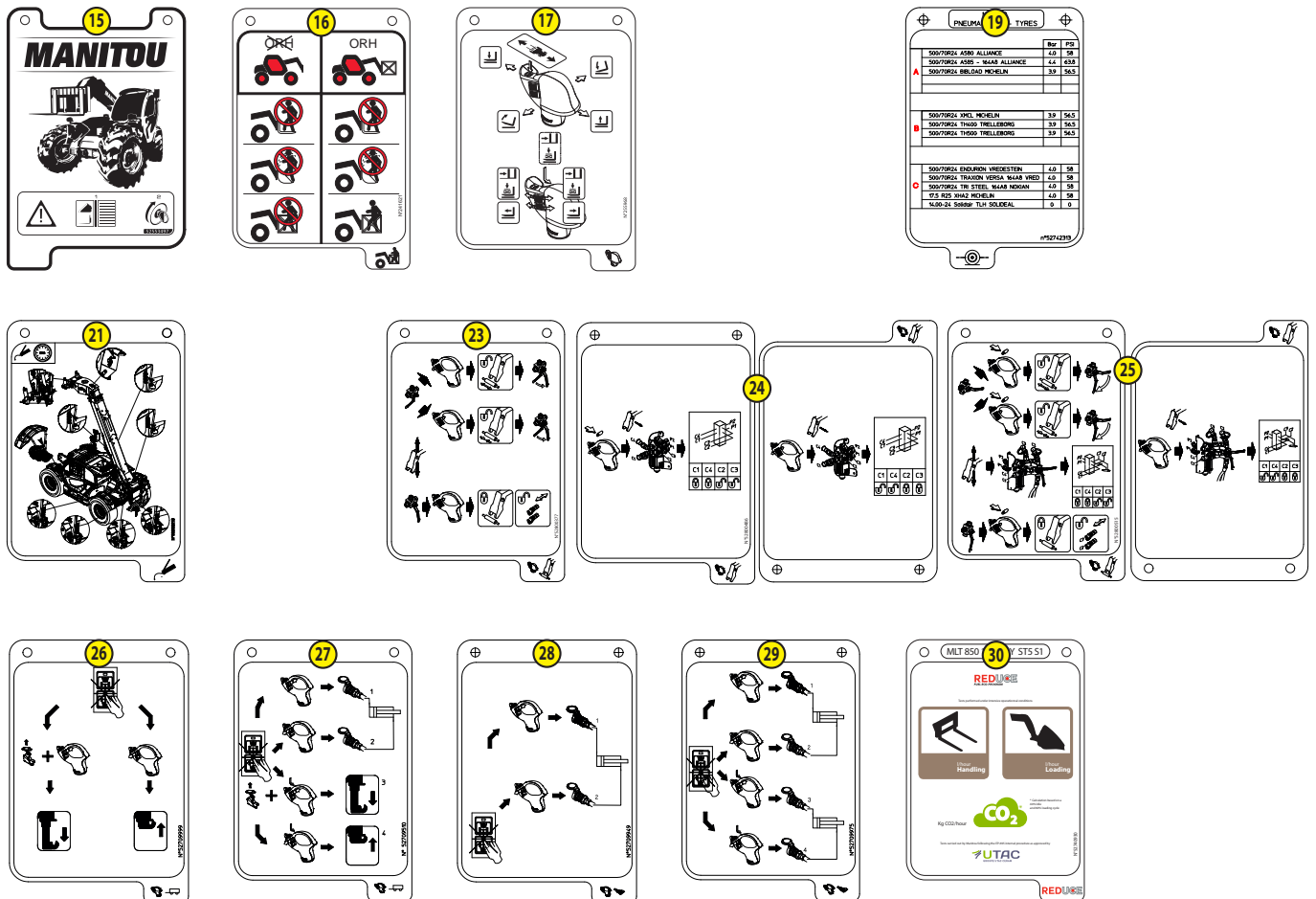
EXTERNAL PLATES AND STICKERS

REF.	REFERENCE	DESCRIPTION
1	52563320	- Tie-down point
2	296740	- Towing instruction
3	52705448	- Jack point
4	24653	- Slings point
5	52809121	- Fuel
6	52694835	- Battery cut-off
7	52551668	- R134A gas air conditioning (first version)
	52885751	- R1234YF gas air conditioning (second version)
8	288430	- Repair instruction
9	264476	- Boom electrical predisposition (OPTION)
10	296998	- Maniscopic safety instruction
11	234805	- Hydraulic coupling instruction
12	250707	- Ventilation reversal
13	288174	- Accumulator Instructions
14	52518055	- Battery troubleshooting
15	52885412	- Contains fluorinated greenhouse gases



PLATES AND STICKERS IN THE CAB

REF.	REFERENCE	DESCRIPTION
1	52799292	- Boom position
2	52651762	- Hydraulic controls activation
3	52553499	- Operating mode management instruction
4	52544967	- Switch pictograms
5	290183	- Bucket instruction on telescope
6	52781454	- Cab homologation
7	223324	- Patents
8	52579106	- Cab category 1
9	52567646	- Emergency exit
10	52872241	- Cab fuses
11	204079	- Hydraulic towing hook (OPTION)
12	52740784	- Cab compliance
13	239595	- Sound power level 105dB
14	52697439	- Fuel
15	52553497	- Reach chart sheet
16	241621	- Safety instruction
17	255968	- Joystick function
18	52580160	- Towing prohibited
19	52742313	- Tires
21	52808218	- Greasing instructions
23	52800377	- Hydraulic attachment locking (OPTION)
24	52800486	- Boom head electrovalve (OPTION)
25	52800515	- Boom head electrovalve + hydraulic attachment locking (OPTION)
26	52709999	- Hydraulic towing hook (OPTION)
27	52709510	- Hydraulic towing hook + double-acting predisposition (OPTION)
28	52709949	- Double-acting rear hydraulic predisposition joystick function
29	52709975	- Double-acting rear hydraulic predisposition double joystick function
30	52740930	- Consumption sheet
31	52759172	- WARNING risk of misuse (For UK only)
32	52884528	- Air conditioning fuse and relay (OPTION)



MACHINE IDENTIFICATION

As our policy is to promote constant improvement of our products, our range of machines may undergo certain modifications, without obligation for us to advise our customers.

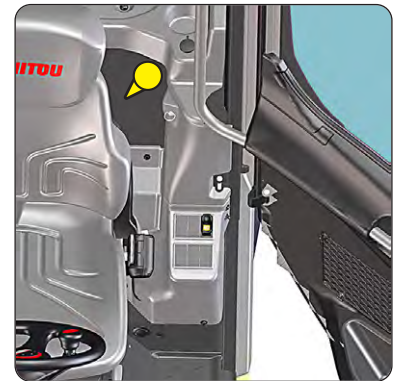
When you order parts, or when you require any technical information, always specify the following information.

N.B.: In order to have all these numbers on hand when needed, it is recommended that they are noted in the spaces provided, at the time of the delivery of the machine.

For any further technical information regarding your machine refer to chapter: CHARACTERISTICS.

MACHINE MANUFACTURER'S PLATE

"Designation" Designation	
"Series" Series	
"Year of manufacture" Year of manufacture	
"Model year" Model year	
"Serial Number / Product Identification Number" Serial number / Product Identification Number	
"Unladen mass" Unladen weight	
"Power" Power	
"Authorized gross vehicle weight" Authorized gross vehicle weight	
"Rated capacity" Rated capacity	
"Max vertical force (on trailer hook)" Maximum vertical force (on trailer hook)	
"Drag strain" Tractive force	



TRACTOR TYPE APPROVAL PLATE

"Category" Category	
"Homologation N°" Certification number	
"Product Identification Number" Product identification number	
"Total permissible mass" Maximum laden weight technically permissible	
"Maximum mass on front axle" Maximum weight on front axle	
"Maximum mass on rear axle" Maximum weight on rear axle	
"PERMISSIBLE TOWABLE MASS" PERMISSIBLE TRAILER WEIGHT	
• "B-1 unbraked" unbraked	
• "B-2 inertia braked" inertia braked	
• "B-3 hydraulic braked" hydraulic braked	
• "B-4 pneumatic braked" pneumatic braked	
• "T-1 drawbar" drawbar	
• "T-2 rigid drawbar" rigid drawbar	
• "T-3 centreaxle" center axle	



CHARACTERISTICS

ENGINE		
Type		YANMAR 4TN107FHT-5SMUF
Fuel		Diesel
Number of cylinders		4 in line
Suction		Supercharged
Injection system		Direct
Ignition sequence		1.3.4.2
Displacement	cm ³	4567
Bore and stroke	mm	107 x 127
Compression ratio		17,5
Nominal speed laden	rpm	2200
Min. rpm unladen	rpm	900
Max. rpm unladen	rpm	2350
Power ISO 3046	hp - kW	141 - 105
Power SAE J 1995	hp - kW	141 - 105
Maximum torque ISO 3046	Nm	602 at 1,500 rpm
Gravimetric efficiency ISO 5011	%	99,9
Type of cooling		Coolant
Fan		Suction

TRANSMISSION		
Transmission gearbox		
- Type		Continuous variation
- Shuttle lever		Electro-hydraulics
- Torque converter		-
- Number of forward speeds		-
- Number of reverse speeds		-
Angle gearbox		-
Front axle		DANA
- Differential		Limited slip
Rear axle		DANA
- Differential		Limited slip
Drive wheels		Permanent 4 WD
- 2/4 wheel drive control		no
Front tires		ALLIANCE
- Size		500/70-R24 A580
- Pressure	bar	4
Rear tires		ALLIANCE
- Size		500/70-R24 A580
- Pressure	bar	4

ELECTRIC CIRCUIT		
Battery		12 V - 180 Ah - 1200 A EN
Alternator		14 V - 150 A
- Type		BOSCH HD 8
Starter		4,7V - 3,4 kW
- Type		MITSUBISHI

BRAKE SYSTEM		
Service brake		Hydraulic power brake
- Type of brake		Oil-immersed multi-disc
- Type of order		Foot-operated for the front and rear axles
Parking brake		Hydraulic negative brake
- Type of brake		Oil-immersed multi-disc
- Type of order		Automatic and manual

SOUND AND VIBRATION		
Sound pressure level in the driver's cab LpA (according to standard EN 12053)	dB(A)	69 (cab closed)
Sound pressure (according to Directive 2009/76)	dB(A)	(cab closed); (cab open)
Guaranteed sound power level in the environment LwA (according to Directive 2000/14/EC modified by Directive 2005/88/EC)	dB(A)	104 (measured) ; 105 (guaranteed)
Sound level in motion (according to Directive 2009/63)	dB(A)	
Average weighted acceleration on driver's body (according to standard EN 13059)	m/s ²	0.8
The average weighted acceleration transmitted to the driver's hand/ arm system (according to standard ISO 5349-2)	m/s ²	< 2,5
Standard seat vibration	m/s ²	1,14 (lightweight operator) ; 0,91 (heavyweight operator)

HYDRAULIC CIRCUIT			
Hydraulic pump		Variable displacement pump	
- Type		1st casing	2nd casing
- Displacement	cm ³	85	23
- Max. rating capacity unladen	l/min	200	53
- Flow at 1600 rpm	l/min	136	36
Filtration			
- Back	µm	10	0
- Suction	µm	135	0
Maximum working pressure		270	
- Telescoping circuit	bar	200 / 270	
- Lift circuit	bar	270 / 270	
- Tilt circuit	bar	270 / 200	
- Circuit stabilizers	bar	-	
- Frame leveling circuit	bar	-	
- Attachment circuit	bar	270	
- Steering circuit	bar	175	

HYDRAULIC MOVEMENTS			
Longitudinal stability limiter and warning device		Electronics	
Lifting motions (boom retracted)			
- Unladen lifting	s - m/min	7,3 - 40,7	
- Laden lifting	s - m/min	13 - 22,8	
- Unladen lowering	s - m/min	8,7 - 34,1	
- Laden lowering	s - m/min	6,4 - 46,4	
Telescoping motions (boom raised)			
- Unladen extending	s - m/min	6,6 - 27,1	
- Laden extending	s - m/min	6,7 - 26,7	
- Unladen retracting	s - m/min	6,1 - 29,4	
- Laden retracting	s - m/min	6,1 - 29,4	
Tilting movements			
- Crowd unladen	s - °/s	4,4 - 32,7	
- Unladen dump	s - °/s	3,5 - 41,1	

SPECIFICATIONS AND WEIGHTS			
Speed of movement for machine in standard configuration on flat ground			
- Front unladen	km/h	40	
- Rear unladen	km/h	40	
Standard attachment		CAT1260/5T	
- Weight with forks	kg	218	
- Weight of forks (each)	kg	94	
Rated capacity with standard attachment	kg	4999	
Tipping load at maximum reach on tires	kg	1850	
Distance from the center of gravity of the load to the base of the forks	mm	500	
Standard lifting height	mm	7555	
Weight of machine without attachment	kg	10374	
Weight of machine with standard attachment			
- Unladen	kg	10780	
- At rated load	kg	15779	
Weight per axle with standard attachment (transport position)			
- Front unladen	kg	4780	
- Rear unladen	kg	6000	
- Front rated load	kg	13669	
- Rear rated load	kg	2110	
Weight per axle with standard attachment (boom extended)			
- Front rated load	kg	11530	
- Rear rated load	kg	1020	
Tractive effort on the coupling hook			
- Unladen (sliding)	daN	8100	
- At rated load (transmission setting)	daN	9160	
Break-out force with bucket (according to standard ISO 8313)	daN	8670	

TIRES

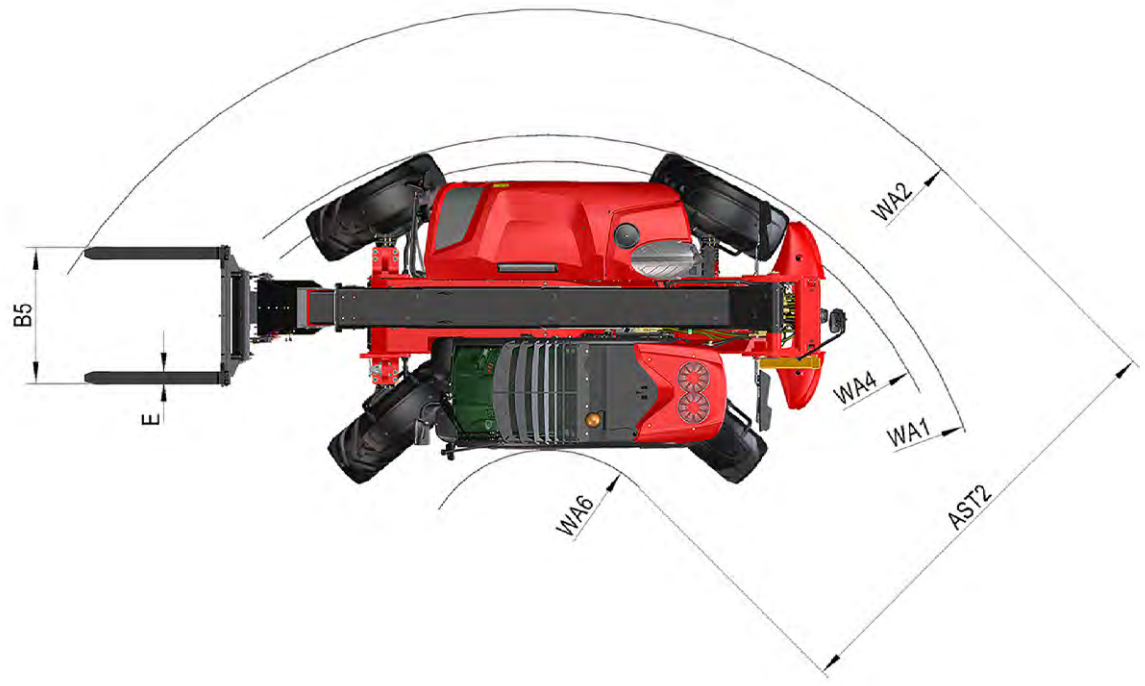
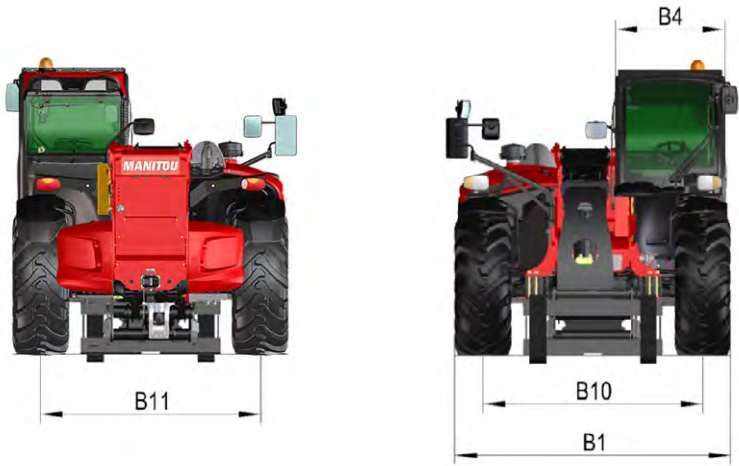
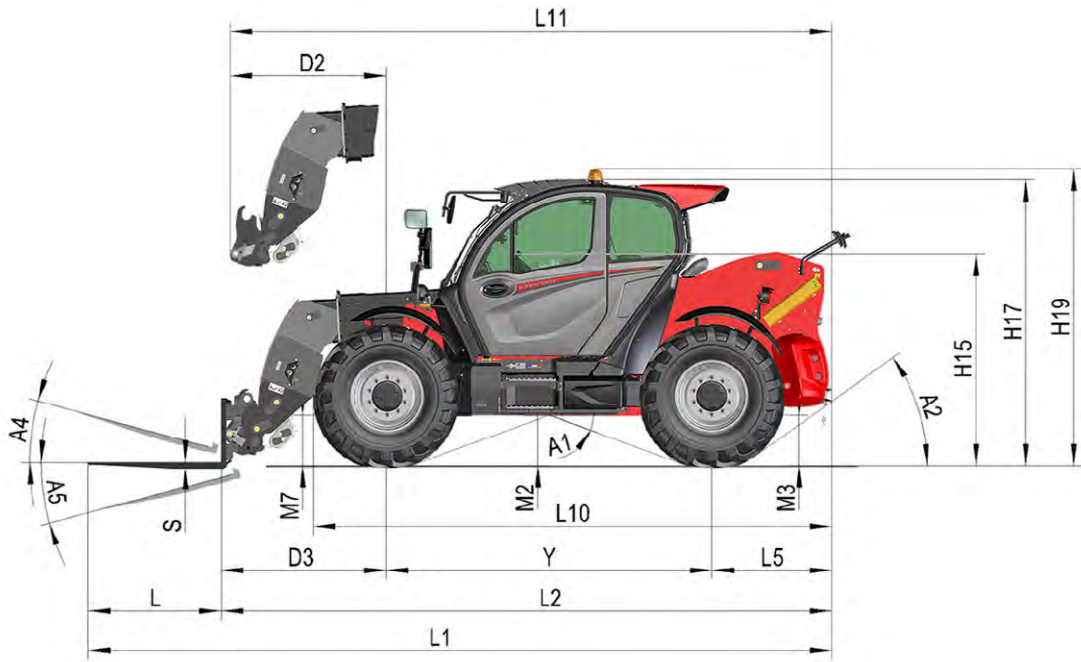
		PRESSURE (bar)	LOAD PER TIRE (kg)			
			FRONT UNLADEN	FRONT (LADEN)	REAR (UNLADEN)	REAR (LADEN)
MICHELIN	500/70-R24 XMCL 164A8	3.9	2390	6835	3000	1055
	500/70-R24 BIBLOAD 164A8	3.9				
	17.5 R25 XHA2	4				
ALLIANCE	500/70R24 A580	4				
	500/70R24 A585 - 164A8	4.4				
TRELLEBORG	500/70-R24 TH500 159A8	3.9				
	500/70-R24 TH400 164A8	3.9				
VREDESTEIN	500/70R24 TRAXION VERSA 164A8	4				
	500/70-R24 ENDURION	4				
NOKIAN	500/70R24 TRI STEEL 164A8	4				
SOLIDEAL	14.00-24 Solidair TLH	0				

		Bar	PSI
A	500/70R24 A580 ALLIANCE	4.0	58
	500/70R24 A585 - 164A8 ALLIANCE	4.4	63.8
	500/70R24 BIBLOAD MICHELIN	3.9	56.5
B	500/70R24 XMCL MICHELIN	3.9	56.5
	500/70R24 TH400 TRELLEBORG	3.9	56.5
	500/70R24 TH500 TRELLEBORG	3.9	56.5
C	500/70R24 ENDURION VREDESTEIN	4.0	58
	500/70R24 TRAXION VERSA 164A8 VRED	4.0	58
	500/70R24 TRI STEEL 164A8 NOKIAN	4.0	58
	17.5 R25 XHA2 MICHELIN	4.0	58
	14.00-24 Solidair TLH SOLIDEAL	0	0

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		PRESSURE (bar)	LOAD (kg)	GROUND CONTACT PRESSURE (kg/cm2)		GROUND CONTACT AREA (cm2)	
				HARD GROUND	SOFT GROUND	HARD GROUND	SOFT GROUND
MICHELIN	500/70-R24 XMCL 164A8	3,9	1055				
			2390				
			3000				
			6835				
	500/70-R24 BIBLOAD 164A8	3,9	1055				
			2390				
			3000				
			6835				
	17.5 R25 XHA2	4	1055				
			2390				
			3000				
			6835				
ALLIANCE	500/70-R24 A580	4	1055				
			2390				
			3000				
			6835				
	500/70R24 A585 - 164A8	4,4	950				
			1300				
			2000				
			2100				
TRELLEBORG	500/70-R24 TH500 159A8	3,9	950				
			1300				
			2000				
			2100				
	500/70-R24 TH400 164A8	3,9	1055				
			2390				
			3000				
			6835				
VREDESTEIN	500/70R24 TRAXION VERSA 164A8	4	1055				
			2390				
			3000				
			6835				
	500/70-R24 ENDURION	4	1055				
			2390				
			3000				
			6835				
NOKIAN	500/70R24 TRI STEEL 164A8	4	1055				
			2390				
			3000				
			6835				
SOLIDEAL	14.00-24 Solidair TLH	0	1055				
			2390				
			3000				
			6835				

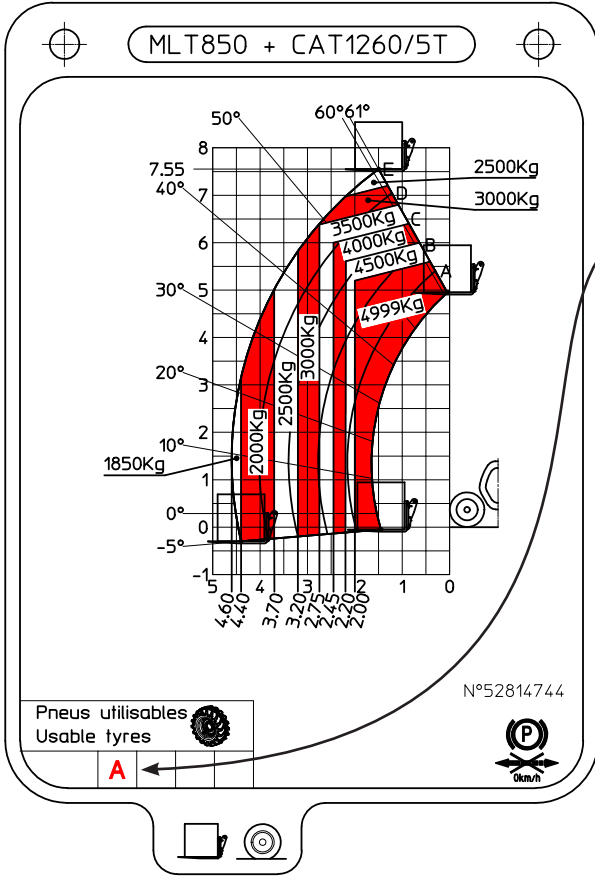
DIMENSIONS AND LOAD CHARTS



MACHINE LENGTH	L1	mm	6771
	L2	mm	5571
	L5	mm	1078
	L10	mm	4642
	L11	mm	5478
MACHINE WIDTH	B1	mm	2495
	B4	mm	994
	B10	mm	1990
	B11	mm	1990
MACHINE HEIGHT	H10	mm	602
	H15	mm	1940
	H17	mm	2584
	H19	mm	2675
DISTANCE	D2	mm	1460
	D3	mm	1553
AISLE WIDTH	Ast2	mm	3940
ATTACHMENT	L	mm	1200
	S	mm	50
	E	mm	150
TURNING RADIUS	Wa1	mm	4123
	Wa2	mm	5250
	Wa4	mm	3870
	Wa6	mm	1310
GROUND CLEARANCE	M2	mm	450
	M3	mm	460
	M7	mm	450
ANGLE	A1	°	40
	A2	°	35
	A4	°	12
	A5	°	132
	A11	°	-
	A12	°	-
WHEELBASE	Y	mm	2940

LOAD CHARTS

STANDARD WITH TIRES "A"

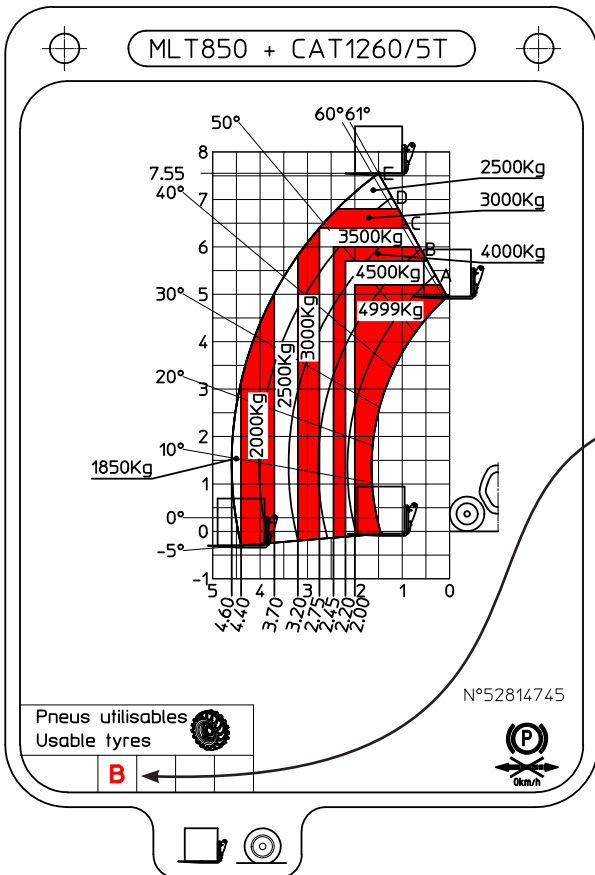


MLT850
PNEUMATIQUES - TYRES

	Bar	PSI
A	500/70R24 A580 ALLIANCE	4.0 58
	500/70R24 A585 - 164A8 ALLIANCE	4.4 63.8
	500/70R24 BIBLOAD MICHELIN	3.9 56.5
B	500/70R24 XMCL MICHELIN	3.9 56.5
	500/70R24 TH400 TRELLEBORG	3.9 56.5
	500/70R24 TH500 TRELLEBORG	3.9 56.5
C	500/70R24 ENDURION VREDESTEIN	4.0 58
	500/70R24 TRAXION VERSA 164A8 VRED	4.0 58
	500/70R24 TRI STEEL 164A8 NOKIAN	4.0 58
	17.5 R25 XHA2 MICHELIN	4.0 58
	14.00-24 Solidair TLH SOLIDEAL	0 0

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STANDARD WITH TIRES "B"

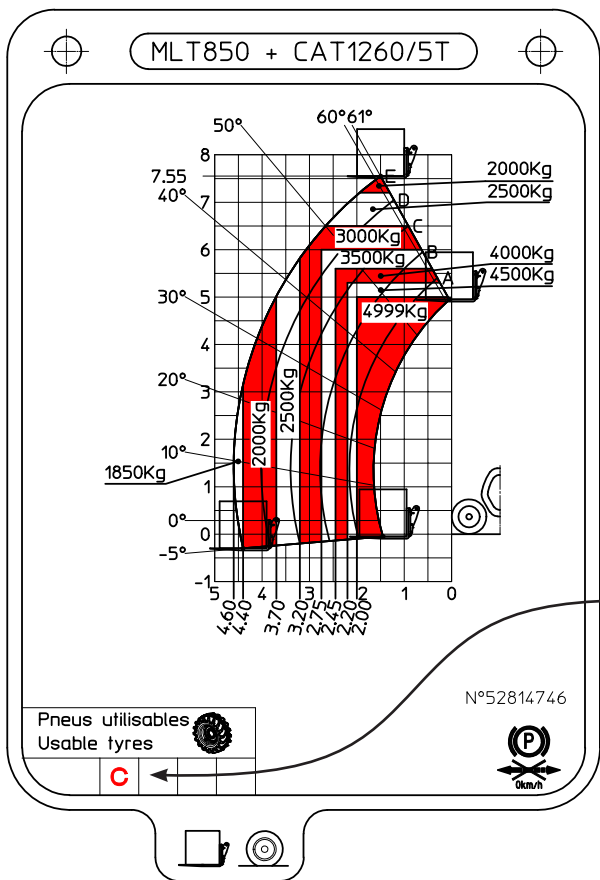


MLT850
PNEUMATIQUES - TYRES

	Bar	PSI
A	500/70R24 A580 ALLIANCE	4.0 58
	500/70R24 A585 - 164A8 ALLIANCE	4.4 63.8
	500/70R24 BIBLOAD MICHELIN	3.9 56.5
B	500/70R24 XMCL MICHELIN	3.9 56.5
	500/70R24 TH400 TRELLEBORG	3.9 56.5
	500/70R24 TH500 TRELLEBORG	3.9 56.5
C	500/70R24 ENDURION VREDESTEIN	4.0 58
	500/70R24 TRAXION VERSA 164A8 VRED	4.0 58
	500/70R24 TRI STEEL 164A8 NOKIAN	4.0 58
	17.5 R25 XHA2 MICHELIN	4.0 58
	14.00-24 Solidair TLH SOLIDEAL	0 0

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STANDARD WITH TIRES "C"



MLT850
PNEUMATIQUES - TYRES

	Bar	PSI	
A	500/70R24 A580 ALLIANCE	4.0	58
	500/70R24 A585 - 164A8 ALLIANCE	4.4	63.8
	500/70R24 BIBLOAD MICHELIN	3.9	56.5
B	500/70R24 XMCL MICHELIN	3.9	56.5
	500/70R24 TH400 TRELLEBORG	3.9	56.5
	500/70R24 TH500 TRELLEBORG	3.9	56.5
C	500/70R24 ENDURION VREDESTEIN	4.0	58
	500/70R24 TRAXION VERSA 164A8 VRED	4.0	58
	500/70R24 TRI STEEL 164A8 NOKIAN	4.0	58
	17.5 R25 XHA2 MICHELIN	4.0	58
	14.00-24 Solidair TLH SOLIDEAL	0	0

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VISIBILITY

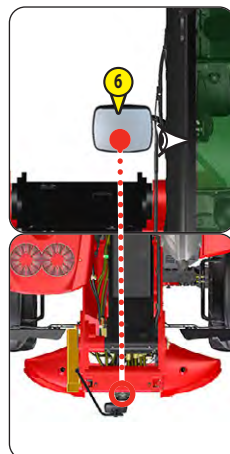
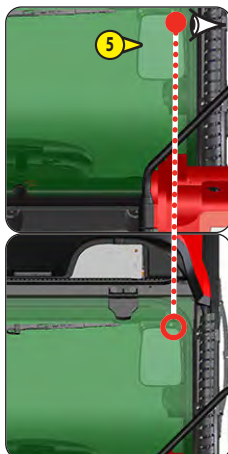
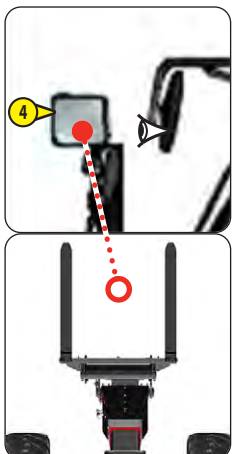
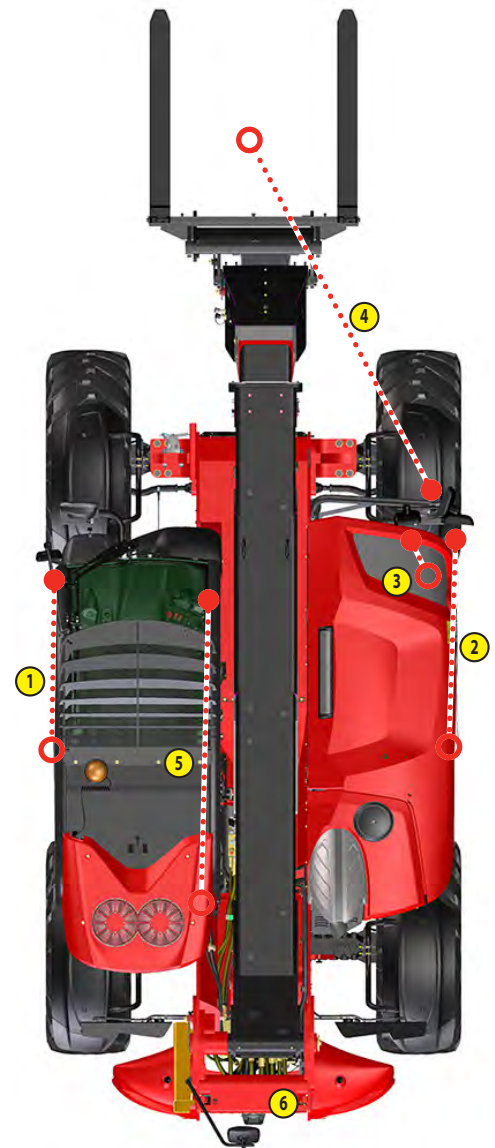
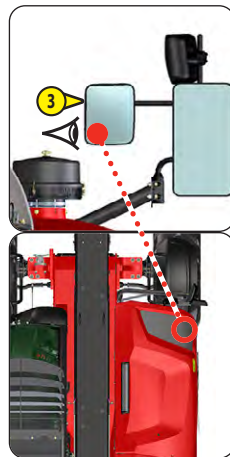
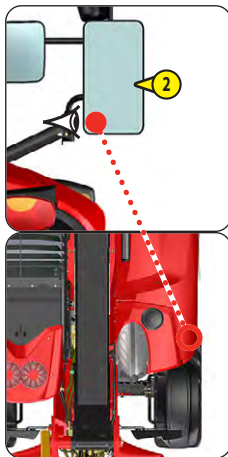
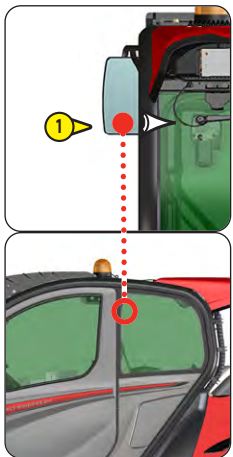
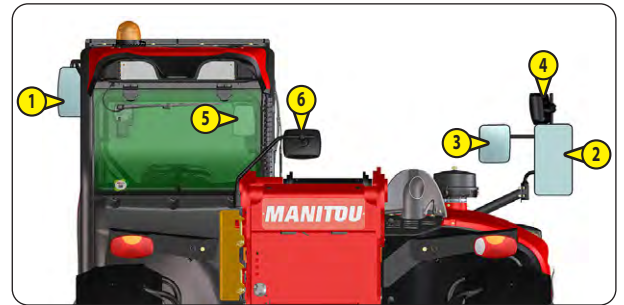
We use European standard EN15830 relating to operator visibility.

- Adhere to the instructions for optimizing operator visibility in the immediate vicinity (≤ 1 - OPERATING AND SAFETY INSTRUCTIONS: OPERATOR INSTRUCTIONS: OPERATING INSTRUCTIONS WITH AND WITHOUT LOAD: D - VISIBILITY).

DESCRIPTION AND ADJUSTMENT OF REAR-VIEW MIRRORS

- 1 - LEFT REAR-VIEW MIRROR
- 2 - MAIN RIGHT REAR-VIEW MIRROR
- 3 - SECONDARY RIGHT REAR-VIEW MIRROR
- 4 - RIGHT REAR-VIEW MIRROR
- 5 - INTERNAL REAR-VIEW MIRROR
- 6 - REAR-VIEW MIRROR

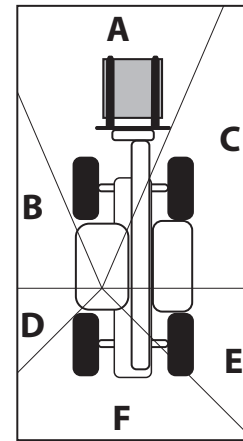
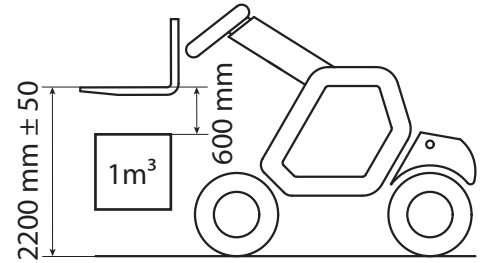
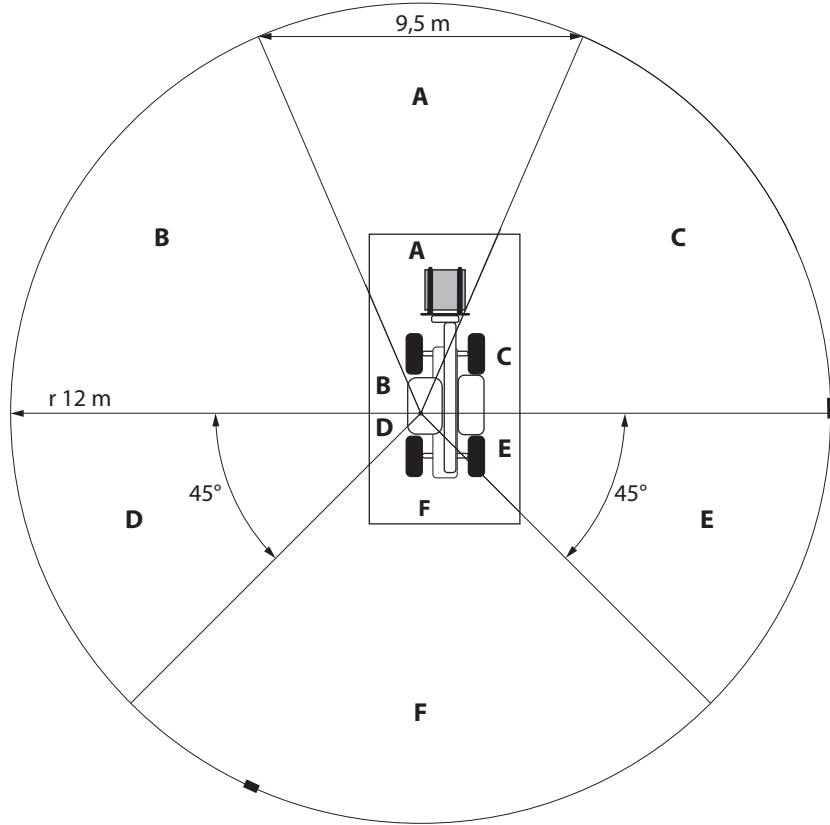
- Place the machine on level ground with the engine stopped, and the boom retracted and lowered as far as possible.
- Note the position of the reference points ●...○ in the illustrations, to see and correctly adjust the rear-view mirrors.



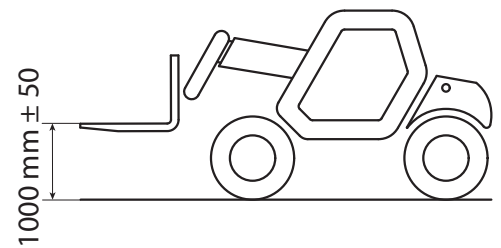
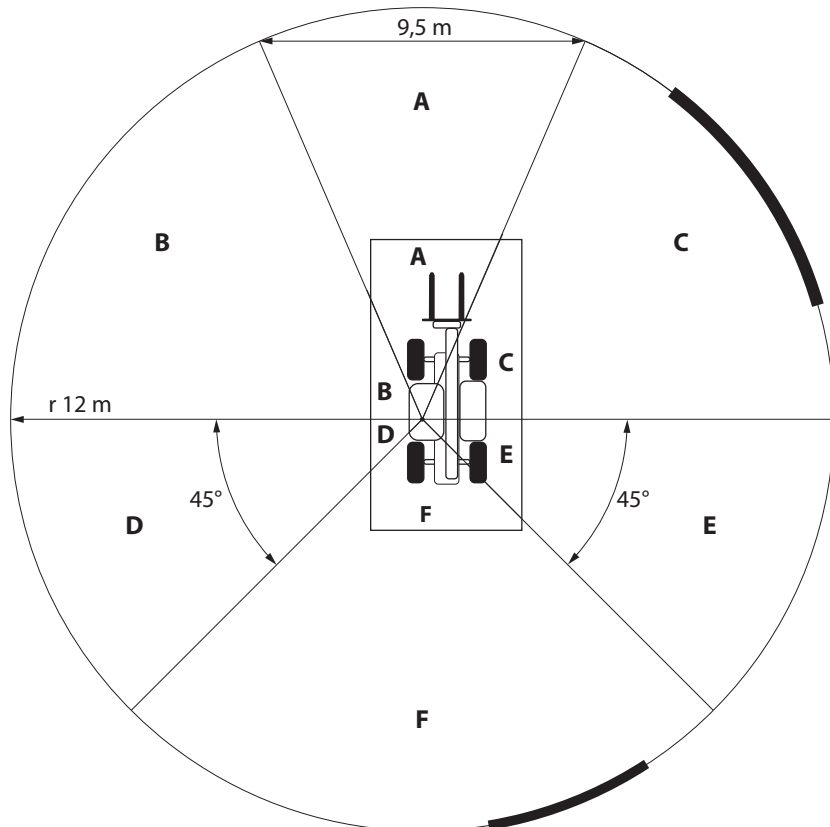
DIRECT AND/OR INDIRECT VISIBILITY BLIND SPOT ZONES

The two diagrams below indicate blind spot zones on the visibility test circle (12 m radius) and the 1 m rectangular zone around the machine, according to tests carried out in accordance with EN 15830.

HANDLING SUSPENDED LOADS (Test carried out in accordance with 6.3.3 of EN 15830)



LOADING THE TRAILER (Test carried out in accordance with 6.3.4 of EN 15830)



EMERGENCY BRAKE

SERVICE BRAKE

If the service brake is not working properly:

- Press down fully on the service brake pedal to immobilize the machine.
- Activate the hand-operated parking brake.



HAND-OPERATED PARKING BRAKE

⚠ IMPORTANT ⚠

Beware of sudden immobilization of the machine

In the event of immediate danger:

- Activate the hand-operated parking brake.

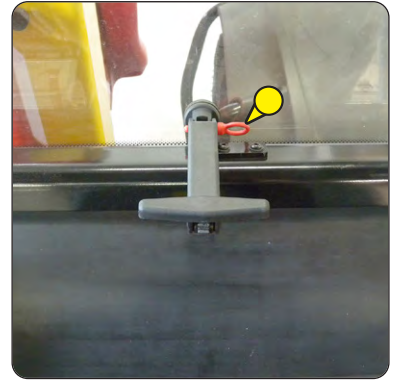


EMERGENCY EXIT

REAR WINDOW

Use the rear window as an emergency exit, if it is impossible to leave the cab by the door;

- Remove the pin to fully open the rear window.



EMERGENCY HAMMER

Use the emergency hammer to break one of the windows in the event that it is impossible to exit the cab by the door or the rear window.

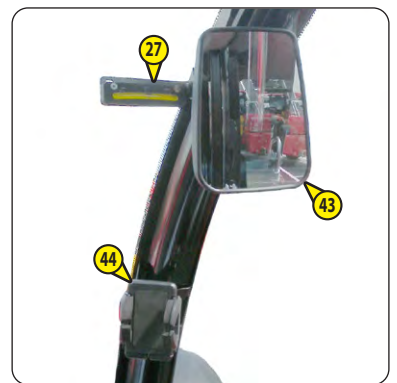
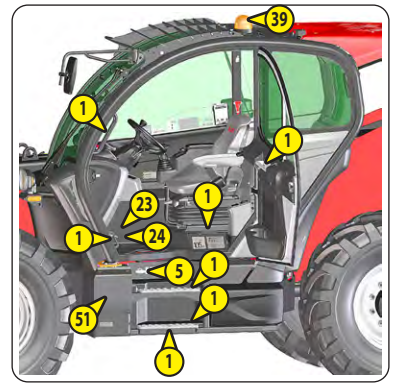


INSTRUMENTS AND CONTROLS

DESCRIPTION

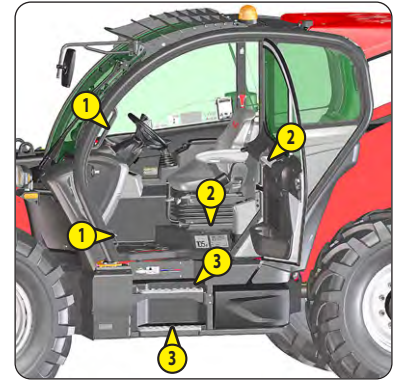
N.B.: All the terms such as: RIGHT, LEFT, FRONT, REAR are as seen by an observer occupying the driver's seat and looking straight ahead.

1 - DRIVER'S CAB ACCESS	2-30
2 - DRIVER'S SEAT	2-30
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1 - DRIVER'S CAB ACCESS

- Face the driver's cab access to get in and out, and always use the three support points provided for this purpose.
- 1 - Left handle.
- 2 - Right handle.
- 3 - Step.



2 - DRIVER'S SEAT

For increased comfort, adjust the seat to your requirements and adopt the correct position in the driver's cab.

⚠ IMPORTANT ⚠

Under no circumstances must the seat be adjusted while the machine is moving.

MAINTENANCE

⚠ IMPORTANT ⚠

A moving backrest increases the risk of an accident!

Dirt may adversely affect the correct functioning of the seat. For this reason, make sure your seat is always clean.

- To clean or change the cushions, simply remove them from the seat frame.
- Avoid wetting the cushion fabric when cleaning it. Firstly check the resistance of the fabric on a small hidden area before using any fabric or plastic cleaner.

DRIVER'S SEAT "CLASSIC"

DESIGNED FOR MAXIMUM COMFORT, THIS SEAT CAN BE ADJUSTED AS FOLLOWS.

WEIGHT ADJUSTMENT

It is recommended to adjust the weight when the driver is not in the seat.

- Refer to graduation 1 of the seat.
- Turn handle 2 according to the driver's weight.

N.B.: To avoid health problems, it is recommended that the weight adjustment should be checked and adjusted before starting the machine.

HEADREST

- The height of the headrest 3 can be adjusted by pulling it upward (the notches will click) up to the stop.
- The headrest can be removed by applying sufficient pressure to pull it off the stop.

BACKREST ANGLE ADJUSTMENT

⚠ IMPORTANT ⚠

If you do not support the backrest when making adjustments, it swings completely forward.

- Support the backrest, pull the lever 4 and tilt the backrest to the desired position.

LONGITUDINAL ADJUSTMENT

- Engage the locking lever 5 in the desired position. Once locked, you can no longer move the seat into another position.



PNEUMATIC DRIVER'S SEAT "PREMIUM"

DESIGNED FOR MAXIMUM COMFORT, THIS SEAT CAN BE ADJUSTED AS FOLLOWS.

WEIGHT AND SEAT HEIGHT ADJUSTMENT

WEIGHT ADJUSTMENT

Adjust the seat according to your weight while correctly seated.

- Switch on the machine's ignition.
- Push or pull lever 1 until green appears in display 2 indicating correct adjustment according to your weight.

N.B.: To avoid health problems, it is recommended that the weight adjustment should be checked and adjusted before starting the machine.

SEAT HEIGHT ADJUSTMENT

⚠ IMPORTANT ⚠

To avoid damage, do not operate the compressor for more than 1 minute.

When weight adjustment has been carried out, you can then modify seat height.

- Keep the machine's ignition on.
- Push or pull lever 1 until green appears and adjust the height of the seat while checking that the green in display 2 remains visible.

HEADREST

- The height of the headrest 3 can be adjusted by pulling it upward (the notches will click) up to the stop.
- The headrest can be removed by applying sufficient pressure to pull it off the stop.

BACKREST ANGLE ADJUSTMENT

⚠ IMPORTANT ⚠

If you do not support the backrest when making adjustments, it swings completely forward.

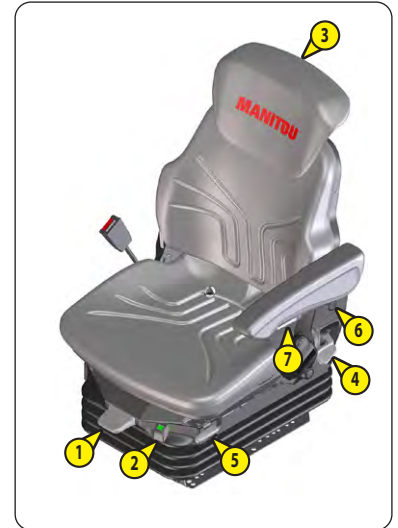
- Support the backrest, pull the lever 4 and tilt the backrest to the desired position.

LONGITUDINAL ADJUSTMENT

- Engage the locking lever 5 in the desired position. Once locked, you can no longer move the seat into another position.

ARMREST ADJUSTMENT

- Tip the armrest backwards or adjust its height.
- Remove cap 6 to adjust the height.
- Undo the nut, adjust the height of the armrest and do the nut back up.
- Refit the cap 6.
- You can modify the tilt of the armrest by turning the knob 7.



PNEUMATIC DRIVER'S SEAT "ÉLITE"

DESIGNED FOR MAXIMUM COMFORT, THIS SEAT CAN BE ADJUSTED AS FOLLOWS.

WEIGHT AND SEAT HEIGHT ADJUSTMENT

⚠ IMPORTANT ⚠

To avoid damage, do not operate the compressor for more than 1 minute.

WEIGHT ADJUSTMENT

Adjust the seat according to your weight while correctly seated.

- Switch on the machine's ignition.
- Briefly pull up lever 1 to automatically adjust the seat according to your weight.

N.B.: To avoid health problems, it is recommended that the weight adjustment should be checked and adjusted before starting the machine.

SEAT HEIGHT ADJUSTMENT

- Fully push in or pull out lever 1 to adjust the height of the seat. When the upper or lower end stop is reached, the seat automatically adjusts itself, thus minimizing the damping stroke.

HORIZONTAL SHOCK ABSORBER

In certain conditions (e.g. driving with a trailer) it is advised the horizontal shock absorber 2 be used. The driver's seat is thus better able to absorb jerks in the direction of travel.

- Position A: Horizontal shock absorber removed.
- Position B: Horizontal shock absorber fitted.

HEADREST

- The height of the headrest 3 can be adjusted by pulling it upward (the notches will click) up to the stop.
- The headrest can be removed by applying sufficient pressure to pull it off the stop.

BACKREST ANGLE ADJUSTMENT

⚠ IMPORTANT ⚠

If you do not support the backrest when making adjustments, it swings completely forward.

- Support the backrest, pull the lever 4 and tilt the backrest to the desired position.

LONGITUDINAL ADJUSTMENT

- Engage the locking lever 5 in the desired position. Once locked, you can no longer move the seat into another position.

LUMBAR ADJUSTMENT

This increases the comfort of the seat and the driver's freedom of movement.

- Turn the handle 6 either left or right to adjust the height or depth of the lumbar support.

ARMREST ADJUSTMENT

- Tip the armrest backwards or adjust its height.
- Remove cap 7 to adjust the height.
- Undo the nut, adjust the height of the armrest and do the nut back up.
- Refit the cap 7.
- You can modify the tilt of the armrest by turning the knob 8.



PNEUMATIC DRIVER'S SEAT "LUXE"

DESIGNED FOR MAXIMUM COMFORT, THIS SEAT CAN BE ADJUSTED AS FOLLOWS.

WEIGHT AND SEAT HEIGHT ADJUSTMENT

⚠ IMPORTANT ⚠

To avoid damage, do not operate the compressor for more than 1 minute.

WEIGHT ADJUSTMENT

Adjust the seat according to your weight while correctly seated.

- Switch on the machine's ignition.
- Briefly pull up lever 1 to automatically adjust the seat according to your weight.

N.B.: To avoid health problems, it is recommended that the weight adjustment should be checked and adjusted before starting the machine.

SEAT HEIGHT ADJUSTMENT

- Fully push in or pull out lever 1 to adjust the height of the seat. When the upper or lower end stop is reached, the seat automatically adjusts itself, thus minimizing the damping stroke.

HORIZONTAL SHOCK ABSORBER

In certain conditions (e.g. driving with a trailer) it is advised the horizontal shock absorber 2 be used. The driver's seat is thus better able to absorb jerks in the direction of travel.

- Position A: Horizontal shock absorber removed.
- Position B: Horizontal shock absorber fitted.

HEADREST

- The height of the headrest 3 can be adjusted by pulling it upward (the notches will click) up to the stop.
- The headrest can be removed by applying sufficient pressure to pull it off the stop.

BACKREST ANGLE ADJUSTMENT

⚠ IMPORTANT ⚠

If you do not support the backrest when making adjustments, it swings completely forward.

- Support the backrest, pull the lever 4 and tilt the backrest to the desired position.

LONGITUDINAL ADJUSTMENT

- Engage the locking lever 5 in the desired position. Once locked, you can no longer move the seat into another position.

LUMBAR ADJUSTMENT

This increases the comfort of the seat and the driver's freedom of movement.

- The lumbar support in the upper or lower part of the backrest can be separately adjusted by operating the upper or lower switch.
- The curvature of the lumbar adjustment setting is adjusted by pressing "+" or "-" on the corresponding switch 6.
- Release the switch when the desired backrest curvature is achieved.

ARMREST ADJUSTMENT

- Tip the armrest backwards or adjust its height.
- Remove cap 7 to adjust the height.
- Undo the nut, adjust the height of the armrest and do the nut back up.
- Refit the cap 7.
- You can modify the tilt of the armrest by turning the knob 8.

HEATING

- Operate switch 9 to enable or disable the seat heating function.



PNEUMATIC DRIVER'S SEAT "ALDDS"

DESIGNED FOR MAXIMUM COMFORT, THIS SEAT CAN BE ADJUSTED AS FOLLOWS.

SEAT ADJUSTMENT

⚠ IMPORTANT ⚠

To avoid damage, do not operate the compressor for more than 1 minute.

WEIGHT ADJUSTMENT

Adjust the seat according to your weight while correctly seated.

- Turn on the ignition with the ignition key.
- Briefly pull up lever 1 to automatically adjust the seat according to your weight.

N.B.: To avoid health problems, it is recommended that the weight adjustment should be checked and adjusted before starting the machine.

SEAT HEIGHT ADJUSTMENT

- Fully push in or pull out lever 1 to adjust the height of the seat. When the upper or lower end stop is reached, the seat automatically adjusts itself, thus minimizing the damping stroke.

SEAT TILT ADJUSTMENT

- Pull the handle 2 upward while increasing or reducing the pressure on the front or back of the seat to find a comfortable position.

SEAT DEPTH ADJUSTMENT

- Pull the handle 3 upward while moving the seat backward or forward to find the desired position.

HORIZONTAL SHOCK ABSORBER

In certain conditions (e.g. driving with a trailer) it is advised the horizontal shock absorber 4 be used. The driver's seat is thus better able to absorb jerks in the direction of travel.

- Position A: Horizontal shock absorber ACTIVATED.
- Position B: Horizontal shock absorber DEACTIVATED.

HEADREST

- The height of the headrest 5 can be adjusted by pulling it upward (the notches will click) up to the stop.
- The headrest can be removed by applying sufficient pressure to pull it off the stop.

BACKREST ANGLE ADJUSTMENT

⚠ IMPORTANT ⚠

If you do not support the backrest when making adjustments, it swings completely forward.

- Support the backrest, pull the lever 6 and tilt the backrest to the desired position.

LONGITUDINAL ADJUSTMENT

- Engage the locking lever 7 in the desired position. Once locked, you can no longer move the seat into another position.

LUMBAR ADJUSTMENT

This increases the comfort of the seat and the driver's freedom of movement.

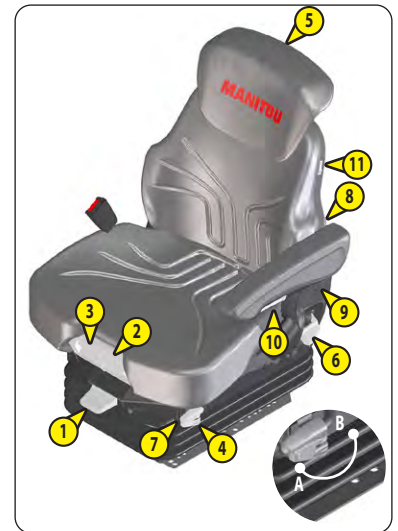
- The lumbar support in the upper or lower part of the backrest can be separately adjusted by operating the upper or lower switch.
- The curvature of the lumbar adjustment setting is adjusted by pressing "+" or "-" on the corresponding switch 8.
- Release the switch when the desired backrest curvature is achieved.

ARMREST ADJUSTMENT

- Tip the armrest backwards or adjust its height.
- Remove cap 9 to adjust the height.
- Undo the nut, adjust the height of the armrest and do the nut back up.
- Refit the cap 9.
- You can modify the tilt of the armrest by turning the knob 10.

HEATING

- Operate switch 11 to enable or disable the seat heating function



3 - ARMREST AND STORAGE

Lift the armrest to access the storage.

ARMREST ADJUSTMENT

The armrest adjustment positions the controller.

⚠ IMPORTANT ⚠

Make sure that the armrest's position is as ergonomic as possible to improve comfortable operation or handling hydraulics.

- Adjust the height of the armrest with knob A.
- Adjust the armrest forward or backward using knobs B.



4 - SEAT BELT

⚠ IMPORTANT ⚠

Under no circumstances must the machine be used if the seat belt is defective (fixing, locking, cuts, tears, etc.). Immediately repair or replace the seat belt.

- Sit correctly on the seat.
- Check that the seat belt is not twisted.
- Place the seat belt at hip level.
- Attach the seat belt and check that it locks.
- Adjust the seat belt to your body shape without compressing your pelvis and without excessive slack.



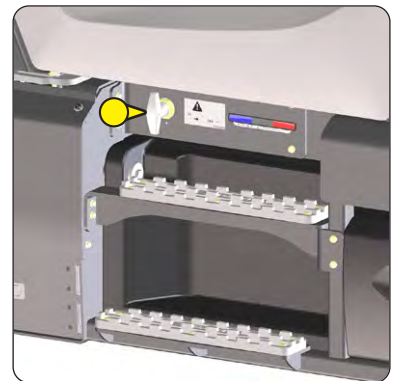
5 - BATTERY CUT-OFF

Enables the battery to be quickly cut off when stopping use of the machine, as a preventive measure after parking, if work is being done on the electrical system or in an emergency to isolate a short-circuit.

⚠ IMPORTANT ⚠

Except in an emergency (fire, accident, overturning of the machine), never operate the battery cut-off with the engine running as this could damage the alternator and the machine's electronic components.

- Switch off the ignition with the key, wait 30 seconds, then operate the battery cut-off.
- N.B.: Wait 5 minutes before disconnecting the battery, this is required in order to purge the Diesel Exhaust Fluid (DEF) system.



6 - EMERGENCY STOP

In case of danger, forces the transmission to neutral and cuts-off hydraulic movements.

⚠ IMPORTANT ⚠

Be ready for hydraulic movements suddenly stopping when you press this button. If possible stop the machine before using the emergency stop button.

- Turn switch to disable.



7 - IGNITION SWITCH

This key switch has 5 positions:

- P - Not used.
- O - Ignition cut-off and engine stop.
- I - Ignition + preheat.
- II - Not used.
- III - Start-up and return to I position as soon as the key is released.




8 - DASHBOARD "HARMONY"


INSTRUMENTS AND INDICATORS

A - TACHOMETER


B - ENGINE WATER TEMPERATURE

If the indicator lamp  comes on when the machine is running, this means that the coolant temperature is high. Leave the engine idling to lower the water temperature. If the fault persists, turn the engine off and investigate the cooling circuit for the cause of the malfunction.

C - FUEL LEVEL

If the  light comes on, your operating time is limited. Refill the fuel tank.

D - LEVEL "DEF" (Diesel Exhaust Fluid)

If the  light comes on, fill the DEF tank.

BATTERY LOAD FAULT INDICATOR

If the indicator and the buzzer come on when the machine is running, stop the engine immediately and determine the cause (electric circuit, alternator belt, alternator, etc.).

STEERING SYSTEM OIL PRESSURE FAULT INDICATOR

If the indicator light comes on when the machine is running, stop the engine immediately and determine the cause (possible leak, etc.).

WATER IN FUEL PRE-FILTER FAULT INDICATOR

The indicator light will come on when water is detected in the fuel pre-filter. Stop the machine and carry out the necessary repairs.

BRAKE FLUID PRESSURE FAULT INDICATOR

If the lamp and the buzzer come on when the machine is running, stop the engine immediately and consult your dealer.

ENGINE OIL PRESSURE FAULT INDICATOR

If the indicator lamp comes on when the machine is in operation, stop the engine immediately and look for the cause (oil level in engine crankcase).

N.B.: After starting the engine, the indicator lamp remains on for a few seconds then goes out when the correct engine oil pressure is reached. The full engine power is then available.

ENGINE PREHEATING INDICATOR

Preheating is necessary. When the machine is switched on, the indicator lamp comes on for 2 seconds and goes off as soon as preheat is ended. Start the machine's engine.





TRANSMISSION OIL PRESSURE FAULT INDICATOR

The indicator lamp and buzzer come on when there is an abnormal drop in transmission pressure, in forward gear. Stop the engine and determine the cause (transmission oil level, possible leak, radiator, etc.).

N.B.: This indicator lamp operates in forward travel conditions only, and can be ignored when the machine is stopped with the engine running at min rpm.



TRANSMISSION OIL TEMPERATURE FAULT INDICATOR

The indicator and buzzer come on when transmission oil temperature is abnormally high. Stop the engine and determine the cause (transmission oil level, possible leak, radiator, etc.).



HYDRAULIC RETURN FILTER OR HYDROSTATIC TRANSMISSION FILTER CLOGGING FAULT INDICATOR

The light and the buzzer come on when the hydraulic return filter or the hydrostatic transmission filter is clogged. Stop the engine and carry out the necessary repairs (↖ 3 - MAINTENANCE: FILTER CARTRIDGES AND BELTS).



ENGINE COOLANT LEVEL FAULT INDICATOR

If the indicator light and buzzer come on when the machine is in operation, stop the engine immediately and determine the cause (coolant level, possible leak, radiator, etc.).



ENGINE STOPPED FAULT INDICATOR

If the indicator lights up or flashes when the machine is in operation, stop the engine immediately and consult your dealer.



AIR FILTER CLOGGING FAULT INDICATOR

The light and the buzzer come on when the air filter cartridge is clogged. Stop the engine and carry out the necessary repairs (↖ 3 - MAINTENANCE: FILTER CARTRIDGES AND BELTS).







ENGINE FAULT INDICATOR

If the indicator light comes on or flashes while the machine is in operation, a diagnostic fault has been detected. The machine will operate in reduced mode. Consult your dealer as soon as possible.



FAULT INDICATOR "SCR" (selective catalytic reduction)

The indicator comes on if the system is above the efficiency threshold or if a diesel exhaust fluid quality problem is detected.

Flashing  indicator light +  + audible signal	- Low "DEF" (Diesel Exhaust Fluid) level. - Fill the tank "DEF".
 +  + audible signal	- Consult your dealer as soon as possible.



CRYSTALLIZATION OR SULFURIZATION LEVEL INDICATOR

If the indicator lamp flashes while the machine is in operation, perform a "STATIONARY MACHINE" EXHAUST REGENERATION (↖ 3 - MAINTENANCE: OCCASIONAL MAINTENANCE).



AUTOMATIC EXHAUST REGENERATION DEACTIVATED INDICATOR LAMP

The indicator lamp comes on when the machine is running to indicate that the automatic exhaust regeneration is disabled (↖ SWITCHES).



HIGH EXHAUST GAS TEMPERATURE INDICATOR LAMP

The light comes on while the machine is running to indicate a high exhaust gas temperature.

Do not stop the engine if the light is on.

You can continue to use the machine outside the ATEX (Explosive Atmosphere) environment.

To use your machine in an ATEX atmosphere (explosive atmosphere, cramped or non ventilated space, etc.). (< SWITCHES - DEACTIVATION OF AUTOMATIC EXHAUST REGENERATION).

INFORMATION SCREEN



HIGH BEAM HEADLIGHTS INDICATOR



LOW BEAM HEADLIGHTS INDICATOR



TURN SIGNAL INDICATOR



PARKING BRAKE LAMP



BEACON INDICATOR



MAINTENANCE REQUIRED



MAINTENANCE OVERDUE



MAINTENANCE OVERDUE + NUMBER OF ERROR CODES



BOOM ANGLE



HYDRAULIC MOVEMENT NEUTRALIZATION



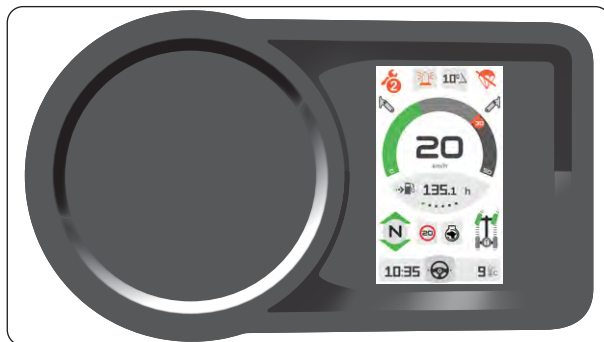
DISABLING "AGGRAVATING" HYDRAULIC MOVEMENT CUT-OFF



NOT USED



FORWARD/NEUTRAL/REVERSE GEAR



When cold starting the machine, the direction of travel arrows are blue and the speed is slow. This time delay, which varies according to the ambient temperature, serves to bring the transmission gearbox up to temperature.



ECO MODE

Automatic engine speed reduction to reduce fuel consumption.
This mode cannot be deactivated.



SPEED LIMITER RECALL

< DESCRIPTION AND USE OF THE OPTIONS



JSM AutoPower

Automatic adjustment of engine speed depending on how hard the operator's hand presses on the hydraulic control.
Can be activated from the "PREFERENCES" menu (< INFORMATION SCREEN CONTROL CONSOLE).



WHEEL STEERING INDICATOR

10:35^{AM} CLOCK



DRIVING MODE



WORK MODE

9°C

EXTERNAL TEMPERATURE



HR METER

- This screen is displayed for a few seconds when the ignition is switched on.



SPEEDOMETER

- This screen is displayed in driving mode.



HYDRAULIC FLOW RATE ADJUSTMENT

- This screen is displayed in work mode.



POP UP

- Blue POP UP: information message.
- Grey POP UP: operating message.
- Orange POP UP: warning message.
- Red POP UP: fault message, consult your dealer.



INFORMATION SCREEN

- Hold down and turn the navigation knob A to change the mode.

- Total hour meter.
- Partial hour meter.
- Instantaneous fuel consumption.
- Average fuel consumption.
- Fuel autonomy.
- Tachometer.


9 - DASHBOARD "VISION"

INSTRUMENTS AND INDICATORS

A - TACHOMETER


B - ENGINE WATER TEMPERATURE



If the indicator lamp  comes on when the machine is running, this means that the coolant temperature is high. Leave the engine idling to lower the water temperature. If the fault persists, turn the engine off and investigate the cooling circuit for the cause of the malfunction.


C - FUEL LEVEL





If the  light comes on, your operating time is limited. Refill the fuel tank.

D - LEVEL "DEF" (Diesel Exhaust Fluid)



If the  light comes on, your operating time is limited. Fill the DEF tank.

E - FAULT WARNING LAMP DISPLAY ZONE

A maximum of five indicator lamps are displayed in the display zone. A red arrow  indicates a sixth fault. Beyond six faults, the  arrow flashes.



BATTERY CHARGE WARNING INDICATOR

If the indicator and the buzzer come on when the machine is running, stop the engine immediately and determine the cause (electric circuit, alternator belt, alternator, etc.).



STEERING SYSTEM OIL PRESSURE FAULT INDICATOR

If the indicator light comes on when the machine is running, stop the engine immediately and determine the cause (possible leak, etc.).



WATER IN FUEL PRE-FILTER FAULT INDICATOR

The indicator light will come on when water is detected in the fuel pre-filter. Stop the machine and carry out the necessary repairs.




BRAKE FLUID PRESSURE FAULT INDICATOR

If the lamp and the buzzer come on when the machine is running, stop the engine immediately and consult your dealer.



ENGINE OIL PRESSURE FAULT INDICATOR

If the indicator lamp comes on when the machine is in operation, stop the engine immediately and look for the cause ( oil level in engine crankcase).

N.B.: After starting the engine, the indicator lamp remains on for a few seconds then goes out when the correct engine oil pressure is reached. The full engine power is then available.



ENGINE PREHEATING INDICATOR

Preheating is necessary. When the machine is switched on, the indicator lamp comes on for 2 seconds and goes off as soon as preheat is ended. Start the machine's engine.





TRANSMISSION OIL PRESSURE FAULT INDICATOR

The indicator lamp and buzzer come on when there is an abnormal drop in transmission pressure, in forward gear. Stop the engine and determine the cause (transmission oil level, possible leak, radiator, etc.).

N.B.: This indicator lamp operates in forward travel conditions only, and can be ignored when the machine is stopped with the engine running at min rpm.



TRANSMISSION OIL TEMPERATURE FAULT INDICATOR

The indicator and buzzer come on when transmission oil temperature is abnormally high. Stop the engine and determine the cause (transmission oil level, possible leak, radiator, etc.).



HYDRAULIC RETURN FILTER OR HYDROSTATIC TRANSMISSION FILTER CLOGGING FAULT INDICATOR

The light and the buzzer come on when the hydraulic return filter or the hydrostatic transmission filter is clogged. Stop the engine and carry out the necessary repairs (↖ 3 - MAINTENANCE: FILTER CARTRIDGES AND BELTS).



ENGINE COOLANT LEVEL FAULT INDICATOR

If the indicator light and buzzer come on when the machine is in operation, stop the engine immediately and determine the cause (coolant level, possible leak, radiator, etc.).



ENGINE STOPPED FAULT INDICATOR

If the indicator lights up or flashes when the machine is in operation, stop the engine immediately and consult your dealer.



AIR FILTER CLOGGING FAULT INDICATOR

The light and the buzzer come on when the air filter cartridge is clogged. Stop the engine and carry out the necessary repairs (↖ 3 - MAINTENANCE: FILTER CARTRIDGES AND BELTS).







ENGINE FAULT INDICATOR

If the indicator light comes on or flashes while the machine is in operation, a diagnostic fault has been detected. The machine will operate in reduced mode. Consult your dealer as soon as possible.



FAULT INDICATOR "SCR" (selective catalytic reduction)

The indicator comes on if the system is above the efficiency threshold or if a diesel exhaust fluid quality problem is detected.

Flashing  indicator light +  + audible signal	- Low "DEF" (Diesel Exhaust Fluid) level. - Fill the tank "DEF" .
 +  + audible signal	- Consult your dealer as soon as possible.



CRYSTALLIZATION OR SULFURIZATION LEVEL INDICATOR

If the indicator lamp flashes while the machine is in operation, perform a "STATIONARY MACHINE" EXHAUST REGENERATION (↖ 3 - MAINTENANCE: OCCASIONAL MAINTENANCE).



AUTOMATIC EXHAUST REGENERATION DEACTIVATED INDICATOR LAMP

The indicator lamp comes on when the machine is running to indicate that the automatic exhaust regeneration is disabled (↖ SWITCHES).



HIGH EXHAUST GAS TEMPERATURE INDICATOR LAMP

The light comes on while the machine is running to indicate a high exhaust gas temperature.

Do not stop the engine if the light is on.

You can continue to use the machine outside the ATEX (Explosive Atmosphere) environment.

To use your machine in an ATEX atmosphere (explosive atmosphere, cramped or non ventilated space, etc.). (< SWITCHES - DEACTIVATION OF AUTOMATIC EXHAUST REGENERATION).

INFORMATION SCREEN



HIGH BEAM HEADLIGHTS INDICATOR



LOW BEAM HEADLIGHTS INDICATOR



TURN SIGNAL INDICATOR



PARKING BRAKE LAMP



BEACON INDICATOR



BOOM ANGLE



MAINTENANCE REQUIRED



MAINTENANCE OVERDUE



MAINTENANCE OVERDUE + NUMBER OF ERROR CODES



HYDRAULIC MOVEMENT NEUTRALIZATION



DISABLING "AGGRAVATING" HYDRAULIC MOVEMENT CUT-OFF



FORWARD/NEUTRAL/REVERSE GEAR



When cold starting the machine, the direction of travel arrows are blue and the speed is slow. This time delay, which varies according to the ambient temperature, serves to bring the transmission gearbox up to temperature.



ECO MODE

Automatic engine speed reduction to reduce fuel consumption.

This mode cannot be deactivated.



SPEED LIMITER RECALL

< DESCRIPTION AND USE OF THE OPTIONS



JSM AutoPower

Increase in the engine speed during use of the hydraulic controls.

Can be activated from the "PREFERENCES" menu (< INFORMATION SCREEN CONTROL CONSOLE).



WHEEL STEERING INDICATOR

10:35

CLOCK



DRIVING MODE



WORK MODE



CAMERA (OPTION)

22 °C

EXTERNAL TEMPERATURE



HR METER

- This screen is displayed for a few seconds when the ignition is switched on.



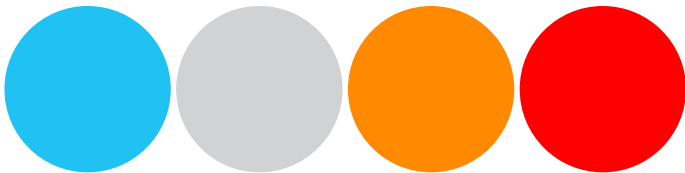
SPEEDOMETER

- This screen is displayed in driving mode.



HYDRAULIC FLOW RATE ADJUSTMENT

- This screen is displayed in work mode.



POP UP

- Blue POP UP: information message.
- Grey POP UP: operating message.
- Orange POP UP: warning message.
- Red POP UP: fault message, consult your dealer.



INFORMATION SCREEN

- Hold down and turn the navigation knob A to change the mode.

- Total hour meter.
- Partial hour meter.
- Instantaneous fuel consumption.
- Average fuel consumption.
- Fuel autonomy. 135.1 h
- Tachometer.



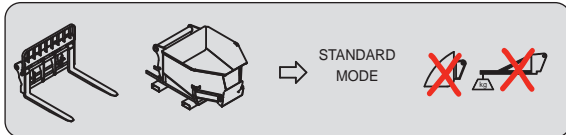
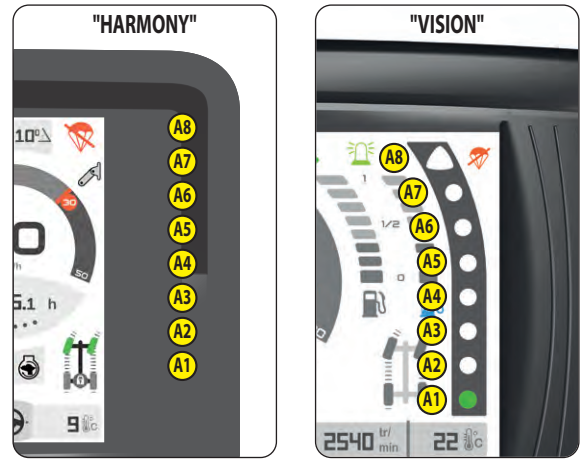
10 - LONGITUDINAL STABILITY LIMITER AND WARNING DEVICE

⚠ IMPORTANT ⚠

The operator must respect the machine's load chart, and the operating mode according to the attachment.

This device warns the operator of the machine's longitudinal stability limits. However, lateral stability can reduce the load chart in the upper part, and this reduction is not detected by the device.

Depending on the type of work required, the operating modes of the longitudinal stability limiter and warning device allow the operator to operate the machine in complete safety.

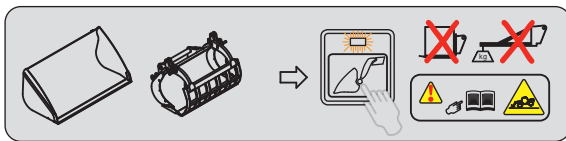


"HANDLING" MODE

USE ON FORKS

- By default, the device is in "HANDLING" MODE each time the machine is started.
- Protection against tilting forward during aggravating movements is guaranteed, except when the telescope is retracted.

STATUS OF THE DEVICE			
HALTED	SLOW SPEED 1 to 5 km/h	SPEED > 5 km/h	TELESCOPE(S) RETRACTED
A4-A5 : Very slow intermittent sound alarm. A6 : Slow intermittent sound alarm. A7 : Fast intermittent audible alarm. A8 : Very fast intermittent audible alarm.	A7 : Fast intermittent audible alarm. A8 : Very fast intermittent audible alarm.	- No sound alarm.	- No sound alarm. - Indicator light on.

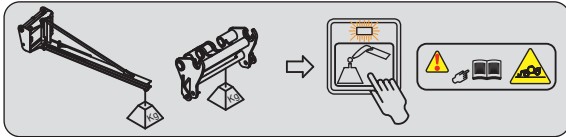


"BUCKET" MODE

USE WITH BUCKET


- Place the machine in transport position.
- Press the button, "BUCKET" MODE is confirmed by an audible signal and by the light coming on.
- Press this button again or switch off the ignition with the ignition key to return to "HANDLING" MODE.
- Protection against tilting forward during aggravating movements is guaranteed, except when the telescope is retracted.


STATUS OF THE DEVICE			
HALTED	SLOW SPEED 1 to 5 km/h	SPEED > 5 km/h	TELESCOPE(S) RETRACTED
- The "BUCKET" mode deactivates after a few seconds if the machine remains stationary.	A6 : An audible signal upon passing into the red zone. - The hydraulic movements are adapted.	No sound alarm. - The hydraulic movements are adapted.	- No sound alarm. - Indicator light on.



"SUSPENDED LOAD" MODE

USE WITH LIFTING DEVICE (offering a higher margin of safety)

- Place the machine in transport position.
- Press the  button; the "SUSPENDED LOAD" MODE is confirmed by an audible signal and by the indicator lamp coming on. Hydraulic tilting movements are neutralized, as well as the lifting movement when the longitudinal stability limit is reached (indicator lamp A8 on).
- Press this button again or switch off the ignition with the ignition key to return to "HANDLING" MODE.
- Protection against tilting forward during aggravating movements is guaranteed, except when the telescope is retracted.

STATUS OF THE DEVICE			
HALTED	SLOW SPEED 1 to 5 km/h	SPEED > 5 km/h	TELESCOPE(S) RETRACTED
	A4-A5 : Very slow intermittent sound alarm. A6 : Slow intermittent sound alarm. A7 : Fast intermittent audible alarm. A8 : Very fast intermittent audible alarm.		-No sound alarm. -Indicator light  on.

A - VISUAL ALARMS

- A1 - A2 - A3: There is a significant reserve of longitudinal stability.
- A4 - A5: The machine is nearing the longitudinal stability limit. Maneuver with care.
- A6: The machine is close to the longitudinal stability limit. Maneuver with care.
- A7: The machine is very close to the longitudinal stability limit. Manoeuvre with extreme caution.
- A8: The machine is at the authorized limit of longitudinal stability.

B - HYDRAULIC MOVEMENT CUT-OFF

"HANDLING" MODE

- A8: All "AGGRAVATING" hydraulic movements are cut off. Only perform de-aggravating hydraulic movements in the following order: retract and raise the boom.

"BUCKET" MODE

- A8: The boom lowering and extension movements are cut off; the other movements remain available.


"SUSPENDED LOAD" MODE



- A8: All "AGGRAVATING" and boom raising hydraulic movements are cut off. Only the boom retraction hydraulic movement is available.

C - DISABLING "AGGRAVATING" HYDRAULIC MOVEMENT CUT-OFF

⚠ IMPORTANT ⚠

Remain very vigilant during this operation. The only information available to the operator is the machine's dynamic stability.

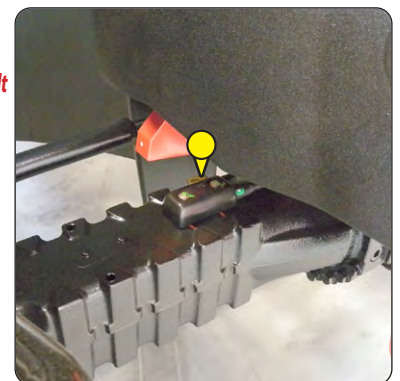
In certain cases, in order to get out of a difficult situation, the operator can bypass this safety device. The  button temporarily disables the cutting-off of "AGGRAVATING" hydraulic movements.

- Hold down the  button, the indicator lamp will light (60 second time delay), and the  pictogram will appear on the information screen. Simultaneously perform the necessary "AGGRAVATING" hydraulic movement with extreme care.

D - STRAIN GAGE

⚠ IMPORTANT ⚠

Disassembly or calibration of the strain gauge is prohibited, this must only be done by specially trained personnel, consult your dealer.



11 - INFORMATION SCREEN CONTROL CONSOLE

N.B.: The content of the "PREFERENCES" and "INFORMATION" menus varies according to the machine equipment.

A - NAVIGATION AND VALIDATION BUTTON

B - Preferences MENU

- Press button B to display the "PREFERENCES" menu
- Turn knob A to navigate through the menus and sub-menus.
- Press knob A to confirm.



SYSTEM	> DATE AND TIME	
	> LANGUAGES	
	> UNITS	
	> SCREEN	
	> POP UPS	
	> DIGICODE (OPTION)	
	> CAMERAS (OPTION)	
	> CUSTOMER CODE	
	> CONFIGURATION (customer or expert code)	> PARTIAL HOUR METER RESET
		> MAINTENANCE HOUR METER RESET
TRANSMISSION	> MANUAL ACCELERATOR	
	> ECO MODE	
	> TRAILER BRAKE TEST (OPTION)	
HYDRAULICS	> STABILITY REBALANCING	
	> LSU HYDRAULICS	
	> STABILITY TEST	
	> JSM AUTOPOWER	
	> EASY CONNECT SYSTEM (OPTION)	
	> CONFIGURATION (customer or expert code)	> OVERRIDE
		> FORCED OPERATION NO DRIVER
ENGINE	> FAN DRIVE FAN REVERSAL	
	> REGENERATION	
	> STOP&START(OPTION)	
GENERAL	> GREASING UNIT (OPTION)	> LOW
		> NORMAL
		> HIGH
	> SMART COUNTING SYSTEM (SCS) (OPTION)	> TYPE OF MEASUREMENT
		> METHOD OF ACCUMULATION
		> TARGET
		> DISPLAY
	> SMART WEIGHING SYSTEM (SWS) (OPTION)	> TYPE OF MEASUREMENT
		> METHOD OF ACCUMULATION
		> TARGET
		> DISPLAY
		> FEED
		> WEIGHING CALIBRATION
EXPERT (expert code)	> STABILITY CALIBRATION	
	> BOOM ANGLE CALIBRATION	
	> PEDAL CALIBRATION INCHING	
	> CARRIAGE ANGLE CALIBRATION	
	> DISTRIBUTOR CALIBRATION	
	> INCLINOMETER CALIBRATION	
	> EXPERT CODE	

C - INFORMATION MENU

- Press the button to display the "INFORMATION" menu
- Turn knob A to navigate through the menus and sub-menus.
- Press knob A to confirm.

REPAIR	> FAULTS
MAINTENANCE	> MAINTENANCE RESET
GENERAL	> IDENTIFICATION
	> SOFTWARE VERSION
HYDRAULICS	> OIL LEVEL
MEASUREMENT	> HISTORY

D - BACK

- Press the button to return to the previous screen.

12 - PUSH BUTTON PANEL

BUTTON FUNCTIONS

- Red button: Safety.
- Orange button: Transmission / Engine.
- Blue button: Hydraulics.
- Black button: Other.

BUTTON DIAGNOSTICS

- If all buttons are unlit, there is a power supply problem. Contact your dealer.
- If all buttons are flashing, there is a connection problem. Contact your dealer.



DISABLING "AGGRAVATING" HYDRAULIC MOVEMENT CUT-OFF

◀ LONGITUDINAL STABILITY LIMITER AND WARNING DEVICE



NOT USED



HAZARD WARNING LIGHTS



"MANUAL MODE" PARKING BRAKE

- Press the button to activate. The indicator lamp will show it is in use.
- Press the button again to deactivate.



"AUTOMATIC MODE" PARKING BRAKE

The function is used to engage the parking brake when the machine is stopped and to release the parking brake when the machine movement conditions are met.

- Press the button to activate. The indicator lamp will show it is in use.
- Press the button again to deactivate.



SMOOTH TRANSMISSION

- Smooth engine brake.
- Smooth forward/reverse gear change.
- Smooth accelerator pedal sensitivity, improved machine forward movement stability.

N.B.: To reduce the sensitivity of the accelerator pedal even further, use the SPEED LIMITER (OPTION). As the travel of the accelerator pedal is always the same, the more the speed is limited, the more the sensitivity of the pedal is reduced.



DYNAMIC TRANSMISSION

- Powerful engine brake.
- Responsive forward/reverse gear change.
- Increased sensitivity of the accelerator pedal, for loading work for example.

N.B.: For intensive loading work, use the SPEED LIMITER (OPTION) to improve the responsiveness of the machine during loading and unloading cycles.



ENGINE SPEED MEMORIZATION (OPTION)

◀ DESCRIPTION AND USE OF THE OPTIONS



GEAR RATIO MEMORIZATION (OPTION)

◀ DESCRIPTION AND USE OF THE OPTIONS



"BUCKET" MODE

< LONGITUDINAL STABILITY LIMITER AND WARNING DEVICE



"SUSPENDED LOAD" MODE

< LONGITUDINAL STABILITY LIMITER AND WARNING DEVICE



USE OF FRONT OR REAR ATTACHMENT SYSTEM (OPTION)

< DESCRIPTION AND USE OF THE OPTIONS



BOOM SUSPENSION (OPTION)

< DESCRIPTION AND USE OF THE OPTIONS



FORCED BOOM SUSPENSION (OPTION)

< DESCRIPTION AND USE OF THE OPTIONS



ATTACHMENT CIRCUIT FLOW RATE LIMITER (OPTION)

< DESCRIPTION AND USE OF THE OPTIONS



ATTACHMENT CIRCUIT MANUAL OVERRIDE (OPTION)

< DESCRIPTION AND USE OF THE OPTIONS



TILT CIRCUIT LOCKING (OPTION)

- Press the button to shut off the tilt circuit hydraulic movements. The indicator lamp indicates it is in use.



ATTACHMENT CIRCUIT LOCKING (OPTION)

- Press the button to shut off the attachment circuit hydraulic movements. The indicator lamp indicates it is in use.



INTELLIGENT HYDRAULICS FUNCTIONS "INTELLIGENT HYDRAULICS" (OPTION)

< DESCRIPTION AND USE OF THE OPTIONS



AUTOMATIC FAN REVERSAL

Cleans the radiator core and the grille of the engine hood by reversing the air flow.

⚠ IMPORTANT ⚠

The ventilation reversal is operational from an engine coolant temperature of 40 °C.

When in use, beware of the risk of projection into the eyes.

- The indicator light is on, the fan operates in self-cleaning mode for a few seconds once every 3 minutes.
- By default, the cycle time is 3 minutes. To change it < **PREFERENCES MENU**




FORCED VENTILATION REVERSAL

- Press the button to force a cleaning cycle. The indicator lamp will light when it is in use.
- Wait for the cycle to finish before forcing another.



HYDRAULIC MOVEMENT NEUTRALIZATION

When driving on the road, it is highly recommended (mandatory in Germany) that you disconnect all hydraulic movement. The indicator lamp and  image on the information screen indicate use.



ROTATING BEACON LIGHT

The indicator lamp indicates it is in use.



EXHAUST REGENERATION

< 3 - MAINTENANCE: OCCASIONAL MAINTENANCE



AUTOMATIC EXHAUST REGENERATION DEACTIVATION


⚠ IMPORTANT ⚠


Deactivation of the automatic exhaust regeneration is a function that should only be used when necessary (explosive atmosphere, in confined or unventilated spaces, etc.).



- Before pressing the button, wait until the high exhaust temperature light  has gone out.

By default, the automatic exhaust regeneration is activated each time the machine is started.

- To deactivate the automatic exhaust regeneration, hold down the switch. The indicator lamp  lights up and an audible signal confirms deactivation.

- To reactivate the automatic exhaust regeneration, hold down the switch again. The  indicator lamp goes out to confirm reactivation.



SEMI-AUTOMATIC WHEEL ALIGNMENT (OPTION)

◀ DESCRIPTION AND USE OF THE OPTIONS



STOP AND START (OPTION)

- ◀ DESCRIPTION AND USE OF THE OPTIONS.

13 - SWITCHES



BOOM HEAD WORKLIGHTS (OPTION)



FRONT WORKLIGHTS



REAR WORKLIGHTS



SIDE WINDSHIELD WIPER (OPTION)



SIDE WORKLIGHTS (OPTION)



REAR FOG LIGHTS (OPTION)



BOOM ELECTRICAL PREDISPOSITION (OPTION)

◀ DESCRIPTION AND USE OF THE OPTIONS



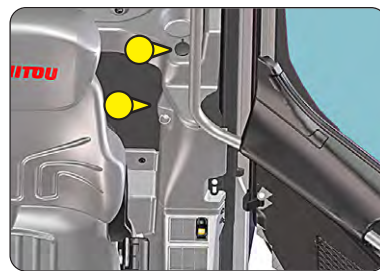
"COMFORT STEERING SYSTEM" (OPTION)

◀ DESCRIPTION AND USE OF THE OPTIONS



REAR WINDSHIELD DEFROST

MAIN RIGHT REAR-VIEW MIRROR DEFROST (OPTION)



14 - 12V SOCKET

For 12 V appliance and max. amperage 10A.

15 - DIAGNOSTIC PLUG

16 - USB RECHARGING SOCKET

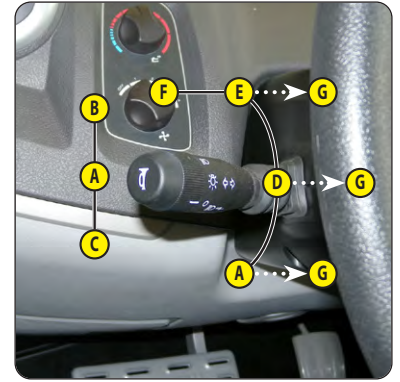
17 - LIGHTING, HORN AND INDICATOR SWITCH

The switch controls the visual and sound alarms.

- A - All lights are off, the turn signals do not flash.
- B - The right-hand turn signals flash.
- C - The left-hand turn signals flash.
- D - The sidelights and rear lights are on.
- E - The dipped beam headlights and rear lights are on.
- F - The main beam headlights and rear lights are on.
- G - Headlight signaling.

Pressing the end of the switch sounds the horn.

N.B.: Positions D - E - F - G can be used without switching on the ignition.



18 - FRONT AND REAR WIPER SWITCH

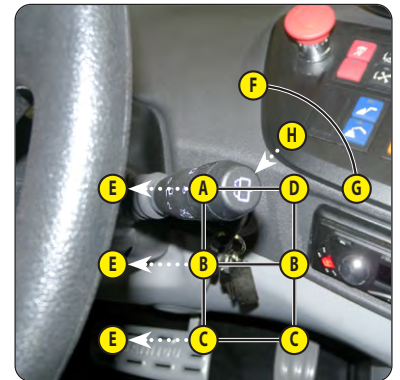
FRONT WINDSHIELD WIPER

- A - Front windshield wiper off.
- B - Front windshield wiper low speed setting.
- C - Front windshield wiper low speed setting.
- D - Front windshield wiper intermittent operation.
- E - Front windshield wiper pulse driven.

REAR WINDSHIELD WIPER

- F - Rear windshield wiper off.
- G - Rear windshield wiper on.
- H - Rear windshield washer, pulse driven (not used).

N.B.: These functions will only work when the ignition is switched on.



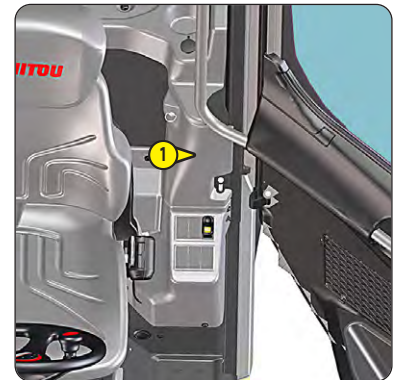
19 - FUSES AND RELAYS IN THE CAB

A sticker on the inside of the access hatch provides a quick view of the use of the electric plate's components described below.

- Remove access panel 1 to gain access to the fuses and relays. Replace a blown fuse with a new fuse of the same quality and rating. Never use a repaired fuse.

MINIFUSE

F1	15A	Relay (K4 K21).
F2	20A	Window wind up.
F3	20A	Front windshield wiper. Front windshield washer. Relay (K1).
F4	10A	Rear windshield wiper. Rear windshield washer.
F5	10A	12 V plug.
F6		
F7	5A	JSM joystick.
F8	5A	Screen/navigator wake-up.
F9	5A	Relay (K3).
F10	5A	Diagnostics plug.
F11	5A	Brake circuit pressure sensors
F12	2A	Immobilizer (OPTION).
F13	2A	Customer immobilizer (OPTION).
F14	5A	Car radio.
F15	7,5A	Trailer brake valve Pneumatic brake Sensors.
F16	10A	Side windscreen wiper. Side windshield washer.
F17	15A	Pneumatic seat
F18	20A	Main ECU SPU 40-26.
F19	15A	Side worklights (OPTION).
F20	15A	3-pin 12 V connector (OPTION).
F21	5A	Boom head electric power socket (OPTION).

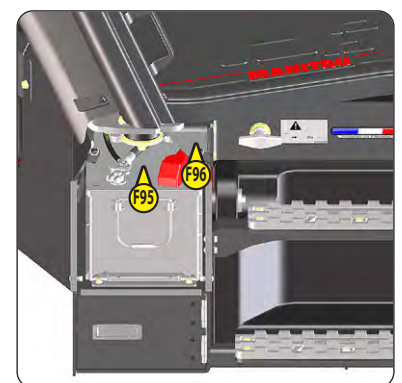
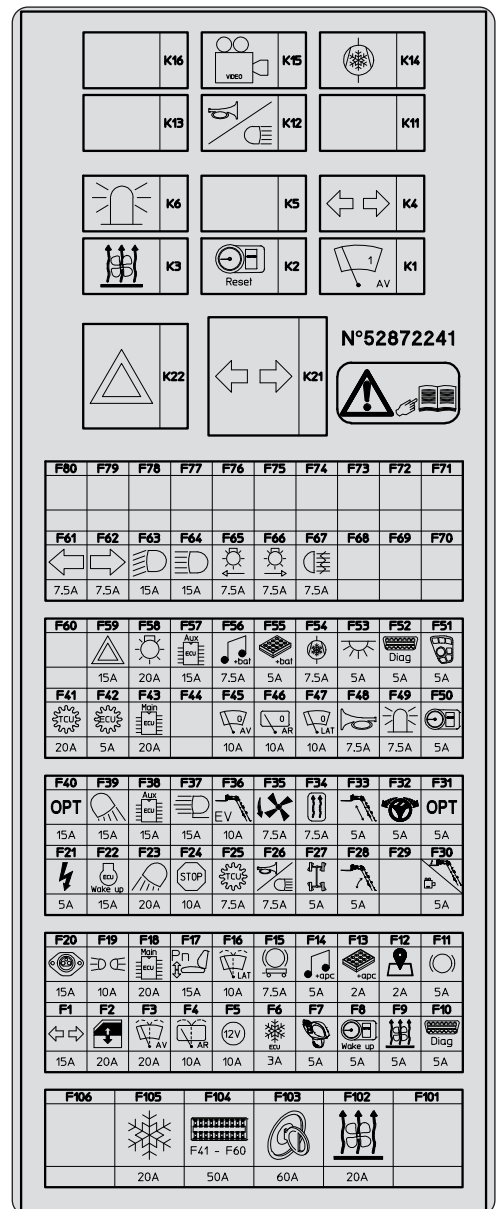


F22	15A	Engine ECU wake-up. Engine sensor.
F23	20A	Front worklights.
F24	10A	Stop light.
F25	7,5A	Transmission ECU.
F26	7,5A	Relay (K12).
F27	5A	Wheel alignment sensors.
F28	5A	Boom angle sensor.
F29		
F30	5A	Carriage angle sensor power supply (OPTION). Boom head camera (OPTION).
F31	5A	Relay (K15) (OPTION). Central lubrication (OPTION).
F32	5A	"Comfort steering system"(OPTION).
F33	5A	Boom retraction slowing and overload sensors (OPTION).
F34	7,5A	Electric rear-view mirror and defrost (OPTION).
F35	7,5A	Self-cleaning fan.
F36	10A	Rear hydraulic solenoid valve Boom head solenoid valve (OPTION).
F37	15A	Worklights on boom (OPTION).
F38	15A	Auxiliary ECU SPU 25-15.
F39	15A	Rear work lights (OPTION).
F40	15A	Greasing unit (OPTION).

F41	20A	Transmission ECU.
F42	5A	Transmission ECU micro-controller power supply
F43	20A	Main ECU SPU 40-26.
F44		
F45	10A	Front windshield wiper automatic return.
F46	10A	Rear windshield wiper automatic return.
F47	10A	Side windshield wiper automatic return.
F48	7,5A	Horn.
F49	7,5A	Relay (K6).
F50	5A	Relay (K2).
F51	5A	Information screen control console.
F52	5A	Diagnostics plug.
F53	5A	Roof light.
F54		Unused.
F55	5A	Customer immobilizer (OPTION).
F56	7,5A	Car radio
F57	15A	Auxiliary ECU SPU 25-15.
F58	20A	Lighting, horn and indicator switch.
F59	15A	Relay (K4).
F60		

F61	7,5A	Left turn signals.
F62	7,5A	Right turn signals.
F63	15A	Dipped beam headlights.
F64	15A	Main beam headlights.
F65	7,5A	Left parking lights.
F66	7,5A	Right parking lights.
F67	7,5A	Rear fog lights.
F68		Unused.
F69		Unused.
F70		Unused.
F71		Unused.
F72		Unused.
F73		Unused.
F74		Unused.
F75		Unused.
F76		Unused.
F77		Unused.
F78		Unused.
F79		Unused.
F80		Unused.

F95	2A	Immobilizer (OPTION).
F96	5A	charge indicator sensor (OPTION).



MAXIFUSE

F101		Unused.
F102	30A	Relay (K3).
F103	60A	Ignition switch.
F104	50A	Module 3 fuses (F41 - F60).
F105	30A	Air conditioning (OPTION).
F106		Unused.

RELAY

K1	Front windshield wiper speed 1.
K2	Dashboard power supply.
K3	Fan/heating.
K4	Flashing light unit power supply.
K5	Free
K6	Rotating beacon.

K11	Unused.
K12	Backup lights and backup alarm.
K13	Unused.
K14	Trailer brake test (OPTION).
K15	Camera control (OPTION).
K16	Unused.

K21	Flashing light unit.
K22	Hazard warning lights.

AIR CONDITIONING FUSES AND RELAYS (DEPENDING ON ASSEMBLY)

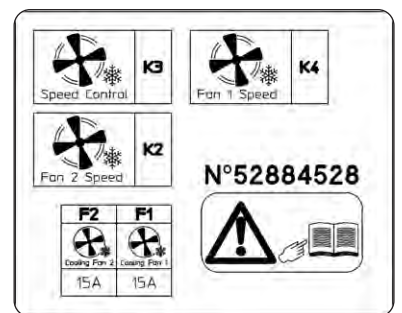
- Remove the protective grid 1.

MINIFUSE

F1	15A	Condenser fan 1.
F2	15A	Condenser fan 2.

RELAY

K2	Fan 2 speeds.
K3	Fan speed control.
K4	Fan 1 speeds



20 - FUSES AND RELAYS UNDER THE ENGINE HOOD

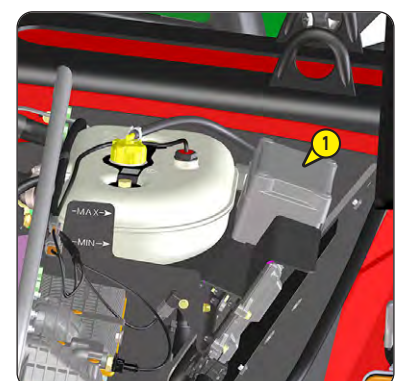
- Open the engine hood, remove cover 1 to gain access to the fuses and relays. Replace a blown fuse with a new fuse of the same quality and rating. Never use a repaired fuse.

MAXIFUSE

F71		Unused.
F72		Unused.
F73	80A	Module 2 fuses (F81 - F90).
F74	30A	Relay power supply (K32).
F75	30A	Relay power supply (K41).
F76	20A	Power supply (OPTION).

MINIFUSE


F81	10A	Fuel pump.
F82	5A	Pressure line reheat.
F83	5A	Return line reheat.
F84	5A	Suction line reheat.







⚠ IMPORTANT ⚠

*Before selecting one of the three steering possibilities, align the 4 wheels in relation to the machine axis.
Never change the steering mode whilst driving.*



The green indicator lights on the information screen  come on to indicate the alignment of the wheels relative to the machine.

A - STEERING SELECTION SWITCH





-  Front steering wheels (road mode).
-  Front and rear steering wheels in opposite directions (short steering).
-  Front and rear steering drive wheels in the same direction (crab steering).
-  Front steering wheels and locking of the rear wheel steering angle.
 - Align the rear and front wheels.
 - Select the desired steering mode, a flashing indicator lamp will confirm the selection.
 - Turn the wheels as instructed on the information screen. The indicator lamp will remain steadily lit while the steering mode is enabled.



WHEEL ALIGNMENT CONTROL

⚠ IMPORTANT ⚠

*Check the alignment of the front and rear wheels each time the machine is started.
Regularly check the alignment of the wheels when using the machine.
The wheels must be aligned and the machine must be in front steering wheels mode when used on public roads.
A green light illuminates on the dashboard when the wheels are aligned.
Contact your dealer if you have any questions.*

- Select "short steering" ).
- Turn the steering wheel and bring the rear wheels into alignment until the  indicator lamps light on the rear wheels.
- Select "road driving" .
- Turn the steering wheel and bring the rear wheels into alignment until the  indicator lamps light on the front wheels.

23 - ACCELERATOR PEDAL

ENGINE SPEED ACCELERATION

- Press the accelerator pedal to increase the engine speed and start moving the machine if forward or reverse gear is selected.

N.B.: Use the inching pedal to shift the start of machine movement towards the top speed and therefore transfer the engine's power to the boom's hydraulic controls.

ENGINE SPEED DECELERATION

The service brake pedal does not need to be used to slow the machine down, with or without a trailer. Use of the engine brake is enough.

- Release the accelerator pedal proportionally to the required slowing, and if necessary press on the service brake pedal to immobilize the machine.



24 - SERVICE BRAKE AND INCHING PEDAL

In part A, the pedal enables gradual deactivation of the transmission to perform inching.

In part B, the pedal acts on the front and rear wheels through a hydraulic braking system to immobilize the machine.



25 - FUNCTION FILES

These files contain the description of the hydraulic controls and the load charts for the attachments used on the machine.



26 - HYDRAULIC BOOM CONTROLS

⚠ IMPORTANT ⚠

Do not try to modify the hydraulic pressure of the system. If it malfunctions contact your dealer. ANY MODIFICATION INVALIDATES THE WARRANTY AND YOU WILL BE CRIMINALLY LIABLE IN THE EVENT OF AN ACCIDENT.

Use the hydraulic controls gently without jerking to avoid incidents caused by shaking the machine.

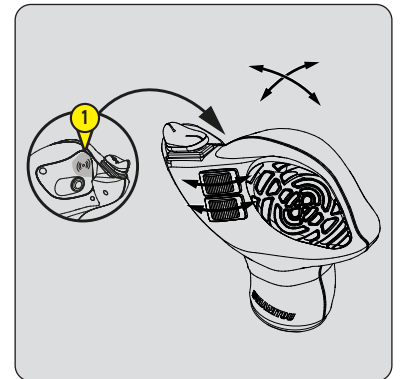
N.B.: If necessary, operate the steering to reset the hydraulic control steering accumulator.

N.B.: When driving on the road, it is highly recommended (mandatory in Germany) that you disconnect all hydraulic movement (⏏ PUSH BUTTON PANEL).

HYDRAULIC CONTROLS ACTIVATION

This safety device prevents accidental operation of the hydraulic lifting, tilting, telescoping and attachment controls.

- Place your hand on the lever, activate the hydraulic controls by contact on sensor 1 and perform the hydraulic movement.
- Hydraulic controls activation is maintained on a timer while the machine is being used.
- If necessary, reactivate the hydraulic controls.



A1 - LIFTING

A2 - LOWERING

B1 - CROWD

B2 - DUMP

C1 - TELESCOPIC BOOM EXTENSION

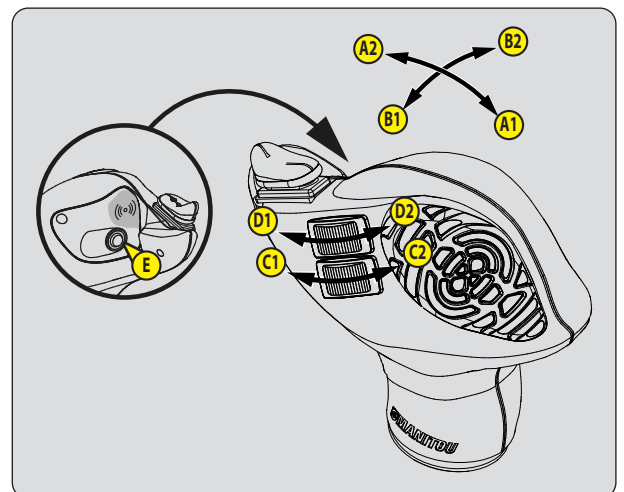
C2 - TELESCOPIC BOOM RETRACTION

D1 - ATTACHMENT

D2 - ATTACHMENT

E - HYDRAULIC CONTROL (OPTION)

⏏ DESCRIPTION AND USE OF THE OPTIONS



27 - LEVEL INDICATOR

A - SPIRIT LEVEL

Enables the operator to check that the machine is in the horizontal position.



28 - HEATING AND AIR CONDITIONING CONTROL PANEL

⚠ IMPORTANT ⚠

The air conditioner operates with the engine running.

The air conditioner is used with the cab closed.

In cold weather: Warm up the machine's engine before turning on the air conditioner.

In winter: Turn on the air conditioner once a week to ensure that the system works properly.

If it seems to you that the air conditioning is not working properly, contact your dealer.

Never try to repair any faults yourself.

FIRST VERSION

A - FAN CONTROL

This 4-speed control allows the air to be ventilated through the air vents.

B - TEMPERATURE CONTROL

Adjusts the temperature inside the cab.

- B1 - The fan pumps in cold air.
- B2 - The fan pumps in warm air.

The intermediate positions allow the temperature to be adjusted.

C - AIR CONDITIONING CONTROL

This control with a pilot light allows the air conditioning unit to be switched on.

HEATING MODE

- The controls must be adjusted in the following way:
 - C - Control with pilot light off.
 - B - At the desired temperature.
 - A - At the desired speed: 1, 2 or 3.

AIR CONDITIONING MODE

- The controls must be adjusted in the following way:
 - C - Control with indicator lamp on.
 - B - At the desired temperature.
 - A - At the desired speed: 1, 2 or 3.

DEFROST MODE

- The controls must be adjusted in the following way:
 - C - Control with indicator lamp on.
 - B - At the desired temperature.
 - A - At speed 2 or 3.
- For optimum effectiveness, close the heating vents.





	Increases the air flow rate.
	Decreases the air flow rate. In zero position, press a second time to stop the system; the display shows "St".
	Increases the temperature.
	Decreases the temperature.
	Short press: select windshield/driver/mixed ventilation Long press: forced defrost
	Turns on the air conditioning.
	Activates AUTOMATIC mode. Automatically reaches the preset temperature.
	Activates cab air recirculation mode.
	Temperature display.
	AUTOMATIC mode activated.
	Fan speed 1.
	Fan speed 12.
	Ventilation and demisting/defrosting on.
	Cab air recirculation activated.
	Air conditioning on.
	Ventilation on.

29 - HEATING VENTS

These swiveling heating vents, which can be shut off, allow you to direct and adjust the flow inside the cab.

30 - WINDSHIELD DEFROSTER VENTS

For optimum effectiveness, close the heating vents.

31 - WINDOW WINDER

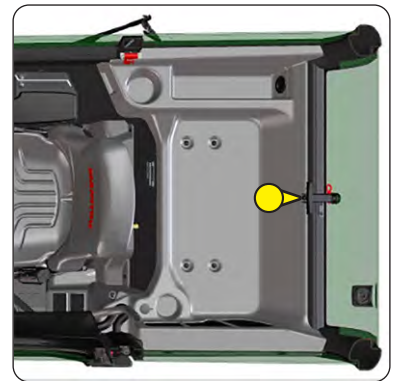
32 - DOOR OPENING AND CLOSING HANDLE

Two keys are provided with the machine to enable the cab to be locked.

- Press the door handle trigger to open the door.
- Pull on the handle to close the door.



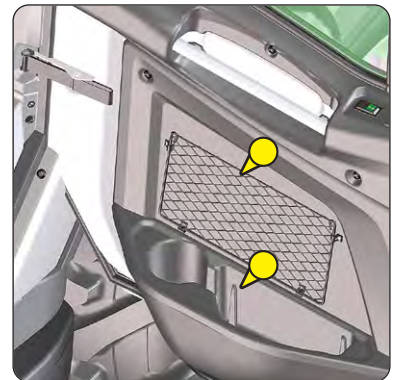
33 - REAR WINDOW STAY



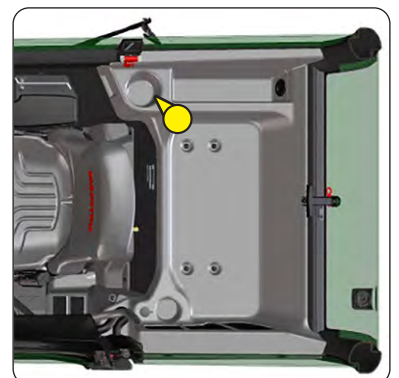
34 - STORAGE NET

Ensure that the operator's manual is in its place in the storage net.

35 - STORAGE



36 - CUP HOLDER



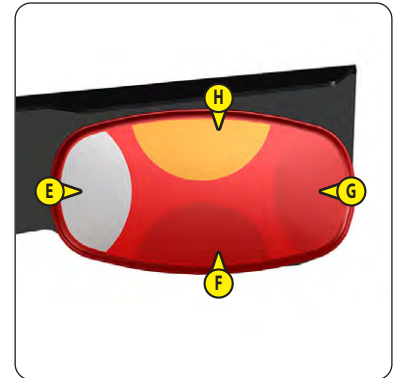
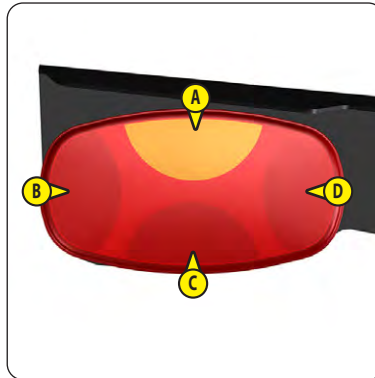
37 - FRONT HEADLIGHTS

- A - Front left-hand indicator light.
- B - Front left-hand dipped headlight.
- C - Front left-hand headlight.
- D - Front left-hand sidelight.
- E - Front right-hand indicator light.
- F - Front right-hand low beam headlight.
- G - Front left-hand high beam headlight.
- H - Right front sidelight.



38 - REAR LIGHTS

- A - Rear left-hand indicator light.
- B - Rear left-hand stop light.
- C - Left rear light.
- D - Rear fog light.
- E - Rear reversing light.
- F - Right rear light.
- G - Rear right-hand stop light.
- H - Rear right-hand indicator light.



POSITION OF LIGHTS IN ROAD TRAFFIC

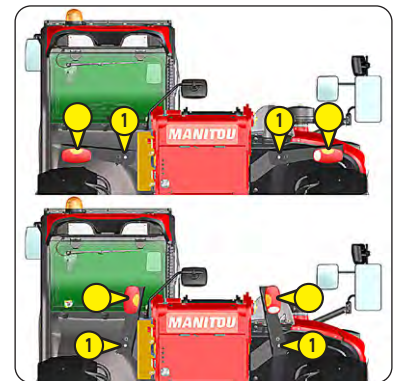
⚠ IMPORTANT ⚠

Position the lights horizontally for driving on the road using the locks 1.

POSITION OF LIGHTS IN A NARROW SPACE

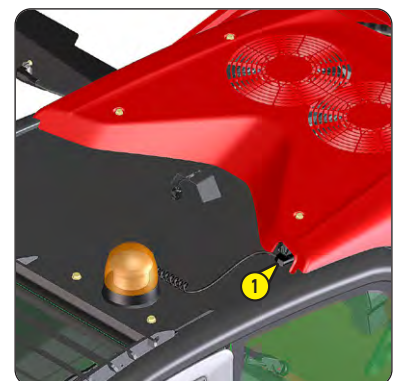
⚠ IMPORTANT ⚠

*Position the lights vertically to reduce the machine's size using the locks 1.
This position is not authorized for driving on the road*



39 - ROTATING BEACON LIGHT

The magnetic rotating beacon light must be clearly visible on the roof of the cab and plugged-in to socket 1.



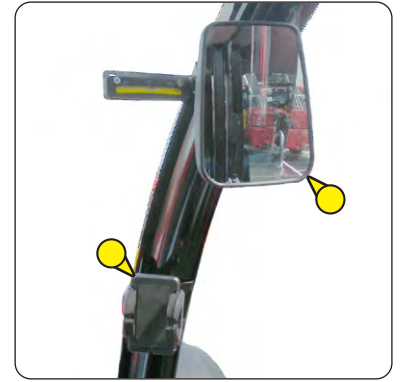
40 - SUN VISOR

41 - ROOF LIGHT

42 - COAT HOOK



43 - INTERNAL REAR-VIEW MIRROR



44 - TELEPHONE HOLDER

45 - STEERING WHEEL ADJUSTMENT LEVER

This handle enables the angle and height of the steering wheel to be adjusted.

- Pull the knob backward.
- Adjust the steering wheel to the desired position.
- Push the knob back to lock the steering wheel in position.



46 - EMERGENCY HAMMER

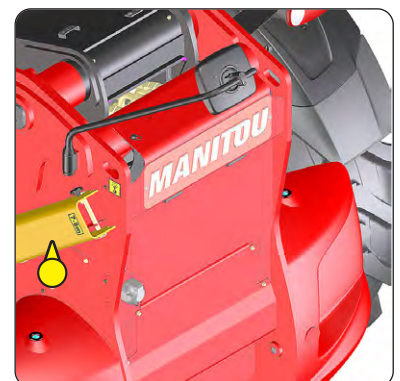


47 - BOOM SAFETY WEDGE

⚠ IMPORTANT ⚠

Only use the wedge supplied with the machine.

The machine is equipped with a boom safety wedge which must be installed on the rod of the lifting cylinder when working beneath the boom (⚠ 1 - OPERATING AND SAFETY INSTRUCTIONS).



48 - BUTTON FOR OPENING THE TANK FILLER ACCESS PANEL

Press the button to open the tank filler access panel.



49 - FUEL TANK

As far as possible, keep the fuel tank well filled in order to minimize condensation due to the atmospheric conditions.

⚠ IMPORTANT ⚠

Never smoke or approach with a flame during filling operations or when the tank is open.

Never refill while the engine is running.

- If necessary, add diesel (☞ 3 - MAINTENANCE: LUBRICANTS AND FUEL).
- Remove plug 1.
- Fill the fuel tank with clean diesel filtered through the filler port.
- Refit the cap.
- Visually check that there is no leakage in the tank and pipes.

N.B.: A locking tank cap is available as an OPTION.



50 - TANK "DEF" (Diesel Exhaust Fluid)

⚠ IMPORTANT ⚠

Diesel exhaust fluid is corrosive: protect the bodywork and wear personal protective equipment (gloves and goggles).

The Diesel Exhaust Fluid level is important. Operating with a low or empty DEF tank level may affect engine performance.

- If necessary, add diesel exhaust fluid (☞ 3 - MAINTENANCE: LUBRICANTS AND FUEL).
- Remove plug 1.
- Slowly fill the tank to the bottom of the filler neck.
- Always maintain a good level to avoid alternation of the product.
- Refit the cap.

N.B.: A locking tank cap is available as an OPTION.



QUALITY "DEF" (Diesel Exhaust Fluid)

The diesel exhaust fluid quality can be measured using a refractometer. The diesel exhaust fluid must comply with standard ISO 22241-1 with a urea concentration of 32.5%.

Refractometer (MANITOU part number: 959709)

STORAGE "DEF" (Diesel Exhaust Fluid)

Up to 4 months without using the machine, check the quality of the diesel exhaust fluid with a refractometer.

Beyond 4 months, replace the diesel exhaust fluid. Empty and rinse the tank.

N.B.: For a prolonged shutdown of the machine, ☞ 1 - OPERATING AND SAFETY INSTRUCTIONS: PROLONGED MACHINE SHUTDOWN.

51 - BATTERY CASING



TOWING DEVICE

1 - CLEVIS HITCH	2-65
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3 - ROTATING CLEVIS HITCH ON COUPLING LADDER (OPTION)	2-65
4 - NON-ROTATING CUNA CLEVIS HITCH ON COUPLING LADDER (OPTION) "CUNA"	2-66
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11 - PNEUMATIC TRAILER BRAKE (OPTION)	2-69

⚠ IMPORTANT ⚠

Do not tow a trailer or an attachment that is not in perfect working condition.

Using a trailer in poor condition may affect the machine's steering and braking, and hence the safety of the assembly.

If a third party helps in coupling or uncoupling the trailer, this person must remain visible to the driver at all times and must wait until the machine has stopped, the parking brake is applied and the engine is switched off before performing the operation.

Located at the rear of the machine, this device is used to attach a trailer. Its capacity is limited for each machine by the authorized gross vehicle weight, tractive effort and maximum vertical force on the coupling point. This information is given on the manufacturer's plate fixed to each machine (IDENTIFICATION OF THE MACHINE).

- To use a trailer, see current regulations in your country (maximum running speed, braking, maximum weight of trailer, etc.).
- Verify the trailer's condition before using it (tire condition and pressures, electrical connection, hydraulic hose, brake system, etc.).

N.B.: Our tractor type-approved machines are not compatible for use with trailers fitted with the ISO7638 socket.

Any change to the trailer hook requires a new approval under the customer's responsibility.

TOWING CAPACITIES

Type of towing	Towing capacity according to type of braking (kg)			maximum vertical load on hook (kg)
	Without trailer brake	With trailer brake		
		inertia	hydraulic and or pneumatic	
STANDARD CLEVIS HITCH	2000	6000	20000	2000
AUTOMATIC CLEVIS HITCH (OPTION)	2000	6000	20000	2000
ROTATING CLEVIS HITCH ON COUPLING LADDER (OPTION)	2000	6000	15161	1600
NON-ROTATING CLEVIS HITCH ON "CUNA" COUPLING LADDER (OPTION)	6 T	2000	6000	1600
	14 T	2000	6000	1600
	20 T	2000	6000	1600
AUTOMATIC CLEVIS HITCH ON COUPLING LADDER (OPTION)	2000	6000	15161	1600
AUTOMATIC BALL HITCH ON COUPLING LADDER (OPTION)	2000	6000	15161	1600
FIXED PIN ON COUPLING LADDER (OPTION)	2000	6000	15161	1600
HYDRAULIC TOWING HOOK (OPTION)	2000	6000	13071	2000

1 - CLEVIS HITCH

⚠ IMPORTANT ⚠

Be careful not to get your fingers caught or crushed during this operation.

Do not forget to put the cotter pin back in place.

When uncoupling, make sure that the trailer is supported independently

COUPLING AND UNCOUPLING THE TRAILER

- To couple the trailer, position the machine as close as possible to the trailer ring.
- Apply the parking brake and switch off the engine.
- Remove the pin 1, lift the towing pin 2 and place or remove the trailer ring.



2 - AUTOMATIC CLEVIS HITCH (OPTION)

⚠ IMPORTANT ⚠

When uncoupling, make sure that the trailer is supported independently

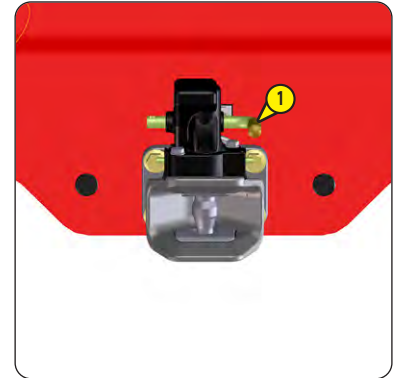
COUPLING THE TRAILER

- Remove the automatic towing pin using lever 1.
- Back up the machine so that the trailer ring slots into the automatic hook.

N.B.: The pin closes automatically when the trailer ring touches the back of the clevis.
The pin can be lowered by hand using lever 1.

UNCOUPLING THE TRAILER

- Lift the pin using lever 1 to uncouple the trailer.



3 - ROTATING CLEVIS HITCH ON COUPLING LADDER (OPTION)

⚠ IMPORTANT ⚠

Be careful not to get your fingers caught or crushed during this operation.

When uncoupling, make sure that the trailer is supported independently

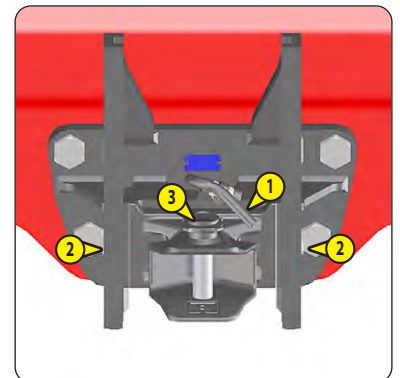
- Position the machine as close as possible to the trailer ring.
- Apply the parking brake and switch off the engine.

ADJUSTING THE CLEVIS HITCH

- Lift the handle 1 and pivot it upwards to release the pins 2 on either side of the ladder.
- Support the clevis and adjust it according to the height of the trailer ring.
- Pivot the handle 1 downwards to engage the 2 pins in the ladder and release the handle.

COUPLING AND UNCOUPLING THE TRAILER

- Remove the towing pin 3 and place or remove the trailer ring.
- Refit and lock towing pin 3 in position.



4 - NON-ROTATING CUNA CLEVIS HITCH ON COUPLING LADDER (OPTION) "CUNA"

⚠ IMPORTANT ⚠

*Be careful not to get your fingers caught or crushed during this operation.
When uncoupling, make sure that the trailer is supported independently*

- Position the machine as close as possible to the trailer ring.
- Apply the parking brake and switch off the engine.

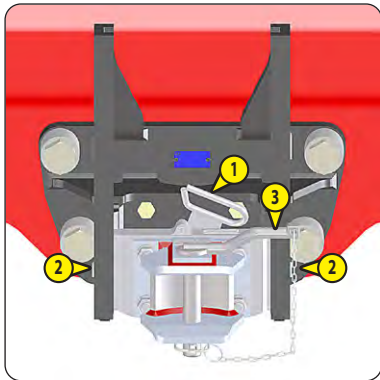
ADJUSTING THE CLEVIS HITCH

- Lift the handle 1 and pivot it upwards to release the pins 2 on either side of the ladder.
- Support the clevis and adjust it according to the height of the trailer ring.
- Pivot the handle 1 downwards to engage the 2 pins in the ladder and release the handle.

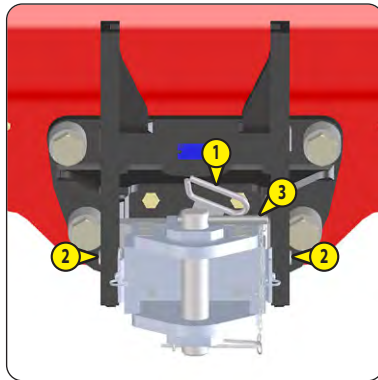
COUPLING AND UNCOUPLING THE TRAILER

- Remove the towing pin 3 and place or remove the trailer ring.
- Refit and lock towing pin 3 in position.

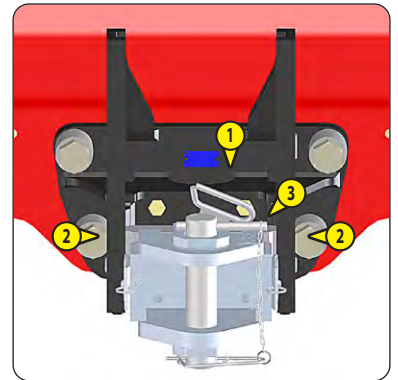
6 Tons



14 Tons



20 Tons



5 - AUTOMATIC CLEVIS HITCH ON COUPLING LADDER (OPTION)

⚠ IMPORTANT ⚠

*Be careful not to get your fingers caught or crushed during this operation.
When uncoupling, make sure that the trailer is supported independently*

- Position the machine as close as possible to the trailer ring.

ADJUSTING THE CLEVIS HITCH

- Lift the handle 1 and pivot it upwards to release the pins 2 on either side of the ladder.
- Support the clevis and adjust it according to the height of the trailer ring.
- Pivot the handle 1 downwards to engage the 2 pins in the ladder and release the handle.

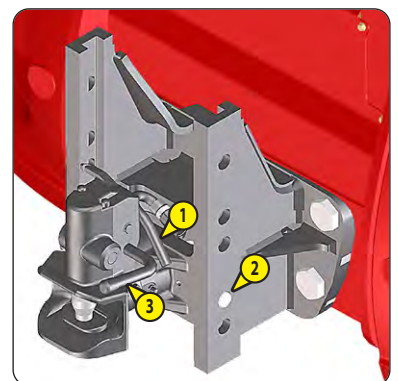
COUPLING THE TRAILER

- Remove the automatic towing pin using lever 3.
- Back up the machine so that the trailer ring slots into the automatic hook.

N.B.: The pin closes automatically when the trailer ring touches the back of the clevis. The pin can be lowered by hand using lever 3.

UNCOUPLING THE TRAILER

- Lift the pin using lever 3 to uncouple the trailer.



6 - AUTOMATIC BALL HITCH ON COUPLING LADDER (OPTION)

⚠ IMPORTANT ⚠

*Be careful not to get your fingers caught or crushed during this operation.
When uncoupling, make sure that the trailer is supported independently*

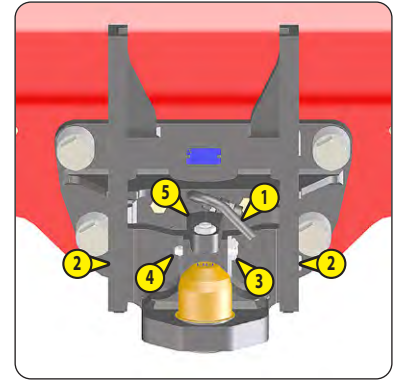
- Position the machine as close as possible to the trailer ring.

ADJUSTING THE CLEVIS HITCH

- Lift the handle 1 and pivot it upwards to release the pins 2 on either side of the ladder.
- Support the clevis and adjust it according to the height of the trailer ring.
- Pivot the handle 1 downwards to engage the 2 pins in the ladder and release the handle.

COUPLING AND UNCOUPLING THE TRAILER

- Remove the cotter pin 3 and the locking pin 4.
- Lift the hitch bolt 5.
- Place or remove the coupling head of the trailer on the ball hitch.
- Refit the hitch bolt 5, the locking pin 4 and the cotter pin 3.



7 - FIXED PIN ON COUPLING LADDER (OPTION)

⚠ IMPORTANT ⚠

*Be careful not to get your fingers caught or crushed during this operation.
When uncoupling, make sure that the trailer is supported independently*

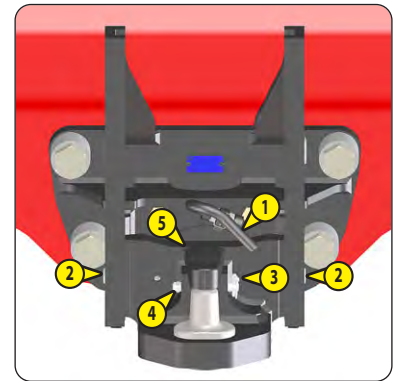
- Position the machine as close as possible to the trailer ring.

ADJUSTING THE CLEVIS HITCH

- Lift the handle 1 and pivot it upwards to release the pins 2 on either side of the ladder.
- Support the clevis and adjust it according to the height of the trailer ring.
- Pivot the handle 1 downwards to engage the 2 pins in the ladder and release the handle.

COUPLING AND UNCOUPLING THE TRAILER


- Remove the cotter pin 3 and the locking pin 4.
- Lift the hitch bolt 5.
- Place or remove the coupling head of the trailer on the fixed pin.
- Refit the hitch bolt 5, the locking pin 4 and the cotter pin 3.

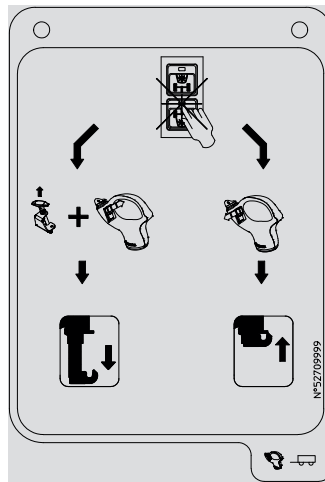
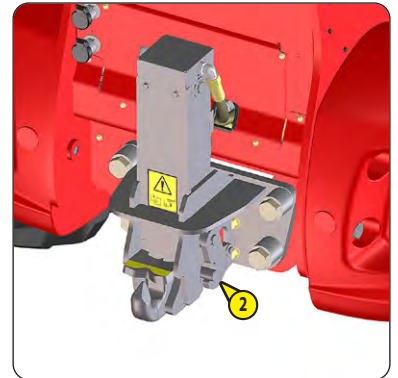
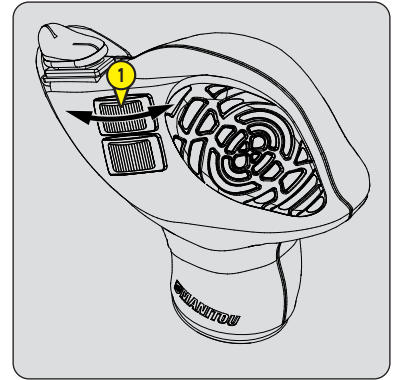


8 - HYDRAULIC TOWING HOOK (OPTION)

⚠ IMPORTANT ⚠

*Never use the tow hook to raise the rear of the machine (when changing the rear wheel for example).
When uncoupling, make sure that the trailer is supported independently*

- Select the rear attachment hydraulic line 
- Push switch 1 forwards to release the locking pin securing the hook 2.
- Pull on the knob 3 and hold in position.
- Push switch 1 backwards to lower the towing hook.
- Release knob 3.
- Couple or uncouple the trailer.
- Push switch 1 forwards to fully raise the towing hook.
- Next, push switch 1 backwards to bring the locking pin into contact with the hook 2.



9 - REAR ELECTRIC SOCKET

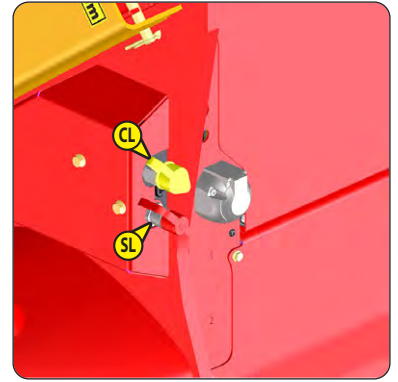
- Connect the electric power socket and check that the trailer lights or the light bar are working.



10 - HYDRAULIC TRAILER BRAKING (OPTION)

TRAILER BRAKE WITH A DOUBLE "SL" AND "CL" LINE

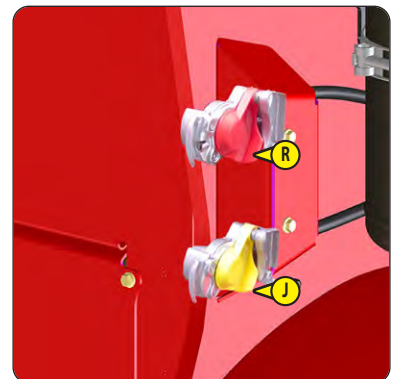
- Connect the brake hose to the machine "CL" line.
- Connect the brake release hose to the machine "SL" line.
- Make sure the trailer brakes are working properly and test the effects of braking before taking the trailer onto the public highway.



11 - PNEUMATIC TRAILER BRAKE (OPTION)

The pressure gage 1 indicates the working pressure of the pneumatic circuit (8 bar).

- Connect the brake hose to the machine "J" line.
- Connect the brake release hose to the machine "R" line.
- Make sure the trailer brakes are working properly and test the effects of braking before taking the trailer onto the public highway.



DESCRIPTION AND USE OF THE OPTIONS

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1 - WINDSHIELD GRILLE

DESCRIPTION

The windshield grille provides additional protection for the operator from any external elements spattered on the windshield.

This grille must be removable from inside the cab to enable an emergency exit.

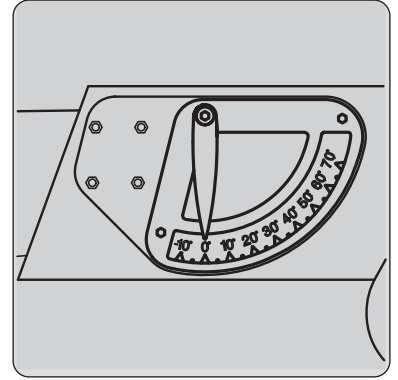
EMERGENCY EXIT

- After breaking the windshield with the emergency hammer, push (with force) on the windshield grid at A to remove it.



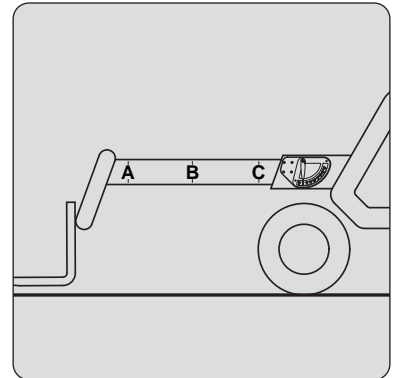
2 - ANGULAR SECTOR ON BOOM

The angular sector displays the boom angle, and thus improves the reading of the load charts.



3 - MARKS ON BOOM

The marking indicates the outreach of the boom and therefore improves reading of the load charts.



4 - AUTOMATIC CENTRAL GREASING

⚠ IMPORTANT ⚠

Before using the machine, check the condition of the greasing unit and check the grease level, topping it up, if necessary (↪ 3 - MAINTENANCE: 10H - DAILY MAINTENANCE OR EVERY 10 HOURS OF SERVICE).

Never use the machine with the grease tank empty.

When washing the machine with a high-pressure cleaner, the greasing unit must be protected from splashes.

This option ensures automatic lubrication of all of the machine's greasing points from start-up.

The automatic lubrication can be set to LOW, NORMAL or HIGH mode depending on the type of work to be done ↪ CONTROL PANEL INFORMATION SCREEN "PREFERENCES" menus.

After turning on the ignition, check the automatic greasing control indicator light 1:

- Light on for 3s = system OK.
- Light flashing every 0.5s = greasing cycle in progress.
- Light flashing every 1s = grease level low (error code 8C-7F07E.11).
- Light on continuous = grease tank empty or system error.

In the event of a system error, perform a test cycle by pressing test button 2:

- Press once and the light flashes once every 2 seconds and initiates the test on output 1.
- Press twice and the light flashes twice every 2 seconds and launches the test on output 2.

N.B.: After an interruption, when the system is powered back on, the greasing cycle continues where it stopped previously.

If the system error persists, contact your dealer as soon as possible.



LOCATION OF OPTIONS ACCORDING TO ACCUMULATION OF OPTIONS

5 - USB SOCKET (STANDARD)

6 - 3 POLE 12V CONNECTOR

For 12 V appliance and max. amperage 16A.

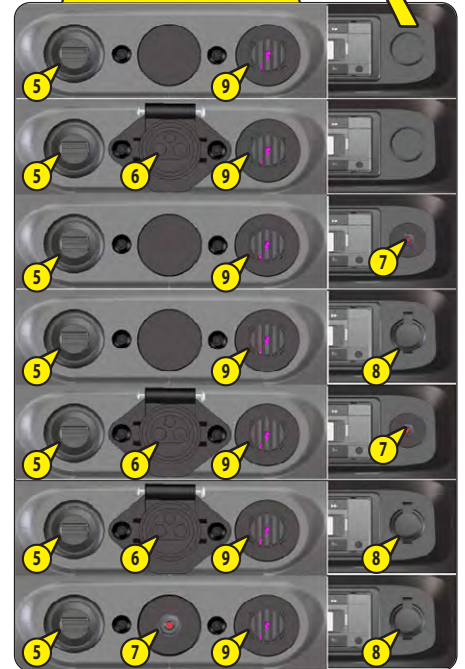
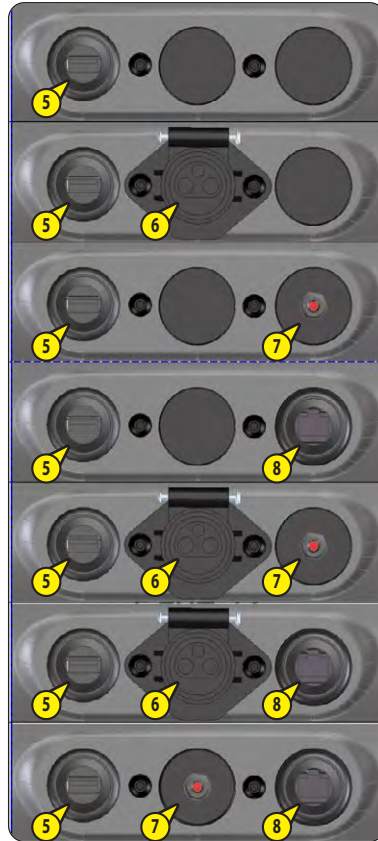
7 - AUTOMATIC CENTRAL LUBRICATION LAMP

◀ AUTOMATIC CENTRAL LUBRICATION

8 - RJ45 PLUG (VISION SCREEN OPTION)

Software maintenance plug

9 - TEMPERATURE SENSOR



10 - KEYPAD

A code must be created for the operator via the "EasyMANAGER" portal. For more information, contact your dealer.

OPERATION

BY ID CODE

- Switch on the machine's ignition. LED 1 comes on.
- Enter your ID code and confirm by pressing the "V" key.
- LED 2 comes on to confirm the operator's identification.
- Immediately start the machine, otherwise the identification process is canceled and LED 2 turns red.

N.B.: In case of an input error, LED 2 lights up red, press the "X" key, and wait 10 seconds before entering the correct identification code.

BY ID CARD

- Switch on the machine's ignition. LED 1 comes on.
- Present your ID card; an audible beep confirms that the card has been read.
- LED 2 comes on to confirm the operator's identification.
- Immediately start the machine, otherwise the identification process is canceled and LED 2 turns red.




11 - ELECTRICAL ADJUSTMENT OF MAIN RIGHT REAR-VIEW MIRROR



12 - REAR AND SIDE CAMERAS

To activate a camera:

- Turn knob A to select the rear or side camera .
- The screen displays the view of the selected camera.

The rear camera (SafeView) can be configured in automatic mode when in reverse gear.

- Press button B to display the "PREFERENCES" menu.
- Turn knob A to select the menu.


SYSTEM	>	CAMERA (OPTION)
--------	---	-----------------

- Press knob A to confirm.
- Activate the automatic configuration using knob A.
- Press knob A to confirm.



13 - BOOM HEAD CAMERA

To activate the camera:

- Turn knob A to select the boom head camera .
- The screen displays the view of the selected camera.

The boom head camera (HighView) can be configured in automatic mode as soon as the boom angle reaches 25°. When the boom goes back down, the previous screen reappears.

- Press button B to display the "PREFERENCES" menu.
- Turn knob A to select the menu.

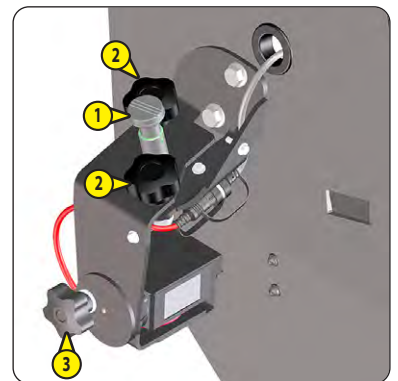
SYSTEM	>	CAMERA (OPTION)
--------	---	-----------------

- Press knob A to confirm.
- Activate the automatic configuration using knob A.
- Press knob A to confirm.

N.B.: "Manual" selection of the boom head camera from the information screen activates it permanently. The boom head camera (HighView) can be combined with the rear and side cameras option (SafeView).

BOOM HEAD CAMERA INSTALLATION

- Lower the boom as far as it will go and turn off the machine ignition.
- Position the indexing finger 1 and tighten the thumbwheels 2.
- Point the camera using the thumbwheel 3.



14 - BOOM ELECTRICAL PREDISPOSITION

Enables an electrical function to be used at the boom head.

OPERATION

- Press the switch. The indicator  will come on when the function is enabled.



15 - ENGINE SPEED REGULATOR



⚠ IMPORTANT ⚠

The engine speed regulator cannot under any circumstances be used while driving on the road.




USING THE REGULATOR

- Control the engine speed with lever 1.

SPEED MEMORIZATION

- Control the engine speed with lever 1 or the accelerator pedal.
- Hold down the  button to memorize the engine speed.
- Press the  button again or operate lever 1 to return to idle speed.

ACTIVATING THE MEMORIZED ENGINE SPEED

- Press the  button to activate the memorized engine speed.
- Confirm by pressing the  button a second time or pressing knob A.
- Press the  button again or operate lever 1 to return to idle speed.




16 - GEAR RATIO LIMITER





⚠ IMPORTANT ⚠

BE CAREFUL when using the gear ratio limiter while driving.




As soon as  appears on the information screen, selecting the gear ratio with button A will act directly on the machine and may cause it to decelerate sharply. Always reduce speed before use.

GEAR RATIO LIMITER USE AND MEMORIZATION

- Turn the navigation knob A to select driving mode .
- Press knob A or press and hold the ;  will appear on the information screen.
- Turn knob A to select the gear ratio.
- Press knob A to confirm and save.
- The memorized gear ratio will be displayed on the information screen .

ACTIVATING THE MEMORIZED GEAR RATIO

- Press the  button to activate. The indicator light will come on, showing that it is in use.
- Press the button again to deactivate.
- Press the button again to deactivate.



17 - "STOP&START" ENGINE

This function is used to automatically stop and restart the engine to reduce consumption. It can be used if all of the following conditions are met within a timeframe defined by the operator.

- Engine on.
- Engine speed less than 1,000 rpm.
- No driver presence.
- No manual override in progress.
- No "stationary machine" exhaust regeneration.
- Parking brake activated.
- Engine coolant temperature higher than 50 °C.

TIME DELAY ADJUSTMENT

- Press button B to display the "PREFERENCES" menu.
- Turn knob A to navigate through the menus and sub-menus.

ENGINE > STOP&START

- Select the time delay (between 1 and 30 minutes) and press knob A to confirm.

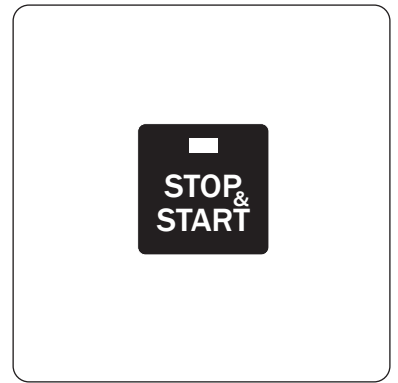
OPERATION



- Press the **STOP&START** button to activate. The indicator light will come on, showing that it is in use.
- The engine will stop automatically after the selected timeout has elapsed.
- Press the accelerator pedal or activate the hydraulic control lever to restart the engine.

⚠ IMPORTANT ⚠

The "STOP&START" function does not under any circumstances replace machine shutdown. You must shut down the machine at the end of the job or the end of the day (← 1 - OPERATING AND SAFETY INSTRUCTIONS: OPERATOR INSTRUCTIONS: OPERATING INSTRUCTIONS WITH AND WITHOUT LOAD: G - STOPPING THE MACHINE).



18 - ENGINE BLOCK HEATER

Enables the engine to be kept warm during prolonged periods of stoppage and thus improves engine starting.

ENVIRONMENTAL CONDITIONS FOR USE:

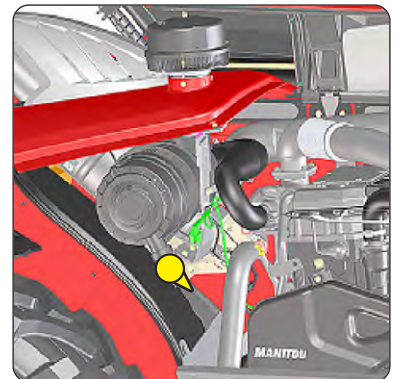
- Maximum ambient temperature for using preheat: + 25 °C.

CONDITIONS FOR CONNECTION AND USE OF PREHEATING:

- The preheating system should not be used for an external ambient temperature higher than + 25 °C.
- It is essential that the power supply to the preheating system:
 - Is effected with a cable that conforms to the installation standards in force and contains a protective earth conductor.
 - Contains an appropriate sectioning system.
 - Include an appropriate short-circuit protection system (fuses or circuit breaker) and a ground-fault circuit breaker, sensitive to 30 mA.
- Only connect to and disconnect from the power supply while the unit is switched off and the engine is stopped.

⚠ IMPORTANT ⚠

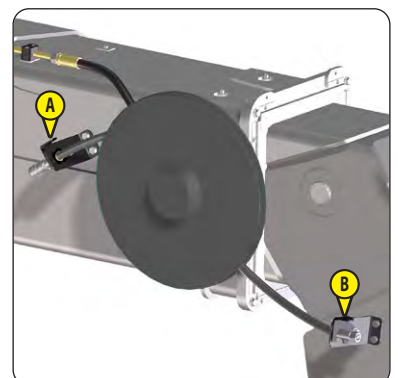
Make sure that the electrical extension is still correctly stored in its place in the document holder net.



19 - RETURN TO HYDRAULIC TANK

Allows the connection of an attachment fitted with a hydraulic tank return.

- Position A to avoid premature wear of the hose.
- Position B to connect the attachment fitted with a hydraulic tank return.

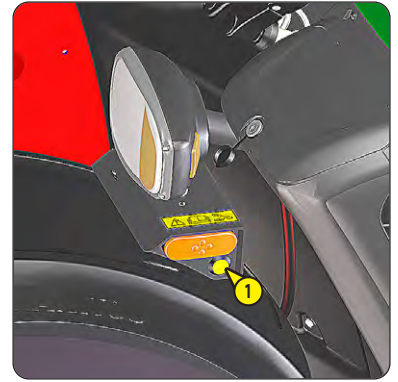


20 - ATTACHMENT EASY HYDRAULIC CONNECTION

For easy connection and disconnection of hydraulic attachments.

PUSH BUTTON OPERATION

- Switch on the machine's ignition.
- Press for two seconds on pushbutton 1 to release the attachment circuit hydraulic pressure.
- Connect or disconnect the quick couplers of the hydraulic attachment ($\leq 4 - ADAPTABLE ATTACHMENTS AS AN OPTION ON THE RANGE: PICKING UP THE ATTACHMENTS$).



NAVIGATION BUTTON OPERATION

- Switch on the machine's ignition.
- Press button B to display the "PREFERENCES" menu
- Turn knob A to navigate through the menus and sub-menus.

HYDRAULICS > EASY CONNECT SYSTEM

- Press knob A to confirm.
- Connect or disconnect the quick couplers of the hydraulic attachment ($\leq 4 - ADAPTABLE ATTACHMENTS AS AN OPTION ON THE RANGE: PICKING UP THE ATTACHMENTS$).



21 - ATTACHMENT HYDRAULIC LOCKING

Enables the attachment to be locked onto the carriage and a hydraulic attachment to be used by the same circuit.

⚠ IMPORTANT ⚠

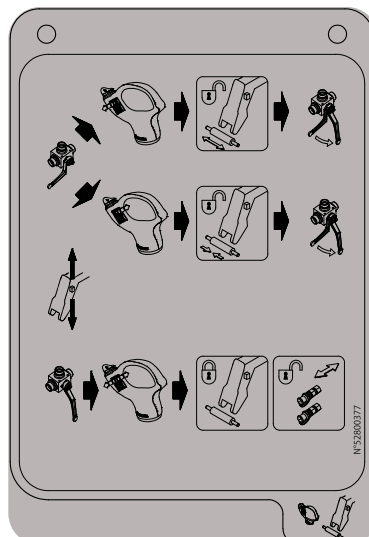
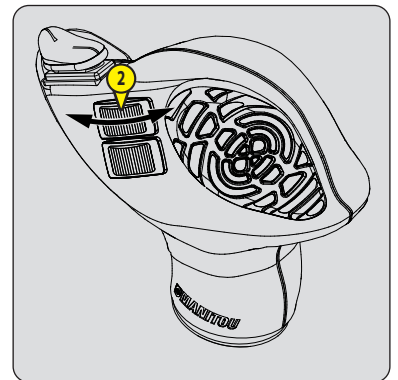
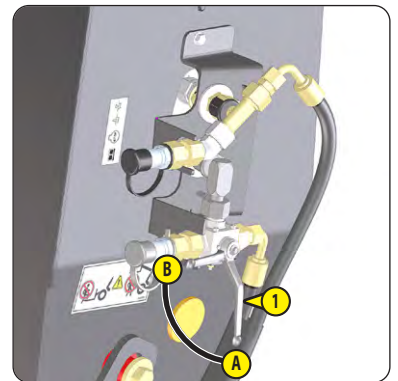
Once the attachment is locked, return valve 1 to position B to prevent accidental release of the attachment.

ATTACHMENT LOCKING CONTROL

- Set valve 1 to position A.
- Push switch 2 forward to lock the attachment and backward to release it.
- Set valve 1 to position B.

HYDRAULIC ATTACHMENT CONTROL

- Set valve 1 to position B.
- Push switch 2 forward or backward.



22 - BOOM HEAD ELECTROVALVE

Enables use of two hydraulic functions on the attachment circuit.

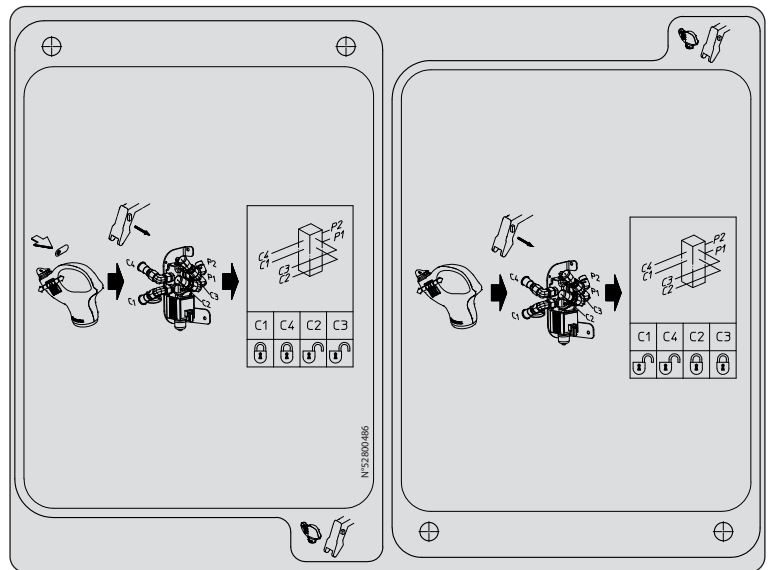
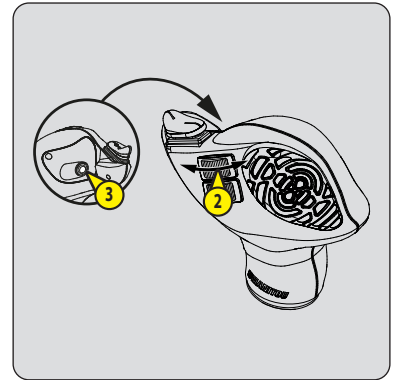
N.B.: For ease of connection of the quick-release couplers, decompress the hydraulic circuit by pressing button 1 on the electrovalve.

ATTACHMENT LINE CONTROL "C1-C4"

- Push switch 2 forward or backward to control the attachment line "C1-C4".

ATTACHMENT LINE CONTROL "C1-C4 / C2-C3"

- Push switch 2 forward or backward to control the attachment line "C1-C4".
- Hold down button 3 and push switch 2 forward or backward to control the attachment line "C2-C3".



23 - BOOM HEAD ELECTROVALVE + HYDRAULIC ATTACHMENT LOCKING

The addition of these two options on the attachment line allows two hydraulic functions to be used and locks the attachment onto the carriage.

N.B.: For ease of connection of the quick-release couplers, decompress the hydraulic circuit by pressing button 1 on the electrovalve.

⚠ IMPORTANT ⚠

Once the attachment is locked, return valve 2 to position B to prevent accidental release of the attachment.

ATTACHMENT LINE CONTROL "C1-C4"

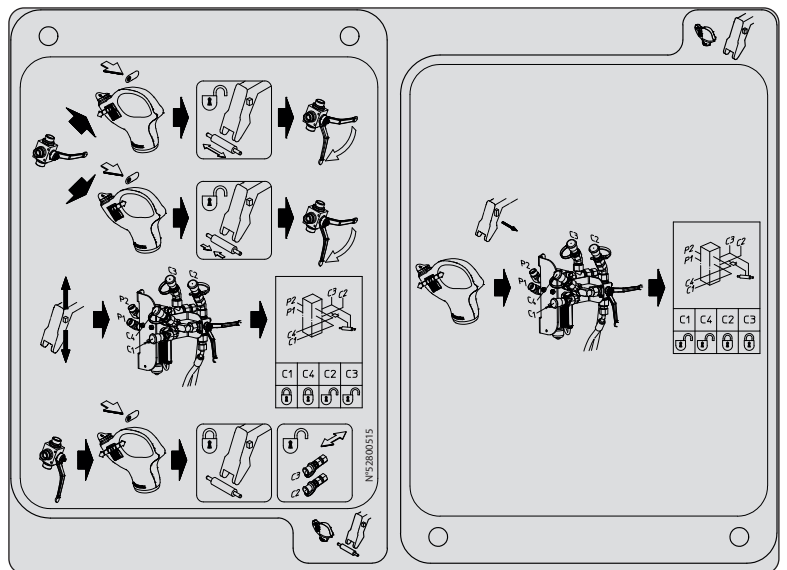
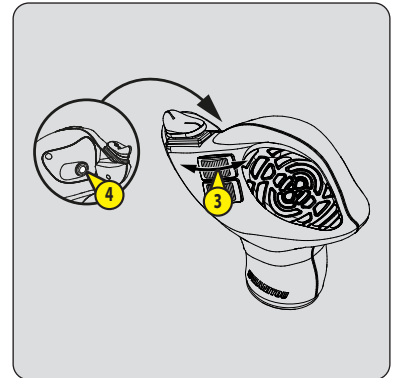
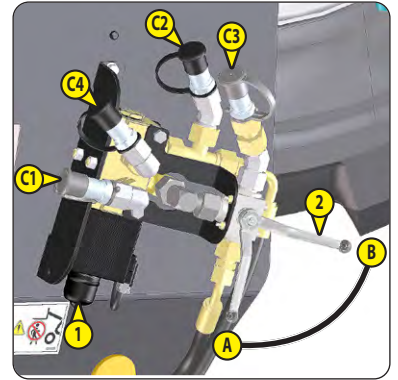
- Push switch 3 forward or backward to control the attachment line "C1-C4".

ATTACHMENT LINE CONTROL "C1-C4 / C2-C3" + HYDRAULIC ATTACHMENT LOCKING

- Set valve 2 to position B.
- Push switch 3 forward or backward to control the attachment line "C1-C4".
- Hold down button 4 and push switch 3 forward or backward to control the attachment line "C2-C3".

LOCKING AN ATTACHMENT



- Set valve 2 to position A.
- Hold down button 4 and push button 3 forward to lock the attachment and backward to release it.
- Set valve 2 to position B.



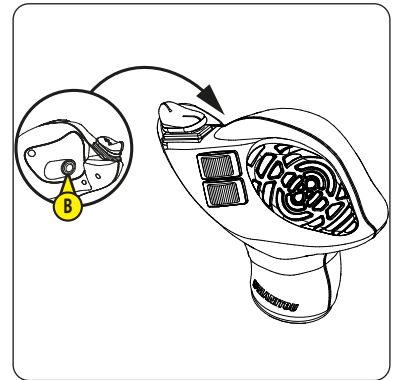
24 - ATTACHMENT CIRCUIT FLOW RATE LIMITER

FLOW RATE MEMORIZATION


- Hold down the  button;  will appear on the information screen.

N.B.: Depending on the OPTIONS, you can have two attachment circuits  . Press button B to select the second circuit.

- Turn knob A to limit the flow rate to a value of your choice.
- Press knob A to confirm and proceed to the adjustment of the other line.
- Press knob A again to confirm and exit the setting menu.



ACTIVATING THE MEMORIZED FLOW RATE




- Press the  button to activate. The indicator light will come on, showing that it is in use.
- Press the button again to deactivate.



25 - ATTACHMENT CIRCUIT MANUAL OVERRIDE

⚠ IMPORTANT ⚠

This OPTION should only be used with an attachment that requires continuous hydraulic movement such as: a sweeper, feed wagon, mixer, sprayer, etc. It is strictly prohibited for handling operations and for all other attachments (winch, crane, crane jib with winch, hook, etc.).




USING AND STORING MANUAL OVERRIDE

- Turn the navigation knob A to select work mode .
- Press knob A or press and hold the ;  will appear on the information screen.

N.B.: Depending on the OPTIONS, you can have two attachment circuits  . Press button B to select the second circuit.

- Turn the knob A to select the line.
- Confirm by pressing knob A.
- Turn knob A to set the desired flow rate.
- Press knob A to confirm and save.

ACTIVATING THE STORED MANUAL OVERRIDE

- Press the  button to activate manual override.
- Confirm by pressing the  button a second time or pressing knob A.
- Press the  button again to deactivate.




26 - BOOM SUSPENSION

Boom suspension absorbs the shocks to the machine on uneven ground (e.g. handling straw in a field).

⚠ IMPORTANT ⚠

When you make a hydraulic downward or tilting movement, boom suspension is temporarily disabled and the button's

*indicator light  goes off.
Boom suspension is active from 5 km/h.*

- Press the  button to activate. The indicator light will come on, showing that it is in use.
- Press the button again to deactivate.
- When the engine is off, boom suspension is automatically deactivated.

N.B.: Forced boom suspension  allows it to be used at less than 5 km/h.



27 - "INTELLIGENT HYDRAULICS" FUNCTIONS


Hydraulic functions can be combined in order to optimize repetitive movement cycles (e.g. loading material in a dump truck).

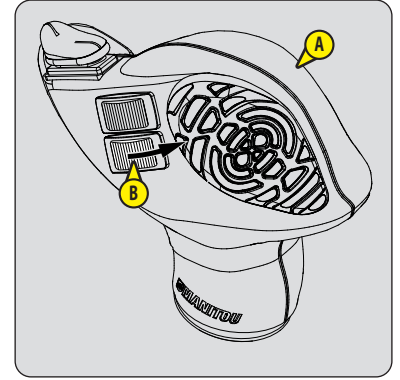


QUICK LIFT "QUICKLIFT"

Optimizes the cycle times by combining telescope raising/extension and lowering/retraction hydraulic movements.


The load offset is adjustable within a horizontal range of ± 50 cm, beyond this offset, the "Quicklift" function is no longer operational. Push switch B backward to retract the telescope and recover the function.

- Place the machine in transport position.
- Press the  button to activate. The indicator light will come on, showing that it is in use.
- Pull lever A backwards to perform combined lifting and extension.
- Push lever A forwards to perform combined lowering and retraction.



BUCKET SHAKING "BUCKET SHAKER"

Performs a bucket shaking sequence when the tilt-down instruction is maintained. Maximum shaking intensity is obtained at an engine speed of approx. 1,600 rpm.

- Press the  button to activate. The indicator light will come on, showing that it is in use.
- Push and hold lever A fully to the right to tilt down and shake the bucket.




LOADING POSITION RETURN "RETURN TO LOAD"

Returns the bucket to the loading position (e.g. Loading a trailer).

⚠ IMPORTANT ⚠

Do not use this function to lower a load.

- Place the machine in transport position.
- Place the bucket in the loading position.
- Press the  button to save the position. The indicator lamp will show it is in use.
- Fill and tilt up the bucket into the transport position.
- Empty the bucket into the trailer.
- Tilt up the bucket and reverse the machine.
- Push lever A fully forward to return the bucket to the loading position.

28 - SMART WEIGHING SYSTEM (SWS)

⚠ IMPORTANT ⚠

This function cannot be used for commercial transactions.

Used to weigh loads picked up with the attachment at the end of the lifting arm.

Weighing is done only:

- When the lifting arm is being lifted.
- Just after a lifting movement has stopped.

Loads are weighed automatically by handling the load.

“PREFERENCES”

- Press button B to display the “Preferences” menu.
- Turn button A to choose the “Measurement” function.
- Press button A to confirm.
- Turn button A to choose a function.



Type of measurement	Basic counting	<4 SMART COUNTING SYSTEM (SCS)
	Target counting	<4 SMART COUNTING SYSTEM (SCS)
	Basic weighing	Single weighing
	Cumulative weighing	Weighing totals
	Target weighing	Add weighings up to desired weight
	Feed	Weighing of several foods to follow a recipe
Method of accumulation	Manual	Button press
	Automatic	Depending on lifting arm angle or button press
Target	Target weight	
Display	Simplified display (low screen)	
	Full-screen display	
Feed	Ration settings	Defines a recipe for weighing
Weighing calibration		

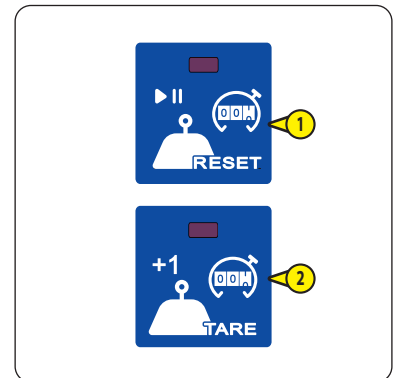
To consult the measurement history:

- Press button C to display the “INFORMATION” menu.

MEASUREMENT > HISTORY

BUTTON FUNCTIONS

	<p>Short press: Activate/Pause weighing function</p> <p>Press and hold: Reset functions</p>
	<p>Short press: Manually record weighing</p> <p>Press and hold: Tare</p>



TARING THE ATTACHMENT

Tare the attachment in the desired weighing position.

Repeat the taring procedure when the attachment or the measuring angle is changed.

- Press button 2 until the attachment at the end of the lifting arm is tared.
- The attachment weight value flashes on the display, returns to 0 and a sound confirms that the attachment has been successfully tared.

CONDITIONS OF USE

- Machine at operating temperature.
 - The weight is displayed in blue when the temperature is not optimal.
 - The weight is displayed in black when the temperature is optimal.
- Flat ground.
- Machine stopped 0 km/h.
- The movement must be performed smoothly to ensure the best possible precision.
- Weighing only takes place when the lifting arm is being lifted, or just after a lifting movement has stopped.

RESTRICTIONS OF USE

The display shows “---” when:

- A movement of the lifting arm is at the stop (lifting and crowding).
 - Move the lifting arm away from the hydraulic stops.
- The lifting arm descends.
 - Raise the lifting arm.
- Lifting arm lifting speed is too high.
 - Start lifting the load again, more gently.

29 - SMART COUNTING SYSTEM (SCS)

Used to count loads picked up with the attachment at the end of the lifting arm. Loads are counted automatically by handling the load.



“PREFERENCES”

- Press button B to display the “Preferences” menu.
- Turn button A to choose the “Measurement” function.
- Press button A to confirm.
- Turn button A to choose a function.

Type of measurement	Basic counting Target counting	Single counting Counting totals
Method of accumulation	Manual Automatic	Button press Depending on lifting arm angle or button press
Target	Target count	Add up to desired number
Display	Simplified display (low screen) Full-screen display	

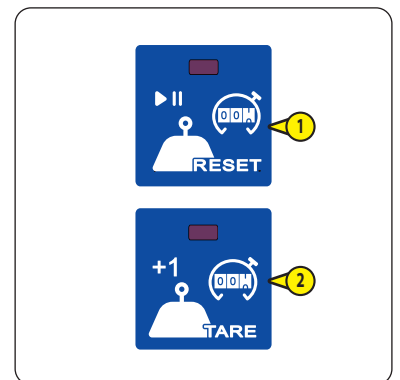
To consult the measurement history:

- Press button C to display the “INFORMATION” menu.

MEASUREMENT	>	HISTORY
-------------	---	---------

BUTTON FUNCTIONS

	Short press: Activate/Pause counting function Press and hold: Reset functions
	Short press: Manually record count



30 - SEMI-AUTOMATIC WHEEL ALIGNMENT

⚠ IMPORTANT ⚠

Check the alignment of the front and rear wheels each time the machine is started.

Regularly check the alignment of the wheels when using the machine.

The wheels must be aligned and the machine must be in front steering wheels mode when used on public roads.

A green light illuminates on the dashboard when the wheels are aligned.

It is not possible to change the steering mode above 11 km/h.

Contact your dealer if you have any questions.



CHANGING THE STEERING MODE



Front steering wheels (road mode).



Front and rear steering wheels in opposite directions (short steering).



Front and rear steering drive wheels in the same direction (crab steering).



Front steering wheels and locking of the rear wheel steering angle.

- Align the rear and front wheels.
- Select the desired steering mode, a flashing indicator lamp will confirm the selection.
- Turn the wheels as instructed on the information screen. The indicator lamp will remain steadily lit while the steering mode is enabled.


31 - "COMFORT STEERING SYSTEM"

The function enables the wheels to be turned in a single turn of the steering wheel.

The number of turns of the steering wheel increases proportionally with the speed of travel of the machine and/or the boom lifting angle.

OPERATION



- Press switch 1 the indicator  will come on when the function is enabled.


N.B.: The function is disabled when the speed exceed 15 km/h.

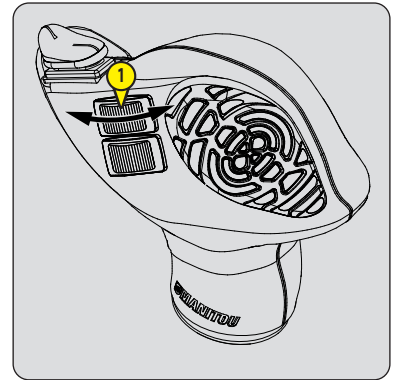
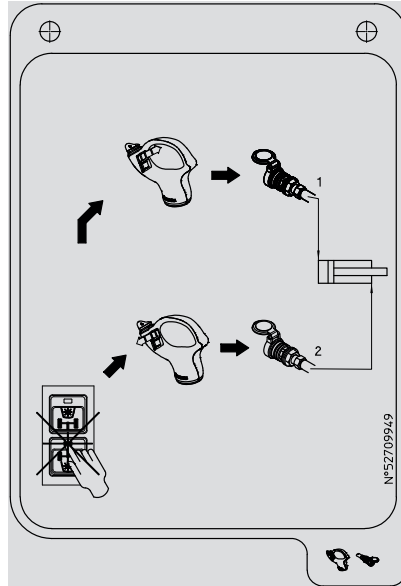


32 - DOUBLE-ACTING REAR HYDRAULIC CONTROL PREDISPOSITION

Enables the use of a hydraulic attachment at the rear of the machine (e.g. a trailer with hydraulic tipping).

DOUBLE-ACTING REAR HYDRAULIC CONTROL "L1-L2"


- Select the rear attachment hydraulic line .
- Push switch 1 forward or backward.




33 - TWO DOUBLE-ACTING REAR HYDRAULIC CONTROL PREDISPOSITIONS

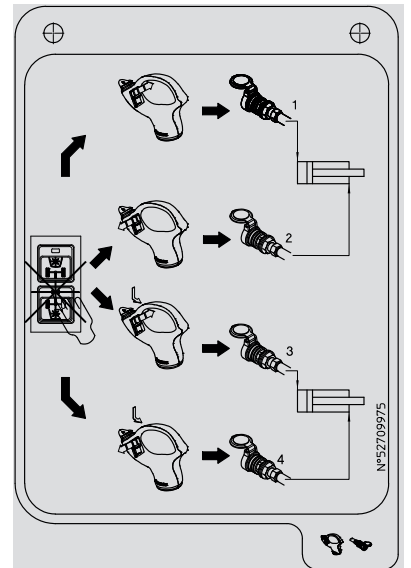
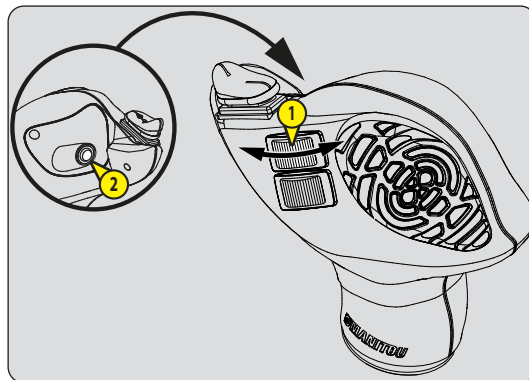
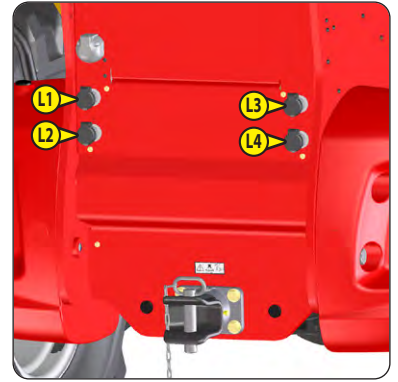
Enables two hydraulic circuits at the rear of the machine to be selected for use.

DOUBLE-ACTING REAR HYDRAULIC CONTROL "L1-L2"

- Select the rear attachment hydraulic line 
- Push switch 1 forward or backward.

DOUBLE-ACTING REAR HYDRAULIC CONTROL "L3-L4"


- Select the rear attachment hydraulic line 
- Hold down button 2 and operate button 1 forward or backward.




34 - HYDRAULIC TRAILER HOOK + DOUBLE-ACTING REAR HYDRAULIC CONTROL PREDISPOSITION

Enables use of the towing hook () TOWING DEVICE) or a hydraulic attachment at the rear of the machine.

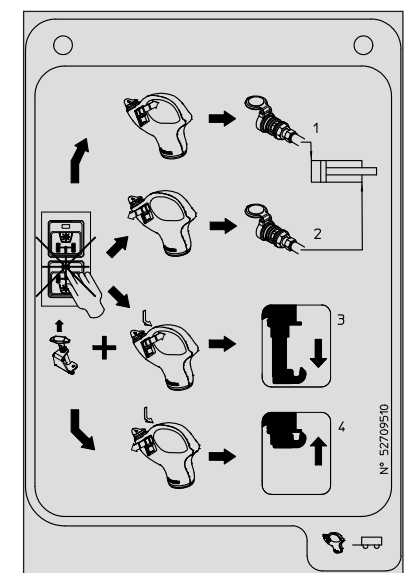
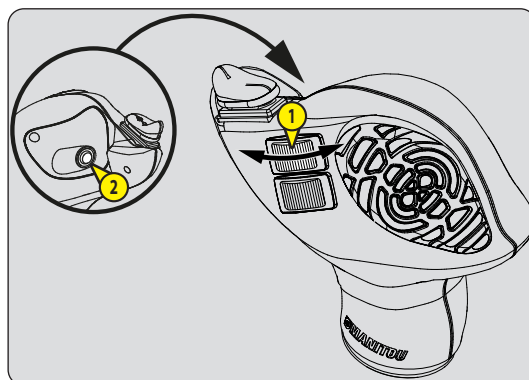
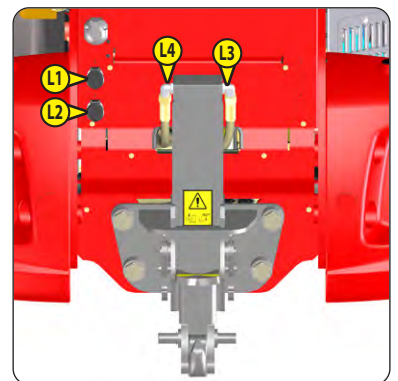
DOUBLE-ACTING REAR HYDRAULIC CONTROL "L1-L2"

- Select the rear attachment hydraulic line 
- Push switch 1 forward or backward.

HYDRAULIC TOWING HOOK "L3-L4"

- Select the rear attachment hydraulic line 
- Hold down button 2 and operate button 1 forward or backward.

 TOWING PIN AND HOOK



3 - MAINTENANCE

3 - MAINTENANCE

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ORIGINAL MANITOU SPARE PARTS AND EQUIPMENT

YOUR MACHINE MUST BE SERVICED USING ORIGINAL MANITOU PARTS.

BY ALLOWING THE USE OF NON ORIGINAL MANITOU PARTS, YOU RISK:

⚠ IMPORTANT ⚠

THE USE OF COUNTERFEIT PARTS OR COMPONENTS NOT APPROVED BY THE MANUFACTURER MEANS YOU LOSE THE BENEFIT OF THE CONTRACTUAL GUARANTEE.

- Legally, incurring liability in the event of an accident.
- Technically, causing operating malfunctions and reducing the machine's service life.

BY USING ORIGINAL MANITOU PARTS FOR MAINTENANCE OPERATIONS, YOU BENEFIT FROM OUR KNOW-HOW

Through its network, MANITOU provides the user with,

- Know-how and competence.
- The guarantee of high-quality work.
- Original replacement parts.
- Help with preventive maintenance.
- Efficient help with diagnosis.
- Improvements as a result of feedback.
- Operator training.
- Only the MANITOU network has detailed knowledge of the design of the machine and therefore the best technical ability to provide maintenance.

⚠ IMPORTANT ⚠

ORIGINAL REPLACEMENT PARTS ARE DISTRIBUTED EXCLUSIVELY BY MANITOU AND ITS DEALER NETWORK.

The dealer network list is available on the MANITOU web site: www.manitou.com

MACHINE MAINTENANCE

DAILY AND WEEKLY MAINTENANCE



THE OPERATOR IS AUTHORIZED TO CARRY OUT THIS MAINTENANCE.

This maintenance enables the operator to keep the machine in a clean and safe condition.

MANDATORY FIRST 500 HOURS OR 6 MONTHS OF SERVICE



THIS SERVICE MUST BE CARRIED OUT AFTER THE FIRST 500 HOURS OF SERVICE OR WITHIN THE 6 MONTHS FOLLOWING THE START-UP OF THE MACHINE (WHICHEVER OCCURS FIRST).

PERIODIC MAINTENANCE



THE PERIODIC MAINTENANCE MUST BE CARRIED OUT BY A PROFESSIONAL APPROVED BY THE MANITOU NETWORK

MAINTENANCE SCHEDULE

This schedule enables the operator to keep the periodic maintenance on the machine up-to-date by reporting the total number of hours worked and the date of the service carried out by the professional approved by the MANITOU network.

OCCASIONAL MAINTENANCE AND OPERATION

These maintenance operations are to be carried out when needed for the safety and upkeep of the machine.

DAILY AND WEEKLY MAINTENANCE

10H - DAILY SERVICE OR EVERY 10 HOURS OF SERVICE

- CHECK	General inspection	3-12
- CHECK	Engine oil level	3-12
- CHECK	Coolant level	3-13
- CHECK	Fuel pre-filter	3-13
- CHECK	Longitudinal stability limiter and warning device	3-13
- CHECK	Greasing unit level (OPTION)	3-14

50H - WEEKLY MAINTENANCE OR EVERY 50 HOURS OF SERVICE

- CHECK	Transmission gearbox seal	3-14
- CHECK	Tire pressure	3-14
- CHECK	Wheel nut tightening	3-15
- CHECK	Front wheel reducer seals	3-15
- CHECK	Rear wheel reducer seals	3-15
- CHECK	Front axle differential seal	3-15
- CHECK	Rear axle differential seal	3-15
- CHECK	Boom pad slide pathways	3-15
- CHECK	Hydraulic fluid level	3-16
- CHECK	Windshield washer fluid level	3-16
- CLEAN	Radiator core	3-16
- CLEAN	Dry air filter cartridge	3-17
- REPLACE	Cab ventilation filters	3-17
- CLEAN	Condenser harness	3-18
- CLEAN	Casing under machine (OPTION)	3-18
- LUBRICATE	General lubrication	3-19

MANDATORY FIRST 500 HOURS OR 6 MONTHS OF SERVICE

FIRST 500 HOURS BEFORE THE FIRST 6 MONTHS

- If the machine has reached the first 500 hours of service before the first 6 months have expired, perform both the compulsory service and periodic 500-hour maintenance (◀▶① 500H - PERIODIC MAINTENANCE - EVERY 500 HOURS OF SERVICE OR 1 YEAR)

FIRST 6 MONTHS BEFORE THE FIRST 500 HOURS

- If the machine has not completed 500 hours of service in the first 6 months, carry out only the mandatory service.

MANDATORY SERVICE

- CHECK	General inspection	3-12
- CHECK	Transmission gearbox seal	3-14
- CHECK	Tire pressure	3-14
- CHECK	Wheel nut tightening	3-15
- CHECK	Front wheel reducer seals	3-15
- CHECK	Rear wheel reducer seals	3-15
- CHECK	Front axle differential seal	3-15
- CHECK	Rear axle differential seal	3-15
- CHECK	Boom pad slide pathways	3-15
- CHECK	Hydraulic fluid level	3-16
- CHECK	Windshield washer fluid level	3-16
- CLEAN	Radiator core	3-16
- CLEAN	Dry air filter cartridge	3-17
- REPLACE	Cab ventilation filters	3-17
- CLEAN	Condenser harness	3-18
- CLEAN	Casing under machine (OPTION)	3-18
- LUBRICATE	General lubrication	3-19
- CHECK	Parking brake	3-20
- CHECK	Tightening of 12 V electrical connections	3-20
- CHECK	Tightening of the fixing screws for the axles	3-21
- CHECK	Fork wear *	3-22
- CHECK	Seat belt	3-23
- REPLACE	Transmission gearbox oil	3-28
- CHECK	Engine shock mounts *	3-30
- CHECK	Flexible pipes and hoses **	3-30
- CHECK	Transmission gearbox silent blocks *	3-30
- CHECK	Brake system pressure *	3-30
- CHECK	Boom pad wear *	3-30

**** Engine service, consult your dealer.**

*** Consult your dealer.**

PERIODIC MAINTENANCE

MAINTENANCE SCHEDULE

SCHEDULE →	OR		500 H or 1 YEAR	1000 H or 2 YEARS	1500 H or 3 YEARS	2000 H or 4 YEARS
	FIRST 6 MONTHS	FIRST 500 HOURS				
PERIODIC MAINTENANCE →	MANDATORY SERVICE	MANDATORY SERVICE + ①	①	①+②	①+③	①+②+④
MACHINE COUNTER →						
DATE OF SERVICING →						

SCHEDULE →	2500 H or 5 YEARS	3000 H or 6 YEARS	3500 H or 7 YEARS	4000 H or 8 YEARS	4500 H or 9 YEARS	5000 H or 10 YEARS	5500 H or 11 YEARS
PERIODIC MAINTENANCE →	①	①+②+③+⑤	①	①+②+④	①+③+⑥	①+②	①
MACHINE COUNTER →							
DATE OF SERVICING →							

SCHEDULE →	6000 H or 12 YEARS	6500 H or 13 YEARS	7000 H or 14 YEARS	7500 H or 15 YEARS	8000 H or 16 YEARS	8500 H or 17 YEARS	9000 H or 18 YEARS
PERIODIC MAINTENANCE →	①+②+③ ④+⑤+⑦	①	①+②	①+③	①+②+④	①	①+②+③ ⑤+⑥+⑧
MACHINE COUNTER →							
DATE OF SERVICING →							

➔ ① 500H - PERIODIC MAINTENANCE - EVERY 500 HOURS OF SERVICE OR 1 YEAR

- CHECK	Hydraulic oil	3-20
- CHECK	Parking brake	3-20
- CHECK	Brake disc wear *	3-20
- CHECK	Tightening of 12 V electrical connections	3-20
- CHECK	Tightening of the fixing screws for the axles	3-21
- REPLACE	Front axle differential oil	3-21
- REPLACE	Rear axle differential oil	3-21
- REPLACE	Front wheel reducer oil	3-21
- REPLACE	Rear wheel reducer oil	3-21
- REPLACE	Cab ventilation filters	3-22
- REPLACE	Filter coupling (OPTIONAL Automatic central greasing)	3-22
- CHECK	Attachment mounting system stop	3-22
- CHECK	Fork wear *	3-22

* Consult your dealer.

➔ ② 1000H - PERIODIC MAINTENANCE - EVERY 1000 HOURS OF SERVICE OR EVERY 2 YEARS

ALSO CARRY OUT THE PERIODIC MAINTENANCE FOR 500 HOURS OF SERVICE.

- CHECK	Seat belt	3-23
- REPLACE	Engine oil	3-23
- REPLACE	Engine oil filter	3-23
- BLEED	Fuel tank	3-24
- REPLACE	Fuel tank breather	3-24
- REPLACE	Fuel pre-filter	3-24
- REPLACE	Fuel filter	3-25
- REPLACE	Coolant	3-25
- REPLACE	Dry air filter cartridge	3-26
- REPLACE	"DEF" (Diesel Exhaust Fluid) supply pump filter	3-27

- REPLACE	Tank breather "DEF" (diesel exhaust fluid)	3-27
- REPLACE	Transmission gearbox oil	3-28
- REPLACE	Hydraulic return oil filter cartridge	3-28
- REPLACE	Hydrostatic transmission oil filter cartridge	3-29
- REPLACE	Hydraulic oil filter cartridge	3-29
- CHECK	Engine shock mounts *	3-30
- CHECK	Flexible pipes and hoses **	3-30
- CHECK	Transmission gearbox silent blocks *	3-30
- CHECK	Brake system pressure *	3-30
- CHECK	Boom pad wear *	3-30
- ADJUST	Brake *	3-30

**** Engine service, consult your dealer.**

*** Consult your dealer.**

➔ ③ 1500H - PERIODIC MAINTENANCE - EVERY 1500 HOURS OF SERVICE OR EVERY 3 YEARS

ALSO CARRY OUT THE PERIODIC MAINTENANCE FOR 500 HOURS OF SERVICE.

- CHECK/ADJUST	Intake and exhaust valve clearances **	3-30
----------------	--	------

**** Engine service, consult your dealer.**

➔ ④ 2000H - PERIODIC MAINTENANCE - EVERY 2000 HOURS OF SERVICE OR EVERY 4 YEARS

ALSO PERFORM THE 500 HOUR AND 1000 HOUR PERIODIC MAINTENANCE.

- CHECK	Wheel nut tightening torque	3-30
- REPLACE	Hydraulic oil	3-31
- CLEAN	Hydraulic fluid tank suction strainers	3-31
- REPLACE	Breather for the hydraulic oil tank	3-31
- CHECK	Radiator *	3-32
- CHECK	Transmission pressures *	3-32
- CHECK	Hydraulic circuit pressures *	3-32
- CLEAN	Air conditioning *	3-32

*** Consult your dealer.**

➔ ⑤ 3000H - PERIODIC MAINTENANCE - EVERY 3000 HOURS OF SERVICE OR EVERY 6 YEARS

ALSO PERFORM THE 500 HOUR, 1,000 HOUR AND 1,500 HOUR PERIODIC MAINTENANCE OPERATIONS.

- REPLACE	Alternator belt	3-33
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➔ ⑥ 4500H - PERIODIC MAINTENANCE - EVERY 4500 HOURS OF SERVICE OR EVERY 9 YEARS

ALSO PERFORM THE 500 HOUR AND 1500 HOUR PERIODIC MAINTENANCE.

- CHECK	Engine crankcase breather	3-34
- REPLACE	Engine breather crankcase filter	3-34
- CHECK	ECU and associated sensors and actuators **	3-34
- CHECK	Turbocharger **	3-34
- CHECK/CLEAN	(EGR) Exhaust gas recirculation system valve **	3-34
- CHECK	Selective catalytic reduction (SCR) / Diesel oxidation catalyst (DOC) **	3-34
- CHECK/CLEAN	Injector **	3-34

**** Engine service, consult your dealer.**

➔ 7 6000H - PERIODIC MAINTENANCE - EVERY 6000 HOURS OF SERVICE OR 12 YEARS

ALSO PERFORM THE PERIODIC MAINTENANCE AT 500 HOURS, 1,000 HOURS, 1,500 HOURS, 2,000 HOURS AND 3,000 HOURS OF SERVICE.

- CHECK	Diesel Particulate Filter (DPF) **	3-34
---------	------------------------------------	------

**** Engine service, consult your dealer.**

➔ 8 9000H - PERIODIC MAINTENANCE - EVERY 9000 HOURS OF SERVICE OR 18 YEARS

ALSO PERFORM THE PERIODIC MAINTENANCE AT 500 HOURS, 1,000 HOURS, 3000 HOURS AND 4500 HOURS OF SERVICE.

- REPLACE	Diesel Particulate Filter (DPF) **	3-34
- REPLACE	Selective catalytic reduction (SCR) **	3-34

**** Engine service, consult your dealer.**

OCCASIONAL MAINTENANCE AND OPERATION

➔ OCCASIONAL MAINTENANCE

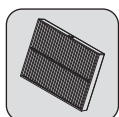
- CLEAN	Machine	3-35
- CLEAN	"Stationary machine" exhaust regeneration	3-35
- REPLACE	Wheels	3-36
- REPLACE	Battery	3-36
- ADJUST	Front headlights	3-37
- RESET	Longitudinal stability limiter and warning device.	3-37

➔ OCCASIONAL OPERATION

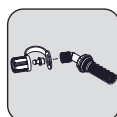
- TOW OR WINCH	Machine	3-38
- LIFT	Machine	3-39
- TRANSPORT	MACHINE	3-40

FILTER CARTRIDGES AND BELTS

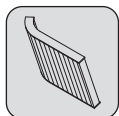
➔ 1 500H - PERIODIC MAINTENANCE - EVERY 500 HOURS OF SERVICE OR 1 YEAR



INTERIOR CAB VENTILATION FILTER



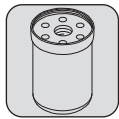
FILTER COUPLING
(AUTOMATIC CENTRAL GREASING OPTION)



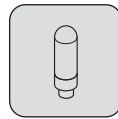
EXTERIOR CAB VENTILATION FILTER

➔ 2 1000H - PERIODIC MAINTENANCE - EVERY 1000 HOURS OF SERVICE OR EVERY 2 YEARS

ALSO ADD THE FILTER CARTRIDGES FROM THE PERIODIC MAINTENANCE FOR 500 HOURS OF SERVICE.



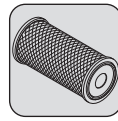
ENGINE OIL FILTER



TANK BREATHER "DEF" (Diesel Exhaust Fluid)



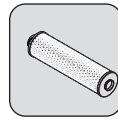
FUEL FILTER



DRY AIR FILTER CARTRIDGE



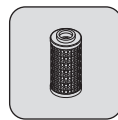
FUEL PRE-FILTER



HYDRAULIC RETURN OIL FILTER CARTRIDGE



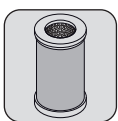
FUEL TANK BREATHER



PRESSURE HYDRAULIC OIL FILTER CARTRIDGE



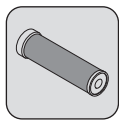
DEF (Diesel Exhaust Fluid) FEED PUMP FILTER



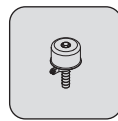
HYDROSTATIC TRANSMISSION OIL FILTER CARTRIDGE

➔ 4 2000H - PERIODIC MAINTENANCE - EVERY 2000 HOURS OF SERVICE OR EVERY 4 YEARS

ALSO ADD FILTER ELEMENTS FOR PERIODIC MAINTENANCE AT 500 HOURS AND 1,000 HOURS OF SERVICE.



SAFETY DRY AIR FILTER CARTRIDGE



BREATHER FOR HYDRAULIC OIL TANK

➔ 5 3000H - PERIODIC MAINTENANCE - EVERY 3000 HOURS OF SERVICE OR EVERY 6 YEARS

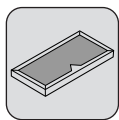
ALSO ADD FILTER ELEMENTS FOR PERIODIC MAINTENANCE AT 500 HOURS, 1,000 HOURS AND 1,500 HOURS OF SERVICE.



ALTERNATOR BELT

➔ 6 4500H - PERIODIC MAINTENANCE - EVERY 4500 HOURS OF SERVICE OR EVERY 9 YEARS

ALSO ADD THE FILTER CARTRIDGES FROM THE PERIODIC MAINTENANCE FOR 500 HOURS OF SERVICE.

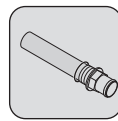


ENGINE BREATHER CRANKCASE FILTER

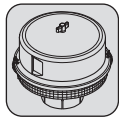
➔ OCCASIONAL MAINTENANCE



AIR CONDITIONING COMPRESSOR BELT



SUCTION STRAINER FOR HYDRAULIC OIL TANK



SELF-CLEANING PRE-FILTER



SUCTION STRAINER FOR HYDRAULIC OIL TANK (HYDROSTATIC CIRCUIT)

LUBRICANTS AND FUEL

⚠ IMPORTANT ⚠

USE THE RECOMMENDED LUBRICANTS AND FUEL:

- For topping up, oils may not be miscible.
- For oil changes, MANITOU oils are perfectly appropriate.

DIAGNOSTIC ANALYSIS OF OILS

If a service or maintenance contract has been set up with the dealer, a diagnostic analysis of engine, transmission and axle oils may be requested depending on the rate of use.

(*) REQUIRED FUEL SPECIFICATION

⚠ IMPORTANT ⚠

- Halve the engine maintenance intervals when using biodiesel or HVO.
- Replace the water separator O-ring when switching from diesel fuel to biodiesel fuel such as HVO, B11 or higher.
- Pay special attention to the seals and fuel hoses when using HVO.

Use fuel that meets the following standards:

- Diesel EN590
- Diesel ASTM D975
- Biodiesel B8 to B20 EN16709
- Biodiesel HVO100 EN15940

(**) SPECIFICATION "DEF" (Diesel Exhaust Fluid)

- Aqueous urea solution at 32.5% (ISO22241)
- Solidification at -11 °C and 10% expansion
- Non-flammable product
- Thermal degradation (>60 °C)
- Storage between -5 °C and 30 °C

⚠ IMPORTANT ⚠

Corrosive to metals, requires wearing personal protection (gloves and goggles).

RECOMMENDATION

ENGINE		RECOMMENDATION									
DESCRIPTION	CAPACITY	-40 °C	-30	-20	-10	0	+10	+20	+30	+40	+50 °C
ENGINE	20 ℓ	SAE 5W30									
		SAE 10W30									
		MANITOU EVOLOGY OIL 10W40 API CJ4									
		SAE 10W40									
		SAE 15W40									
COOLING CIRCUIT	24 ℓ	COOLANT -35 °C									
FUEL TANK	142 ℓ	HP NON-ROAD DIESEL (GNR) *									
TANK "DEF" (Diesel Exhaust Fluid)	21 ℓ	DEF **									
TRANSMISSION		RECOMMENDATION									
DESCRIPTION	CAPACITY	-40 °C	-30	-20	-10	0	+10	+20	+30	+40	+50 °C
TRANSMISSION GEARBOX	2,95 ℓ	MANITOU DX III G AUTOMATIC TRANSMISSION OIL									
BOOM		RECOMMENDATION									
DESCRIPTION		-40 °C	-30	-20	-10	0	+10	+20	+30	+40	+50 °C
BOOM PAD SLIDE PATHWAYS		MANITOU BLACK MULTI-PURPOSE LUBRICANT									
GREASING OF THE BOOM		MANITOU BLUE MULTI-PURPOSE LUBRICANT									

HYDRAULICS											
DESCRIPTION	CAPACITY	RECOMMENDATION									
		-40 °C	-30	-20	-10	0	+10	+20	+30	+40	+50 °C
HYDRAULIC OIL TANK	107 ℓ								ISO VG 100		
									ISO VG 68		
									MANITOU ISO VG 46 HYDRAULIC FLUID		
									ISO VG 37		
									ISO VG 32		

CAB											
DESCRIPTION	CAPACITY	RECOMMENDATION									
WINDSHIELD WASHER TANK	8 ℓ	WINDSHIELD WASHER FLUID									

FRONT AXLE											
DESCRIPTION	CAPACITY	RECOMMENDATION									
FRONT AXLE DIFFERENTIAL	11,7 ℓ	SPECIAL MANITOU OIL FOR IMMersed BRAKES									
		-40 °C	-30	-20	-10	0	+10	+20	+30	+40	+50 °C
FRONT WHEEL REDUCING GEAR	2 x 1,9 ℓ								MANITOU SAE80W90 MECHANICAL TRANSMISSION OIL		
		-40 °C	-30	-20	-10	0	+10	+20	+30	+40	+50 °C
FRONT WHEEL REDUCING GEAR PIVOTS									MANITOU BLACK MULTI-PURPOSE LUBRICANT		
		-40 °C	-30	-20	-10	0	+10	+20	+30	+40	+50 °C
FRONT AXLE OSCILLATION									MANITOU BLUE MULTI-PURPOSE LUBRICANT		

REAR AXLE											
DESCRIPTION	CAPACITY	RECOMMENDATION									
REAR AXLE DIFFERENTIAL	11,7 ℓ	SPECIAL MANITOU OIL FOR IMMersed BRAKES									
		-40 °C	-30	-20	-10	0	+10	+20	+30	+40	+50 °C
REAR WHEEL REDUCING GEAR	2 x 1,9 ℓ								MANITOU SAE80W90 MECHANICAL TRANSMISSION OIL		
		-40 °C	-30	-20	-10	0	+10	+20	+30	+40	+50 °C
REAR WHEEL REDUCING GEAR PIVOTS									MANITOU BLACK MULTI-PURPOSE LUBRICANT		
		-40 °C	-30	-20	-10	0	+10	+20	+30	+40	+50 °C
REAR AXLE OSCILLATION									MANITOU BLUE MULTI-PURPOSE LUBRICANT		

AUTOMATIC CENTRAL GREASING (OPTION)											
DESCRIPTION	CAPACITY	RECOMMENDATION									
		-40 °C	-30	-20	-10	0	+10	+20	+30	+40	+50 °C
GREASING UNIT TANK	3 ℓ								MANITOU BLUE MULTI-PURPOSE LUBRICANT		

⚠ IMPORTANT ⚠

Consult maintenance personnel if there is doubt about the condition of the machine.

Note: the engine hood must be opened to carry out the general inspection of the machine. It must be closed once finished.

The operator must perform a visual and physical inspection of the machine:

- Check that the operator's manual is clean and complete.
- Check the stickers and make sure they are all present, clean and legible, ↩ 2 - DESCRIPTION: STICKERS.
- Check for leaks: battery fluid, hydraulic oil, lubricants, etc.
- Check the condition of the machine's structure: absence of impacts, damage, cracked welding, corrosion, excessive mechanical play, wear, etc.
- Check the condition of the hydraulic components: pumps, distributors, valves, cylinders, hoses, pipes, etc.
- Check the condition of the mechanical components: wheels, tires, tie rods, shafts, bearings and bushings, etc.
- Turn the steering wheel to check that the steering system and ball joints are in good working order.
- Check the condition of the tires to detect cuts, blisters, wear, etc.
- Check the condition of the electrical components: control panels, control handles, switches, buttons, indicator lights, batteries, fuses, cables, harnesses, rotating beacon light, horn, lights and signals, etc.
- Check the condition of covers, handles, locks, plugs, etc.
- Check if any parts are missing or loose: screws, nuts, pins, etc.
- Check that no parts are missing or have had unauthorized modifications.
- Check the condition of the attachment mounting system and the attachment, and ensure that it is securely fastened to and locked on the machine.
- Check the condition of the rear view mirrors and of their mounting and adjustment.

⚠ IMPORTANT ⚠

Follow the operator instructions (↩ 1 - OPERATING AND SAFETY INSTRUCTIONS: OPERATOR INSTRUCTIONS).

CLEANLINESS OF THE MACHINE

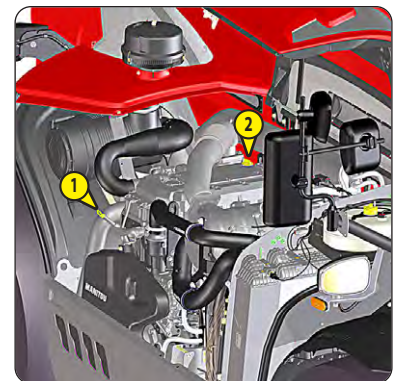
- Cleanliness of lights and rear-view mirror.
- Excess dirt or build-up of material (e.g. straw, flour, sawdust, organic waste, etc.).
- On a daily basis, according to the conditions of use and the environment, the operator should ensure that the machine is kept in a clean condition.
- Particular attention should be paid to accumulations of flammable materials (e.g. straw, flour, sawdust, organic waste, etc.) and fuel or lubricant leaks, as these significantly increase the risk of fire outbreaks.
- A regular inspection of the whole machine, especially the engine housing and the central part of the chassis, is necessary to see how frequently it needs to be cleaned to prevent these potential accumulations of material or leakages.

CHECK

Engine oil level

Set the machine on level ground with the engine off and let the oil drain into the sump.

- Open the engine hood.
- Pull out the dipstick 1.
- Clean the dipstick and check the correct level between the two notches.
- If necessary, add oil (↩ LUBRICANTS AND FUEL) through the filler hole 2.
- Visually check that there is no leakage or seepage.



CHECK

Coolant level

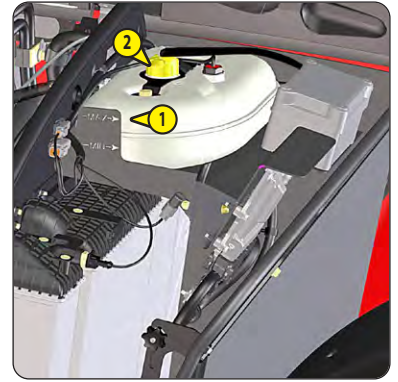
Set the machine on level ground with the engine off and wait for the engine to cool down.

⚠ IMPORTANT ⚠

To avoid any risk of spraying or scalding, wait until the engine has cooled down before removing the cooling circuit filler plug.

In the event of an emergency, it is possible to use water as the coolant, but then proceed to replace the coolant as soon as possible.

- The liquid must be at the MAX. level on the expansion tank 1.
- If necessary, add coolant (↩ LUBRICANTS AND FUEL) through the filler hole 2.
- Visually check that there is no leakage or seepage.



CHECK

Fuel pre-filter

⚠ IMPORTANT ⚠

Never smoke or use open flames in the area.

The diesel engine must be switched off.

Consult the maintenance personnel if there is doubt about the condition of the water separator.

- Check for water in the tank 1 and drain, if necessary.
- Place a receptacle under the drain plug 2 and loosen it in two to three thread turns.
- Allow the diesel fuel to flow out until it is free from impurities and water.
- Tighten the drain plug 2 while the diesel fuel is running out.
- Close the engine hood.



CHECK

Longitudinal stability limiter and warning device

Place the machine on flat, level ground with the wheels straight.

- Press button B to display the "PREFERENCES" menu.
- Turn knob A to navigate through the menus and sub-menus.

HYDRAULICS > STABILITY TEST

- Press knob A to confirm.
- Follow the steps described on the information screen (OK = press button A).

⚠ IMPORTANT ⚠

If an error code is displayed, recalibrating the longitudinal stability limiter and warning device may resolve the problem (↩ OCCASIONAL MAINTENANCE).



CHECK

Greasing unit level (OPTION)

Check the following points of the greasing system:

- The grease level in the greasing unit tank.
- The condition of the greasing unit (damage and leaks).
- No damage or leaks on the primary and secondary lines.
- There must be a collar of fresh grease on all of the greasing points.

The greasing unit is equipped with a filter coupling 1 on which a grease pump can be installed.

- Top up with the recommended grease as required (↖ LUBRICANTS AND FUEL).

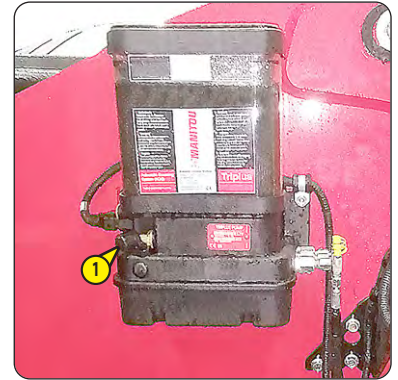
FILLING PROCEDURE:

- Carefully clean the filter coupling 1 and your filling system.
- Connect your filling system to the filter coupling.
- Fill the tank to its maximum level as indicated on the tank.

⚠ IMPORTANT ⚠

*Never fill the tank higher than the maximum level indicated, as this may damage the system.
If filling is difficult, check the condition of the filter coupling and replace it.*

- Remove your filling system.
- Clean the filter coupling before putting it back.



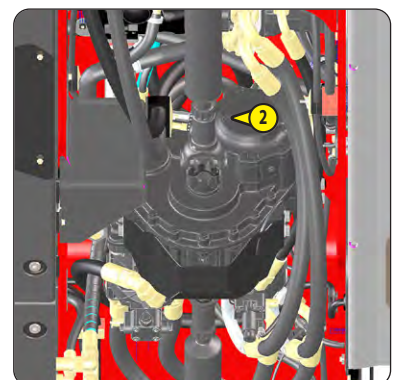
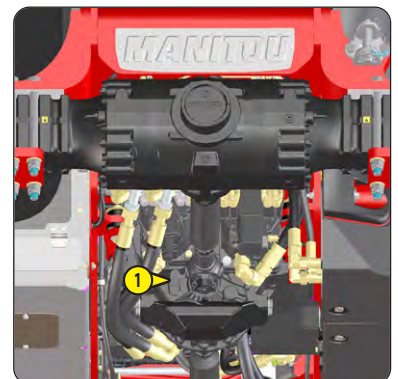
↻ 50H - WEEKLY MAINTENANCE OR EVERY 50 HOURS OF SERVICE

CHECK

Transmission gearbox seal

Set the machine on level ground with the engine stopped.

- Visually check that there is no leakage or seepage.
- If there is any leakage or seepage, check the level:
 - Check the correct level on the level plug 1.
 - If necessary, add oil (↖ LUBRICANTS AND FUEL) through the filler hole 2.
 - Refit and tighten the level plug 1 (tightening torque 35 - 50 N.m).



CHECK

Tire pressure

⚠ IMPORTANT ⚠

Check that the air hose is correctly connected to the tire valve before inflating and keep all persons at a distance during inflation. Inflate to the recommended tire pressures.

- Check and restore tire pressure, if necessary (↖ 2 - DESCRIPTION: TIRES).

CHECK

Wheel nut tightening

- Check the tightening of the wheel nuts (⚡ 2000H - PERIODIC MAINTENANCE - EVERY 2,000 HOURS OF SERVICE OR EVERY 4 YEARS) for the tightening torque.
- Non-compliance with this instruction can lead to deterioration and breakage of the wheel lugs and distortion of the wheels.

CHECK

Front wheel reducer seals

CHECK

Rear wheel reducer seals

Set the machine on level ground with the engine stopped.

- Visually check that there is no leakage or seepage.
- If there is any leakage or seepage, check the level:
 - Place level plug 1 in a horizontal position.
 - Remove the level plug; the oil should be flush with the edge of the opening.
 - If necessary, add oil (⚡ LUBRICANTS AND FUEL) through the same hole.
 - Refit and tighten the level plug (tightening torque 34 - 49 N.m).



CHECK

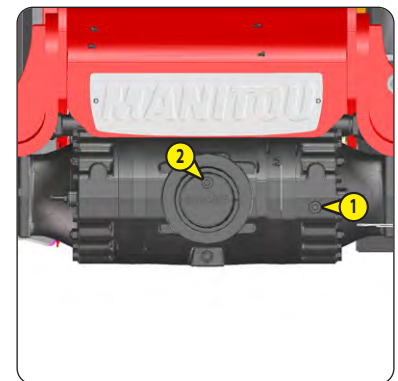
Front axle differential seal

CHECK

Rear axle differential seal

Set the machine on level ground with the engine stopped.

- Visually check that there is no leakage or seepage.
- If there is any leakage or seepage, check the level:
 - Remove the level plug 1, the oil should be flush with the edge of the hole.
 - If necessary, add oil (⚡ LUBRICANTS AND FUEL) through the filler hole 2.
 - Refit and tighten the level plug 1 (tightening torque 34 - 49 N.m).



CHECK

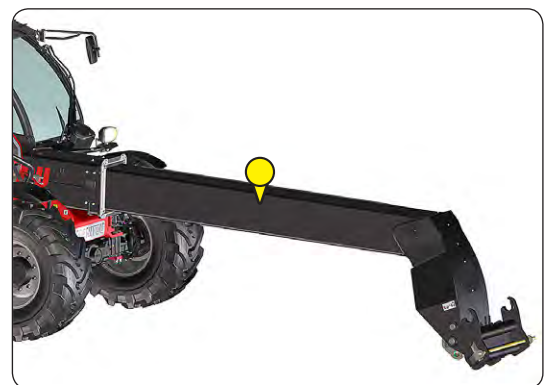
Boom pad slide pathways

To preserve optimum operation, the pad slide pathways should be correctly lubricated:

⚠ IMPORTANT ⚠

MANDATORY GREASING OF THE BOOM AFTER:
Cleaning the boom, especially after using high pressure cleaner.
Machine not used for a long time.

- Fully extend the boom.
- Check the condition of the surface of the pad slide pathways, surface run in (steel whitened) without traces of corrosion.
- If necessary lubricate the pad slide pathways (⚡ LUBRICANTS AND FUEL).
- Telescope the boom several times in order to spread the lubricant evenly.
- Remove the surplus lubricant.



⚠ IMPORTANT ⚠

If the machine is used in an abrasive environment (dust, sand, coal), use lubricating varnish. Consult your dealer.

CHECK

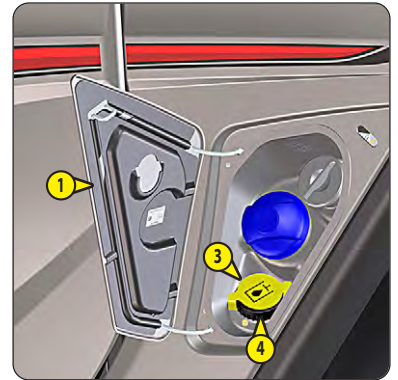
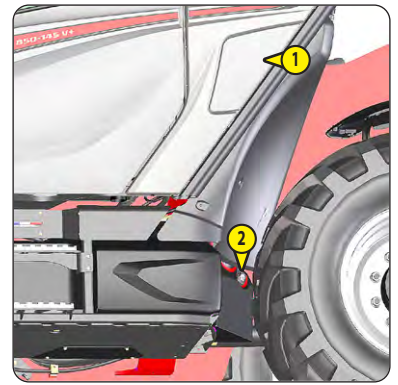
Hydraulic fluid level

Place the machine on level ground with the engine stopped, and the boom retracted and lowered as far as possible.

⚠ IMPORTANT ⚠

Use a very clean funnel and clean the top of the oil can before filling.

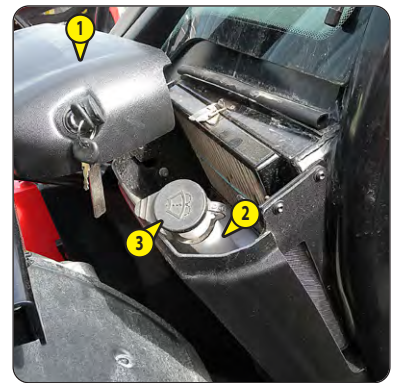
- Open the access panel for tank filling 1 (⇐ DESCRIPTION: BUTTON FOR OPENING THE TANK FILLER ACCESS PANEL).
- Visually check that there is no leakage or seepage.
- Check dipstick 2, the correct level must be at the level of the red dot.
- If necessary, add oil (⇐ LUBRICANTS AND FUEL).
- Remove the lock 3 of the filler cap 4.
- Add oil through filler port 4.
- Refit the cap and its lock.
- close the filling access panel 2.



CHECK

Windshield washer fluid level

- Open the protective casing 1 with the ignition key.
- Visually check the level in tank 2.
- If necessary, add windshield washer fluid (⇐ LUBRICANTS AND FUEL).
- Remove the cap 3.
- Add windshield washer liquid through filler port.
- Refit the cap.



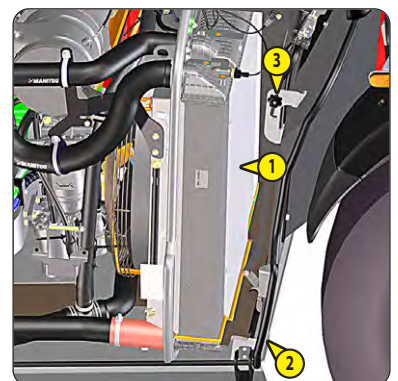
CLEAN

Radiator core

⚠ IMPORTANT ⚠

In a polluting atmosphere, clean the radiator cores every day. Do not use a water jet or high pressure steam as this could damage the fins.

- If necessary, clean the suction grid on the engine hood.
- Open the engine hood and the lower cover.
- Using a soft cloth, clean the radiator core 1 in order to remove as much dirt as possible.
- Remove dirt via the panel 2 using handle 3.
- Close the lower cover and the engine hood.



CLEAN

Dry air filter cartridge

In case of use in a heavily dust-laden atmosphere, there are pre-filtration cartridges. The cartridge checking and cleaning interval must also be reduced.

⚠ IMPORTANT ⚠

If the clogging indicator lamp comes on, this operation should be performed as soon as possible (maximum 1 hour).

Never use the machine without an air filter or with a damaged air filter.

Maintain a safety distance of 30 mm between the jet of air and the cartridge to avoid tearing or piercing the cartridge.

The cartridge must not be blown through close to the air filter casing.

Never clean the cartridge by tapping it on a hard surface.

Protect your eyes during this operation.

Do not clean the dry air filter cartridge by washing it in liquid.

Never clean the safety cartridge located inside the filter cartridge. Change it for a new one if it is clogged or damaged.

- For the dismantling and refitting of the cartridge (⏪ 1000H: REPLACE Air filter cartridge).
- Clean the filter cartridge using a compressed air jet (max. pressure 3 bars) directed from the top to the bottom and from the inside towards the outside at a minimum distance of 30 mm from the cartridge wall.
- Cleaning is completed when there is no more dust on the cartridge.
- Clean the cartridge seal surface with a damp, clean, lint-free cloth and grease with a silicone lubricant.

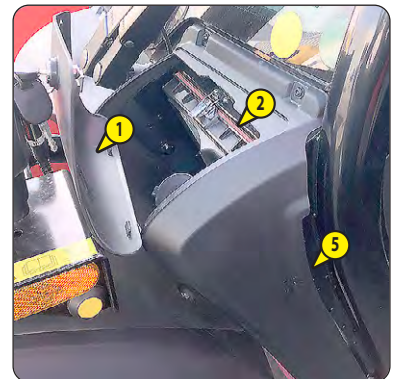


REPLACE

Cab ventilation filters

EXTERNAL CAB VENTILATION FILTER

- Remove protective casing 1 using the ignition key.
- Clean the cab ventilation filter 2 and the grille 5 with a compressed air jet.
- Check its condition and change if necessary.
- Refit the protective casing.



INTERNAL CAB VENTILATION FILTER

- Remove the protective grid 3.
- Clean the cab ventilation filter 4 with a compressed air jet.
- Check its condition and change if necessary.
- Refit the protective grid.



CLEAN

Condenser harness

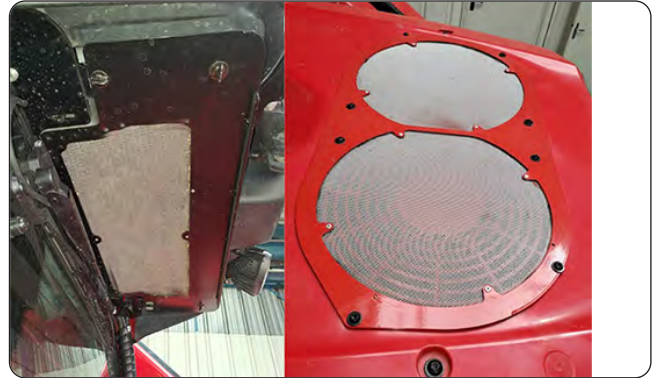
⚠ IMPORTANT ⚠

In a polluting atmosphere, clean the radiator harness daily. Do not use a water jet or high-pressure steam as this could damage the condenser fins.

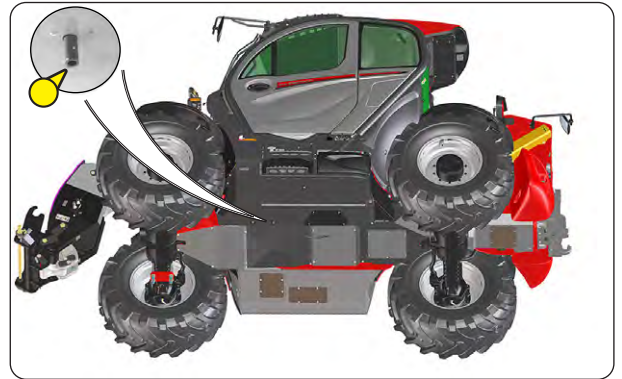
- Visually check whether the condenser is clean and clean it if necessary.
- Clean the condenser with an air jet.



- Dismantle the grilles if necessary (depending on assembly)



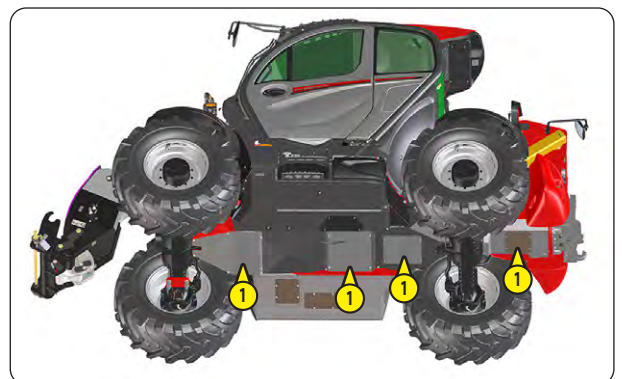
- Visually check condensate drainage through the hose.(depending on assembly)



CLEAN

Casing under machine (OPTION)

Check the cleanliness of the protective covers through the access panels 1 and clean them if necessary.



To be carried out weekly, if the machine has been operated for less than 50 hours during the week.

⚠ IMPORTANT ⚠

In the event of prolonged use in an extremely dusty or oxidizing atmosphere, reduce this interval to every 10 hours of service or every day.

Clean, then lubricate the following points with grease (← LUBRICANTS AND FUEL) and remove the surplus.

BOOM

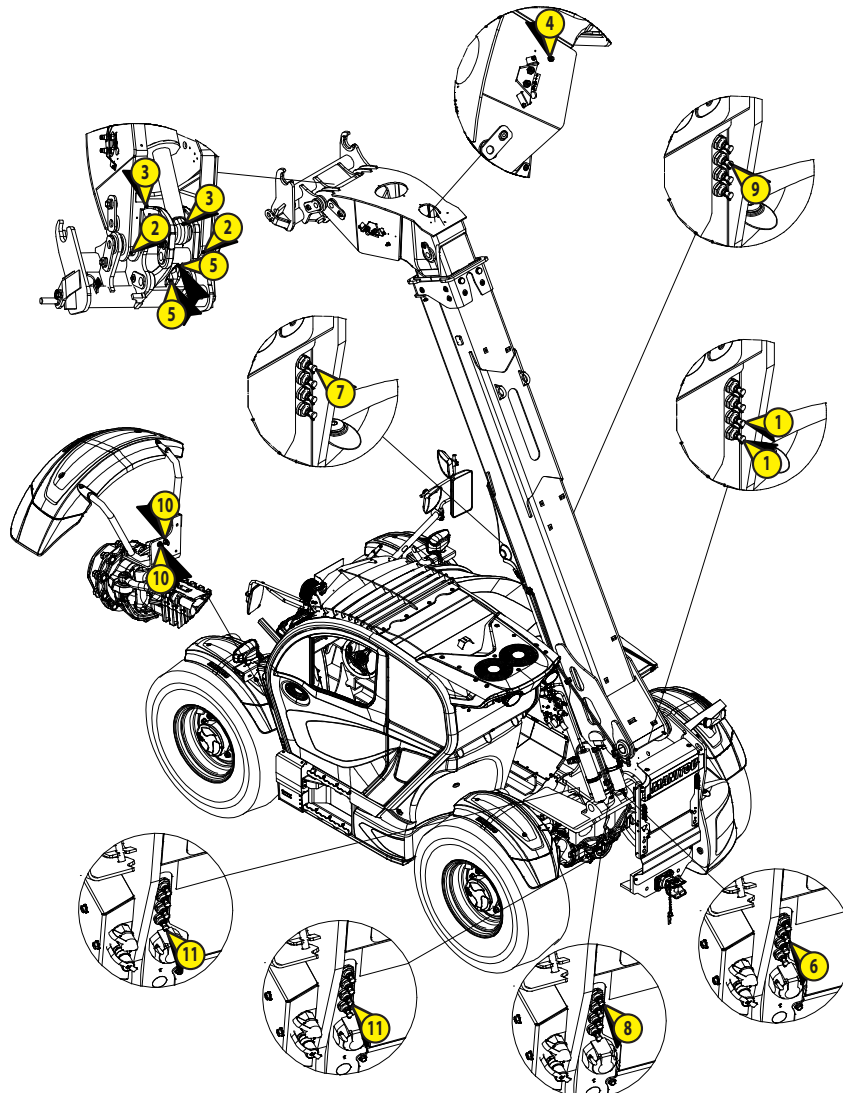
- 1 - Lubricators of the boom pin (2 lubricators).
- 2 - Lubricators of the carriage pin (2 lubricators).
- 3 - Lubricator of the tilting cylinder head pin (1 lubricator).
- 4 - Lubricator of the tilting cylinder foot pin (1 lubricator).
- 5 - Lubricators of the carriage connecting rod pins (3 lubricators).
- 6 - Lubricator of the lifting cylinder foot pin (1 lubricator).
- 7 - Lubricator of the lifting cylinder head pin (1 lubricator).
- 8 - Lubricator of the compensating cylinder foot pin (1 lubricator).
- 9 - Lubricator of the compensating cylinder head pin (1 lubricator).

FRONT AND REAR WHEEL REDUCTION GEAR PIVOTS

- 10 - Lubricators of the wheel reduction gear pivot pins (8 lubricators).

AXLE OSCILLATION

- 11 - Rear axle oscillation lubricators (2 lubricators).



➔ 1 500H - PERIODIC MAINTENANCE - EVERY 500 HOURS OF SERVICE OR 1 YEAR

CHECK

Hydraulic oil

MANITOU offers a hydraulic fluid analysis kit which might make it possible to delay the recommended deadline in the periodic maintenance schedule (2,000 hours). In this case we recommend an analysis of the hydraulic fluid every 500 hours or 1 year of service.

The oil analysis kit also makes it possible to confirm the oil quality so as to obtain a deadline of 2,000 hours for specific uses causing constraints on the hydraulic circuit: extreme environmental conditions, use of the attachments with a very high hydraulic flow rate (such as a sweeper, or a concrete mixer).

- Order an oil analysis kit from your dealer.
- Upon receiving the kit, take a sample of oil and follow the instructions shown on the kit.
- According to the results, keep the analysis report or replace the hydraulic fluid.

Oil analysis kit (MANITOU part no.: 958162).



CHECK

Parking brake

Place the machine on a 15% slope with the rated load in the transport position.

- Immobilize the machine using the service brake pedal.
- Activate the parking brake.
- Release the service brake pedal.
- Braking is working correctly if the machine remains stationary on the slope.
- In the event of insufficient braking, contact your dealer.

CHECK

Brake disc wear *

CHECK

Tightening of 12 V electrical connections

⚠ IMPORTANT ⚠

Electrical accreditation may be required for this maintenance operation: comply with local, governmental and national regulations in force.

Disconnect the battery before working on the electrical system.

Make sure that the positive terminals cannot come into contact with the negative terminals or the metallic parts of the machine at any time.

After each job, make sure that the electrical component protection systems are put back (covers, caps, grommets, etc.).

- Take off the battery cover.
- Open the engine hood.
- Check the condition of the 12 V electrical wires:
 - Between the battery and the diesel engine.
 - Between the battery and the battery cut-off.
 - Between the battery cut-off and the fuse box.
 - Between the fuse box and the starter.
 - Between the battery cut-off and the alternator.
 - Between the fuse box and the fuse/relay box.
- Check the tightening of the 12 V electrical connections:
 - On the battery.
 - On the diesel engine.
 - On the battery cut-off.
 - On the fuse box.
 - On the fuse/relay box.
 - On the starter
 - On the alternator.
- Close the engine hood.
- Put the battery cover back on.



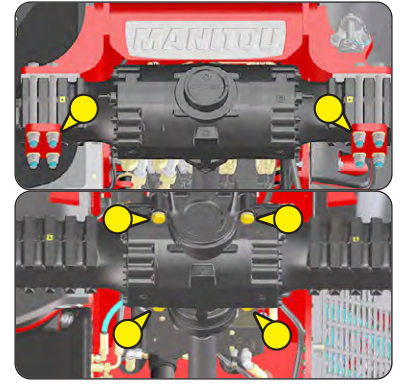
CHECK

Tightening of the fixing screws for the axles

⚠ IMPORTANT ⚠

Failure to follow this instruction may result in the machine tipping over.

- Check the tightening torques of all the fixing screws, at the front:
 - 588N.m ±117N.m



REPLACE

Front axle differential oil

REPLACE

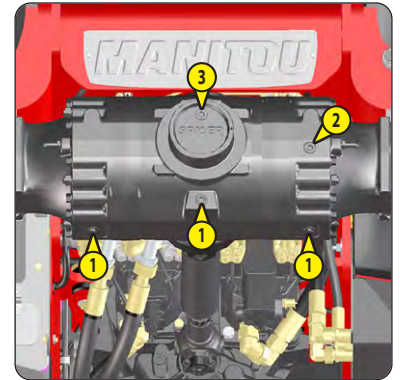
Rear axle differential oil

Place the machine on level ground with the engine stopped and the differential oil still warm.

⚠ IMPORTANT ⚠

Dispose of the used oil in an ecological manner.

- Place a container under drain plugs 1 and unscrew them.
- Remove level plug 2 and filling plug 3 to ensure that the oil is drained properly.
- Refit and tighten the drain plugs 1 (tightening torque 34 - 49 N.m).
- Fill up with oil (↙ LUBRICANTS AND FUEL) through filler hole 3.
- The level is correct when the oil level is flush with the edge of opening 2.
- Check for any possible leaks at the drain plugs.
- Refit and tighten level plug 2 (tightening torque 34 - 49 N.m) and filling plug 3 (tightening torque 34 - 49 N.m).
- Repeat this operation for the rear axle differential.



REPLACE

Front wheel reducer oil

REPLACE

Rear wheel reducer oil

Place the machine on level ground with the engine stopped and the reducer oil still warm.

⚠ IMPORTANT ⚠

Dispose of the used oil in an ecological manner.

- Drain and change the oil of each wheel reduction gear.
- Place drain plug 1 in position A.
- Place a container under the drain plug and unscrew the plug.
- Let the oil drain fully.
- Place the drain port in position B, i.e. in a level port.
- Fill up with oil (↙ LUBRICANTS AND FUEL) through level hole 1.
- The level is correct when the oil level is flush with the edge of the hole.
- Refit and tighten the drain plug (tightening torque 34 - 49 N.m).

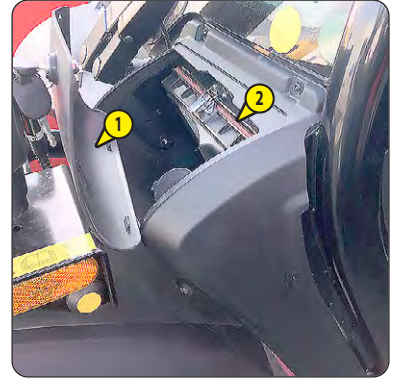


REPLACE

Cab ventilation filters

EXTERNAL CAB VENTILATION FILTER

- Remove protective casing 1 using the ignition key.
- Remove the cab ventilation filter 2 and replace it with a new one (⇐ FILTER CARTRIDGES AND BELTS).
- Refit the protective casing.



INTERNAL CAB VENTILATION FILTER

- Remove the protective grid 3.
- Remove the cab ventilation filter 4 and replace it with a new one (⇐ FILTER CARTRIDGES AND BELTS).
- Refit the protective grid.



REPLACE

Filter coupling (OPTIONAL Automatic central greasing)

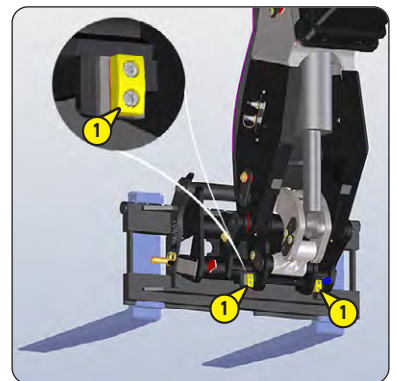
- Switch on the machine's ignition.
- Remove the filter coupling 1 from the greasing unit.
- Clean the hole in the unit with a clean rag.
- Fit the new filter coupling to the unit (⇐ FILTER CARTRIDGES AND BELTS).
- Top up with grease if required.



CHECK

Attachment mounting system stop

- Check the condition of the stops and replace if necessary.



CHECK

Fork wear *

** Consult your dealer.*

CHECK

Seat belt

⚠️ IMPORTANT ⚠️

*Under no circumstances must the machine be used if the seat belt is defective (fixing, locking, cuts, tears, etc.).
Immediately repair or replace the seat belt.*

SEAT BELT WITH TWO ANCHORING POINTS

- Check the following points:
 - Fixing of the anchoring points on the seat.
 - Cleanness of the strap and the locking mechanism.
 - Triggering of the locking mechanism.
 - Condition of the strap (cuts, curled edges).

REELED SEAT BELT WITH TWO ANCHORING POINTS

- Check the points listed above together with the following points:
 - The correct winding of the belt.
 - Condition of the reel guards.
 - Roller locking mechanism when the strap is given a sharp tug.

N.B.: Replace the seat belt after an accident.

REPLACE

Engine oil

REPLACE

Engine oil filter

Set the machine on a horizontal surface, leave the engine idling for a few minutes and then switch it off.

⚠️ IMPORTANT ⚠️

Hand-tighten the oil filter and lock in place with a quarter turn.

DRAINING THE OIL

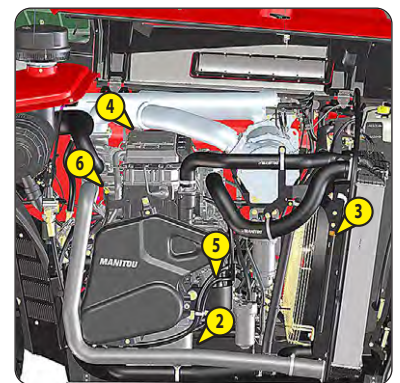
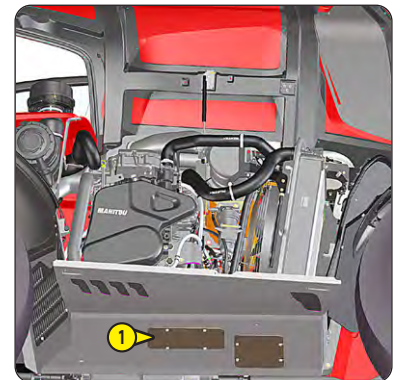
- Open the engine hood and the lower cover.
 - Remove access panel 1.
- N.B.: When removing cover plates and hatches, clean the surrounding area and remove any accumulations of flammable materials.
- Place a container under the drain hole and unscrew the drain plug 2.
 - Take drain hose 3.
 - Place the end of the drain hose in the container and screw the hose fully to the drain connector 2.
 - Remove the filler plug 4 to ensure correct drainage.

REPLACEMENT OF THE FILTER

- Unscrew and discard the engine oil filter 5, together with its seal.
- Clean the filter bracket with a clean, lint-free cloth.
- Lightly grease the seal before refitting the new oil filter (↔️ FILTER CARTRIDGES AND BELTS) on its bracket.

FILLING WITH OIL

- Remove, clean and refit drain hose 3.
- Refit and tighten the drain plug 2.
- Fill up with oil (↔️ LUBRICANTS AND FUEL) through filler hole 4.
- Wait a few minutes to allow the oil to flow into the sump.
- Start the engine and let it run for a few minutes.
- Check for possible leaks from the drain plug and the oil filter.
- Stop the engine, wait a few minutes and check the correct level between the two marks on the dipstick 6.
- Top up the level, if necessary.
- Refit access panel 1.



BLEED

REPLACE

Fuel tank

Fuel tank breather

Set the machine on level ground with the engine stopped.

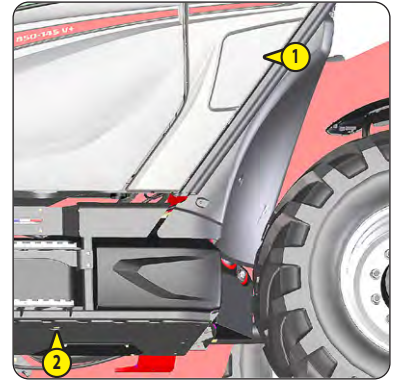
⚠ IMPORTANT ⚠

Raise the boom and place the boom safety wedge on the rod of the lifting cylinder (↖ 1 - INSTRUCTIONS AND SAFETY RECOMMENDATIONS: MACHINE MAINTENANCE INSTRUCTIONS).

Do not smoke or approach with a flame during this operation.

Never attempt to carry out welding or any other operation by yourself, as this could cause an explosion or a fire.

- Inspect the parts of the fuel circuit and the tank liable to leak, both visually and by touch.
- In the event of a leak, contact your dealer.
- Open the access panel for tank filling 1 (↖ DESCRIPTION: BUTTON FOR OPENING THE TANK FILLER ACCESS PANEL).
- Place a container under drain plug 2 and unscrew the plug.
- Remove the filler plug 3 to ensure correct drainage.
- Rinse with ten liters of clean diesel through the filler hole 4.
- Refit and tighten the drain plug 2 (tightening torque 29 - 39 N.m).
- Unscrew the breather 5 and replace with a new one (↖ FILTER CARTRIDGES AND BELTS) (tightening torque 5 ± 2 N.m).
- Fill the fuel tank with clean diesel filtered through the filler port.
- Refit the filler plug 4.
- Close the tank access panel 1.



REPLACE

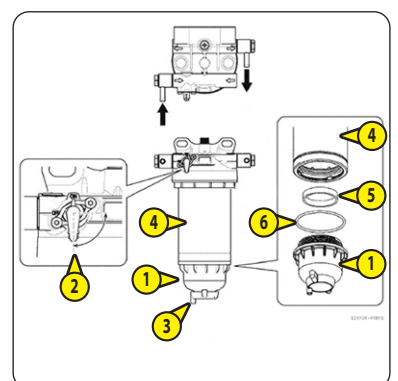
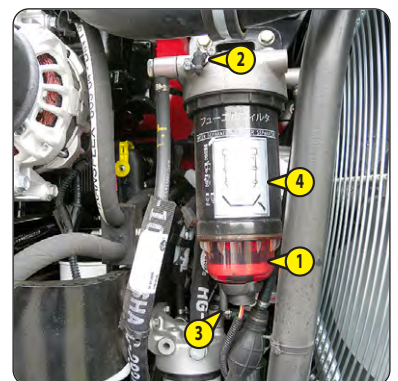
Fuel pre-filter

⚠ IMPORTANT ⚠

Carefully clean the outside of the pre-filter and its holder, to prevent dust from getting into the system.

Tighten the fuel filter by hand only and lock in place by a quarter turn.

- Switch off the ignition with the ignition key.
- Open the engine hood and the lower cover.
- Place a collecting pan under the tank 1.
- Turn the valve 2 to the OFF position.
- Unscrew the drain valve 3.
- Unscrew the tank 1.
- Clean the tank and the floater with clean fuel.
- Check the condition of the seal 6; replace it, if necessary.
- Unscrew the breather 4 and replace it with a new one (↖ FILTER CARTRIDGES AND BELTS).
- Check the condition of the seal 6; replace it, if necessary.
- Put the floater 5 back in the tank.
- Retighten tank 1 by hand.
- Turn the valve 2 to the ON position.



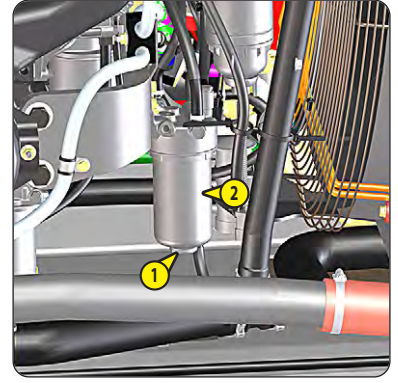
REPLACE

Fuel filter

⚠ IMPORTANT ⚠

Carefully clean the outside of the filter and its holder, to prevent dust from getting into the system.

- Carefully clean the outside of the filter and its holder, to prevent dust from getting into the system.
- Place a receptacle under the filter and empty using drain plug 1.
- Loosen the filter 2 and discard it as well as its seals.
- Clean the inside of the filter head using a brush immersed in clean diesel oil.
- Lightly lubricate the new seals with clean engine oil and refit the assembly with a new filter (↩ FILTER CARTRIDGES AND BELTS).
- Retighten the filter on its support (tightening torque 30 N.m ±5 N.m).
- Start the engine and check for leaks.



REPLACE

Coolant

These operations are to be carried out as necessary or every 2 years at the beginning of winter. Place the machine on level ground with the engine stopped and cold.

⚠ IMPORTANT ⚠

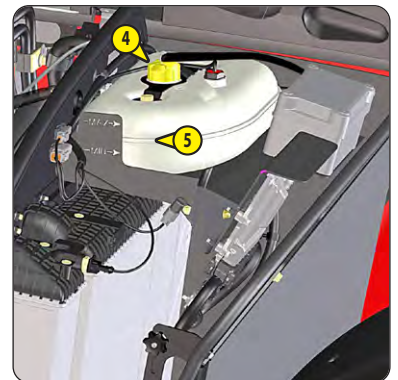
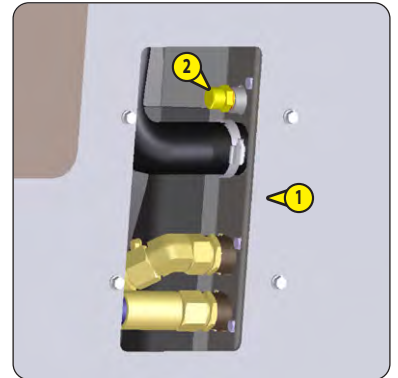
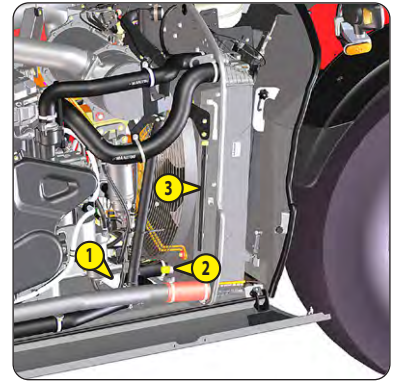
The engine does not contain any anti-corrosion elements and must be filled throughout the year with a mixture containing 25% ethylene glycol-based antifreeze.

DRAINING THE LIQUID

- Open the engine hood and the lower cover.
- Remove access panel 1.
- N.B.: When removing cover plates and hatches, clean the surrounding area and remove any accumulations of flammable materials.
- Place a container under radiator drain plug 2 and unscrew the plug.
- Take drain hose 3.
- Place the end of the drain hose in the container and screw the hose fully to the drain connector 2.
- Remove filler plug 4 from the expansion tank and fully open the heating control to ensure correct drainage.
- Let the cooling circuit drain entirely while ensuring that the ports do not get clogged.
- Check the condition of the hoses as well as the fastening devices and change the hoses if necessary.
- Rinse the circuit with clean water and use a cleaning agent if necessary.

FILLING WITH COOLANT

- Remove, clean and refit drain hose 3.
- Refit and tighten the radiator drain plug 2.
- Slowly fill the circuit with coolant (↩ LUBRICANTS AND FUEL) up to the middle of the expansion tank 5 by the filler hole.
- Refit the filler plug 4.
- Run the engine at idle for a few minutes.
- Check for any possible leaks.
- Refit access panel 1.
- Check the level and top up if necessary.
- Close the lower cover and the engine hood.



REPLACE

Dry air filter cartridge

Prefiltration elements are available for use in very dusty conditions (⇐ FILTER CARTRIDGES AND BELTS). Also, the checking and cleaning periodicity of the cartridge must be reduced (up to 250 hours in a very dusty atmosphere and with pre-filtration).

⚠ IMPORTANT ⚠

Change the cartridge in a clean location, with the engine stopped. Never operate the machine with a cartridge removed or damaged.

- Open the engine hood.
- Loosen the locks and remove cover 1.
- Gently remove the cartridge 2 to reduce dust falling as far as possible.
- Leave the safety cartridge in place.
- Carefully clean the following parts with a damp, clean lint-free cloth.
 - The inside of the filter and cover.
 - The inside of the filter inlet hose.
 - The gasket surfaces in the filter and in the cover.
- Check pipes and connections between the air filter and the engine and the connection and state of the clogging indicator on the filter.
- Before fitting check the condition of the new cartridge (⇐ FILTER CARTRIDGES AND BELTS).
- Insert the cartridge in the filter axis and push the cartridge pressing against the outer edge and not in the center.
- Reassemble the cover, guiding the valve downwards.



REPLACE

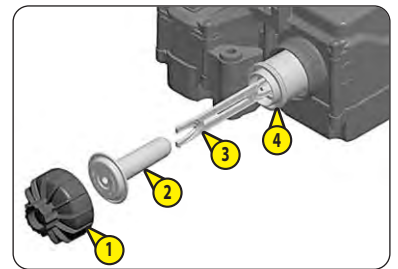
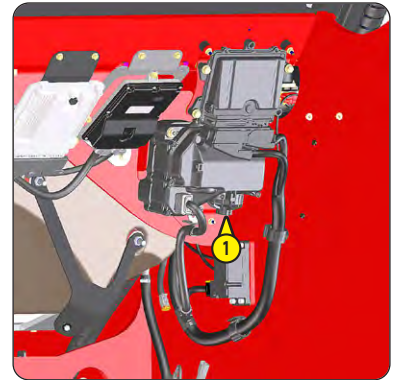
"DEF" (Diesel Exhaust Fluid) supply pump filter

Set the machine on level ground with the engine stopped.

⚠ IMPORTANT ⚠

*Diesel exhaust fluid is corrosive: protect the bodywork and wear personal protective equipment (gloves and goggles).
Carefully clean the outside of the fuel filter, to prevent dust from getting into the system.*

- Switch off the machine's ignition and wait for the pump to stop.
- Unscrew the pump cover 1, remove the compensation element 2 and discard.
- Insert the extraction tool 3 (provided with the new filter) into the filter 4 until a click is heard or felt.
- Pull the tool to extract and discard the assembly.
- Lightly oil the cover joint with clean engine oil.
- Replace with a new filter and compensation element (↖ FILTER CARTRIDGES AND BELTS) in the pump and screw the cover 1 (torque 23 N.m).



REPLACE

Tank breather "DEF" (diesel exhaust fluid)

- Remove access panel 1.
- Unscrew the breather 2 and replace it with a new one (↖ FILTER CARTRIDGES AND BELTS).
- Refit access panel 1.



REPLACE

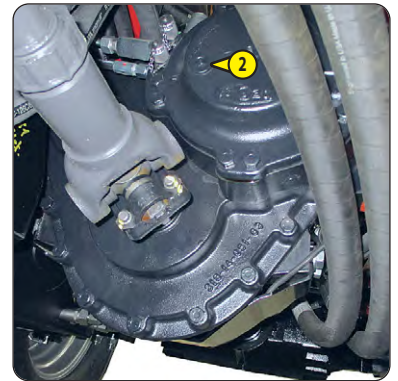
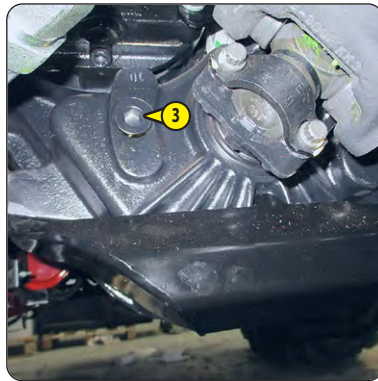
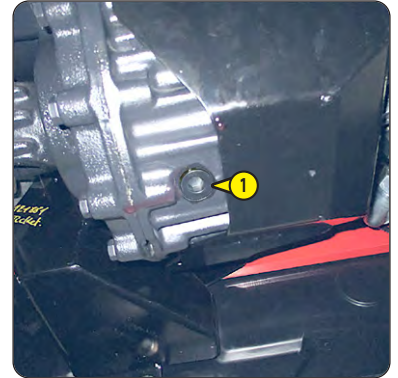
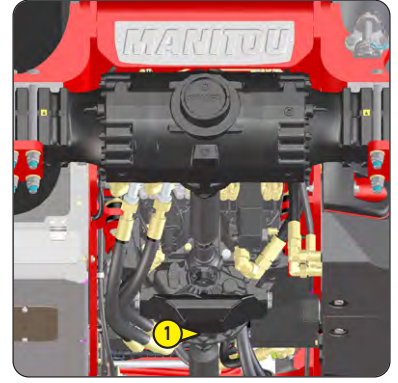
Transmission gearbox oil

Place the machine on level ground with the engine stopped and the oil still warm.

⚠ IMPORTANT ⚠

Dispose of the used oil in an ecological manner.

- Place a container under drain plug 1 and unscrew the plug.
- Remove filling plug 2 and level plug 3 to ensure that the oil is drained properly.
- Refit and tighten the drain plug 1 (tightening torque 35 - 50 N.m) with a new seal.
- Fill up with oil (↩ LUBRICANTS AND FUEL) through filler hole 2.
- The level is correct when the oil level is flush with the edge of the hole 3.
- Wait a few minutes and recheck the level.
- Check for any possible leaks at the drain plug.
- Refit and tighten the level plug 3 and the filling plug 2 (tightening torque 35 - 50 N.m) with a new seal.



REPLACE

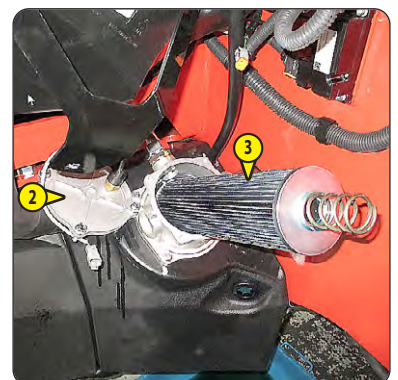
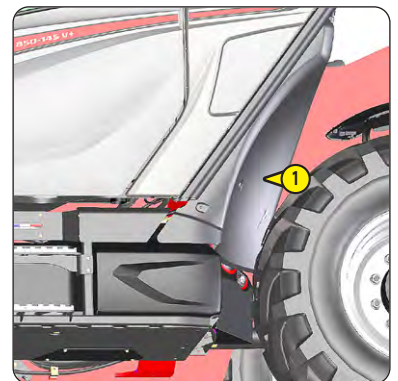
Hydraulic return oil filter cartridge

Stop the engine and release the pressure from the systems by operating the hydraulic controls.

⚠ IMPORTANT ⚠

Thoroughly clean the outside of the filter and its surroundings before any operation to prevent any risk of polluting the hydraulic system.

- Remove the protective casing 1.
- Unscrew the fastening screws of the cover 2.
- Wait a few moments while the oil flows into the tank.
- Remove the hydraulic return oil filter cartridge 3 and replace it with a new one (↩ FILTER CARTRIDGES AND BELTS).
- Before replacing the cartridge, clean the inside of the filter body with a clean, lint-free cloth.
- Make sure that the cartridge is correctly positioned and refit the cover 2.
- Refit the protective casing 1.



REPLACE

Hydrostatic transmission oil filter cartridge

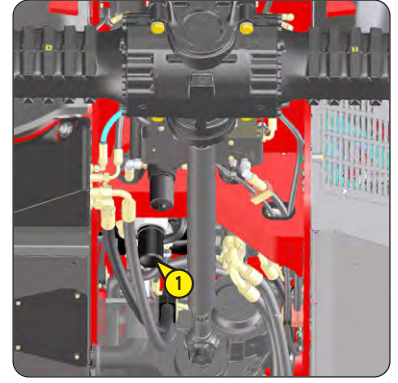
Set the machine on level ground with the engine stopped.

⚠ IMPORTANT ⚠

Thoroughly clean the outside of the filter and its surroundings before any intervention in order to prevent any risk of polluting the hydrostatic circuit.

Tighten the body of the filter by hand pressure only and lock the body of the filter in place by a quarter turn.

- Place a container under the hydrostatic transmission oil filter 1.
- Unscrew the body of the filter.
- Remove the hydrostatic transmission oil filter cartridge and replace with a new one (↔ FILTER CARTRIDGES AND BELTS).
- Make sure that the cartridge is correctly positioned and refit the body of the filter.



REPLACE

Hydraulic oil filter cartridge

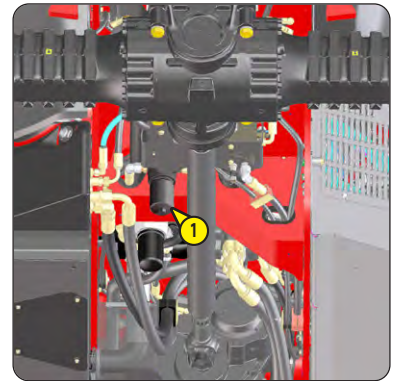
Stop the engine and release the pressure from the systems by operating the hydraulic controls.

⚠ IMPORTANT ⚠

Thoroughly clean the outside of the filter and its surroundings before any operation to prevent any risk of polluting the hydraulic system.

Tighten the body of the filter by hand pressure only and lock the body of the filter in place by a quarter turn.

- Place a container under hydraulic return filter 1.
- Unscrew the body of the filter.
- Remove the hydraulic return oil filter cartridge and replace with a new one (↔ FILTER CARTRIDGES AND BELTS).
- Before replacing the cartridge, clean the inside of the filter body with a clean, lint-free cloth.
- Make sure that the cartridge is correctly positioned and refit the body of the filter.



CHECK	Engine shock mounts *
CHECK	Flexible pipes and hoses **
CHECK	Transmission gearbox silent blocks *
CHECK	Brake system pressure *
CHECK	Boom pad wear *
ADJUST	Brake *

**** Engine service, consult your dealer.**
*** Consult your dealer.**

➡ ③ 1500H - PERIODIC MAINTENANCE - EVERY 1500 HOURS OF SERVICE OR EVERY 3 YEARS

ALSO CARRY OUT THE PERIODIC MAINTENANCE FOR 500 HOURS OF SERVICE.

CHECK/ADJUST	Intake and exhaust valve clearances **
---------------------	---

**** Engine service, consult your dealer.**

➡ ④ 2000H - PERIODIC MAINTENANCE - EVERY 2000 HOURS OF SERVICE OR EVERY 4 YEARS

ALSO PERFORM THE 500 HOUR AND 1000 HOUR PERIODIC MAINTENANCE.

CHECK	Wheel nut tightening torque
--------------	------------------------------------

- Check the tightening torque of the wheel nuts with a torque wrench:
 - Front wheels = 630 N.m ± 94 N.m
 - Rear wheels = 630 N.m ± 94 N.m

REPLACE	Dry air filter safety cartridge
----------------	--

⚠ IMPORTANT ⚠

The safety cartridge replacement frequency is given for information only. It must be changed every second time the dry air filter cartridge is changed.

- For the dismantling and refitting of the cartridge (⏪ 1000H: REPLACE Air filter cartridge).
- Carefully remove the dry air filter safety cartridge 1 to reduce dust fall as much as possible.
- Clean the gasket surface on the filter with a damp, clean lint-free cloth.
- Check the condition of the new safety cartridge before fitting (⏪ FILTER CARTRIDGES AND BELTS).
- Insert the cartridge in the filter axis and push the cartridge pressing against the outer edge and not the center.



REPLACE

Hydraulic oil

CLEAN

Hydraulic fluid tank suction strainers

REPLACE

Breather for the hydraulic oil tank

Place the machine on level ground with the engine shut down and the boom retracted and lowered as far as possible.

⚠ IMPORTANT ⚠

Before any intervention, thoroughly clean the area surrounding the drain plug, the suction strainer and the outside of the filter on the hydraulic tank.

Use a clean container and funnel and clean the underside of the oil drum before filling.

DRAINING THE OIL

- Place a container under drain plugs 1 and unscrew them.
- Open the tank filling access hatch 2 (↩️ **BUTTON FOR OPENING TANK FILLING ACCESS PANEL**).
- Remove the filler cap lock 3.
- Remove the filler plug 4 to ensure correct drainage.

CLEANING OF STRAINERS

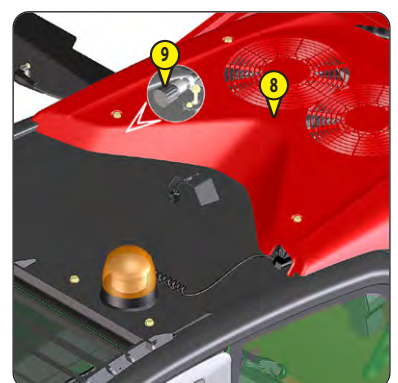
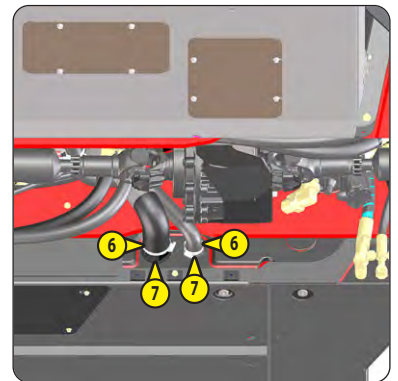
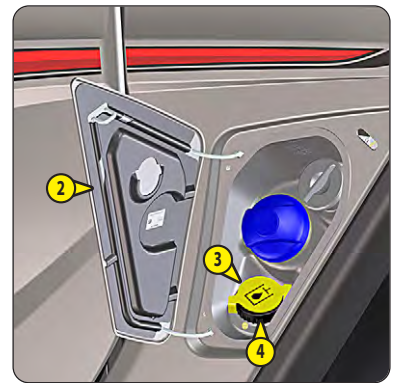
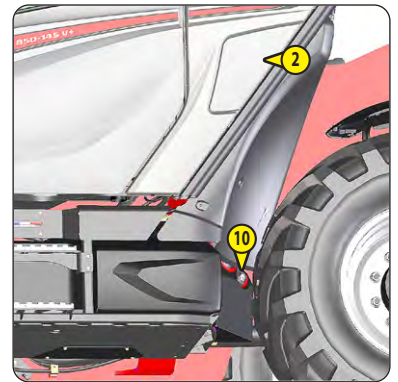
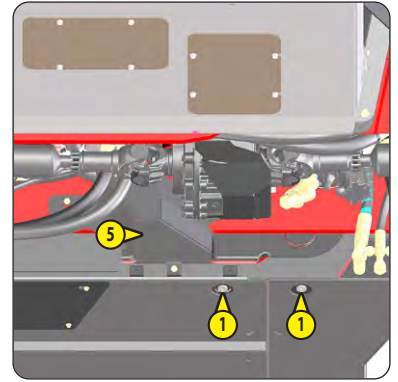
- Remove the protective casing 5.
- Remove the hoses 6.
- Remove and clean the suction strainers 7 using a compressed air jet, check their condition and replace if necessary (↩️ **FILTER CARTRIDGES AND BELTS**).
- Refit the suction strainers making sure the seal is in the correct position.
- Refit the hoses 6.

REPLACING THE BREATHER

- Remove the protective casing 8.
- Unscrew the breather 9 and replace it with a new one (↩️ **FILTER CARTRIDGES AND BELTS**).
- Refit the protective casing 8.

FILLING WITH OIL

- Refit and tighten the drain plugs 1 (tightening torque 29 - 39 N.m).
- Fill up with oil (↩️ **LUBRICANTS AND FUEL**) through filler hole 4.
- Observe the oil level on the dipstick 10; the oil level should be at the level of the red dot.
- Check for any possible leaks at the drain plug.
- Remove the filler plug 4.
- Remove the filler cap lock 3.



CHECK

Radiator *

CHECK

Transmission pressures *

CHECK

Hydraulic circuit pressures *

CLEAN

Air conditioning *

CLEANING CONDENSER AND EVAPORATOR COILS

CLEANING CONDENSATE TRAY AND RELIEF VALVE

COLLECTING REFRIGERANT TO REPLACE DRIER FILTER

REFILLING WITH REFRIGERANT AND CHECKING THE THERMOSTATIC CONTROL AND PRESSURE SWITCHES

N.B.: When opening the evaporator unit, remember to replace the cover seal.

⚠ IMPORTANT ⚠

NEVER TRY TO REPAIR ANY FAULTS YOURSELF. WHEN REFILLING CIRCUITS, ALWAYS REFER TO A DEALER WHO HAS THE CORRECT SPARE PARTS AND THE TECHNICAL KNOWLEDGE AND TOOLS REQUIRED.

In any of the following circumstances, call a doctor.

If inhaled, take the victim to fresh air.

If there is contact with the skin, wash immediately with plenty of water.

If there is frostbite, apply a sterile dressing.

If there is contact with the eyes, rinse with clear water for 15 minutes.

IMPORTANT INFORMATION REGARDING THE REFRIGERANT USED

- Use the correct type of refrigerant for the air conditioning version on your machine. (⚠ SAFETY PLATES AND STICKERS)
- Do not use alternative refrigerants
- The compressor has a fluid level gage; never unscrew this gage because it would depressurize the system. The fluid level should only be checked when draining the system.

*** Consult your dealer.**

🔄 3000H - PERIODIC MAINTENANCE - EVERY 3000 HOURS OF SERVICE OR EVERY 6 YEARS

ALSO PERFORM THE 500 HOUR, 1,000 HOUR AND 1,500 HOUR PERIODIC MAINTENANCE OPERATIONS.

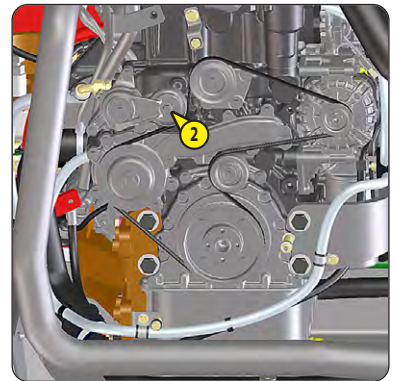
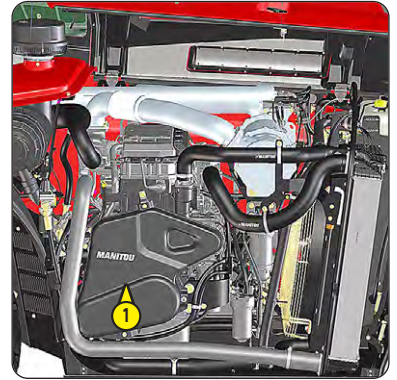
REPLACE

Alternator belt

- Open the engine hood and the lower cover.
- Remove the protective casing 1.
- Place a socket wrench in the square of the automatic tensioner 2 to slacken the belt and remove it.
- Release the force and remove the socket wrench.
- Refit a new alternator belt (⚠️ FILTER CARTRIDGES AND BELTS) ensuring that it is properly seated in the grooves of each pulley and tighten the belt using the automatic tensioner 2.

N.B.: Take the opportunity provided by the removal of the belt to check that the pulleys and bearings are working correctly (noise, friction, play, etc.).

- Refit the protective casing 1.
- Close the lower cover and the engine hood.



➔ 6 4500H - PERIODIC MAINTENANCE - EVERY 4500 HOURS OF SERVICE OR EVERY 9 YEARS

ALSO PERFORM THE 500 HOUR AND 1500 HOUR PERIODIC MAINTENANCE.

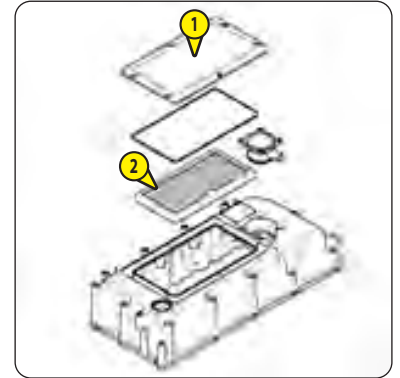
CHECK

Engine crankcase breather

REPLACE

Engine breather crankcase filter

- Open the engine hood.
- Remove the crankcase 1.
- Replace the filter 2 with a new one (⇐ FILTER CARTRIDGES AND BELTS).
- Refit the crankcase 1.
- Close the engine hood.



CHECK

ECU and associated sensors and actuators **

CHECK

Turbocharger **

CHECK/CLEAN

(EGR) Exhaust gas recirculation system valve **

CHECK

Selective catalytic reduction (SCR) / Diesel oxidation catalyst (DOC) **

CHECK/CLEAN

Injector **

** Engine service, consult your dealer.

➔ 7 6000H - PERIODIC MAINTENANCE - EVERY 6000 HOURS OF SERVICE OR 12 YEARS

ALSO PERFORM THE PERIODIC MAINTENANCE AT 500 HOURS, 1,000 HOURS, 1,500 HOURS, 2,000 HOURS AND 3,000 HOURS OF SERVICE.

CHECK

Diesel Particulate Filter (DPF) **

** Engine service, consult your dealer.

➔ 8 9000H - PERIODIC MAINTENANCE - EVERY 9000 HOURS OF SERVICE OR 18 YEARS

ALSO PERFORM THE PERIODIC MAINTENANCE AT 500 HOURS, 1,000 HOURS, 3000 HOURS AND 4500 HOURS OF SERVICE.

REPLACE

Diesel Particulate Filter (DPF) **

REPLACE

Selective catalytic reduction (SCR) **

** Engine service, consult your dealer.

Clean any traces of fuel, oil or grease from the machine or at least the area in question before carrying out any work.

EXTERIOR WASHING

- Close and lock all accesses to the machine (doors, windows, cowls, etc.).
- When washing with a high pressure cleaner, avoid the hinges and electrical components and connections.
- If necessary, protect components susceptible to damage, particularly electrical components and connections and the exhaust outlet, against penetration of water, steam or cleaning agents.
- After washing, leave the machine to dry in the open air and do not park inside a building.


INTERIOR WASHING

- Avoid cleaning the engine, the harnesses, the electrical components and parts with sensitive seals (e.g. universal joint cross-piece) with a high pressure cleaner. Clean with compressed air instead.
- Clean any accumulation of flammable materials near to heat sources and electrical components.
- Special attention should be paid to all the areas of the machine where these high-risk materials are likely to accumulate (e.g. engine compartment, under the boom, above the axles, etc.).

⚠ IMPORTANT ⚠

Exhaust regeneration is an automated procedure activated by the operator when the following indicator lights are displayed:




- Park the machine in a safe and adequately ventilated place.
- Check the following points:
 - forward/reverse selector in neutral,
 - parking brake activated,
 - no action on the hydraulic control joystick,
 - boom in transport position,
 - accelerator pedal released,
 - hand throttle not used (OPTION),
- Check that the fuel level is sufficient.
- Start the machine and run the engine for a few minutes to bring it up to its operating temperature (60 °C).
- Press and hold the  button for at least two seconds to start the exhaust regeneration procedure.
- The beginning of the procedure is confirmed by a continuously lit indicator lamp.
- Follow the steps described on the information screen.

⚠ IMPORTANT ⚠

The exhaust regeneration procedure must only be stopped if absolutely necessary.

The procedure stops automatically if the operator:

- *activates the hydraulic control joystick,*
- *engages forward or reverse gear,*
- *switches off the engine,*
- *presses the  button.*

REPLACE

Wheels

⚠ IMPORTANT ⚠

*In the event of a wheel being changed on the public highway,
Secure the machine's environment:*

- If possible, stop the machine on firm, level ground.
- Stop the machine (⚠ 1 - SAFETY INSTRUCTIONS: DRIVING INSTRUCTIONS UNLADEN AND LADEN).
- Switch on the hazard warning lights.
- Immobilize the machine in both directions on the axle opposite to the wheel to be changed.
- Loosen the wheel nuts by a few turns.
- Place the jack 1 under the sticker (⚠ 2).
- Lift the wheel until it leaves the ground.
- Place the safety prop 2 under the axle.
- Completely unscrew the wheel nuts and remove them.
- Free the wheel using back and forth movements and roll it to the side.
- Replace with the new wheel.
- Hand-tighten the nuts.
- Remove the safety support prop and lower the machine using the jack.
- Tighten the wheel nuts to the prescribed torque value (⚠ 2000H - PERIODIC MAINTENANCE - EVERY 2,000 HOURS OF SERVICE OR EVERY 4 YEARS) using a torque wrench.



REPLACE

Battery

⚠ IMPORTANT ⚠

Switch off the ignition with the key, wait 30 seconds, then operate the battery cut-off.

Wait 5 minutes before disconnecting the battery, this is required in order to purge the Diesel Exhaust Fluid "DEF" system.

Handling and servicing a battery can be dangerous. Take the following precautions:

- Wear protective goggles.
- Keep the battery horizontal.
- Never smoke or work near a naked flame.
- Work in a well-ventilated area.

- In the event of electrolyte being spilled onto the skin or splashed in the eyes, rinse thoroughly with cold water for 15 minutes and call a doctor.

- Remove the protective casing 1.
- Replace the battery 2.



ADJUST

Front headlights

RECOMMENDED SETTING

(according to standard ECE-76/756 76/761 ECE20)

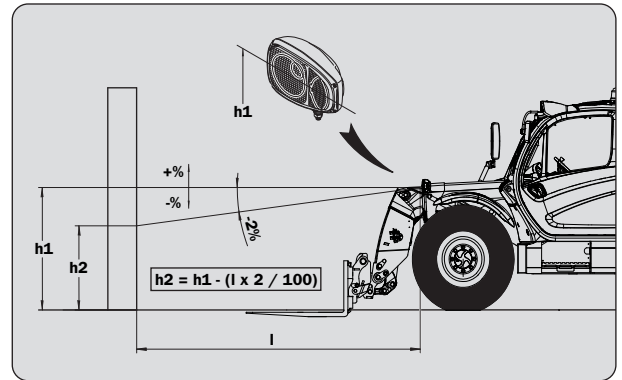
Adjustment of -2 % of the dipped beam harness relative to the horizontal axis of the headlight.

ADJUSTMENT PROCEDURE

- Place the unladen machine in the transport position and perpendicular to a white wall on flat, level ground.
- Check the tire pressures (≤ 2 - DESCRIPTION: TIRES).
- Put the gearshift lever in neutral.

CALCULATING THE HEIGHT OF THE DIPPED BEAM (H2)

- h1 = Height of the dipped beam in relation to the ground.
- h2 = Height of the adjusted beam.
- l = Distance between the dipped beam and the white wall.



RESET

Longitudinal stability limiter and warning device

Depending on how the machine is used, the device may need to be periodically reset.

This operation can be easily performed by means of the following procedure.

- Provide a fork carrier or a bucket and a load corresponding to at least half the machine's rated capacity.
- Preferably perform the reset when the machine is still cold (before it is used) or ensure that the temperature of the rear axle is not more than 50 °C.

⚠ IMPORTANT ⚠

Carefully follow the boom positioning instructions.

*When the reset is completed, check the operation of the longitudinal stability limiter and warning device ($\leq 10H$ - DAILY MAINTENANCE OR EVERY 10 HOURS OF SERVICE).
If in doubt, consult your dealer.*

- Place the machine on flat, level ground with the wheels straight.
- Press button B to display the "PREFERENCES" menu
- Turn knob A to navigate through the menus and sub-menus.

HYDRAULICS > STABILITY REBALANCING

- Press knob A to confirm.
- Follow the steps described on the information screen (OK = press button A).

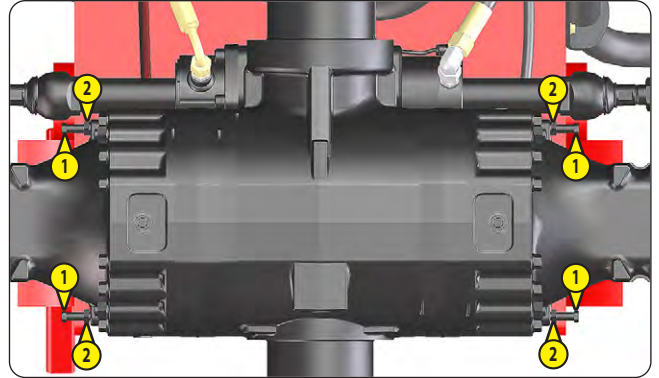


⚠ IMPORTANT ⚠

*This operation must be performed at very low speed (less than 5 km/h) and over as short a distance as possible (less than 100 m).
The high pressure limiters MUST be unlocked to avoid damaging the hydrostatic transmission.*

PUT THE FRONT AXLE IN FREEWHEEL

- Take the open-ended wrenches out of the tool box.
- Locate the four screws 1 to the left and right on the axle.
- Loosen the four locknuts 2 by approximately 8 mm.
- Do up the screws 1 by hand until there is resistance.
- Tighten the two screws on the left alternately by a quarter turn each time until you have done a complete turn.
- Tighten the two screws on the right alternately by a quarter turn each time until you have done a complete turn.

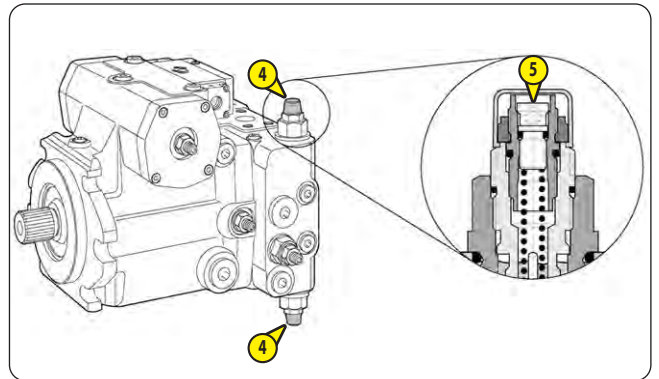
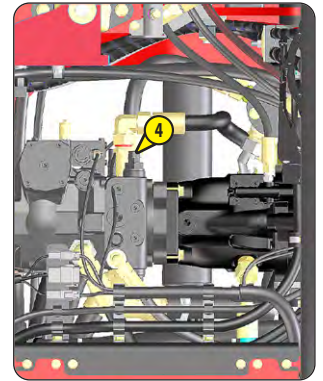


UNLOCKING THE HIGH PRESSURE LIMITERS

⚠ IMPORTANT ⚠

Raise the lifting structure and place the safety wedge on the rod of the lifting cylinder (↖ 1 - OPERATING AND SAFETY INSTRUCTIONS: MACHINE MAINTENANCE INSTRUCTIONS).

- Remove the protective casing 1.
- Remove the caps 4 from each limiter.
- Unscrew the screws 5 by two turns to the left.



TOWING OR WINCHING THE MACHINE

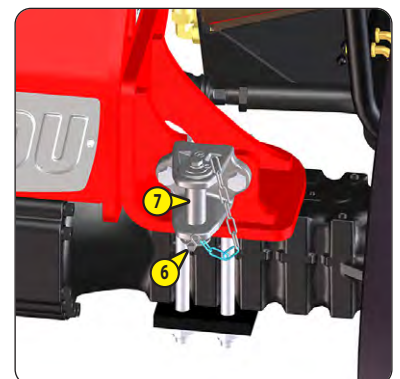
- Switch on the machine's ignition.
- Set the forward/reverse selector to neutral.
- Release the hand brake.
- Switch on the hazard warning lights.
- Remove the clip 6, lift the towing pin 7 and place the tow bar or the winch cable on the towing pin.

⚠ IMPORTANT ⚠

This pin is only intended for towing or winching the machine in the event of a breakdown.

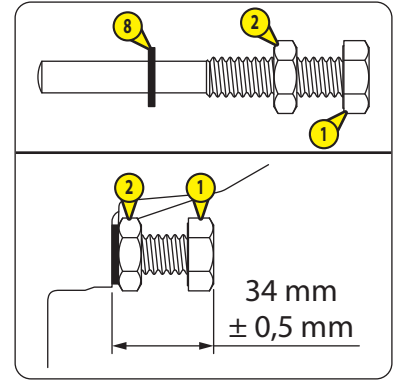
N.B.: Since there will be no power steering or hydraulic brake assistance, operate the steering and controls slowly and forcefully. Avoid sudden or jerky movements.

- After towing, re-tighten screws 5 (tightening torque 9 - 11 N.m).
- Refit the caps 4.



PUT THE BRAKES BACK INTO ACTION ON THE FRONT AXLE

- Undo the two screws on the left alternately by a quarter turn each time until you have done a complete turn.
- Undo the two screws on the right alternately by a quarter turn each time until you have done a complete turn.
- Completely undo the four screws 1.
- Replace the seals 8.
- Lubricate the screws 1 with MANITOU BLACK MULTIPURPOSE GREASE (← LUBRICANTS AND FUEL) and put them back in place.
- Adjust the distance between the body of the axle and the screw heads = 34 mm ± 0.5 mm.
- Tighten the four locknuts 2 and check the distances between the body of the axle and the screw heads.
- Check that the automatic parking brake is working correctly.
- Put the open-ended wrenches back in the tool box.



LIFT

Machine

⚠ IMPORTANT ⚠

The surface of the machine's departure/arrival zone must be closed, level and even.

If the departure/arrival zone is a transport vehicle:

- The transport vehicle must be parked on a level, firm surface.

- The wheels of the transport vehicle must be chocked.

Make sure that the lifting slings are solid enough to take the weight of the machine.

Make sure that the lifting capacity of the crane is sufficient to take the weight of the machine.

Take into account the position of the machine's center of gravity for lifting.

A = 1597 mm

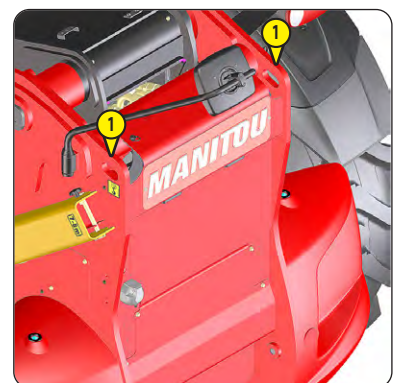
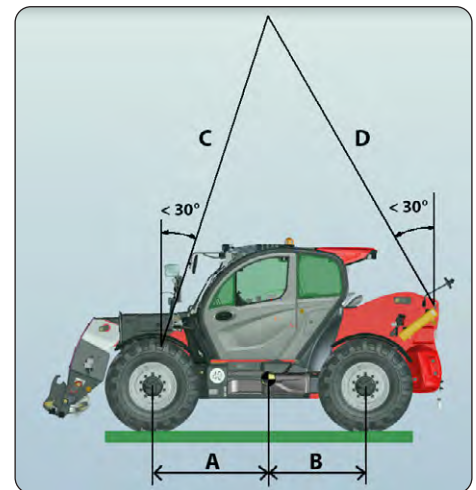
B = 1343 mm

Length of the slings respecting the maximum angle of 30°

C = 4800 mm

D = 4610 mm

- Mark out a wide safety area around the machine.
- Put the machine in transport position (← TRANSPORTING THE MACHINE)
- Attach lifting slings to the lifting points 1.
- Attach the lifting slings at 1 point to the crane lifting hook.
- Slowly lift the crane's lifting hook until the lifting slings are slightly taut.
- If necessary, adjust the crane lifting hook to prevent damage and keep the machine level.
- Ensure that there is nobody in the safety zone.
- Lift the machine slowly and move it to the arrival zone.
- Slowly lower the machine until the 4 wheels are in contact with the receiving surface.
- Lower the crane's lifting hook until the lifting slings are no longer taut.
- Detach the lifting slings.



⚠ IMPORTANT ⚠

Check that the safety instructions associated with the transport vehicle have been correctly applied before loading the machine and ensure that the driver of the vehicle has been informed of the dimensional characteristics and total weight of the machine.

Ensure that the transport vehicle has adequate dimensions and load capacity for transporting the machine, \triangleleft SPECIFICATIONS and STICKERS.

Covers must be closed and locked while the machine is being transported.

⚠ IMPORTANT ⚠

The transport vehicle must be parked on a level surface and the wheels must be chocked to prevent it from rolling during loading and unloading of the machine.

For machines equipped with a turbo-charged engine, block off the exhaust outlet to avoid rotation of the turbo shaft without lubrication when transporting the vehicle.

The machine must be loaded or unloaded using a winch if the loading ramps are slippery, \triangleleft FREEWHEELING FOR TOWING/WINCHING.

The angle of the loading ramps must not exceed the maximum slope accessible value, \triangleleft SPECIFICATIONS.

The machine must be loaded and unloaded using a crane if the angle of the loading ramps exceeds the maximum slope accessible value, \triangleleft TRANSPORT FOR WINCHING: LIFTING INSTRUCTIONS.

LOADING THE MACHINE ONTO THE TRANSPORT VEHICLE

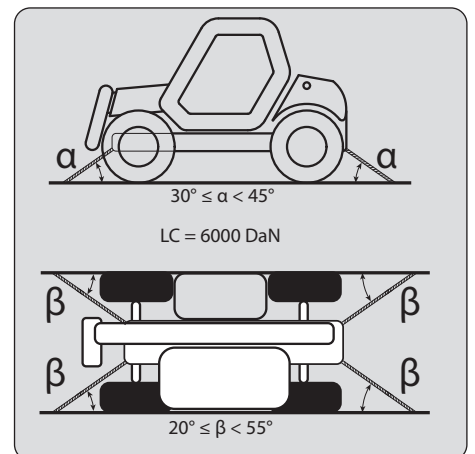
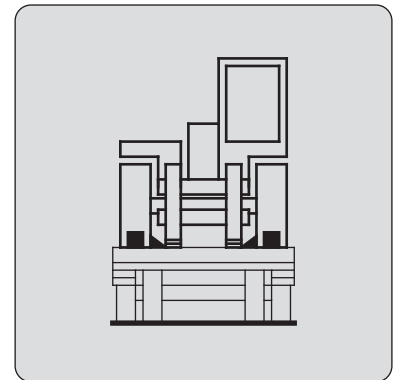
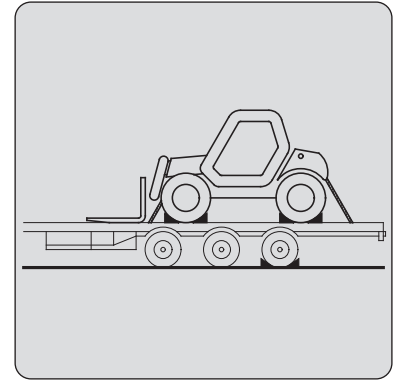
- Fully retract the telescopic arm.
- Load the machine parallel to the transport vehicle.
- Place the attachment flat on the ground.
- Activate the parking brake.
- Switch off the machine.
- Remove the ignition key.

SECURING THE MACHINE TO THE TRANSPORT VEHICLE

- Fix chocks to the transport vehicle at the front and rear of each of the machine's wheels.
- Fix chocks to the transport vehicle on the inner side of each of the machine's wheels.
- Attach the straps to the machine's anchoring points, \triangleleft STICKERS: ANCHORING POINT.
- Secure the machine, observing the lashing angles (α) and (β) and the resistance (LC) of the straps.

UNLOADING THE MACHINE FROM THE TRANSPORT VEHICLE

- Remove the straps.
- Remove the chocks from the wheels.
- Switch on the machine.
- Raise the telescopic arm.
- Release the parking brake.
- Lower the machine parallel to the transport vehicle.



4 - ATTACHMENTS THAT CAN BE ADAPTED TO THE RANGE

4 - ATTACHMENTS THAT CAN BE ADAPTED TO THE RANGE

<u>INTRODUCTION</u>	4-3
<u>PICKING UP THE ATTACHMENTS</u>	4-4
<u>TECHNICAL SPECIFICATIONS OF ATTACHMENTS</u>	4-6
<u>ATTACHMENT GUARDS</u>	4-14

INTRODUCTION

- Your lift truck must be used with interchangeable equipment. These items are called: ATTACHMENTS.
- A wide range of attachments is available, guaranteed by MANITOU and designed to fit your lift truck perfectly.

⚠ IMPORTANT ⚠

*Only attachments approved by MANITOU can be used on its lift trucks (<1 TECHNICAL SPECIFICATIONS OF ATTACHMENTS).
The manufacturer cannot be held responsible for any modifications or adaptations to attachments without its knowledge.*

- The attachments are delivered with a load chart concerning your lift truck. The operator's manual and the load chart should be kept in the places provided in the lift truck. For standard attachments, their use is governed by the instructions contained on this notice.

⚠ IMPORTANT ⚠

*Maximum loads are defined by the capacity of a lift truck taking account of the attachment's weight and center of gravity.
Should the attachment have a lower capacity than the lift truck, never exceed this limit.*

- Some particular uses require the adaptation of the attachment which is not provided in the price-listed options. Solutions exist, consult your dealer.

⚠ IMPORTANT ⚠

Depending on their size, certain attachments may, when the boom is lowered and retracted, come into contact with the front tires and cause damage to them if excavation is activated in the direction of the discharge.

TO PREVENT THIS RISK, EXTEND THE TELESCOPE TO A SUFFICIENT EXTENT FOR THE PARTICULAR LIFT TRUCK AND ATTACHMENT SO THAT THIS CONTACT IS NOT POSSIBLE.

SUSPENDED LOAD

⚠ IMPORTANT ⚠

- *Suspended loads MUST be handled with a lift truck designed for that purpose (<1 - OPERATING AND SAFETY INSTRUCTIONS: INSTRUCTIONS FOR HANDLING LOADS: H - PICKING UP AND PUTTING DOWN A SUSPENDED LOAD).*

PICKING UP THE ATTACHMENTS

1 - ATTACHMENT WITHOUT HYDRAULICS AND HAND LOCKING DEVICE

FITTING AN ATTACHMENT

- Ensure that the attachment is in a position facilitating the locking to the carriage. If it is not correctly oriented, take the necessary precautions in order to move it safely.
- Check that the locking pin is in position in the bracket (Fig. A).
- Place the lift truck with the boom lowered in front of and parallel to the attachment, and tilt the carriage forward (Fig. B).
- Bring the carriage under the locking tube of the attachment, slightly raise the boom, tilt the carriage backward in order to position the attachment (Fig. C).
- Lift the attachment off the ground to facilitate locking.

MANUAL LOCKING

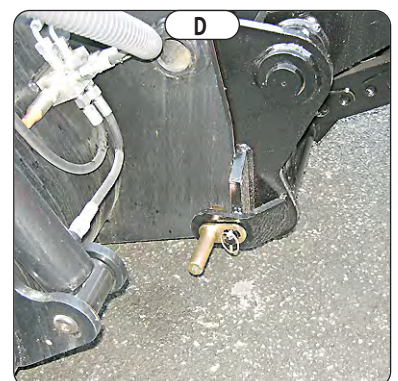
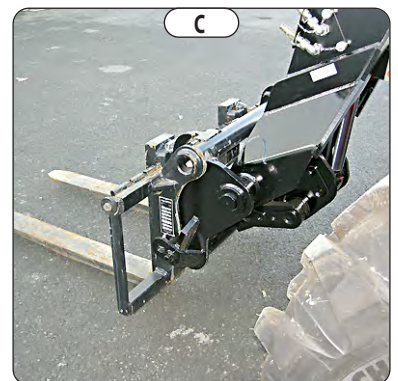
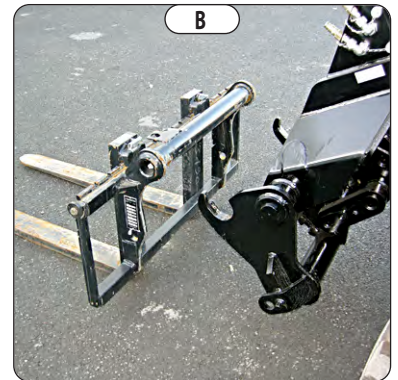
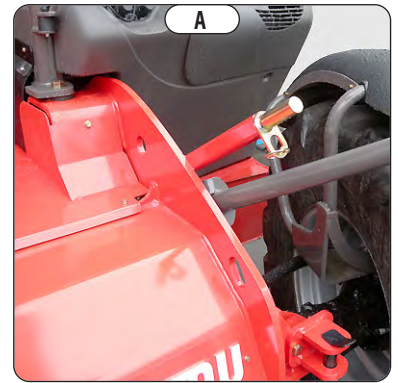
- Take the locking pin on the bracket (Fig. A) and lock the attachment (Fig. D). Do not forget to fit the pin.

MANUAL UNLOCKING

- Proceed in the reverse order to MANUAL LOCKING, taking care to refit the locking pin in the bracket (Fig. A).

REMOVING THE ATTACHMENT

- Proceed in the reverse order to FITTING AN ATTACHMENT, taking care to store the attachment flat on the ground and in the closed position.



2 - HYDRAULIC ATTACHMENT AND MANUAL LOCKING DEVICE

FITTING AN ATTACHMENT

- Ensure that the attachment is in a position facilitating the locking to the carriage. If it is not correctly oriented, take the necessary precautions in order to move it safely.
- Check that the locking pin is in position in the bracket (Fig. A).
- Place the lift truck with the boom lowered in front of and parallel to the attachment, and tilt the carriage forward (Fig. B).
- Bring the carriage under the locking tube of the attachment, slightly raise the boom, tilt the carriage backward in order to position the attachment (Fig. C).
- Lift the attachment off the ground to facilitate locking.

MANUAL LOCKING AND CONNECTION OF THE ATTACHMENT

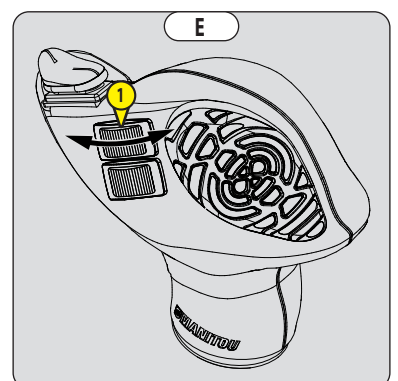
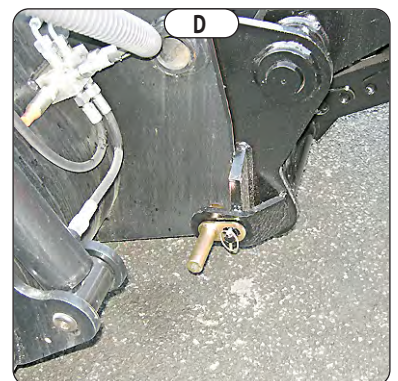
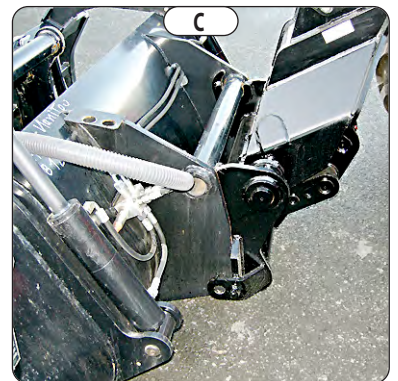
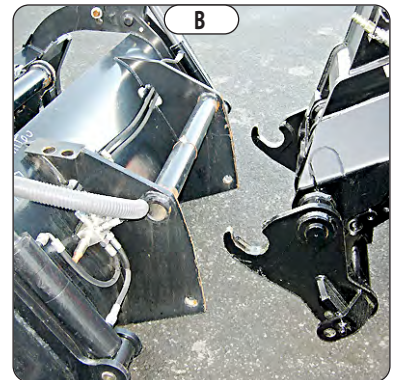
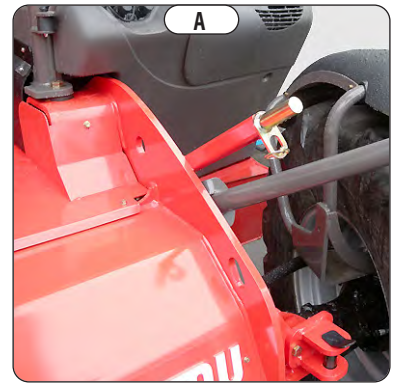
⚠ IMPORTANT ⚠

Make sure that the rapid connectors are clean and protect the holes which are not used, with the caps provided.

- Take the locking pin on the bracket and lock the attachment (fig. D). Do not forget to fit the pin.
- Stop the engine and keep the ignition on the lift truck.
- Release the pressure in the attachment hydraulic circuit by operating switch 1 on the distributor lever backward and forward 4 or 5 times.
- Connect the quick-release couplers according to the logic of the attachment's hydraulic movements (Fig. F).

MANUAL RELEASE AND DISCONNECTION OF THE ATTACHMENT

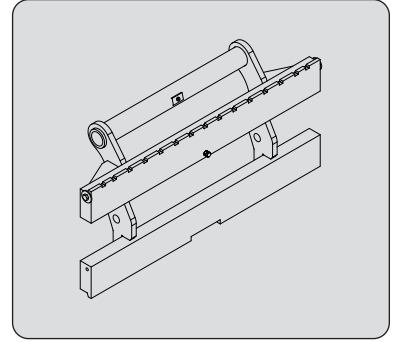
- Proceed in the reverse order of paragraph MANUAL LOCKING AND CONNECTING THE ATTACHMENT taking care to refit the locking pin in the bracket (Fig. A).
- **REMOVING THE ATTACHMENT**
- Proceed in the reverse order to FITTING AN ATTACHMENT, taking care to store the attachment flat on the ground and in the closed position.



TECHNICAL SPECIFICATIONS OF ATTACHMENTS

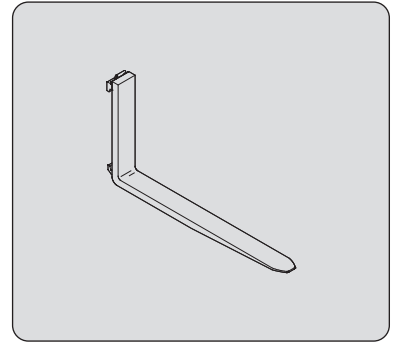
STANDARDIZED TILTING FORK CARRIAGE

REFERENCE	CAT 1260/5t 52735507
Rated capacity	5000 kg
Width	1302 mm
Weight	218 kg



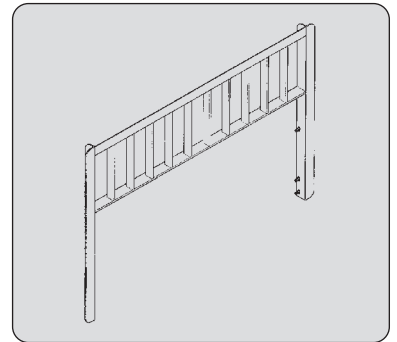
STANDARDIZED FORK

REFERENCE	578097
Cross-section	150x50x1200 mm
Weight	94 kg



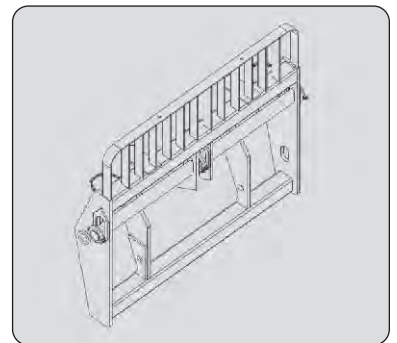
LOAD BACK REST

REFERENCE	52764678	727035
Width	1580 mm	1260 mm
Weight	44 kg	46 kg



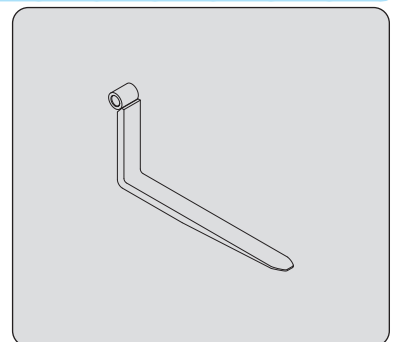
FLOATING FORK CARRIAGE

REFERENCE	TFF 75 MT-1040 504280
Rated capacity	4500 kg
Width	1040 mm
Weight	370 kg



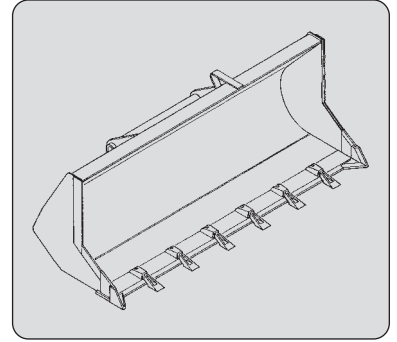
FLOATING FORK

REFERENCE	528083	578154
Cross-section	200x60x1200 mm	200x60x1500 mm
Weight	166 kg	217 kg



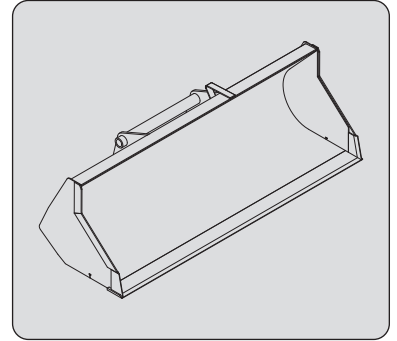
BUILDING BUCKET

REFERENCE	CBC 900 L2450 654470
Rated capacity	893 ℓ
Width	2450 mm
Weight	391 kg



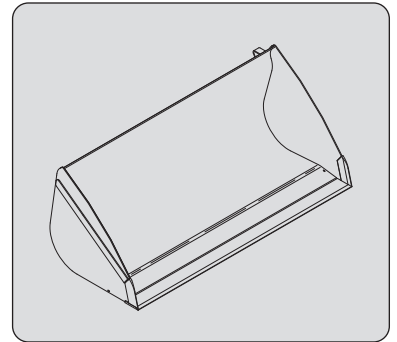
LOADING BUCKET

REFERENCE	CBR 1000 L2450 S2 654716
Rated capacity	1089 ℓ
Width	2450 mm
Weight	410 kg



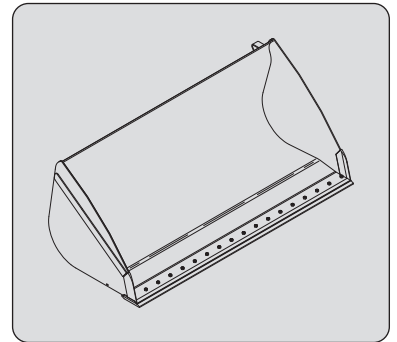
GRAIN BUCKET

REFERENCE	CBA 2500 L2450 570553	CBA 3000 L2500 570555
Rated capacity	2526 ℓ	3023 ℓ
Width	2450 mm	2500 mm
Weight	675 kg	760 kg



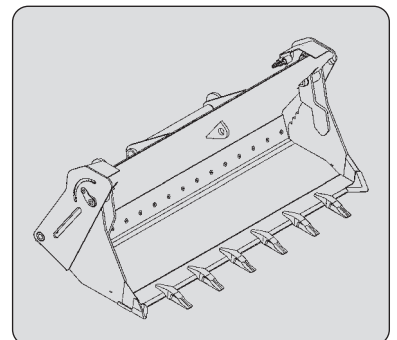
FARMING BUCKET (REMOVABLE AND REVERSIBLE BLADE)

REFERENCE	CBA 2500 L2450 LDR 570554	CBA 3000 L2500 LDR 500701
Rated capacity	2526 ℓ	3023 ℓ
Width	2450 mm	2500 mm
Weight	675 kg	833 kg



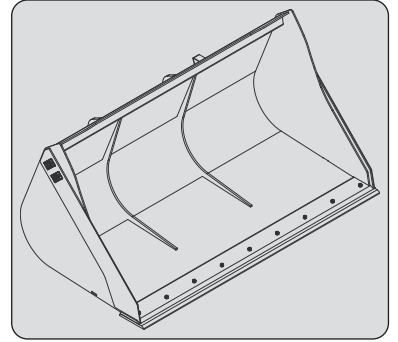
BUCKET 4-in-1

REFERENCE	CB4X1-900 L2450 751465
Rated capacity	900 ℓ
Width	2450 mm
Weight	714 kg



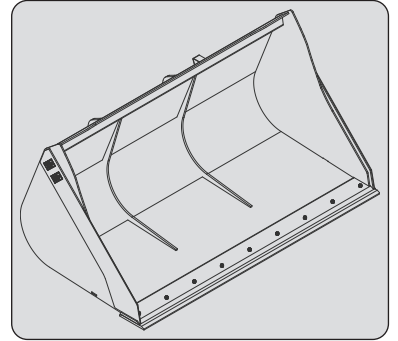
ENVIRONMENT BUCKET

REFERENCE	BEN 2500/3000 WP 52736126	CBA 2500/3200 EN 52000125
Rated capacity	2900 ℓ	3197 ℓ
Width	2500 mm	2500 mm
Weight	1030 kg	1110 kg



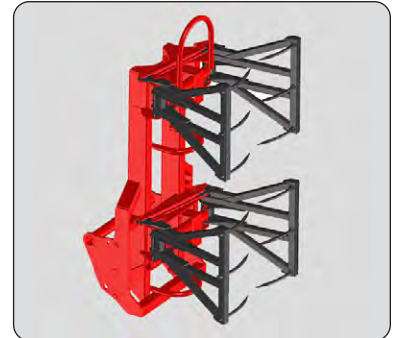
ENVIRONMENT BUCKET

REFERENCE	CBA 2500/4000 LDR 52603178	CBA 2700/4500 LDR 52000508
Rated capacity	4000 ℓ	4550 ℓ
Width	2500 mm	2700 mm
Weight	1310 kg	1400 kg



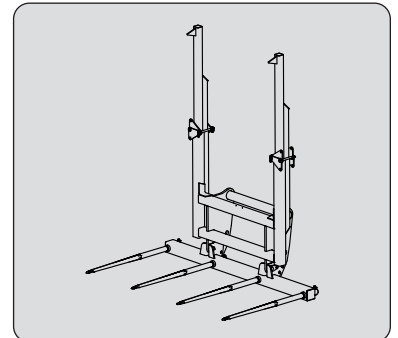
BALE CLAMP

REFERENCE	CLBR 2X6-2000 757666
Rated capacity	2100 kg
Width	1002 mm
Teeth	2x6
Weight	434 kg



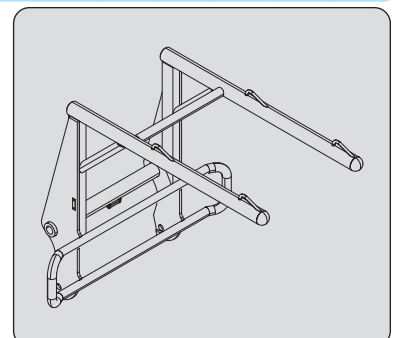
BALE FORK

REFERENCE	FB 1900/1700 790699
Rated capacity	1700 kg
Width	1878 mm
Teeth	4
Weight	215 kg



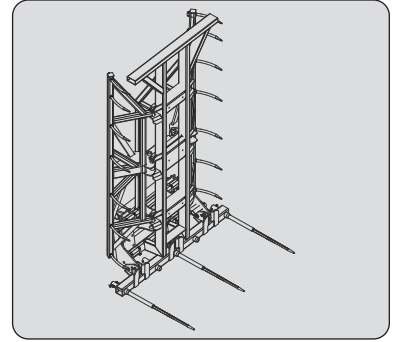
BOOM CRANE WITH BIG BAG

REFERENCE	HBB 1500/2400 931627	HBB 2100/4000 52691660
Rated capacity	2400 kg	4000 kg
Weight	186 kg	285 kg



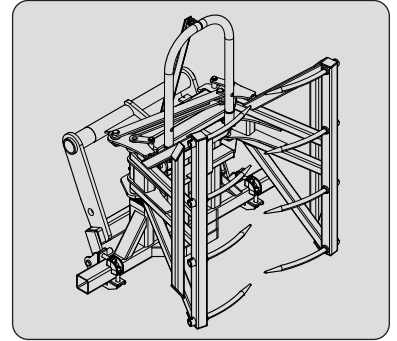
BALE CLAMP

REFERENCE	CLBS 2X7-2100 5200015
Rated capacity	2100 kg
Width	1800 mm
Teeth	2x7
Weight	780 kg



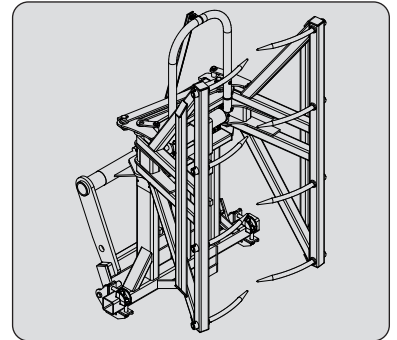
BALE CLAMP

REFERENCE	CLBR 2X3 52001013	PBG 2X4 757612
Rated capacity	1200 kg	1800 kg
Width	1090 mm	1090 mm
Teeth	2x3	2x4
Weight	235 kg	262 kg



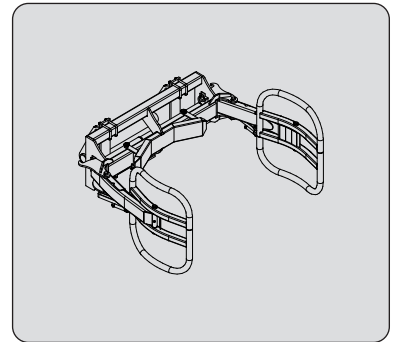
BALE CLAMP

REFERENCE	P2BG 2X4 790518
Rated capacity	1500 kg
Width	1090 mm
Teeth	2x4
Weight	275 kg



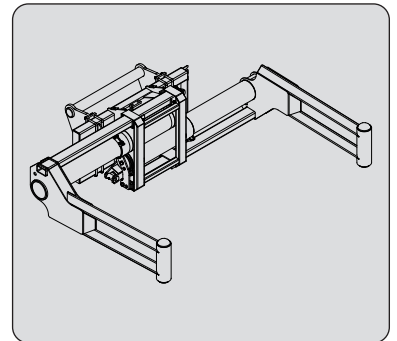
BALE CLAMP

REFERENCE	CLBW 1500 52001012
Rated capacity	1500 kg
Width	1587 mm
Weight	251 kg



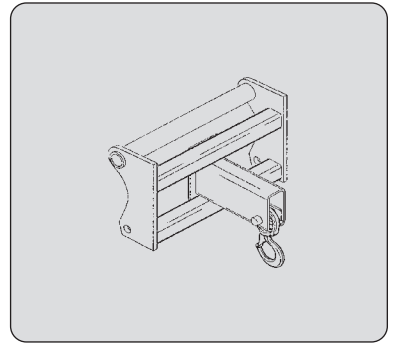
BALE CLAMP

REFERENCE	CLBSW 2000/1000 52000812
Rated capacity	1000 kg
Width	2433 mm
Weight	483 kg



CRANE

REFERENCE	PC 50 708544
Rated capacity	5000 kg
Weight	120 kg



WOOD CLAMP

REFERENCE	CLHW 1200/3 52797759
Rated capacity	3000 kg
Width	1248 mm
Weight	525 kg



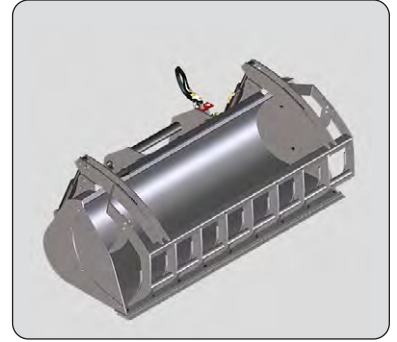
BUCKET WITH GRAB

REFERENCE	CBG 2450/1600 EN	CBG 2480/2200 EN	CBG 2480/2200 EN WBP
Rated capacity	52000563 1568 ℓ	790657 2200 ℓ	52704532 2200 ℓ
Width	2450 mm	2480 mm	2480 mm
Teeth	10	5	5
Weight	926 kg	1300 kg	1340 kg



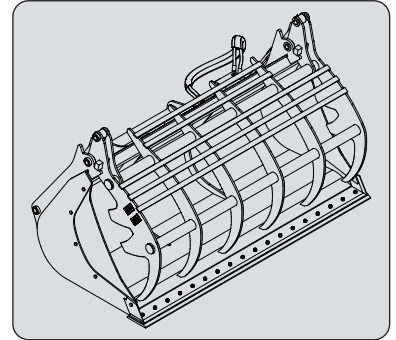
BUCKET WITH GRAB

REFERENCE	CBG 1700 MS 52549720
Rated capacity	1695 ℓ
Width	2450 mm
Teeth	9/2
Weight	895 kg



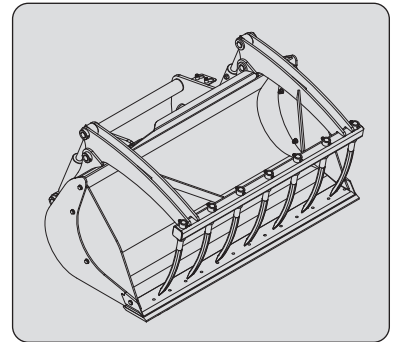
BUCKET WITH GRAB

REFERENCE	CBG 2480/2000 MS 790656	CBG 2480/2600 MS 790658
Rated capacity	2000 ℓ	2600 ℓ
Width	2480 mm	2480 mm
Teeth	6	7
Weight	1225 kg	1357 kg



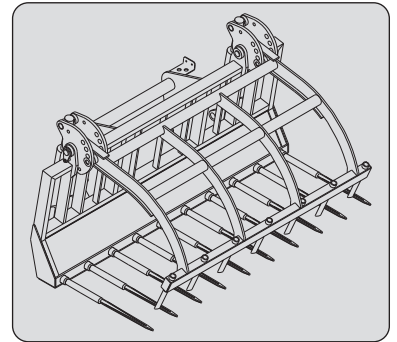
BUCKET WITH GRAB

REFERENCE	BG 2450/1700 FO 52549810
Rated capacity	1695 ℓ
Width	2450 mm
Teeth	11
Weight	870 kg



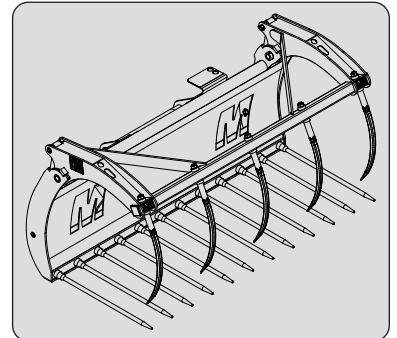
MANURE FORK WITH GRAB

REFERENCE	FFGR 30 MT 2400 S5 751405
Rated capacity	1700 Kg
Width	2400 mm
Finger	12
Teeth	8
Weight	528 kg



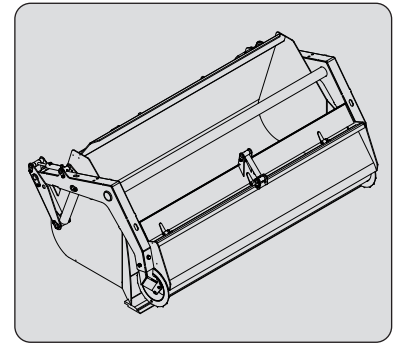
MANURE FORK

REFERENCE	FMG 2450/2000 790534
Rated capacity	2000 kg
Width	2435 MM
Finger	12
Teeth	5
Weight	686



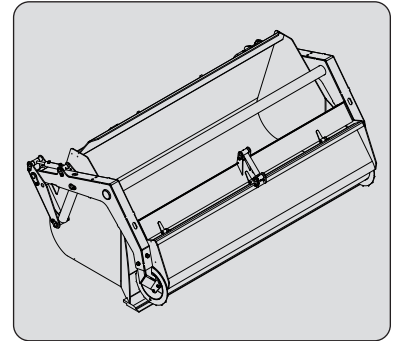
SINGLE ROTOR SHELL

REFERENCE	CRS 2500/2120 790334
Rated capacity	2120 ℓ
Width	2830 mm
Weight	1010 Kg



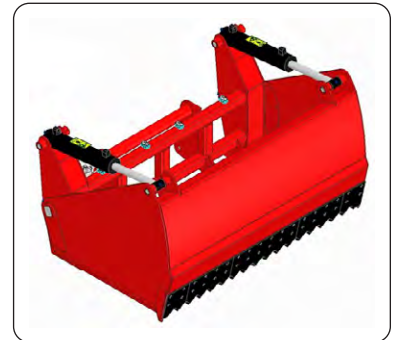
SINGLE ROTOR SHELL

REFERENCE	CRS 2500/2120 790334
Rated capacity	2120 ℓ
Width	2830 mm
Weight	1010 Kg



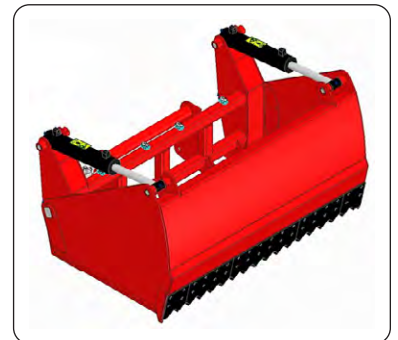
SHEAR GRAB

REFERENCE	SHG 2400/1800 52000383
Rated capacity	1579 ℓ
Width	2454 mm
Weight	936 kg



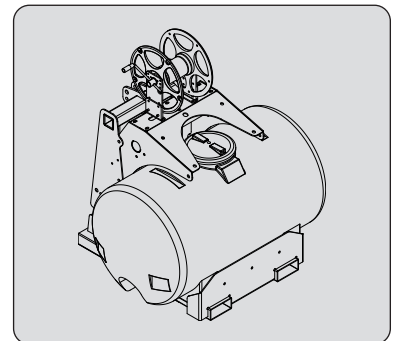
SHEAR GRAB BUCKET

REFERENCE	SHB 2400/1800 52000387
Rated capacity	1800 ℓ
Width	2454 mm
Weight	1080 kg



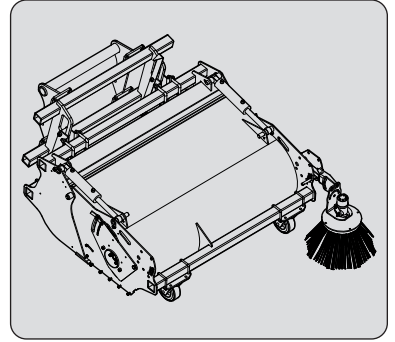
HIGH PRESSURE SCRUBBER

REFERENCE	AHP 40 790335
Rated capacity	600 ℓ
Width	1450 mm
Weight	240 kg
Pressure	190 bar



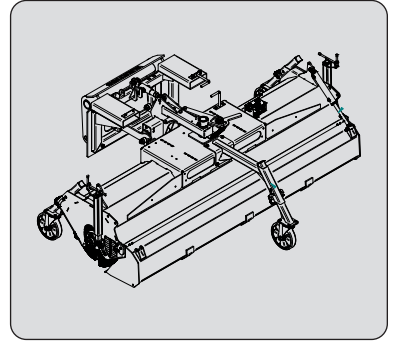
SWEeper COLLECTOR WITH BRUSH

REFERENCE	BRB 2200
	790315
Rated capacity	530 ℓ
Width	2600 mm
Weight	925 kg



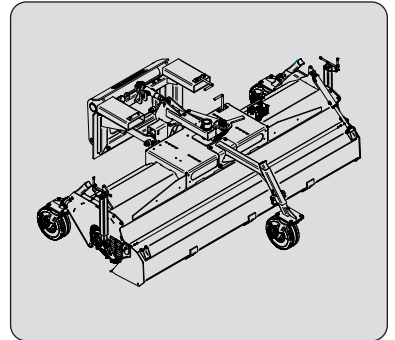
SWEeper WITH BRUSH

REFERENCE	SCC 2600
	52000515
Rated capacity	2600 mm
Width	2820 mm
Weight	725 kg



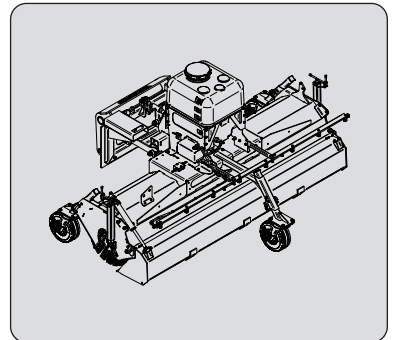
SWEeper WITH BRUSH

REFERENCE	SCC 2600+
	52000517
Rated capacity	2600 mm
Width	2820 mm
Weight	780 kg



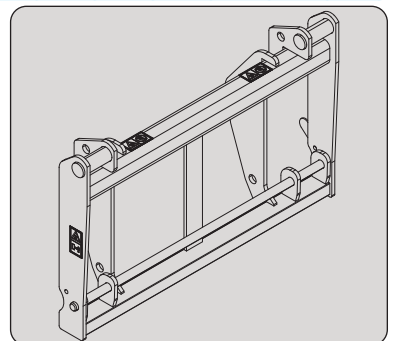
SWEeper WITH BRUSH

REFERENCE	SCC 2600 HWA+
	52000519
Rated capacity	2600 mm
Width	2820 mm
Weight	795 kg



JCB INTERFACE

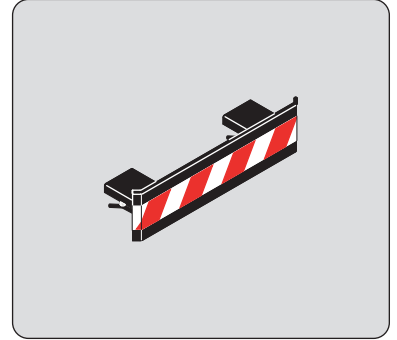
REFERENCE	IC JCB
	52000231
Rated capacity	4100Kg
Width	1296 mm
Weight	155 kg



ATTACHMENT GUARDS

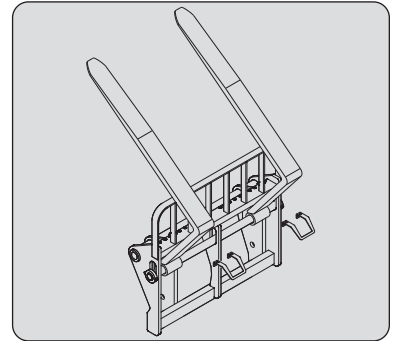
FORK GUARD

REFERENCE 227801



FORK BLOCK FOR FLOATING FORK CARRIAGE

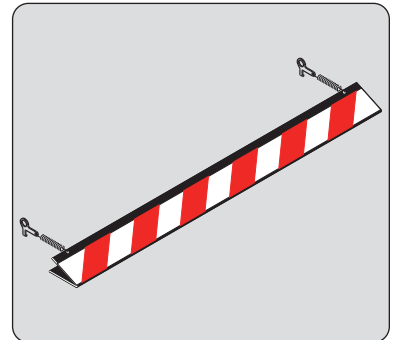
REFERENCE 261210



BUCKET PROTECTOR

Always ensure that the width of the protector you choose is less than or equal to the width of the bucket.

	REFERENCE	206734	206732	206730
Width		1375 mm	1500 mm	1650 mm
	REFERENCE	235854	206728	206726
Width		1850 mm	1950 mm	2000 mm
	REFERENCE	223771	223773	206724
Width		2050 mm	2100 mm	2150 mm
	REFERENCE	206099	206722	223775
Width		2250 mm	2450 mm	2500 mm



MANURE FORK GUARD

REFERENCE 230689

