IMER *U.S.A. inc.*

TRACKER 1624

TRACKED MINIDUMPER

INSTRUCTION MANUAL

Spare Parts Manual

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3300582_R01W_(2024_11)

IMER U.S.A.
US & Canada
Headquarters
423 Bank Street , Suite 180
Southlake, TX 76092 - USA
Tel.: +1 800 275.5463
www.imerusa.com

S/N

READ CAREFULLY BEFORE USE.
For correct and safe use, follow the instructions below.
Keep this manual and the booklet supplied with the endothermic engine for future reference.

MANUFACTURER 'S DATA

IMER INTERNATIONAL S.P.A.
località SALCETO - 53036 POGGIBONSI (SI) - ITALY
Tel. +39 0577 973 41 - Fax +39 0577 983 304
info@imergroup.com www.imergroup.com

TECHNICAL ASSISTANCE

Contact your dealer for any request for TECHNICAL ASSISTANCE on the machine.

DOCUMENTATION SUPPLIED WITH THE MACHINE

DOCUMENTATION	MANUFACTURER	DESCRIPTION
Instruction and warning manual	IMER INTERNATIONAL S.p.A.	Code 3300582_R01W_(2024_11)
Hydraulic diagram	IMER INTERNATIONAL S.p.A.	See para. 9.2
Wiring diagram	IMER INTERNATIONAL S.p.A.	See para. 9.1
Endothermic engine manual	Honda	

Dear Customer,
thank you for purchasing an **IMER INTERNATIONAL** product.

For correct and safe use of the machine, the technical reference is this "**INSTRUCTION and WARNING** manual" (hereinafter "Manual") supplied with it.

Supply and storage of the manual

This Manual is provided in paper format.
It is the user's responsibility to preserve and keep intact all the documentation provided in the annex **throughout the life of the machine until dismantling.**
The Manual is an integral part of the machine and must always accompany it in every move or resale.
In case of loss or destruction of the manual, it is possible to request a copy from your dealer specifying the model, serial number and year of manufacture.

The images contained in this Manual are indicative and do not constitute a commitment for the manufacturer and/or for the Distributor.
IMER INTERNATIONAL S.P.A. reserves the right to make changes and/or improvements to the machine and to this Manual without the obligation to replace or provide notice.

IMER INTERNATIONAL S.P.A. also declares that:

- the information contained in this manual is consistent with the technical and safety specifications of the machine to which the manual refers.
- **No liability is assumed for direct or indirect damage to persons, property or animals caused by failure to comply with the instructions in this manual.**

This manual provides all the procedures, instructions and warnings to operate and control the machine safely.
The procedures are designed in such a way as to obtain the best performance, maximum efficiency and maximum safety.
To make this happen, remember the following rules:

- This manual must always be kept on board the machine in the dedicated compartment.
- Before driving the vehicle, read the manual carefully; this is the easiest way to prevent accidents.
- Greater skill as an operator, outside the descriptions provided in this manual, can be obtained from experience itself, gained during the work phases and with adequate supervision.

Incorrect operation, control and maintenance of the machine could cause injury to the person or even death.

It is possible that some illustrations in this manual do not reflect your machine as a result of changes due to technological development.
If you have any questions about your machine or about this publication, please contact your dealer for the latest information available.

QUALIFICATION OF PERSONNEL

The machine must only be used by personnel who have fully read the contents indicated in this manual, who have been properly trained on the correct working methods and informed about safety.

SYMBOL USED	DESCRIPTION	TITLE / DEFINITION
	**OPERATOR ASSIGNED TO USING THE MACHINE**	Personnel, generally lacking specific skills, who perform the operations necessary to operate the machine. If necessary, they can perform simple interventions to adjust or restore the operation of the machine.
QUALIFIED TECHNICIAN		
	**MECHANICAL TECHNICIAN**	They intervene on any mechanical part to make adjustments, to perform repairs and necessary maintenance operations. *The mechanical technician is typically not qualified to perform interventions on electrical systems in the presence of voltage.*
	**ELECTRICAL TECHNICIAN**	They intervene on electrical devices to perform adjustments, repairs and necessary maintenance. *The electrical maintenance technician is typically not authorised to perform operations on mechanical parts.*
	**TECHNICAL ASSISTANCE**	Made available by the Manufacturer and/or by the authorised dealer to perform operations of a complex nature to be carried out in particular situations.
	**LIFTING AND HANDLING EQUIPMENT OPERATOR**	Performs machine handling operations if the operation requires the use of lifting devices.

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1 SAFETY MEASURES

INSTRUCTIONS ADDRESSED TO:

For correct and safe use of the machine, read the contents described in this chapter carefully.

1.1 INDICATIONS ON SAFETY WARNINGS

The manual indicates the warnings and classifies them with the words **DANGER – ATTENTION – CAUTION - NOTE** according to the degree of danger they represent.
The classification is as follows:

DANGER

Indicates a **potentially dangerous high-risk**situation; if not avoided, it can cause serious injury or even death.

ATTENTION

Indicates a **dangerous situation of medium risk**; if it is not avoided, it can cause serious injuries.

CAUTION

Indicates a situation of **moderate risk**; if not avoided, it can cause minor or moderate injuries.
In addition, it can be used to alert the operator and to avoid possible damage to the machine or machine component.

NOTE

Indicates information of a general nature not related to safety purposes; generally accompanied by the symbol to which the note refers.

1.2 READ AND UNDERSTAND THE INSTRUCTIONS AND WARNINGS

This manual, the plates and the labels on the machine provide the necessary indications for correct and safe use of the machine.
It is the user's responsibility to read and understand these indications as ignoring them can cause serious accidents.

Do not leave anything that is not clear or well understood to chance; your distributor will be able to provide you with any additional information required.

In the event of loss or damage to the manual, plates or labels, contact your distributor for replacement.

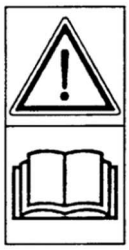
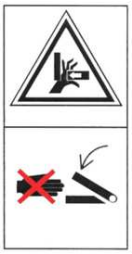
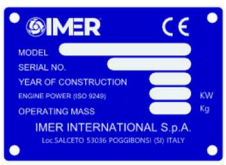
1.3 SAFETY LABELS AND SIGNS

ATTENTION

It is advisable not to remove the labels affixed to the machine; the labels must be securely fixed, kept intact and in an excellent legible condition.

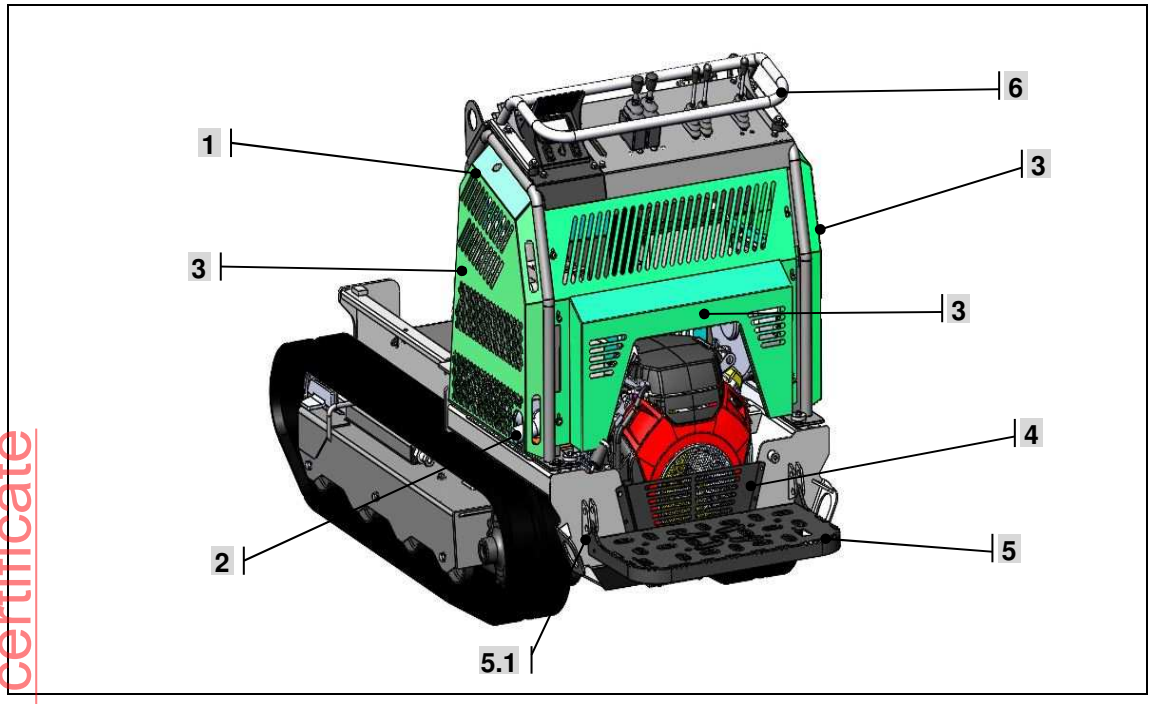
Labels are affixed to the machine, each of which provides the relative condition to which the operator must refer.
Their location and the relative description of the hazard or information is addressed in this section.

- Ensure that all the labels affixed to the machine are legible.
- Clean the labels using a cloth with soap and water. Do not use solvents or petrol.
- Replace damaged or unreadable labels or those whose figures are not clearly visible. Be sure to place a new label on the replaced part.

Label	Recommendation, explanation
	**ATTENTION!** **Refer to the instruction manual.** Consult the instruction manual before each operation on the machine.
	**ATTENTION! Hot surface.** Wear appropriate upper limb protective clothing. Avoid contact with hot parts during use of the machine and for a sufficiently long period after it has been switched off, or use dedicated means of prevention.
	The signal indicates the danger of shearing by the loader shovel. Always keep hands away from the loader shovel when the loader is moving.
	The signal indicates the danger of being struck by objects thrown at high speed during movement of the track. Read the manual before using the vehicle to ensure that all manoeuvres are performed correctly.
	The sign indicates the danger of crushing caused by a sudden movement by the accessory or, if present, by the loader shovel. Maintain a safe distance when using the machine. Always move the accessory or shovel to a support position before leaving the machine.
	**ALUMINIUM PLATE** The identification plate located on the frame shows the data relating to the manufacturer and the serial number of the machine. For further information refer to para. 2.1 on page 17.

1.4 SAFETY DEVICES ON THE MACHINE

The machine is equipped with the following safety systems.



Ref.	Description
1	**PROTECTION CASING LOCK KEY** It ensures that access to the inside of the machine cannot occur accidentally, or intentionally, by unauthorised personnel. The key must be under the control of the user and therefore, under normal conditions, not in the lock.
2	**SILENCED EXHAUST TERMINAL.** It lowers the noise pollution threshold, reducing the noise emitted by the vehicle.
3	**PROTECTIVE CASING (side and rear)** They protect the internal parts of the machine.
4	**ENGINE PROTECTION GRILLE** It protects the operator from hot parts of the engine.
5	**NON-SLIP PLATFORM** It ensures the stability of the operator when using the machine on the platform and is equipped with an opening locking system (**5.1**).
6	**OPERATOR HANDLE** It ensures the stability of the operator when using the machine on the platform.

1.5 PERSONAL PROTECTION EQUIPMENT

Clothing and equipment of operators

Personal protection equipment (commonly PPE) is clothing intended to be worn by the operator in order to protect them against one or more risks to safety and/or to health during work activities.

PPE must be used when risks cannot be avoided or reduced by preventive measures; therefore, it must be:

- compliant with the regulations in force in the country of use of the machine;
- appropriate to the type of risk to be prevented, without entailing a greater risk in itself;
- appropriate to the conditions prevailing in the workplace.

CAUTION

Avoid wearing oversized jackets and sleeves, wearing rings or other jewellery, which can become entangled in self-propelled parts.
Avoid working with long, loose hair.
Do not bring clothing or body parts close to moving elements.

Refer to the following table to identify personal protection equipment.

Personal protection equipment

OBLIGATION SYMBOL	DEFINITION
	Obligation to use protective or insulating gloves.
	Obligation to wear safety shoes.
	Obligation to wear protective goggles.
	Obligation to wear protective clothing.
	Obligation to wear a protective helmet.
	Obligation to wear noise protection equipment.

1.6 RESIDUAL RISKS

The design has been carried out in such a way as to guarantee the essential safety requirements for correct and safe use of the machine.

Safety, as far as possible, has been integrated into the design and construction; however, in order to avoid any condition of danger to persons or damage to the machine caused by **residual risks** or by **non-obvious risks**, **IMER INTERNATIONAL S.P.A.** recommends that all machine personnel (operators and maintenance technicians) strictly follow the warnings indicated in this manual.

1.7 PRELIMINARY CHECKS

Before starting work:

- inspect the minidumper and carefully check that there are no persons or obstacles hindering your work area;
- carefully check that the machine does not show any signs of wear, defects or leaks.

1.8 STATE OF GOOD HEALTH

NEVER operate the machine under the influence of alcohol, medicines or in a state of intoxication.

DANGER

Using the machine in these conditions is a source of danger.

Pay particular attention to your psychophysical health and remember that for the operation of a machine it is good practice "TO BE HEALTHY.

1.9 BEFORE OPERATING THE MACHINE

CAUTION

It is EXTREMELY IMPORTANT to heat the hydraulic oil BEFORE starting work.

- Operate the devices hydraulically and heat the hydraulic oil.

During the heating phase, the operator must check the correct operation of the machine or any need for maintenance.

The fundamental principle on which hydraulics are based is precisely the flow of oil; if you hear a shrill noise, it means that there is insufficient lubrication of the pump due to oil cavitation, often caused by the presence of overly dense or heavy oil.

CAUTION

DO NOT OPERATE the machine in these conditions at all as serious damage to the pump may occur.

1.10 ROTATING AND MOVING PARTS

DANGER

RISK of causing serious accidents.

- **DO NOT approach moving or rotating parts.**
- **Do not bring any object close to moving or rotating parts.**

1.11 HOT ENGINE PARTS

DANGER

- **During operation, do not bring the hot parts of the engine (gas exhaust) close to devices and equipment sensitive to high temperatures.**
- **Keep flammable material at a distance.**
- **Do not place anything on the engine when it is running.**
- **DO NOT touch the engine or exhaust pipe when the machine is switched on or immediately after it is switched off; they are very hot parts and can cause burns, even serious ones.**

1.12 ASCENT AND DESCENT

CAUTION

- **NEVER grip the control levers when getting on or off.**
- **NEVER try to get on or off with the vehicle in motion.**
- **Do not try to get into the machine with your hands full.**

- ALWAYS grip the handle firmly to get on and off the machine.

1.13 VENTILATION

DANGER

DISCHARGE GAS: exhaust fumes are fatally harmful.

- **It is very dangerous to breathe in exhaust gases.**

The machine must be used outdoors.
If working in a hole, tunnel or trench, take proper precautions to vent exhaust gases to the outside before starting the engine. In these places, the air tends to stagnate.

1.14 LIGHTING

The machine has been designed to work on construction sites and, in any case, does not have its own lighting.
If necessary, a work light is available (optional).

1.15 SAFETY MEASURES DURING USE OF THE MACHINE

Perform each manoeuvre respecting safety

- Perform all manoeuvres with great care.
- Operating the machine too abruptly can cause damage and significantly reduce its efficiency.
- Always keep in mind the rules that guarantee safety at work.
- Leave at the rear a sufficient safety distance between the machine and the obstacle. Operating the machine on foot, lift the platform, securing it to the appropriate hook.

Overload

Do not subject any cylinder to an excessive load, such as to cause the safety valve to open.
Such an overload causes an excessive rise in the oil temperature and consequent lowering of the useful life of the hydraulic components.

Solid support for maximum safety

If a particular situation leads you to use the machine on the side of a road or on a slope, first check the ground level and the balance of the machine to avoid possible slipping or overturning.

Machine operating limits

The machine must be operated on a flat surface; if moving material on sloping ground, ensure that the tracks are arranged in the direction of the slope and not transversely to it.

If it is necessary to work on soft, uneven or non-level ground, it is essential to pay the utmost attention to prevent the machine from tipping over.

Tipping

CAUTION

During tilting of the accessory, the centre of gravity of the machine moves; therefore, perform the operation on a stable and non-yielding surface.

1.16 SAFETY MEASURES WHILE DRIVING

Work manoeuvres

In normal (non-emergency) situations **ALWAYS** steer as slowly as possible.

Steering sharply or from a standstill can shorten the useful life of the machine and of the tracks. Transfer direction variations must be slow such as not to overload the drive wheels, especially on uneven and non-level terrain.

If an accessory is installed on arms (for example: box shovel or concrete shovel), it can limit visibility during manoeuvres.

During the manoeuvre, keep the interchangeable equipment raised 30 cm from the ground, unless expressly indicated in the equipment manual.

Transfer of the machine in special conditions

CAUTION

- **TRAVELLING IN REVERSE.** The operator must always be upstream of the load.
- **NEVER CAUSE blows to the tracks and to the machine.**
- **NEVER STEER on an incline or unstable ground. This can cause the machine to tip over.**
- **NEVER TRAVEL ACROSS a slope.** When operating on sloping ground, always work along directions (upstream or downstream) parallel to the slope.
- **Pay close attention when working on icy ground as the machine may tend to slip.**

If the ground is very bumpy or covered with stones or rocks, travel must be very slow.

Travel on slopes

Maximum slope permitted when empty	20° - 36%
Maximum slope permitted with load	11° - 20%

In the case of use of the machine on sloping terrain, travel the ascent in reverse by driving the machine from the ground.

Even minor roughness of the ground could cause the machine to jolt and even to tip over.

1.17 SAFETY MEASURES DURING LOADING AND TRANSPORTATION

Cautions for loading and unloading the machine

- **ALWAYS** perform loading and unloading manoeuvres on flat ground.
- **ALWAYS** use ramps that are sufficiently strong, wide, long and thick in relation to the vehicle.
- Remove ice, snow or slippery material from the ramps and loading surface of the truck before loading the machine.
- **NEVER** steer on ramps.

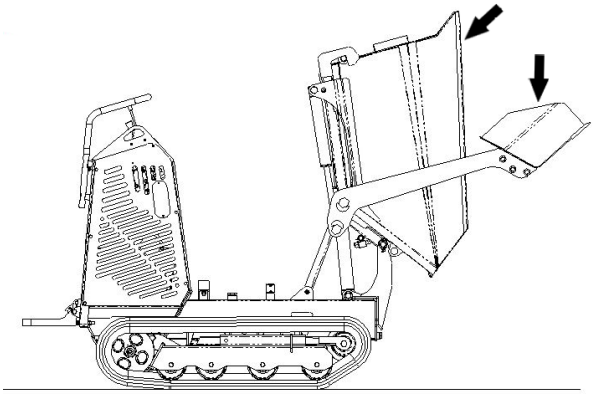
Transportation

- Attach the machine to the means of transport with cables and other locking devices.

1.18 EMERGENCY LOWERING ACCESSORIES

It is possible to release the residual pressure of the hydraulic system with the engine off or not working and return the accessories to the safety position if they are raised, using the dedicated control lever.

In the event that the sole use of the lever by the operator is not sufficient to bring the accessory back into position (for example due to a position with an unfavorable center of gravity), another operator will have to push the component towards the rest position in the first phase, always acting only on the upper part of the side walls of the box or shovel (see image).



1.19 PARKING

CAUTION

- Always **apply the parking brake** in case of parking on sloping ground or in the event of parking due to machine inactivity.
- Lock the tracks with **additional wedges** in case of lengthy parking on steep terrain.

Parking on banks and slopes

NEVER LEAVE the machine on or near a embankment that could sink, or on the edge of an excavation that could give way.

Move the machine away from these hazardous areas when it must remain inactive for a certain period of time. If possible, park the vehicle on flat ground.

Parking on roads

If it is necessary to park the vehicle on a road, it is essential to duly indicate the presence of the same with barriers, flags, light signs and signs.

Leaving of the vehicle by the driver

- **ALWAYS** turn off the engine before leaving the machine unattended or without any supervision.
- Check that the locking devices are in the correct position and the parking brake is engaged.

1.20 SAFETY MEASURES FOR MAINTENANCE

Maintenance operations can be risky if not performed with due precautions.

Personnel involved in maintenance operations **must understand the risks** and follow the appropriate safety procedures.

Before performing ANY maintenance or repair activity:

- always consult this instruction manual;
- stop the engine and insert the parking brake, in order to prevent any movement that could cause damage to the operator;
- lift the accessory and insert the appropriate **safety catch (A)**.

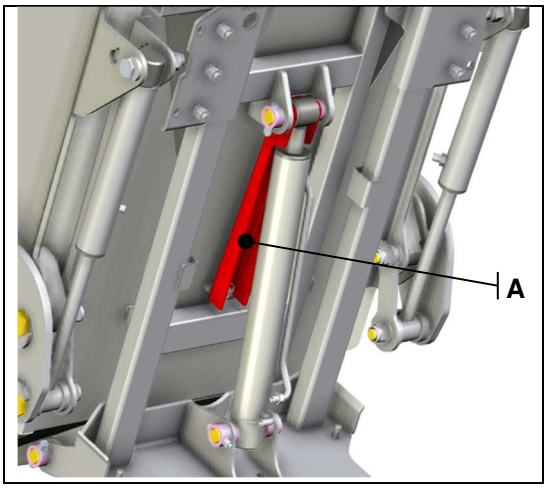


Figure 1-1: safety catch

ATTENTION

DO NOT PERFORM ANY OPERATION on the undercarriage with the accessory raised and not perfectly locked.

While performing maintenance work, the control levers must be labelled with a mark.

Labels can only be removed by personnel who are aware of the facts and who can ensure that everything has been done safely.

Cleaning the machine

Periodically cleaning the machine from dust and grease helps to keep it in an optimal operating condition.

Hydraulic pressure regulation

Qualified personnel can measure and adjust hydraulic pressure following the correct procedures and using appropriate instrumentation.

If you do not have qualified personnel, consult your local distributor.

Prevention of fire or explosion hazards

- Always leave fuel, lubricants and coolants away from possible sources of heat or fire. Many liquids are extremely flammable. Immediately dry any overflows.
- NEVER REFUEL and do not lubricate when the engine is running.
- NEVER SMOKE during refuelling operations or in places with flammable materials.

Electrolytic battery

CAUTION

ALWAYS wear goggles and protective gloves when working on the battery.

- **Do not touch the internal elements of the battery.**

Battery acid burns the skin and can cause blindness if it comes into contact with the eyes.

In case of contact with acid, rinse the skin with plenty of water.

To neutralise acid, apply sodium bicarbonate.

If acid should come into contact with the eyes, rinse well with water and immediately seek appropriate medical treatment.

When performing maintenance on the battery, remember that during the loading or unloading phases a very explosive mixture of hydrogen and oxygen is generated. **A flame or spark can ignite these gases.**

Hydraulic system

CAUTION

PRESSURISED HYDRAULIC LIQUID.
In case of contact with the pressurised hydraulic fluid, immediately seek medical intervention to avoid serious reactions or burns.

Before disconnecting a hydraulic line on the machine make sure that:

- the shovel , if present, is positioned on the ground;
- the tool-holder is in the raised position and the safety latch is inserted;
- the engine is switched off;
- the pressurised air is released from the hydraulic tank (by opening the loading cap);
- the control levers have been repeatedly moved such as to lower the pressure in the pistons.

Before restarting the engine, make sure that all the connections are tight and that all hoses and fittings are in a good condition.

2 GENERAL INFORMATION

INSTRUCTIONS ADDRESSED TO:

2.1 MACHINE MARKING

The machine is equipped with the following plate showing the general data of the machine.
Labelling data must be communicated for any requirement for assistance or spare parts.

Figure 2-1: Machine general data plate

Ref.	Description
1	Manufacturer's name and address and "CE" marking
2	Machine name
3	Serial number
4	Year of manufacture
5	Installed power
6	Machine weight

2.2 IDENTIFICATION PLATES OF THE MAIN ELEMENTS

The plates of components not built directly by **IMER INTERNATIONAL S.P.A.** are directly applied to the components themselves, at the points where the respective manufacturers originally placed them.

2.3 WARRANTY

IMER INTERNATIONAL S.P.A. guarantees that the machine and the equipment produced by it are free from defects in material and workmanship.

Operations that result in forfeiture of the warranty

Any attempt to disassemble, modify or tamper with a component of the machine by the User or by unauthorised personnel will void the warranty and will relieve **IMER INTERNATIONAL S.P.A.** from any liability for any damage to persons or property resulting from such tampering.

IMER INTERNATIONAL S.P.A. also considers itself relieved of any liability and forfeits the warranty relating to the machine in the following cases:

- unauthorised use of the machine (para. 5.2 on page 35);
- transport operations performed differently from those indicated in this Manual (chap. 3);
- total or partial non-compliance with the instructions in this manual;
- insufficient or improper maintenance;
- use of non-original or unspecified **IMER INTERNATIONAL S.P.A.** spare parts.
- for modifications and/or tampering with the machine;
- for repairs performed by personnel not authorised by the Manufacturer.

Parts excluded from warranty

Wear parts and all tools and consumables possibly supplied by **IMER INTERNATIONAL S.P.A.** together with the machine are excluded from the warranty.

The warranty does not include and does not cover faults and/or damage resulting from:

- failure to clean the machine as indicated in this Manual or incorrect cleaning such as the use of unsuitable and/or corrosive products;
- natural disasters;
- induced events such as fire, theft, vandalism, tampering, even if accidental.

2.4 MACHINE DESIGN: REFERENCE DIRECTIVES

In the design and construction of the machine, the appropriate criteria and precautions have been adopted to meet the essential safety requirements provided for by the applicable Directives.

The technical file has been prepared in accordance with the provisions of Annex VII of Directive 2006/42/EC and is available for verification by the supervisory bodies upon a reasoned request, as required by the relevant legislation in force.

The machine is therefore supplied with the **Instruction and warning manual.**

Compliance with the regulations has made it possible to eliminate or reduce risks in the best possible way throughout the life cycle of the machine.

2.5 OVERVIEW OF THE INSTRUCTION MANUAL

The manual has been prepared in accordance with the Directives in force at the time of drafting:

- Directive 2006/42/EC (Para. 1.7.4 of the Directive itself)
- EN IEC/IEEE 82079-1:2020 - Preparation of information for use (user instructions) of products – Part 1: Principles and general requirements

The manual has been prepared in order to provide operators and technicians involved in the maintenance of the machine with the essential information and instructions to operate correctly and in safe conditions.

Always refer to this manual before performing any operation.

2.5.1 Updates

The manual reflects the technique at the time of purchase of the machine; it contains the information and specifications in force on the current date of the edition.

The updates of the manual are indicated in the table "REVISIONS OF THE MANUAL" on page 3.

2.5.2 Drafting language

The manual has been prepared in the original language of the manufacturer.

Any translations into additional languages must be made starting from the instructions in the original language.

2.5.3 Manual recipients

This Manual is intended for operators and technicians so that they can become familiar with and use the machine correctly; to identify the recipients of the manual, refer to the "PERSONNEL QUALIFICATION" table on page 5.
This Manual is therefore addressed to the following professionals:

- personnel assigned to use;
- maintenance personnel;
- disassembly personnel.

It is necessary to read all the chapters carefully to understand the instructions provided in this manual and to operate the machine.

2.5.4 Abbreviations

Terms indicated in the abbreviated form can be used in the Manual; refer to the following table for their description.

Abbreviation	Description
Chap.	Chapter
Para.	Paragraph
Tab.	Table
Fig.	Figure
P.	Page
Ref.	Reference
Left(1)	Left side
Right(1)	Right side

Table 2-1: Abbreviations of terms used

(1) *Referring to the driver's side position – Para. 5.5 on page 36.*

2.6 IDENTIFICATION OF PICTOGRAMS

2.6.1 Pictograms used in the instruction manual

NOTE

Always comply with the signs and indications of the symbols indicated in this manual and operate exclusively according to the instructions provided.

Symbols are used in these instructions; to identify the description read their meaning indicated in the following table.

ATTENTION!	
	**GENERAL HAZARD.** Symbol used to identify important warnings for the safety of the operator and/or of the machine.
	**VOLTAGE HAZARD.** Any intervention that involves the removal of covers or panels on which this symbol is affixed must be performed exclusively by **qualified technicians**.
	**DANGER OF HOT SURFACES.** Any intervention that involves the removal of covers or panels on which this symbol is affixed must be performed exclusively by **qualified technicians**.
	**SUBSTANCE OR MIXTURE PRESENTING A HEALTH HAZARD** Inhalation may cause serious injury or death.

Table 2-2: Symbols and definitions used in the manual - ATTENTION

OBLIGATION	
	**GENERIC OBLIGATION.** Identifies the obligation on the part of the user for the description indicated.
	**READ THE INSTRUCTION MANUAL** Identifies the obligation on the part of the user for the description indicated.

Table 2-3: Symbols and definitions used in the manual - OBLIGATION

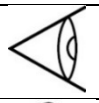
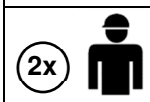
INFORMATION	
	**WEIGHT** Indicates the weight of an object that can be lifted or that is being lifted.
	**RECOVERY/RECYCLABLE** Indicates that the marked item or its material is part of a recovery or recycling process.
	**WEEE (Waste electrical and electronic equipment)** Indicates that the product must not be disposed of as unsorted waste but must be sent to separate collection facilities for the recovery and recycling of electrical and electronic equipment (DIRECTIVE 2012/19/EU).
	**VISUAL INSPECTION.** Indicates visual inspection by the operator.
	**MANUAL CLEANING.** Indicates manual cleaning.
	**TWO PERSONS.** The operations described must be performed by at least two persons.

Table 2-4: Symbols and definitions used in the manual – INFORMATION

2.6.2 Pictograms used on packaging

If present, always respect the signs and indications of the symbols indicated on the packaging and operate exclusively according to the instructions provided.

2.6.3 Terminology conventions - definitions

Technical terminology is used in the manual; the terms used are explained below:

TERM	DEFINITION
MANUFACTURER	Natural or legal person who designs and/or manufactures a machine.
OPERATOR	The person or persons assigned to installing, operating, adjusting, cleaning, repairing and moving a machine or to performing maintenance on it
DAMAGE	Physical injury or injury to the health of persons or damage to property or the environment.
DANGER	A potential source of injury or damage to health
HAZARDOUS AREA	Any area inside and/or near a machine in which the presence of a person constitutes a risk to the health and safety of said person
EXPOSED PERSON	Any person who is in whole or in part in a hazardous area.
SAFETY MEASURES	Safety information to increase the level of awareness and to provide a basis for training related to the safety of persons
WARNING MESSAGE	Safety information that warns users of hazards and provides instructions on how to avoid them
RISK	Combination of the probability and severity of an injury or damage to health that may occur in a hazardous situation.
USER INSTRUCTIONS	Information provided by the manufacturer to recipients on concepts, procedures and reference material for the safe, effective and efficient use of the supported product during its life cycle.
INTENDED USE	Use of the machine in accordance with the information provided in the user instructions.
REASONABLY FORESEEABLE MISUSE	Use of the machine in a way different from that indicated in the user instructions but which can result from easily predictable human behaviour.
LABEL	Element, attached to a product (if practicable) or to its packaging, which displays information relating to one or more characteristics of the product
PRODUCT SAFETY LABEL	Label placed on a product informing about one or more potential hazards and describing the safety precautions and/or actions required to avoid such hazard(s)
PERSONAL PROTECTION EQUIPMENT	Any special device or appliance designed to be worn or held by a person for their personal protection against one or more health and safety hazards
MAINTENANCE	Actions aimed at keeping a product or at returning it to a useful and safe condition, in which it is possible to perform the intended use

Table 2-5: Terminology conventions - definitions

3 MACHINE HANDLING

INSTRUCTIONS ADDRESSED TO:

PERSONAL PROTECTION EQUIPMENT

ATTENTION

Carefully read the SAFETY MEASURES indicated in chap. 1.

IMER INTERNATIONAL S.P.A. declines all responsibility for any damage to property and/or to persons resulting from improper interventions performed by unqualified, untrained or unauthorised personnel.

CAUTION

Check the load during the **LOADING**, **UNLOADING** and **HANDLING** operations of the machine.

DOUBLE POM

3.1 RECEIVING THE MACHINE

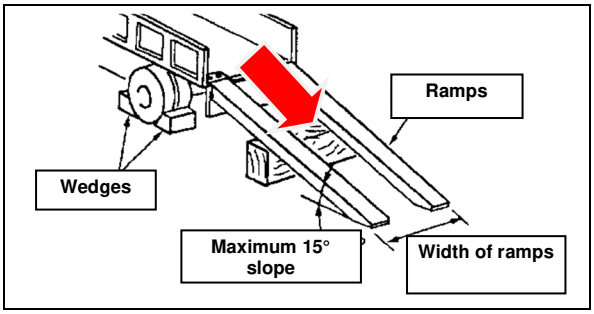
3.1.1 UNLOADING THE MACHINE

ATTENTION

- **Unload the machine, if possible, on level and stable ground.**
- **Use a ramp of sufficient length, width and thickness to support the weight of the machine.**
- **Before unloading the machine, clean the platform and the ramps from grease, oil, ice or other substances to avoid slipping on the loading ramps or sliding during transportation.**
- **Never operate at double speed when unloading the machine from a means of transport.**
- **Never change direction on loading ramps. If necessary, descend from ramps to change the direction of travel.**

To unload the machine, **ALWAYS** use the ramps and carefully follow this procedure.

- Lock the truck wheels.
- Ensure the stability of the ramps.
- Position the machine so that it is in front and with the tracks parallel to the loading ramps. Do not use any levers, excluding transfer levers, when the machine is on the loading ramps.



- Keep the centre of gravity of the machine within the area of the loading ramps.

3.2 LIFTING PROCEDURES

DANGER

DANGER OF LOAD INSTABILITY.
During handling, make sure that there are no unauthorised personnel near the area where the lifting and handling of the load takes place.
Always keep a safe distance.

On the machine there are 4 **coupling points (1)** indicated by dedicated **labels (2)**.

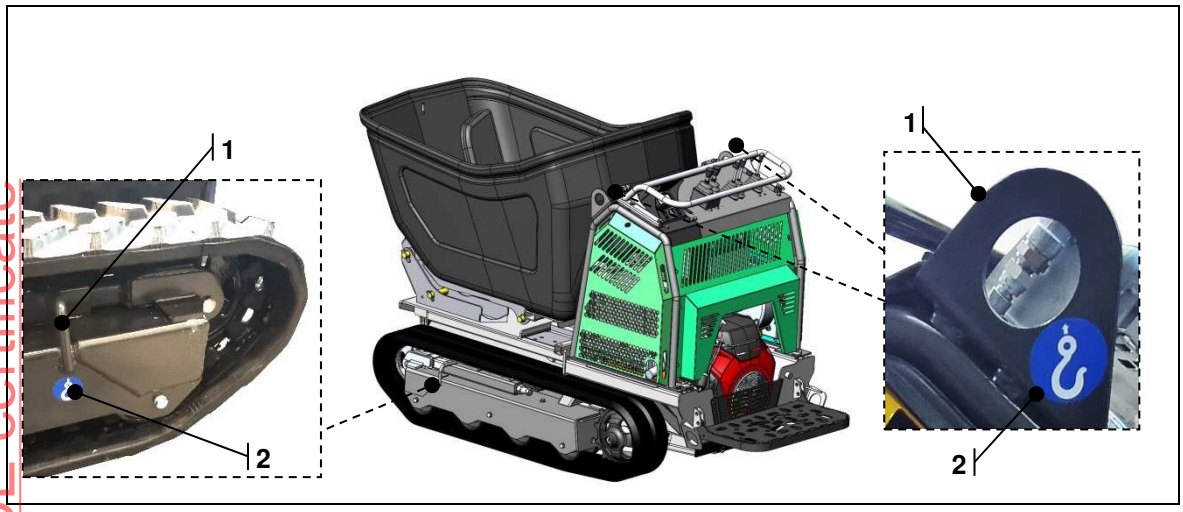


Figure 3-1: Identification of the attachment points

- Position the machine at ground level with the accessory unloaded and in a lowered position (if present, the self-loading shovel must be raised). Stop the engine.
- Connect the lifting slings to the 4 points by means of 4 shackles of adequate capacity.

NOTE

Refer to the weight (kg) indicated on the data plate affixed to the machine.

- Attach the slings to the hook of the lifting device.

NOTE

Check that there are no obstacles or persons around the machine.

- Lift the machine off the ground by a few centimetres and check that it is well balanced.

Figure 3-2: Harnessing example

3.3 UNPACKING

NOTE

All packaging materials used (if any) are recyclable and must be disposed of in accordance with the laws in force regarding **DISPOSAL AND RECYCLING** dictated in the country where the machine is being used.

3.4 DOCUMENTATION SUPPLIED WITH THE MACHINE

The documentation supplied with the machine is located in the technical compartment on the left side.

- Remove the **side panel (1)** using the supplied wrench.
- Open the cap of the **document holder (2)** and read the documentation supplied with the machine.

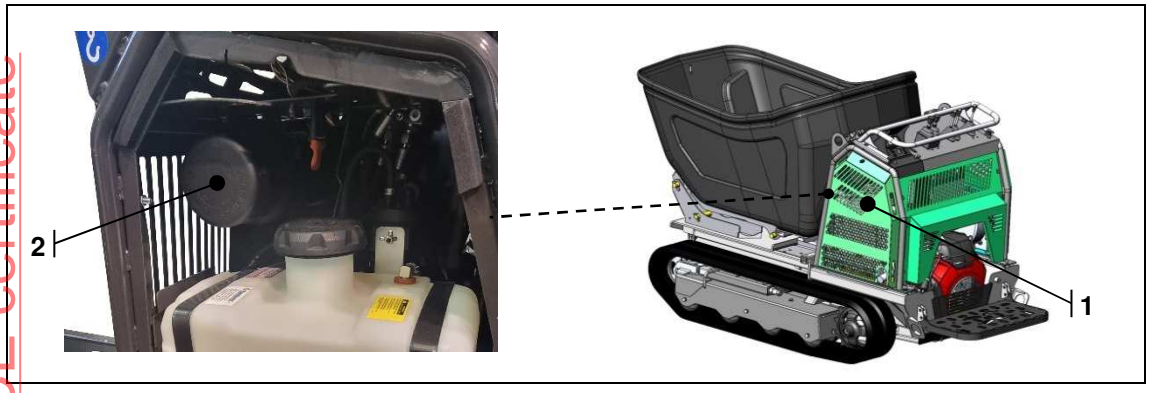


Figure 3-3: Document holder compartment

- For future reference, keep this manual and any other type of document in the appropriate **document holder (2)** to keep them in a good condition and protected from dust and atmospheric agents.

3.5 TRANSPORTING OF THE MACHINE TO ANOTHER SITE

In the case of transportation to another processing site, observe the following operations.

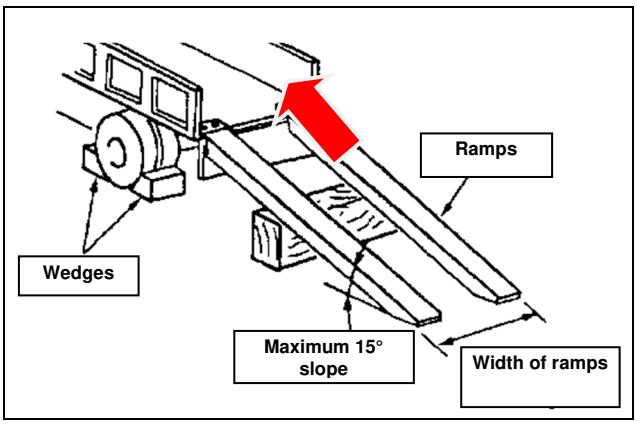
- Protect the machine and any transport accessories.
- Turn off the engine.
- Fix the tracks in place and secure the machine to the truck structure with steel chains or cables.
- Lift as described in para. 3.2 on page 22.

Loading the machine on the means of transport

ATTENTION

Refer to the general warnings on unloading indicated in para. 3.1 on page 22.

- Load the machine on the means of transport and operate in reverse to the operations described in para. 3.1.



4 TECHNICAL DESCRIPTION

INSTRUCTIONS ADDRESSED TO:

4.1 GENERAL TECHNICAL DATA

4.1.1 General machine performance

Advancement speed (*)	km/h	8 km/h (forward) 4 km/h (reverse)
Max. possible slope	% ° (degree of inclination)	34% 20°
Max. gradient that can be travelled with load	% ° (degree of inclination)	20% 11°
Capacity	kg	1000
Ground pressure	kg / cm^2	0.57
Operating temperature range	°C	-20 / +46

4.1.2 Machine weight (basic version + accessories)

The **machine weight** is determined by the weight of the basic version machine plus the weight of the assembled accessory.

Machine (base)	**kg**	**660**
Box / Box with self-loading shovel	kg	140 / 210
Trilateral platform	kg	240
Concrete mixing kit / Concrete mixing with shovel kit	kg	178 / 278
Fixed PVC box	kg	160
Rotating PVC box	kg	230

4.1.3 Drive

PETROL		**ENGINE**
Model		Honda GX800IRH
Displacement	Cc	784
Power	kW (HP)	18.6 (24.9)
Revolutions per minute	rpm	3600

4.1.4 Noise level

		PETROL
Guaranteed sound power level	LwA	101 dB
Sound pressure level at the operator's ear	LpA	85 dB

4.1.5 Hydraulic system

	PRESSURE	
	Mpa	**Kgf/cm²**
Pump P1-P2	21.5	220
Shovel	16.7	170
Tipping	16.7	170

AUX. POWER TAKE-OFF	PRESSURE		
	Mpa	**Kgf/cm²**	**Litres/min**
MAX pressure	14.7	170	-
MAX flow rate	-	-	26

4.2 MACHINE TECHNICAL CHARACTERISTICS

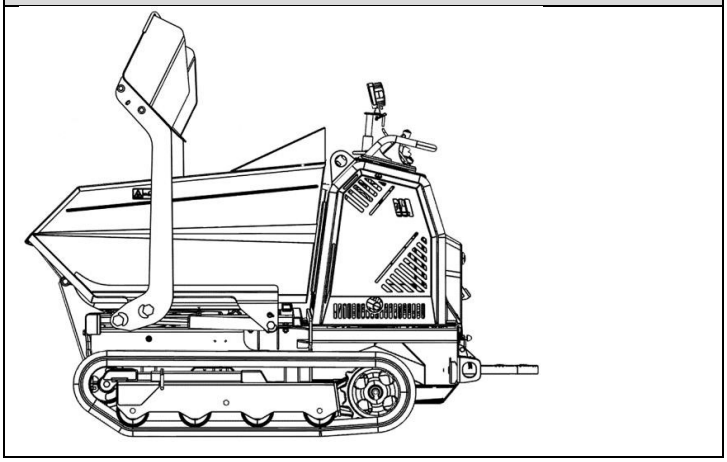
Description		Rubber tracks	
Track width		mm	200
Track length		mm	1450
Machine width		mm	900
Machine height at controls		mm	1300
Barycentric rotation radius		mm	950
Minimum ground clearance		mm	160
Box: Volume		m^3	0.42
Trilateral Loading Platform (Opt) (length x width x height)		mm	1300 x 970 x 300
Concrete mixing kit (Optional)	Tank Capacity/Yield Capacity	litres	350 / 280
Fixed PVC box	Tank Capacity	m^3	0.45
Rotating PVC box	Tank Capacity	m^3	0.45

4.3 CONCRETE MIXING KIT SPECIFICATIONS

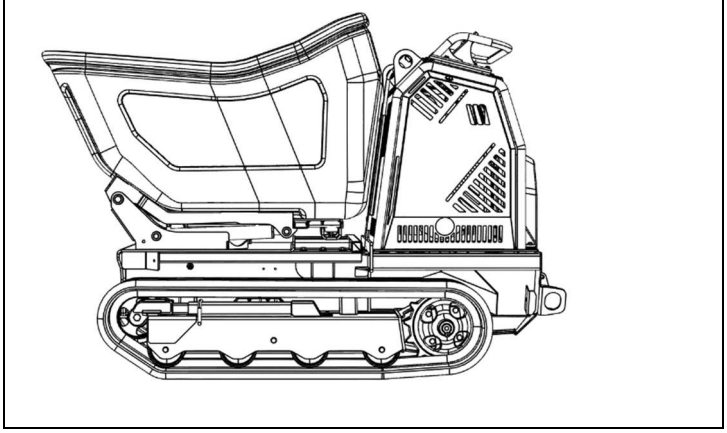
Mixture tank capacity	Litres	350
Yield capacity	Litres	280
Optimal tank revolutions	Rpm	24 - 25
Required hydraulic capacity	Litres / minute	12 - 14
Pressure	bar	150

4.4 MACHINE AND ACCESSORIES

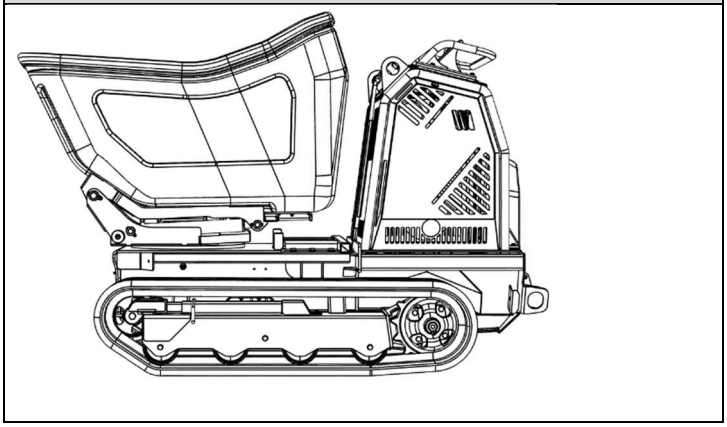
BOX + SHOVEL



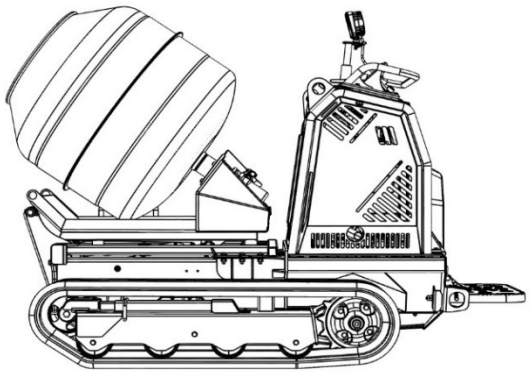
FIXED PLASTIC BOX



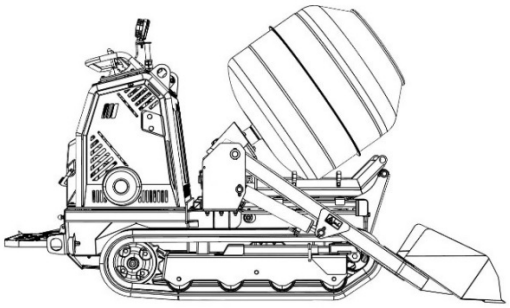
ROTATING PLASTIC BOX



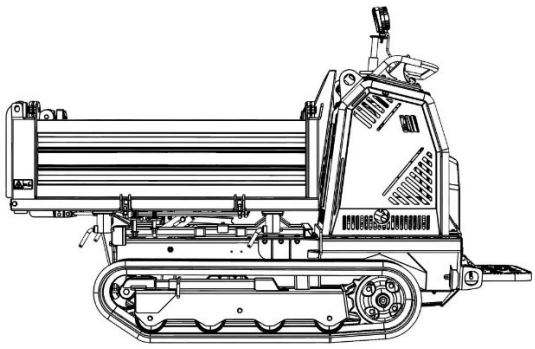
CONCRETE MIXER



CONCRETE MIXER + SHOVEL



TRILATERAL PLATFORM



4.5 GENERAL MACHINE DESCRIPTION

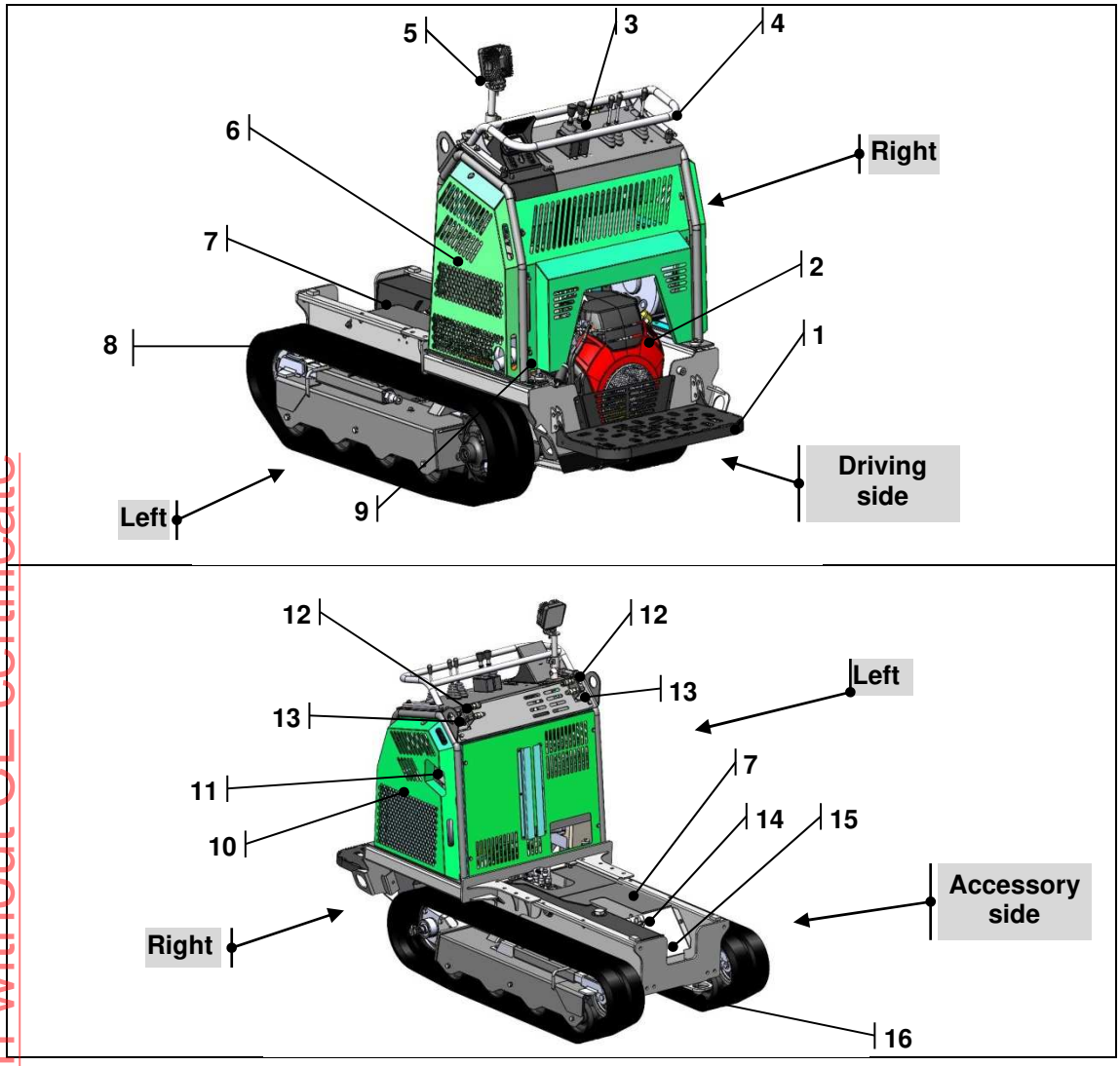


Figure 4-1: Identification of the main machine components

Ref.	Description
1	Folding platform
2	Engine access technical compartment
3	Operator controls
4	Operator handle
5	Light beacon (optional, if present)
6	Left side technical compartment (fuel tank and document holder)
7	Accessory assembly platform
8	Tracks
9	Exhaust terminal
10	Right side technical compartment
11	Additional auxiliary connection (aux 1) – if present
12	Auxiliary connections hydraulic pump 1 (AUX 2)
13	Auxiliary connections hydraulic pump 2 (AUX 3)
14	Hydraulic pump compartment
15	Hydraulic oil tank
16	Fixing hook

4.5.1 Platform

The platform (**1**) is non-slip and hinged to the guide frame.

A damping system reduces vibrations transmitted to the lower limbs. For the safety of the operator, the platform is equipped with a locking system (with spring retention) that prevents accidental closure.

For the use of the platform, refer to para. 5.12 on page 43.

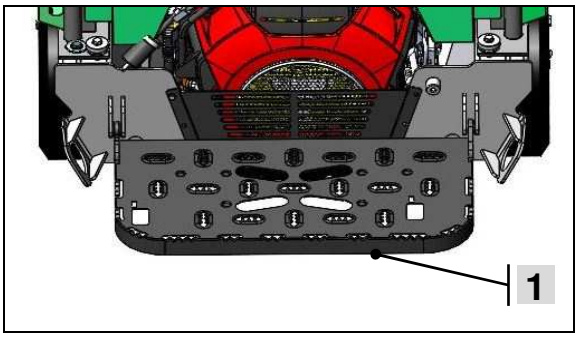


Figure 4-2: Platform

4.5.2 Engine compartment

Access to the inside of the engine compartment (**2**) is protected by the panel (**2.1**) equipped with a key lock. It contains: the engine (**2.2**) and the rod (**3.3**).

For further information on the engine, refer to the relevant instruction manual provided in the annex.

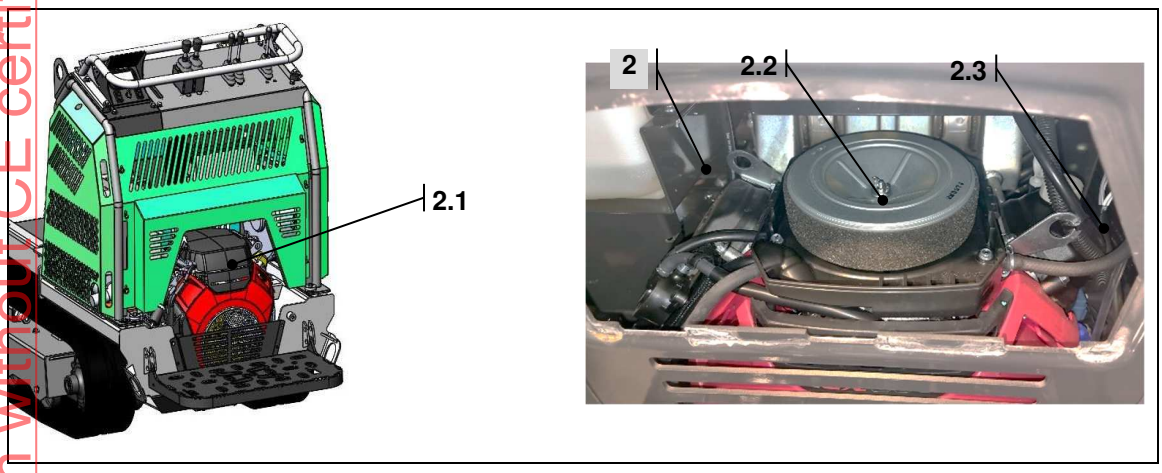


Figure 4-3: Engine compartment

4.5.3 Operator controls

The operator panel (**3**) consists of the following controls:

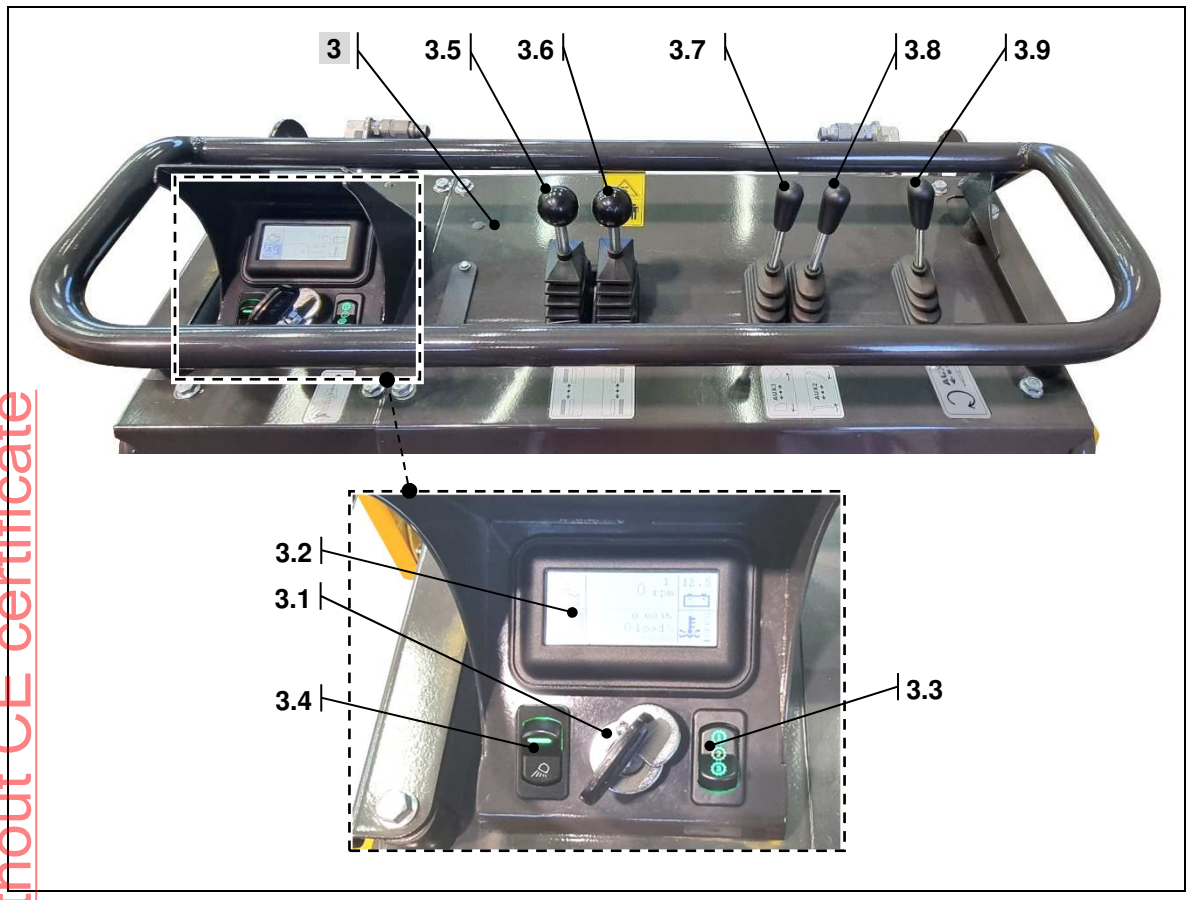


Figure 4-4: Identification of operator controls

Ref.	Description
3.1	Machine start/stop switch (ON/OFF)
3.2	Digital touchscreen display
3.3	Engine speed 3 selector: 1 slow / 2 medium / 3 fast
3.4	Headlight on / off switch (if present)
3.5	Turn the machine to the right
3.6	Turn the machine to the left
3.7	Box tilting lever
3.8	Shovel manoeuvring lever (raise and lower)
3.9	Auxiliary hydraulic force operating lever (if connected to AUX 3 socket)

4.5.4 Operator handle

The handle (**4**) ensures stability for the operator during driving and when climbing onto/descending from the platform.

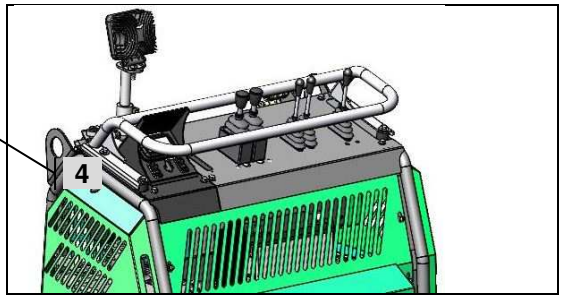


Figure 4-5: Operator handle

4.5.5 Light beacon

Optional, if any.

The **LED headlight (5)** allows lighting of the work area in conditions of night-time or poor visibility.

For the use of the headlight, refer to para. 5.10 on page 41.

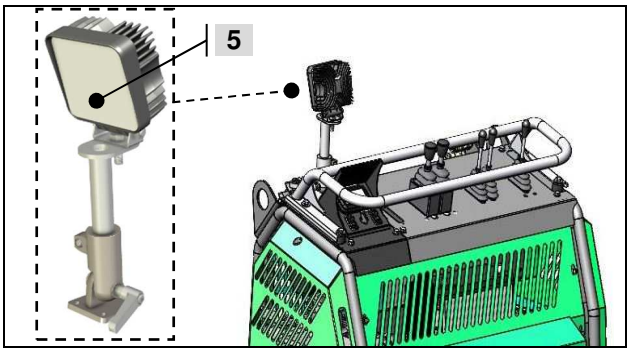


Figure 4-6: Light beacon

4.5.6 Left side technical compartment

Access to the technical compartment (**6**) is protected by the panel equipped with a key lock.
Through the slot (**A**) on the panel it is possible to check the fuel level inside the tank (**6.2**). The documents supplied with the machine are kept in the compartment (**6.1**).

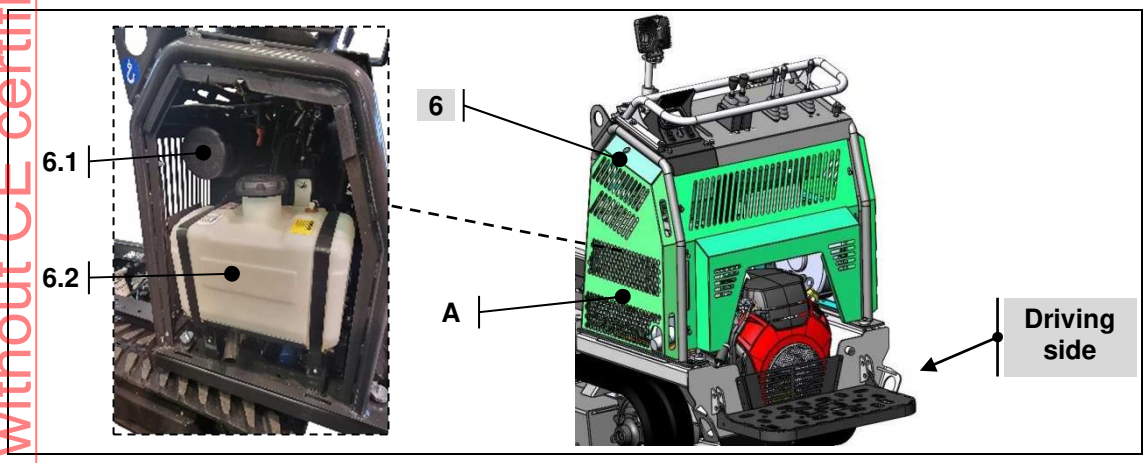


Figure 4-7: Left side technical compartment

4.5.7 Platform

The accessories used for use of the machine must be installed on the platform (7).

For further information on the accessories, refer to para. 4.4 on page 27.

For further information on the use of accessories, refer to para. 5.16 on page 48.

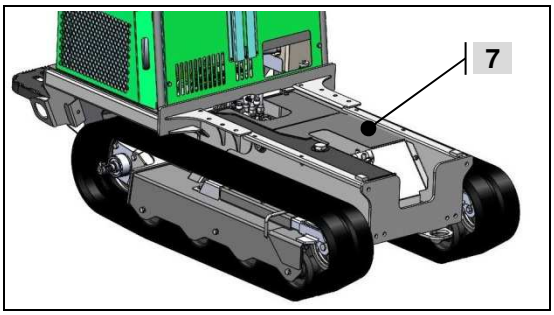


Figure 4-8: Platform

4.5.8 Right side technical compartment

Access to the technical compartment (**10**) is protected by the panel equipped with a key lock.

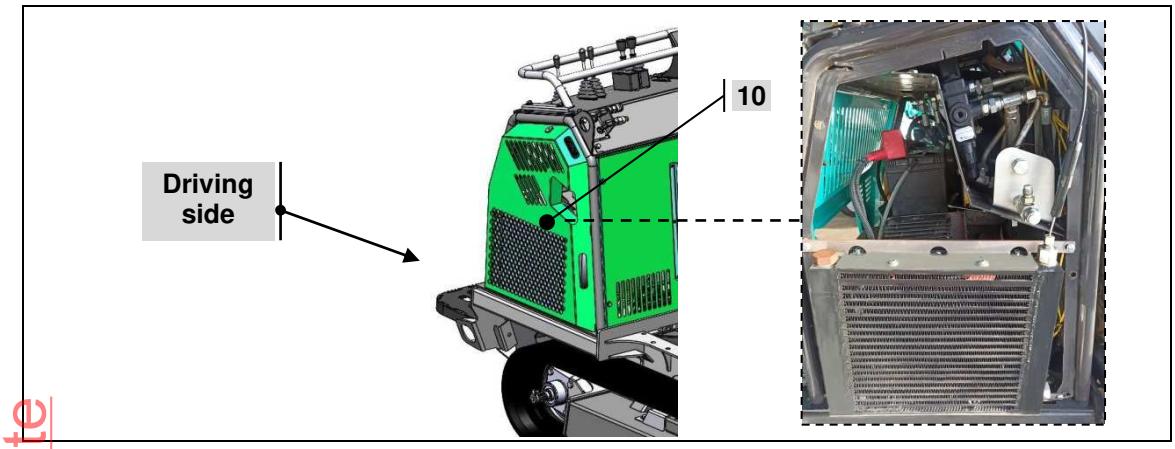


Figure 4-9: Right side technical compartment

4.5.9 Auxiliary connections

The installation of auxiliary accessories (ref. para. 4.4 on page 27) is used to complete the various uses of the machine.

For operation, the accessories must be connected to the hydraulic system (**11**, **12**, **13**) and operated through the relative levers on the control panel.

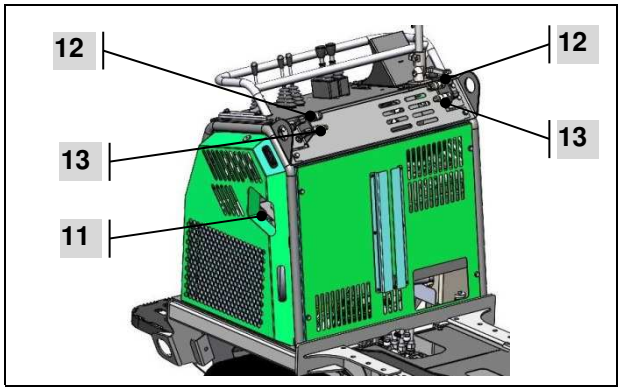


Figure 4-10: Auxiliary connections

Ref.	Description
11	Additional auxiliary connection (aux 1) – if present
12	Auxiliary connections hydraulic pump 1 (AUX 2)
13	Auxiliary connections hydraulic pump 2 (AUX 3)

The machine is equipped with a double pump;

Below is an example of the connection of the auxiliary lines to the hydraulic couplings.

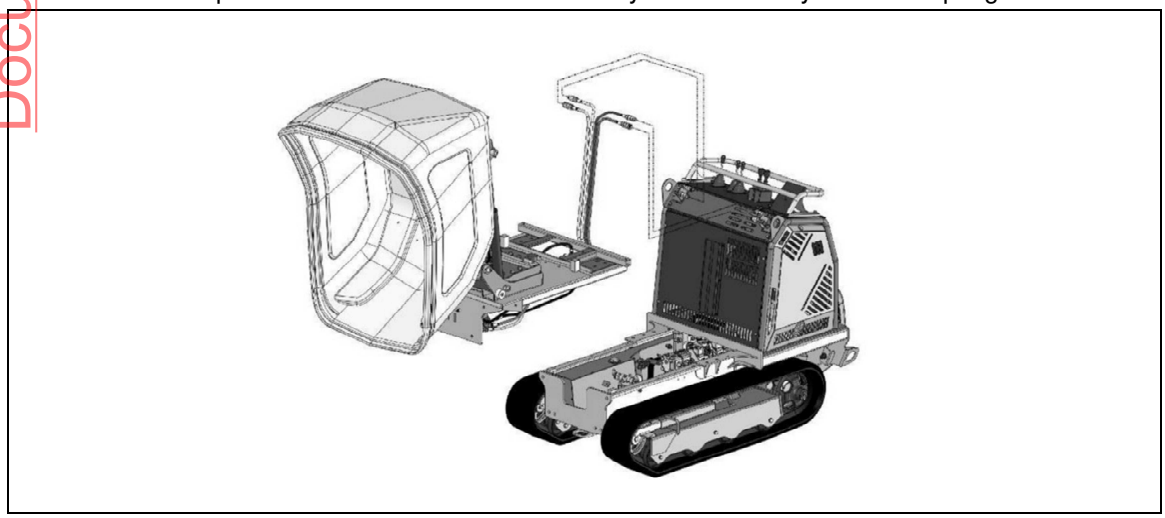
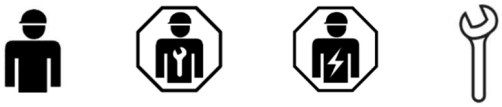


Figure 4-11: Auxiliary connections

5 USER INSTRUCTIONS

INSTRUCTIONS ADDRESSED TO:



PERSONAL PROTECTION EQUIPMENT.

DANGER

DO NOT LEAVE THE MACHINE UNATTENDED WHILE IT IS RUNNING.

- **Turn off the engine when the machine is not being used.**
- **Remove the start key from the dashboard when the machine is left unattended.**

ATTENTION

Carefully read the SAFETY MEASURES indicated in chap. 1.

ATTENTION

Any use of the machine other than that described in this manual is prohibited.

IMER INTERNATIONAL S.P.A. is not liable for damage to property, persons and animals caused by accidents due to failure to comply with the instructions in this manual.

5.1 MANUFACTURER'S INTENDED USE

The machine is designed to be used by a single operator.

TRACKER 1624 is a self-propelled tracked machine equipped in the standard version with box and shovel; it has been designed and built for the self-loading, transportation and unloading operations of earth, sand, excavation debris and other loose materials within the limits of use described in the technical characteristics. The functions of the machine may vary depending on the specific accessory installed and are described in the relevant paragraph in this manual.

The machine can only be used by operators and maintenance technicians trained for the purpose and equipped with suitable personal protection equipment (para. 1.4 on page 10).

The machine is intended:

- for professional and industrial use;
- to be used exclusively by authorised personnel, of legal age (according to the provisions and legislation of the country of use) and in a suitable state of health to operate the machine.

Use of the machine for operations other than those indicated in this Manual are considered ***non-permitted uses*** for which the Manufacturer is not responsible (Para. 5.2).

5.2 UNAUTHORISED USE

Any use of the machine other than that described in this manual is prohibited.

Removal of or tampering with the safety devices may be a source of danger to the safety of the operator and of the machine.

DANGER

TAMPERING WITH OR THE REMOVAL OF SAFETY PROTECTIONS IS PROHIBITED.

For illustrative purposes only, some instructions may be accompanied by images with the components open or disassembled.

DANGER

IT IS FORBIDDEN TO USE THE MACHINE IN THESE CONDITIONS.

The machine must not be used:

- by personnel who do not possess (even temporarily) the mental and physical suitability requirements to perform the operations indicated in this manual;
- by personnel not of legal age (as required by the laws in force in the country of installation of the machine);
- integrating other systems and/or equipment not considered by the manufacturer;
- using the machine with the external protections tampered with or removed.

5.3 REASONABLY FORESEEABLE MISUSE

It is not possible to use the machine in one or more of the following conditions:

- other than the use envisaged by the manufacturer;
- working with the protections open;
- making changes to the machine;
- making changes to the safety devices;
- using materials and tools other than those envisaged by **IMER INTERNATIONAL S.P.A.**

Any modification not authorised by **IMER INTERNATIONAL S.P.A.** that alters its intended functions, modifying the risks and/or generating additional ones, will be the full responsibility of those persons that perform such alterations.

Any use of the machine other than that envisaged must be authorised in advance in writing by **IMER INTERNATIONAL S.P.A.**
In the absence of such written authorisation, use is to be considered "**UNAUTHORISED USE**"; therefore, **IMER INTERNATIONAL S.P.A.** declines all responsibility in relation to any damage caused to property or persons and considers any type of warranty on the supply to be void.

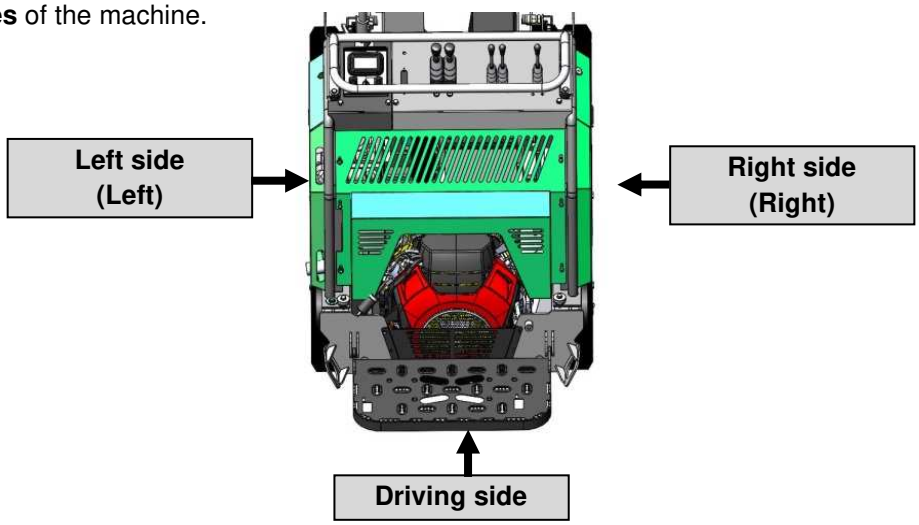
5.4 PREPARATION FOR OPERATION

ATTENTION

The operator must be instructed in the correct operation of the machine and in the safety conditions contained in this Manual.

5.5 OPERATOR WORK POSITION – DRIVING SIDE

The operator's work position refers to the **driving side** and constitutes the area in which there is reference to the **right** and **left sides** of the machine.



Operator position for operating the machine

- ***On the platform***: open the platform (**1** – ref. para. 5.12) and position yourself on top in an upright position.
- ***From the ground***: with the platform (**1**) closed and set the speed selector (ref. **3.3**, para. 4.5.3) in 1-slow or 2-medium position (max 2400 rpm).

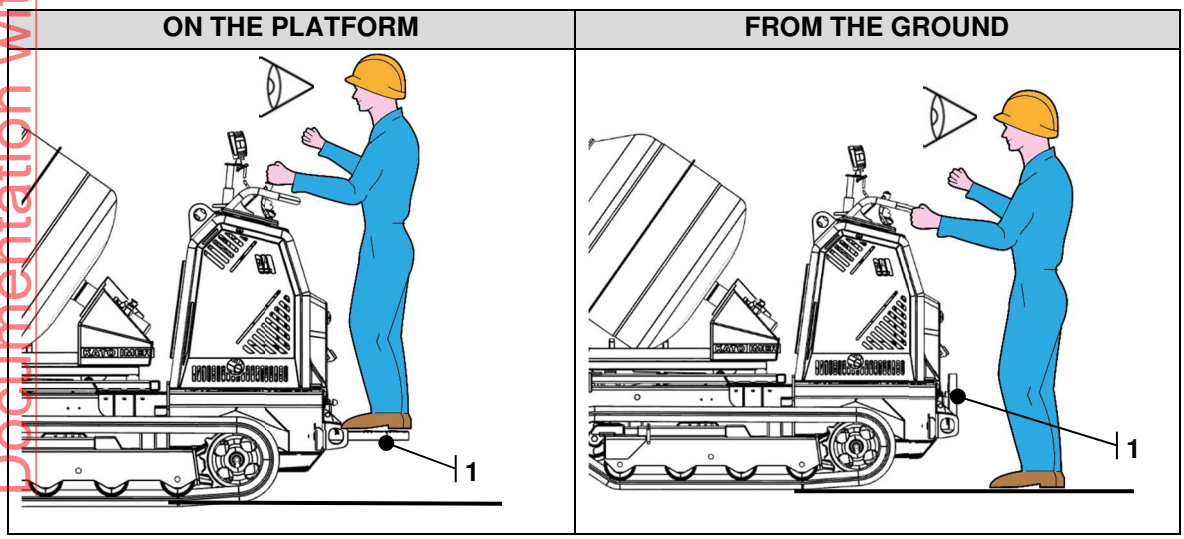


Figure 5-1: Operator work position

5.6 ZONES ACCESSIBLE TO THE OPERATOR

They constitute the areas where the operator can access for the activities to be performed on the machine.

B1 **Radiator compartment**: access by removing the right side door.

B2 **Engine compartment**: access by removing the driver's side door.

B3 **Fuel tank compartment**: access by removing the left side door.

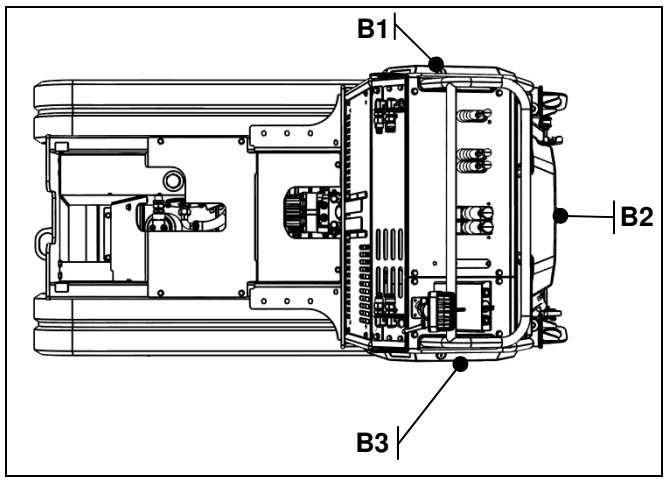


Figure 5-2: Accessible areas

5.7 USE OF THE ENDOTHERMIC ENGINE

5.7.1 Checks before starting the engine

Check the levels of:

- hydraulic oil,
- engine oil,
- fuel.

For the control methods, refer to what is reported in the "Daily controls" section of this manual.

This section contains the basic manoeuvres for start-up.

However, it is necessary to learn more about the procedures described by consulting the engine manufacturer's manual which accompanies the machine and which is contained in the appropriate compartment.

5.8 STARTING THE ENGINE

CAUTION

Always check the machine while driving.

5.8.1 Main switch

Ref.	Description
OFF	Turns off the machine
ON	Turns on the machine; the controls are activated.
START	Starts the engine

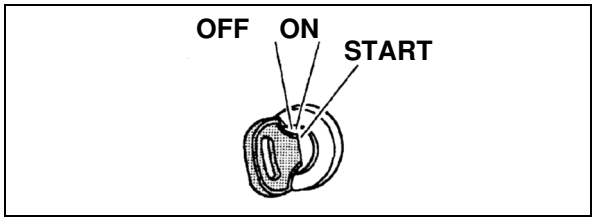
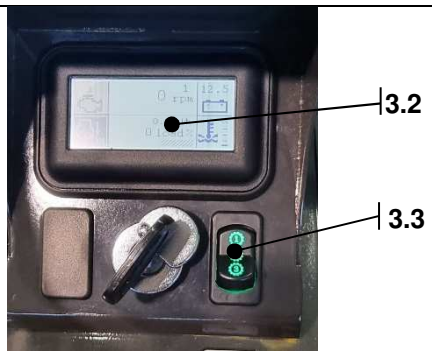


Figure 5-3: Main switch

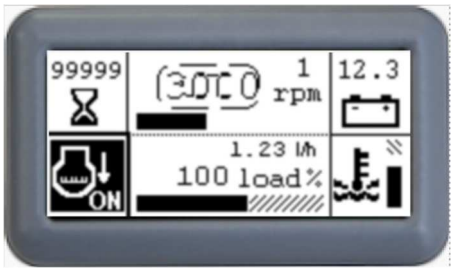
5.8.2 Turning on the machine

- Turn the key of the main switch to "ON".
- The **display (3.2)** and the **speed selector (3.3)**turn on.

The display shows the home page for a few seconds.
Then it displays the main page.
For management of the controls via display, refer to para. 5.9.



Home page



Main page

5.8.3 Machine preheating

As with all the hydraulic systems, it is very important that the hydraulic oil is heated to the correct temperature before starting work.

The time necessary for preheating can be suitably used for some simple maintenance control operations.

Before performing manoeuvres at full load, allow the engine to warm up slowly **at low rpm for 5 minutes** until the engine oil reaches the temperature of 30°. The engine remains in the **WARM UP**condition, during which it cannot reach the maximum number of revolutions.

5.9 USE OF THE MANAGEMENT AND CONTROL PANEL

5.9.1 Entering the password

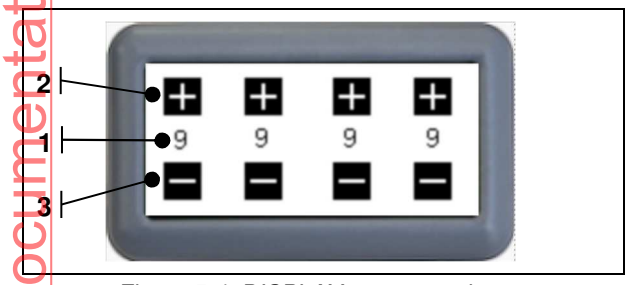


Figure 5-4: DISPLAY – password page

If active, this page appears when starting up after the machine is switched on or after the system is on standby.

Entering the password blocks all display functionality and forces the engine speed to a minimum.

- Change the value (**1**) by pressing the keys (**2**) and (**3**).

5.9.2 Home page

Figure 5-5: DISPLAY – Home Page

This page appears automatically when the machine is switched on and remains visible for a few seconds.

1	**Manufacturer's logo**
2	**Code and firmware revision**

5.9.3 Main page

This page is displayed automatically following the home page.

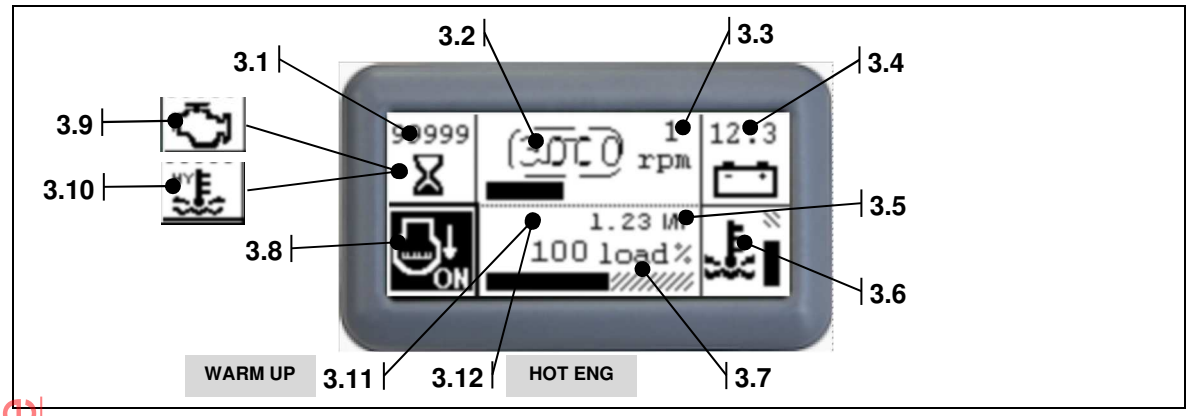


Figure 5-6: DISPLAY – Main page

Ref.	Description
3.1	**Indicator of the working hours of the machine together with the hourglass symbol**
3.2	**Number of engine revolutions (rpm)**
3.3	**Indication of the chosen speed of the speed selector (ref. 3.3 para. 5.8.2)**
3.4	**Battery voltage (Volts)**
3.5	**Consumption in l/h or GPH**
3.6	**Engine oil temperature**
3.7	**Engine load**
3.8	**AUTOIDLE function activated or not and relative activation key**
3.9	**Engine alarm.** Check the cause that generated the alarm and remedy it.
3.10	**Hydraulic oil in overtemperature.** In this situation the engine does not reach maximum speed. *Check the cleanliness of the oil cooler and the correct operation of the cooling fan.*
3.11	**WARM UP: the machine is cold, that is, the engine oil temperature is <30°C (86°F).** In this situation the engine does not reach maximum speed.
3.12	**HOT ENG the engine oil has reached a temperature above 130°C (266°F).** Cool the engine; in this situation the number of engine revolutions does not reach the maximum normally permitted.

5.9.4 Setting the number of engine revolutions

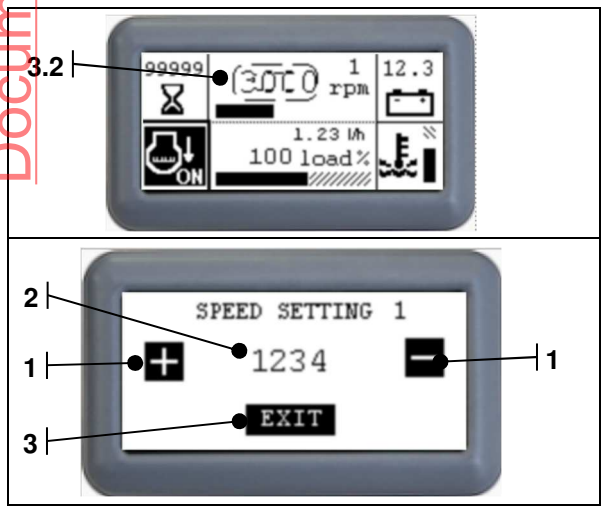


Figure 5-7: DISPLAY – Speed setting

- Press on the **number of revolutions (3.2)**; the setting page is accessed.
- Press the keys (**1**); the displayed value (**2**) increases (+) or decreases (-) at intervals of 50 rpm.
- Press key (**3**) to exit and to return to the main page.

5.9.5 Autoidle Function

The Autoidle system works on the basis of the detection of the load to which the engine is subjected; in the case of operations that involve a low load on the engine, the system may not intervene in a completely correct manner.

ATTENTION

If a control is operated while the autoidle is active and the number of engine revolutions has been reduced, the number of revolutions and consequently the operating speed change suddenly and there is a serious risk of accidents.

- Disable the autoidle during operations that may cause dangerous accidents in the event of a sudden change in operating speed, such as **loading or unloading the machine**.

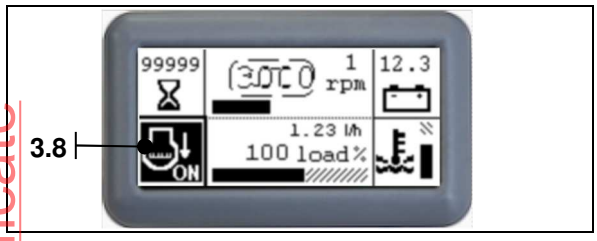


Figure 5-8: DISPLAY – Autoidle

When Autoidle mode (**3.8**) is activated, the number of engine revolutions automatically switches to idle to reduce fuel consumption approximately 5 seconds after the controls have been returned to the neutral position.

The previous number of engine revolutions is restored by moving any control again.

5.9.6 Minimum oil level alarm

Figure 5-9: DISPLAY – Minimum oil level alarm

It appears when the engine oil is at the minimum level.

- Turn the key of the main switch to the "OFF" position.

DANGER

Burns from contact with hot surfaces.

- Wait for the engine to cool down.
- Open the engine compartment door.
- Top up the oil in the tank in the engine sump. *Refer to the engine instruction booklet for engine oil quantity and type.*
- Check through the appropriate rod (**A**) of the engine that the oil level has returned to the indicated level (MAX).
- At the end of the operation, lock the door.

5.9.7 Anomalies shown on the display

Number of flashes	Anomaly / fault	Possible anomaly
Constant access	Oil alarm	Wiring fault or insufficient oil
1x	Battery voltage problem	Regulator fault or excessive electrical load
2x	Throttle anomaly	Wiring anomaly or blocked throttle valve
3x	Throttle 1 opening sensor anomaly	Wiring anomaly or sensor fault
4x	Throttle 2 opening sensor anomaly	Wiring anomaly or sensor fault
5x	Throttle opening sensor error	Wiring anomaly or sensor fault
6x	External temperature sensor detection error	Wiring anomaly or sensor fault
7x	Engine temperature sensor anomaly	Wiring anomaly or sensor fault
8x	Atmospheric pressure/intake manifold pressure sensor anomaly	Wiring anomaly or sensor fault
9x	Control unit error	EEPROM error or CAN communication error

Table 5-1: DISPLAY - Anomalies shown on the display

5.10 USE OF THE HEADLIGHT

The **LED headlight (5)** (optional) allows lighting of the work area in conditions of night-time or poor visibility.

- Switch the headlight on / off using the switch (**3.9**) on the control panel.
- Adjust the position of the headlight using the handle (**5.1**).

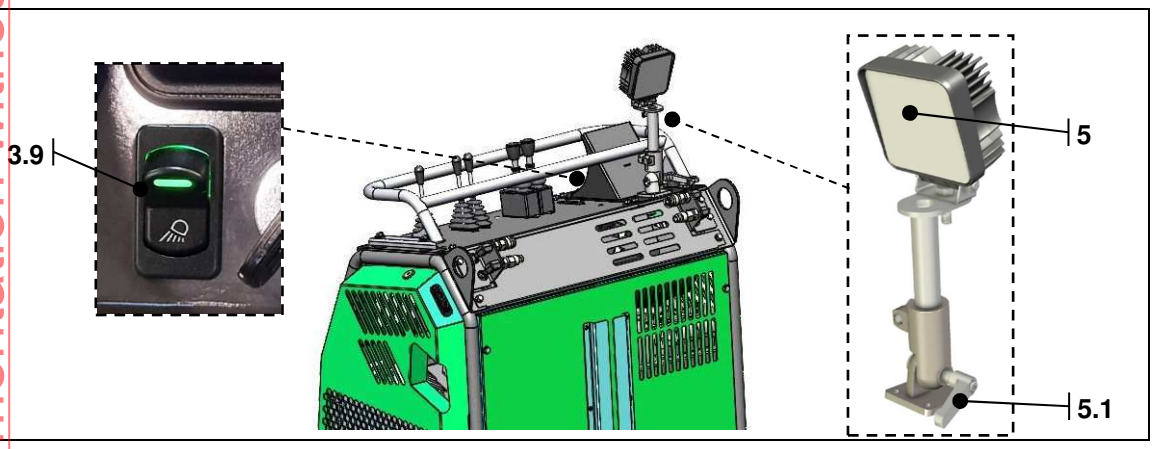


Figure 5-10: Light beacon

5.11 FUEL TANK FILLING

ATTENTION

- **Never refuel with the engine running.**
- **DO NOT SMOKE during refuelling operations.**
- **Fuel dispersed on hot surfaces may cause fire.**
- **DO NOT INHALE fuel vapours. Refuel outdoors or in well-ventilated places.**

ATTENTION

- **Always use clean containers for fuel containment.**
- **Use fuels free from water pollution.**
- **Be careful when filling the tank in the event of rain.**
- **Fill the tank to the top level.**

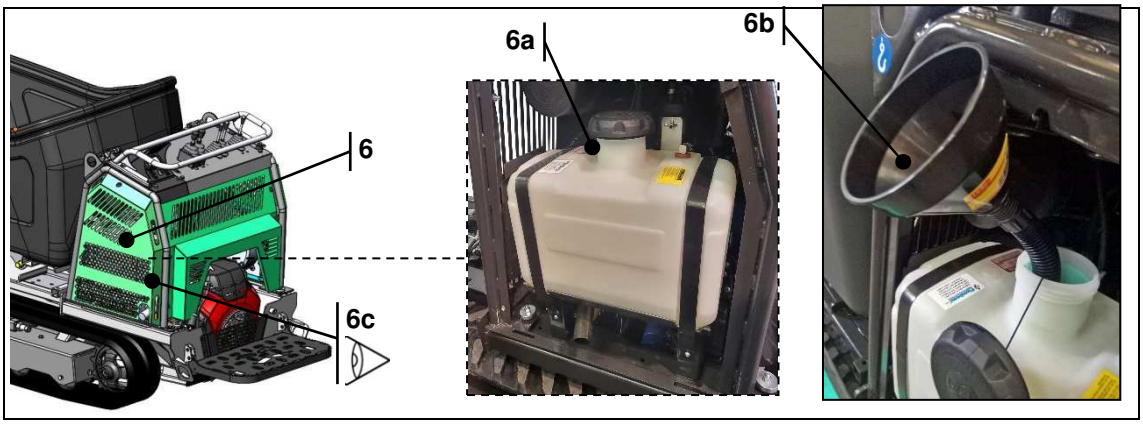


Figure 5-11: Fuel tank

Refuelling.

- Remove the side door (**6**) with the dedicated key.
- Remove the cap (**6a**) above the tank.
- Use the funnel (**6b**) supplied and add the necessary fuel.
- At the end of the operation, close the tank with the cap, fit the removed door and lock with the key.

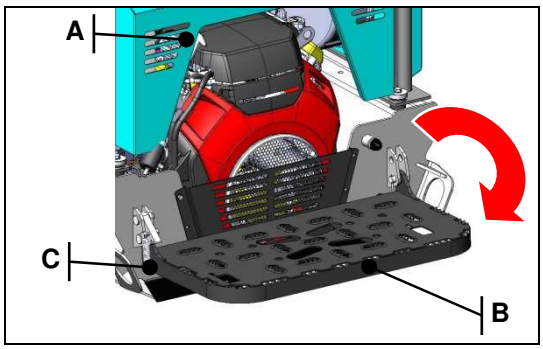
Fuel quantity control.

- Check the quantity of fuel through the clear viewer of the tank that can be seen through the slot (**6c**) on the door.

5.12 USE OF THE PLATFORM

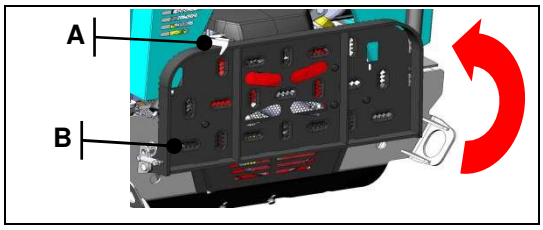
Open position: allows the operator to drive on board the machine.

- Raise the **platform stop bracket (A)**.
- Lower the **platform (B)**.
- Lower the platform locking **latch (C)** .



Closed position: allows the operator to drive the machine from the ground.

- Raise the **latch (C)**.
- Raise the **platform (B)**.
- Lower the **platform stop bracket (A)**.



For the operator's work position when operating the machine, refer to para. 5.5 on page 36.

5.13 Transfer speed

ATTENTION

- **Do not change the transfer speed on sloping terrain.**
- **Never use high speed on slopes or while loading and unloading the machine from the means of transport.**

	**Movement at low speed.** Set the selector to "1".	***Use low speed:*** • on uneven ground, • on soft surfaces, • during loading and unloading of the machine on the means of transport, during travel on sloping terrain.
	**Movement at medium speed.** Set the selector to "2".	***Use average speed:*** • on uneven terrain, on soft surfaces and during loading and unloading of the machine on the means of transport or during travel on sloping terrain.
	**High speed movement.** Set the selector to "3".	***Using high speed:*** • for movement on flat, hard and uniform surfaces.

Table 5-2: Transfer speed

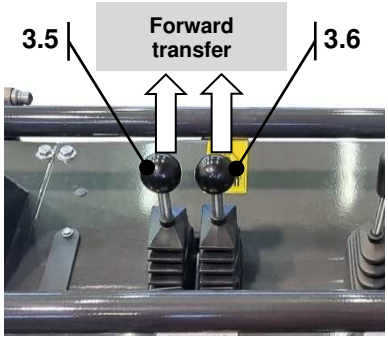
5.14 MACHINE TRANSFER

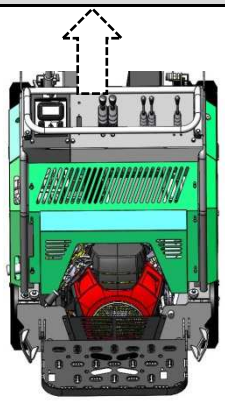
5.14.1 Straight transfer

FORWARD direction transfer

- Slowly push both levers (**3.5** – **3.6**) to move forward.

The machine moves forward.

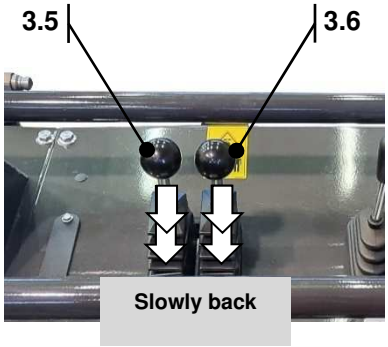


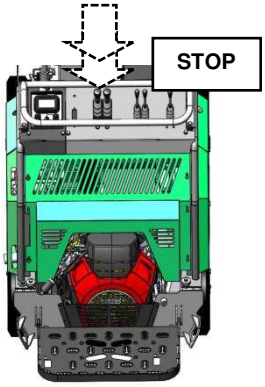


Stop (STOP)

- Slowly move both levers (**3.5** – **3.6**) back to the intermediate position to stop the machine.

The machine slows to a stop.

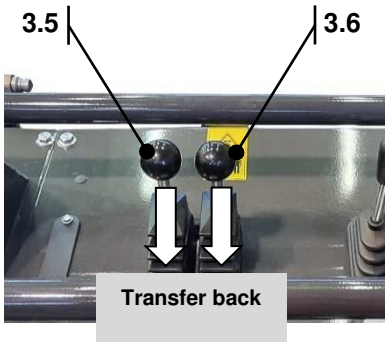


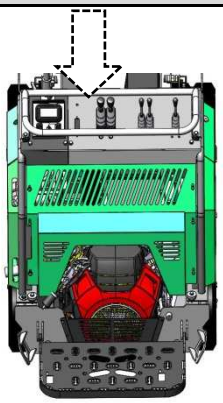


Transfer in REVERSE direction

- Pull both levers (**3.5** – **3.6**) to move backwards.

The machine moves backwards.





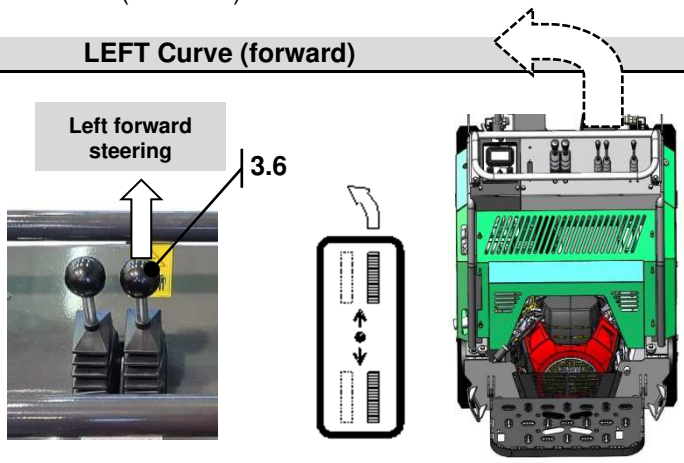
5.14.2 Curvilinear transfer

To advance in curves use the two transfer levers (**3.5** – **3.6**) as indicated.

LEFT Curve (forward)

- Push the **right lever (3.6)** forward.

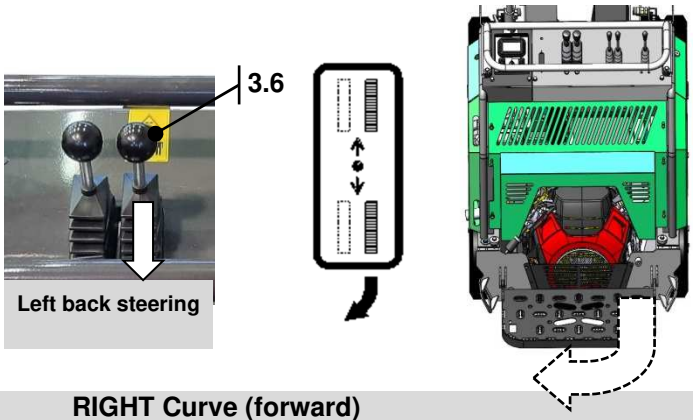
The machine moves forward <u>rotating to the left</u>.



LEFT Curve (back)

- Push the **right lever (3.6)** back.

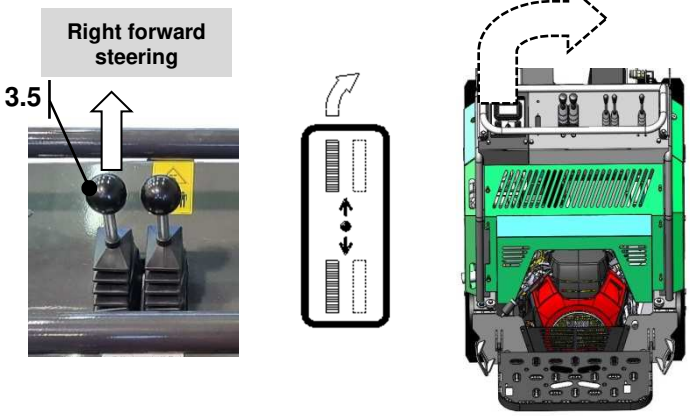
The machine moves backwards <u>rotating to the left</u>.



RIGHT Curve (forward)

- 180BPush the **left lever (3.5)**forward.

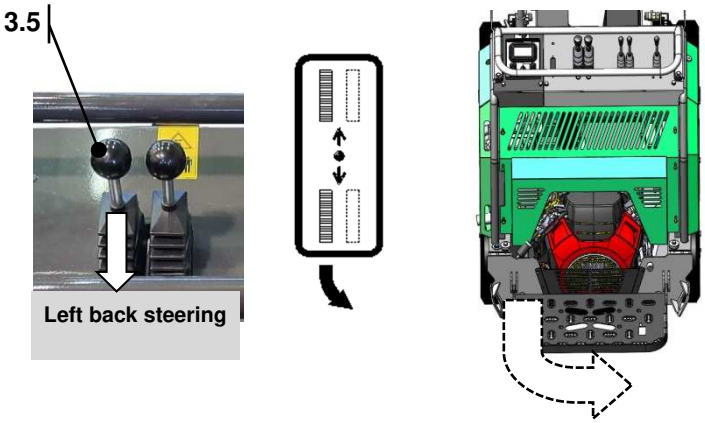
The machine moves forward <u>rotating to the right</u>.



RIGHT Curve (back)

- 180BPush the **left lever (3.5)** back.

The machine moves backwards rotating to the right.



5.14.3 Counter-rotation

To rotate in place use the two transfer levers (**3.5** – **3.6**) as indicated.

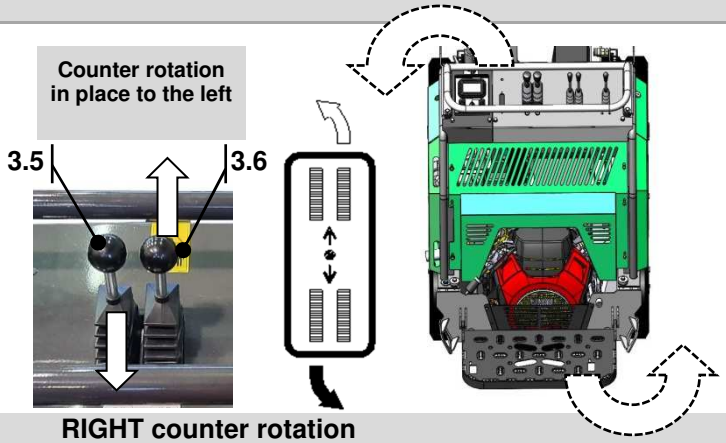
LEFT counter rotation

ATTENTION

This operation causes fast rotation in place to the left; perform the movement at a reduced speed.

- 180BPush the **right lever (3.6)** forward and simultaneously pull the **left lever (3.5)** back.

The machine rotates in place to the left.



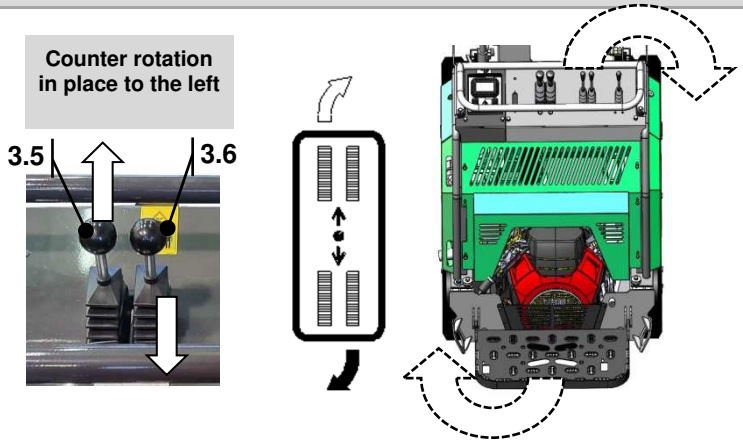
RIGHT counter rotation

ATTENTION

This operation causes a fast rotation in place to the right; perform the movement at a reduced speed.

- 180BPush the **left lever (3.5)** forward and simultaneously pull the **right lever (3.6)** back.

The machine rotates in place to the right.



5.15 Moving on sloping terrain

ATTENTION

- **Lower the engine speed.**
- **Do not change the advancement speed.**
- **If possible move with the tracks aligned in the direction of the slope and not transversely to it.**
- **Avoid changing direction as this could cause the machine to tip over or slide sideways.**
- **When travelling on slopes, if the machine is equipped with the shovel, keep it as close to the ground as possible.**

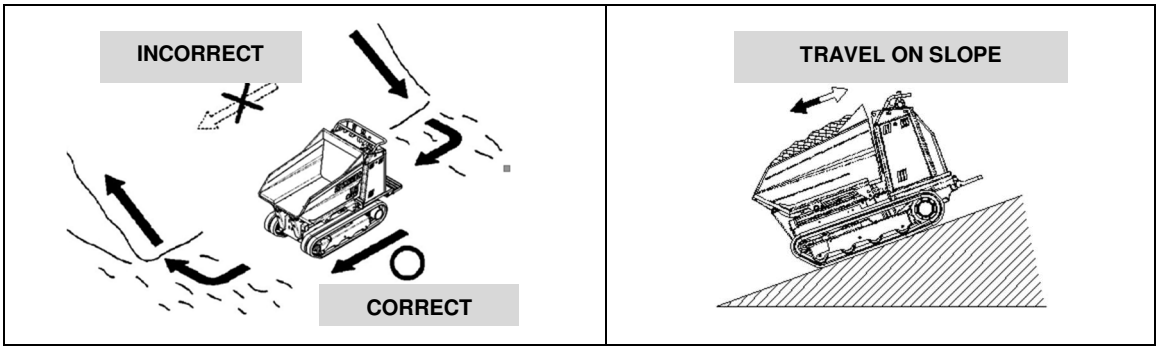


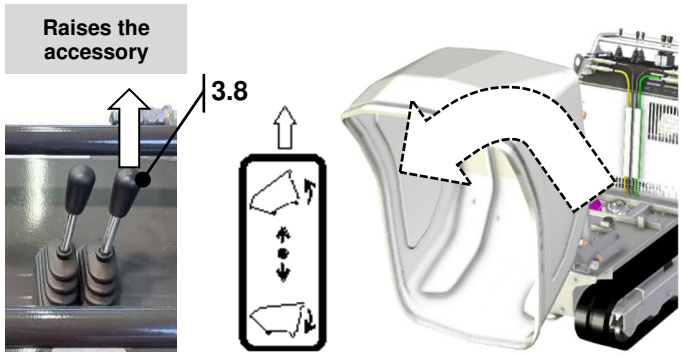
Figure 5-12: Movement on slope

5.15.1 Tool-holder manoeuvres (AUX2)

Lifting the tool-holder

- 180BPush the **right lever** forward (**3.8**).

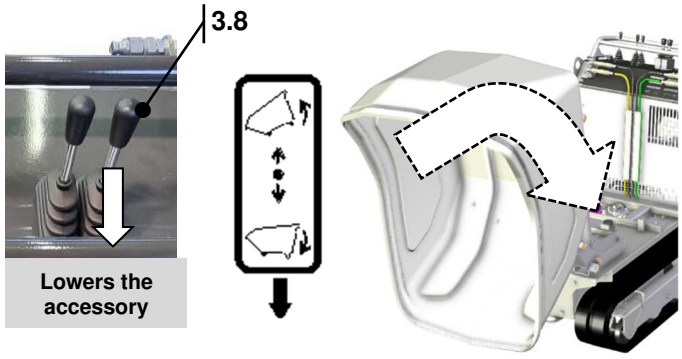
The accessory lifts.



Tool-holder return

- 180BPush the **right lever** back (**3.8**).

The accessory is lowered.

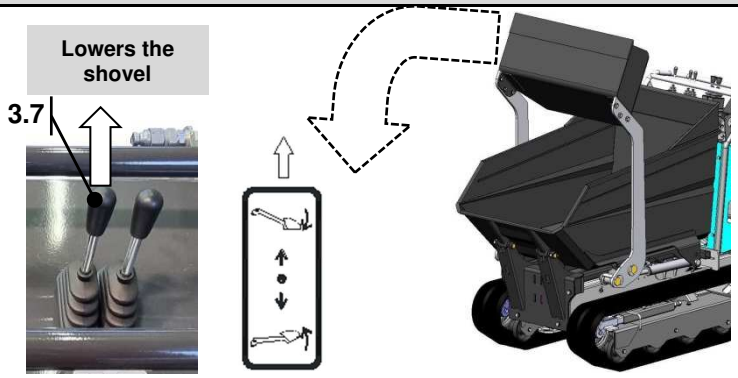


5.15.2 Loader shovel lever (AUX3)

Lowers the shovel

- 180BPush the **left lever** (**3.7**) forward.

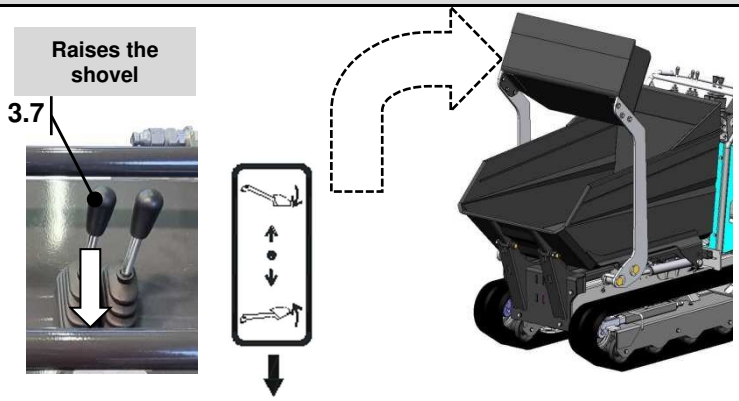
The shovel lowers.



Raises the shovel

- 180B Push the **left lever** back (**3.7**).

The shovel rises.



5.15.3 Auxiliary switching valve control lever (AUX1)

Allows or facilitates the use of unidirectional tools such as demolition hammer, drill, water pump, concrete mixing kit, etc., conveying the return flow directly to the tank.

Move the lever (**3.9**) to the position marked on the relative label.

The diverter is only present in machines equipped with a double pump.

5.16 USE OF THE MACHINE WITH ACCESSORIES

5.16.1 Accessory assembly procedure

ATTENTION

- **Use appropriate cables and tools for lifting. The lifting cables must have a sufficient length to allow good coupling to the lifting means.**
- **Use lifting devices suitable to support the weight of the machine.**
- **Never lift the machine with personnel on board.**
- **Always use cables and other devices with breaking loads greater than 4t.**

CAUTION

Make sure there are no persons in the manoeuvring area.

1. Place the machine on a level and compact base
2. Fit the accessory on the machine by following one of these procedures:

ASSEMBLY OF ACCESSORIES WITH LIFTING MEANS

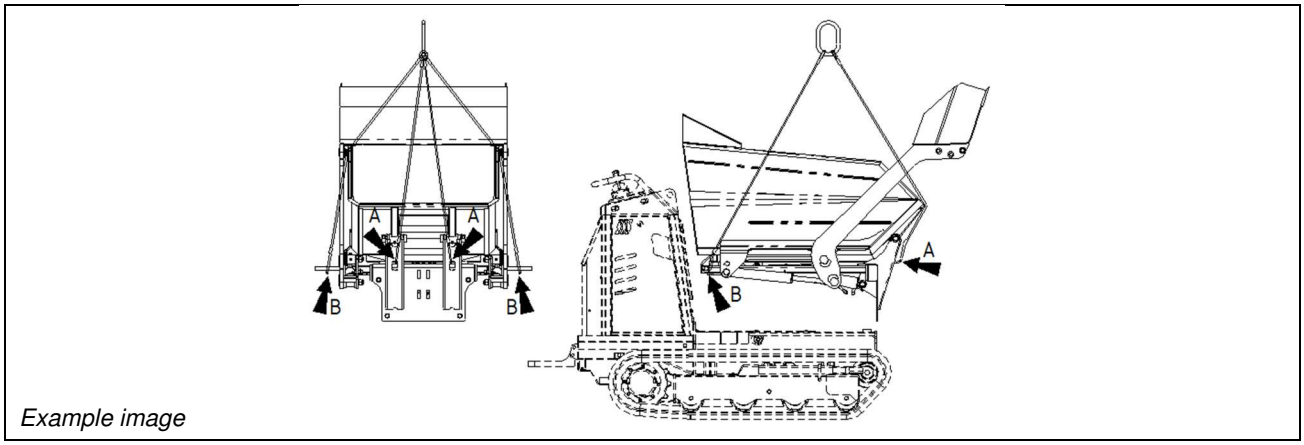


Figure 5-13: Accessory assembly

1. If you have appropriate lifting equipment, harness the accessory at the four **points (A)** and **(B)** as shown in the figure. Use steel cables with a minimum capacity of 300 kg.
2. Lift the accessory and place it on the machine frame.
3. Position and tighten the four front screws.
4. Engage the quick couplings of the hydraulic hoses.
5. Start the engine.
6. Partially tilt the accessory such as to insert the six rear bolts that secure the tool-holder to the machine frame. Tighten all the screws. Insert the hydraulic connection pipes into the guides of the front casing respecting their position. Return the accessory to the bottom limit switch.
7. Remove the lifting harness.

ASSEMBLY OF ACCESSORIES POSITIONED ON REPLACEMENT KIT (OPTIONAL)

1. Start the engine and approach the accessory slowly, being sure to stay centred with respect to the supports. Advance until the two frames are completely coupled.
2. Stop the engine. With the key supplied, alternatively screw the feet until the accessory frame rests on the machine frame and the supports are free for complete removal.
3. Position and tighten the four front screws.
4. Engage the quick couplings of the hydraulic pipes respecting their position.
5. Start the engine.
6. Partially tilt the accessory such as to insert the six rear bolts that secure the tool-holder to the machine frame. Tighten all the screws. Insert the hydraulic connection pipes into the guides of the front casing.
7. Return the accessory to the bottom limit switch.

5.16.2 BOX

The 0.42 m^3 capacity box is the most suitable accessory for the transportation of debris, earth, sand, gravel, various aggregates, conglomerates, concrete and lime and in any case for all the materials that can be used for construction work.

Once the box is filled, transfer the machine to the place where the materials are to be unloaded and perform the necessary manoeuvres.

The box can be combined with the self-loading shovel (para. 5.16.3).

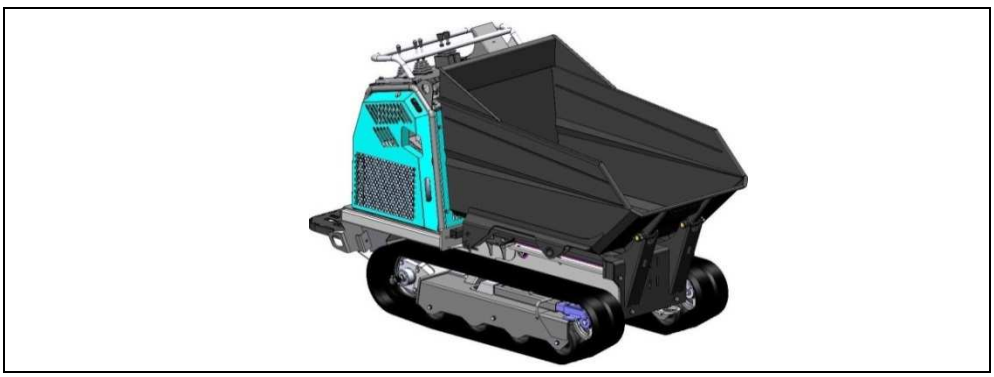


Figure 5-14: Steel box

5.16.3 Self-loading shovel

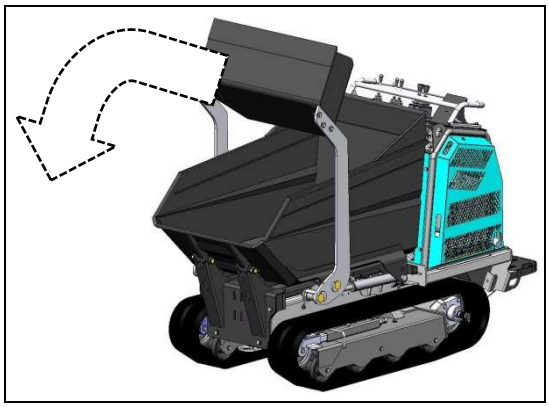
The self-loading shovel is assembled directly on the box (para. 5.16.2) and **can only be used for the loading of debris or loose materials**.

DANGER

USE OF THE SELF-LOADING SHOVEL FOR EXCAVATION IS ABSOLUTELY FORBIDDEN.

To load:

- Bring the shovel to the ground (ref. para. 5.15.2).
- Manoeuvre the machine, slowly approaching the pile to be loaded, until it is completely filled.
- Lift the shovel, decreasing the speed when unloading of the material begins such as to avoid the projection of material out of the accessory and into the driver's seat.



ASSEMBLY OF THE SELF-LOADING SHOVEL ON THE BOX

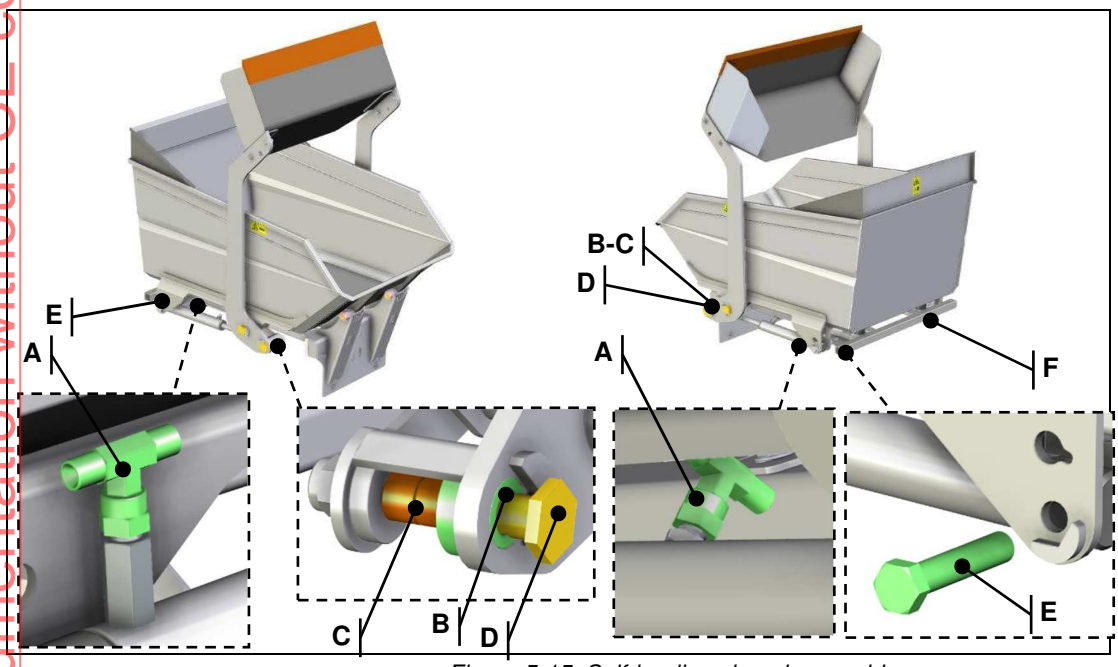


Figure 5-15: Self-loading shovel assembly

1) Fit the **"T" fittings (A)** on the cylinders. Right cylinder with fitting on the bottom connector, left cylinder with fitting on the head connector.
2) Insert the **steel bushings (B)** into the box and fit the **grease nipple (C)**.

ATTENTION

- **Use dedicated tools to insert the bushings.**
- **Do not use hammers or blunt bodies; the supports welded to the box could deform, compromising the entire assembly.**

3) Assemble the shovel arms on the box using the **hex head pins (D)**.
   Fully tighten the self-locking nut on the pin.
   Assemble the cylinders on the arms (right cylinder on right arm and vice-versa) using the appropriate **hex head pins (D)** and tighten the self-locking nut on the pin.
4) Assemble the hydraulic hoses on the cylinders following the length indications. Introduce the two hydraulic pipes L=930 and L=1500 into the **rear guide (F)** welded under the box.

Introduce the hydraulic pipes L = 2200 mm and L = 2550 mm into the appropriate box guides then assemble the female quick couplings at the ends of both, using the dedicated sealing washers.

5) Assemble the cylinders on the box using the **screws (E)** and the self-locking nuts.
DO NOT TIGHTEN the nuts completely; the cylinder must be free to rotate.
6) Assemble the shovel ensuring that there is no play in the coupling with the arms.
7) Attach the pipes L = 2200 and L = 2550 to the tool frame with the appropriate brackets.
8) Connect the pipes by means of the quick couplings to the PTOs of the machine.

5.16.4 Plastic box – Fixed or rotating

The PVC box, with a capacity of 0.45 m^3 is an accessory suitable for the transportation of debris, earth, sand, gravel, various aggregates, conglomerates, concrete and lime and in any case for all the materials that can be used for construction work.

Given the type of construction, it is particularly suitable for the transportation of: fresh cement, sandy material or fine-grain soil.

Once the box is filled, transfer the machine to the place where the materials are to be unloaded and perform the necessary manoeuvres.

In the 90° rotating version (on both sides), the particular structure allows tipping and consequent unloading on three sides, making it particularly useful in the case of lateral unloading in the direction of travel, without the need for positioning manoeuvres.

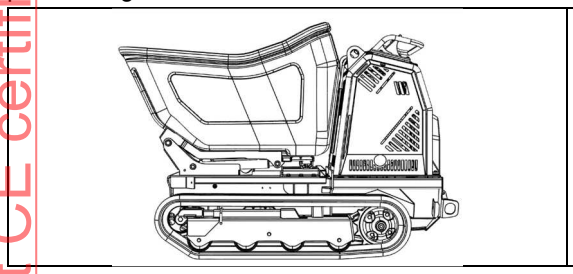


Figure 5-16: Fixed box

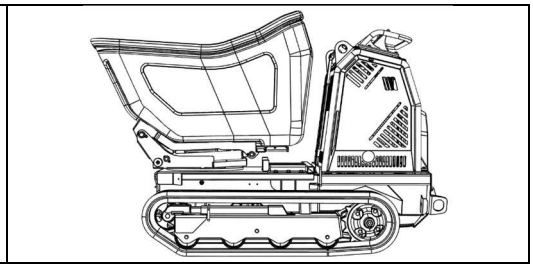


Figure 5-17: Rotating box

5.16.5 Trilateral platform

NOTE

Note for the user: **the trilateral platform is an accessory that is NOT SUITABLE for the transportation of sandy material or fine-grain soil.**

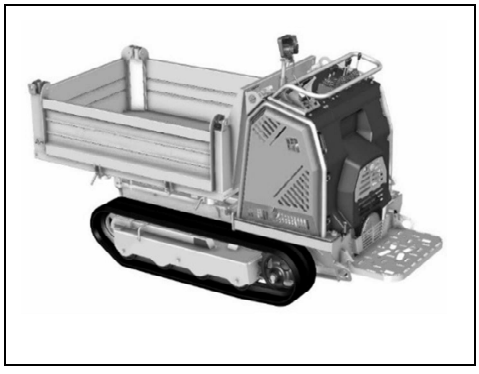
ATTENTION

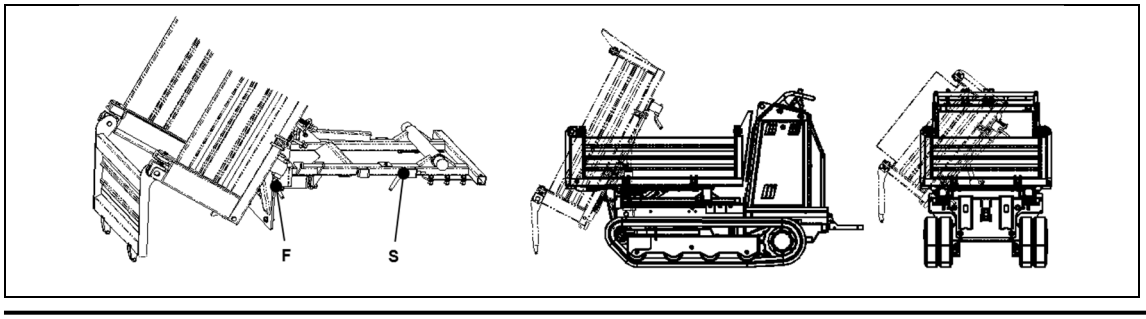
- **Before tipping, place the swivel pins (F) on the tipping side.**
- **Place the other two pins in the dedicated supports (S).**

The platform is a multifunctional accessory suitable for various uses in the construction, nursery and civil agricultural sectors.

The particular construction structure allows tipping and consequent unloading on three sides, making it particularly useful in the case of lateral unloading in the direction of travel, without the need for positioning manoeuvres. The movable panels positioned on three sides are hinged at the upper ends to allow them to be opened.

A particular mechanism locks or releases the sides during the platform rearrangement or tilting phase. The sides can also be manoeuvred manually.





Example image

5.16.6 Concrete mixing kit

The concrete mixing kit consists of a 350-litre mixing tank, driven by a hydraulic engine. It is suitable for the mixing of building conglomerates, concrete or lime, composite or similar soils in the nursery sector, feed and similar substances in the agricultural sector.

To obtain homogeneous mixes, a tank rotation speed of approximately 24/25 rpm is recommended, which can be obtained by adjusting the engine revolutions or by adjusting the dedicated valve fitted as standard.

The concrete mixer kit can only be installed on machines equipped with an AUXILIARY power take-off.

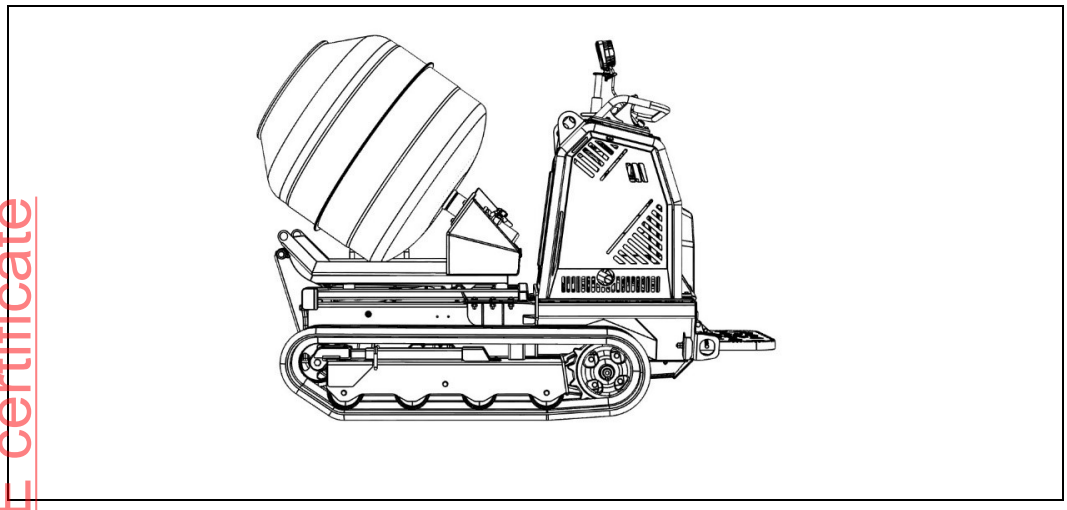


Figure 5-18: Concrete mixer

The possibility of loading in a predefined location, mixing during the transfer and unloading of the amalgamated material in another place make this accessory particularly versatile.

For unloading, perform the necessary manoeuvres.

The concrete mixer kit can be combined with a dedicated self-loading shovel.

Pay attention to the position of the shovel during the unloading phase.

During this operation the shovel must be brought to the upper limit switch in order to avoid interference with the tank.

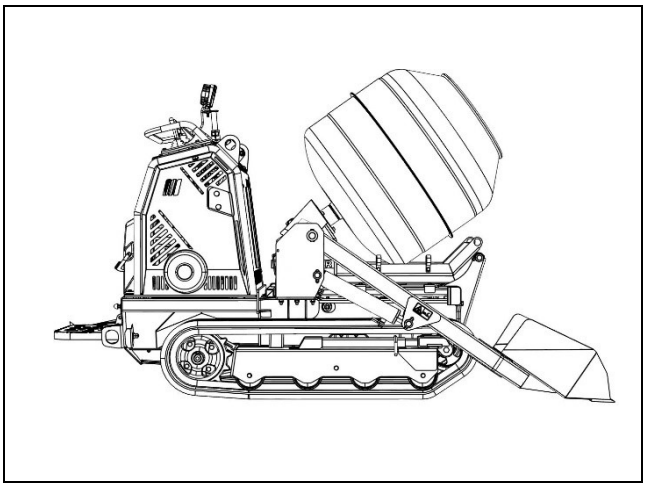
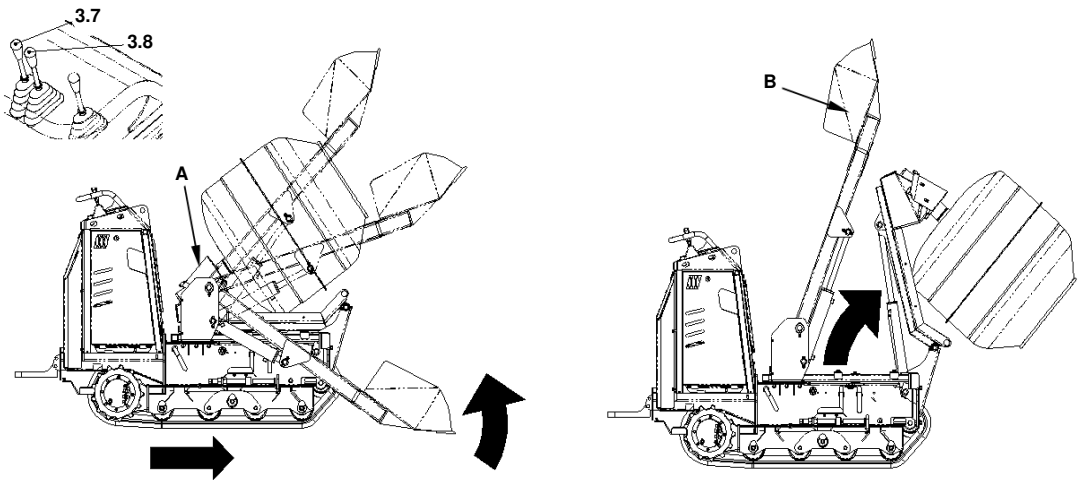


Figure 5-19: Concrete mixer with shovel

To load with the shovel, use the "shovel control lever" located near the operator's handle, following these instructions:

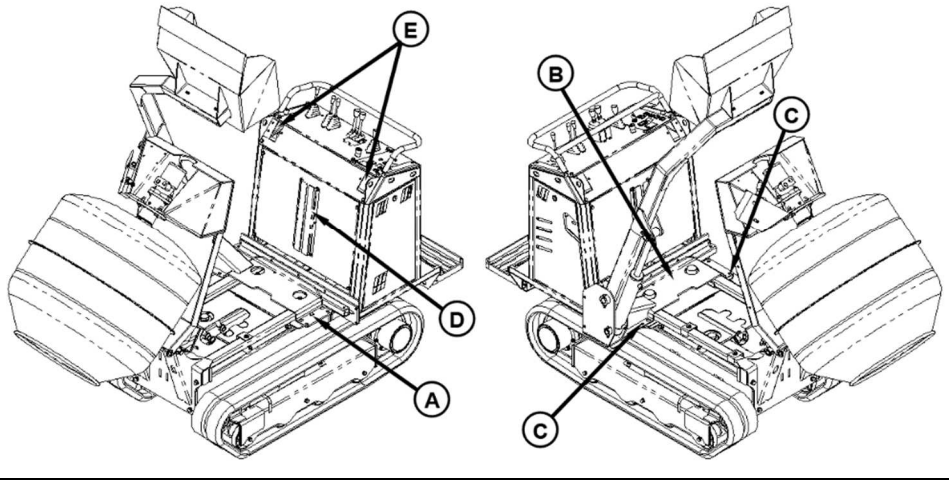
- Bring the shovel to the ground.
- Manoeuvre the machine, slowly approaching the pile to be loaded, until it is completely filled.
- Lift the shovel, decreasing the speed when the unloading of the material begins in order to avoid the projection of material out of the mixing tank.

LOADING OPERATIONS	UNLOADING OPERATIONS



A	**Tank revolutions adjustment valve**
B	**Shovel position during unloading operation**
3.7	**Tool-holder control lever**
3.8	**Shovel control lever**

ASSEMBLY OF THE SELF-LOADING SHOVEL CONCRETE MIXING KIT (OPT)



Example images.

1) Move the mixing tank to the unloading position. Insert the cylinder lock.
2) Remove the six rear **bolts (A)** that secure the tool-holder to the machine frame.
3) Position and secure the frame of the **shovel (B)** to the tool-holder and to the frame using the six bolts removed.
4) Secure the shovel frame to the tool-holder with the four **bolts supplied (C)**. This operation makes the shovel and concrete mixer integral in order to simplify the accessory change operations.
5) Insert the hydraulic connection pipes into the guides of the **front casing (D)**, respecting their position. Connect the pipes by means of the quick couplings to the **PTOs (E)** of the machine.
6) Remove the cylinder lock and return the tank to the bottom limit switch.

5.17 AUX1 HYDRAULIC POWER TAKE-OFF AND SWITCHING VALVE

OIL FLOW: 26 l/min.

The power take-off terminals are positioned on the right side of the machine (**AUX 1**).

For ease of use, equip the terminals with 3/8 "male and 3/8" female hydraulic quick couplings.

To apply the quick couplings, depressurise the hydraulic circuit by loosening the machine oil filler cap, remove the closing caps and apply the couplings with the dedicated washers.

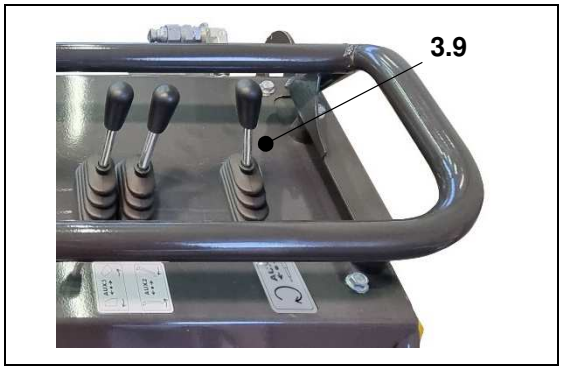
Pressurise the circuit again, extending all the cylinders and tightening the oil filler cap (see point 3.7).

Oil dispensing is obtained by means of the lever (**3.9**).

The oil supply has a bidirectional flow.

Moving the lever in the correct direction results in operation of the tool (*Concrete mixer kit, breaker hammer, shear or other tool*).

The lever is equipped with a one-way retention lock to facilitate the use of special tools such as the concrete mixing kit or tools to be operated remotely such as hammers, drills, shears, etc.



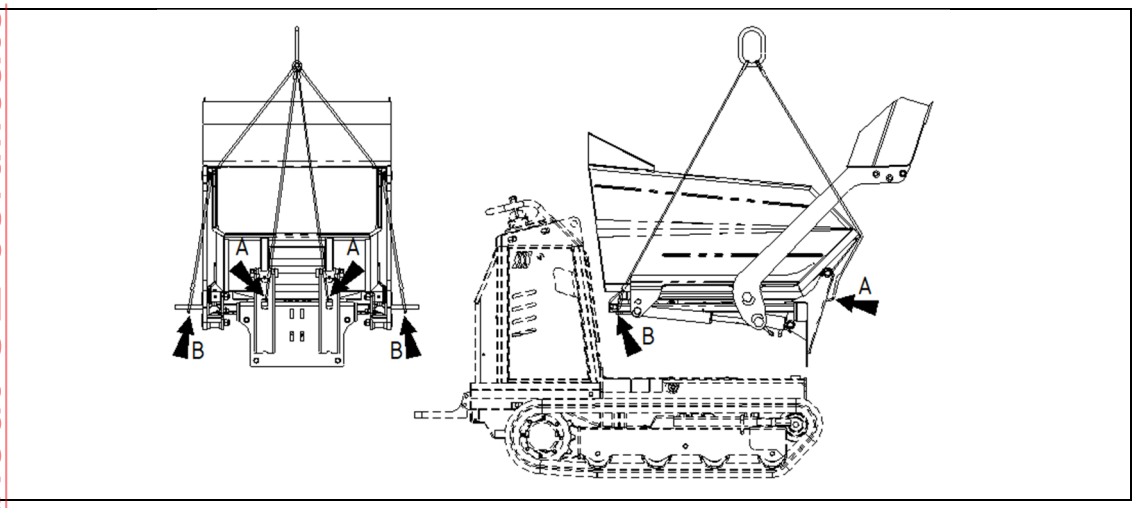
5.18 ACCESSORY REPLACEMENT

ATTENTION

- **Use appropriate cables and tools for lifting. The lifting cables must have a sufficient length to allow good coupling to the lifting means.**
- **Make sure there are no persons in the manoeuvring area.**
- **Use suitable lifting members to support the weight of the machine.**
- **Never lift the machine with personnel on board.**
- **Always use cables and other devices with breaking loads greater than 4 t.**

1. Place the machine on a level and compact base.
2. Partially tilt the accessory such as to remove the six rear bolts that secure the tool-holder to the machine frame. Return the accessory to the bottom limit switch.
3. Remove the accessory from the machine by following one of these procedures:

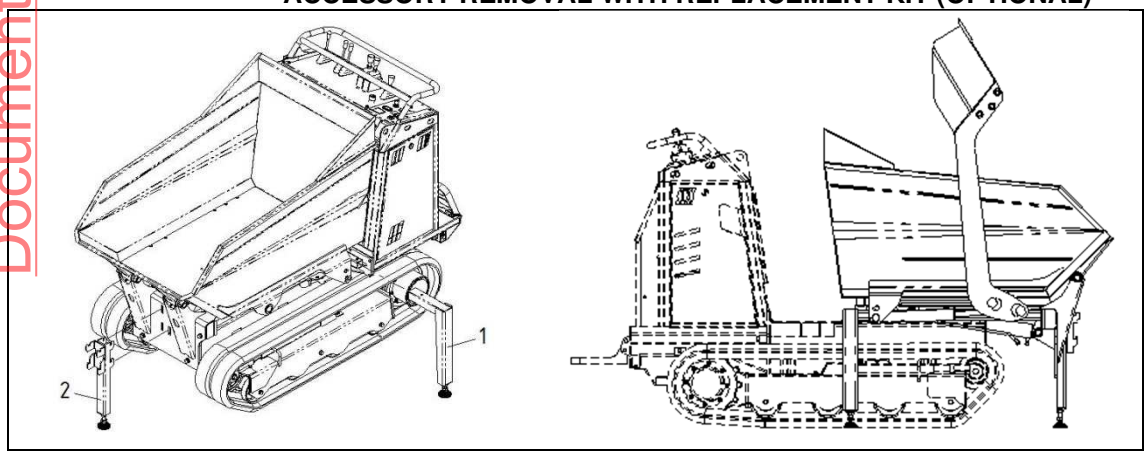
REMOVAL OF ACCESSORIES WITH LIFTING MEANS



Example images.

1. If you have appropriate lifting equipment, harness the accessory at the four points (**A**) and (**B**) as shown in the figure. Use steel cables with a minimum capacity of 300 kg.
2. Disengage the quick couplings of the hydraulic pipes.
3. Remove the four front screws that secure the tool-holder to the machine frame.
4. Lift and remove the attachment using the attachment points above.

ACCESSORY REMOVAL WITH REPLACEMENT KIT (OPTIONAL)



Example images.

1. Insert the **supports (1)** and **(2)** into the frame of the accessory as shown in the figure.
2. Using the included wrench, unscrew the swivel feet until they are slightly tensioned.
3. Disengage the quick couplings of the hydraulic pipes.
4. Remove the four front screws that secure the tool-holder to the machine frame.
5. Alternately unscrew the feet until the tool-holder frame is lifted approximately 20-30 mm from the machine frame.
6. Start the engine and slowly reverse until the tool-holder is free.

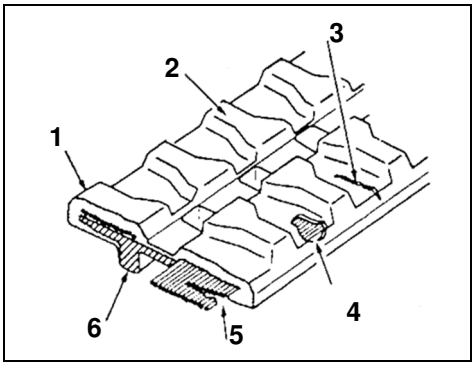
5.19 RUBBER TRACKS

ATTENTION

If a crack in the rubber reaches the metal cords, they can rust, corrode and cut.
As soon as a crack appears, it must be repaired immediately by vulcanising it.

5.19.1 Rubber track structure

Ref.	Description
1	Rubber cover
2	Tread
3	Rubber breakage
4	Exposed metal cord
5	Metal cord breakage
6	Cast iron insert

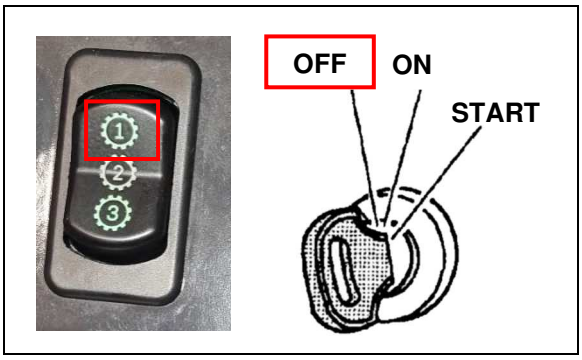


5.19.2 Precautions on the use of rubber tracks

1. Adjust the tension of the tracks often.
   - Insufficient tension pulls the tracks out of their seats and quickly consumes the drive wheels and metal track inserts.
   - excessive tension increases the transfer-resistant force and this can cause both excessive undercarriage wear and extra track tension with possible premature breakage.
2. To prevent damage to the rubber tracks avoid working as much as possible in the following situations:
   - quarries or sharp rocks
   - metal bars or scrap
   - edges or protrusions of metal or concrete objects
   - fire or other heat sources
   - movement in contact with concrete floors or walls
3. Remove diesel, hydraulic oil or grease from the track surface.
4. Avoid fast rotations on the tracks.
5. If the machine is not used for a long time (3 months or more) store the tracks avoiding direct sunlight and rain.
6. Due to the characteristics of the rubber, use the machine with temperatures between -25°C and +55°C.

5.20 ENGINE SHUTDOWN

- Set the speed selector to "1".
- Turn the selector key to the **"off" position**.



5.21 PARKING THE MACHINE

At the end of a working day, the following procedures must be followed:

Parking the machine

Drive the machine to a safe place with flat ground.

1. Bring the throttle lever forward to reduce the engine rotation speed.
2. Let go of the transfer levers so that the machine stops.
3. Lower the loader shovel (if present) until contact with the ground by applying light pressure.
4. Turn off the engine.

In severe freezing conditions:

if high frost temperatures are expected both tracks must be cleaned of mud and dirt; the machine must be parked on wooden boards.

6 MAINTENANCE

INSTRUCTIONS ADDRESSED TO:

PERSONAL PROTECTION EQUIPMENT

ATTENTION

Carefully read the SAFETY MEASURES indicated in chap. 1.

IMER INTERNATIONAL S.P.A. is not liable for damage to property, persons and animals caused by accidents due to failure to comply with the instructions in this manual.

6.1 MAINTENANCE INTERVALS

The ranges proposed relate to the type of environment in which the machine is being used. Very dusty environments require more frequent cleaning of the air filter.
Periodically perform the **scheduled maintenance** indicated in chapter 10 on page 76.

ATTENTION

For engine maintenance operations, refer to the relevant instruction manual provided in the annex.

Checkpoint	Service	Employee
Whenever necessary		
Tracks	Check and adjust tension	
Fuses	Fuse maintenance	
Battery	Cleaning and checking the electrolytic liquid level	
Elements with grease nipple	Grease lubrication	
Daily (every 8 hours of work)		
Engine oil	Check oil level	
Hydraulic oil tank	Check hydraulic oil level	
Fuel tank	Check fuel level	
Machine inspection	General check of the machine condition	
Hydraulic system	Filter control	
Every 100 working hours (Before performing the above services)		
Engine	Oil change	

Checkpoint	Service	Employee
Air filter	Cleaning the air filter	
Every 200 working hours		
Engine oil filter	Replace the filter.	
Every 500 working hours		
Air filter	Replace the cartridge.	
Every 600 working hours (Before performing the above services)		
Hydraulic system	Hydraulic oil replacement and filter mass cleaning	

Table 6-1: Maintenance intervals

6.2 RECOMMENDED LUBRICANTS TABLE

Position	Quantity	Characteristics
Honda GX800IRH engine	1.6 litres 2.8 litres (WITH FILTER)	SAE 10W-30
HYDRAULIC OIL	Total quantity 25 litres Tank capacity 19 litres	ISO N° 46 LONG-LASTING HYDRAULIC OIL
LUBRICATION POINTS IN GENERAL	-	Lithium EP-2 grease
TRACTION ENGINES	0.30 litres each	

Table 6-2: Recommended lubricants

6.3 CHECKS AND MAINTENANCE TO BE PERFORMED WHEN NECESSARY

6.3.1 Track tension check

When the tracks show obvious signs of relaxation or there is an overhang of the teeth of the traction wheels, a check of their tensioning is necessary.
Check the distance between the idler wheel centre and the tensioning screw.

6.3.2 Track tension adjustment

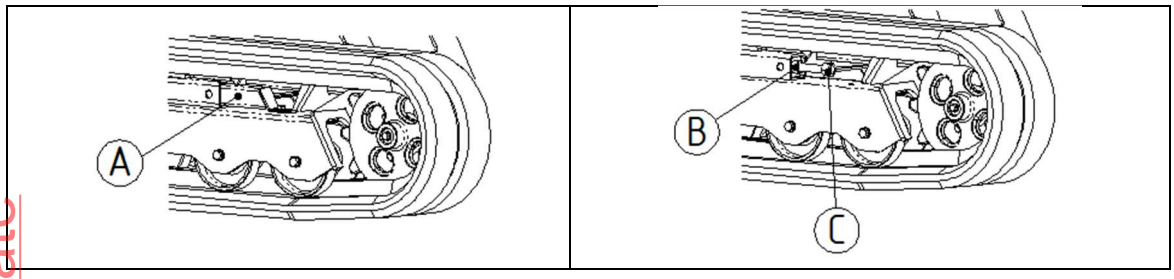
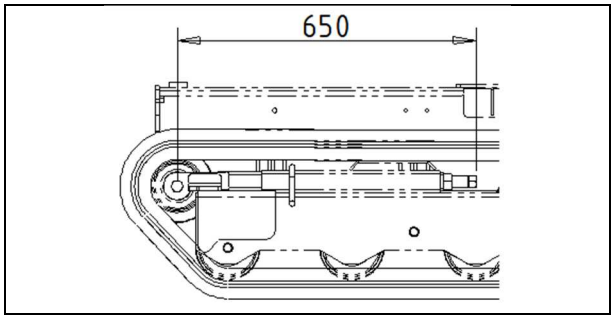


Figure 6-1: MAINTENANCE – Track tension adjustment

1. Remove the protection **A** by loosening screw M8. Remove the protective grease, loosen by turning the locknut **B**anti-clockwise, tighten the screw **C** until the track tension has returned to the desired one (Track tensioning distance L = 650 mm).



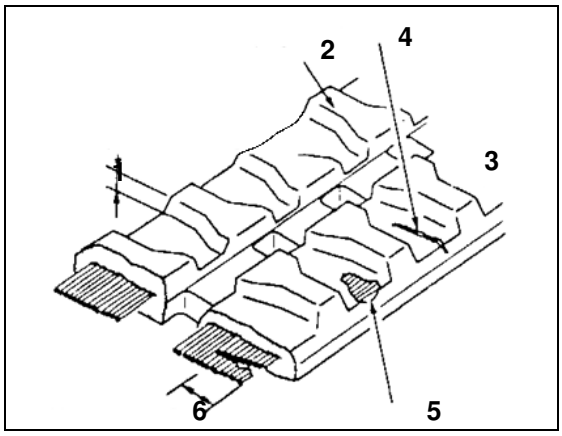
2. To level out the tension on both sides, move the minidumper back and forwards and check the tension uniformity again.
3. To end the operation, tighten the lock nut **B**, grease and refit the protection **A** with the screw.

6.3.3 Rubber tracks

ATTENTION

The rubber tracks must be repaired or replaced as indicated below.
If you need to repair or replace a track, contact your dealer.

Ref.	Description
1	Replace the track when the thickness of the tread is 5 mm or less.
2	Tread
3	Rubber cover
4	Repair is necessary when the breakage depth is 30 mm or more
5	Exposed metal cord
6	Metal cord breakage



1 TREAD HEIGHT

Rubber tracks can be used even if worn, however, if excessively worn, the tracks can slip and therefore exert a greater power demand on the traction engines. If the remaining tread is equal to or less than 5 mm, it is advisable to replace the track with a new original one.

2 EXPOSURE OF STEEL CORDS

If the steel cords of a rubber track are exposed due to excessive wear or damage, replace the track with a new original one.

3 CUTTING OF RUBBER TRACK STEEL CORDS

When a cut is detected in the steel cords replace the track immediately. If the replacement is not performed, and continuing to work, it may be the case that the track breaks completely suddenly and this can result in serious accidents.

4 CRACKS ON THE RUBBER COVER

If a crack of 30mm or more in length and 8mm or more in depth is noticed, repair the rubber immediately. If steel cords appear even if the crack is smaller, repair the track immediately. Otherwise the water entering the crack can rust the steel cords or cause the track to break.

6.3.4 Replacing fuses

Access from the right door.

The fuses protect the electrical circuit from damage caused by overloads or short circuits.

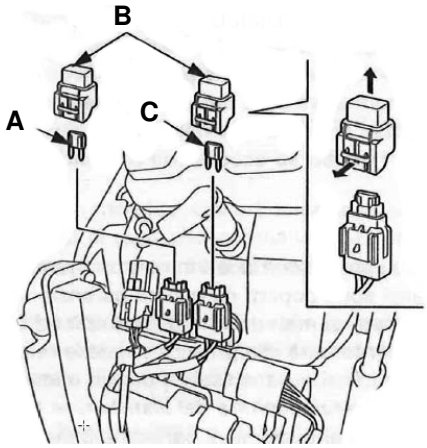


Figure 6-2: MAINTENANCE – Fuses

If a fuse is replaced, replace it with one of the same type and size.

Before replacing a broken fuse, look for the causes and repair the damage.

Ref.	Description
A	Fuse (Charge) 30 A (17 A) / 40 A (26 A)
B	Fuse cover
C	Fuse (Main) 25 A

REPLACING FUSES

1. Unhook and remove the fuse protection cover.
2. Replace the damaged fuse with a new one.

GENERAL FUSE

A 25 A fuse is inserted on the positive branch of the battery cable.

6.3.5 BATTERY

ATTENTION

Before performing any maintenance on live parts, remove the fuse from its seat to isolate the battery circuit.

ATTENTION

- **The battery generates FLAMMABLE GASES that can explode.**
- **DO NOT SMOKE during battery checks.**
- **The battery fluid contains acid and may cause burns if it comes into contact with the skin or eyes.**
- **If you come into contact with the acid, wash the part with plenty of water and immediately seek medical intervention.**
- **Always wear protective goggles when working on the battery.**

1) Cleaning

- Clean the battery surface. Keep the clamps clean and covered, protecting them with Vaseline grease.
- Install the terminal covers after greasing the terminals.

2) Battery charging

- Prevent the battery from remaining completely discharged for a long time: therefore, keep it charged periodically if the machine is not being used.

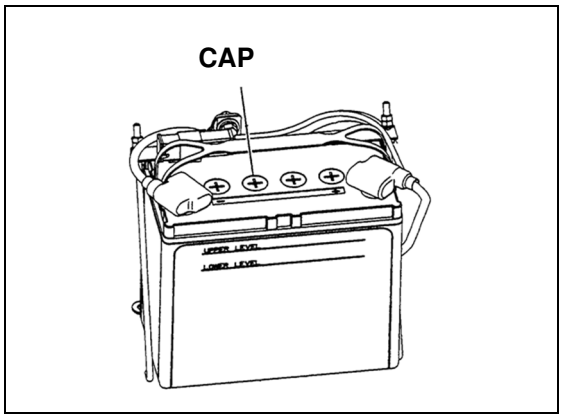


Figure 6-3: MAINTENANCE – Battery

It is good practice to check the state of charge of the battery monthly, giving a short charge in order to keep it at full charge.

A partial recharge is not advisable and during recharging it is always necessary to check that the temperature of the electrolyte does not exceed 40°C, (52°C for batteries with low-density acids for tropical climates).

3) Checks

- Check the liquid level in all the elements of the battery or check that it reaches the level line in the battery.
- Check the cells weekly in the presence of extreme temperatures. The liquid consumption of the battery may be higher.

4) Refilling the battery

- Keep the liquid level immediately below the openings for topping up or, in any case, above the level indicated by the level line, adding water when necessary.

If part of the electrolytic liquid has been poured, replace it with sulphuric acid having the same concentration as that remaining in the battery.

The liquid level must never fall below the upper edge of the battery plates.

5) Disposal

Dispose of the battery according to the current regulations.

6.3.6 General lubrication

- Perform lubrications at the points indicated when necessary as shown in the "Recommended lubrication table".

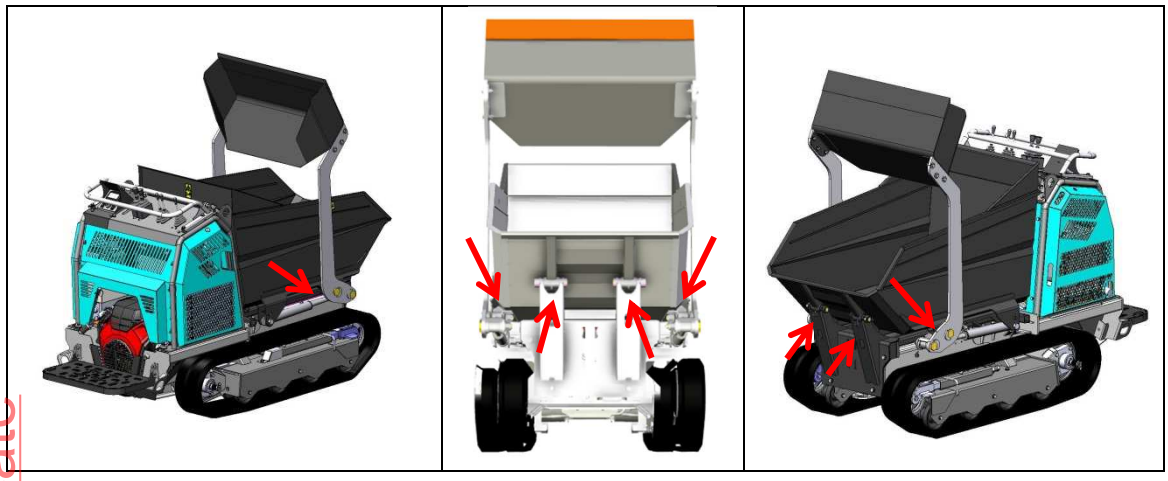


Figure 6-4: MAINTENANCE – General lubrication

6.4 DAILY CHECKS AND MAINTENANCE

6.4.1 Engine oil level

DANGER

- **Check the oil level with the engine off. Never check the oil with the engine running.**
- **To avoid problems with the engine, never exceed the maximum lubricating oil level. An excess of oil in the engine can cause it to break.**
- **Never start the engine when the oil level exceeds the maximum or is below the minimum.**
- **Oil or hot parts may cause injury. Do not bring oil or hot parts into contact with the skin.**

The oil level must be checked at least 15 minutes after the engine has stopped.
After the first 50 hours of work, a complete change must be performed. For the control methodology, see the appropriate engine instruction manual.

6.4.2 Hydraulic oil level

CAUTION

- **Always clean the area around the cap before removing it.**
- **Never exceed the maximum hydraulic oil level in the tank.**
- **Do not use the machine when the oil level exceeds the maximum (full) or is below the minimum (add.).**

1. Position the machine on level ground with the pistons of the accessory holder and, if present, of the loader shovel and of the expander completely retracted.
2. Check that the oil level on gauge **A** is at its maximum.
3. If necessary add oil (refer to para. 6.7.1).

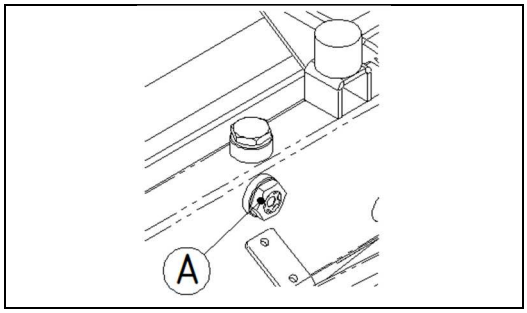


Figure 6-5: MAINTENANCE – Hydraulic oil level

6.4.3 Machine inspection

1. Check the correct tightening of the screws of the tool-holder.
2. Check that all the bolts are tight. Tighten all the slow clamping elements and replace all the damaged ones.
3. Check that there are no breaks in the cylinder attachment areas. Repair any damaged parts.
4. Check that there are no breaks or excessive wear on the blade and cylinder attachment elements. Repair or replace where necessary.
5. Check for leaks in the hydraulic system. Check the hydraulic oil tank, cylinders, pipes, caps, junction points and accessories. Repair any leaks.
6. Check the tightness of the traction engines. Check the engine oil if leaks have occurred.
7. Remove any dirt from the engine compartment.
8. After each use, at the end of the day, thoroughly clean the accessories (box, platform, concrete mixer tank, self-loading shovel, etc.).

6.4.4 Air filter

For the control methodology refer to the relevant engine instruction manual.

CAUTION

- **Perform maintenance on the air filter with the engine off to avoid damage to it.**
- **Clean the filter elements carefully without bumps or knocks. Do not use filter elements with damaged parts, to prevent damage to the engine.**
- **When using compressed air to clean the filter elements, wear eye and face protection.**

Maintenance intervals:

Component	Frequency
Checking the condition	Daily
Cleaning	Every 6 months or 100 hours
Replacement	Only replace the paper cartridge every 2 years or 500 hours.

If the machine is used in dusty environments, perform maintenance more frequently.

6.4.5 Check and possible replacement of hydraulic system filters

Maintenance intervals:

Component	Frequency
Checking the condition	Daily
Replacement	**Replace the filter element if the indicator indicates the need**

The filters are located under the tool-holder lifting cylinder

1. Lift the tool-holder.
2. check the efficiency indicators of the filter elements located on the filters themselves. If the indicators are in the red area, replace the filter element following the procedure indicated below, otherwise go directly to point 14.
3. Turn on the cylinder lock and turn off the engine.
4. Loosen the oil filler cap (**1**) to depressurise the circuit
5. Clean the area to keep dirt on the outside of the filter body (**2**).
6. Place a suitable container under the filter to collect any oil spills that may occur during filter cartridge replacement operations.

Dispose of USED OIL AND USED FILTERS in accordance with the regulations in force in the country of use of the machine.

7. Clean the body (**2**). Using a dedicated wrench, unscrew the filter cartridge (**3**) by turning anticlockwise.

***Note**: The filter cartridge must be replaced. It is not possible to reuse a cartridge that has already been used.*

8. Apply some oil to the sealing ring (**4**).
9. Insert the new cartridge, press it into place manually, then tighten with the dedicated wrench.
10. Repeat the previous operations for the second filter if necessary.

***Note**: Be sure to use cartridges with the correct filter capacity.*

11. Start the engine and check the hydraulic oil level, proceeding to a top-up if necessary.
12. Pressurise the tank again. After having fully extended all the cylinders with the cap (**1**) open, close the tank filling cap.
13. Check for leaks from the cartridges (**3**).
14. Lower the tool-holder.

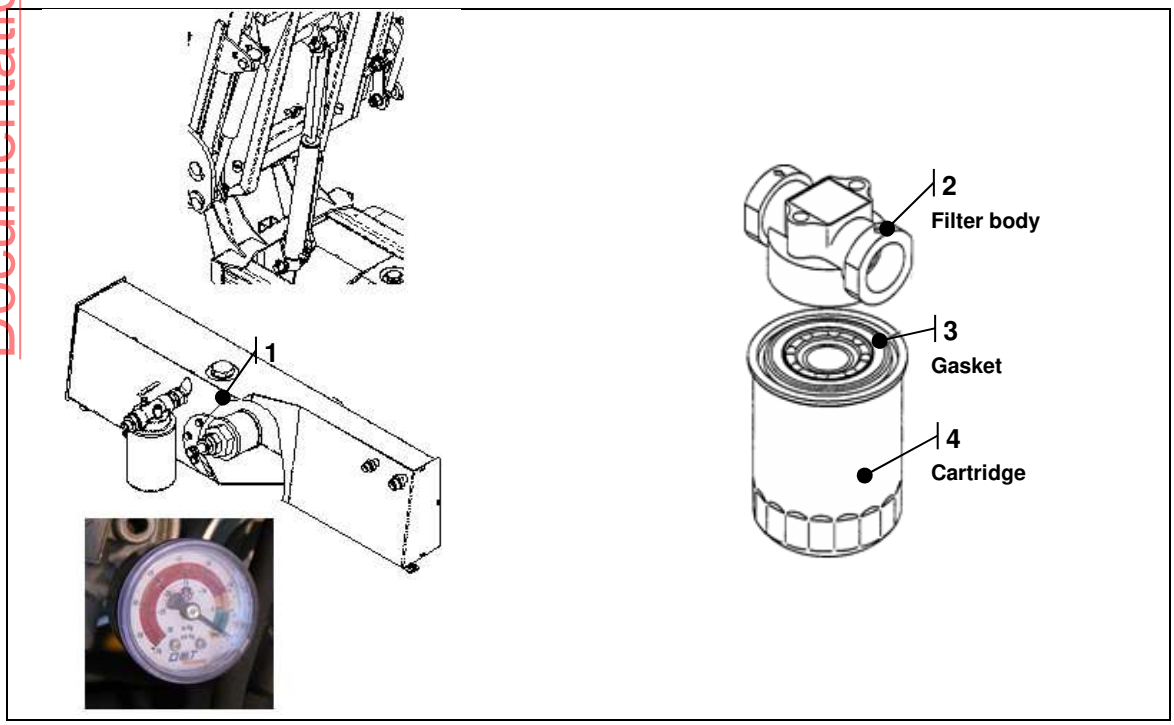


Figure 6-6: MAINTENANCE – Check and possible replacement of hydraulic system filters

6.5 CHECKS AND MAINTENANCE EVERY 100 HOURS

6.5.1 Engine oil replacement

Maintenance intervals:

Component	Frequency
Checking the condition	Daily

For replacement operations, refer to Table 6-1 and to the engine instruction manual.

Dispose of USED OIL AND USED FILTERS in accordance with the regulations in force in the country of use of the machine.

6.5.2 Cleaning the air filter element

Maintenance intervals:

Component	Frequency
Checking the condition	Daily
Replacement	**Every 500 hours or when a part of the filter element is damaged.**

For the replacement procedure, refer to Table 6-1 and to the engine instruction manual.

Dispose of USED FILTERS in accordance with the regulations in force in the country of use of the machine.

6.6 CHECKS AND MAINTENANCE EVERY 200 HOURS

6.6.1 Hydraulic oil filter cartridges

Maintenance intervals:

Component	Frequency
Checking the condition	Daily
Replacement	**Every 200 hours or when a part of the filter element is damaged.**

For replacement operations, refer to para. 6.4.5 on page 66.

Dispose of USED OIL AND USED FILTERS in accordance with the regulations in force in the country of use of the machine.

6.7 CHECKS AND MAINTENANCE EVERY 600 HOURS (or 2 YEARS)

6.7.1 Hydraulic oil replacement

CAUTION

- **Contact with oil or hot parts can cause burns.**
- **at operating temperature, the oil tank is hot and may be pressured.**
- **remove the oil filler cap (1) slowly in order to lower the pressure inside the tank.**
- **only remove the oil filler cap when the engine is off and when it is cold enough to be removed with bare hands.**

Maintenance intervals:

Component	Frequency
Checking the condition	Daily
Replacement	**After 600 hours of machine work**

1. Place the machine on flat ground with the cylinders of the accessory holder and, if present, of the loader shovel fully extended.
2. Insert the safety device against accidental lowering and turn off the engine.
3. Clean the area to keep dirt on the outside of the tank.
4. Loosen the oil filler cap (**1**) to depressurise the tank.
5. Remove the drain plug (**2**) and remove all the oil from the system, collecting it in a suitable container.

Dispose of USED OIL and FILTERS in accordance with the regulations in force in the country of use of the machine.

6. Remove the hydraulic hose from the suction. Remove the fixing screws (**3**), the cover (**4**) of the filter unit and the suction filter (**5**) from the tank.
7. Check the sealing ring (**6**) of the filter unit cover (**4**) and replace it if it is damaged.
8. Clean the inside of the tank with clean oil.
9. Clean and reinstall the suction filter (**5**), the filter unit cover (**4**) and the hydraulic suction hose.
10. Clean and reinsert the drain plug (**2**).

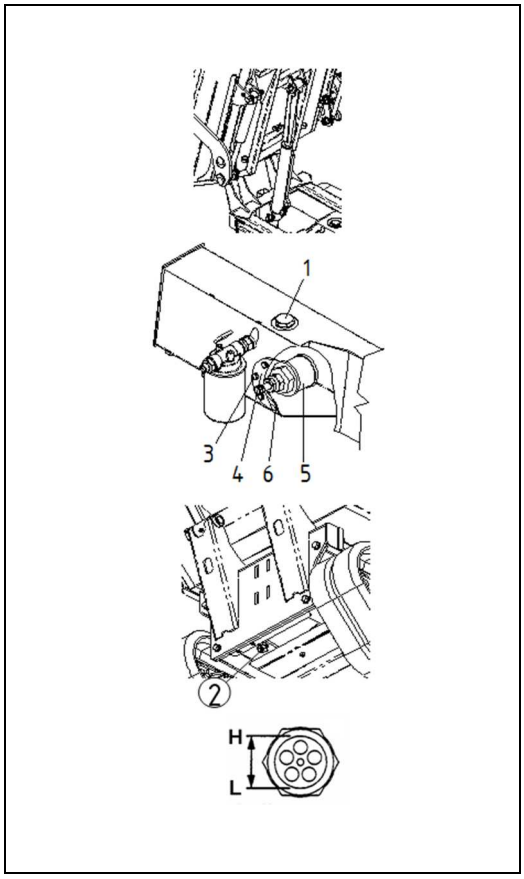


Figure 6-7: MAINTENANCE – Hydraulic oil replacement

11. Fill the tank with hydraulic oil (For the choice of the suitable oil see table paragraph 3 – 2).
12. Start the engine for five minutes, keeping it at low rpm.
13. Operate the control levers to make sure that the entire hydraulic circuit fills up.
14. Return the machine to the initial conditions and turn off the engine.
15. Check the hydraulic oil level and add if necessary to maintain the MAX (H) level.
16. Pressurise the hydraulic oil tank. With the tool-holder and loader shovel cylinders fully extended. Remove and replace the loading cap (1).
17. Remove the cylinder safety device and lower the tool-holder. Lower the loader shovel to the ground and turn off the engine.

6.8 SPECIAL CONDITIONS OF USE

Particular maintenance needs may be necessary when working in extreme weather conditions (e.g. at high altitudes, at excessively high or low temperatures, in the presence of salt water or in very sandy or dusty workplaces). If the machine must work in such conditions, it is necessary to take certain precautions in order to prevent any damage and to minimise wear and deterioration of the components.

6.8.1 Extremely low temperatures

1. **Condensation in the fuel tank, which can freeze, is another risk.**
   Ice can in fact block the inflow of fuel into the ducts and stop the engine.
   To reduce this problem, it is necessary to keep the tank as full as possible during the winter months. If condensation should form due to the water contained in the fuel, empty the tank and fill it with new fuel.
2. **Always use the type of lubricant recommended,** choosing it, in relation to the temperature of use, from those in the table in the chapter 6.3.6 on page 64.
3. **The battery is perhaps the element most sensitive to low temperatures; in fact, the electrolyte freezing temperature of a battery is all the higher the more the battery is discharged**.

In machines where it is present, it is necessary to ensure that the battery always remains charged, especially if the machine is idle for a long time.

The battery may also discharge even if the terminals are covered with ice or snow, short-circuiting.

- Be sure to keep both the terminals and clamps dry.
- Remove any beginnings of corrosion using water and sodium carbonate. In case of lengthy inactivity with extremely low temperatures, it is advisable to remove the battery and keep it protected.

CAUTION

It may be the case that, by adding distilled water inside the battery, it freezes before mixing with the electrolyte.

In extremely low temperatures, add water to the battery only immediately before starting the engine or with the engine running.

If the engine cannot be turned on, add the water with battery connected to the external battery charger.

4. **Particular attention should be paid to hydraulic oil.**

ATTENTION

HEAT THE HYDRAULIC OIL BEFORE PERFORMING ANY WORK WITH THE MACHINE (ref. para. 1.1).

4. At the end of the work period or if the machine should remain stationary for a long time, in order to avoid the formation of ice on the parked ground, park the machine on a dry and compact surface such as on wood, cement, asphalt or similar material.

VERY HIGH TEMPERATURE ENVIRONMENTS

Also in these cases, the necessary precautions must be taken to protect the battery and the lubrication system.

1. When it is very hot, it is necessary to use more viscous lubricants, but which do not deteriorate quickly even when subjected to high working temperatures. Refer to the lubrication part of the manual, respecting the recommended types of oils suitable for predictable temperatures. Remember that the heat dissipation capacity of the engine also depends on the quantity of oil in the engine casing. Check the level frequently and, if necessary, top up.
2. When it is very hot, evaporation can cause a lowering of the electrolyte level in the battery if present, so check it frequently and, if necessary, add distilled water.
3. The circulation of air around the machine must not be hindered. Ensure that the air intakes and exhaust openings are not obstructed with leaves, paper, or other debris.
4. Keep the engine clean from grease or other substances that limit heat dissipation.
5. Shut down the engine in case of inactivity.

VERY SANDY OR DUSTY ENVIRONMENTS

The presence of particles in the air can help accelerate the wear of the components; in fact, the particles that settle on the moving parts act as abrasives.

To avoid this problem, it is necessary to proceed more often with lubrication and perform more frequent maintenance of the air intakes and filters.

1. Prevent sand or dust from entering the hydraulic circuit; therefore, keep the tank tightly closed and monitor the filter.
2. Prevent sand or dust from entering the fuel tank.
3. The engine air intakes and the air filter must be checked often. The engine oil and the filter must be replaced more frequently in order to ensure the cleanliness of the oil.
4. Before performing greasing operations with a manual grease nipple, thoroughly clean away any traces of residual grease. Then pump a generous quantity of grease in order to clean away any residues in the internal parts.
5. When working on sandy soils, it may be necessary to use a suitable support to hold the tracks.
6. Make sure that the tracks never sink into the sand. To ensure the support seal on the ground, it may be necessary to reverse and fill the soft area with more compact soil.
7. The higher frequencies necessary for maintenance operations depend on the actual conditions of use and can only be established based on observations to be made on site, in relation to the results of the checks from which it is seen when the accumulation of dust in the filters or suction devices has become excessive.

HIGH HUMIDITY AND PRESENCE OF SALT

In some locations, such as along the coasts, the machine may be subjected to the combined effects of salt and humidity. To protect exposed metal surfaces, electrical wiring and seals, be sure to keep the machine always dry and the metal surfaces abundantly lubricated.

1. Remove any traces of corrosion as soon as they appear, again protecting the part with paint.
2. When it is not possible to protect with paint, such as for machined parts, cover with grease or water-repellent lubricant.
3. Keep bearings and other areas close to them well lubricated to prevent water ingress.
4. Never use salt water in the cooling system as this would result in serious internal corrosion problems and the affected parts would all need to be replaced.
5. Wash the machine frequently when working near salt water and keep moving parts clean using an oil-soaked cloth.
6. If the machine works in wet conditions, be careful that the water does not reach the top of the track. If this happens, disassemble it, clean it and lubricate the entire lower carriage.

HIGH ALTITUDES

Changes in altitude alter the air/fuel mixing ratio that is injected for combustion, so the thermodynamic cycle of the engine and its performance may be modified; at high altitudes, in fact, there is a lower atmospheric pressure and a lower amount of oxygen.

Above 1500 meters above sea level it may be necessary to adjust the fuel intake system to ensure correct operation. Consult the Assistance Service for the necessary information.

To reduce the problems related to the greater rarefaction of the air, it is also advisable to keep the air filter clean. Monitor the engine temperature as it will tend to overheat.

6.9 MACHINE STORAGE

ATTENTION

Perform the operations for storing of the engine following the instructions provided in the appropriate manuals.

If the machine is inside a warehouse, to prevent rust, it is advisable to use well-ventilated rooms.

To store the machine for a long time, perform the following procedure:

- Clean the machine and store indoors. If it is to be stored outside, place the machine on flat ground and cover it.
- Apply grease to the exposed parts of the cylinder pistons
- Empty the power supply circuit completely.
- Disconnect the cable from the negative pole of the battery.

During storage turn on the machine once a month to maintain the lubrication oil film

At the end of storage:

- remove grease from the cylinder pistons
- ensure the level of filling of the fuel tanks and of the lubrication.

7 TROUBLE-SHOOTING

INSTRUCTIONS ADDRESSED TO:




ATTENTION

It is forbidden to make changes of any kind to the structure and to the plant part of the machine as its safe use could be compromised.

Note any event that is outside the normal operation of the machine during daily operations.

For any anomaly found, try to understand its causes, and intervene promptly.

If through negligence, you continue to overlook unusual phenomena, you may run the risk of having to deal with more serious problems later.

PROBLEM	PROBABLE CAUSE	SOLUTION
Distributor control lever is hard or does not return automatically.	• Interference with the panel. • Inefficient distributor.	• Adjust the assembly. • Contact technical assistance.
Any movement is impossible or lacks power.	• Insufficient hydraulic oil. • Clogged hydraulic oil filter. • Lowering of the engine power. • Pump or joint failure. • Lowering of the pressure of the regulating valve. • Faulty distributor.	• Fill up to level. • Perform oil filter maintenance. • Perform air filter maintenance, check the power supply and the diesel-water separator. • Contact technical assistance. • Contact technical assistance. • Contact technical assistance.
The traction on one or both sides does not work.	• A foreign body, for example a stone, got stuck. • Traction engine malfunction. • Brake failure.	• Remove the jammed material. • Contact technical assistance. • Contact technical assistance.
The machine does not proceed in a straight line.	• Something has remained jammed. • Different track tension. • Inefficient pump. • Inefficient servo commands. • Traction engine fault.	• Remove any foreign material. • Adjust the tensions on both sides. • Contact technical assistance. • Contact technical assistance. • Contact technical assistance.
Insufficient bucket lifting power.	• Insufficient hydraulic oil. • Adjustment valve pressure lowering. • Distributor damaged. • Hydraulic cylinder defect.	• Fill up to level. • Contact technical assistance. • Contact technical assistance. • Contact technical assistance.
Tool movements contrary to the indications of the labels.	• Quick couplings connection reversed.	• Reverse the connections of the quick couplings.

7.1 SPARE PARTS

ATTENTION

- **Replace worn or damaged parts with original IMER INTERNATIONAL replacement parts**
- **The use of non-original spare parts may cause damage to the machine and to persons.**
- **IMER INTERNATIONAL declines all responsibility in the event of damage caused by the use of non-original parts unless expressly authorised.**

IMER INTERNATIONAL declines all responsibility in the event of damage caused by the use of non-original parts unless expressly authorised.

8 DISPOSAL OF THE MACHINE

THE DISASSEMBLY OPERATIONS MUST BE PERFORMED BY QUALIFIED TECHNICAL PERSONNEL ENABLED FOR SUCH OPERATIONS.

INSTRUCTIONS ADDRESSED TO:

PERSONAL PROTECTION EQUIPMENT

ATTENTION

Carefully read the SAFETY MEASURES indicated in chap. 1.

Any irregularity committed during or after scrapping and disposal of the components of the machine, as well as in the interpretation and application of the Regulations in force on the matter, is the sole responsibility of the machine user.

NOTE

It is the responsibility of the user to dispose of waste in accordance with the current Laws on waste disposal as prescribed in the country of installation.
Contact centres authorised to dispose of and recycle materials.

The materials with which the machine is made do not generate hazards or risks for operators, but can instead constitute a danger to the environment if they are not treated correctly.
Each waste must be treated, disposed of or recycled, according to the classification and procedures provided for by the legislation in force in the country of installation.
Adequate separate collection, therefore, helps to avoid possible negative effects on the environment and health, promoting reuse and/or recycling of the materials of which the equipment is composed.

Illegal disposal of the product by the user may result in the application of administrative sanctions provided by the current legislation.

By disposing of the product properly, you help to avoid potential negative consequences, which could result from improper disposal of the product.
For more detailed information on recycling machine parts, please contact your municipal office, local waste disposal service or your distributor.

8.1 Machine demolition

To proceed with scrapping of the machine, it is necessary to:
1. Disassemble as much as possible the parts of the machine (casing, plastic material, pipes, etc.) sorting them according to their different nature.
3. Request written authorisation from the bodies responsible for this task.
4. Proceed with disposal of the components following the provisions of the Regulations in force on the matter.

8.2 Disposal of harmful substances

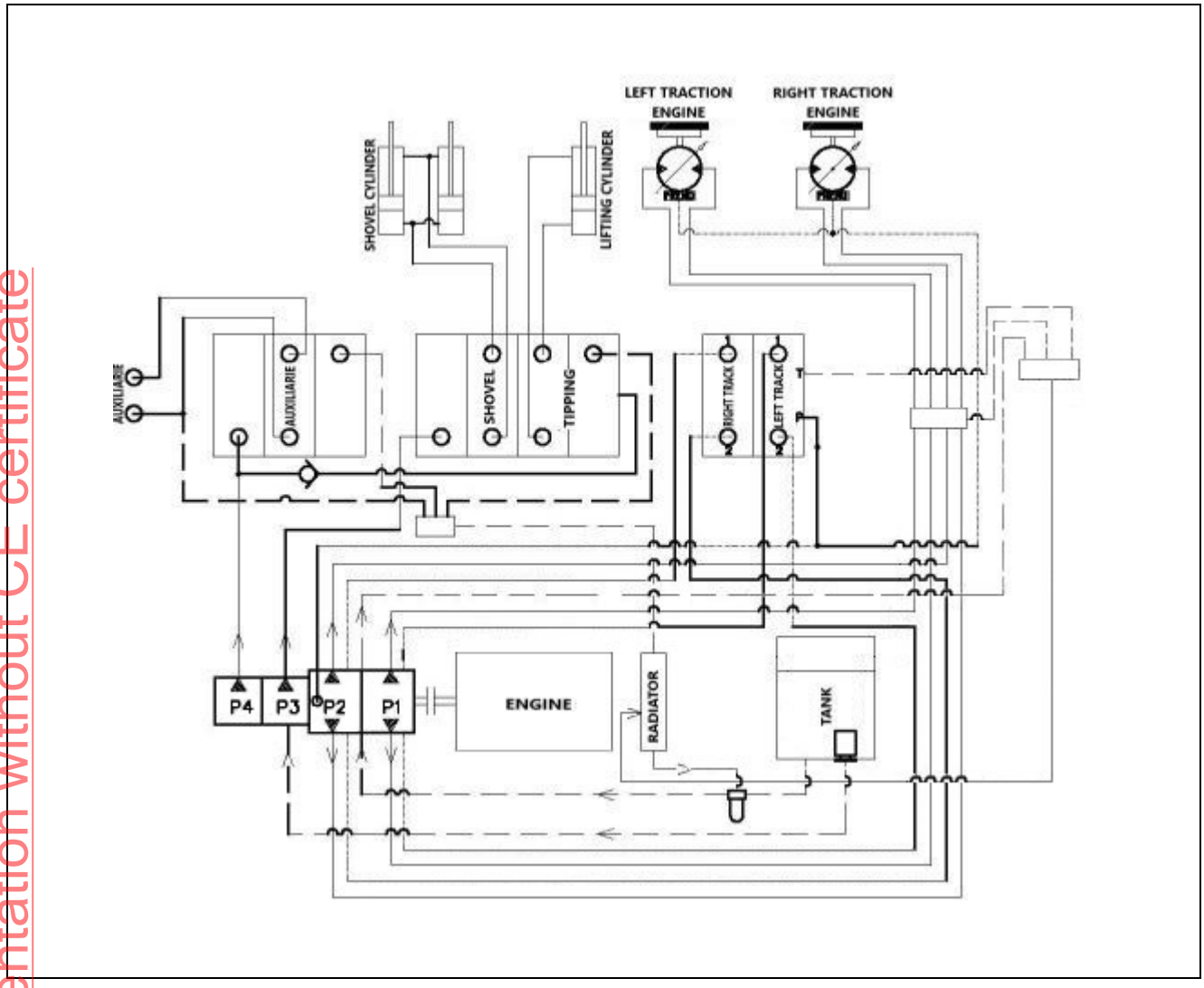
Proceed with the disposal of harmful substances in accordance with the provisions of the Regulations in force in the country of use of the machine.

CAUTION

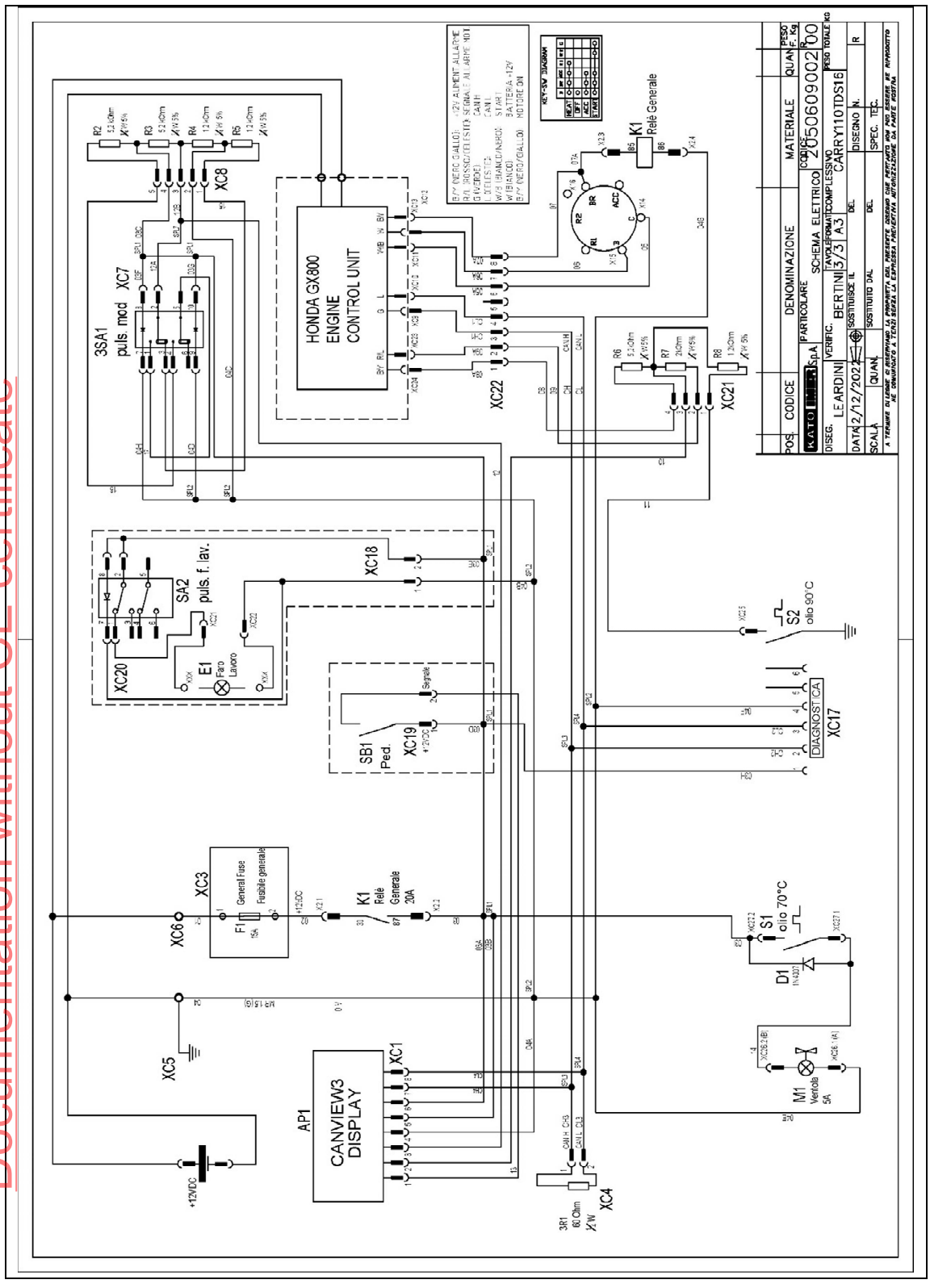
OIL, FUEL, BATTERIES, etc. MUST NOT BE DISPOSED OF IN THE GROUND, BUT PLACED IN CONTAINERS AND DISPOSED OF AT THE APPROPRIATE COLLECTION CENTRES.

9 DIAGRAMS

9.1 HYDRAULIC SYSTEM



9.2 WIRING DIAGRAM



10 SCHEDULED MAINTENANCE

Scheduled maintenance services are prescribed by the Manufacturer.
Failure to perform the same may result in forfeiture of the warranty.

Correct maintenance is essential to guarantee the machine a long life in optimal conditions.
For this reason, **IMER INTERNATIONAL** has prepared a series of checks and interventions to be performed at authorised assistance centres.

10.1 SCHEDULED INTERVENTIONS TABLE

	HOURS								
INTERVENTION	**20/50**	**200**	**400**	**600**	**800**	**1000**	**1200**	**1400**	**1600**
Oil change and engine filter	•	•	•	•	•	•	•	•	•
Checking / replacing engine air filter	•	•	•	•	•	•	•	•	•
Tracks tension check and adjustment	•	•	•	•	•	•	•	•	•
Hydraulic system filter replacement		•	•	•	•	•	•	•	•
Hydraulic oil change				•			•		

Refer to para. “6.1 MAINTENANCE INTERVALS” on page 58.

10.2 INTERVENTION SERVICES

SPACES RESERVED FOR THE CERTIFICATION OF SCHEDULED MAINTENANCE SERVICES.
Determine from the programmed interventions table the frequencies and operations to be performed, reporting the type of intervention to be carried out (**SERVICE** or **INTERVENTION**, reporting the type of intervention in the notes space) and complete all the other required fields.

IMER

INTERVENTION NO. 1

☐ **SERVICE** ☐ **INTERVENTION** ***(*)***

***Notes*:**

STAMP AND SIGNATURE

PERFORMED AT (TIME):: _____

ON (DATE): _____

INTERVENTION NO. 2

☐ SERVICE ☐ INTERVENTION *(*)*

Notes:

STAMP AND SIGNATURE

PERFORMED AT (TIME):: _____

ON (DATE): _____

INTERVENTION NO. 3

☐ SERVICE ☐ INTERVENTION *(*)*

Notes:

STAMP AND SIGNATURE

PERFORMED AT (TIME):: _____

ON (DATE): _____

INTERVENTION NO. 4

☐ SERVICE ☐ INTERVENTION *(*)*

Notes:

STAMP AND SIGNATURE

PERFORMED AT (TIME):: _____

ON (DATE): _____

INTERVENTION NO. 5

☐ SERVICE ☐ INTERVENTION *(*)*

Notes:

STAMP AND SIGNATURE

PERFORMED AT (TIME):: _____

ON (DATE): _____

INTERVENTION NO. 6

☐ SERVICE ☐ INTERVENTION *(*)*

Notes:

STAMP AND SIGNATURE

PERFORMED AT (TIME):: _____

ON (DATE): _____

INTERVENTION NO. 7

☐ SERVICE ☐ INTERVENTION *(*)*

Notes:

STAMP AND SIGNATURE

PERFORMED AT (TIME):: _____

ON (DATE): _____

INTERVENTION NO. 8

☐ SERVICE ☐ INTERVENTION *(*)*

Notes:

STAMP AND SIGNATURE

PERFORMED AT (TIME):: _____

ON (DATE): _____

INTERVENTION NO. 9

☐ SERVICE ☐ INTERVENTION *(*)*

Notes:

STAMP AND SIGNATURE

PERFORMED AT (TIME):: _____

ON (DATE): _____

IMER U.S.A. INC.

EQUIPMENT WARRANTY

IMER U.S.A. INC.

HEADQUARTERS

IMER U.S.A.
US & Canada Headquarters
423 Bank Street , Suite 180
Southlake, TX 76092 - USA
Tel: +1 800 275.5463
www.imerusa.com

We warrant to the original purchaser that the IMER equipment described herein (the "equipment") shall be free from defects in material and workmanship under normal use and service for which it was intended for period of one (1) year from the date of purchase by the original purchaser.

Our obligation under this warranty is expressly limited to replacing or repairing, free of charge, F. O.B. our designated service facility, such part of the equipment as our inspection shall disclose to be defective. Parts such as engines, motors, pumps, valves, electric motors, etc. furnished by us, but not manufactured by us, will carry only the warranty of the manufacturer. Transportation charges or duties shall be borne by purchaser. This shall be the limit of our liability with respect to the quality of the equipment.

This warranty shall not apply to any equipment, or parts thereof, which has been damaged by reason of accident, negligence, unreasonable use, faulty repairs, or which has not been maintained and operated in accordance with our printed instructions for the equipment. Further, this warranty is void if the equipment, or any of its components, is altered or modified in any way.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

We make no other warranty, representation or guarantee, nor is anyone authorized to make one on our behalf. We shall not be liable for consequential damage of any kind, including loss or damage resulting, directly or indirectly, from the use or loss of use of the machine. Without limiting the generality of the foregoing, this exclusion from liability embraces the purchaser's expenses for downtime, damages for which the purchaser may be liable to other person, damages to property, and injury or death of any persons.

This warranty shall not be deemed to cover maintenance parts, including but not limited to blades, belts, hoses, hydraulic oil, or filters, for which we shall have no responsability or liability whatsoever.