4 - 5 SERIES

SELF-MOVING COMPACT WHEEL LOADER,
ARTICULATED FRAME, EQUIPPED WITH
MULTIPURPOSE QUICK COUPLER

INSTRUCTION MANUAL

MULTIONE®

MultiOne s.r.l -Translation of the original instructions - COD. CM160007EN - r.13 - EN

INDEX

⚠ WARNING

BEFORE OPERATING THE MACHINE, THE OPERATOR MUST READ AND UNDERSTAND ALL INSTRUCTIONS OF THIS MANUAL. THE MANUAL MUST BE CAREFULLY KEPT INSIDE THE MACHINE TILL ITS DISMISSION.

Presentation

Dear customer,

We will, first of all, thank you for the confidence you gave us purchasing your new **"Self-moving Compact wheel loader, articulated frame, equipped with multipurpose quick coupler, MULTIONE 4 - 5 Series"**.
We are sure your expectations will be satisfied since the technological level reached by our products and thank to a continuous engagement that stimulates us daily to increase to be able to face the continuous, technological, productive and trade transformations. We are sure we can also face any your future working requirement, we are pleased to remain at your disposal and offer you all our experience and knowledge for the best solution of any your query.

1 DOCUMENT IDENTIFICATION

1.1 Designation

The following document is called "operating manual" (later on manual). It has been edited in accordance with the essential requirements of security 1.7.4 of the Enclosure I of the machine Directive 2006/42/CE.

⚠ ATTENTION

THIS MANUAL MUST BE ALWAYS AT AUTHORIZED OPERATORS' DISPOSAL AND BE NEARBY THE MACHINE WELL KEPT AND PRESERVED.

THIS MANUAL MUST BE COMPULSORILY DELIVERED TOGETHER WITH THE MACHINE IN CASE IT WILL BE TRANSFERRED TO ANOTHER USER.

WE ADVISE YOU TO COPY OUT THE IDENTIFICATION DATA OF THE DOCUMENT: CODE, ISSUE AND REVISION (SEE COVER) TO REQUEST AGAIN COPY OF THE MANUAL TO THE MANUFACTURER IN CASE OF LOSS OR DETERIORATION OF IT.

THIS MANUAL REFLECTS THE STATE OF THE TECHNOLOGY AND KNOW-HOW AT THE MOMENT OF THE MACHINE MARKETING AND IT CANNOT BE CONSIDERED INADEGUATE ONLY BECAUSE, ACCORDING TO NEW EXPERIENCES, CAN BE UPDATED LATER.

1.2 Identification

The manual is identified though the following data reported in the table on the cover and in annotation:
- Abbreviation of the language.
- Original instructions or translation of them.
- Symbol ISO 7000.
- Identifying code (ID).
- Issue.
- Revision (or revisione date).

EN	TRANSLATION OF THE ORIGINAL INSTRUCTIONS		
	Code	Issue	Revision
	CM160007EN	26.05.16	13 (22.12.20)

This manual is the **"Translation of original instructions"** identified as follows:

IT	ISTRUZIONI ORIGINALI		
	Codice	Emissione	Revisione
	CM160007	26.05.16	13 (22.12.20)

1.3 Glossary

Term	Definition
Basic machine (later machine)	Self-moving Compact wheel loader, articulated frame, equipped with multipurpose quick coupler, planned to carry out various functions using interchangeable attachments.
Original interchangeable attachments(later attachment)	According to the article 2, b) of the Machine Directive 2006/42/CE it is a machine specified as: device that after the starting up of a machine or of a tractor, is assembled with the machine or with the tractor by the same authorized operator in order to modify the function or introduce a new function, to the extent that this equipment is not a tool.Produced by the Manufacturer and commercialized by the Manufacturer or by his authorized dealers **(see par. 6.3)**.
Original option(later original)	Attachment produced by the Manufacturer and commercialized by the Manufacturer or his authorized dealers **(see par. 6.2)**.
Compatible attachment	Attachment suitable to be assembled on a specific basic machine **(see par. 6.3.1)**.
Assembly	Attachment assembly onto the basic machine, including the mechanic, hydraulic and electrical (if required) connection.
Authorized dealer(later dealer)	He is a dealer authorized by the Manufacturer who the Customer must address to, for assistance and emergency maintenance or for the purchase of attachments or original interchangeable attachments.
ROPS (Roll Over Protection Structure)	Metal structure that protects the operator in charge seated at the driving seat in case of the machine rolling.
FOPS (Falling Objects Protective Structure)	Structure protecting the operator in charge sitting at the driving seat in case of falling objects.
Assembly factory	Options assembly by the manufacturer before the machine delivery.
Assembly after market	Options assembly later, after the machine purchase.

1.4 Abbreviations

ca.	Circa about	**N.**	Number
Chap.	Chapter	**Pag.**	Page
PPE	Personal Protective Equipment	**Par.**	Paragraph
Right	Right	**Pos.**	Position
eg.	Example	**Ref.**	Reference
FIG.	Figure/s	**Left**	Left
hrs	Time	**TAB.**	Table
MAX.	Maximum	**See**	See
MIN.	Minimum	**Q.ty**	Quantity
min	Minutes	**Etc.**	Etcetera

1.5 Consultation notes

	Bold type text: It highlights same significant sentences in the text and the references to paragraphs, figures, tables, etc.
	Generic danger sign: It highlights risks for health and security of the authorized operators and or risks of damage and malfunctioning of the machine.
	Generic obligation sign: It points out a rule (obligation to execute an action).
	Generic ban sign or dedicated: It highlights the ban of executing a specific action.
	EX danger sign: It highlights the danger of an explosion in places with explosive atmosphere.
	Crossed waste bin: It highlights the ban of throwing electrical and electronic attachments waste in the garbage bins.
	TO USE THE MACHINE IN SAFETY IT IS COMPULSORY TO READ AND UNDERSTAND THIS MANUAL IN ALL ITS PARTS.
	TO USE IN SAFETY A COMPATIBLE ATTACHMENT ASSEMBLED WITH THE MACHINE IT IS COMPULSORY TO READ AND UNDERSTAND THIS INSTRUCTION ATTACHMENT MANUAL IN ALL ITS PARTS.
	THE SYMBOL PLACED AT THE BEGINNING OF A CHAPTER POINTS OUT WHO ARE THE AUTHORIZED OPERATORS **(SEE PAR. 1.6.1)** TO CARRY OUT THE REPORTED INTERVENTIONS.
	⚠ DANGER
	IT HIGHLIGHTS A DANGER WITH A HIGH RISK DEGREE THAT, IF NOT AVOIDED, CAN CAUSE DEATH OR SEVERE INJURIES.
	⚠ WARNING
	IT HIGHLIGHTS A DANGER WITH AN AVERAGE RISK DEGREE THAT, IF NOT AVOIDED, CAN CAUSE DEATH OR SEVERE INJURIES.
	⚠ ATTENTION
	IT HIGHLIGHTS A DANGER WITH A LOW RISK DEGREE THAT, IF NOT AVOIDED CAN CAUSE LIGHT OR NOT SEVERE INJURIES.

1.6 Receivers of the document

This manual is addressed only, to the operators authorized to use and to maintenance of the machine according to the specific technical-professional competences required for the type of intervention.

1.6.1 Authorized operators

⚠ WARNING

AUTHORIZED OPERATORS MUST CARRY OUT ONLY THE INTERVENTIONS OF THEIR SPECIFIC COMPETENCE ON THE MACHINE.

THE AUTHORIZED OPERATORS, BEFORE EXCUTING ANY INTERVENTION ON THE MACHINE, MUST MAKE SURE OF BEING IN FULL POSSESSION OF THEIR PSYCO-PHYSICAL FACULTIES, THAT TO GUARANTEE ALWAYS THE OBSERVANCE OF THE SAFETY CONDITIONS.

	OPERATOR IN CHARGE He is a professionally trained operator who, in full obedience of the legislation in force in the country of use, is qualified to the driving of the machine and to carry out only: • The regulations. • The normal use. • The normal maintenance. All the operations must be executed in the absolute observance of the instructions reported in this operating manual.
	AUTHORIZED TECHNICIAN He is a qualified technician, placed at disposal by the dealer, who has got a specific knowledge of the machine and he is qualified to carry out the requires technical assistance, normal and extraordinary maintenance and/or operations not reported in this instruction manual.

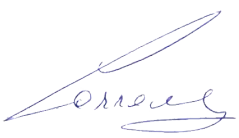
TAB. 1

1.7 Warranty

As regards the warranty conditions see **par. 11.8**.
If found that the parties do not intend to submit the controversies rising from the supply contract, to an arbitral judgement or in any other case where it is required the verdict of an organ of the ordinary Court, only the law Court in Vicenza will have territorial jurisdiction.

2 MACHINE IDENTIFICATION

2.1 Copy of CE accordance statement

<table>
<tr><th colspan="5">CE ACCORDANCE STATEMENT</th></tr>
<tr><td>Manufacturer</td><td colspan="4">MULTIONE SRL SOCIETÀ UNIPERSONALE
via Palù, 6/8
36040 Grumolo Delle Abbadesse (VI) Italy
Tel. +39 0444 264600
info@multione-csf.com
Fax +39 0444 389260
iwww.multione-csf.com</td></tr>
<tr><th colspan="5">We declare that the machine is so identified</th></tr>
<tr><td>Designation</td><td colspan="4">Self-moving Compact wheel loader, articulated frame, equipped with multipurpose quick coupler, MULTIONE</td></tr>
<tr><td>Model</td><td colspan="4">☐ M1 4.2K ☐ M1 5.2K ☐ M1 5.3K</td></tr>
<tr><td>Serial number</td><td colspan="4">.....</td></tr>
<tr><th colspan="5">It is conform to the instructions of the following directives</th></tr>
<tr><td>2006/42/CE</td><td colspan="4">Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast)</td></tr>
<tr><td>2014/30/EU</td><td colspan="4">Directive of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast).</td></tr>
<tr><td rowspan="6">2000/14/CE</td><td colspan="4">Directive 2000/14/EC of the European Parliament and of the Council of 8 May 2000 on the approximation of the laws of the Member States relating to the noise emission in the environment by equipment for use outdoors</td></tr>
<tr><td>Notified organisation</td><td colspan="3">VERICERT SRL - Certificazioni e Verifiche
Via S. Cavina n. 19 - 48100 Ravenna - Italy
NOTIFIED ORGANISATION N. 1878</td></tr>
<tr><td>Evaluation procedure</td><td colspan="3">In-house control of the production with evaluation of the technical documentation and recurrent controls.</td></tr>
<tr><td>Model</td><td>M1 4.2K</td><td>M1 5.2K</td><td>M1 5.3K</td></tr>
<tr><td>Guaranteed sound power level (LWA)</td><td>98 dB</td><td>98 dB</td><td>99 dB</td></tr>
<tr><td>Sound power level measured (LWA)</td><td>95 dB</td><td>96 dB</td><td>97 dB</td></tr>
<tr><td>Net installed power</td><td>14,9 kW</td><td>18,5 kW</td><td>18,5 kW</td></tr>
<tr><th colspan="5">Main regulations harmonized among those applied</th></tr>
<tr><td>EN 12100-1-2:2003 / A1:2009</td><td colspan="4">Safety of machinery. Basic concepts, general principles for design</td></tr>
<tr><td>EN 474-1:2006 / A1:2009</td><td colspan="4">Earth-moving machinery - Safety - Part 1: General requirements</td></tr>
<tr><td>EN 474-3:2006 / A1:2009</td><td colspan="4">Earth-moving machinery - Safety - Part 3: Requirements for loaders</td></tr>
<tr><th colspan="5">Person authorized to keep updated the Technical Booklet</th></tr>
<tr><td>Name and roll</td><td colspan="4">Carraro Giuseppe - Technical Director</td></tr>
<tr><th colspan="5">Person authorized to draw up the statement</th></tr>
<tr><td>Name and roll</td><td colspan="4">Carraro Giuseppe - Technical Director</td></tr>
<tr><td>Place</td><td colspan="4">Grumolo delle Abbadesse (VI) Italy Date ...../...../.....</td></tr>
<tr><td>Signature</td><td colspan="4">  </td></tr>
</table>

2.2 Designation

The machine in question is so named:

Self-moving Compact wheel loader, articulated frame, equipped with multipurpose quick coupler, MULTIONE
4 Series - Models 4.2K
5 Series - Models 5.2K - 5.3K

N.B. The model of the machine is reported on the statement CE of conformity and on the marking CE applied to the machine.

3 IMPORTANT INFORMATION ABOUT SAFETY

3.1 General instructions

⚠ DANGER

IT IS COMPULSORY TO CONTROL CONSTANTLY THE PROPER FUNCTIONING OF ALL SHELTERS AND THE PROTECTION DEVICES INSTALLED ON THE MACHINE.

IT IS COMPULSORY TO SUBSTITUTE AT THE RIGHT TIME POSSIBLE SHELTERS AND NOT WORKING WELL AND/OR DAMAGED PROTECTION DEVICES.

⚠ DANGER

IT IS FORBIDDEN TO SUBSTITUTE ANY SHELTER, PROTECTION DEVICE OR ANY COMPONENT WITH NON ORIGINAL SUBSTITUTES.

IT IS FORBIDDEN TO TAMPER, EXCLUDE AND/OR TAKE AWAY ANY SHELTER OR PROTECTION DEVICE PLACED ON THE MACHINE.

PARTICULARLY THE ROPS STRUCTURE CANNOT IN ANY CASE BE DRILLED, WELDED OR MODIFIED, IN CASE OF DAMAGE IT CANNOT BE REPAIRED BUT IT MUST BE SUBSTITUTED BY AN ORIGINAL SUBSTITUTE. WHAT IS ABOVE IT IS VALID UNLESS THERE IS A DIFFERENT WRITTEN DISPOSITION BY THE MACHINE MANUFACTURER.

3.2 Residual risks

We inform the operator in charge that though the manufacturer has adopted all possible technical structural precautions to make the machine sure, possibile residual risks remain. They are described in succession.

⚠ DANGER

TO MINIMIZE THE EXPOSITION TO RESIDUAL RISKS IT IS COMPULSORY TO RESPECT THE SAFETY SIGNS **(SEE PAR. 4.8)** AND WEAR THE INDIVIDUAL PROTECTION **(SEE PAR. 4.10)** REPORTED IN THIS MANUAL.

⚠ WARNING

THE RESIDUAL RISKS REPORTED IN SUCCESSION CONCERN THE MACHINE WITHOUT ASSEMBLED EQUIPPING. WE REFER TO THE EQUIPPING INSTRUCTION MANUAL FOR THE DESCRIPTION OF THE RESIDUAL SPECIFIC EQUIPPING RISKS.

THERE IS THE RESIDUAL RISK OF INJURIES IN CONSEQUENCE OF FALL OF OBJECTS OR MATERIAL FROM THE POSSIBLE ATTACHMENT ASSEMBLED TO THE MACHINE. CONSULT THE ASSEMBLED EQUIPPING INSTRUCTION MANUAL TO VERIFY THE PRESENCE OF THIS RISK.

⚠ RESIDUAL RISK N. 1

THERE IS DANGER OF BURN FOR CONTACT IF THE AUTHORIZED OPERATOR GET INTO CONTACT WITH THE HOT PARTS SUCH AS MULTICONNECTOR, HYDRAULIC CYLINDERS, HYDRAULIC PIPES, PARTS OF THE ENGINE THAT, OWING TO PROLONGED USE OF THE MACHINE CAN REACH HIGH TEMPERATURES.

IT IS COMPULSORY TO RESPECT THE ASSEMBLY PROCEDURES, ATTACHMENT DISASSEMBLY **(SEE CHAP. 8)** AND ORDINARY MAINTENANCE PROCEDURES **(SEE CHAP. 9)** DESCRIBED IN THIS MANUAL.

⚠ RESIDUAL RISK N. 2

THERE IS THE DANGER OF INJURIES OWING TO CONTACT WITH MOBILE PARTS IN MOTION IF THE AUTHORISED OPERATOR DOES NOT RESPECT THE INSTRUCTIONS REPORTED IN THIS MANUAL AND, PARTICULARLY, STRECHES OUT HIS UPPER LIMBS OUTSIDE THE DRIVING SEAT DURING THE ORDINARY WORKING OF THE MACHINE.

IT IS COMPULSORY TO RESPECT THE PROCEDURES OF ASSEMBLY, DISASSEMBLY OF THE EQUIPPING **(SEE CHAP. 8)**, THE ORDINARY MAINTENANCE PROCEDURES **(SEE CHAP. 9)** AND THE INSTRUCTIONS FOR A RIGHT POSITION TO ASSUME DURING THE USE **(SEE PAR. 8.3.1.1)** DESCRIBED IN THIS MANUAL.

⚠ RESIDUAL RISK N. 3

THERE IS THE DANGER OF CRUSHING FOR A POSSIBLE FALL OF THE ATTACHMENT IF THE AUTHORISED OPERATOR DOES NOT RESPECT THE INSTRUCTIONS REPORTED IN THIS MANUAL.

IT IS COMPULSORY TO RESPECT THE EQUIPPING DISASSEMBLY PROCEDURES **(SEE CHAP. 8)** DESCRIBED IN THIS MANUAL.

⚠ RESIDUAL RISK N. 4

THERE IS THE DANGER OF CRUSHING FOR ROLLING OVER OF THE MACHINE IF THE AUTHORISED OPERATOR DOES NOT RESPECT THE INSTRUCTIONS REPORTED IN THIS MANUAL AND, PARTICULARLY, IF HE DOES NOT FASTEN HIS SAFETY-BELT.

IT IS COMPULSORY TO RESPECT THE PROCEDURES OF THE ORDINARY USE OF THE MACHINE **(SEE CHAP. 8)** DESCRIBED IN THIS MANUAL.

⚠ RESIDUAL RISK N. 5

THERE IS THE DANGER OF INJURIES TO HEARING IF THE AUTHORISED OPERATOR DOES NOT RESPECT THE INSTRUCTIONS REPORTED IN THIS MANUAL AND IF HE DOES NOT WEAR ANTI-NOISE HEADPHONES.

IT IS COMPULSORY TO WEAR PERSONAL PROTECTION DEVICES INDICATED IN THIS MANUAL **(SEE PAR. 4.10)**.

⚠ RESIDUAL RISK N. 6

THERE IS THE DANGER OF CRUSHING DURING THE STEERING PHASE OF THE MACHINE IF THE AUTHORISED OPERATOR DOES NOT RESPECT THE INSTRUCTIONS REPORTED IN THIS MANUAL, PARTICULARLY, OPERATES THE CONTROL BUTTONS FROM A PLACE DIFFERENT FROM THE DRIVING ONE AND HE DOES NOT CONTROL THE PRESENCE OF PEOPLE, ANIMALS AND OR THINGS NEARBY THE MACHINE.

IT IS COMPULSORY TO OPERATE THE CONTROL BUTTONS ONLY AND EXCLUSIVELY FROM THE DRIVING SEAT AND MAKE SURE THAT WITHIN A RADIUS OF TEN METRES, THERE ARE NO THINGS, ANIMALS OR PEOPLE WHOSE SAFETY CAN BE ACCIDENTALLY COMPROMISED.

⚠ RESIDUAL RISK N. 7

THERE IS THE DANGER OF FEET CRUSHING DURING THE STEERING PHASE OF THE MACHINE IF THE AUTHORISED OPERATOR DOES NOT RESPECT THE INSTRUCTIONS REPORTED IN THIS INSTRUCTION MANUAL.

IT IS COMPULSORY TO MOVE THE MACHINE WITH THE CABIN DOOR CLOSED (IF THERE IS ONE) AND WITHOUT STRETCHING THE LEGS AND THE ARMS OUTSIDE THE DRIVING SEAT.

3.3 Transport and lifting

⚠ WARNING

THE MACHINE WITH THE ENGINE SWITCHED OFF IS LOCKED IN AN HYDRAULIC WAY AND IT CANNOT BE MOVED.

IT IS FORBIDDEN TO TOW THE MACHINE OFF BY ANY MEAN OF TRANSPORT.

3.4 Maintenance

⚠ DANGER

ATTENTION TO CARRY OUT THE MAINTENANCE OPERATION ON THE MACHINE: THIS MUST BE IN THE “SAFETY STATE” **(SEE PAR. 9.2)**.

⚠ DANGER

IT IS FORBIDDEN TO THE AUTHORISED OPERATORS TO LEAVE UNATTENDED THE MACHINE DURING THE MAINTENANCE OPERATIONS WITHOUT MAKING SURE TO HAVE ARRANGED ANY PRECAUTION SUITABLE TO AVOID TO START ACCIDENTALLY THE MACHINE OR SOME OF ITS PARTS.

⚠ DANGER

DURING ALL MAINTENANCE OPERATIONS THAT SHOULD BE CARRIED OUT ON THE MACHINE WITH ITS LIFTING ARM RAISED IT IS COMPULSORY TO INSERT THE LOCK BRACKET OF THE LIFTING ARM **(SEE PAR. 9.3)**.

⚠ WARNING

THE AUTHORISED OPERATORS MUST CARRY OUT ONLY THE MAINTENANCE OPERATIONS REQUIRED ACCORDING TO THEIR SPECIFIC PROFESSIONAL COMPETENCE AND ON THE PERMISSION OF THE PERSON IN CHARGE.

LUBRICANT FLUIDS AND POSSIBLE OTHER FLUID COMING FROM MAINTENANCE MUST NOT BE UNLOADEN IN THE ENVIRONMENT. THESE PRODUCTS ARE CONSIDERED POLLUTING AND DANGEROUS AND THEY MUST BE COMPULSORELY TAKEN AWAY CHARGING AUTHORISED COMPANIES QUALIFIED FOR DIFFERENT PRODUCT TIPOLOGIES, IN THE ABSOLUTE RESPECT OF THE REGULATION IN FORCE IN THE COUNTRY WHERE THE MACHINE IS USED.

⚠ ATTENTION

IT IS MANDATORY TO KEEP THE MACHINE IN A SCRUPULOUSLY CLEAN CONDITION.

4 DESCRIPTION OF THE MACHINE

The machine has been planned and carried out to operate according to the type of attachment assembled in agricultural environment, green spaces, farming and gardening, building and road yards both in the private sector and in the public one.
The machine is provided with a heat diesel engine, that sets a series of hydraulic pumps.
These feed an hydraulic circuit at high pressure that enables:
1) The four wheels whose the machine is equipped (each is moved by an hydraulic engine).
2) The steering system, formed by a hydraulic cylinder which acts on the articulation of the central pivot steering of the frame.
3) A lifting arm (in the front part of the machine).
4) The attachment assembled in case on the machine.
The control panel is placed on the driving seat.

4.1 Main parts and their functions

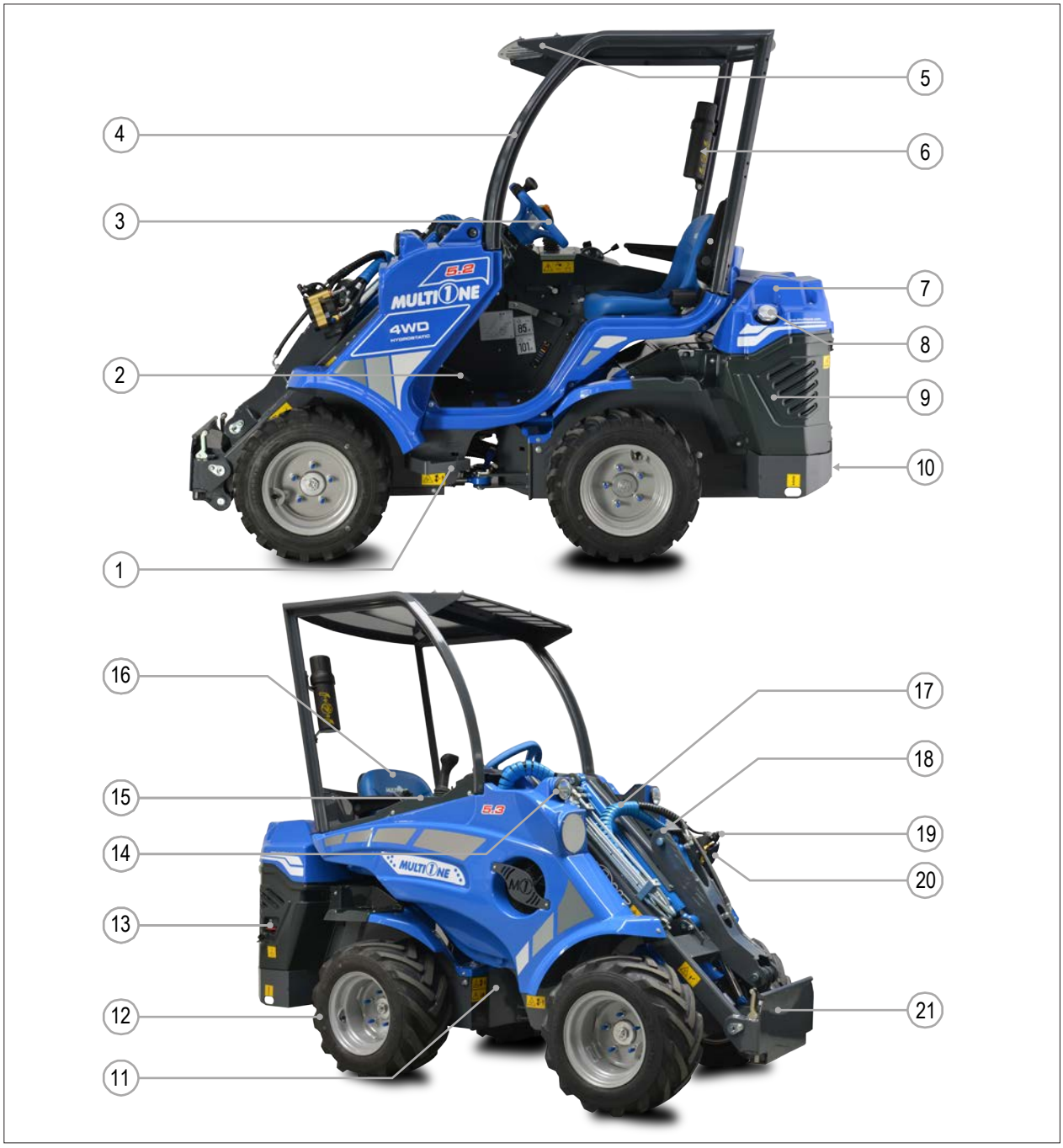


FIG. 1

Ref.	Part	Function
1	Footrest step	It allows to get on the machine safely.
2	Pedals	They allow to determine the direction and speed.
3	Wheel	It allows to change direction during the translation of the machine.
4	ROPS	It protects the operator in charge in case of rolling over of the machine.
5	Roof and FOPS structure	It protects the operator in charge from bad weather and from the direct exposure to the sunbeams, the FOPS structure protects the operator in charge against the object fall.
6	Document compartment	It contains the operating manual.
7	Opening engine space compartment	It protects the engine and prevents the operators in charge to get in touch accidentally with the mobile parts and high parts.
8	Fuel tank cap	It allows refuelling.
9	Engine	It moves the hydraulic pumps.
10	Coupling for towing hook or counterweight (option)	It allows to connect to the machine a coupler for light trailers or to install some counterweight to increase the stability of the machine.
11	Central steering joint	Actuated by a hydraulic cylinder allows the steering of the machine.
12	Wheels	They support and allow the machine movement.
13	Disconnecting battery key	It allows to disconnect the battery.
14	Working lights	They provide more visibility in a situation of poor lighting.
15	Control panel	It assembles operating controls of the machine and of the possible attachment assembled to the machine.
16	Driving seat supplied with armrests and safety belt	It is for the operator in charge to be seated and fastened to the machine.
17	Hydraulic circuit pipes	They allow the passage of the hydraulic oil for assembled equipping working.
18	Lifting arm	It raises possible attachment assembled of the machine.
19	12 V DC power outlet	It provides power to any electrical devices on the assembled attachment.
20	Multi - connector	It allows the connection to the attachment hydraulic circuit.
21	Quick coupler	It allows the mechanic connection to attachment.

TAB. 2

4.2 Seats taken by authorised operators

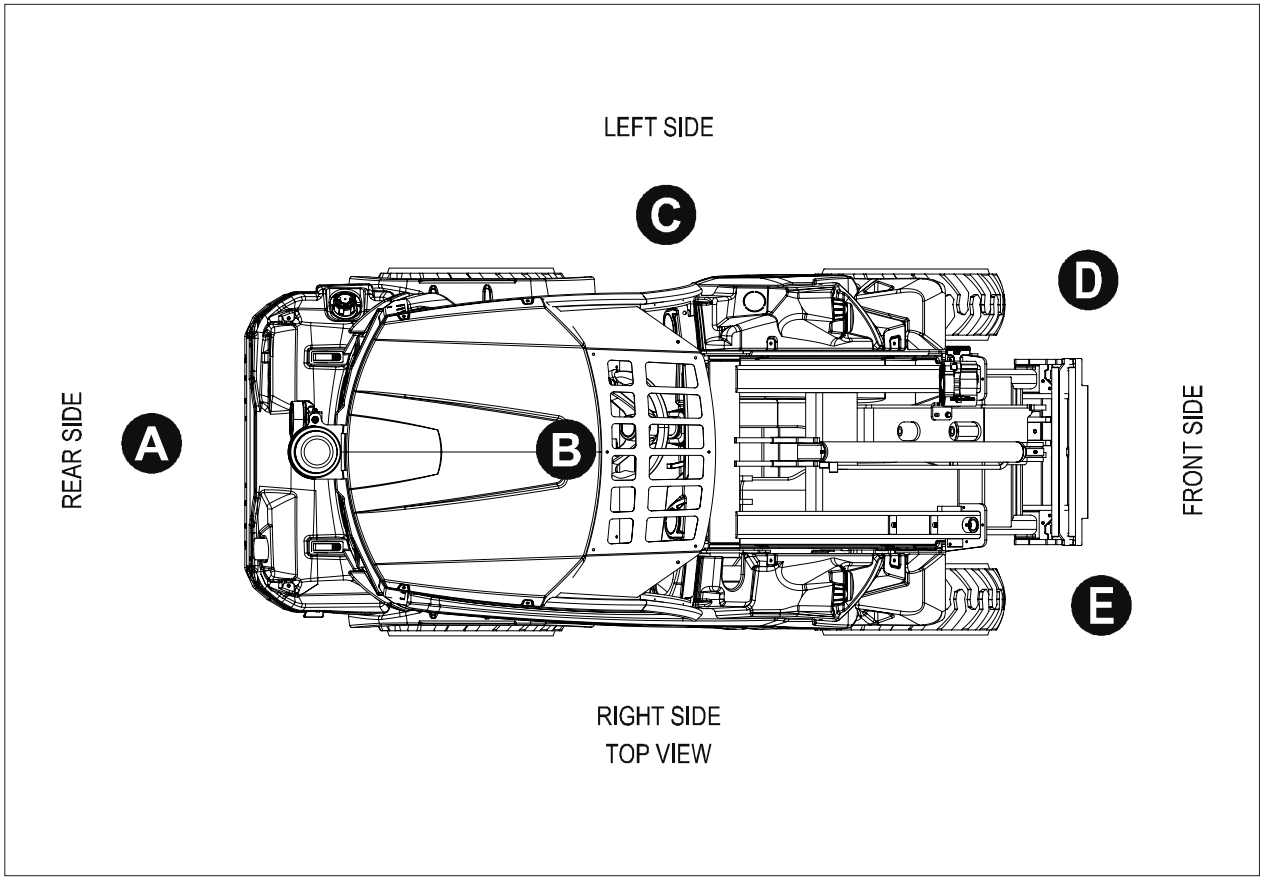


FIG. 2

⚠ DANGER

THE OPERATOR DURING THE WORKING PHASES MUST REMAIN ON BOARD OF THE MACHINE (**SEAT B**) AND ONLY WITH THE MACHINE IN "SAFETY STATE" **(SEE PAR. 9.2 AND PAR. 9.3)** CAN OCCUPY THE OTHER WORKING PLACES SHOWN IN **FIG. 2**.

Operator in charge	Place	Description of the operation
	A	Standing on the back side: • for the refuelling **(see par. 8.3.8)**; • to connect/disconnect the battery (right side) **(see par. 7.1)**; • to operate required maintenance operations on the machine and on the engine **(see chap. 9)**.
	B	Seated at the driving seat in the right position of use and with the safety belt fastened during the ordinary working **(see par. 8.3)**.
	C	Standing on the left side of the machine to get on to the driving seat **(see par. 8.3.1)**.
	D	Standing on the front left side of the machine to carry out the assembly and disassembly of the attachment **(see par. 8.3.4 and par. 8.3.5)**.
	E	Standing on the right front side of the machine to carry out the assembly and disassembly of the attachment **(see par. 8.3.4 and par. 8.3.5)**.

TAB. 3

4.3 Control devices

The control devices are arranged in the machine as shown in **FIG. 3**.

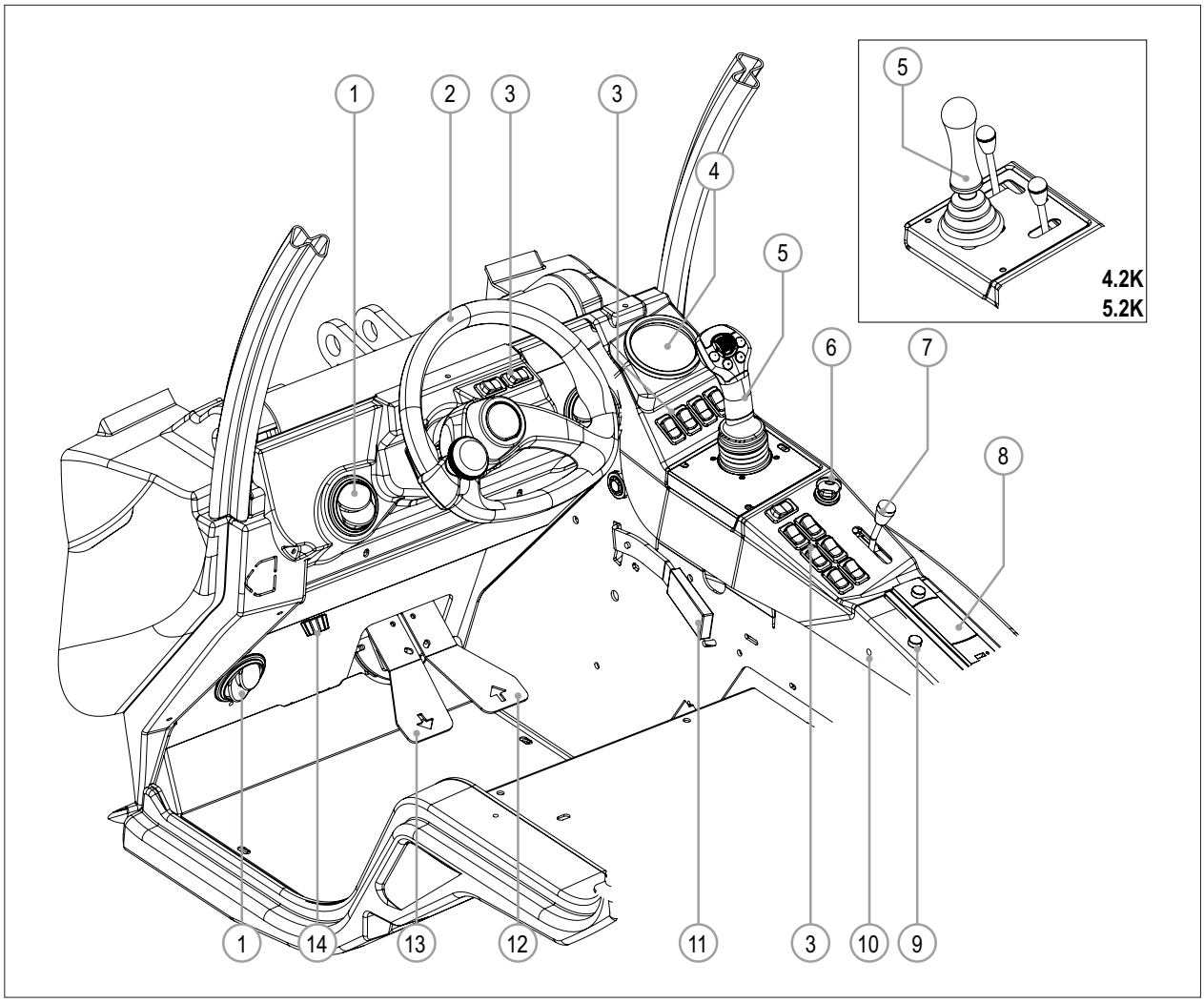


FIG. 3

Ref.	Name	Function
1	Air vent (optional)	It is adjustable and allows the escape of hot air produced by the heating system.
2	Steering wheel	The wheel allows to change direction during the machine operating.
3	Switches panel	See **(see par. 4.3.1)**.
4	Multifunction device	A collection of indicators **(see par. 4.3.2)**.

cont.

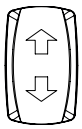
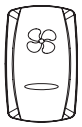
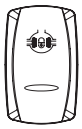
Ref.	Name	Function	
5	Joystick	It controls the movement of the lifting arm, of the quick coupler and the operation of the possible assembled attachment **(see par. 4.3.4)**.	
6	Ignition lock key	By Key on and turned to the right carries out respectively:	
		0	• **Position: "0":** machine off.
		1	• **Position "1":** power to control panel.
			• **Position "2":** pre-heating (glow plug ignition).
			• **Position "3":** starting the machine.
7	Throttle	It regulates the engine speed.	
			• **Position "Hare" (forward):** it increases engine rpm.
			• **Position "Turtle" (backward):** it lowers engine rpm.
8	Radio with Bluethoot	Optional.	
9	12 V socket	12 VDC - MAX 180 W electric socket.	
10	Reset switch	It allows to perform the maintenance light reset **(see par. 9.5)**.	
11	Parking brake lever	It locks the machine when parking. The brake is mechanical in pin (Pin Lock) and acts only on the front wheels. • **Pos. "Down":** Brake off. • **Pos. "Up":** Brake engaged and locked. • N.B.: The brake is properly inserted when you hear the shutter sound input **(see par. 8.3.7)**.	
12	Proportional pedal forward	**Pressed downwards** (with the right foot): allows the forward movement of the machine and increases its speed in proportion to the pressure exerted on the same.	
13	Proportional pedal backward	**Pressed downwards** (with the right foot): allows the backward movement of the machine and increases its speed in proportion to the pressure exerted on the same.	
14	Heating temperature control knob (option)	It controls the heating temperature. • **Rotated clockwise** it increases the temperature. • **Rotated counterclockwise** it decreases the temperature.	

TAB. 4

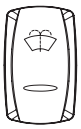
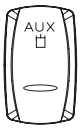
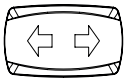
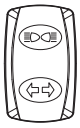
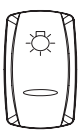
4.3.1 Switches

⚠ ATTENTION

THE DISPOSITION OF THE BUTTONS CAN VARY ACCORDING TO THE FITTING OUT.

Ref.	Name		Function	
1		Power switch DC12V **(see par. 4.3.7)**	Three-position switch, it powers the socket on the lifting arm to operate any electrical device on attachment assembled to the machine (eg.: chimney on the snow blower). The switch has three positions:	
				• **Pos. "Forward":** it powers the socket (eg.: rotation of the snow blower to the right).
				• **Pos. "Central":** it interrupt the supply of the socket.
				• **Pos. "Backward":** it reverses the polarity of the socket (eg.: rotation of the chimney of the snow blower to the left).
2		Sound warning signal		Hold-to-run switch. Pressed, it activates the emergency sound warning signal.
3		Heating switch (option)		3 position switch: it activates the fan heating system: • **Pos. "Forward":** (pressed again): heating on: second speed of the fan. • **Pos. "Central":** (pressed): heating on: first speed of the fan. • **Pos. "Backward":** (starting position): heating off.
4		DBS switch Dynamic Block System (only 5.2K and 5.3K)	2 position switch: it allows two wheels (same side, front and rear) to have the same speed. It can be inserted on the machine in motion or stopped.	
				• **Pos. "Forward"- ON:** two wheels (same side, front and rear) have the same speed. This increases the traction.
				• **Pos. "Backward" - OFF:** the wheels are free to run at different speed while steering (eg.: to avoid damaging the work surface).
5		Working lights switch	2 position switch.	
				• **Pos. "Forward"- ON:** It turns on the working lights.
				• **Pos. "Backward" - OFF:** it turns off the working lights.
6		Floating system switch (option)	2 position switch.	
				• **Pos. "Forward"- ON:** It activates the floating system of the lifting arm. **WARNING: The lifting capacity of the arm is reduced and the function of the parallelogram is inhibited.**
				• **Pos. "Backward" - OFF:** It turns off the floating system.
7		Heating seat switch (option)	2 position switch.	
				• **Pos. "Forward"- ON:** It activates the heating system of the seat.
				• **Pos. "Backward" - OFF:** It turns off the heating system of the seat

cont.

Ref.	Name		Function	
8		Washer switch (option)	2 position switch.	
				• **Pos. "Forward"- ON:** It activates the windshield washer.
				• **Pos. "Backward" - OFF:** It turns off the windshield washer.
9		Light indicator switch (flashing) (option)	2 position switch.	
				• **Pos. "Forward"- ON:** It activates the light indicator (flashing lights) on cab roof.
				• **Pos. "Backward" - OFF:** It turns off the light indicator (flashing lights) on cab roof.
10		Front auxiliary hydraulic outlets switch (option for 5.3K only)	2 position switch.	
				• **Pos. "Forward"- ON:** It enable the front auxiliary hydraulic outlets. **WARNING: To operate the front auxiliary hydraulic outlets, use the telescopic boom command.** **The telescopic boom is disabled as long as the outlets are enabled.**
				• **Pos. "Backward" - OFF:** It disable the front auxiliary hydraulic outlets.
11		Emergency light switch (option)	2 position switch.	
				• **Pos. "Forward"- ON:** It turns on the four directional lights simultaneously.
				• **Pos. "Backward" - OFF:** It turns off the four directional lights.
12		Direction light switch (option)		• **Pos. "Right"**: Right direction light ON.
				• **Pos. "Center"**: Direction light OFF.
				• **Pos. "Left"**: Left direction light ON.
13		Direction lights and traffic lights light (option)		If ON indicates that the traffic lights are ON.
				If ON indicates that the direction lights are ON.
14		Auxiliary working lights switch (option)	2 position switch.	
				• **Pos. "Forward"- ON:** It activates the auxiliary working lights (front and rear).
				• **Pos. "Backward" - OFF:** it turns off the auxiliary working lights (front and rear).
15		Traffic lights switch (option)		• **Pos. "Forward":** Low beam lights ON.
				• **Pos. "Center"**: Position lights ON.
				• **Pos. "Backward":** traffic lights OFF.

TAB. 5

4.3.2 Multifunction device - (ver. A)

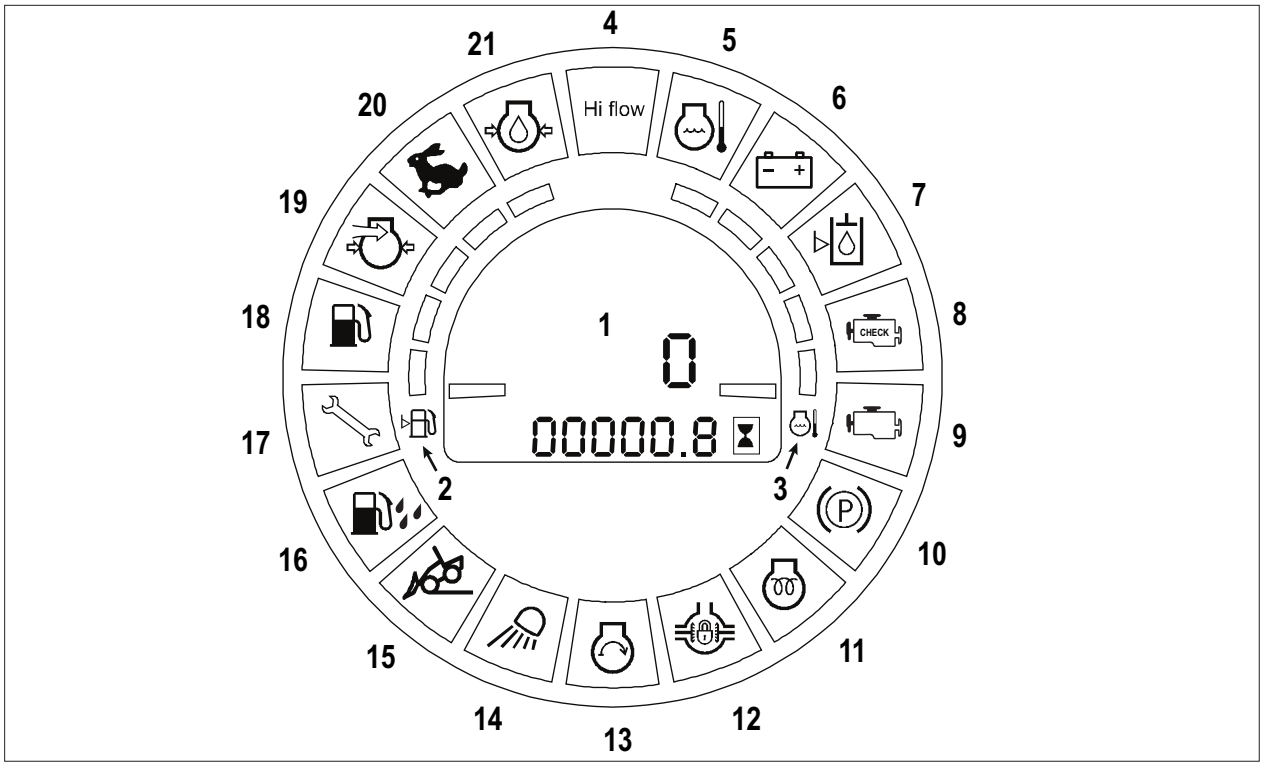


FIG. 4

Ref.	Name	Function	
1	Multifunction display	It indicates: **1)** At start up: for the first 10 seconds, the number of remaining hours until the next operation of maintenance. **2)** During operation: • **Bottom:** hours of operation. • **Top:** number of engine rpm.	
2	Fuel gauge		The notches indicate: • **"green"**: fuel quantity; • **"yellow"**: reserve.
3	Engine water temperature gauge		The notches indicate: • **"blue":** low temperature; • **"green":** operating temperature; • **"red":** high temperature, danger.
4	Oil flow attachment light	Hi flow	With steady **"yellow"** light it indicates that HI- FLOW is ON (only 5.3 K).
5	Engine water temperature warning light		With steady "**red"** light it indicates the engine excessive water temperature and/ or lack of coolant.
6	Battery warning light		With steady **"red"** light it indicates the lack of battery power and/or malfunction of the alternator.
7	Oil filter clogging lamp		With steady **"red"** light it indicates that the hydraulic circuit oil filter is clogged.

cont.

Ref.	Name	Function	
8	Engine Check Warning		With the steady **"orange"** light it indicates a minor failure of engine. Maintenance is required.
9	Warning light		With steady **"red"** light it indicates a serious failure of engine. Stop engine and require maintenance.
10	Parking brake light		With steady **"red"** light it indicates the parking brake is inserted.
11	Preheat indicator		With the steady **"orange"** light it indicates the operation of engine glow plugs.
12	DBS light		With steady **"yellow"** light it indicates that DBS is in action.
13	Attachment hydraulic circuit operation lamp		With steady **"yellow"** light it indicates the hydraulic circuit of attachments is on.
14	Light indicator		With steady **"green"** light it indicates front and rear work lights on.
15	Warning light		Not used.
16	Warning light		Not used.
17	Maintenance light		With steady **"yellow"** light it indicates the need to do scheduled maintenance. See reset procedure at **par. 9.5.1**.
18	Fuel warning light		With steady **"orange"** light it indicates the need for refuelling.
19	Air Filter Warning		A steady **"red"** light indicates that the air filter is dirty and need to be clean..
20	High Speed Indicator		Not used.
21	Engine oil pressure warning light		With steady **"red"** light it indicates that the engine oil pressure is too low.

TAB. 6

4.3.3 Multifunction device - (ver. B)

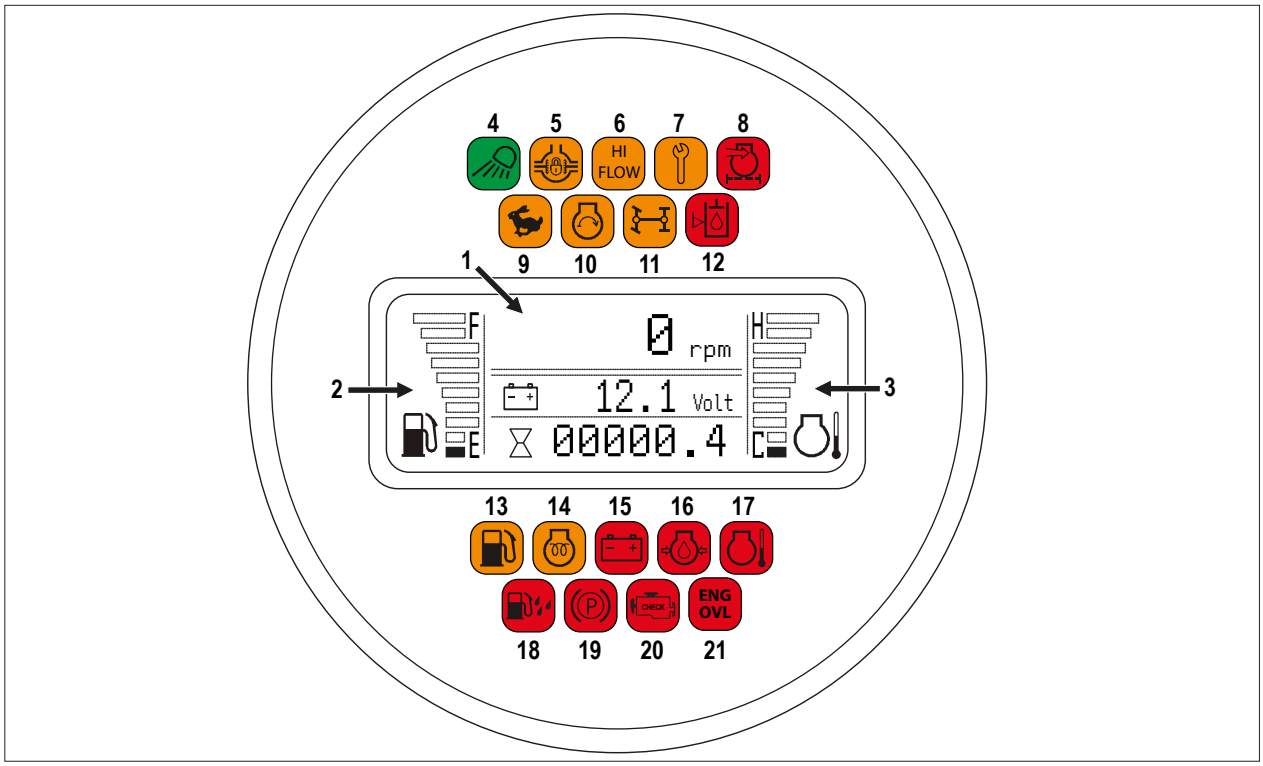


FIG. 5

Ref.	Name	Function	
1	Multifunction display	It indicates: • **Bottom:** hours of operation. • **Middle:** battery voltage. • **Top:** number of engine rpm. When less than 10 hours are left to the scheduled maintenance interval, each time the machine is switched on, the remaining hours are displayed with the minus sign in front (ex: - 8.0). The maintenance light **(ref. 7)** stays on 2 minutes after each start. When the scheduled maintenance interval has expired, the number 0 (zero) is displayed at each start. The maintenance light **(ref. 7)** remains lit and the reset procedure must be performed to switch it off **(see par. 9.5.2)**.	
2	Fuel gauge		The bars indicate the fuel lebel: • **E**: reserve ; • **F**: full.
3	Engine water temperature gauge		The bars indicate the engine water temperaure: • **C:** low temperature; • **H:** high temperature, danger.
4	Light indicator		With steady **"green"** light it indicates front and rear work lights on.
5	DBS light		With steady **"yellow"** light it indicates that DBS is in action.
6	Oil flow attachment light	Hi flow	With steady **"yellow"** light it indicates that HI- FLOW is ON (only 5.3 K) **(TAB. 9 - Ref. 5)**.

cont.

Ref.	Name	Function	
7	Maintenance light		• With steady **"yellow"** light it indicates the need to do scheduled maintenance. • If it light up for 2 minutes at every start of machine, it indicates that less of 10 hours remain to next scheduled maintenance.
8	Air Filter Warning		A steady**"red"** light indicates that the air filter is dirty and need to be clean.
9	High Speed Indicator		Not used.
10	Attachment hydraulic circuit operation lamp		With steady **"yellow"** light it indicates the hydraulic circuit of attachments is on.
11	Not used		Not used
12	Oil filter clogging lamp		With steady **"red"** light it indicates that the hydraulic circuit oil filter is clogged.
13	Fuel warning light		With steady **"yellow"** light it indicates the need for refueling.
14	Preheat indicator		With the steady **"yellow"** light it indicates the operation of engine glow plugs.
15	Battery warning light		With steady **"red"** light it indicates the lack of battery power and/or malfunction of the alternator.
16	Engine oil pressure warning light		With steady **"red"** light it indicates that the engine oil pressure is too low.
17	Engine water temperature warning light		With steady "**red**" light it indicates the engine excessive water temperature and/or lack of coolant. A buzzer sounds when the warning light turn on.
18	Warning light		Not used
19	Parking brake light		With steady **"red"** light it indicates the parking brake is inserted.
20	Engine Check Warning		With steady **"red"** light it indicates a serious failure of engine. Stop engine and require maintenance.
21	Engine Overload light	**ENG OVL**	Not used

TAB. 7

4.3.4 Lift arm and attachment controls - (ver. A)

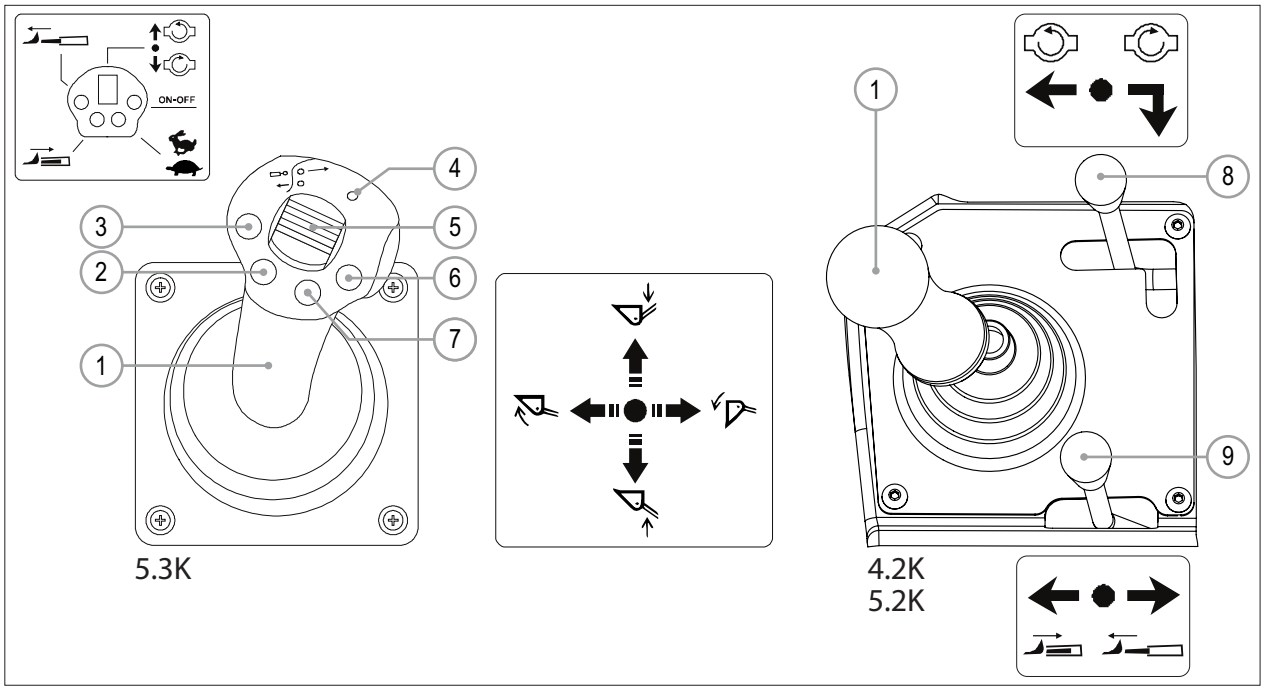


FIG. 6

Ref.	Name	Function		
1	Joystick	It controls the movement of the lifting arm and of the quick coupler.		
				• **Position "Forward"** *(at maintained action)*: it lowers the lifting arm.
				• **Position "Backward"** *(at maintained action)*: it raises the lifting arm.
				• **Position "Right"** *(at maintained action)*: it inclines the quick coupler forward.
				• **Position "Left"** *(at maintained action)*: it inclines the quick coupler backward.
2	Gray button (only 5.3K)		Pressed *(at maintained action)*: it withdraws the arm.	
3	Orange button (only 5.3K)		Pressed *(at maintained action)*: it extends the arm.	
4	Joystick activation light (only 5.3K)	With steady **"green"** light it indicates that the multifunction joystick is operating.		

cont.

Ref.	Name	Function		
5	Yellow selector (only 5.3K)	It controls the hydraulic outlets and in the same time the rear auxiliary hydraulic outlets (optional).		
			• **Pos. "Forward":** it actuates the operation of interchangeable attachment.	
		•	• **Pos. "center":** off the interchangeable attachment.	
			• **Pos. "backward":** it reverses the operation direction of the interchangeable attachment.	
6	Green button (only 5.3K)	ON-OFF	Not used.	
7	Orange button (only 5.3K)	 		Pressed with yellow light on **"Hi flow" (TAB. 6 - Ref. 4)** it sets the minimum hydraulic flow rate of attachment (High flow off). Pressed with yellow light off **"Hi flow" (TAB. 6 - Ref. 4)** it sets the maximum hydraulic flow rate of attachment (High flow on).
8	Hydraulic outlets lever (only 4.2K and 5.2K)			• **Position "Left"** *(at maintained action)*: it reverses the operation direction of the interchangeable attachment.
		•		• **Pos. "center":** off the interchangeable attachment.
				• **Position "Right"** *(at maintained action)*: it actuates the operation of interchangeable attachment.
				• **Position "Right"**: it actuates the operation of interchangeable attachment.
9	Telescopic boom lever (only 4.2K and 5.2K)			• **Position "Left"** *(at maintained action)*: it withdraws the arm.
				• **Position "Right"** *(at maintained action)*: it extends the arm.

TAB. 8

4.3.5 Lift arm and attachment controls - (ver. B)

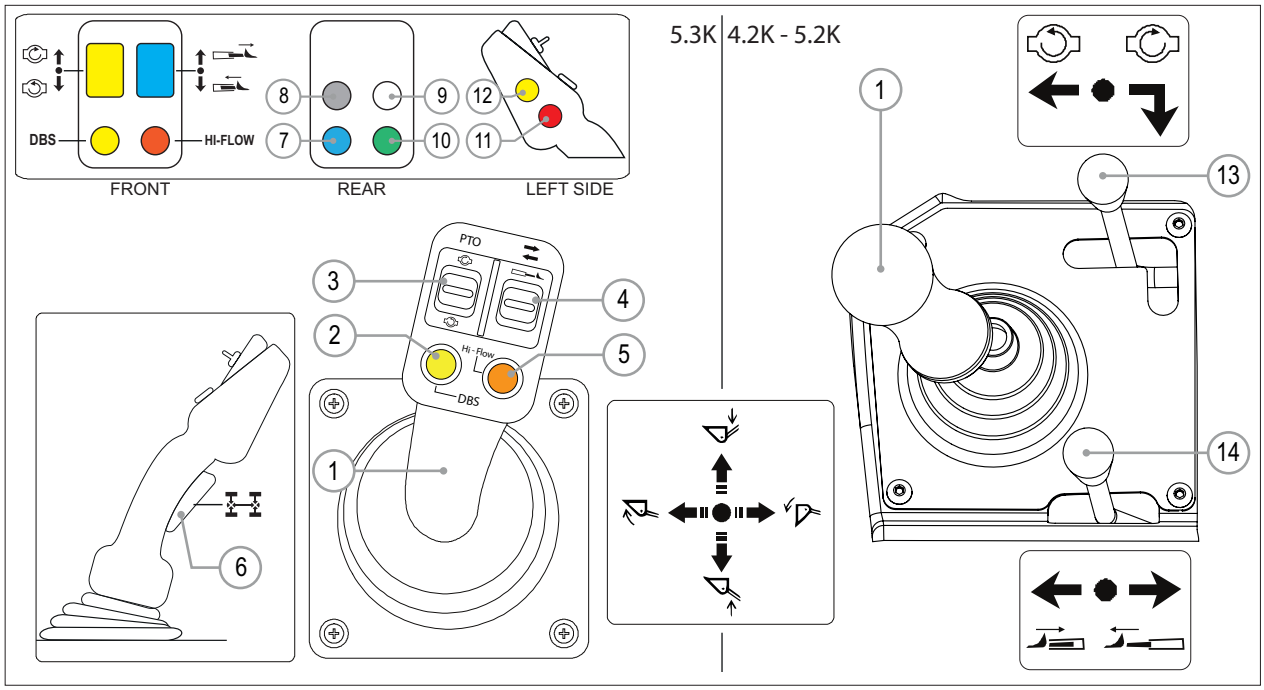


FIG. 7

Ref.	Name	Function		
1	Joystick	It controls the movement of the lifting boom and of the quick coupler.		
				• **Position "Forward"** *(at maintained action)*: it lowers the lifting boom.
				• **Position "Backward"** *(at maintained action)*: it raises the lifting boom.
				• **Position "Right"** *(at maintained action)*: it tilts the quick coupler forward.
				• **Position "Left"** *(at maintained action)*: it tilts the quick coupler backward.
2	Yellow switch (only 5.3K)	**DBS**	2 position switch: it allows two wheels (same side, front and rear) to have the same speed. It can be inserted on the machine in motion or stopped.	
			• **Pos. ON:** two wheels (same side, front and rear) have the same speed. This increases the traction..	
			• **Pos. OFF:** the wheels are free to run at different speed while steering (eg.: to avoid damaging the work surface).	

cont.

Ref.	Name	Function		
3	Yellow selector (only 5.3K)	It controls the hydraulic outlets and in the same time the rear additional hydraulic outlets (optional).		
				• **Pos. "Forward":** it actuates the operation of interchangeable attachment.
		•		• **Pos. "Center":** off the interchangeable attachment.
				• **Pos. "Backward":** it reverses the operation direction of the interchangeable attachment.
4	Blue selector *(at maintained action)* (only 5.3K)	It controls the boom extension.		
				• **Position "Forward"** *(at maintained action)*: it withdraws the boom.
				• **Position "Backward"** *(at maintained action)*: it extends the boom.
5	Orange switch HI-FLOW (only 5.3K)	HI-FLOW		Pressed with yellow light on **"Hi flow" (TAB. 7 - Ref. 6)** it sets the minimum hydraulic flow rate of attachment (High flow off). Pressed with yellow light off **"Hi flow" (TAB. 7 - Ref. 6)** it sets the maximum hydraulic flow rate of attachment (High flow on).
6	Torque divider trigger			Not used. The torque divider, if installed, is always active.
7 - 12	Switches (only 5.3K)	It powers the 7 pole socket on the lifting arm to operate any electrical device on attachment assembled to the machine **(see par. 4.3.7)**.		
13	Hydraulic outlets lever (only 4.2K and 5.2K)			• **Position "Left"** *(at maintained action)*: it reverses the operation direction of the interchangeable attachment.
		•		• **Pos. "center":** off the interchangeable attachment.
				• **Position "Right"** *(at maintained action)*: it actuates the operation of interchangeable attachment.
				• **Position "Right"**: it actuates the operation of interchangeable attachment.
14	Telescopic boom lever (only 4.2K and 5.2K)			• **Position "Left"** *(at maintained action)*: it withdraws the boom.
				• **Position "Right"** *(at maintained action)*: it extends the boom.

TAB. 9

4.3.6 Cabin commands

FIG. 8

Ref.	Name	Function
1	Cabin light switch	Two-position switch controls the light in the cabin: • **Pos. "0"**: cabin light off. • **Pos "1"**: cabin light on.
2	Wiper switch	Two-position switch controls the wiper: • **Pos. "O (OFF)"**: wiper off. • **Pos "I (ON)"**: wiper on.
3	Filler cap of windscreen washer tank	It allows refilling of the tank.
4	External door handle	External handle with lock and key. Pressing the button allows the opening of the door of the cabin.
5	Inside door handle	Inside handle, by pressing the lever allows the opening of the door of the cabin.

TAB. 10

4.3.7 12 VDC power outlet

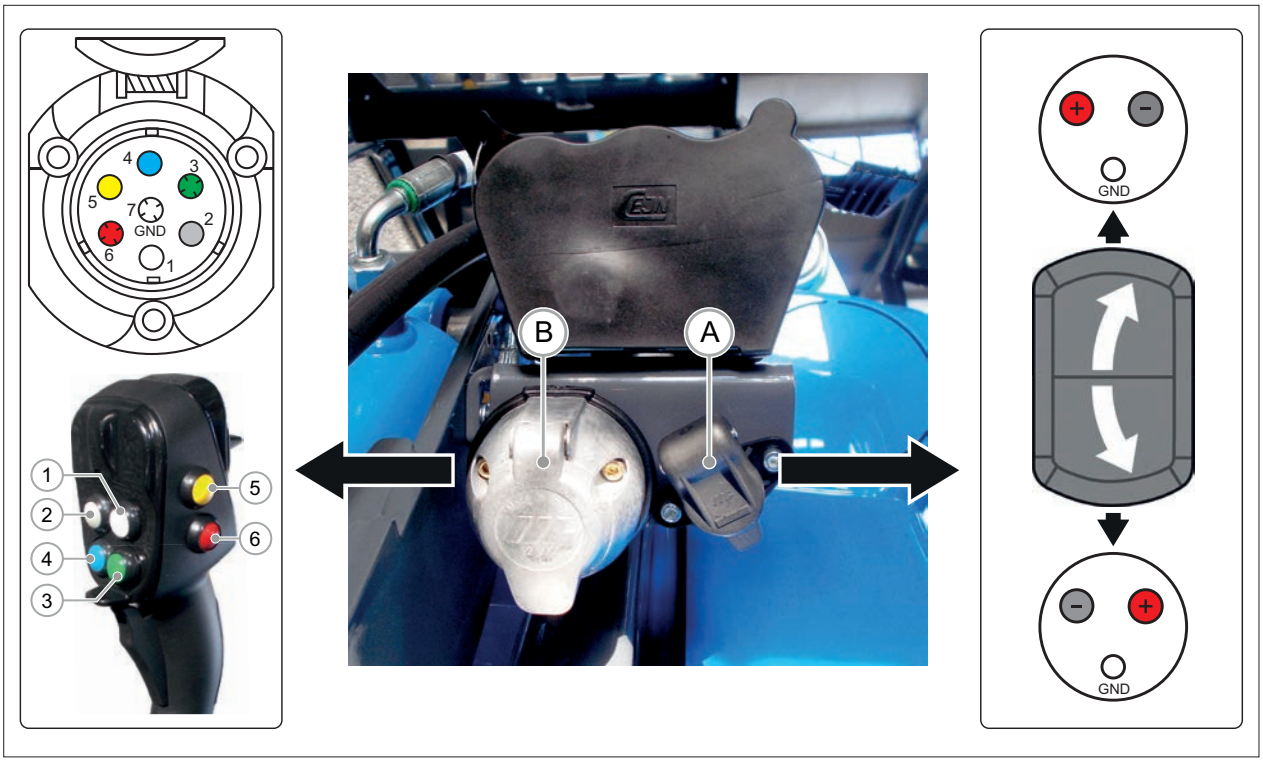


FIG. 9

Ref.	Name	Function
A	Main 12 VDC outlet	It provides power to any electrical devices on the assembled attachment. It is activated by the button on the control panel **(TAB. 5 - Ref. 1)**.
B	7- pole 12 VDC outlet	It is a additional outlet that provides power to any electrical devices on the assembled attachment. It is activated by the switches on the rear and left side of the joystick (ver. B) **(TAB. 9 - Ref. 7 to 12)**. **Only models equipped with multifunction joystick are equipped with the 7-pole outlet, otherwise there is a other outlet (A model) activated by a switch on the control panel.**

TAB. 11

4.4 Shelters and protection devices

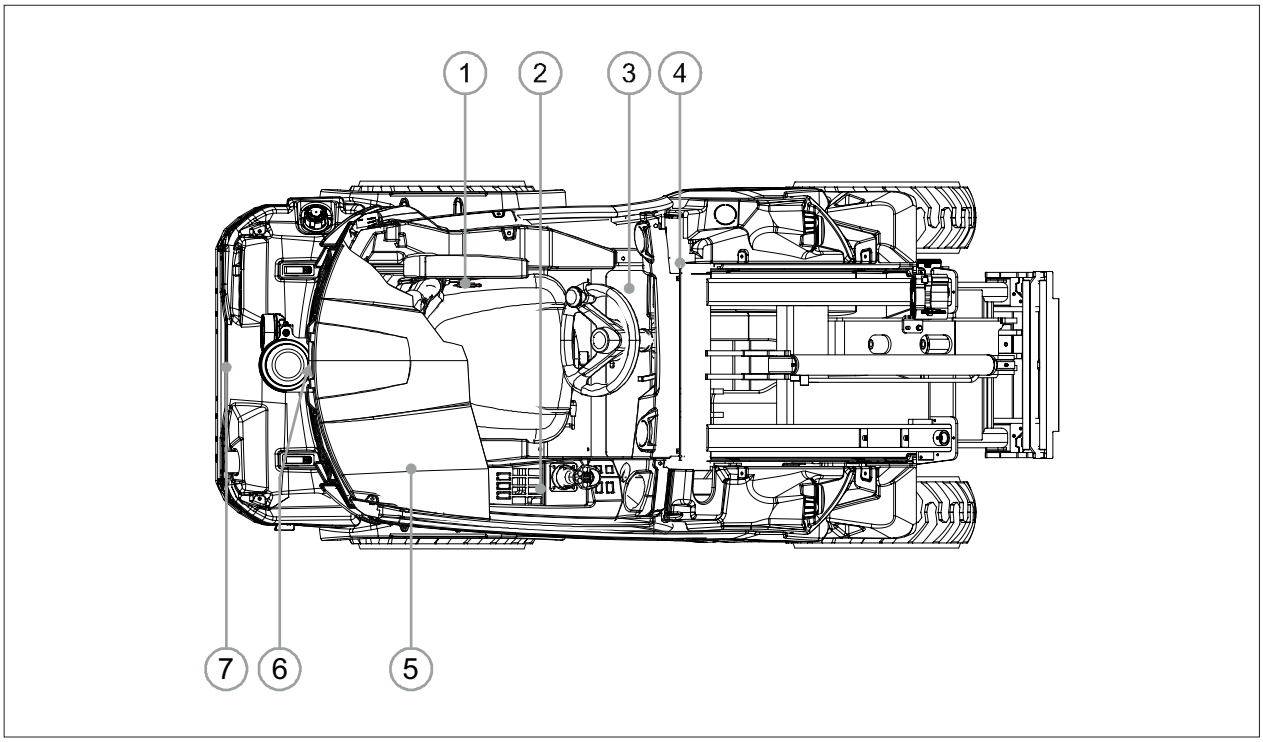


FIG. 10

Ref.	Device	Function
1	Safety belt	It is a retractor pretensioned belt type 2-lap anchor points, installed on the driving seat, which serves to retain the assigned operator on the driving seat. Its use is compulsory.
2	Parking brake	It locks the machine during the break and parking of this.
3	Anti-slip mat	Placed on footboards avoid slipping of the feet.
4	ROPS	Metal structure that protects the operator in charge sitting in the driving seat, in case of rolling over of the machine “according to standard EN ISO 3471:2008”.
5	FOPS - level I	Structure that protects the operator sitting at the driving seat in case of fall of objects “according to standard EN ISO 3449:2008”.
6	Lock lift arm bracket and steering lock bracket	The lock lift arm bracket allows to lock the lift arm in a raised position to operate maintenance **(see par. 9.3)**. The steering lock bracket allows to lock the machine avoiding that steers accidentally during the transport **(see par. 3.3)**.
7	Pressure relief valves	They are valves installed in the hydraulic circuit of the machine and serve to ensure that the working pressure does not exceed the expected values **(see par. 4.4)**.

TAB. 12

⚠ WARNING

IT IS COMPULSORY, IN CASE OF FIRE, TO SUBSTITUTE ALWAYS THE ROPS, THE FOPS, AND SAFETY BELTS AND THEIR MOUNTING BOLTS.

4.5 Intended use

Range of applications	Agriculture, gardening nurseries and gardening, building, road yards and industry.
Location of use	Outside the buildings, in a sufficiently lit place suitable to the laws in the country of use in safety.
Intended use	The intended use is determined by the type of assembled attachment.
Operators in charge of use	Only one authorised operator qualified with the described professional technical requirements **(see par. 1.6.1)**.

TAB. 13

4.5.1 Use limits and technical data

4.5.1.1 Machine

⚠ ATTENTION

TECHNICIAN DATA SUBJECT TO CHANGE WITHOUT NOTICE.

Model		4.2 (K)	5.2 (K)	5.3 K
Code		C944000 (C944001)	C977016 (C977017)	C977038
MAX. length	*mm*	2390	2390	2390
Width (with standard tyres)	*mm*	980	980	1090
MAX. height	*mm*	1960	1960	1960
Steering radius	*grades*	46°	46°	46°
MAX. speed	*km/h*	14	14	12,5
Machine weight without attachments	*kg*	990	1020	1070
Tyre model		Tractor	Tractor	Tractor
Standard tyres	*in*	23X8.50-12	23X8.50-12	23X10.50-12
Oil tank capability	*litres*	30	30	30
Working pressure	*bar*	200	200	200
Type of mineral hydraulic oil		ISO 46 AIV	ISO 46 AIV	ISO 46 AIV
Hydraulic pumps	*N.*	2	2	3
Hydraulic flow	*litres/min*	31	34	50
Working temperature	*°C*	-15 / +45	-15 / +45	-15 / +45

TAB. 14

4.5.1.2 Engine

⚠ WARNING

FOR FURTHER TECHNICAL DATA REFER TO ENGINE MANUAL ENCLOSED.

Model		4.2K	5.2K	5.3K
Manufacturer		KUBOTA	KUBOTA	KUBOTA D1305
Fuel		Diesel	Diesel	Diesel
Cylinders	*N.*	3	3	3
Cooling		Acqua	Acqua	Acqua
Power	*kW/HP*	14,9/20	18,5/25	18,5/25
MAX. revolutions	*rpm*	3600	3600	2500
Tank capacity	*litres*	24	24	24
Battery	*Ah*	44	44	44
Voltage (DC)	*V*	12	12	12

TAB. 15

4.5.2 Dimensions

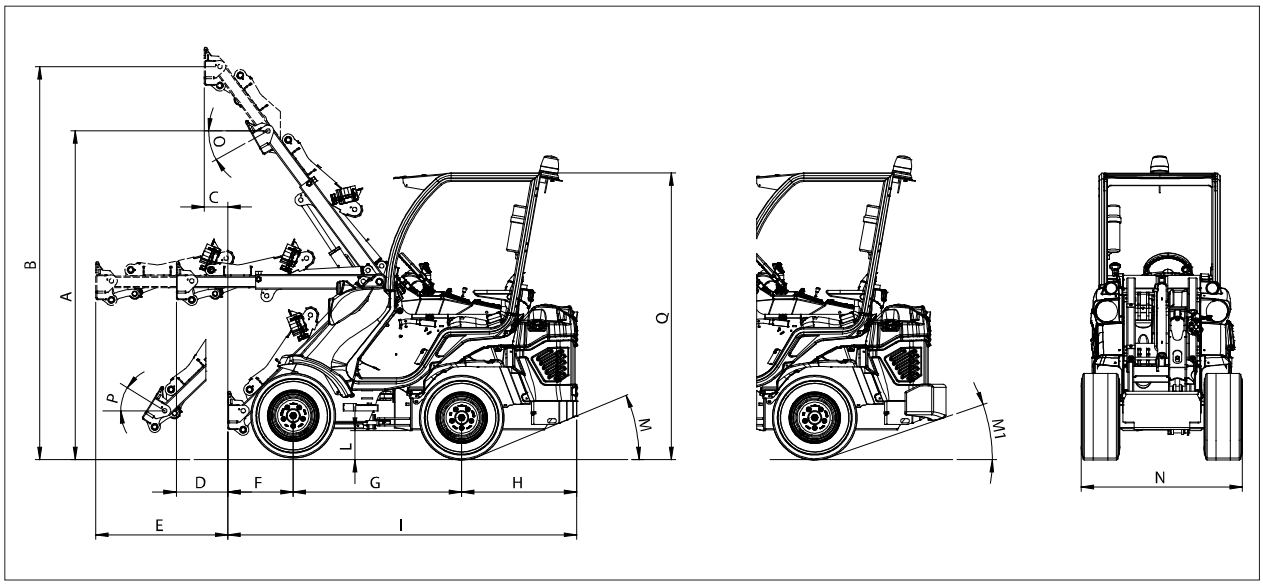


FIG. 11

Ref.	Dimensions	Ref.	Dimensions
A	88.6 in / 2250 mm	**I**	94.1 in / 2390 mm
B	108.3 in / 2750 mm	**L**	7.9 in / 200 mm
C	6.3 in / 160 mm	**M**	19°
D	13.8 in / 350 mm	**M1**	19°
E	35.4 in / 900 mm	**N**	38.6 in / 980 mm with 23X8.50-12 tyres 43.5 in / 1105 mm with 23X10.50-12 tyres NOTE: This dimension may change depending on the tires installed.
F	17.7 in / 450 mm	**O**	29°
G	45.3 in / 1150 mm	**P**	31°
H	31.1 in / 790 mm	**Q**	77.2 in / 1960 mm

TAB. 16

4.5.3 Load diagram

⚠ DANGER

IT IS FORBIDDEN TO EXCEED THE LOAD CAPACITY OF THE MACHINE **(SEE FIG. 12)**.

The load diagram shown in **FIG. 12** is obtained in accordance with standard ISO 14397-1:2007 and shows the load capacity of the machine in the different positions of the lifting arm.
The upper curve **(FIG. 12 - Ref. B)** is referred to a machine with a rear counterweight of 184 kg. The lower curve **(FIG. 12 - Ref. A)** is referred to a machine without counterweight.
The load diagrams are intended with the machine stopped in the position of MAX. steering, placed on solid and flat surface, with 75 kg operator in the driving seat **(see par. 8.3.1.1)** and equipped with tyres Tractor model **(see par. 4.5.1.1)**.

⚠ ATTENTION

MOVING THE LOAD BARYCENTRE DETERMINES THE CHANGE OF LIFTING CAPACITY OF THE MACHINE.

THE LIFTING INDICATED CAPACITY IS COMPREHENSIVE OF THE WEIGHT OF THE ASSEMBLED ATTACHMENT, SO THE NET LIFTING IS THE VALUE SHOWN IN THE GRAPHIC MINUS THE WEIGHT OF THE ASSEMBLED ATTACHMENT.

WHEN WORKING ON UNEVEN OR SOFT GROUND WITH OBSTACLES IT IS COMPULSORY TO KEEP THE ATTACHMENT AS NEAR AS POSSIBLE TO THE GROUND AND REDUCE THE LOAD UNDER THE MACHINE'S LIFTING CAPACITY. THIS WILL MAKE THE MACHINE MORE STABLE.

In the diagram the load barycentre is reported at 500 mm from the quick coupler, in accordance with standard ISO 14397-1:2007. It can be noted that during movement of the arm the barycentre changes compared to the starting position and consequently the load capacity of the machine varies.

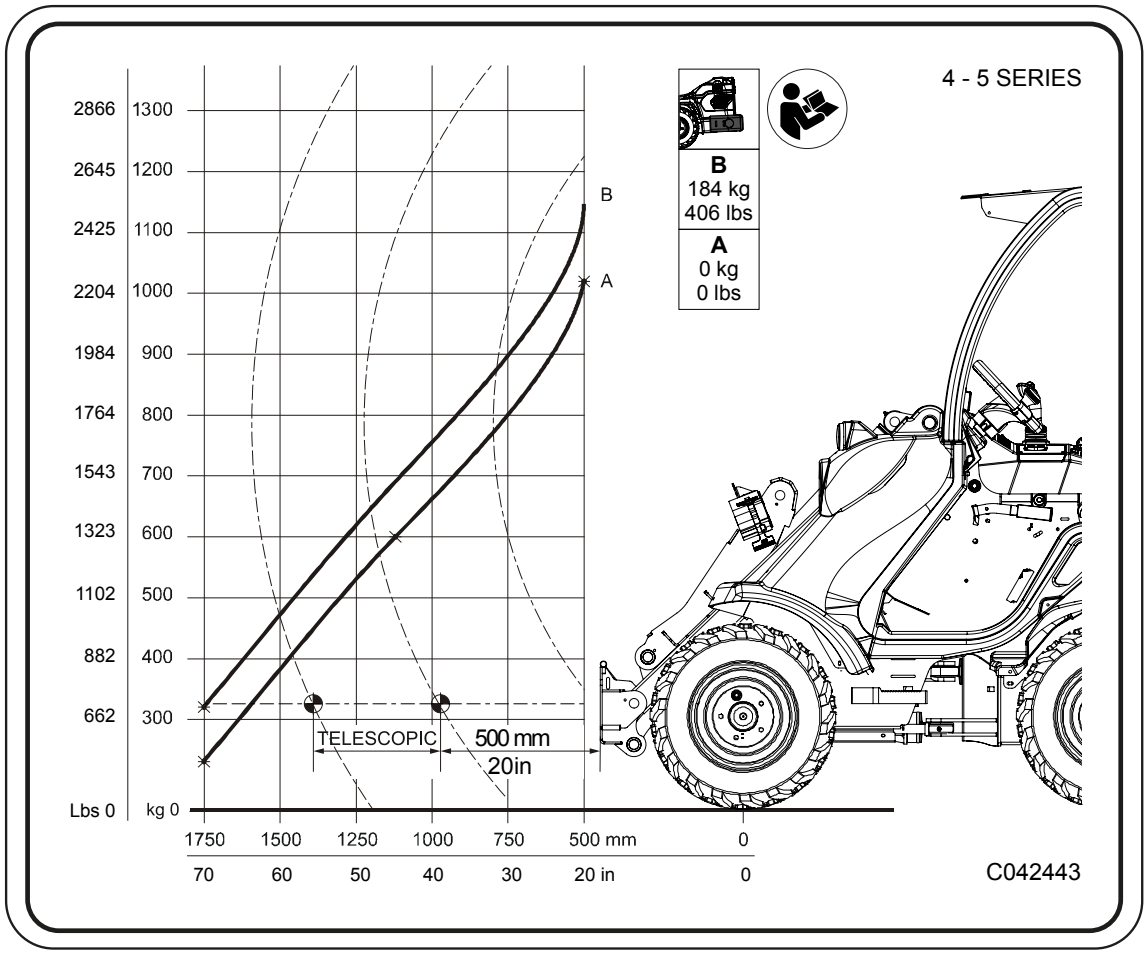


FIG. 12

4.6 Hydraulic flow/engine speed diagram

The diagram in **FIG. 13**, **FIG. 14** and **FIG. 15** represents the trend of hydraulic flow according to the engine's rpm.

⚠ ATTENTION

CHECK THE MANUAL OF ATTACHMENT USED TO REACH THE CORRECT SETTING.

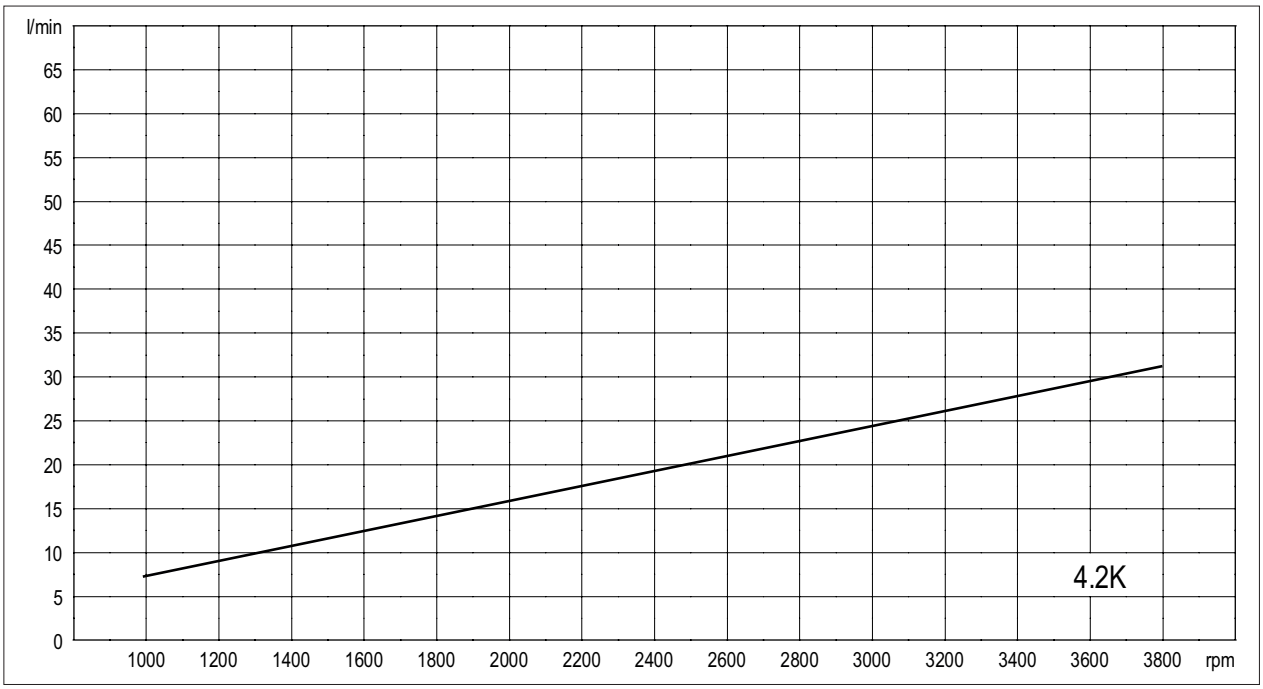


FIG. 13

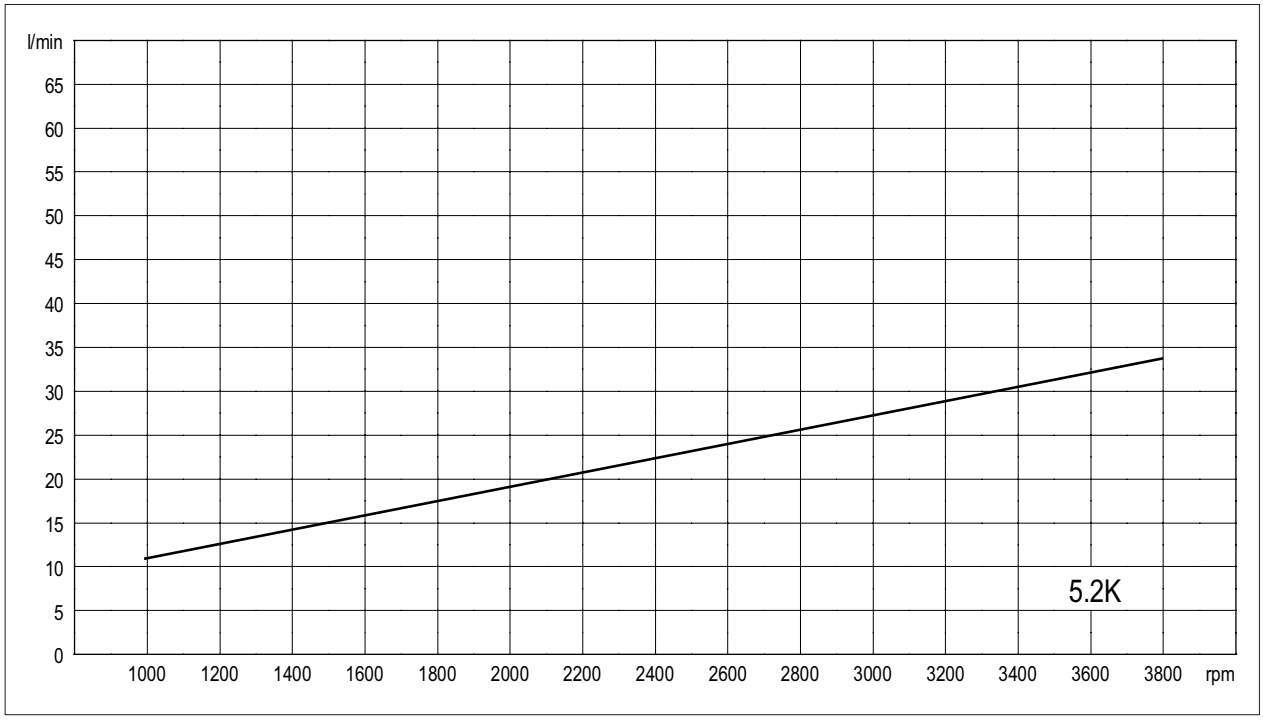


FIG. 14

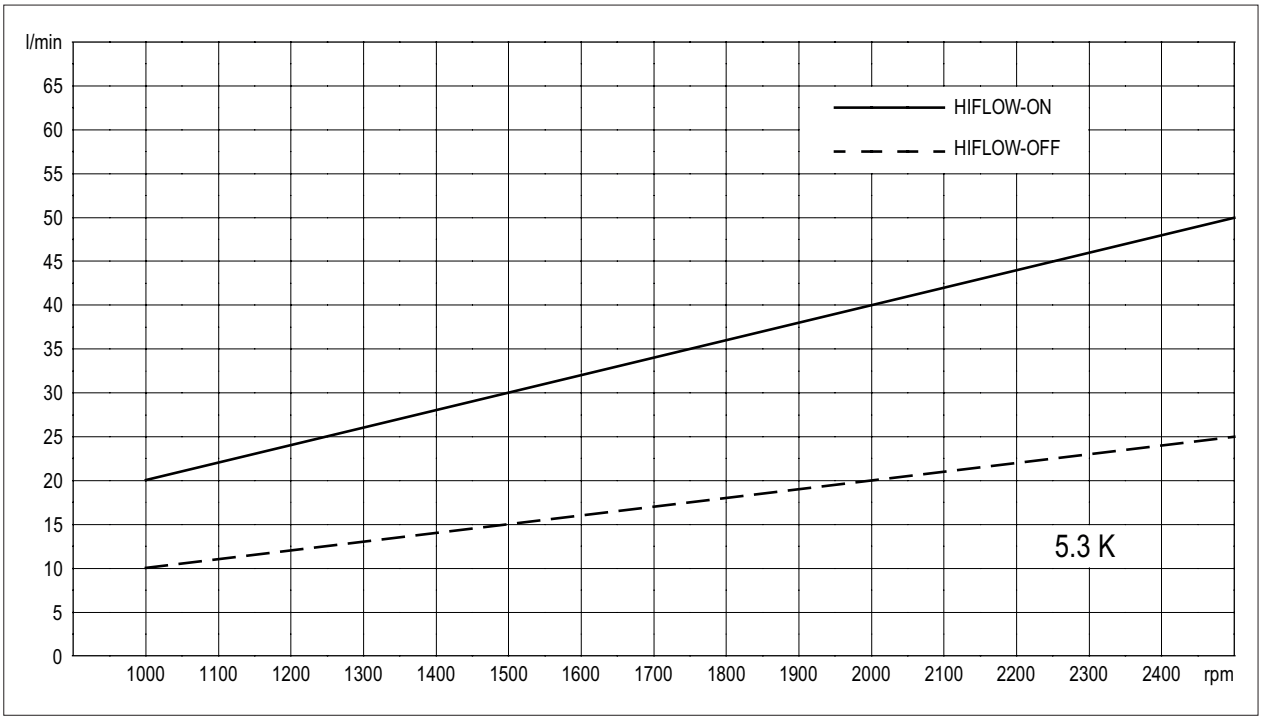

l/min
65
60
55
50
45
40
35
30
25
20
15
10
5
0
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
rpm
HIFLOW-ON
HIFLOW-OFF
5.3 K

FIG. 15

4.7 Reasonable foreseeable misuse

⚠ DANGER

IT'S FORBIDDEN TO TAMPER WITH OR MODIFY IN ANY WAY THE MACHINE.

IT IS FORBIDDEN THE USE OF THE MACHINE FOR MISUSE, DIFFERENT FROM THOSE EXPECTED **(SEE PAR. 4.5)**.

IT IS FORBIDDEN TO ASSEMBLE NON SUITABLE AND/OR NON ORIGINAL ATTACHMENTS TO THE MACHINE **(SEE PAR. 6.2 AND PAR. 6.3)**.

IT IS FORBIDDEN TO USE THE MACHINE TO CARRY AND/OR LIFT PEOPLE, ANIMALS.

IT IS FORBIDDEN TO MOVE THE MACHINE KEEPING THE LIFTING ARM, ATTACHMENT AND POSSIBLE LOAD UP. IT IS COMPULSORY TO KEEP THE ATTACHMENT AS NEAR AS POSSIBLE TO THE GROUND

IT IS FORBIDDEN TO OPERATE THE MACHINE ON SLOPE GREATER THAN 5 DEGREES OR ON OVERLY UNSTABLE LAND.

IT IS FORBIDDEN TO GET OFF THE MACHINE WITHOUT HAVING PUT THE PARKING BRAKE ON, SWITCHED THE ENGINE OFF, REMOVED THE IGNITION KEY FROM THE CONTROL PANEL.

IT IS FORBIDDEN TO USE THE MACHINE WITHOUT FASTENING THE SAFETY BELT.

IT IS FORBIDDEN LEANING FROM THE MACHINE IN MOTION.

IT IS FORBIDDEN TO OPERATE THE CONTROLS OF THE MACHINE FROM A POSITION OTHER THAN THE DRIVING SEAT.

IT IS FORBIDDEN TO USE THE LIFTING ARM TO MOVE ANY OBJECT DIFFERENT FROM THE ATTACHMENT SUPPLIED BY THE MANUFACTURER.

IT IS FORBIDDEN TO MOVE THE MACHINE WITH THE DOOR OF THE CABIN (IF AVAILABLE) OPEN **(SEE PAR. 8.3.3)**.

IT IS FORBIDDEN TO USE THE MACHINE, EVEN IF EQUIPPED WITH CABIN, IN ENVIRONMENTS WITH THE PRESENCE OF HARMFUL SUBSTANCE FOR HEALTH AND FOR THE OPERATOR SAFETY.

⚠ DANGER

BEFORE PROCEEDING TO USE THE MACHINE MAKE SURE THAT IN THE RADIUS OF TEN METRES THERE ARE NO THINGS, ANIMALS OR PEOPLE WHOSE SAFETY MAY BE AFFECTED ACCIDENTALLY.

⚠ DANGER

IT IS FORBIDDEN TO USE THE MACHINE IN INTERIORS AND WITHOUT VENTILATION AND/OR IN PRESENCE OF FLAMMABLE OR EXPLOSIVE SUBSTANCES.

⚠ WARNING

IT IS FORBIDDEN TO TOW THE MACHINE OFF BY ANY MEANS.

⚠ ATTENTION

IT IF FORBIDDEN THE USE OF THE MACHINE ON ROAD WITHOUT APPROVAL IN COMPLIANCE WITH THE LAWS IN FORCE IN THE COUNTRY OF USE.

IT IS FORBIDDEN TO TOW ANY ATTACHMENT AND/OR OTHER MEANS USING THE TOW HOOK, SUPPLIED ON REQUEST BY THE MANUFACTURER, ON PUBLIC ROADS ALSO USING MACHINES APPROVED FOR ROAD CIRCULATION.

IT IS FORBIDDEN TO TOW TRAILERS EXCEEDING 750 kg WEIGHT BY THE TOW HOOK.

⚠ ATTENTION

THE MANUFACTURER ACCEPTS NO RESPONSABILITY FOR ANY DAMAGE TO PEOPLE, ANIMALS OR THINGS, BY THE INOBSERVANCE OF THE INSTRUCTIONS DESCRIBED IN THIS MANUAL.

4.8 Safety signs

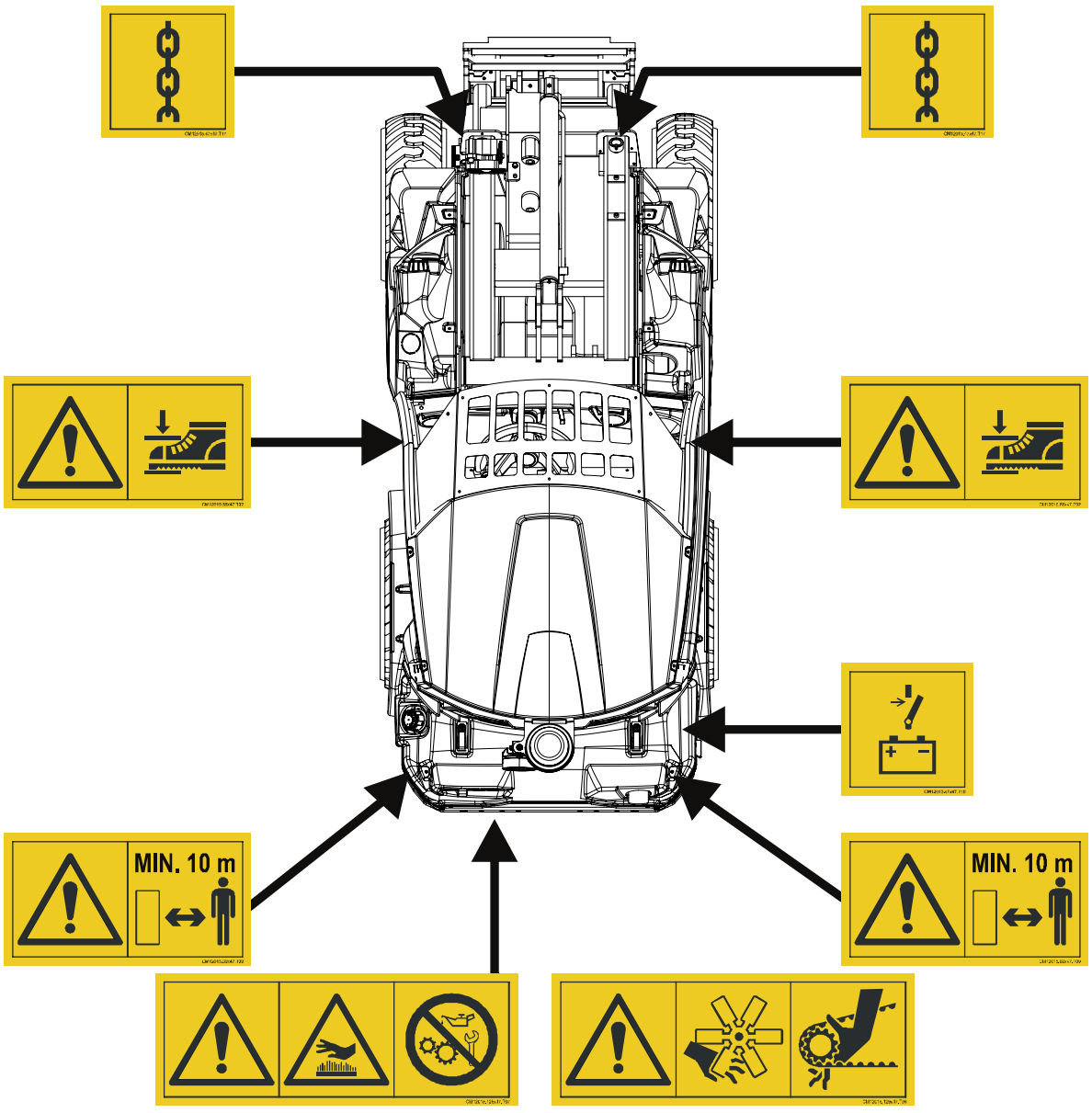
Safety signs is constituted by a series of adhesive labels applied on the machine as indicated in **FIG. 16**, **FIG. 17** and **FIG. 18**. In the tables are listed the meanings of each label.

⚠ WARNING

IT IS COMPULSORY TO KEEP WELL CLEAN SAFETY SIGN TO GUARANTEE A GOOD VISIBILITY.

IT IS COMPULSORY TO REPLACE DAMAGED SAFETY SIGN, REQUIRING IT TO THE MANUFACTURER AND/OR TO THE DEALER (SEE. CODE WRITTEN ON THE LABEL AND IN **TAB. 17**).

IT IS ABSOLUTELY FORBIDDEN TO REMOVE AND/OR DAMAGE THE SAFETY SIGNS APPLIED TO THE MACHINE.



PLAN VIEW

FIG. 16

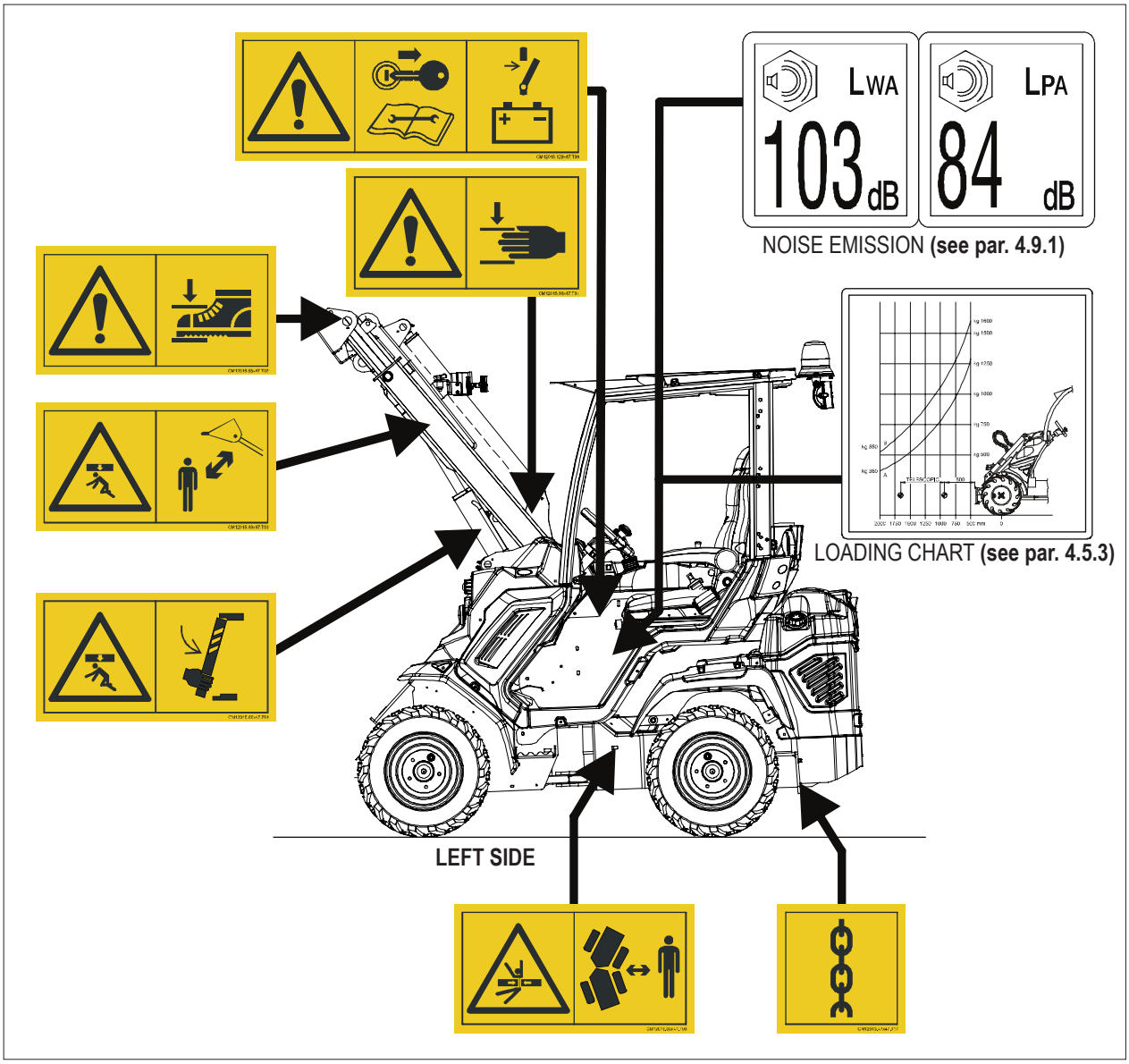
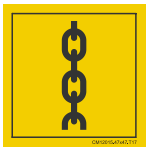
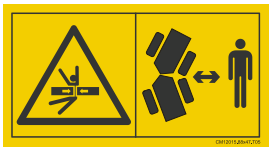
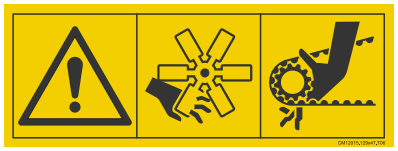
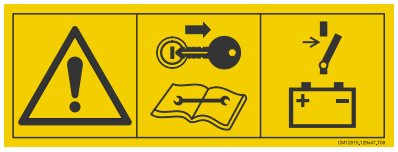


FIG. 17

Sign	Meaning
	ATTACHMENT POINTS They indicate the position of the attachment points of the straps for attachment of the machine during transport on a mean of transport. Code: CM12015.47X47.T17
	BATTERY DISCONNETING KEY It indicates the position on the machine **(FIG. 1 - Ref. 13)**. Code: CM12015.47X47.T18

cont.

Sign	Meaning
	DANGER OF CRUSHING Accidental fall of the lift arm. It is compulsory to insert the retention bracket in the lift arm during the maintenance of the machine **(see par. 9.3)**. Code: CM12015.88X47.T01
	CRUSHING FOOT DANGER Accidental fall of the attachment or attachments. It is compulsory to wear the PPE provided **(see par. 4.10)**. Code: CM12015.88X47.T02
	CRUSHING DANGER Accidental collision with the machine and/or the attachment. It is compulsory to maintain a safe distance of at least 10 metres. Code: CM12015.88X47.T03
	DANGER OF CRUSHING HANDS Accidental fall of the attachment or of the attachments. It is compulsory to wear the PPE provided **(see par. 4.10)**. Code: CM12015.88X47.T04
	CRUSHING DANGER Accidental collision. It is compulsory to make sure there are no people, animals and/or things nearby the machine during the steering phase. Code: CM12015.88X47.T05
	DANGER MINIMUM SAFETY DISTANCE Maintain a minimum distance from the machine of 10 metres. Code: CM12015.88X47.T09
	DANGER OF INJURIES TO HANDS Danger of injuries to hands if they come into contact with moving parts in motion. Code: CM12015.129X47.T06
	DANGER OF BURNS AND PROHIBITION OF OPERATIONS WHEN THE ENGINE RUNNING Burn risk to contact hot parts. Code: CM12015.129X47.T07
	YOU MUST READ THE INSTRUCTION MANUAL Remove the key from the control panel and disconnect the battery before any maintenance operation on the machine. Code: CM12015.129X47.T08

TAB. 17

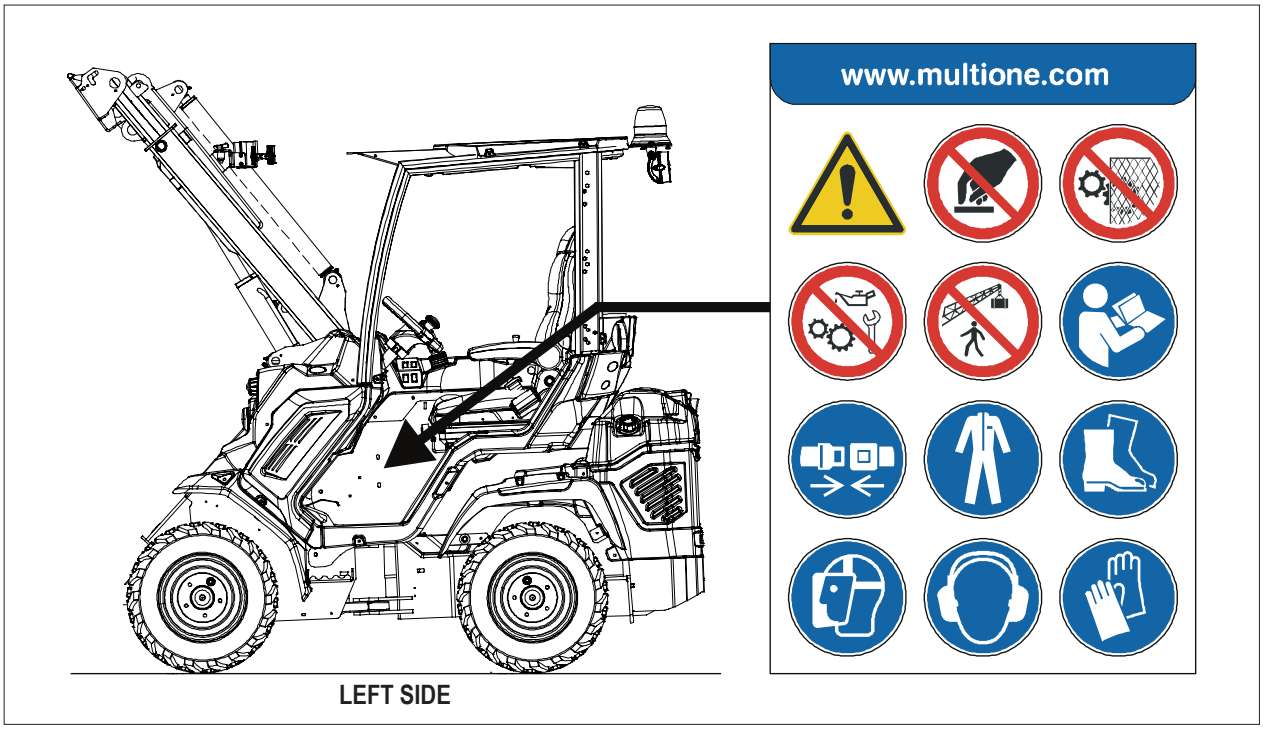


FIG. 18

Sign	Meaning	Sign	Meaning
	GENERAL DANGER		YOU MUST FASTEN YOUR SAFETY BELT
	IT IS FORBIDDEN TO TOUCH FOR NON AUTHORISED PEOPLE		YOU MUST PROTECT YOUR BODY
	IT IS FORBIDDEN TO REMOVE THE PROTECTION AND SAFETY DEVICES		YOU MUST PROTECT YOUR FEET
	IT IS FORBIDDEN TO CARRY OUT MAINTENANCE OPERATIONS WHEN THE MACHINE RUNNING		YOU MUST PROTECT YOUR FACE (Only for some attachment if this is specified on the same attachment through a special adhesive and on its instruction manual)
	IT IS FORBIDDEN TO PASS OR STAY IN THE RANGE OF THE MACHINE		YOU MUST PROTECT YOUR HEARING
	YOU MUST READ THE MANUAL		YOU MUST PROTECT YOUR HANDS

TAB. 18

4.9 Emissions

4.9.1 Sound level

The sound level detected by a running machine, without attachment and the following level were noticed.

Model		4.2K	5.2K	5.3K
Engine rpm*		2200	2200	2200
Level A - weight emission sound pressure in the operator place (LpA) (without cabin).	*db(A)*	84	85	87
Level A - weight emission sound pressure in the operator place (LpA) (with cabin).	*db(A)*	84	85	87
Guaranteed sound power level (LwA).	*db(A)*	98	98	99

(*) as prescribed by the manufacturer for the static test (adjusted in relation to the translation test).

TAB. 19

⚠ WARNING

IT IS COMPULSORY TO USE NOISE-CANCELING HEADSETS.

THERE IS RESIDUAL RISK N. 5 **(SEE PAR. 3.2)**.

4.9.2 Vibrations

The vibration level has been detected with the machine running and the operator sitting in the driving seat.

Model		4.2K	5.2K	5.3K
Rpm	*rpm*	3000	3000	2500
Vibrations	m/s^2	0,5	0,5	0,5

TAB. 20

4.10 Personal protective equipment

Sign	PPE compulsory for all authorised operators	Sign	PPE compulsory for all authorised operators
	Hand protection (protective gloves from the mechanical risk and the risk of burns).		Face protection (protective mask from mechanical risk). (Only for some attachment if it is indicated on the attachment itself through a special adhesive and on instruction manual.
	Protection of the feet (shoes with reinforced toe and non-slip).		Auditory system protection (anti-noise headsets).
	Body protection (protective clothing from mechanical risk).		

TAB. 21

⚠ WARNING

PLEASE REFER TO THE ASSEMBLED EQUIPMENT MANUAL TO MAKE SURE FOR POSSIBLE OTHER COMPULSORY PPE.

5 TRANSPORT AND HANDLING

5.1 Transport

Generally the machine is transported to the customer by the dealer with their own resources or through a “qualified transport company”, that by means of own staff and suitable means for the operation, in compliance with the regulations, provides to guarantee the loading, transport and unloading operations with regard to the type of transport (by land, by sea, by air).

5.2 Handling

The machine, only when on, can be moved independently by means of the four wheels and their controls, on public roads even if approved in accordance with the legislation of the country of use.

⚠ ATTENTION

TO CHECK FOR APPROVAL FOR ROAD USE PLEASE REFER TO THE REGULATIONS IN FORCE IN THE COUNTRY OF USE.

Otherwise to move and/or transfer the machine can be loaded up on a suitable means (eg. lorry, trailer, etc.), suitable for this use and with a sufficient load capacity, using the ramps (optional attachment).
To load the machine on a mean of transport proceed as follows:

1) Place the mean of transport in such a way that the loading platform is level.
2) Check that the ramps have an adequate capacity, are surely fastened to the transport vehicle and not exceeding 30 degrees of tilt.
3) Turn on the machine **(see par. 8.3.2)**.
4) It is recommended to back the machine onto the transport trailer and position it so that the heaviest weight (center of balance) is towards the front (hitch end) of the trailer **(see FIG. 20)**.
5) Turn off the machine **(see par. 8.3.6)** and put it in **“safe state” (see par. 9.2)**.
6) Insert the steering retention bracket **(see par. 5.2.1)**.
7) Disconnect the battery with the battery key off **(see par. 7.1)**.
8) Ensure the machine to the platform of the transport vehicle with ropes, belts, wheel clamps suitable for use, using the attachment points **(FIG. 19 - Ref. 1)** on the machine.

⚠ WARNING

IT IS COMPULSORY THAT, DURING THE OPERATIONS, IN THE RADIUS OF TEN METRES THERE ARE NO THINGS, ANIMALS OR PEOPLE WHOSE SAFETY MAY BE AFFECTED ACCIDENTALLY.

FIG. 19

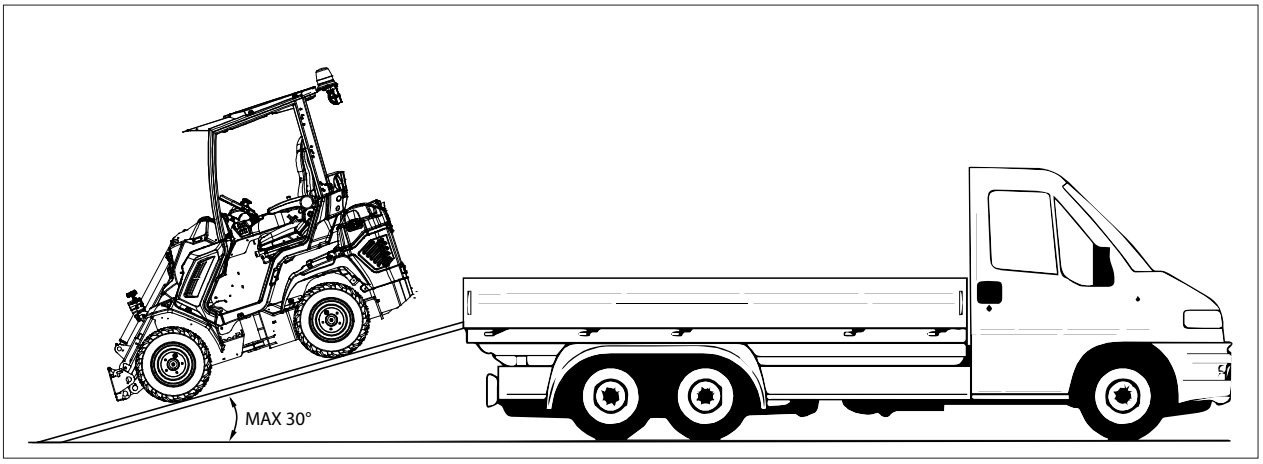


FIG. 20

5.2.1 Installation procedure of the steering lock bracket

The steering lock bracket is placed under the driving seat.
When you must use the bracket proceed as follows:

1) Stop the machine not steering.
2) Activate the parking brake **(see par. 8.3.7)**.
3) Loosen the knob fixing the steering lock bracket **(FIG. 21 - Ref. 1)** and that of the locking of the lifting arm.
4) Insert the bracket **(FIG. 22 - Ref. 1)** into the two slits placed on the left side of the machine near the joint of the central steering and secure it by the appropriate plug.
5) Operate on the steering in order to facilitate the position of the bracket.

⚠ WARNING

THERE ARE RESIDUAL RISKS N.1, N.2, N.4 AND N.5 **(SEE PAR. 3.2)**.

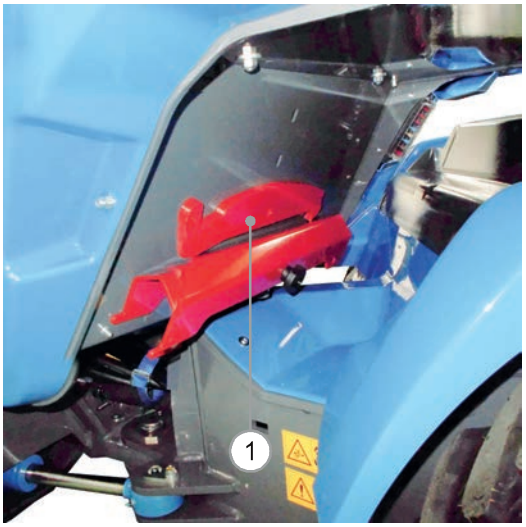


FIG. 21

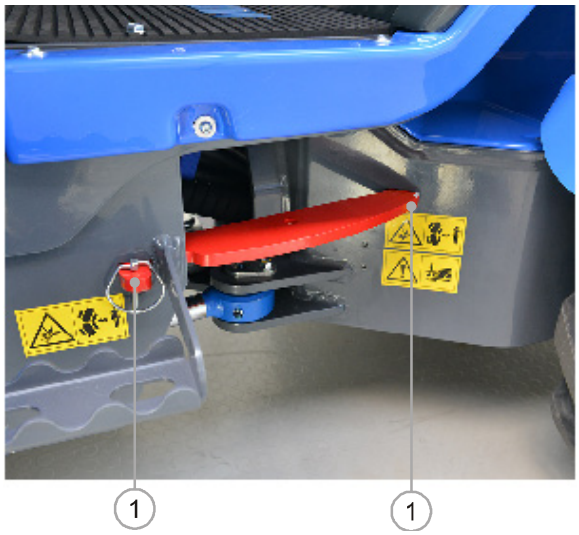


FIG. 22

5.3 Machine lifting procedure

⚠ DANGER

IT IS COMPULSORY TO INSTALL THE STEERING LOCK BRACKET **(SEE PAR. 5.2.1)** BEFORE LIFTING THE MACHINE.

IT IS COMPULSORY TO USE STRAPS, CHAINS AND HOOKS IN ACCORDANCE WITH THE USE, OF ADEQUATE CAPACITY AND IN GOOD CONDITION.

IT IS COMPULSORY TO USE CRANES AND LIFTING EQUIPMENT OF ADEQUATE CAPACITY AND OPERATED BY AUTHORIZED OPERATORS.

IT IS COMPULSORY TO LIFT THE MACHINE WITHOUT ANY PERSON ON BOARD AND WITHOUT ANY EQUIPMENT INSTALLED.

IT IS COMPULSORY TO ENSURE THAT IN THE AREA WHERE THE LIFTING OPERATIONS ARE CARRIED OUT THERE ARE NO PERSONS, ANIMALS OR OBJECTS WHOSE SAFETY CAN BE ACCIDENTALLY COMPROMISED.

DON'T RAISE THE MACHINE MORE THAN IS NECESSARY. MOVE IT SLOWLY TO AVOID SWINGS. NEVER GOING UNDER A LIFTED MACHINE.

MAINTAIN A MINIMUM DISTANCE OF 10 M (33 FT) FROM POWER LINES.

To lift the machine proceed as follows:

1) Put the machine in **"safety state" (see par. 9.2)**.

2) Insert the steering lock bracket **(FIG. 23 - Rif. 3) (see par. 5.2.1)**.

3) Use a lifting beam **(FIG. 23 - Rif. 1)** of adequate capacity and in accordance with the use.

4) Pass the lifting straps **(FIG. 23 - Rif. 2)** under the machine as shown in figure. Use sling antislip protector sleeves **(FIG. 23 - Rif. 4)** to avoid damages to the straps. Don't use the tie-down points of the machine to fix the straps. To prevent machine damage when lifting, make sure that the lifting straps don't touch the machine sides in any point.

5) Before performing the lifting verify the balancing of the load. Make sure that the lifting straps cannot move.

6) Lift the machine slowly, avoiding oscillations or jolts.

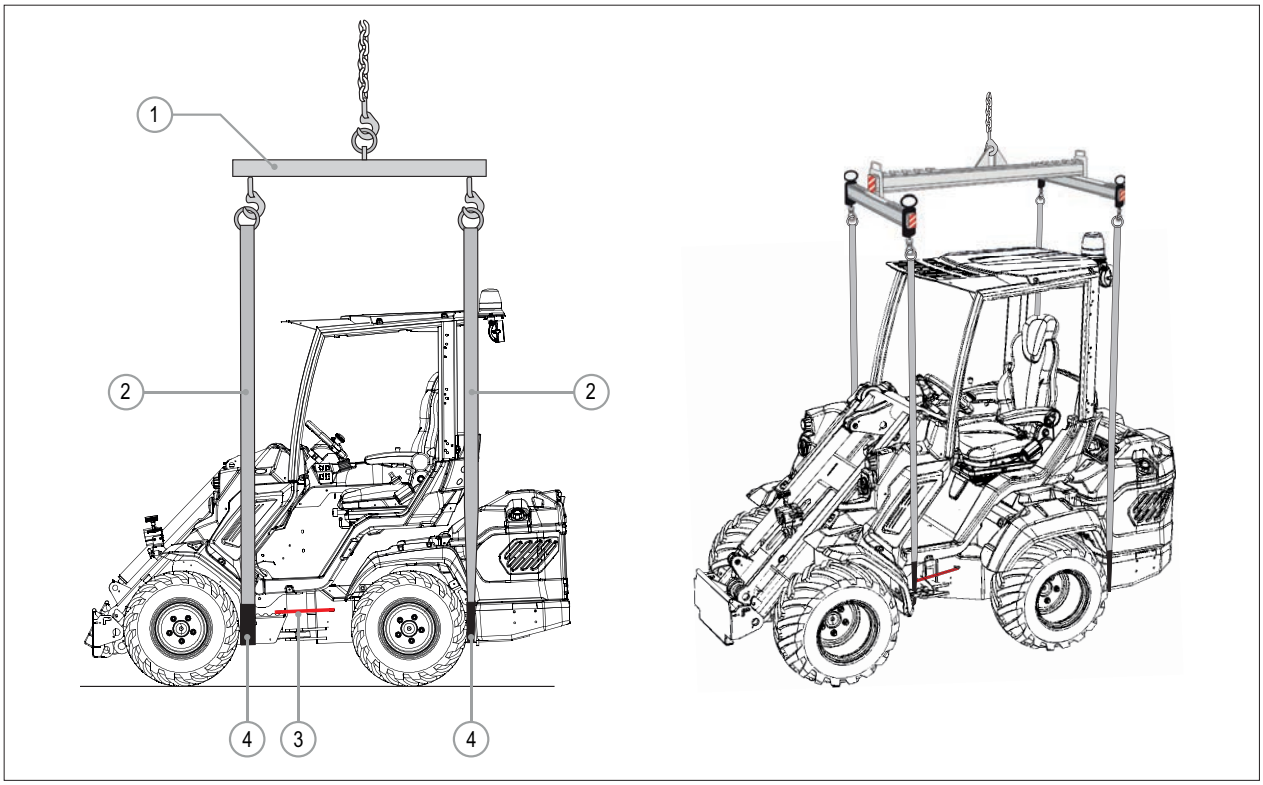


FIG. 23

5.4 Storage

In case the machine must stay unused for long time it is necessary:
1) Park it in a secure environment protected from the weather, sunshine and dust and put it in a **"safe state" (see par. 9.2)**.
2) Clean the machine.
3) Lubricate and grease the joints, levers and grease **(see chap. 9)**.
4) Disconnect the electrical supply of the battery **(see par. 7.1)**.
Store the battery according to the instructions given on the same.

⚠ WARNING

WHEN THE MACHINE IS IN PARK IT IS COMPULSORY TO INSERT THE PARKING BRAKE **(SEE PAR. 8.3.7)**, REMOVE THE IGNITION KEY FROM THE CONTROL PANEL AND STORE IT IN A SAFE PLACE.

6 ASSEMBLY AND INSTALLATION

6.1 Assembly

The machine is supplied by the Manufacturer ready to use without need of any installation or connection.

6.2 Options

The machine can on request, be equipped with options. On the website www.multione.com it is possible to check the availability of options.

⚠ WARNING

THE INSTALLATION OF OPTIONS, UNLESS OTHERWISE INDICATED, MUST BE CARRIED OUT BY AN AUTHORISED DEALER AND/OR BY A WORKSHOP AUTHORISED BY THE MANUFACTURER.

IT IS FORBIDDEN TO MOVE THE MACHINE WITH THE DOOR CABIN (IF AVAILABLE) OPEN **(SEE PAR. 8.3.3)**.

IT IS FORBIDDEN TO USE THE MACHINE, EVEN IF EQUIPPED WITH CABIN, IN ENVIRONMENTS WITH THE PRESENCE OF HARMFUL TO HEALTH AND SAFETY OF THE OPERATOR.

CONSULT YOUR OWN DEALER TO CHECK THE COMPATIBILITY OF THE OPTIONS WITH THE MACHINE IN POSSESSION.

IT IS COMPULSORY THE USE OF THE CABIN IF THE MACHINE IS USED IN ADVERSE WEATHER CONDITIONS THAT MAY AFFECT THE SAFETY AND HEALTH OF THE AUTHORISED OPERATOR.

THE MAXIMUM CAPACITY OF THE REAR COUPLER VARIES ACCORDING TO THE TYPE OF THE MACHINE. THE OPERATOR IS OBLIGED TO DETERMINE IF HE MAY ASSEMBLE AN ATTACHMENT AND IN CASE HOW MUCH HE MAY LOAD IT.

⚠ ATTENTION

IT IS FORBIDDEN TO TOW ANY ATTACHMENT AND/OR OTHER MEANS USING THE TOW HOOK, SUPPLIED ON REQUEST BY THE MANUFACTURER, ON PUBLIC ROADS EVEN IF WITH MACHINES APPROVED FOR THE ROAD CIRCULATION.

IT IS FORBIDDEN TO EXCEED THE LOAD LIMITS OF THE TOW HOOK.

IT IS FORBIDDEN TO INSTALL NOT ORIGINAL ATTACHMENTS ON THE MACHINE.

6.3 Attachments

6.3.1 Available attachments

The machine has been planned to be used with multiple attachments assembled to the quick coupler. You can examine the attachment list accessing the website: www.multione.com and clicking on the icon “attachments”. The list is not reported in this document because the attachments are always continuously updated and expanded. Each attachment purchased directly from the manufacturer or from his authorised dealers it is implicitly authorised to be installed on the machine.

⚠ DANGER

IT IS FORBIDDEN TO ASSEMBLE NOT SUITABLE AND NOT ORIGINAL ATTACHMENTS TO THE MACHINE.

⚠ WARNING

IT IS COMPULSORY TO ADDRESS THE TRUST DEALER TO MAKE SURE OF THE COMPATIBILITY BETWEEN THE ATTACHMENT AND THE MACHINE.

⚠ ATTENTION

THE MANUFACTURER ACCEPTS NO RESPONSABILITY FOR ANY DAMAGE TO PEOPLE, ANIMALS OR THINGS, BY THE INOBSERVANCE OF THE INSTRUCTIONS DESCRIBED IN THIS MANUAL.

6.3.2 Assembly of the attachments

Procedures of assembly and disassembly are described in **chap. 8**.

6.4 Backweights

Procedures of assembly and disassembly are described in **par. 11.4**.

7 PRE-START INSPECTION

⚠ WARNING

IT IS COMPULSORY, BEFORE THE FIRST STARTING OF THE MACHINE, TO EXECUTE THE FOLLOWING OPERATIONS.

Ref.	Operations
1	Make sure the machine is undamaged in all its parts.
2	Check the integrity of safety system (belt, ROPS, etc.).
3	Check the engine oil level **(see chap. 9)**.
4	Check the engine water level **(see chap. 9)**.
5	Check the oil level of the hydraulic circuit **(see chap. 9)**.
6	Restore the power supply circuit of the battery by acting on the battery disconnecting key **(see par. 7.1)**.
7	Check the nipples and if necessary provide with greasing **(see chap. 9)**.
8	Get used to the controls and their functions **(see par. 4.3)**.

TAB. 22

7.1 Connecting / disconnecting battery

To restore the electrical connection of the battery proceed as follows:
1) Remove the cap from the hole in the battery switch.
2) Insert the special key **(FIG. 24 - Ref. 1)** into the battery switch and turn it clockwise.

To disconnect the battery, proceed as follows:
1) Turn the special disconnecting battery key **(FIG. 24 - Ref. 1)**, counterclockwise and store it in a safe place.
2) Close the hole of the battery disconnecting key using the special cap.

FIG. 24

8 OPERATION

8.1 Adjustments

8.1.1 Adjustment of the driving seat

The machine is equipped with a driving seat adjustable longitudinally.
To adjust the position of the driving seat proceed as follows:
1) Sit on the seat.
2) Pull and hold the lever pulled **(FIG. 25 - Ref. 3)** placed under the seat on the right side.
3) Slide the seat backward or forward until you find a position suitable to your height.
4) Release the lever and move slightly the seat until you hear a sound that indicates the block in place of the seat.

To adjust the driving seat damping system (optional) proceeds as follows:
1) Sit on the seat.
2) Turn the knob (or the lever) **(FIG. 25 - Ref. 2)**, placed in the center under the seat, until the indicator **(FIG. 25 - Ref. 1)** is placed in the green zone.
3) Once done, position the lever (if any) horizontally to avoid damage.
To adjust the seat armrests rotate the knob **(FIG. 25 - Ref. 4)** placed under them.

⚠ ATTENTION

MODELS OF THE SEAT MAY VARY FROM COUNTRY TO COUNTRY AND IN ACCORDANCE WITH ANY SPECIFICATIONS AND OPTIONS.

FIG. 25

8.2 Checks before ignition

⚠ DANGER

BEFORE USING THE MACHINE IT IS COMPULSORY THAT AUTHORISED OPERATORS READ AND UNDERSTAND ALL PARTS OF THIS MANUAL.

BEFORE TURNING ON THE MACHINE THE OPERATOR MUST ALWAYS CHECK THE HYDRAULIC OIL LEVEL **(SEE PAR. 8.4.3)**.

⚠ WARNING

IT IS COMPULSORY, BEFORE STARTING THE MACHINE, TO EXECUTE THE FOLLOWING CONTROLS.

Ref.	Operations
1	Make sure the machine is undamaged in all its parts.
2	Make sure the safety systems are intact (belt, ROPS, etc.).
3	Check the fuel level on the multifunction device **(see par. 4.3.2)**.
4	Check the oil engine level **(see chap. 9)**.
5	Check the water level of the engine **(see chap. 9)**.
6	Check the oil level of the hydraulic circuit **(see chap. 9)**.
7	Make sure all controls are in neutral position.
8	Make sure the throttle is set at minimum.
9	Make sure the parking brake is on **(see par. 8.3.7)**.
10	Make sure it was carried out routine maintenance.

TAB. 23

8.3 Normal operations

8.3.1 Procedure to get on to the operating position of the machine

⚠ WARNING

YOU MUST KEEP THE FOOTREST STEP AND THE FOOTBOARDS IN THE CABIN CLEAN FROM DEBRIS AND MUD.

To get on the machine proceed as follows:
1) Hold with the left hand to the front upright of the roof or, if the machine is provided with cabin, to the handle.
2) Place your left foot on the special footrest step.
3) Rise and sit on the seat.
4) Place your feet on the respective footboards where there are the non-slip strips.
5) Fasten your safety belt.

8.3.1.1 Correct posture of use

The posture that the operator in charge must assume for a correct use of all the commands is as follows:
- Sitting on the seat with his back against the backrest and the seat belt fastened.
- Facing towards the direction of travel.
- Left hand on the steering wheel.
- Right hand free to operate all other commands.
- Left foot resting on the footboard in correspondence with the non-slip strip.
- Right foot resting on the footboard in correspondence with the non-slip strip ready to operate the proportional forward and reverse pedal.

8.3.2 Starting up

⚠ DANGER

BEFORE PROCEEDING TO STARTING OF THE MACHINE MAKE SURE THAT, IN THE RADIUS OF TEN METRES THERE ARE NO THINGS, ANIMALS OR PEOPLE WHOSE SAFETY MAY BE AFFECTED ACCIDENTALLY.

⚠ WARNING

ALL THE CONTROLS OF **PAR. 8.2** MUST BE CARRIED OUT BEFORE STARTING UP THE MACHINE.

BEFORE STARTING UP THE MACHINE IT IS COMPULSORY TO CHECK THAT ALL CONTROLS ARE IN NEUTRAL POSITION AND THAT THE PARKING BRAKE HAS BEEN INSERTED.

BEFORE STARTING UP THE MACHINE MAKE SURE THE SCHEDULED MAINTENANCE HAS BEEN CARRIED OUT, PARTICULARLY THE CLEANING OF THE MACHINE. MAKE SURE THERE NO OBJECTS OR MATERIAL THAT PREVENT THE PROPER OPERATING CONTROL.

To start the engine proceed as follows:

1) Model 4.2K and 5.2K: Bring the control lever of hydraulic flow **(FIG. 26 - Ref. 1)** in **"Center"** position.
Model 5.3K: Set the yellow selector switch **(FIG. 26 - Ref. 2)** in **pos. "Center"**. **If the switch is not in this position, the machine will not start**.

2) Set the throttle **(FIG. 26 - Ref. 3)** at minimum.

3) Turn the key **(FIG. 26 - Ref. 4)** in **Pos. "2"** to activate the glow plugs for at least 5 seconds.

4) Turn the key **(FIG. 26 - Ref. 4)** in **Pos. "3"** for 2 seconds, if the engine does not start, release the key and start from step **1)**.

⚠ ATTENTION

TO AVOID THE BATTERY RUNNING OUT DON'T SWITCH ON AND OFF REPEATEDLY THE MACHINE.

BEFORE USING THE MACHINE, WE ADVISE TO EFFECTUATE SOME "USING TESTS" TO ACQUIRE A GRADUAL MASTERY OF THE FEATURES OF THE MACHINE.

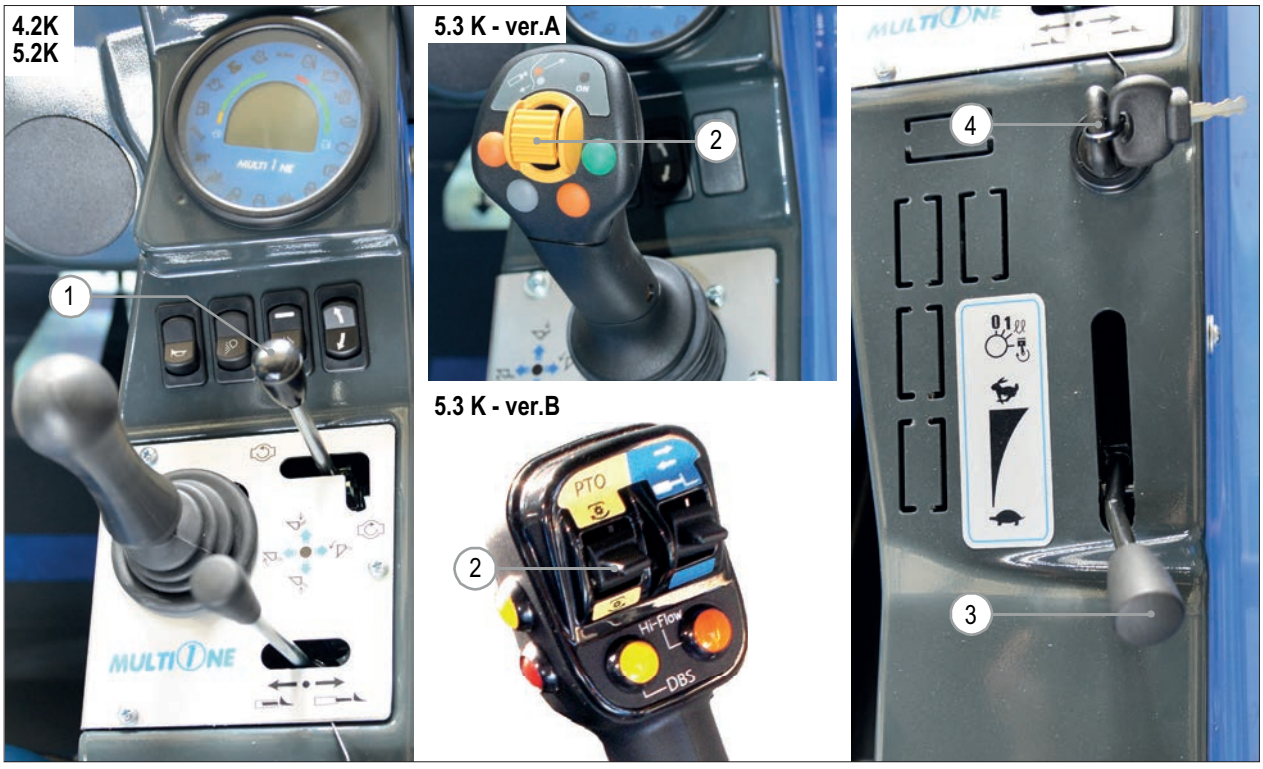


FIG. 26

8.3.3 Handling

To move the machine proceed as follows:
1) Turn on the machine **(see par. 8.3.2)**.
2) Release the parking brake **(see par. 8.3.7)**.
3) Increase engine rpm by actuating the throttle control lever.
4) Press the pedal relative to the direction of **"Forward" (FIG. 27 - Ref. 1)** or **"Reverse" (FIG. 27 - Ref. 2)**.
5) Using the steering wheel set the direction of travel.

⚠ DANGER

IT IS COMPULSORY TO MOVE THE MACHINE WITH THE CABIN DOOR CLOSED (IF AVAILABLE). OTHERWISE THE DOOR COULD BE IRREPARABLY DAMAGED BY THE MOVEMENT OF HALF-FRAMES DURING STEERING.

IT IS COMPULSORY TO REDUCE TRAVEL SPEED WHEN MAKING STEERING.

IT IS COMPULSORY TO ADJUST THE SPEED IN RELATION WITH THE GROUND ON WHICH THE MACHINE IS OPERATING. WHEN WORKING ON UNEVEN OR SOFT GROUNDS REDUCE THE SPEED AT HIS MINIMUM (MAX 3 KM/H) AND KEEP THE ATTACHMENT AND THE LOAD AS NEAR AS POSSIBLE TO THE GROUND.

⚠ DANGER

IT IS FORBIDDEN TO MOVE THE MACHINE KEEPING LIFT THE LIFTING ARM, ATTACHMENT AND ANY LOAD.

IT IS FORBIDDEN LEANING FROM THE DRIVING SEAT WHEN THE MACHINE IS MOVING.

⚠ DANGER

REMEMBER THAT, WHEN TURNING, THE DRIVER'S SEAT EXTENDS BEYOND THE TURNING RADIUS OF THE WHEELS. PAY ATTENTION TO THE PRESENCE OF OBSTACLES **(SEE FIG. 28)**.

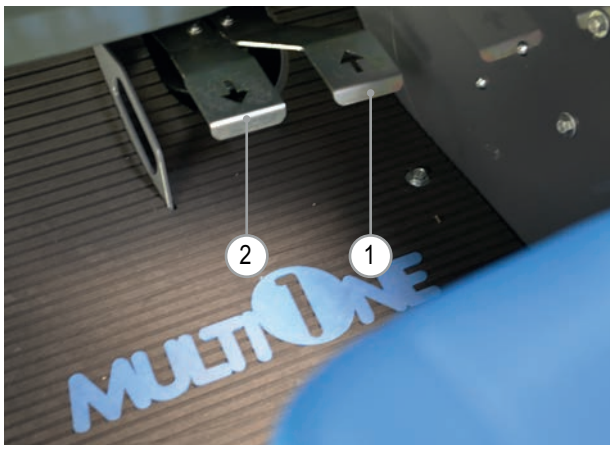


FIG. 27

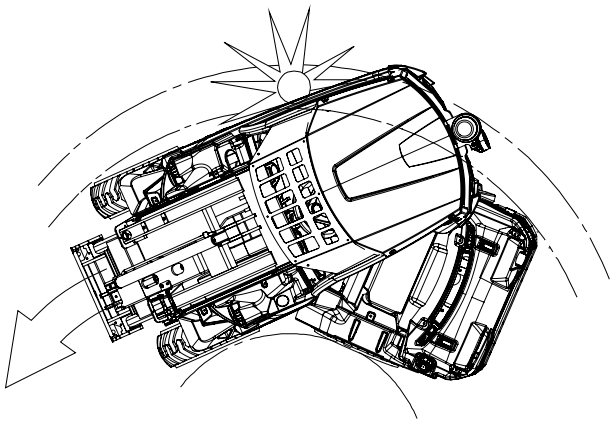


FIG. 28

8.3.3.1 Travel on slope

⚠ DANGER

BEFORE TRAVELLING ON SLOPE SEE THE "SLOPE GUIDE" AT **PAR. 11.9**.

DO NOT TRAVEL UP OR ACROSS A SLOPE STEEPER THAN 5° **(SEE FIG. 29)**.

KEEP THE HEAVY END OF THE MACHINE TOWARDS THE UPHILL DIRECTION WHEN TRAVELLING UP OR DOWN A SLOPE.

TRAVEL ACROSS SLOPES WITH GREAT CAUTION.

EXERCISE EXTREME CAUTION WHEN CHANGING DIRECTION ON SLOPES.

CONTROL OF THE MACHINE MAY BE AFFECTED BY INSTALLED ATTACHMENTS.

REDUCE TRAVEL SPEED ON SLOPES.

⚠ DANGER

WHEN DRIVING ON SLOPES, KEEP THE BOOM AND LOAD NEAR TO THE GROUND AS MUCH AS POSSIBLE. RISING THEN BOOM AND/OR THE LOAD WILL DECREASE THE MACHINE STABILITY CONSISTENTLY. USE GREAT CAUTION.

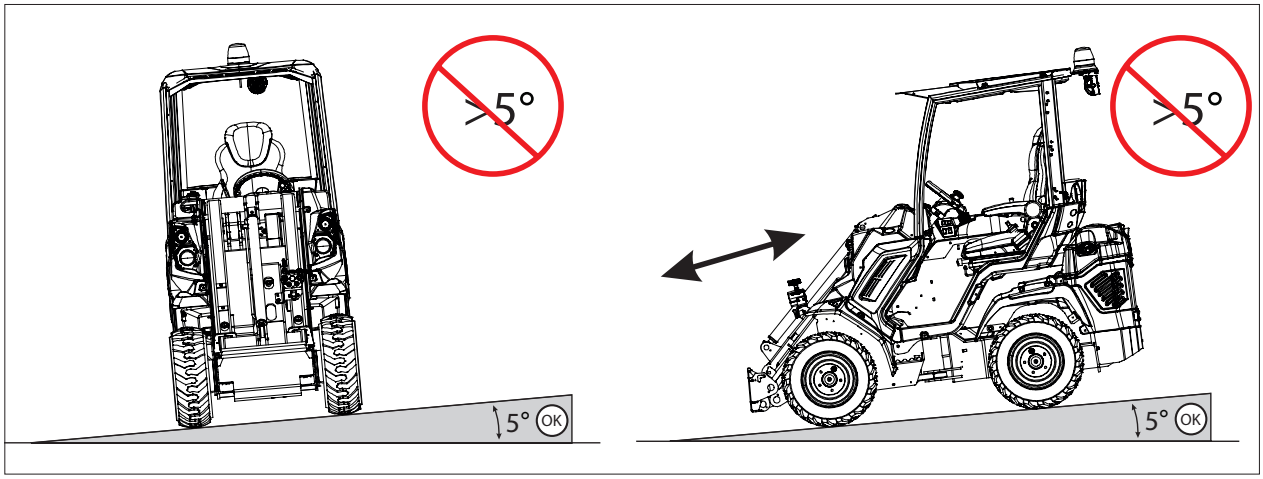


FIG. 29

8.3.3.2 Moving on public roads

Check the machine is approved for use on public roads.

⚠ ATTENTION

IT IF FORBIDDEN THE USE OF THE MACHINE ON ROAD WITHOUT APPROVAL IN COMPLIANCE WITH THE LAWS IN FORCE IN THE COUNTRY OF USE.

IT IS FORBIDDEN TO TOW ANY ATTACHMENT AND/OR OTHER MEANS USING THE TOW HOOK, SUPPLIED ON REQUEST BY THE MANUFACTURER, ON PUBLIC ROADS ALSO USING MACHINES APPROVED FOR ROAD CIRCULATION.

IT IS FORBIDDEN TO TOW TRAILERS EXCEEDING 750 kg WEIGHT BY THE TOW HOOK.

When handling the machine on public roads is required to lock the lift arm. The machine is equipped with two valves to interrupt the flow of hydraulic oil to the cylinder of the lifting arm.

1) Retract the arm.
2) Move the attachment, if mounted on the universal attachment plate at a height of 20 cm from the ground.
3) Turn off the machine **(see par. 8.3.7)**.
4) Close the two valves to block the lifting arm, placed in the vicinity of the lifting cylinder of the arm. The valves are closed when the respective levers are perpendicular to the tube hydraulic oil.
5) Proceed to move on public roads.

To unlock the boom proceed as follows:

1) Turn off the machine **(see par. 8.3.7)**.
2) Open the two valves to unlock the lift arm. The valves are open when the levers are parallel to the respective tube hydraulic oil.

8.3.4 Assembly of the attachment

⚠ DANGER

IT IS FORBIDDEN TO ASSEMBLY NON SUITABLE OR NON ORIGINAL ATTACHMENTS TO THE MACHINE.

⚠ WARNING

IT IS COMPULSORY TO READ THE MANUAL OF ATTACHMENT INSTRUCTIONS BEFORE PROCEEDING THE ASSEMBLY, DISASSEMBLY AND USE OF THE ATTACHMENT.

⚠ WARNING

THERE ARE RESIDUAL RISKS N. 1, N. 2 AND N. 3 **(SEE PAR. 3.2)**.

8.3.4.1 Mechanical attachment connection

To carry out the assembly of the attachment proceed as follows:

1) Make sure the attachment is positioned on firm and level ground.
2) Turn on the machine **(see par. 8.3.2)**.
3) Push the joystick to the **right** in order to tilt forward the quick coupler.
4) Turn off the machine **(see par. 8.3.6)**.
5) Get down from the machine and get the workplace **D** and **E (see par. 4.2)**.
6) Lift and push back the two levers **(FIG. 30 - Ref. 3)** placed on the quick coupler, in order to raise the hook plugs.
7) Get on the machine again and turn it on **(see par. 8.3.2)**.
8) Operating carefully draw up the quick coupler to one of the attachment so as to go up the upper round profile **(FIG. 30 - Ref. 2)** in their curved seats of the attachment **(FIG. 30 - Ref. 1)**.
9) Move slowly the joystick to the left, in this way the quick coupler leans backward, continue after lifting of a few centimetres the quick coupler and automatically the coupling system closes allowing the two plugs to fit in the seats of the attachment **(FIG. 30 - Ref. 4)**.
10) Check visually the two levers **(FIG. 30 - Ref. 5)** are in low position. If not, it means the coupling was not successful.
11) Lift the attachment and lean forward moving the joystick to the **right** to check visually the two plugs of coupling are correctly inserted in the fitted seats of the attachment. If not, relocate the attachment on the ground and repeat the procedure from step **3)**.

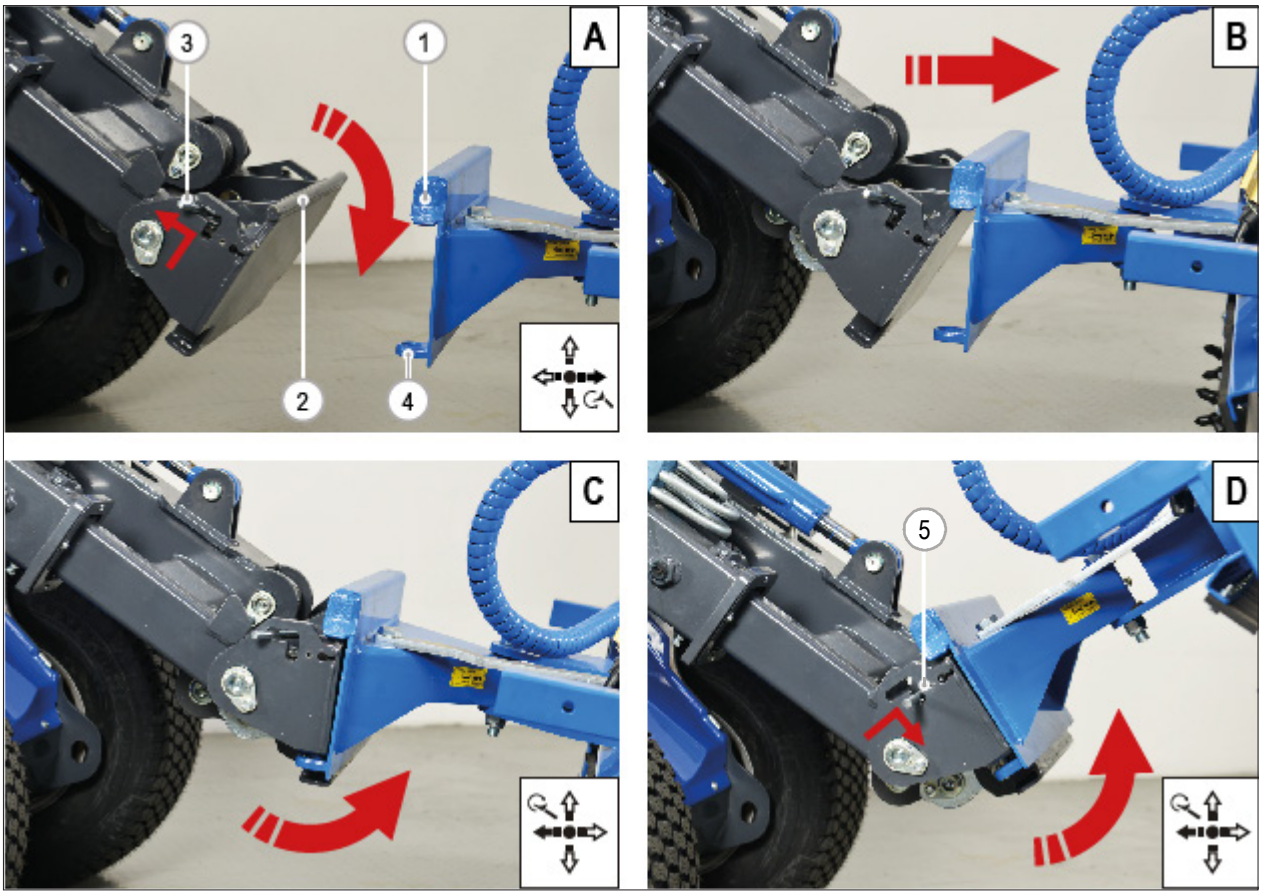


FIG. 30

8.3.4.2 Hydraulic connection of the attachment (if available)

⚠ DANGER

IT IS FORBIDDEN TO CARRY OUT THE CONNECTION OF THE HYDRAULIC PIPES WHEN THE ENGINE OF THE MACHINE IS WORKING UNTIL YOU HAVE DRIVEN THE EXHAUST DISPLAY DEVICE OF THE OIL PRESSURE OF THE HYDRAULIC SYSTEM AND HAVE COMPLETED THE PROCEDURE FOR ASSEMBLY.

⚠ WARNING

BEFORE MAKING CONNECTIONS READ THE ATTACHMENT INSTRUCTION MANUAL.

⚠ WARNING

THERE IS RESIDUAL RISK N. 1 **(SEE PAR. 3.2)**.

Before making hydraulic connections between the machine and the attachment **(FIG. 33)** you need to release the residual pressure in the hydraulic circuit of the machine. To make this proceed as follows:

1) Turn off the machine **(see par. 8.3.6)**.
2) Put the starting key in **Pos. "1"**.
3) **Model 4.2K - 5.2K:** Operate the flow control lever of hydraulic quick couplings **(FIG. 31 - Ref. 1)** by moving it both to the **right** and towards the **left**.
Model 5.3K: Move the yellow selector of the multifunction joystick **(FIG. 31 - Ref. 2)** before in **"Forward"** and then in **"Backward"**. Then set the yellow selector switch in **pos. "Center"**.

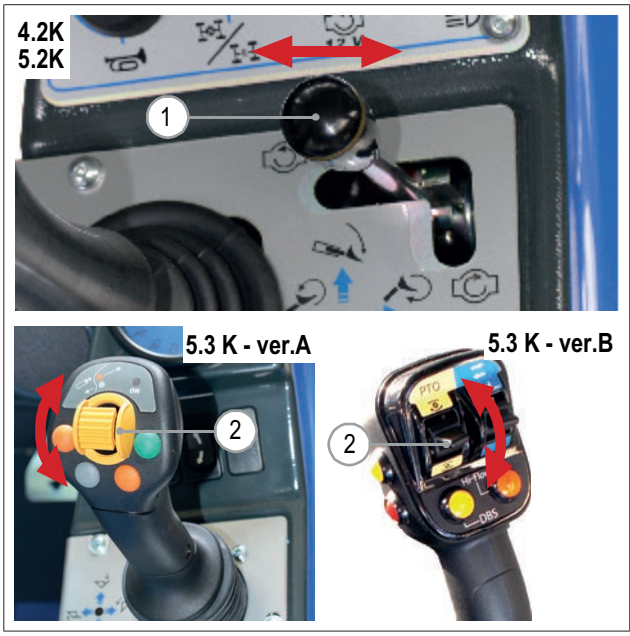


FIG. 31

FIG. 32

⚠ WARNING

THE CONNECTIONS MUST BE CARRIED OUT AFTER ASSEMBLED MECHANICALLY THE ATTACHMENT.

ONCE MADE THE CONNECTIONS YOU MUST CHECK THE MOVING PARTS OF THE ATTACHMENT MOVE IN THE CORRECT WAY. IF NOT, YOU MUST REVERSE THE CONNECTION OF THE HYDRAULIC HOSES.

After releasing the residual pressure connect the hydraulic hoses of attachments as follows:

1) Remove the protective cover **(FIG. 32 - Ref. 1)** from the multi-connector.
2) Press the lock button **(FIG. 32 - Ref. 2)** on the lock handle and raise the lock handle **(FIG. 32 - Ref. 3)** to the unlocked position **(FIG. 33 - Ref. A)**.
3) Slide the adapter plate connected to the attachment hydraulic lines onto the multi-connector.
4) Pull the lock hand **(FIG. 33 - Ref. B)** downwards, drawing the adapter plate into the connector **(FIG. 33 - Ref. C)**.

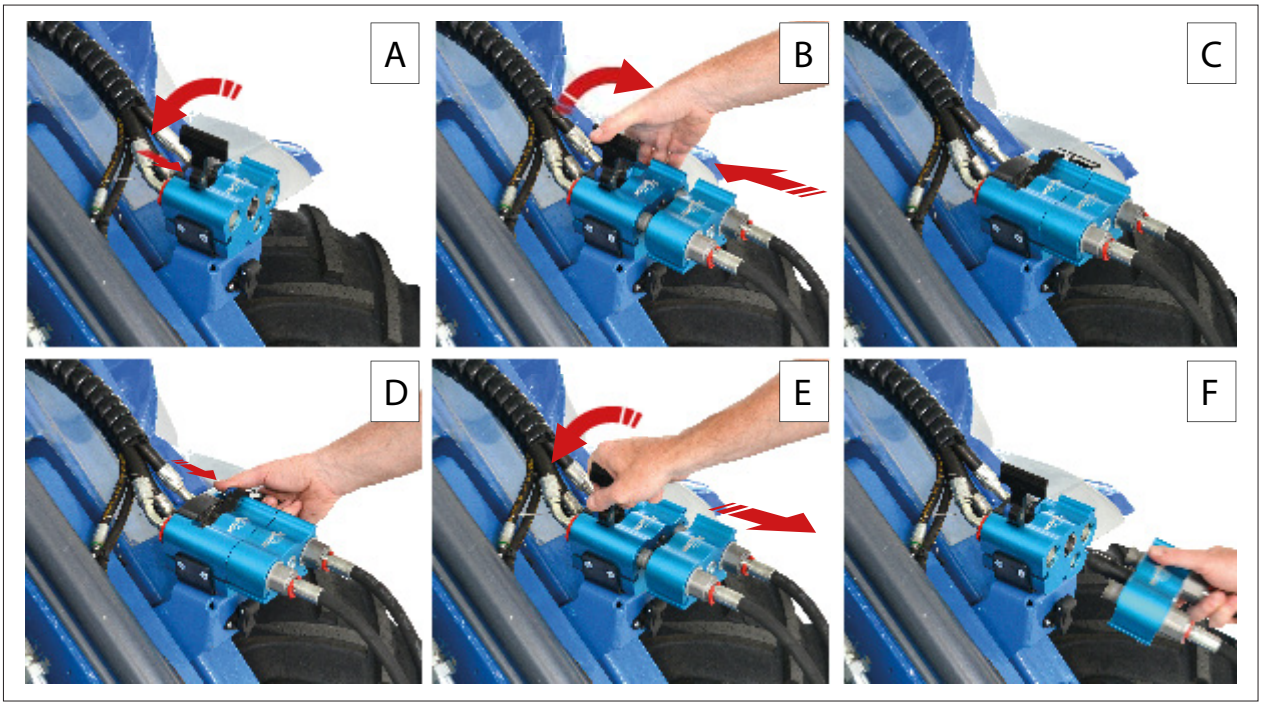


FIG. 33

8.3.4.3 Electrical connection of the attachment (if available)

⚠ WARNING

BEFORE MAKING ELECTRICAL CONNECTIONS READ THE ATTACHMENT INSTRUCTION MANUAL.

⚠ WARNING

THE CONNECTIONS MUST BE CARRIED OUT AFTER MECHANICALLY ATTACHED ATTACHMENT.

Insert the plug of attachment on the machine socket **(FIG. 32 - Ref. 4)**.

8.3.5 Disassembly of the attachment

To disassembly the attachment proceed as follows:
1) Place the attachment on firm ground.
2) Turn off the machine **(see par. 8.3.6)**.
3) Exhaust the residual pressure inside the hydraulic circuit **(see par. 8.3.4.2)**.

8.3.5.1 Electrical and hydraulic disconnection

⚠ WARNING

CHECK THE ATTACHMENT INSTRUCTION MANUAL WITH REGARDS TO HYDRAULIC AND ELECTRICAL CONNECTIONS.

THE HYDRAULIC PIPES AND ELECTRICAL CABLE MUST BE DISCONNECTED BEFORE DISASSEMBLYING MECHANICALLY THE ATTACHMENT.

1) Press the lock button **(FIG. 33 - Ref. D)** on the lock handle and raise the lock handle to the unlocked position **(FIG. 33 - Ref. E)**.
2) Disconnect the attachment's hydraulic lines from the machine **(FIG. 33 - Ref. F)**.
3) Cover the multi-connector with the rubber cover **(FIG. 32 - Ref. 1)**.
4) Disconnect the electrical plug (if any).

8.3.5.2 Mechanical disconnection of the attachment with manual release system

⚠ WARNING

THERE ARE RESIDUALS RISKS N. 1, N. 2, N. 3 **(SEE PAR. 3.2)**.

To disconnect the attachment with manual release system proceeds as follows:

1) Lift and push back the two release levers **(FIG. 30 - Ref. 3)** from the quick coupler in order to disengage the two plugs.
2) Turn on the machine **(see par. 8.3.2)**.
3) Move to the **right** the joystick in order to rotate forward the quick coupler of the machine. If necessary translate backward a few cm.
4) Move **"Forward"** the joystick in order to lower the lifting arm and disassembly the attachment.

8.3.5.3 Use of the attachment

⚠ WARNING

TO USE THE ATTACHMENT PLEASE REFER TO THE INSTRUCTION ATTACHMENT MANUAL.

YOU MUST KEEP THE ATTACHMENT ASSEMBLED TO THE MACHINE MORE CLOSE AS POSSIBLE TO THE GROUND WHEN MOVING.

8.3.6 Turning off the machine

To turn off the machine proceed as follows:

1) Stop the machine without a steering.
2) Withdraw and lower the lifting arm and/or put the possible assembled attachment on the ground.
3) Set to the minimum the throttle.
4) Insert the parking brake **(see par. 8.3.7).**
5) Release the pressure of the hydraulic system as described at **par. 8.3.4.2**.
6) Put the key in **Pos. "0"**.
7) Remove the key from the control panel and store it in a safe place.

8.3.7 Parking brake

To insert the parking brake proceed as follows:

1) Pull up the parking brake lever and lock it by pushing it to the right **(FIG. 34 - Ref. 1)**.
2) While inserting the brake it is necessary to hear the click of insertion.
3) Move slightly the machine back and forth to cause the block of the wheels.

To disengage the parking brake proceed as follows:

1) Unlock the parking brake lever by moving it to the left and down **(FIG. 34 - Ref. 2)**.
2) Move slightly the machine back and forth to cause the unlocking of the wheels.

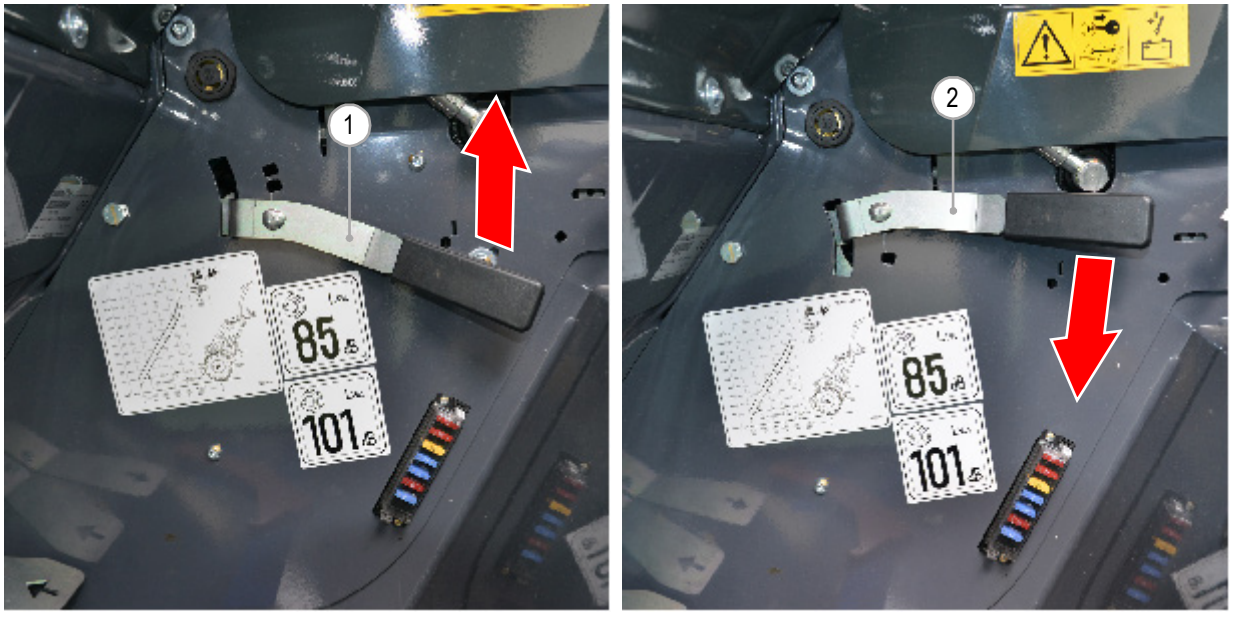


FIG. 34

8.3.8 Refuelling

When the fuel level warning light **(see par. 4.3.2)** comes on it is necessary to supply proceeding as follows:
1) Put the machine in **"safety state" (see par. 9.2)**.
2) Go onto **place A (see FIG. 2)**.
3) Unscrew the tank cap **(FIG. 35 - Ref. 1)** counterclockwise.
4) Refuelling, if necessary use a funnel to avoid spilling fuel.
5) Completed filling screw the fuel cap clockwise.

⚠ DANGER

IT IS FORBIDDEN TO MAKE REFUELLING OPERATIONS WHILE SMOKING AND/OR NEARBY IN PROXIMITY OF FLAMES. THERE IS FIRE AND/OR EXPLOSION DANGER.

FIG. 35

8.4 Functions/exceptional situations

8.4.1 Instability of the machine

It may happen that by performing a curve at high speed or by lifting a heavy load the machine is to be in a state of instability.
To avoid this situation proceed as follows:
1) Steer the machine only at low speed and with load as close as possible to the ground.
2) No extension of the lift arm when it is lifted and with lifted load **(see par. 4.5.3)**.
3) Do not lift heavy loads by buckets or other attachment for lifting.

8.4.2 Overpressure in the hydraulic circuit

The machine is equipped with a system of hydraulic valves that limit the oil pressure within the circuit to avoid any damage.
In particular difficulty running it may happen to hear a hissing sound. This indicates that the valves were brought into service.
If the condition of effort should go on and this may result in damage so you will need to decrease the stress for the machine by reducing the speed of work and/or the number of the engine rpm.

8.4.3 Loss of control

In case the amount of oil inside the hydraulic circuit decreases considerably due to a fault with relative loss it may happen that the machine enters into neutral and loses the effect of **"engine brake"** given by the hydraulic circuit. In this condition the control of the machine can be compromised. To avoid this situation proceed as follows:
1) Before any starting check the presence of possible loss.
2) Check the hydraulic oil level and if necessary top up **(see chap. 9)**.

⚠ DANGER

IN CASE OF EMERGENCY SITUATION OPERATE THE PARKING BRAKE TO STOP THE MACHINE.

HYDRAULIC OIL UNDER PRESSURE CAN PENETRATE BODY TISSUE CAUSING SERIOUS INJURY AND POSSIBLE DEATH. WHEN TROUBLESHOOTING A HYDRAULIC SYSTEM FOR LEAKS, ALWAYS USE CARDBOARD OR WOOD AS A DETECTOR. DO NOT USE YOUR BARE HANDS.

8.4.4 Emergency exit of the cabin

In case of need to open the emergency door on the machines supplied with cabin proceed as follows:
1) Pull the red ring on the handle to open of the **Right** window of the machine **(FIG. 36 - Ref. 1)**.
2) Push out the **Right** window to open fully.

8.4.5 Block of the machine with the lift arm raised

⚠ DANGER

ATTENTION: THIS IS AN EMERGENCY PROCEDURE AND THEREFORE THE AREA MUST BE CONTROLLED AND FORBIDDEN.

In case of malfunction of the machine which make it impossible to retract the lifting arm raised, it is not safe to lower it because there would be a considerable imbalance of the machine. As it is a malfunctioning machine, the imbalance cannot be reduced by retracting the arm and so the risk of rollover of the machine would be relevant and unmanageable.
To return the attachment and the eventual load on the ground proceed as follows:
1) Insert the parking brake.
2) Remove the key from the control panel.
3) Secure the area around the machine.
4) Using a special machine (eg. forklift) download the suspended load.
5) Lower the lifting arm.

8.4.6 Towing the machine on

⚠ WARNING

IT IS FORBIDDEN TO TOW THE MACHINE OFF AND/OR LIFT IT BY ANY MEANS OF TRANSPORT.

If the machine remains blocked, it is possible to tow it for a short trip (MAX. 20 mt), only if on, by a suitable towing vehicle.
To make this proceed as follows:

1) Put the machine in **"safety state" (see par. 9.2)**.

2) Connect to the attachment points of the machine **(FIG. 37 - Ref. 1)** the ropes and/or chains of towing.

3) Turn on the machine **(see par. 8.3.2)** and, as far as possible, facilitate towing operations.

FIG. 36

FIG. 37

8.4.7 Jump start

If the machine battery **(FIG. 38 - Rif. 1)** is disabled it is possible to start the engine using an booster battery and the booster cables **(see FIG. 38)** or a booster.

⚠ WARNING

IT IS COMPULSORY TO WEAR GLASSES AND PROTECTIVE GLOVES.

IT IS COMPULSORY TO CHECK IF THE BATTERY AND THE CABLES ARE DAMAGED.

IT IS COMPULSORY THAT THE BOOSTER BATTERY HAS THE SAME VOLTAGE AND AMPERAGE OF THE MACHINE BATTERY.

⚠ DANGER

IT IS FORBIDDEN TO MAKE A JUMP START WHILE SMOKING AND/OR IN PROXIMITY OF FLAMES. DANGER OF FIRE AND/OR EXPLOSION.

Proceed as follows:

1) Put the machine in **"safety state" (see par. 9.2)**.
2) Open the engine cover **(see par. 9.4)**.
3) Connect positive (+) booster cable to disabled machine battery positive(+) post **(FIG. 38 - Rif. 3)**. You can also connect it to the positive post of the starter motor **(FIG. 44 - Rif. 4)**.
4) Connect other end of positive(+) booster cable to booster battery positive(+) post **(FIG. 38 - Rif. 4)**.
5) Connect negative (-) booster cable to booster battery negative (-) post **(FIG. 38 - Rif. 5)**.
6) Connect other end of negative (-) booster cable to a metal part of machine frame or engine, away from battery **(FIG. 38 - Rif. 6)**.
7) Make sure the cables do not interfere with mobile parts of the engine.
8) Switch on the engine and run machine for several minutes **(see par. 8.3.2)**.
9) Once the engine is running disconnect the cables in the reverse order, negative cable first.
10) Close the engine cover.

⚠ WARNING

WHEN YOU PROCEED TO DISCONNECT THE BOOSTER CABLES PAY ATTENTION TO THE MOVING PARTS OF THE ENGINE (FAN, BELTS, ETC ...).

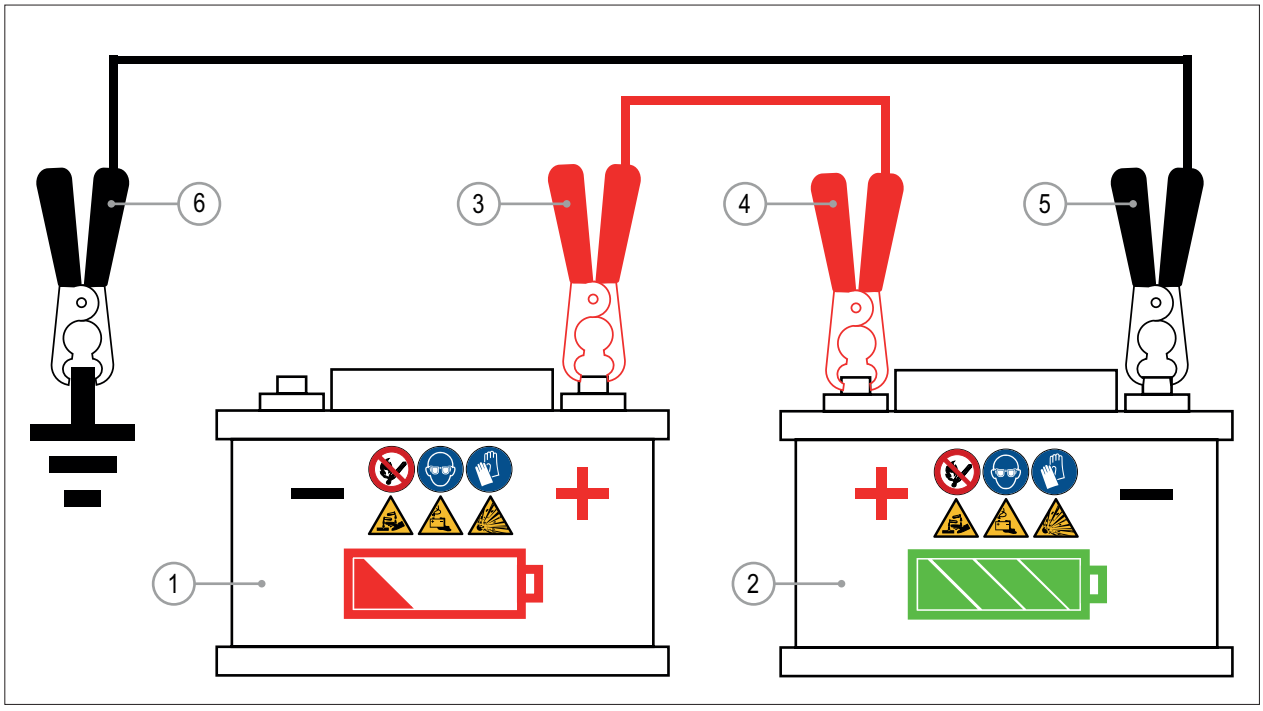


FIG. 38

9 MAINTENANCE

9.1 General warnings

See **par. 3.4**.

9.2 Safety status of the machine

The machine is in safety state when:
1) The machine is stopped not steered on firm and level ground.
2) The lifting arm is lowered and the eventual attachment on the ground.
3) The engine is off **(see par. 8.3.6)**.
4) The controls are in neutral position.
5) The parking brake is inserted **(see par. 8.3.7)**.
6) The key has been removed from the control panel and stored in a safe place.

9.3 Installation safety block on the lifting arm

When performing maintenance on the machine and you need to raise the lifting arm, you must insert the retention bracket.
Proceed as follows:
1) Start on the machine.
2) Raise completely the lifting arm.
3) Turn off the machine **(see par. 8.3.6)** keeping the arm raised.
4) Remove the bracket from the slot located under the driving seat **(FIG. 39 - Ref. 1)**.
5) Insert the bracket **(FIG. 40 - Ref. 2)** to block the lifting arm and fix it with the appropriate knob **(FIG. 40 - Ref. 1)**.
6) Slowly lower the lifting arm to bring the elements of the cylinder in support on the bracket.

FIG. 39

FIG. 40

9.4 Opening engine cover

To open the cover proceed as follows:
1) Put the machine in **"safety state" (see par. 9.2)**.
2) Remove the key from the battery disconnection switch **(see par. 7.1)**.
3) Press the two handles that lock the engine cover **(FIG. 41 - Ref. 1)**.
4) Raise the engine cover and place it on a stable level surface.

9.5 Maintenance light reset

⚠ WARNING

ONLY THE DEALERS AND AUTHORISED WORKSHOPS CAN RESET THE MAINTENANCE LIGHT.

9.5.1 Multifunction device - (ver. A)

The machine is supplied with a multifunction device **(see par. 4.3.2)** that at every start up indicates in the bottom part of the display the number of remaining hours to the next operation of scheduled maintenance. When there are less than 100 hours the maintenance light on the multifunction device blinks for 30 seconds at every start up of the machine. When the scheduled maintenance interval is exceeded, the maintenance light stays on.

1) After carrying out the scheduled maintenance to reset the maintenance light proceed as follows:
2) If the button **(FIG. 42 - Ref. 1)** is not present, connect a switch to the connector (X137.S) under the seat on the right side.
3) Put the key in **Pos."1"** and wait for 5 seconds until the multifunction device indicates the operating hours.
4) Press and hold the button for 5 seconds, the message **"RESET"** is shown on the multifunction device display.
5) Release the button for 2 seconds.
6) Press again the button for 2 seconds, the new service interval is shown. After 3 seconds, the multifunction device display returns on normal mode.
7) Switch off by the key, the system is reset.

N.B.: The reset procedure described above is possible only in the case where the remaining hours to service are less than 20 units. (Eg .: service 50 hours, if the operating hours are 19 will not reset ,if they are 32 will reset).

9.5.2 Multifunction device - (ver. B)

The machine is supplied with a multifunction display **(see par. 4.3.3)** that, when there are less than 10 hours to the next scheduled maintenance, at every start indicates, for 10 seconds, the number of remaining hours. The maintenance light stays on for 2 minutes. When the scheduled maintenance interval is exceeded, the multifunction display show "0" hours for 10 seconds at every start. The maintenance light stays on and and it is necessary to carry out the reset procedure to switch it off.
After carrying out the scheduled maintenance to reset the maintenance light proceed as follows:

1) If the button **(FIG. 42 - Ref. 1)** is not present, connect a switch to the connector (X137.S) under the seat on the right side..
2) Put the key in **Pos."1"** and wait until the multifunction device indicates the operating hours.
3) Press and hold the button for 5 seconds, the new service interval is shown. After 10 seconds, the multifunction device display returns on normal mode.
4) Switch off by the key, the system is reset.

N.B.: The reset procedure described above is possible only in the case where the remaining hours to service are less than 10 units. (Eg .: service 200 hours, if the remaining hours are 19 will not reset ,if they are 8 will reset).

FIG. 41

FIG. 42

9.6 Scheduled maintenance

4 - 5 Series Scheduled Maintenance	10 Hours (Daily)	First 50 Hours	Every 50 Hours (or Weekly)	Every 100 Hours	Every 200 Hours	Every 400 Hours (or Annual)	Every 500 Hours	Every 800 Hours	Every 1000 Hours (or 2 Years)	Par.
Machine										
Machine	C									**9.7.1**
Fasteners, Nuts and Bolts	✓									**9.7.3**
Protective and Control Devices	✓									**9.7.3**
Safety Decals	✓ and R*									**9.7.3**
Fuel	✓ and A*									**8.3.8**
Hydraulics:										
- Hydraulic Oil	✓ and A*					R**				**9.7.6 - 9.7.8**
- Hydraulic Filter Oil		R			R**					**9.7.7**
- Hydraulic Hoses	✓									**9.7.4**
- Hydraulic Pressure		✓			✓					**S**
Grease	✓***									**9.7.11**
Tires:										
- Tire Pressure	✓ and A*									**9.7.2**
- Tire Damage	✓									**9.7.2**
- Wheel Lug Nuts	✓									**9.7.2**
Boom Guides					✓	R				**9.7.9**
Battery Terminals			✓ and C							**9.7.5**
Clean radiator			✓**							**9.7.1**
Seat Belt	Replace every 5 years									
Motore (1) - Kubota										
Engine Oil	✓ and A*	R†			R†					**9.8.1 - 9.8.2**
Engine Oil Filter		R†			R†					**9.8.4**
Air Filter	✓**			C**		R**				**9.8.4**
Fuel/Water Separator (if any)	✓ and D*			C and D						**EM**
Engine Coolant	✓ and A*								R**	**9.8.3**
Fuel Filter						R**				**EM**
Cooling Fan Belt				✓			R			**EM**
Fuel line hoses			✓						R (every 2 y.)	**EM**
Cooling system hoses					✓				R (every 2 y.)	**EM**
Valve clearance								✓		**S**
Injection pump	Check every 3000 hours.									**S**

✓ = Check/Adjust **A** = Add **C** = Clean **D** = Drain **R** = Replace **S** = contact Service **EM** = view Engine Manual

(1) Refer to engine manual for the complete periodic maintenance table.
† Refer to engine manual for oil change cycles.
* If neccessary.
** Extremely dusty or dirty working conditions may require more frequent service or replacement.
*** Under very wet, muddy, dusty or dirty working conditions more frequent lubrication may be required.

TAB. 24

9.6.1 Liquids chart

MODEL			4.2K	5.2K	5.3K
Engine oil (1)					
	Type		See engine manual		
	Quantity	*litres*	3,8 (MAX)	3,7 (MAX)	5,7 (MAX)
Engine coolant (1)					
	Type		See engine manual		
	Quantity	*litres*	5	5	5,4
Hydraulic oil					
	Type		0280 PAKELO HYDRAULIC EP AL ISO 46		
	Quantity	*litres*	33	34	34
Grease					
	Type		0088 PAKELO BEARING EP GREASE NLG I 0		
(1) Refer to engine manual.					

TAB. 25

9.7 Machine maintenance

9.7.1 Cleaning of the machine

The cleaning of the machine is essential to ensure reliability and efficiency. The accumulation of dust and dirt can cause malfunctions and damages.
At the end of the workday, especially if the machine is being used in dusty conditions, proceed to clean:

- The cooling radiator of the hydraulic system and the engine radiator should be cleaned using a jet of compressed air at low pressure and a soft brush to remove dirt.
- The outer surfaces of the machine can be washed with a pressure washer and a clean cloth.
- Clean the inside of the cabin with appropriate mild detergent and a clean cloth.

⚠ WARNING

IT IS FORBIDDEN TO USE HIGH PRESSURE WATER JETS.

9.7.2 Check tyres pressure

Inflate the tyres to the correct pressure ensures reliability and more safety when using the machine. Before inflating check the integrity of the tyre and wheel, if they are damaged, replace them. The inflation pressure is indicated in **par. 11.6**.

⚠ DANGER

NEVER EXCEED THE VALUE OF INFLATION PRESSURE RECOMMENDED ACCORDING TO THE TYRE MODEL.

9.7.3 Check structural integrity and tightening bolts

- ROPS and FOPS: verify that the structure is not deformed, that it doesn't have any cracks, rust or parts without paint. Verify that the attachment points and related bolts are intact.
- Safety belts: check the attachment points and relative bolts are intact and the coupling system is not damaged.
- Bolts wheels: check that the bolts are tightened.
- Control devices: check the proper functioning and that bolts are tightened.

9.7.4 Check hydraulic system

⚠ DANGER

HYDRAULIC OIL UNDER PRESSURE CAN PENETRATE BODY TISSUE CAUSING SERIOUS INJURY AND POSSIBLE DEATH. WHEN TROUBLESHOOTING A HYDRAULIC SYSTEM FOR LEAKS, ALWAYS USE CARDBOARD OR WOOD AS A DETECTOR. DO NOT USE YOUR BARE HANDS.

1) Visually inspect all of the hydraulic hoses, lines, and fittings for signs of damage, wear, or leaking.
2) Visually inspect all rigid tubing that no dents, cracks, loose, or leaking is seen.
3) If any signs of damage are visible, do not operate the machine until repairs have been made.

Some examples of common hydraulic hose damage are shown in **FIG. 43**.
- End fittings damaged or leaking.
- Outer covering chafed or cut, and wire reinforcing is exposed.
- Hose shows signs of kinking or crushing.
- Outer covering ballooning.

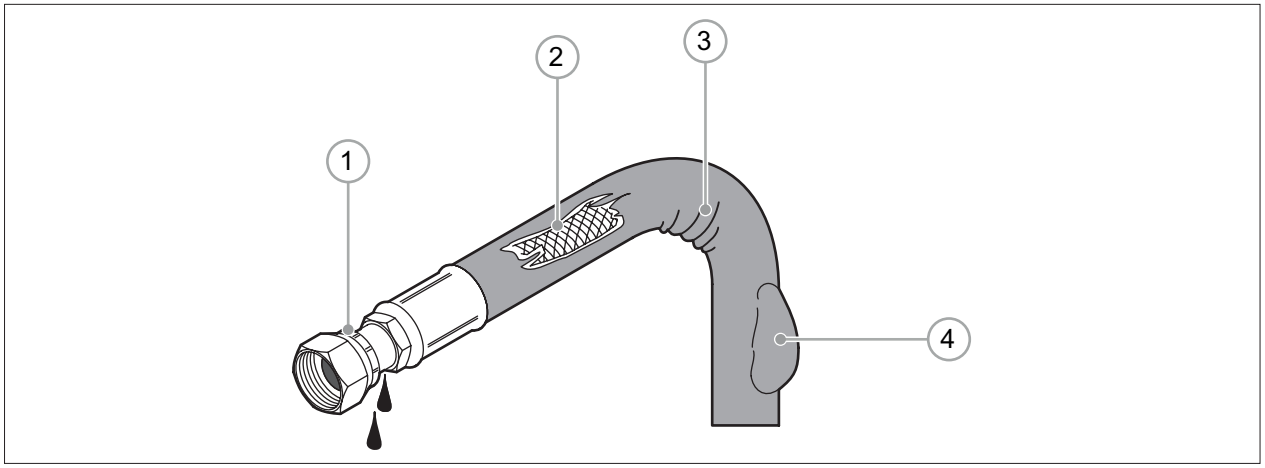


FIG. 43

9.7.5 Battery check

⚠ WARNING

THE BATTERY ACID IS HIGHLY POISONOUS AND CAN CAUSE BURNS AND IRRITATION. ALWAYS WEAR PERSONAL PROTECTIVE EQUIPMENTS (GLOVES, GOGGLES, PROTECTIVE SUIT).

The battery is located inside the engine compartment on the right side.

1) Put the machine in **"safety state" (see par. 9.2)**.
2) Open the engine cover **(see par. 9.4)**.
3) Remove the key of the battery switches.
4) Remove the right side panel by loosening the screws that secure it to the frame.
5) Checks:

- The battery **(FIG. 44 - Ref. 1)** is intact and not leaking.
- Check power cable connections **(FIG. 44 - Ref. 2 - 3)** for signs of leaking, corrosion, or damage.
- Check to make sure the battery is securely attached to the machine frame.

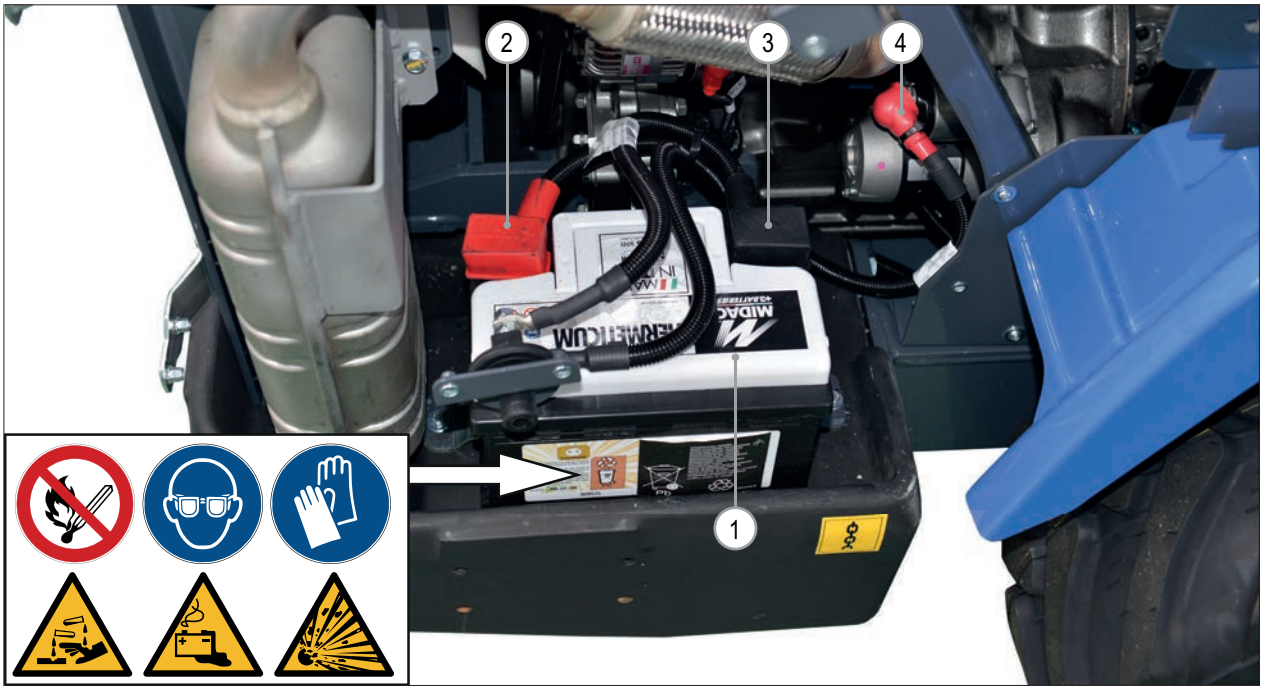


FIG. 44

9.7.6 Hydraulic oil level

To check the hydraulic oil level proceed as follows:
1) Raise the lifting boom and rotate backwards the quick coupler.
2) Turn off the machine and secure the arm in the upright position with the safety block **(see par. 9.3)**.
3) Unscrew the knob **(FIG. 45 - Ref. 2)** to open the cover **(FIG. 45 - Ref. 1)** located near the left front wheel.
4) Remove the cap of the hydraulic oil tank **(FIG. 45 - Ref. 3)**.
5) Check that the oil level is between the MIN and MAX marks on the dipstick **(FIG. 45 - Ref. 4)**.
6) If needed, add the appropriate type of hydraulic fluid: **0280 PAKELO HYDRAULIC EP AL ISO 46**.

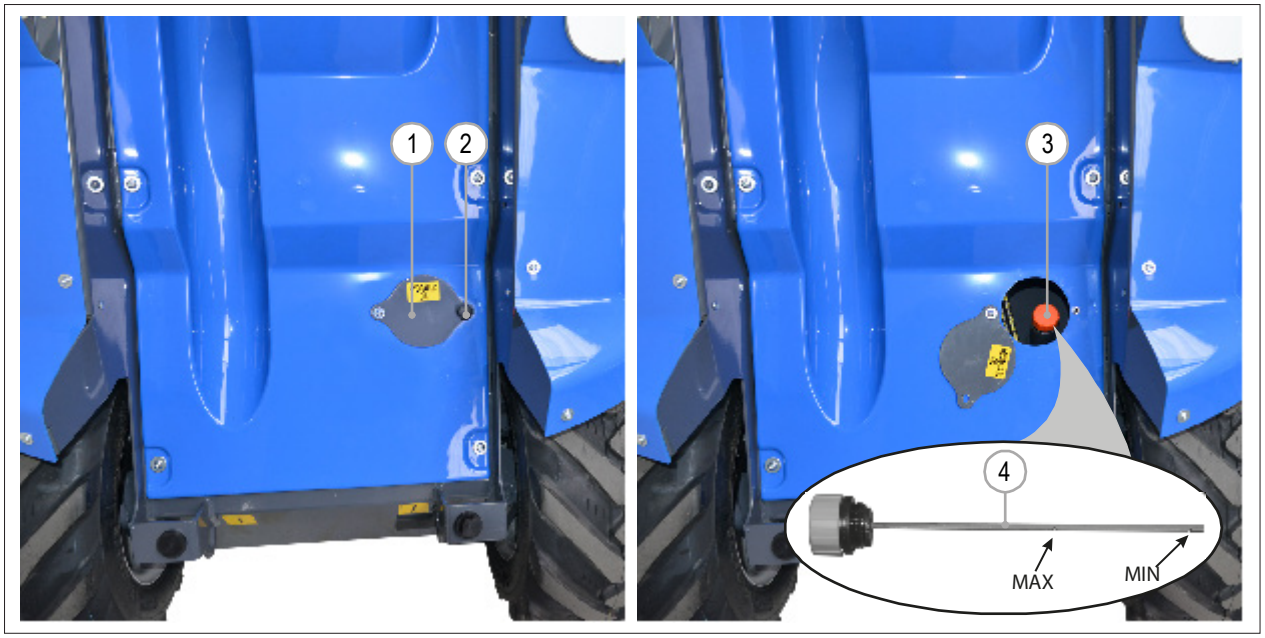


FIG. 45

9.7.7 Hydraulic oil filter change

To change the hydraulic oil proceed as follows:

1) Raise the loader arm.
2) Turn off the machine and secure the arm in the upright position with the safety block **(see par. 9.3)**.
3) Remove the front panel by loosening the screws that secure it to the frame **(see FIG. 46)**.
4) Remove the filter cover by rotating the cover. It may be necessary to use a wrench to loosen the cover **(FIG. 46 - Ref. 1)**.
5) Remove the spring **(FIG. 46 - Ref. 4)**, and the filter element **(FIG. 46 - Ref. 5)** from the plastic sleeve **(FIG. 46 - Ref. 6)**.
6) Replace the filter element with a new original part.
7) Reinstall the spring and inspect the filter cover O-ring for any signs of wear or damage. This O-ring is located in a groove at the top of the filter body **(FIG. 46 - Ref. 3)**. Replace the O-ring in case of wear or damage.
8) Reinstall the filter cover **(FIG. 46 - Ref. 2)** and secure it.
9) Check the hydraulic oil level and, if needed, proceed to refill **(see par. 9.7.6)**.
10) Reinstall the front panel.

⚠ ATTENTION

THE USED FILTER MUST BE DISPOSED OF IN ACCORDANCE TO THE LAWS IN FORCE IN THE COUNTRY WHERE THE MACHINE IS USED.

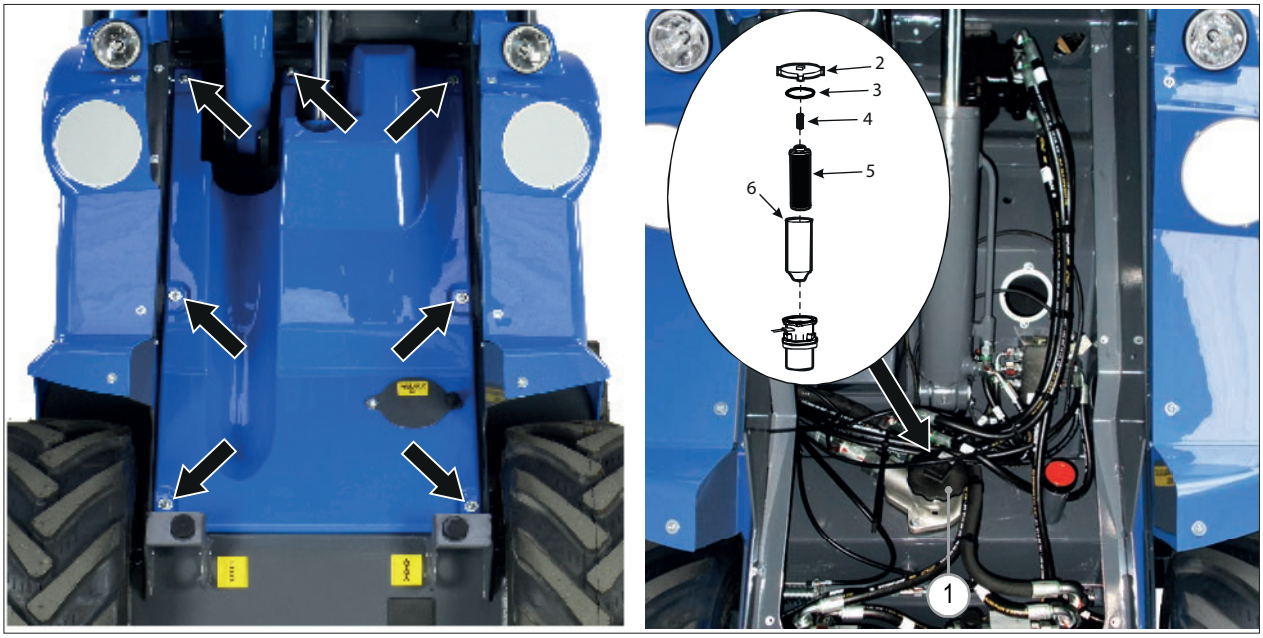


FIG. 46

9.7.8 Hydraulic oil change

To change the hydraulic oil filter proceed as follows:
1) Raise the loader arm.
2) Turn off the machine and secure the arm in the upright position with the safety block **(see par. 9.3)**.
3) Place under the hydraulic oil tank a suitable sized container with a capacity of at least 50 l.
4) Remove the hydraulic tank drain plug **(FIG. 47 - Ref. 1)**, located under the machine near the right front wheel, and drain all hydraulic oil from the machine into the container.
5) When all of the hydraulic fluid has drained out of the tank, reinstall and secure the drain plug. Make sure to inspect the drain plug O-ring **(FIG. 47 - Ref. 2)** for signs of wear or damage. Replace the O-ring if any signs of damage are noted.
6) Change the oil filter **(see par. 9.7.7)**.
7) Remove the cap of hydraulic oil tank **(see par. 9.7.6)**.
8) Refill the hydraulic oil tank with recommended hydraulic oil - **0280 PAKELO HYDRAULIC EP AL ISO 46 (see par. 9.6.1)**.
9) Check the hydraulic oil level **(see par. 9.7.7)**.
10) Turn on the machine **(see par. 8.3.2)** for a few of minutes, in this way the oil flows inside the circuit oil.
11) Turn off the machine **(see par. 8.3.6)**.
12) Check again the hydraulic oil level **(see par. 9.7.6)**.

⚠ ATTENTION

THE USED OIL AND FILTER MUST BE DISPOSED OF IN ACCORDANCE TO THE LAWS IN FORCE IN THE COUNTRY WHERE THE MACHINE IS USED.

9.7.9 Adjust the boom guide shoes

All the four guide shoes must be adjusted.
To adjust the boom guide shoes proceed as follows:
1) Put the machine in **"safety state" (see par. 9.2)**.
2) Loosen the lock screws **(FIG. 48 - Ref. 1)**.
3) Using an appropriate tool, slowly rotate the top adjustment screw **(FIG. 48 - Ref. 2)** clockwise until slight resistance is felt.
4) Tighten the lock screw **(FIG. 48 - Ref. 1)**, securing the boom guide adjustment screw in position.
5) Repeat these adjustment procedures for the opposite side boom guide shoes.
If the guide shoes is too worn, replace them with new ones supplied by the manufacturer.

FIG. 47

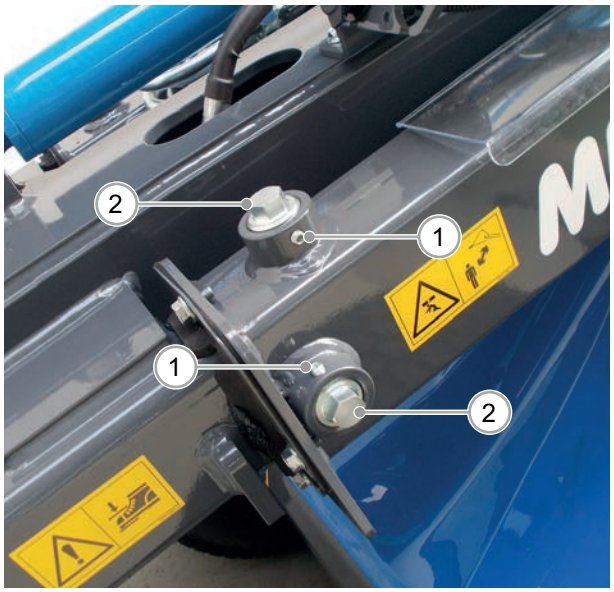


FIG. 48

9.7.10 Fuses

⚠ ATTENTION

IF A FUSE BLOWS, DETERMINE THE CAUSE BEFORE REPLACING IT WITH A NEW ONE.

To replace the fuses proceed as follows:

1) Remove the cover located near the parking brake lever **(see FIG. 49)**.

2) Replace the blown fuses with new ones with the same amperage rating (which is shown on the top of the blown fuse).

3) Reinstall the cover.

Ref.	Function	Rating
1	Generator	10A
2	Multi-function display	5A
3	Work lights / Horn / Backlight	15A
4	Option	25A
5	DBS / Joystick / Hi-Flow	15A
6	12V socket / AUX socket	15A
7	Electrostop engine	15A
8	Option - Road lights / Heating system	10A

TAB. 26

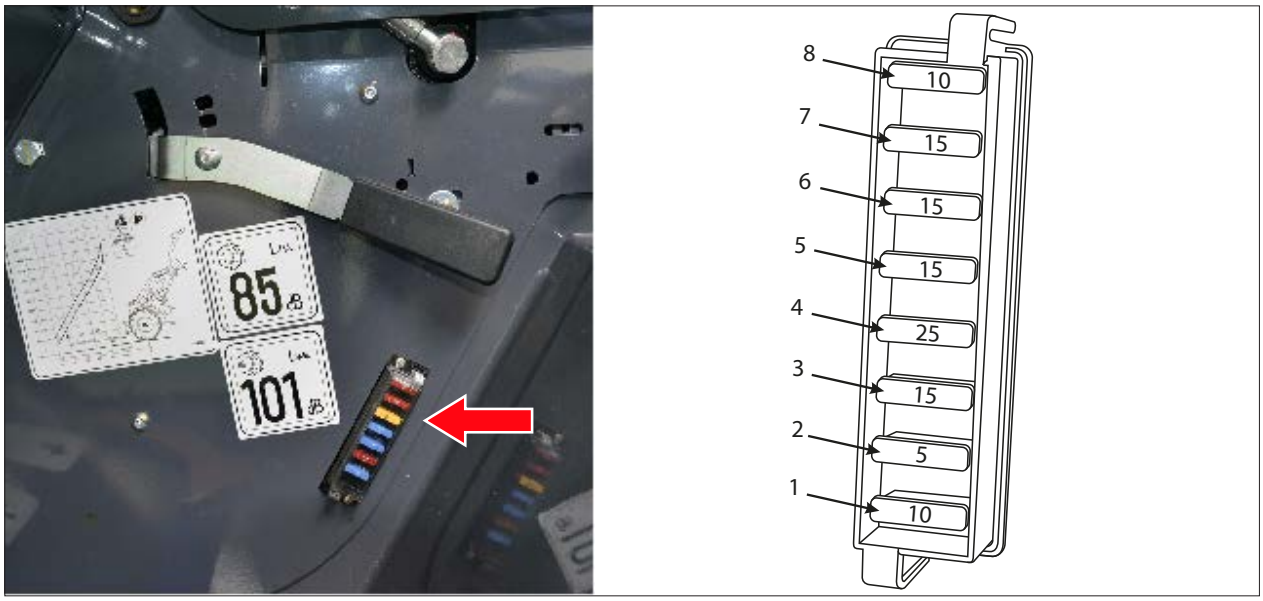


FIG. 49

9.7.11 Greasing points

⚠ DANGER

IT IS MANDATORY TO INSTALL THE ARM SAFETY BLOCK WHEN PERFORMING MAINTENANCE WITH THE ARM RAISED.

The **FIG. 50** and **FIG. 51** show the location of greasing points.
The lubrication points for the boom cylinders are located under the front machine cover **(FIG. 50 - Ref. 1)**. To remove the cover loosen the screws that fix it.
Clean the greasing points with a cloth and apply grease type **0088 PAKELO BEARING EP GREASE NLG I 0**.

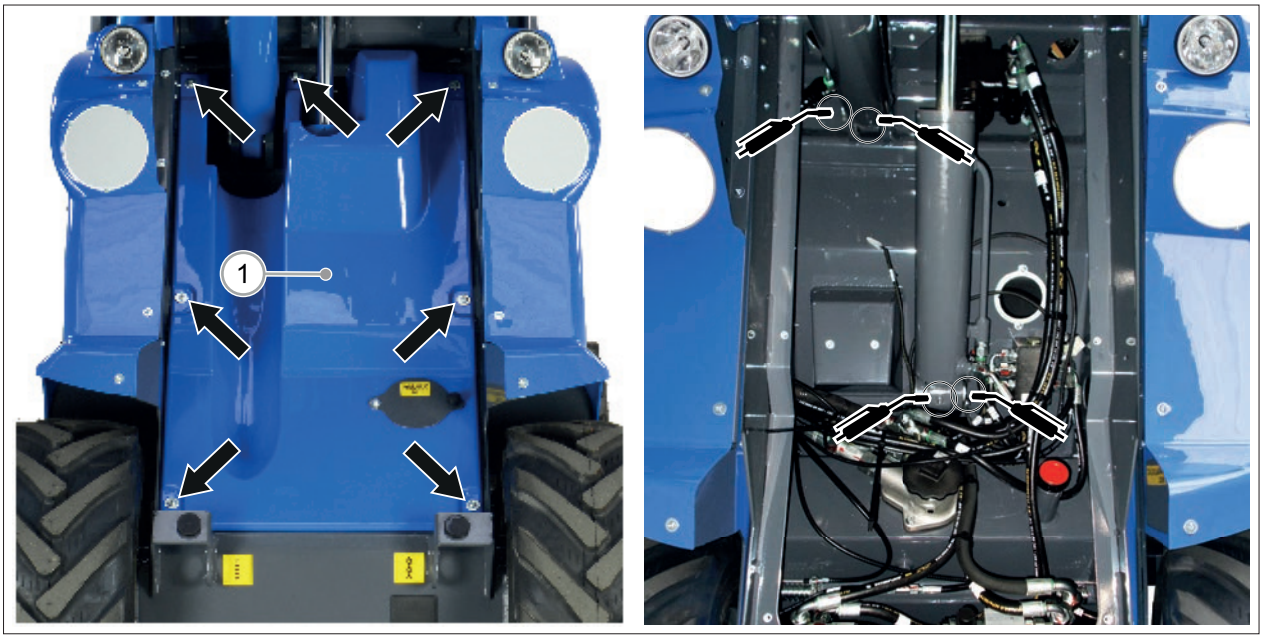


FIG. 50

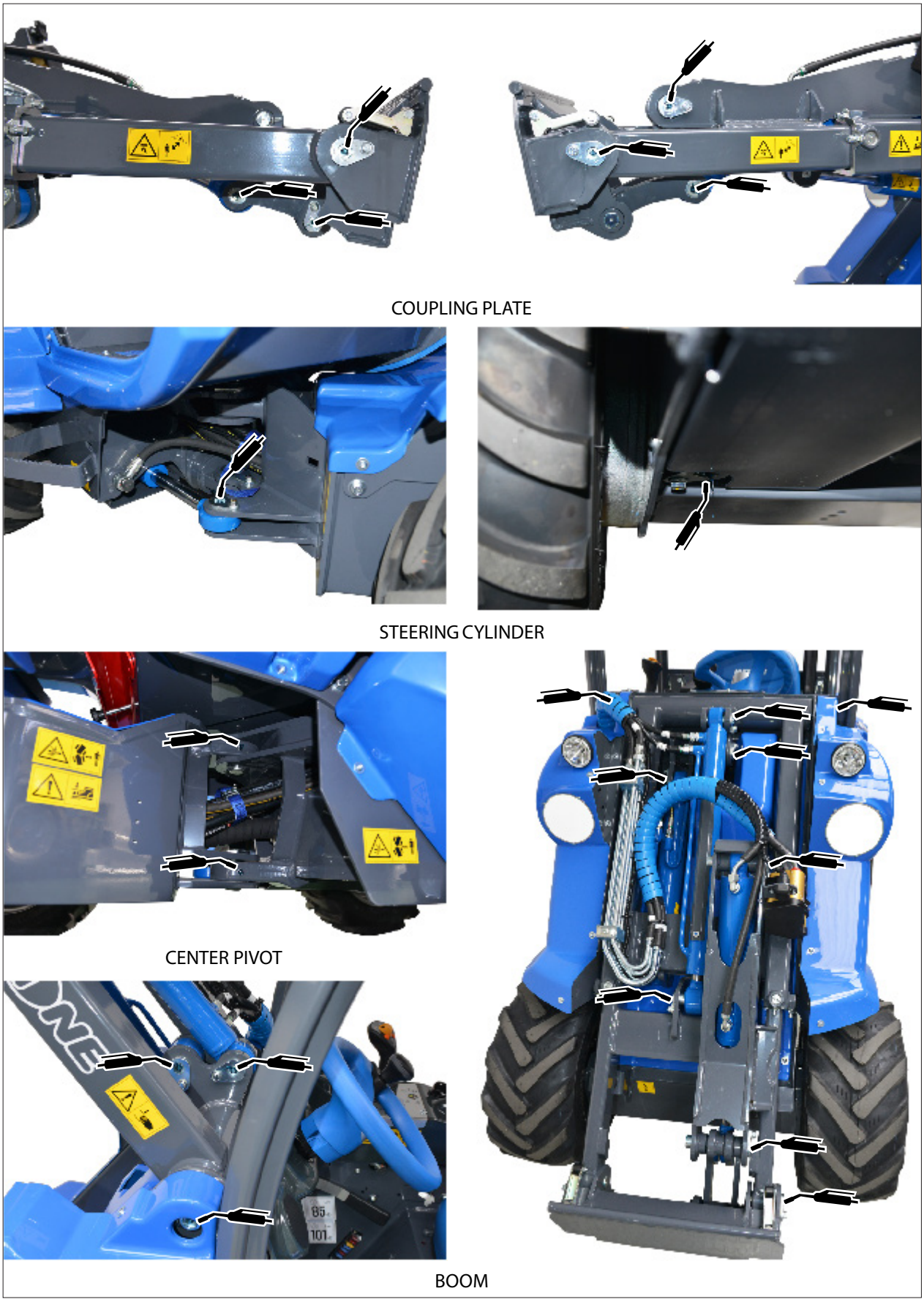


FIG. 51

9.8 Engine maintenance

⚠ WARNING

SERVICE AND MAINTENANCE INSTRUCTIONS FOR THE ENGINE CAN BE FOUND IN THE ENGINE'S MANUAL SUPPLIED WITH THE MACHINE.

9.8.1 Check engine oil level

To check the engine oil level proceed as follows:

1) Put the machine in **"safety state" (see par. 9.2)**.
2) Wait until the engine has cooled down.
3) Open the engine cover **(see par. 9.4)**.
4) Model 4.2K and 5.3K: Unscrew the knob **(FIG. 52 - Ref. 2)** to open the cover **(FIG. 52 - Ref. 1)** (4.2K: left side - 5.3 K: right side).
5) Pull out the dipstick **(FIG. 52 - Ref. 3)** and look for both the full and add oil lines **(FIG. 52 - Ref. 4)**. The correct oil level is between those two lines.
6) If the refill is needed, proceed as follows:

- Open the cap of the engine oil filler **(FIG. 52 - Ref. 5)**;
- Add oil. It is important to add the correct type of engine oil as stated in the engine manual.
- Make sure to reinstall and secure the oil filler cap.
- After filling the oil, wait a few minutes and check the oil level again

7) Reinstall the dipstick and secure it.

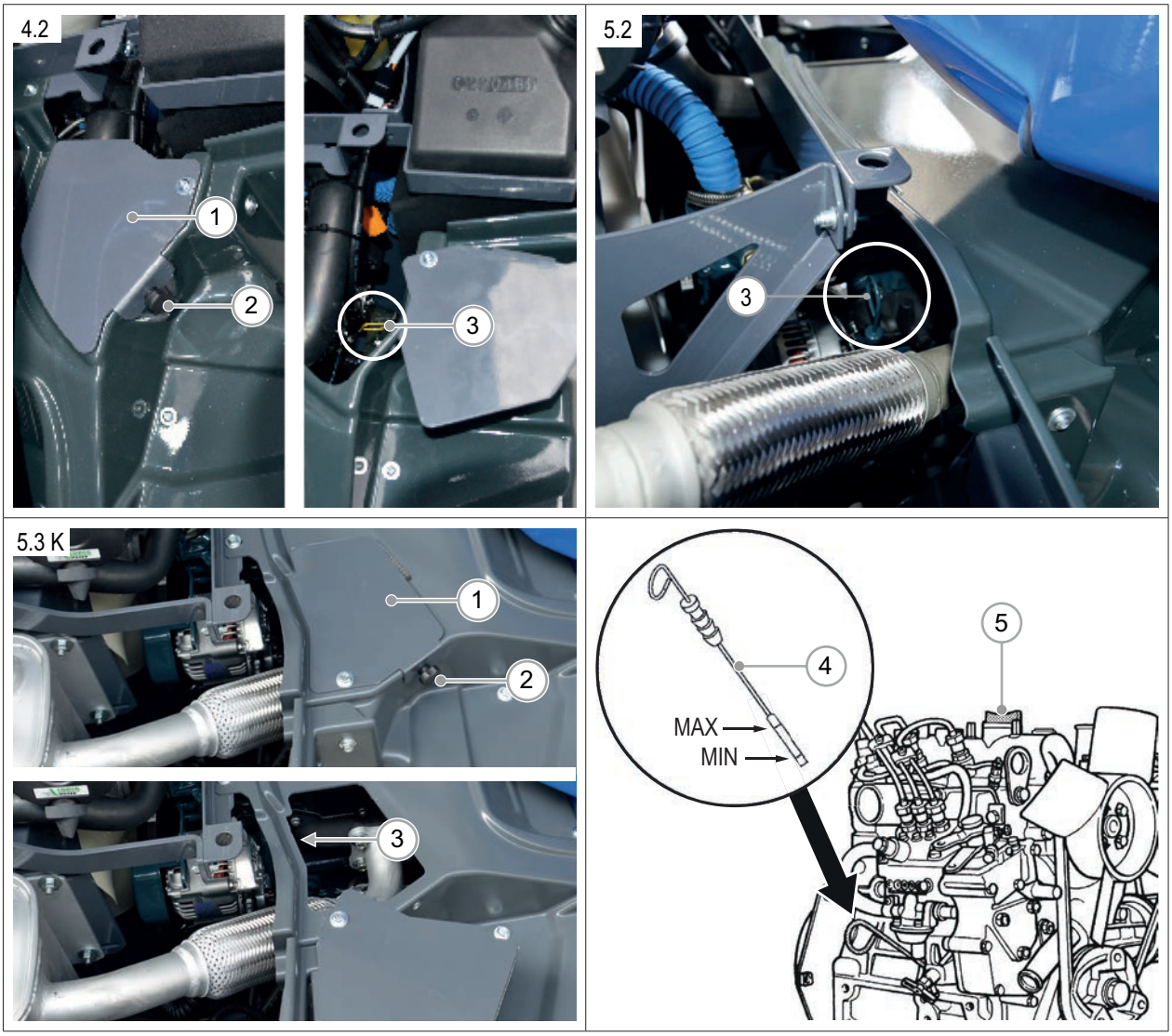


FIG. 52

9.8.2 Engine oil and filter replacement

⚠ WARNING

ENGINE OIL AND FILTER REPLACEMENT PROCEDURE CAN BE FOUND IN THE ENGINE'S MANUAL SUPPLIED WITH THE MACHINE.

The position of the oil drain plug **(FIG. 53 - Ref. 1)** and of the oil filter **(FIG. 53 - Ref. 3)** is shown in **FIG. 53**.

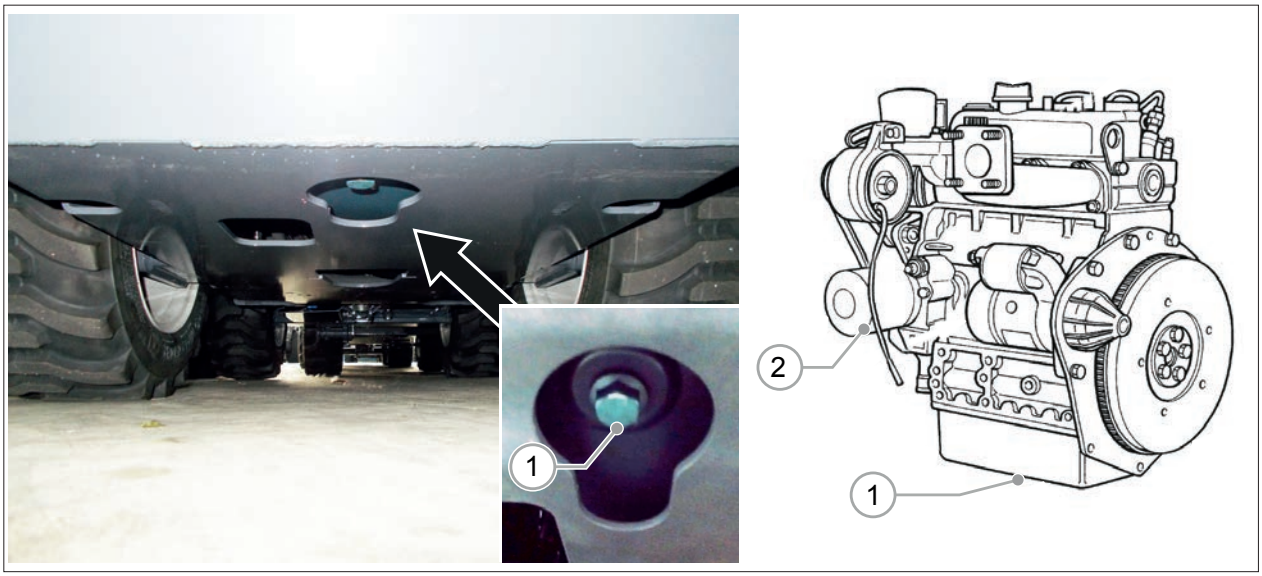


FIG. 53

9.8.3 Check coolant level

⚠ DANGER

NEVER OPEN THE PRESSURIZED OVERFLOW TANK WHILE THE ENGINE IS WARM. HOT COOLANT MAY BURST OUT CAUSING SERIOUS BURNS. ALLOW ENGINE TO COOL DOWN COMPLETELY BEFORE OPENING.

To check the coolant level, proceed as follows:

1) Put the machine in **"safety state" (see par. 9.2)**.

2) Wait until the engine has cooled down.

3) Open the engine cover **(see par. 9.4)**.

4) The cold engine coolant level in the overflow tank **(FIG. 54 - Ref. 1)** should be between the two lines **(FIG. 54 - Ref. 2 and Ref. 3)**.

5) If adding coolant is needed, proceed as follows:

- Open the cap of the overflow tank;
- Add coolant. It is important to add the correct type of coolant as stated in the engine manual.
- Make sure to reinstall and secure the cap of the overflow tank.

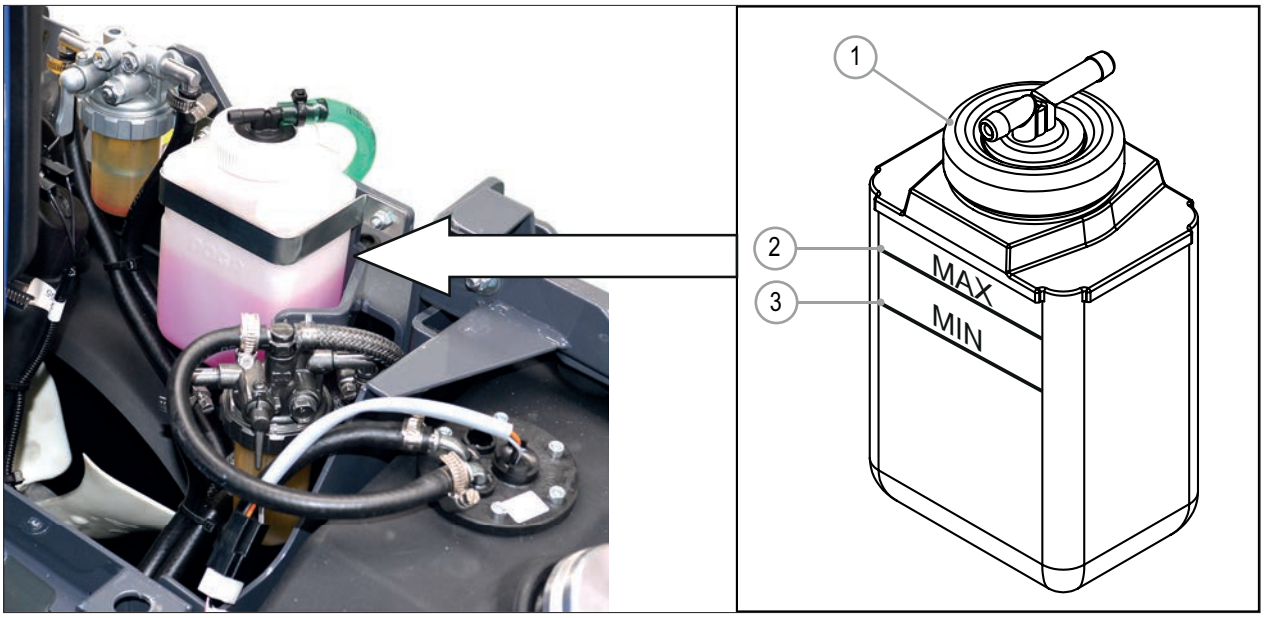


FIG. 54

9.8.4 Check separator filter

⚠ ATTENTION

THE SEPARATOR FILTER MAY NOT BE PRESENT IN THE MODEL 5.3 K.

To check the separator filter, proceed as follows:

1) Put the machine in **"safety state" (see par. 9.2)**.
2) Wait until the engine has cooled down.
3) Open the engine cover **(see par. 9.4)**.
4) Inspect the separator filter **(FIG. 55 - Ref. 1)** and check if there's water **(FIG. 55 - Ref. 4)** at the bottom of the filter bowl.
5) If case of presence of water, proceed as follows:

- Close the tap of the fuel/water separator **(FIG. 55 - Ref. 2)**.
- Loosen the ring **(FIG. 55 - Ref. 3)**. It may be necessary to use a wrench.
- Remove the filter bowl and drain any accumulated water.
- To reinstall the filter bowl.
- Open the tap **(FIG. 55 - Ref. 2)**.
- Check for any leaks of fuel.

⚠ ATTENTION

THE DRAINED WATER AND FUEL MUST BE DISPOSED OF IN ACCORDANCE TO THE LAWS IN FORCE IN THE COUNTRY WHERE THE MACHINE IS USED.

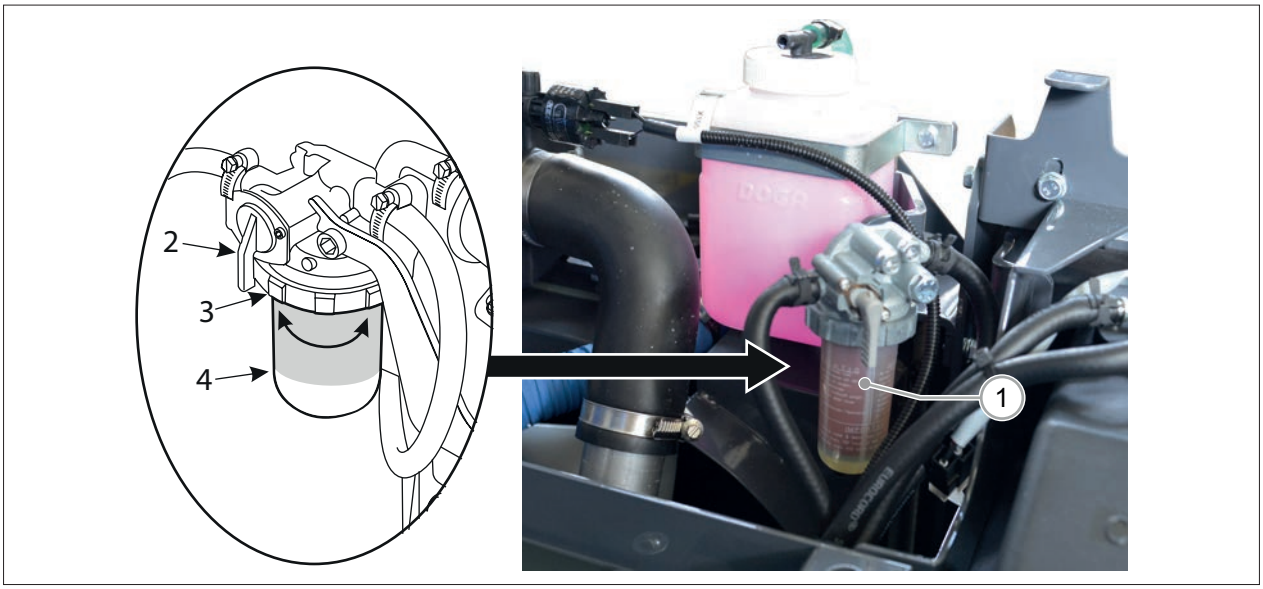


FIG. 55

9.8.5 Air filter check

To check the air filter, proceed as follows:

1) Put the machine in **"safety state" (see par. 9.2)**.
2) Wait until the engine has cooled down.
3) Open the engine cover **(see par. 9.4)**.
4) Unhook the retaining clips and remove the end cap **(FIG. 56 - Ref. 1).**
5) Check the air cleaner element **(FIG. 56 - Ref. 2)**, if cleaning is needed do it with low pressure air jets or replace with new genuine spare part.
6) Reinstall the air cleaner element in the air filter.
7) Close the end cap and secure the retaining clips.

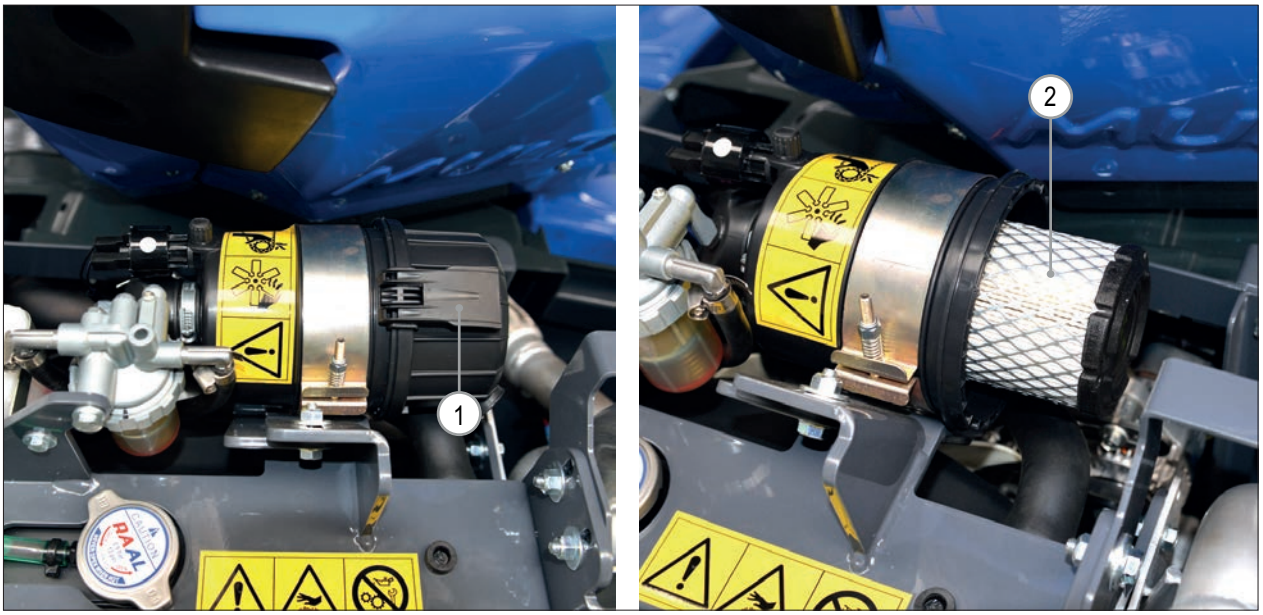


FIG. 56

9.9 Troubleshooting

Problem	Possible cause	Solutions
Engine does not crank	The yellow switch on the joystick isn't in the neutral position	Set the yellow switch of the joystick in the neutral position (center)
	Battery switch off	Turn on battery switch.
	Discharged battery, low battery voltage	Check and charge the battery.
	Blown fuse	Check fuses. If the fuse blows again, find out the cause. Contact service.
	Battery cables poorly connected or disconnected.	Check battery cables and posts, clean and retighten if necessary.
Engine cranks but does not start, or starts and stops immediately	No fuel or wrong type of fuel	Drain the tank then fill the tank with correct type of fuel. Drain water from the fuel filter. Prime the fuel system.
	Engine does not get fuel, clogged fuel filter or fuel line.	Drain water from the fuel filter. Prime the fuel system. Make sure that the fuel hoses and fuel filter are clean and have not been frozen. Replace fuel filter, clean fuel lines.
	Cold temperature of the environment	Hold ignition key in glow position for longer. If glow indicator lamp is lit, allow it to turn off before starting. Switch on the engine for at least 5 seconds.
	Battery discharged or damaged	Charge the battery or replace if damaged.
Engine overheats	Clogged radiator	Clean radiator and fan from engine side.
	Coolant level low	Add coolant.
	Leaking cooling system.	Check coolant pressure reservoir cap for tightness. Check cooling system and all hoses and connections.
Hydraulic system overheats	Clogged oil cooler.	Clean cooler and fan.
	Fan faulty	Check and clean, repair if necessary.
	Hydraulic system overloaded	Use attachment at lower engine rpm, use with 1-pump setting, check attachment for faults.
The loader does not move even after the parking brake has been released	Low hydraulic charge pressure.	Contact service for pressure check.

TAB. 27

10 SPARE PARTS

⚠ WARNING

THE ORIGINAL PARTS FOR ANY CHANGES MUST BE REQUIRED ONLY TO THE DEALER OR AUTHORISED SERVICE CENTRE, COMMUNICATING MACHINE MODEL, SERIAL NUMBER AND YEAR OF MANUFACTURE.

10.1 Filter code

		Model		
Ref.	**Type of filter**	**4.2K**	**5.2K**	**5.3K**
1	Main fuel filter	C036640	C036640	C036649
2	Engine oil filter	C039155	C039155	C039158
3	Air filter cartridge	C039058	C039058	C039058
4	Fuel/Water Separator	C039127	C039127	/
5	Hydraulic oil filter	C036627	C036627	C036627

TAB. 28

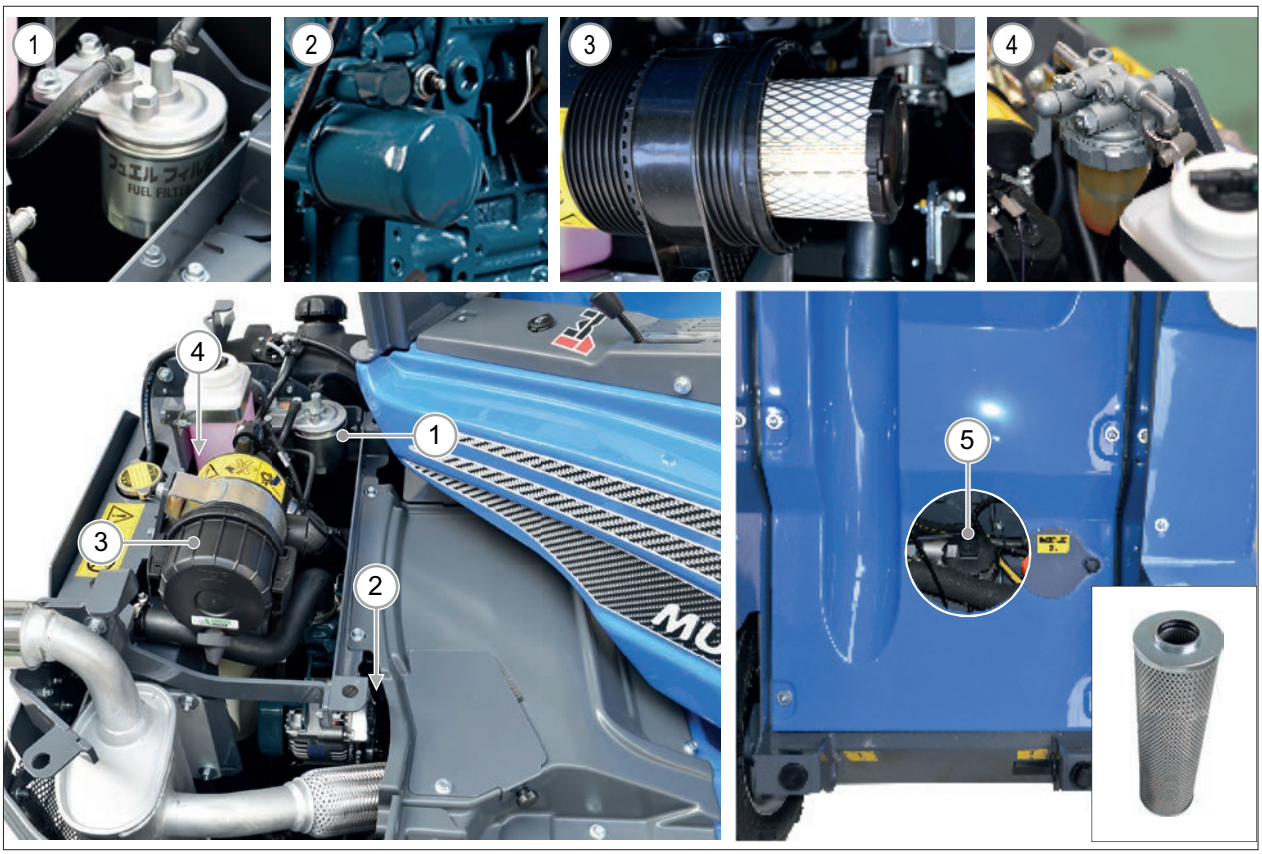


FIG. 57

11 ANNEXES

11.1 Road light kit (option)

Road light kit includes **(see FIG. 58)**:
- Headlights (high beams, low beams, position and direction).
- Rear lights (position, stop and direction).
- Orange light indicator (placed above the driving seat).
- Side rear views mirrors.

The lights of the road kit are activated by the appropriate controls placed on the driving seat **(see par. 4.3.1)**.

⚠ ATTENTION

THE ROAD LIGHT KIT IS REQUIRED FOR THE MACHINE TO BE DRIVEN.

FIG. 58

11.2 Parallelogram

The parallelogram is a device which, when applied to the lifting arm allows the attachment assembled to the machine to the same angle as at the departure, whatever the position of the lifting arm is.

11.3 Cab (option)

The machine can be equipped with two different models of cab:
- smart cab, made in plexiglass and without door;
- luxury cab made in glass with door and heating system.

11.4 Backweights (option)

The backweights set adds approximately 184 kg of weight to the rear end of the machine, increasing the overall working capacity of the machine.
To install the backweights proceed as follows:
1) Put the machine in **"safety state" (see par. 9.2)**.
2) Using a lifting device, position one of the backweights **(FIG. 59 - Ref. 1)** at the rear bumper of the machine.
3) Secure the backweight to the bumper using the bolts and washers **(FIG. 59 - Ref. 3 and Ref. 4)**.
4) Repeat the procedure for the second half of the backweights **(FIG. 59 - Ref. 2)**.
5) To remove the backweights, reverse Steps **1) - 3)**.

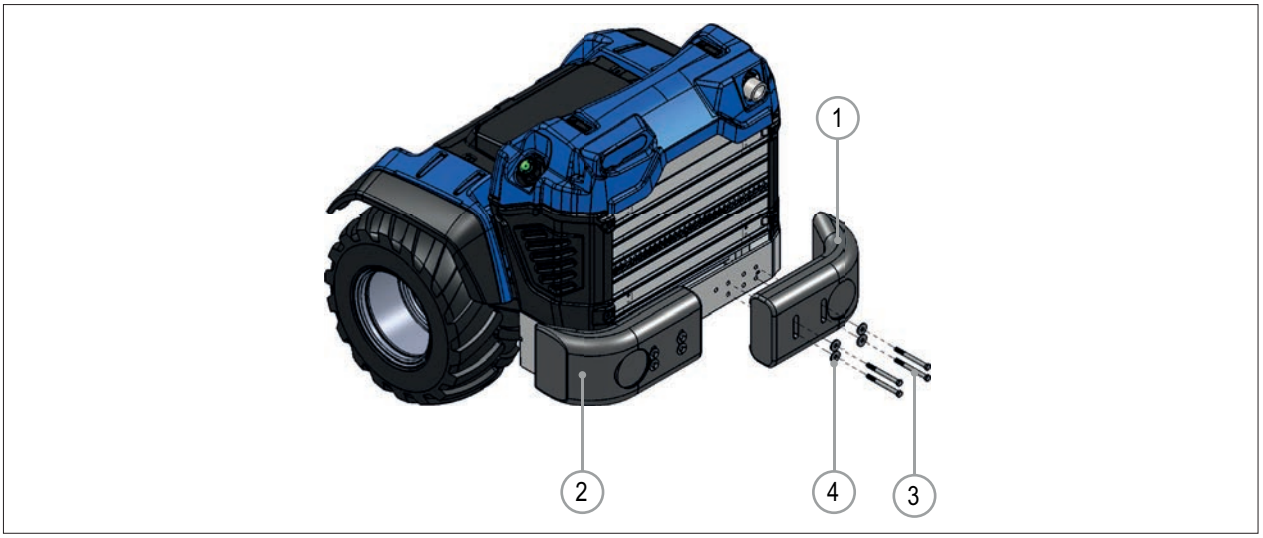


FIG. 59

11.5 Additional hydraulic outlets (option)

The machine can be equipped with:
- front additional hydraulic outlets **(see FIG. 60)** (only 5.3). This are double effect outlets. To activate it, press the switch on the control panel and at the same time operate the telescopic boom command.
- rear additional hydraulic outlets **(see FIG. 61)**, activated in the same time with the standard front hydraulic outlets.
- rear single additional hydraulic outlet. This is a single effect outlet. To activate it, press the switch on the control panel and at the same time retract the telescopic boom with the joystick blue selector. For example, to lift the body trailer with hydraulic tipping: press the switch and retract the telescopic boom. To lower the body trailer: release both controls, switch and the blue joystick selector.

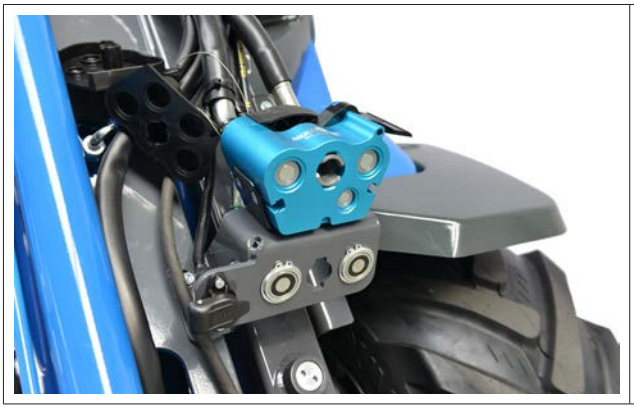


FIG. 60

FIG. 61

⚠ ATTENTION

TO WORK WITH ADDITIONAL FRONT OUTLETS AND REAR ADDITIONAL OUTLETS THE HI-FLOW SHALL BE SET OFF.

11.6 Tyres pressure

⚠ WARNING

MANY MODELS AND SIZES OF TYRES CAN BE MOUNTED ON THE MACHINE. THE MAX LOAD OF THE TYRES CHANGES ACCORDING TO THE MODEL, SIZE AND MANUFACTURER. REFER TO YOUR MULTIONE DEALER TO KNOW THE MAX LOAD OF THE TYRES YOU WANT TO MOUNT IN YOUR MACHINE.

⚠ WARNING

ALWAYS CHECK THE DATA IMPRESSED ON THE TYRE (MODEL, SIZE, MANUFACTURER) BEFORE INFLATING.

The table below shows the MAX pressure and the suggested pressure of the tyres according to manufacturer, size and model. Not all tyres listed are compatible with the machines covered by this manual, refer to your dealer MultiOne for compatibility.

Manufacturer	Size	Model	MAX. pressure	Suggested pressure
Kenda	26x12,00-12	Skid	4,4 bar	3,5 bar
Kenda	20x8,00-10	Turf	1,5 bar	1,2 bar
Kenda	20x8,00-10	Tractor	1,5 bar	1,2 bar
Kenda	23x10,50-12	Turf	2,2 bar	1,7 bar
Kenda	26x12,00-12	Turf	3,4 bar	2,7 bar
Kenda	23x8,50-12	Turf	2,3 bar	1,8 bar
Kenda	365x70-18	Skid	3,8 bar	3 bar
Starco	26x12,00-12	Tractor HD	2,1 bar	1,6 bar
Starco	31x15,50-15 (400/50-15)	Tractor HD	3 bar	2,4 bar
Starco	23x10,50-12	Skid/Tractor	2,5 bar	2 bar
Starco	23x8,50-12	Skid/Tractor	3,4 bar	2,7 bar
Trelleborg	26x12,00-12 (320/60-12)	Tractor	2,5 bar	2 bar
Trelleborg	23x8,50-12	Tractor	2,5 bar	2 bar
Trelleborg	21x8,00-10	Tractor	2,5 bar	2 bar
Titan	29x12,50-15	Turf	1,3 bar	1 bar
Mitas	27x8,50-15	Skid	4,2 bar	3,3 bar
Mitas	10,50-18	Skid	3,5 bar	2,8 bar
Mitas	12,50-18	Skid	3,5 bar	2,8 bar
Kingstire	18x9,50-8	Skid/tractor	1,6 bar	1,3 bar
Deestone	27x10,50-15	Skid	5,5 bar	4,4 bar

TAB. 29

11.7 Throttle limiter

The throttle limiter **(FIG. 62 - Rif. 1)** is a safety device that reduces the noise level in accordance with 2000/14 / EC Directive.

⚠ DANGER

IT IS STRICTLY FORBIDDEN TO REMOVE OR TAMPER WITH THE THROTTLE LIMITER.

FIG. 62

11.8 Warranty

MULTIONE NEW INDUSTRIAL EQUIPMENT LIMITED WARRANTY - Machine and fitted options only

MultiOne S.r.l. (hereinafter "MultiOne") warrants each new Industrial product of MultiOne's manufacture to be free from defects in material and workmanship, under normal use and service, as indicated in the table below and start from the purchase date:

Model or part	Warranty duration
1 and 2 Series	500 hours or 24 months*
4 and 5 Series	750 hours or 24 months*
Others model	1000 hours or 24 months*
Transmission (wheel) pumps and wheel drive motors (of all models)	1000 hours or 36 months*
(*) whichever occurs first	

This Limited Warranty applies only to complete machines and specified components of MultiOne's manufacture. Other parts and attachments are, if warranted, covered by a separate limited warranty. **EQUIPMENT AND ATTACHMENTS NOT OF MULTIONE'S MANUFACTURE ARE EXCLUDED FROM THIS WARRANTY INCLUDING ANY DAMAGE RELATED NOT APPROVED BY MULTIONE.**

WARRANTY TERMS
During the Limited Warranty period specified above, any defect in material or workmanship in any warranted item of MultiOne Industrial Equipment not excluded below shall be repaired or replaced at MultiOne's option. All warranty repairs and replacements must be made by a MultiOne independent authorized dealer at the dealer's location. MultiOne will pay for replacement parts and such authorized dealer's labor in accordance with MultiOne labor reimbursement policy. MultiOne reserves the right to supply remanufactured replacement parts as it deems appropriate.

RETAIL PURCHASER RESPONSIBILITY:
This Limited Warranty requires proper maintenance and periodic inspections of the Industrial Equipment as indicated in the Operator's/Maintenance Manual furnished with each new Industrial Equipment. The cost of routine or required maintenance and services is the responsibility of the retail purchaser. The retail purchaser is required to keep documented evidence that these services were performed.
This MultiOne New Industrial Equipment Limited Warranty may be subject to cancellation if the above requirements are not performed.
MultiOne Industrial Equipment with known failed or defective parts must be immediately removed from service.

EXCLUSIONS AND LIMITATIONS
The warranties contained herein shall **NOT APPLY TO:**
1) The retail purchaser is not in compliance with contractually agreed payments.
2) Any defect which was caused (in MultiOne's sole judgment) by other than normal use and service of the Industrial Equipment, or by any of the following; (i) accident (ii) misuse or negligence (iii) overloading (iv) lack of reasonable and proper maintenance (v) improper repair or installation (vi) unsuitable storage (vii) non-MultiOne approved alteration or modification (viii) natural calamities (ix) vandalism (x) parts or accessories installed on Industrial Equipment which were not manufactured or installed by MultiOne authorized dealers (xi) the elements (xii) collision or other accident.
3) Any Industrial Equipment whose identification numbers or marks have been altered or removed or whose hour meter has been altered or tampered with.
4) Any Industrial Equipment which any of the required or recommended periodic inspection or services have been performed using parts not manufactured or supplied by MultiOne or meeting MultiOne Specifications including, but without limitation, engine tune-up parts, engine oil filters, air filters, hydraulic oil filters, and fuel filters.
5) New Industrial Equipment delivered to the retail purchaser in which the equipment/warranty registration has not been completed and submitted to MultiOne within ten (10) days from the date of purchase, using the provided MultiOne website service or communicated by email to service@multione.com. Website: www.multione.com
6) Any defect which was caused (in MultiOne's sole judgment) by operation of the Industrial Equipment not abiding by standard operating procedures outlined in the Operator's Manual.
7) Engine, battery, and tire Limited Warranties and support are the responsibility of the respective product's manufacturer.
8) Transportation costs, if any, of transporting to the MultiOne dealer. Freight costs, if any, of transporting replacement parts to the MultiOne dealer.
9) The travel time of the MultiOne dealer's service personnel to make a repair on the retail purchaser's site or other location.

10) In no event shall MultiOne's liability exceed the purchase price of the product.
11) MultiOne shall not be liable to any person under any circumstances for any incidental or consequential damages (including but not limited to, loss of profits, out of service time) occurring for any reason at any time, including equipments and labour bought or rented as replacement for carry on the product duty.
12) Diagnostic and overtime labor premiums are not covered under this Limited Warranty Policy. Oils and fluids are not covered under this Limited Warranty.
13) Depreciation damage caused by normal wear, lack of reasonable and proper maintenance, failure to follow operating instructions, misuse, lack of proper protection during storage.
14) Accessory systems and electronics not of MultiOne's manufacture are warranted only to the extent of such manufacturer's respective Limited Warranty if any.
15) Wear items which are listed below: Attachments, Bearing Seals, Bearings, Belts, Bolts/Torqued Parts, Brake Pads, Brushes, Bushings, Elastic joints, Fan Belts, Flashings, Fuel Filters, Lights, Lights on Light Kits, Oil Filters, Pins and Bushings, Pivot Rings, Service Items, Wheels, and Windshield Wiper Parts, Glasses, Handles, Electric components and buttons, Body parts, Frame parts exposed to shocks, Wear parts, Joysticks, All seals, Seats wear parts, Hoses damaged by wear or external causes.
16) If through carelessness and negligence by the purchaser or other event independent by MultiOne SRL, this could not act promptly for repairs immediately after the occurrence of cracks or defects, the purchaser will be responsible for extra burden of breakage or defects resulting from further use of the machine.

Warranty and Multione liability will be void if any safety devices is removed or modified.

PARTS WARRANTY: Parts replaced in the warranty period are warranted to be free from defects of material for ninety (90) days or the part will be repaired or replaced, without labor coverage for removal and reinstallation.

EXCLUSIONS OF WARRANTIES: EXCEPT FOR THE WARRANTIES EXPRESSLY AND SPECIFICALLY MADE HEREIN, MULTIONE MAKES NO OTHER WARRANTIES, AND ANY POSSIBLE LIABILITY OF MULTIONE HEREINUNDER IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED, OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. MULTIONE RESERVES THE RIGHT TO MODIFY, ALTER AND IMPROVE ANY PRODUCT WITHOUT INCURRING ANY OBLIGATION TO REPLACE ANY PRODUCT PREVIOUSLY SOLD WITH SUCH MODIFICATION. NO PERSON IS AUTHORIZED TO GIVE ANY OTHER WARRANTY, OR TO ASSUME ANY ADDITIONAL OBLIGATION ON MULTIONE'S BEHALF.

NO DEALER WARRANTY. The selling dealer makes no warranty of its own and the dealer has no authority to make any representation or promise on behalf of MultiOne to modify the terms or limitations of this warranty in any way.

ELECTRONIC SIGNATURES. Each of the parties hereto expressly agrees to conduct transactions by electronic means. Accordingly, the parties agree and intend that all electronic transmissions including, without limitation, electronic signatures, shall be considered equivalent to an original writing as provided under Italian law, as it may be amended from time to time.

RETURN POLICY

In case of non-acceptance of the above conditions the retail purchaser may return the machine to the dealer free port within 8 days from the receipt of it, provided it is in like new conditions and without having been used in any way; the use of the machine means full acceptance of the terms and conditions of this warranty. The dealer will arrange for the inspection of the machine and any restore amount will be charged.

All data will be treated according to the Legislative Decree n. 196/2003 "Code regarding the protection of personal data" (Consolidated act Privacy).

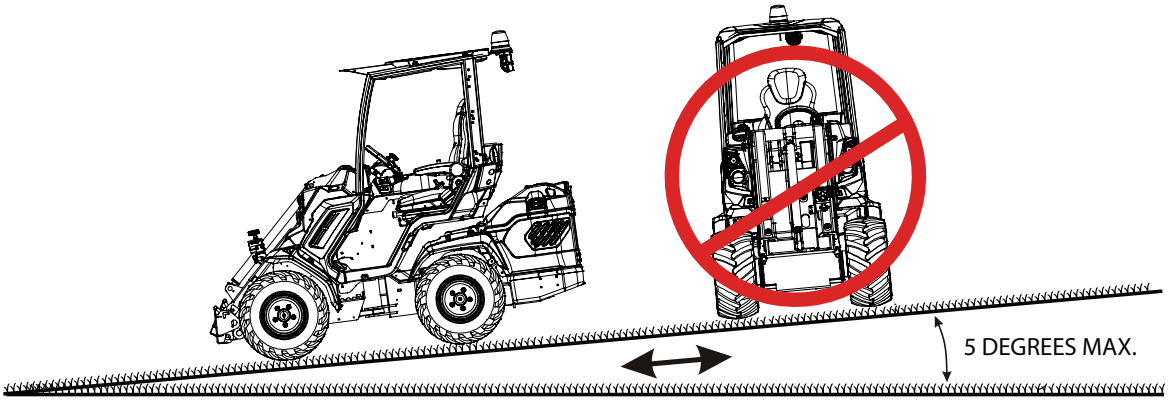
MANUFACTURED BY: MULTIONE S.r.l., Vicenza, Italy

11.9 Slope guide

DO NOT TRAVEL ACROSS OR UP AND DOWN
A SLOPE GREATER THAN 5 DEGREES

SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION OF A COMPACT UTILITY LOADER WITH AN ATTACHMENT

DO NOT REMOVE THIS PAGE FROM MANUAL



⚠ WARNING

- To avoid serious injury , operate your unit up and down the face of slopes.
- Travel across slopes with great caution.
- Do not operate on slopes greater than 5 degrees.
- Make turns gradually to prevent tipping or loss of control.
- Exercise extreme caution when changing direction on slopes.
- Control of the machine may be affected by installed attachments.
- Reduce travel speed on slopes.
- Read and understand all Warnings and Operating Instructions in the Operator's Manual .
- When driving on slopes, keep the boom and load near to the ground as much as possible. Rising the boom and/or the load will decrease the machine stability consistently. Use great caution.

1. Fold this page along dotted line indicated above. DO NOT remove the page from the manual.
2. Hold page before you so that its left edge is vertically parallel to a tree trunk or other upright structure.
3. Sight across the fold in the direction of the hill slope you want to measure.
4. Compare the angle of the fold with the slope of the hill.

FIG. 63

SERVICES MADE

CUSTOMER: .....

MODEL: .....

SERIAL NUMBER: .....

DATE OF DELIVERY: .....

DATE	HOURS	REMARKS	STAMP / SIGNATURE
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MultiOne s.r.l
via Palù, 6/8
36040 Grumolo delle Abbadesse
Vicenza - Italy
info@multione.com