MANITOU

HANDLING YOUR WORLD

647367 EN (01/03/2017)

100 SC-2
120 SC-2
140 SC

OPERATOR'S MANUAL

(ORIGINAL INSTRUCTIONS)

IMPORTANT

Carefully read and understand this instruction manual before using the lifting platform.

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

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

WHENEVER YOU SEE THIS SYMBOL IT MEANS:

⚠ IMPORTANT ⚠

WARNING ! BE CAREFUL ! YOUR SAFETY OR THE SAFETY OF THE LIFTING PLATFORM IS AT RISK.

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

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1st ISSUE	16/03/2012	
UPDATED	24/07/2012	2-10 ; 2-12 <-> 2-15 ; 2-19 <-> 2-21 ; 2-26 <-> 2-28 ; 2-30 ; 2-36 ; 3-11 ; 3-18 ; 3-21
	17/03/2015	UPDATE
	23/06/2015	UPDATE EN280
	01/03/2017	1-20 ; 1-25 <-> 1-30 ; 2-4 ; 2-5 ; 2-8 <-> 2-10

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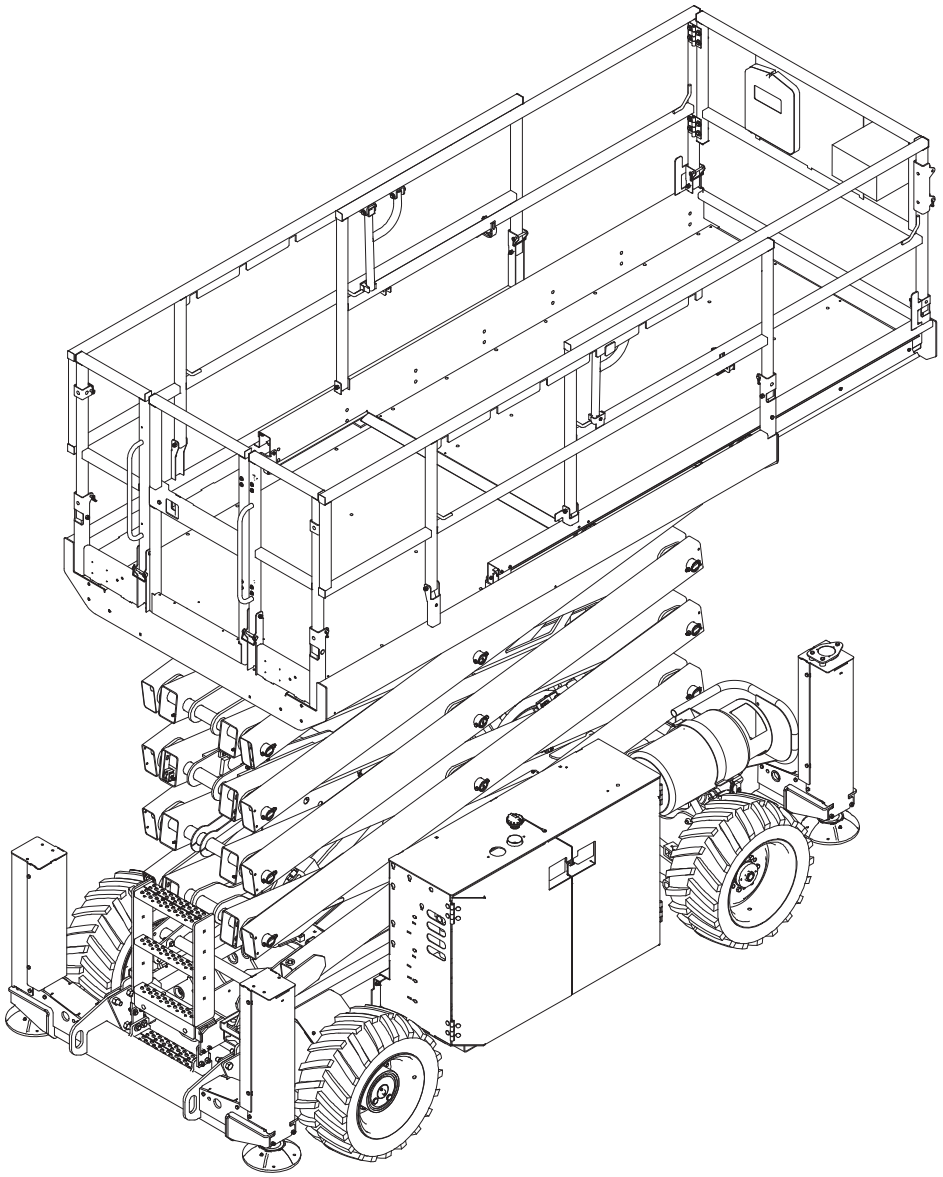

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1 - OPERATING AND SAFETY INSTRUCTIONS

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INSTRUCTIONS TO THE COMPANY MANAGER

PREAMBLE

WHENEVER YOU SEE THIS SYMBOL IT MEANS :

WARNING ! BE CAREFUL ! YOUR SAFETY OR THE SAFETY OF THE PLATFORM IS AT RISK.

THE SITE

- Good personal control of the lifting platform's operating area reduces the risk of accidents:
  - The floor must not be unnecessarily broken or cluttered,
  - No excessive slopes,
  - Controlled pedestrian traffic, etc.

THE OPERATOR

- Only qualified, authorized personnel can use the platform. This authorization is given in writing by the appropriate person in the establishment with respect to the use of platform and must be carried permanently by the operator.

On the basis of experience, there are a number of possible situations in which operating the platform is contra-indicated. Such foreseeable abnormal uses, the main ones being listed below, are strictly forbidden.

- The foreseeable abnormal behaviour resulting from ordinary neglect, but does not result from any wish to put the machinery to any improper use.
  The reflex reactions of a person in the event of a malfunction, incident, fault, etc. during operation of the platform.
- Behaviour resulting from application of the "principle of least action" when performing a task.
- For certain machines, the foreseeable behaviour of such persons as : apprentices, teenagers, handicapped persons, trainees tempted to drive a platform, operator tempted to operate a truck to win a bet, in competition or for their own personal experience.
- The person in charge of the equipment must take these criteria into account when assessing whether or not a person will make a suitable driver.

OBTAIN INFORMATION ON :

- How to behave when there is a fire.
- The location of the nearest first aid kit and fire extinguisher.
- The emergency telephone numbers for calling (the doctors, ambulance, hospital and fire brigade).

THE PLATFORM

A - THE PLATFORM'S SUITABILITY FOR US

- MANITOU has ensured that this platform is suitable for use under the standard operating conditions defined in this operator's manual, with an overload test coefficient of 1,25 and an operational test coefficient of 1,1, as stipulated in standardised norm EN 280 for MPLPs (Mobile Personnel Lifting Platforms).
  Before commissioning, the company manager must make sure that the platform is appropriate for the work to be done, and perform certain tests (in accordance with current legislation).

B - ADAPTATING THE PLATFORM TO THE USUAL ENVIRONMENTAL CONDITIONS

- In addition to series equipment mounted on your platform, many options are available, such as : flashing light, working headlight, etc. Contact your dealer.
- Take into account climatic and atmospheric conditions of the site of utilisation.
  - Protection against frost (see chapter 3 - MAINTENANCE, LUBRICANTS page).
  - Adaptation of lubricants (ask your dealer for information).
  - I.C. engine filtration (see chapter 3 - MAINTENANCE, FILTER ELEMENTS page).

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- The machines designed by MANITOU are designed to be used in the following temperature range:
  - Minimum temperature: -20°C
  - Maximum temperature: +45°C
- Special features are available, as an option, for particularly cold environments.

For operation under average climatic conditions, i.e. : between -15 °C and + 35 °C, correct levels of lubricants in all the circuits are checked in production. For operation under more severe climatic conditions, before starting up, it is necessary to drain all the circuits, then ensure correct levels of lubricants using lubricants properly suited to the relevant ambient temperatures. It is the same for the cooling liquid.

- A platform operating in an area without fire extinguishing equipment must be equipped with an individual extinguisher. There are solutions, consult your dealer.

Your platform is designed for outdoor use (see chapter: 2 - DESCRIPTION, CHARACTERISTICS pages) under normal atmospheric conditions and indoor use in suitably aerated and ventilated premises. It is prohibited to use the platform in areas where there is a risk of fire or which are potentially explosive (e.g. Refineries, fuel or gas depots, stores of inflammable products…). For use in these areas, specific equipment is available (ask your dealer for information).

C - MODIFYING THE PLATFORM

- For your safety and that of others, you must not change the structure and settings of the various components used in your platform (hydraulic pressure, calibrating limiters, I.C. engine speed, addition of extra equipment, addition of counterweight, unapproved attachments, alarm systems, etc.) yourself. In this event, the manufacturer cannot be held responsible.
- Your lifting platform is delivered with standard wheels or all-terrain wheels. It is FORBIDDEN to switch from one type of wheels to another: RISK OF THE LIFTING PLATFORM BECOMING UNSTABLE.

THE INSTRUCTIONS

- The operator's manual must always be in good condition and kept in the place provided on the platform and in the language used by the operator.
- You must necessarily replace the instructions manual, as well as any plates or stickers, if they are no longer legible or are missing or damaged.

THE MAINTENANCE

- Maintenance or repairs other than those detailed in the chapter 3 - MAINTENANCE must be carried out by qualified personnel (consult your dealer) and under the necessary safety conditions to maintain the health of the operator and any third party.

Your patform must be inspected periodically to ensure that it remains in compliance. The frequency of this inspection is defined by current legislation in the country in which the platform is use

- Example for France : The manager of the compagny using the platform must set up a maintenance book for each machine and keep up-to-date (Ministerial Order of 2nd March 2004).

PREAMBLE

WHENEVER YOU SEE THIS SYMBOL IT MEANS :

WARNING ! BE CAREFUL ! YOUR SAFETY OR

THE SAFETY OF THE PLATFORM IS AT RISK.

The risk of accident while using, servicing or repairing your platform can be restricted if you follow the safety instructions and safety measures detailed in these instruction.

- Only the operations and manœuvres described in these operator's manual must be performed. The manufacturer cannot predict all possible risky situations. Consequently, the safety instructions given in the operator's manual and on the platform itself are not exhaustive.
- At any time, as an operator, you must envisage, within reason, the possible risk to yourself, to others or to the platform itself when you use it.

Failure to respect the safety and operating instructions, or the instructions for repairing or servicing your platform may lead to serious, even fatal accident.

GENERAL INSTRUCTIONS

A - operator's manual

- Carefully read and understand the operator's manual.
- The operator's manual must always be kept in the place provided for it on the platform and be written in the language used by the operator.
- Any operations or manoeuvres not described in the operator's manual must necessarily be forbidden right from the start.
- Follow the safety advice and the instructions on the platform.
- Ypu must necessarily replace the operator's manual, as well as any plates or stickers, if they are no longer legible or are damaged.
- A second operator must necessaily be present on the ground as a safety measure when using the platform.
- Familiarise yourself with the platform on the terrain it has to travel over.
- The machine must also be used in accordance with good engineering practice.
- Do not use the platform if the wind speed is over 45 km/h. The platform's arms must not be subjected to a lateral force of more than 40 kg (platforms for indoor use must not be used outside the building).

B - AUTHORIZATION FOR USE IN FRANCE
(OR SEE CURRENT LEGISLATION IN OTHER COUNTRIES)

- Only qualified, authorized personnel may use the platform. This authorization is given in writing by the appropriate person in the company, in charge of using the platform, and must be permanently carried by the operator.
- The operator is not competent to authorise the driving of the platform by another person.

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C - Maintenance

- The operator must immediately advise his superior if his platform is not in good working order or does not comply with the safety notice.
- The operator is prohibited from carrying out any repairs or adjustments himself, unless he has been trained for this purpose. He must keep the platform properly cleaned if this is among his responsibilities.
- The operator must carry out daily maintenance (see chapter : 3 - MAINTENANCE, A - DAILY pages).
- The operator must ensure tyres are adapted to the nature of the ground (see area of the contact surface of the tyres in the chapter : 2 - DESCRIPTION : CHARACTERISTICS pages). There are optional solutions, consult your dealer.

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

In the case of electric platforms, the operator must ensure that:
- The batteries are not replaced with lighter ones (compromising stability).
- Safety goggles are always worn when charging the batteries.
- The batteries are not charged in an explosive environment.
- There is no smoking and no naked flame directed towards the batteries when they are being handled during removal, re-installation and checking the levels.

D - Modifying the platform

- For your safety and that of others, you must not change the structure and settings of the various components used in your platform yourself:
  - hydraulic pressure,
  - calibrating limiters,
  - I.C. engine speed,
  - addition of extra equipment,
  - addition of counterweight,,
  - unapproved attachments,
  - alarm systems, etc...
- In this event, the manufacturer cannot be held responsible.

Your lifting platform is delivered with standard wheels or all-terrain wheels. It is FORBIDDEN to switch from one type of wheels to another: RISK OF THE LIFTING PLATFORM BECOMING UNSTABLE.

E - IC platform axles

- Standard axle :

The chassis is rigid, so the platform can have a ground reach on only three wheels.

- Oscillating axle (if this option is available) :

An oscillating axle enables the platform, when in transport position, to have a ground reach on four wheels. When moving in working position over uneven terrain, the oscillating axle is locked (the chassis is rigid) so the platform can have a ground reach on only three wheels.

DRIVING INSTRUCTIONS

A - Before starting the platform

- Ensure that the intermediate rail is fully in the locked position before operating the platform from the basket.
- If the platform is new, see the paragraph : before starting the platform for the first time in Chapter : 1 - safety advice and instructions.
- Carry out daily maintenance (see chapter 3 - MAINTENANCE, A - DAILY pages).
- Before starting the platform, check the levels :

• IC PLATFORMS :	• ELECTRIC PLATFORMS :
• IC engine oil	• Hydraulic reservoir oil
• Hydraulic reservoir oil	• Battery charge level
• Fuel	
• Coolant	

- The lifting platform must be in transport position (with the arms completely folded back or the scissors in the low position) before you enter it.
- Make sure the horn works.
- Check before you use the lifting platform that the access door is properly locked.

B - Driver's operating instructions

- Whatever his experience, the operator is advised to familiarize himself with the position and operation of all the controls and instruments before operating the platform.

Wear suitable clothing for driving the platform, do not wear baggy clothes.

- Make sure you have the appropriate protective equipment for the job to be done.
- Prolonged exposure to high noise levels may cause hearing problems. It is recommended to wear ear muffs to protect against excessive noise.
- Always pay attention when using the platform. Do not listen to the radio or music using headphones or earphones
- For increased comfort, adopt the correct position in the driver's cab.
- The operator must always be in his normal position in the driver's seat : extending arms or legs (or, in general, any part of the body), outside the basket is forbidden.
- Safety helmets must be worn.
- MANITOU recommends a safety harness in the operator's size be provided when the platform is in use (for the harness attachement in the basket , see chapter 2 - DESCRIPTION, CHECKING AND CONTROL INSTRUMENTS pages).
- The control units must never in any event be used for any other than their intended purposes (e.g. climbing onto or down from the platform, coat-rack, etc.).
- In the case of scissors-type platforms, it is forbidden to use the platform without the guardrails in place.
- Suspending a load under the basket or on any part of the lifting apparatus is strictly forbidden.
- The operator must not climb into or get down from the basket unless it is at ground level (with the lifting system folded).
- If the nacelle is equipped with a step, the basket must be situated directly below it before mounting or dismounting.
- The platform must not be fitted with any accessory increasing the machine's wind profile.
- Do not use a ladder or any improvised constructions in the basket to reach greater heights.
- Do not climb on the sides of the basket to reach greater heights.
- Never use the lifting platform with wet or greasy hands and shoes.

C - Environment

- Comply with site safety regulations.
- The platform can be manoeuvred from the ground: ensure that you forbid access.
- If you have to use the platform in a dark area or at night, make sure it is equipped with working lights.
- The platforms may not be used as cranes or elevators for the permanent transport of people or materials, nor as jacks or supports.
- When operating, ensure that there is no one or anything impeding the platform's progress ans operation.
- When raising the platform, ensure that no one or anything inpedes the platform's operation and do not perform any inappropriate manœuvres.

- Do not allow anybody to come near the working area of the platform or pass beneath an elevated load. To do this, mark your operating area with warning signs.
- Travelling on a longitudinal slope :
    - Ensure that you adapt the platform's travelling speed by controlling the speed with the travelling manipulator.
- Take into account the platform's dimensions and its load before trying to negotiate a narrow or low passageway.
- Never move onto a loading platform without having first checked :
    - That it is suitably positioned and made fast.
    - That the unit to which it is connected (wagon, lorry, etc.) will not shift.
    - That this platform is prescribed for the size and the total weight of the platform.
    - That the slope is not greater than the platform's maximum authorised slope.
- Never move onto a foot bridge, floor or freight lift, without being certain that they are prescribed for the weight and size of the platform to be loaded and without having checked that they are in sound working order.
- Be careful in the area of loading bays, trenches, scaffolding, soft land and manholes.
- Ensure that the ground under the wheels and/or stabilisers is firm and stable before raising the basket.
- Do not attempt any operations outside the plarform's capabilities.
- Ensure that the materials on the platform (pipes, cables, containers, etc ...) cannot slip off and fall. Do not heap up these materials to the pint where you have to step over them.

If the basket must remain stationary over a structure for a long period, there is a risk that the basket will rest on this structure because of the oil cooling in the cylinders or a minor leak in the cylinder locking system. To eliminate this risk :
- Regularly check the distance between the basket and the structure and re-adjust if necessary.
- If possible use the platform at an oil temperature as close as possible to ambient temperature.

- In the case of work near aerial lines, ensure that the safety distance is sufficient between the working area of the platform and the aerial line.

You must consult your local electrical agency. You could be electrocuted or seriously injured if you operate or park the platform too close to power cables.

If the platform comes into contact with electric wires, press the Emergency Stop button. If you can, jump from the basket without simultaneously being in contact with the basket and the ground.
If not, call for help, wam people not to touch the basket and to switch off the power supply to the wires or have it switched off.

- It is forbidden to use the lifting platform close to electrical power lines; observe the safety distances.

NOMINAL VOLTAGE IN VOLTS	DISTANCE ABOVE THE GROUND OR THE FLOOR IN METRES
50 < U < 1000	2,30 M
1000 < U < 30000	2,50 M
30000 < U < 45000	2,60 M
45000 < U < 63000	2,80 M
63000 < U < 90000	3,00 M
90000 < U < 150000	3,40 M
150000 < U < 225000	4,00 M
225000 < U < 400000	5,30 M
400000 < U < 750000	7,90 M

If the wind is in excess of 45Km/h, do not perform any movements liable to endanger the lifting platform's stability.

- To recognise this speed by eye, please refer to the empirical wind evaluation scale below:

BEAUFORT scale (wind speed at a height of 10m over flat terrain)						
Degree	Type of wind	Speed (knots)	Speed (km/h)	Speed (m/s)	Ground effects	Sea conditions
0	Calm	0 - 1	0 - 1	< 0,3	Smoke rises vertically.	The sea is like a mirror.
1	Very light breeze	1 - 3	1 - 5	0,3 - 1,5	The smoke drift indicates the wind direction.	Some wavelets, like fish scales, but no foam.
2	Light breeze	4 - 6	6 - 11	1,6 - 3,3	Wind felt on exposed skin, leaves rustle.	Small but noticeable wavelets.
3	Gentle breeze	7 - 10	12 - 19	3,4 - 5,4	Leaves and small twigs constantly moving.	Very small waves, crests beginning to break.
4	Moderate breeze	11 - 16	20 - 28	5,5 - 7,9	The wind raises dust and scraps of paper, it moves small branches.	Small waves stretching, many sheeps.
5	Fresh breeze	17 - 21	29 - 38	8 - 10,7	Small trees in leaf start to sway.	Wavelets form on stretches of water, moderate waves of some length.
6	Strong breeze	22 - 27	39 - 49	10,8 - 13,8	Large branches are moved, overhead wires whistle, umbrella use becomes difficult.	Waves form with white foam crests and airborne spray.
7	High wind	28 - 33	50 - 61	13,9 - 17,1	Whole trees are moving, effort required to walk against the wind.	The sea heaps up; some foam from breaking waves is blown into streaks in the wind direction.
8	Gale	34 - 40	62 - 74	17,2 - 20,7	The wind breaks off twigs, walking against the wind is very difficult.	Moderate height longer waves with breaking crests forming spindrift.
9	Strong gale	41 - 47	75 - 88	20,8 - 24,4	The wind damages roofs (chimneys, tiles, etc.).	Large waves, dense spindrift wrenched from the waves, airborne spray reducing visibility.
10	Storm	48 - 55	89 - 102	24,5 - 28,4	Rarely seen on land, trees uprooted, dwellings incur significant damage.	Very large waves, foam forming large amounts of airborne spray, reducing visibility.
11	Violent storm	56 - 63	103 - 117	28,5 - 32,6	Very rare, extensive damage.	Waves of exceptional height capable of sinking medium-sized ships, reduced visibility.
12	Hurricane	64 +	118 +	32,7 +	Disastrous damage.	Sea completely white, air full of spray and foam, severely reduced visibility.

D - VISIBILITY

- Maintain permanently good visibility throughout the route. To increase your visibility, you can move forwards with the pendular arm slightly raised (pay attention to the risk of falls in the basket from knocking into a low doorway, overhead electric wires, travelling cranes, highway bridges, tracks or any obstacle in the area in front of the platform). In reverse, look directly behind you. In any case, avoid reversing over long distances.
- If visibility of your road is inadequate, ask someone to help, standing outside the area in which the platform will be moving, and make sure you always have a good view of this person.

PLATFORMS WITH IC ENGINES

SAFETY NOTICE

- Do not pull or push the lifting platform to start it. This type of manoeuvre would cause severe damage to the transmission. In cases of necessity, towing requires that the lifting platform be placed in freewheeling mode (See chapter 3 - MAINTENANCE).
- If using an emergency battery for start-up, use a battery with the same characteristics and respect battery polarity when connecting it. Connect at first the positive terminals before the negative terminals.

Failure to respect polarity between batteries can cause serious damage to the electrical circuit. The electrolyte in the battery may produce an explosive gas. Avoid flames and generation of sparks close to the batteries.
Never disconnect a battery while it is charging.

INSTRUCTIONS

- Check the closing and locking of the hood(s).
- Turn the ignition key to notch I to switch on the electrical power, which automatically starts the pre-heating system (all the bars must be displayed), the message "OK" is displayed.
- Check that everything is operating correctly by ensuring that no fault pages are displayed on the screen and no warning about the fuel level
  (a pump icon is present on the screen)
  (see chapter 2 - DESCRIPTION, CHECKING AND CONTROL INSTRUMENTS pages).
- To start, turn the ignition switch to position I.
- Press the starter button.
- Do not engage the starter motor for more than 15 seconds and carry out the preheating for 10 seconds between unsuccessful attempts.
- Check all control instruments when the I.C. engine is warm and at regular intervals during use, so as to quickly detect any faults and to be able to correct them without any delay.
- If any faults are displayed on the screen, stop the engine and immediately take the necessary measures.

ELECTRIC PLATFORMS

SAFETY NOTICÉ

- Do not use the platform if the battery is discharged to the point that movements are slowed down. In certain cases, the platform may stop (see chapter 3 - MAINTENANCE : EVERY DAY OR EVERY 10 HOURS FOR OPERATION pages, for the minimum permissible charge level).

INSTRUCTIONS

- Set the battery cut-out to the ON position.
- Check the closing and locking of the hood(s).
- Turn the ignition key to the basket position.
- Check that everything is operating correctly by ensuring that no error messages are displayed on the screen and that the machine maintenance light is not flashing (see chapter 2 - DESCRIPTION, CHECKING AND CONTROL INSTRUMENTS pages).

  NB: For machines not fitted with a display or a maintenance warning light, faults can be identified from the light directly on the variable speed drive unit (to access: open the cowl on the control size, remove the casing from the variable speed drive and see whether the light is flashing).

- If any error messages are constantly displayed or the machine maintenance light is flashing, return the key to the neutral position.
- Set the battery cut-off to the OFFposition.
- Immediately take the necessary measures.

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F - DRIVING THE PLATFORM

SAFETY NOTICE

Operators should be aware of the risks connected with using the platform, notably:
- Risk of losing control.
- Risk of losing lateral and frontal stability of the platform.
The operator must remain in control of the platform.

- Do not carry out operations which exceed the capacities of your platform.
- Familiarise yourself with the platform on the terrain where it will be used.
- Ensure that the brakes work efficiently when stopping a travelling movement, taking into account the braking distances.
- Drive smoothly at an appropriate speed for the operating conditions (land configuration, load in the basket).
- take extreme care if manoeuvring the platform with the basket in the high position. Ensure you have adequate visibility.
- Take bends slowly.
- In all circumstances make sure you are in control of your speed.
- Travel slowly on damp, slippery or uneven terrain or on truck ramps.
- Always remember that the hydraulic form of steering is very sensitive to movements.
- Never leave the I.C. engine on when the platform is unattended.
- Look where you are going and always make sure you have good visibility along the route.
- Drive round obstacles.
- Never drive on the edge of a ditch or steep slope.
- Whatever your travelling speed, you must reduce the speed as much as possible before stopping.
- The lifting platform must work in an obstacle-free area, where there is no danger descending to the ground.
- The operator using the lifting platform must be assisted by an appropriately instructed person on the ground.
- Comply with the limits shown on the lifting platform's load graph.

INSTRUCTIONS

- When moving the platform a long distance, always travel with the arms folded or the scissors in the low position.
- Engage the appropriate gear (see chapter 2 - DESCRIPTION, CHECKING AND CONTROL INSTRUMENTS pages).

G - Stopping the platform

SAFETY NOTICE

- Never leave the ignition key in the platform during the operator's absence.
- Make sure that the platform is not stopped in any position that will interfere with the traffic flow and at less than one meter from the track of a railway.
- In the event of prolonged parking on a site, protect the platform from bad weather, particularly from frost (check the level of antifreeze), close and lock all the platform accesses (cowls…).
- Park the lifting platform on a flat surface or on a slight slope of less than 10%.

INSTRUCTIONS

PLATFORMS WITH IC ENGINES

- Before stopping the platform after a long working period, leave the I.C. engine idling for a few moments, to allow the coolant liquid and oil to lower the temperature of the I.C. engine and transmission.

Do not forget this precaution, in the event of frequent stops or warm stalling of the I.C. engine, or else the temperature of certain parts will rise significantly due to the stopping of the cooling system, with the risk of badly damaging such parts.

- Stop the I.C. engine with the ignition switch.
- Remove the ignition key.
- Check that all the accesses on the platform are closed and locked (cowls…).

ELECTRIC PLATFORMS

- Remove the ground/platform control selection key.
- Check that all the accesses on the platform are closed and locked (cowls…).
- Set the battery cut-out to the OFF position (ELECTRIC PLATFORM).

INSTRUCTIONS FOR WELDING AND BLOW TORCH WORK ON THE EXTERNAL STRUCTURE

Ensure that there are no hydraulic or electrolyte leaks on the platform.

When welding, work in the opposite direction from the control console to avoid sparks damaging it .

- Any welding and cutting (blow torch) work from the basket on a building's metallic structures requires the following precautions to be taken:

A - WITH ELECTRIC WELDING EQUIPMENT

- It is essential that the machine has a discharge braid connecting the platform's chassis to the ground.
- It is also essential that the external structure to be welded is connected to the earth. If the above conditions are observed, the platform can, in this case, be in contact with the structure or the elements to be welded without damaging the electronic components.
- The power supply to the welding equipment must be via an earthed socked and any extension required just also be earthed.
- In all cases, ensure that there are no electrical arcs in the basket or on the platform (contact between the brazing rod or the torch and the welding equipment's earth). To ensure this, at any time the welding equipment's earth must not be positioned on the platform's basket but instead only as close as possible to the element to be welded.
- Switch off the welding equipment before disconnecting the earth clamp from the element or elements to be welded.

B - WITH A BLOW TORCH

- Attach the blow torch's bottles to the basket's handrails.
- instructions for welding and blow torch work on the external structure
- Do not set the blow torch down on the lip of the basket while it is still operating or point it towards the control console or its power cables.

GENERAL INSTRUCTIONS

- Ensure the area is sufficiently ventilated before starting the platform.
- Wear clothes suitable for the maintenance of the platform, avoid wearing jewellery and loose clothes. Tie and protect your hair, if necessary.
- Stop the I.C. engine before conducting any work on the platform, remove the ignition key and disconnect the "Minus" battery terminal.
- Set the battery cut-out to the OFF position (ELECTRIC PLATFORM).
- Read the operator's manual carefully.
- Carry out all repairs immediately, even if the repairs concerned are minor.
- Repair all leaks immediately, even if the leak concerned is minor.
- Make sure that the disposal of process materials and of spare parts is carried out in total safety and in a ecological way.
- Be careful of the risk of burning and splashing (exhaust, radiator, I.C. engine, etc.).

MAINTENANCE

- Perform the periodic service (see : 3 - MAINTENANCE) to keep your platform in good working conditions. Failure to perform the periodic service may cancel the contractual guarantee.

MAINTENANCE LOG

- The maintenance work performed following the recommendations in Part 3 - MAINTENANCE and the other inspection, servicing, repair and modification work performed on the lifting platform must be recorded in a maintenance log. A note must be made, for each operation, of the date of the work, the names of the persons or companies that have performed them, the nature of the 'operation and, where applicable, the maintenance intervals. When components in the lifting platform have to be replaced, the components' references must be noted.

LUBRICANT AND FUEL LEVELS

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

LEVEL OF ELECTROLYTE IN THE BATTERY

- Check the level of the battery or batteries.

When doing this, ensure you take all the safety precautions (See : 3 - MAINTENANCE).

HYDRAULIC

- Make any repairs and fix any leaks, including minor ones, immediately.
- Do not attempt to loosen unions, hoses or any hydraulic component with the circuit under pressure.

BALANCING VALVE : It is dangerous to change the setting and remove the balancing valves or safety valves which may be fitted to your platform cylinders. These operations must only be performed by approved personnel (consult your dealer).

Ensure that all consumables and replacement parts are disposed of safety, in an environmentally friendly manner.

The HYDRAULIC ACCUMULATORS that can be fitted on your lifting platform are pressurised components; removal of these components and their hoses can be a dangerous operation. It should only be performed by accredited personnel (please contact your dealer).

ELECTRICITY

- Do not drop metallic items on the battery (between the "Plus" and "Minus terminals").
- Disconnect the battery or batteries before working on the electrical circuit.
- The electrical box must only be opened by authorized personnel.

WELDING ON THE ACCESS PLATFORM

- Disconnect the battery or batteries before welding on the platform.
- When carrying out electric welding work on the platform, connect the negative cable from the equipment directly to the part being welded, so as to avoid high tension current passing through the alternator or the live ring.
- If the platform is equipped with an electronic control unit, disconnect this before starting to weld, to avoid the risk of causing irreparable damage to electronic components.

Welding operations on the structure for maintenance or repair operations must only be performed by MANITOU-certified personnel.

WASHING THE PLATFORM

- Clean the platform or at least the area concerned before any intervention.
- Remember to close and lock all accesses to the platform (cowls…).
- When cleaning with a pressure washer, avoid the articulation joints, and the electrical components and connections.
- If necessary, protect components likely to be damaged, and in particular the electrical components (variable speed drive, charger) and connections and the injection pump from penetration by water, steam or cleaning products.
- Dry the electrical components.
- Clean the platform of any fuel, oil or grease trace.
- Grease the shafts.

FOR ANY INTERVENTION OTHER THAN REGULAR MAINTENANCE,
CONSULT YOUR DEALER.

IF THE PLATFORM IS NOT TO BE USED FOR A LONG TIME

INTRODUCTION

The following recommendations are intended to prevent the platform from being damaged when it is withdrawn from service for an extended period.
For these operations, we recommend the use of a MANITOU protective product, reference 603726.
Instructions for using the product are given on the packaging.

Procedures to follow if the platform is not to be used for a long time and for starting it up again afterwards must be performed by your dealership.

PREPARING THE PLATFORM

- Clean the platform thoroughly.
- Check and repair any leakage of fuel, oil, water or air.
- Replace or repair any worn or damaged parts.
- Wash the painted surfaces of the platform in clear and cold water and wipe them.
- Touch up the paintwork if necessary.
- Shut down the platform (see vacuous and in load DRIVING INSTRUCTIONS).
- Make sure the cylinder rods are all in retracted position.
- Release the pressure in the hydraulic circuits.

PROTECTING THE I.C. ENGINE

- Fill the tank with fuel (see : 3 - MAINTENANCE).
- Empty and replace the cooling liquid (see : 3 - MAINTENANCE).
- Leave the I.C. engine running at idling speed for a few minutes, then switch off.
- Replace the I.C. engine oil and oil filter (see : 3 - MAINTENANCE).
- Add the protective product to the engine oil.
- Run the I.C. engine for a short time so that the oil and cooling liquid circulate inside.
- Disconnect the battery and store it in a safe place away from the cold, after charging it to a maximum.
- Remove the injectors and spray the protective product into each cylinder for two seconds with the piston in low neutral position.
- Turn the crankshaft once slowly and refit the injectors (see I.C. engine REPAIR MANUAL).
- Remove the intake hose from the manifold or turbocharger and spray the protective product into the manifold or turbocharger.
- Cap the intake manifold hole with waterproof adhesive tape.
- Remove the exhaust pipe and spray the protective product into the exhaust manifold.
- Refit the exhaust pipe and block the outlet with waterproof adhesive tape.

NB : The spray time is noted on the product packaging.

- Open the filler plug, spray the protective product around the rocker arm shaft and refit the filler plug.
- Cap the fuel tank using waterproof adhesive tape.
- Remove the drive belts and store them in a safe place.
- Disconnect the engine cut-off solenoid on the injection pump and carefully insulate the connection.

CHARGING THE BATTERIES

- In the case of electric platforms, in order to preserve the batteries'life and their capacity, check them periodically and keep the charge level constant (see : 3 - MAINTENANCE).

PROTECTING THE PLATFORM

- Protect cylinder rods which will not be retracted, from corrosion.
- Wrap the tyres.
  NB : If the platform is to be stored outdoors, cover it with a waterproof tarpaulin.

BRINGING THE PLATFORM BACK INTO SERVICE

- Remove the waterproof adhesive tape from all the holes.
- Refit the intake hose.
- Reconnect the engine cut-off solenoid.
- Refit and reconnect the battery.
- Remove the protection from the cylinder rods.
- Perform the daily service (see : 3 - MAINTENANCE
- Empty and replace the fuel and replace the fuel filter (see : 3 - MAINTENANCE).
- Refit and set the tension in the drive belts (see : 3 - MAINTENANCE).
- Turn the I.C. engine using the starter, to allow the oil pressure to rise.
- Lubricate the platform completely (see : 3 - MAINTENANCE, MAINTENANCE TABLE).

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

- Start up the platform, following the safety instructions and regulations (see DRIVING INSTRUCTIONS).
- Carry out all the lifting system's hydraulic movements right up to the limit switches for each cilinder.

SCRAPPING THE NACELLE

Before scrapping the nacelle, consult your dealer.

RECYCLING OF MATERIALS

METALS
- These are 100% recoverable and recyclable.

PLASTIC MATERIALS
- The plastic parts are marked, in accordance with the regulations in force.
- To facilitate the recycling process, the range of materials used has been limited.
- The majority of the plastic materials are made up of thermoplastics which are easily recyclable by melting, granulating or grinding.

RUBBERS
- The tyres and seals can be ground to be used in the manufacture of cement or to create reusable granules.

LENSES
- These can be removed and collected for processing by glass manufacturers.

ENVIRONMENTAL PROTECTION

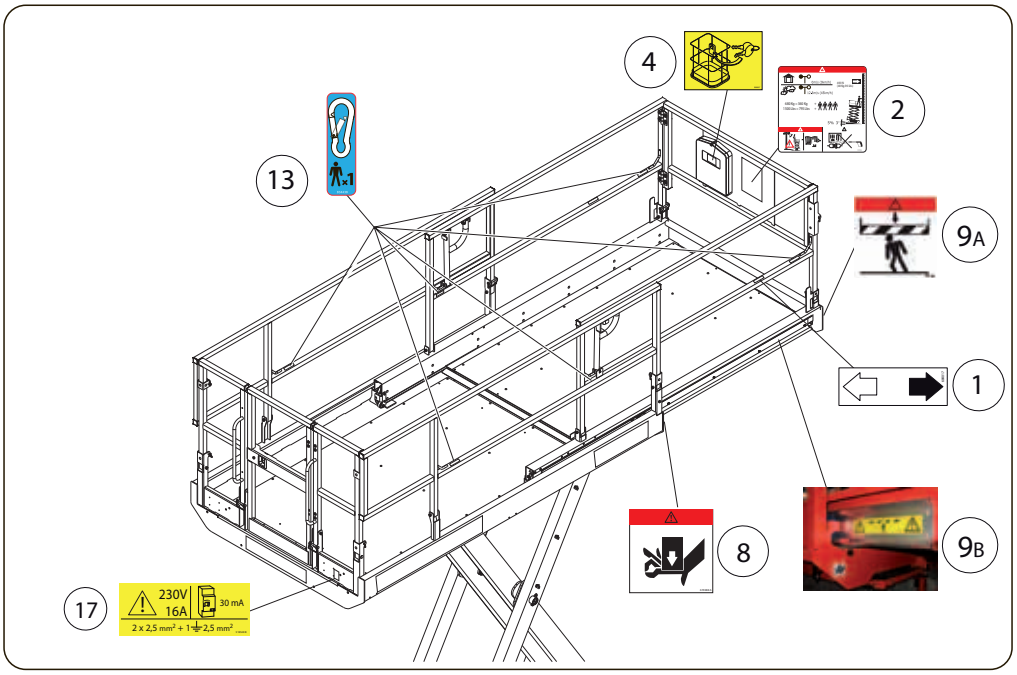
- If you entrust the maintenance of your nacelle to the MANITOU network, the risk of pollution is limited and the contribution to the protection of the environment is respected.

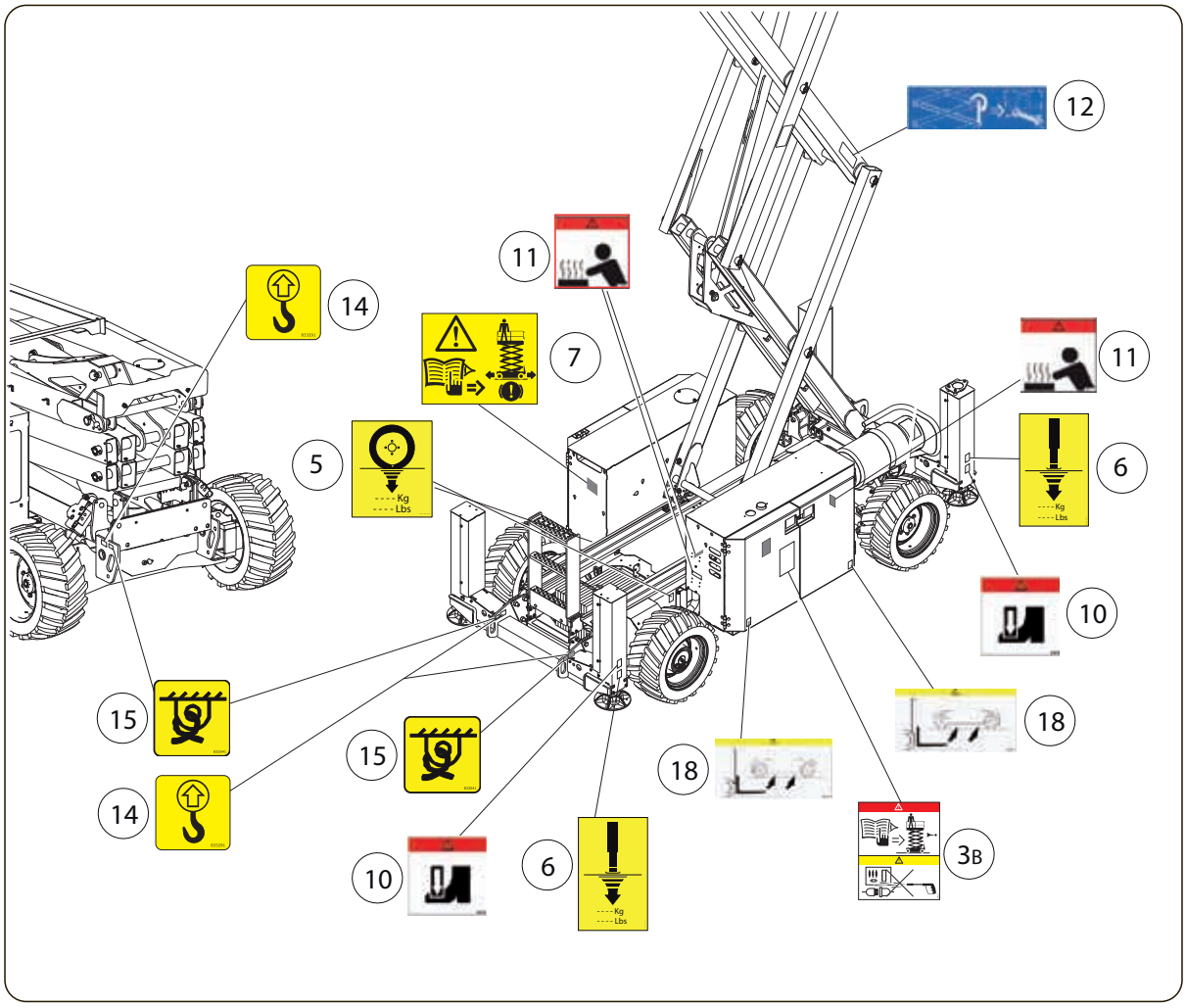
WORN OR DAMAGED PARTS
- Do not discard parts into the environment.
- MANITOU and its network take an approach that protects the environment through recycling.

WASTE OIL
- The MANITOU ensures that it is collected and treated.
- By entrusting them with your oil changes, the risk of pollution is limited.

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

NOTE: MANITOU's objective is to manufacture nacelle with the best performance and limit polluting emissions.





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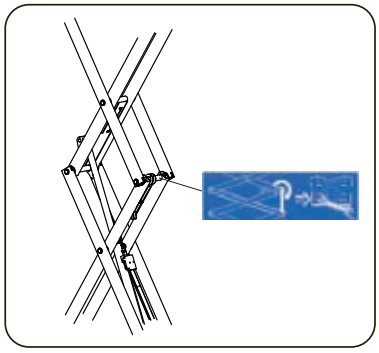

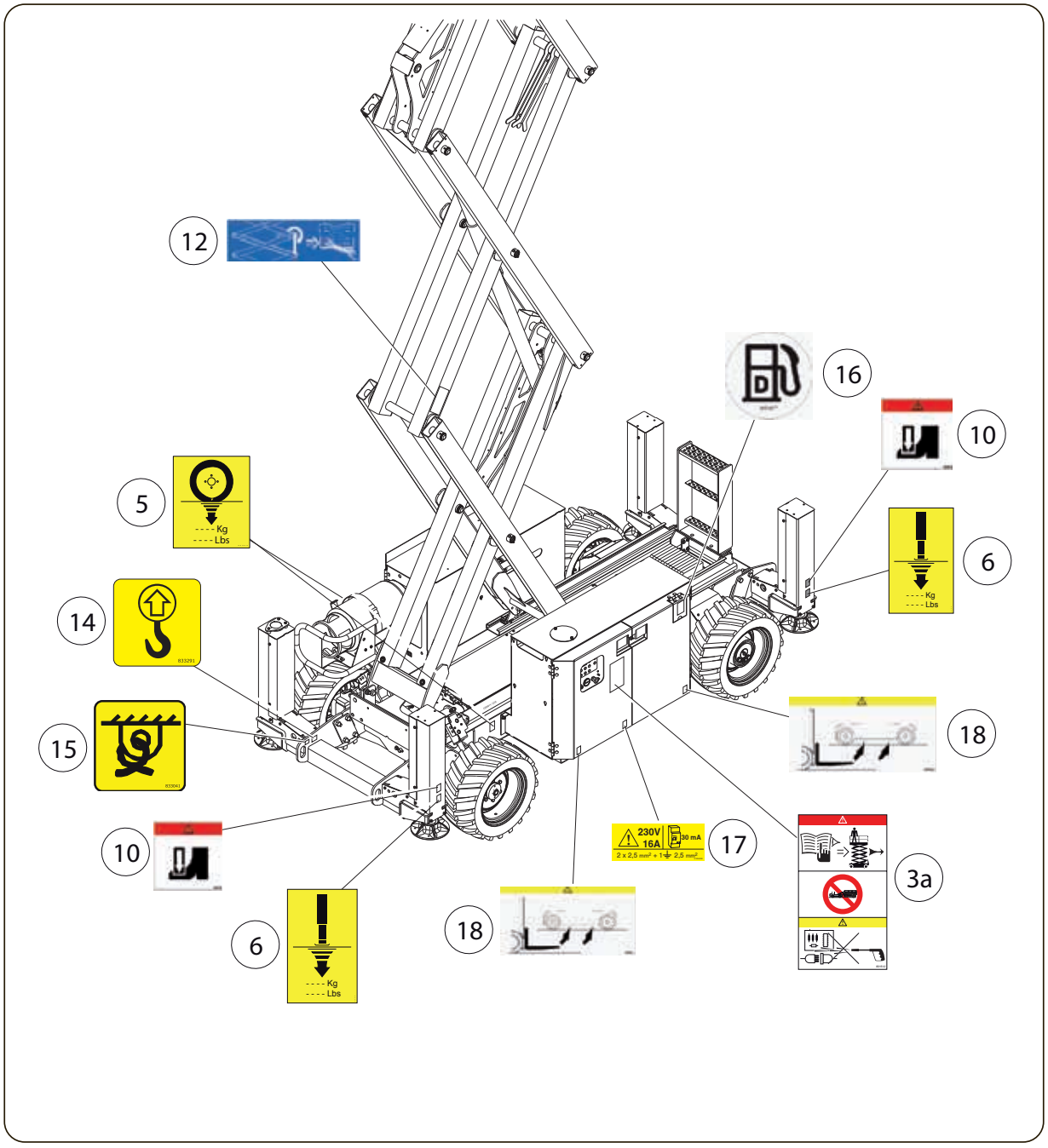

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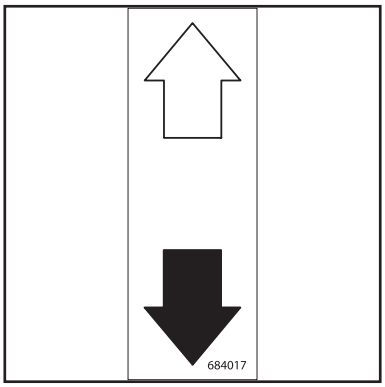
	100 SC-2	120 SC-2	140 SC	
1 - Black and White arrows	(Ref: 684 017)	(Ref: 684 017)	(Ref: 684 017)	1-26
2 - Basket instructions and load capacity ⟶⏭ 02/2017	(Ref: 834 120)	(Ref: 834 121)	(Ref: 834 122)	1-26
2 - Basket instructions and load capacity ⟼⏩ 03/2017	(Ref: 525 68 929)	(Ref: 525 68 931)	(Ref: 525 68 912)	1-26
3A - Safety instructions	(Ref: 831 512)	(Ref: 831 512)	(Ref: 831 512)	1-26
3B - Safety instructions	(Ref: 831 515)	(Ref: 831 515)	(Ref: 831 515)	1-26
4 - Location of the platform key	(Ref: 598 897)	(Ref: 598 897)	(Ref: 598 897)	1-27
5 - Wheel load	(Ref: 833 915)	(Ref: 833 917)	(Ref: 833 918)	1-27
6 - Load on the stabilisers	(Ref: 833 919)	(Ref: 833 920)	(Ref: 833 921)	1-27
7 - Freewheeling procedure	(Ref: 831 518)	(Ref: 831 518)	(Ref: 831 518)	1-27
8 - Risk of being crushed	(Ref: 676 988)	(Ref: 676 988)	(Ref: 676 988)	1-28
9A - Danger, keep away	(Ref: 679 450)	(Ref: 679 450)	(Ref: 679 450)	1-28
9B - Danger, keep away	(Ref: 597 657)	(Ref: 597 657)	(Ref: 597 657)	1-28
10 - Risk of crushing feet	(Ref: 831 516)	(Ref: 831 516)	(Ref: 831 516)	1-28
11 - Risk of burns	(Ref: 683 112)	(Ref: 683 112)	(Ref: 683 112)	1-29
12 - Maintenance stand	(Ref: 599 365)	(Ref: 599 365)	(Ref: 599 365)	1-29
13 - Safety attachments	(Ref: 684 503)	(Ref: 684 503)	(Ref: 684 503)	1-29
14 - Lifting hook	(Ref: 833 291)	(Ref: 833 291)	(Ref: 833 291)	1-29
15 - Tie-down hook	(Ref: 833 041)	(Ref: 833 041)	(Ref: 833 041)	1-30
16 - Diesel	(Ref: 683 437)	(Ref: 683 437)	(Ref: 683 437)	1-30
17 - Power to platform	(Ref: 518 548)	(Ref: 518 548)	(Ref: 518 548)	1-30
18 - Forklift pocket	(Ref: 599 160)	(Ref: 599 160)	(Ref: 599 160)	1-30

1 - BLACK AND WHITE ARROWS

White arrow indicates the translation direction when moving forward.
Black arrow indicates the translation direction when reversing.

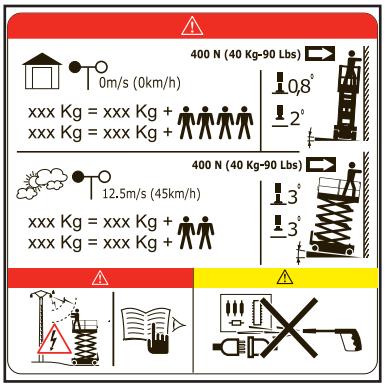
When the removable basket control box is inverted over the basket, the translation controls are inverted. Identify the forward direction by looking at the arrows on the basket and those on the basket control console.



2 - BASKET INSTRUCTIONS AND LOAD CAPACITY

This describes several points:
- The platform's capacity in indoor and outdoor use.
- The risks of electric shocks.
- An invitation to check the instructions for more details on the safety instructions.
- A prohibition on using a high-pressure water jet on the control buttons and electrical components.

NOTE: The capacities are individual to each platform; please refer to this sticker for your own machine.

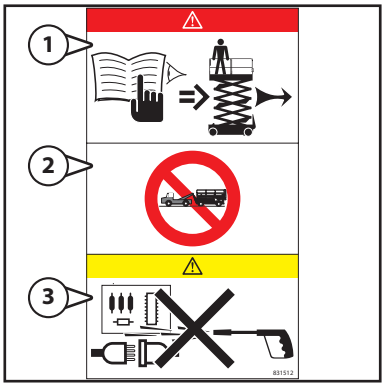


3A - SAFETY INSTRUCTIONS

1- Read and take note of the operating instructions and safety measures before starting the lifting platform.

2- This sticker states that the machine must not be towed if it breaks down.

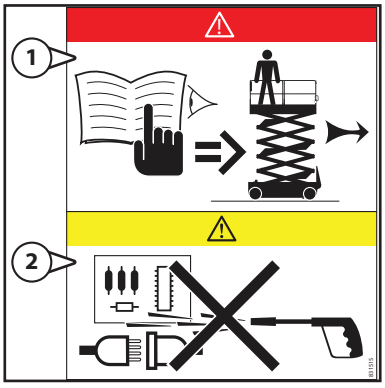
3- It is strictly forbidden to use a pressure washer to clean the control knobs and the electrical components.



3B - SAFETY INSTRUCTIONS

1- Read and take note of the operating instructions and safety measures before starting the lifting platform.

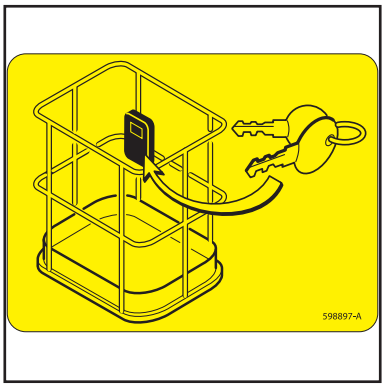
2- It is strictly forbidden to use a pressure washer to clean the control knobs and the electrical components.



4 - Location of the platform key

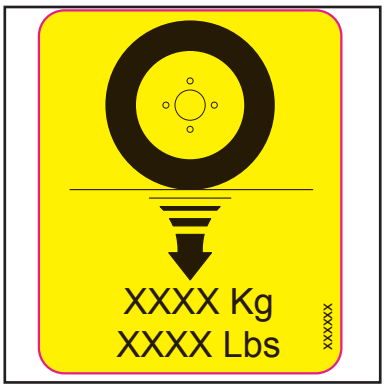
The duplicate platform keys (ignition, control selection, cover-opening keys...) are stored in this location specially provided.

To prevent unauthorised use of the lifting-platform, the customer have the responsibility to remove the duplicate keys from the files box of the basket on receipt of a new machine.



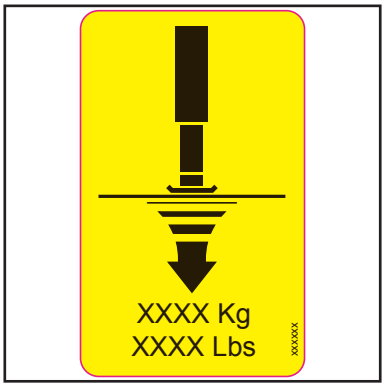
5 - Wheel load

This shows the maximum load that a wheel may exert on the ground.
For the lift-platforms 100SC-2,120SC-2, 140SC
(see 2 - DESCRIPTION: CHARACTERISTICS for the break-through value).
(see 2 - Description: characteristics for knowing the punch-through value).



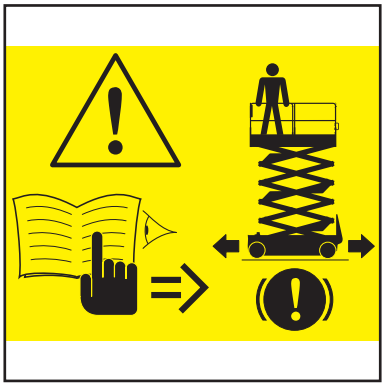
6 - Load on the stabilisers

This indicates the maximum load that a stabiliser will exert on the ground
For the lift-platforms 100SC-2,120SC-2, 140SC
(see 2 - Description: characteristics for knowing the stabilisers-through value).



7 - Freewheeling procedure

This describes the procedure for setting the machine in freewheeling mode when an accident occurs or a breakdown puts the electric control boxes out of action.
(see the description in Section 2).



8 - Risk of being crushed

It is strictly forbidden to insert your fingers, or any other part of your body, in the lifting structure's components; there is a risk of being crushed.

9A - Danger, keep away

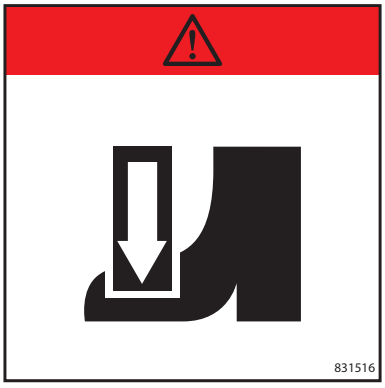
It is strictly forbidden to walk under or park under the structure (basket extension...) and in the lifting platform's operating area.

9B - Danger, keep away

It is strictly forbidden to walk under or park under the structure (basket extension...) and in the lifting platform's operating area.

10 - Risk of crushing feet

It is strictly forbidden to place feet or any other part of the body in the components forming the stabiliser assemblies for risk of their being crushed.

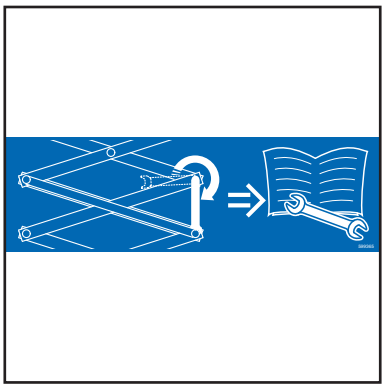


11 - Risk of burns

This sticker indicates that there is a significant risk of your being burnt in this region (engine silencer, IC engine, etc.).

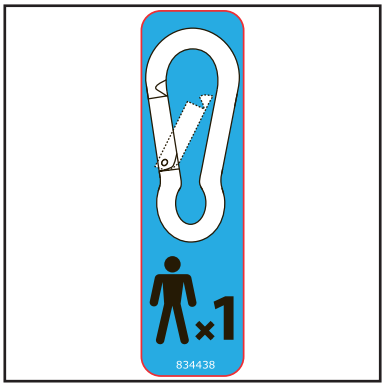
12 - Maintenance stand

This sticker warns that a maintenance stand must be used when working on the scissors while in Work position.



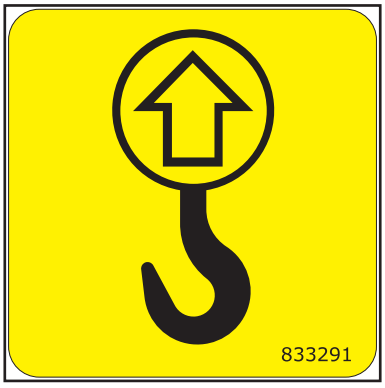
13 - Safety attachments

This sticker shows where the safety harness should be attached and the number of people that can use it.



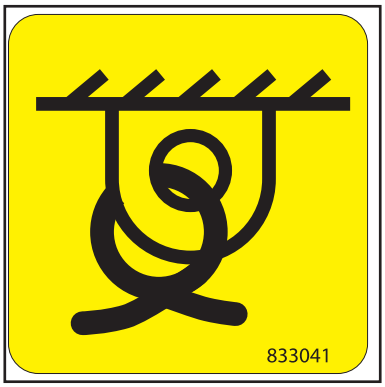
14 - Lifting hook

This sticker shows the attachment points for moving the lifting platform with a crane.



15 - TIE-DOWN HOOK

This sticker shows the location of the anchoring points for tying the platform on a lorry bed.
(see 3 – OCCASIONAL MAINTENANCE).



16 - DIESEL

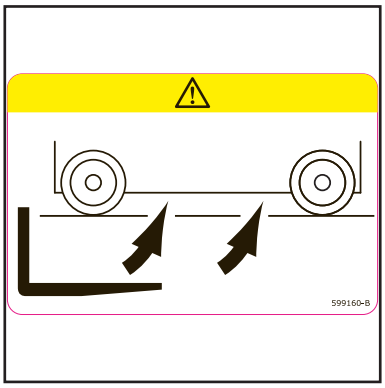
This indicates that this reservoir is designed only to hold fuel for diesel vehicles.

17 - POWER TO PLATFORM

Voltage rating for power to platform

18 - FORKLIFT POCKET

This sticker shows the forklift pocket position points for lifting the platform.



2 - DESCRIPTION

647367 (01/03/2017)
100/120 SC-2 / 140 SC

CONTENTS

647367 (01/03/2017)
100/120 SC-2 / 140 SC

DECLARATION "CE" DE CONFORMITE (originale)

"EC" DECLARATION OF CONFORMITY (original) *(1)*

(2) Constructeur, ***manufacturer*** : Manitou BF
(3) Adresse, ***Address*** : 430, RUE DE L'AUBINIERE - B.P 10249
44158 - ANCENIS - CEDEX - FRANCE
(4) Titulaire du dossier technique, ***Holder of the technical file*** : Manitou BF
(3) Adresse, ***Address*** : 430, RUE DE L'AUBINIERE - B.P 10249
44158 - ANCENIS - CEDEX - FRANCE
(5) Le constructeur déclare que la machine décrite ci-après, ***The manufacturer declares that the machine described below*** : **100 SC-2 / 120 SC-2 / 140 SC**

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

2006/42/CE

(7) - Pour les machines annexe IV, ***For annex IV machines*** :
(8) - Numéro d'attestation, ***Certificate number*** : CExx/xxxxx/PAC
(9) - Organisme notifié, ***Notified body*** : Powered Access Certification, Ltd.
P.O. Box 98, Windermere - CumbriaLA23 1WF, UK.

2000/14/CE + 2005/88/CE

(10) - Procédure appliquée, ***Applied procedure*** :
(9) - Organisme notifié, ***Notified body*** : SNCH - 11 ROUTE DU LUXEMBOURG
5201 SANDWEILER
(11) - Niveau de puissance acoustique, ***Sound power level*** :
(12) Mesuré, ***Measured*** : xx dB (A)
(13) Garanti, ***Guaranteed*** : xx dB (A)

2004/108/CE jusqu'au 19/04/2016 et 2014/30/UE à partir du 20/04/2016

☐ *(14)* - Normes harmonisées utilisées, ***Harmonised standards used*** :
EN12895

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

(16) - Fait à, ***Done at*** :
(17) - Date, ***Date*** :
(18) - Nom du signataire, ***Name of signatory*** :
(19) - Fonction, ***Function*** :
(20) - Société, ***Company*** :

(21) - Signature, ***Signature*** :

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100/120 SC-2 / 140 SC

bg : (2) Производител, (3) Адрес, (4) Притежател на техническото досие, (5) Производителят декларира, че описаната по-долу машина, (6) Е в съответствие със следните директиви и техното транспониране в националното законодателство (ако е приложимо), (7) Приложение IV относно машините, (8) Номер на сертификат, (9) Нотифициран орган, (10) Приложена процедура, (11) Ниво на силата на звука, (12) Измерено, (13) Гарантирано, (14) Използвани хармонизирани стандарти, (15) Използвани стандарти или технически разпоредби, (16) Изработено в, (17) Дата, (18) Име на подписаното лице, (19) Длъжност, (20) Фирма, (21) Подпис

ca : (2) Vyrobce , (3) Adresa, (4) Držitel technické dokumentace, (5) Výrobce prohlašuje , že zařízení popsané níže, (6) Je v souladu s následujícími směrnicemi a směrnicemi transponovanými do vnitrostátního práva (je-li relevantní), (7) Pro stroje v příloze IV(6) Číslo certifikátu, (9) Notifikační orgán, (10) Použitý postup, (11) Úroveň hluku (12) Naměřená, (13) Zaručená, (14) Použité harmonizované normy , (15) Použité normy nebo technické předpisy(16) Místo (17) Datum (18) Jméno podepsaného, (19) Funkce, (20) Společnost, (21) Podpis

da : (2) Producent, (3) Adresse, (4) Indehaver af det tekniske dossier, (5) Producenten erklærer, at maskinen, der er beskrevet nedenfor, (6) overholder nedennævnte direktiver og disses gennemførelse til national ret (hvis det er relevant), (7) For maskiner under bilag IV, (8) Certifikat nummer, (9) Bemyndigede organ, (10) Anvendt procedure, (11) Lydeffektniveau, (12) Målt, (13) Garanti, (14) Anvendte harmoniserede standarder, (15) Standarder eller tekniske regler, (16) Udfærdiget i, (17) Dato, (18) Underskrivers navn, (19) Funktion, (20) Firma, (21) Underskrift.

de : (2) Hersteller, (3) Adresse, (4) Inhaber des technischen Dossiers, (5) Der Hersteller erklärt, dass die nachstehend beschriebene Maschine (6) den folgenden Richtlinien und deren Umsetzung in die nationale Gesetzgebung entspricht (falls anwendbar), (7) Für die Maschinen laut Anhang IV, (8) Bescheinigungsnummer, (9) Benannte Stelle, (10) Angewandtes Verfahren, (11) Schallleistungspegel, (12) Gemessen, (13) Gewährleistet, (14) angewandte harmonisierte Normen, (15) angewandte sonstige technische Normen und Bestimmungen, (16) Ausgestellt in, (17) Datum, (18) Name des Unterzeichners, (19) Funktion, (20) Gesellschaft, (21) Unterschrift.

el : (2) Κατασκευαστής, (3) Διεύθυνση, (4) Κάτοχος του τεχνικού φακέλου, (5) Ο κατασκευαστής δηλώνει ότι το μηχάνημα που περιγράφεται παρακάτω, (6) Συμμορφώνεται με τις εξής οδηγίες και τις προσαρμογές τους στο εθνικό δίκαιο (κατά περίπτωση), (7) Για τα μηχανήματα του παραρτήματος IV, (8) Αριθμός πιστοποιητικού, (9) Διακοινωμένος φορέας, (10) Εφαρμοζόμενη διαδικασία, (11) Στάθμη ηχητικής ισχύος, (12) Καταμετρημένη, (13) Εγγυημένη, (14) Εναρμονισμένα πρότυπα που χρησιμοποιούνται, (15) Πρότυπα ή τεχνικοί κανόνες που χρησιμοποιούνται, (16) Τόπος, (17) Ημερομηνία, (18) Όνομα του υπογράφοντος, (19) Ιδιότητα, (20) Εταιρεία, (21) Υπογραφή

es : (2) Fabricante, (3) Dirección, (4) Titular del expediente técnico, (5) El fabricante declara que la máquina que se describe a continuación, (6) Cumple con las siguientes directivas y sus transposiciones a la legislación nacional (en caso oportuno), (7) Para las máquinas anexo IV, (8) Número de certificación, (9) Organismo notificado, (10) Procedimiento aplicado, (11) Nivel de potencia acústica, (12) Medido, (13) Garantizado, (14) Normas armonizadas utilizadas, (15) Otras normas o especificaciones técnicas utilizadas, (16) Hecho en, (17) Fecha, (18) Nombre del signatario, (19) Cargo, (20) Empresa, (21) Firma.

et : (2) Tootja, (3) Aadress, (4) Tehnilise dokumentatsiooni valdaja, (5) Tootja kinnitab, et allpool kirjeldatud seade, (6) On vastavuses järgmiste direktiivide ja nende riigisisesesse õigusesse ülevõtmiseks vastuvõetud õigusaktidega (kui on kohaldatav), (7) IV lisas loetletud seadmete puhul, (8) Tunnistuse number, (9) Sertifitseerimisasutus, (10) Kohaldatav menetlus, (11) Akustilise võimsuse tase, (12) Mõõdetud, (13) Tagatud, (14) Vastab kehtivatele ühtlustatud standarditele, (15) Vastab muudele kehtivatele standarditele ja tehnilistele normidele, (16) Väljaandmise koht, (17) Väljaandmise aeg, (18) Allkirjastaja nimi, (19) Amet, (20) Ettevõte, (21) Allkiri

fi : (2) Valmistaja, (3) Osoite, (4) Teknisten asiakirjojen haltija, (5) Valmistaja ilmoittaa, että alla kuvailtu laite, (6) Täyttää seuraavien direktiivien sekä niitä vastaavien kansallisten säännösten vaatimukset (tarvittaessa), (7) Liitteen IV laitteiden osalta, (8) Todistusnumero, (9) Ilmoitettu laitos, (10) Käytetty menettelytapa, (11) Äänen tehotaso, (12) Mitattu, (13) Taattu, (14) Käytetyt yhdenmukaistetut standardit, (15) Käytetyt tekniset standardit tai säännökset, (16) Paikka, (17) Aika, (18) Allekirjoittajan nimi, (19) Toimi, (20) Yritys, (21) Allekirjoitus

ga : (2) Déantóir, (3) Seoladh, (4) Sealbhóir an chomhaid theicniúil, (5) Dearbhaíonn an déantóir go ndéanann an t-innealra ar a bhfuil cur síos thíos, (6) Cloíonn sé le na treoracha seo a leanas agus lena dtrasuí isteach i ndlí náisiúnta (más cuí), (7) Le haghaidh innill an aguisín IV, (8) Uimhir teastais, (9) Comhlacht a chuirtar fógra dó, (10) Nós imeachta a cuireadh i bhfeidhm, (11) Leibhéal cumhachta na fuaime, (12) Tomhaste, (13) Ráthaithe, (14) Caighdeáin chomhchuibhithe a úsáideadh, (15) Caighdeáin nó forálacha teicniúla a úsáideadh, (16) Arna dhéanamh ag, (17) Dáta, (18) Ainm an tsínitheora, (19) Feidhmeannas, (20) Comhlacht (21) Síniú.

hr : (2) Proizvođač, (3) Adresa (4) Nositelj tehničke dokumentacije, (5) Proizvođač izjavljuje da stroj opisan u nastavku, (6) ispunjava sljedeće direktive i njihovom prijenosu u nacionalno zakonodavstvo (ako je primjenjivo), (7) Za dodatak IV o strojevima, (8) Broj certifikata, (9) Ovlašteno tijelo, (10) Primijenjeni postupak, (11) Razina snage zvuka, (12) Izmjereno, (13) Zajamčeno, (14) Primijenjeni standardi o harmoniziranju, (15) Primijenjeni standardi ili tehnička pričuve, (16) Uređeno u, (17) Datum, (18) Ime potpisnika, (19) Funkcija, (20) Tvrtka, (21) Potpis.

hu : (2) Gyártó, (3) Cím, (4) A műszaki dokumentáció birtokosa, (5) A gyártó kijelenti, hogy az alábbi termék, (6) Megfelel az alábbi irányelveknek valamint azok honosított előírásainak (ha vannak ilyenek), (7) A IV. melléklet gépeihez (adott esetben), (8) Bizonyítás száma, (9) Értesített szervezet, (10) Alkalmazott eljárás, (11) Akusztikus hang szint, (12) Mért, (13) Garantált, (14) felhasznált harmonizált szabványok, (15) egyéb felhasznált műszaki szabványok és előírások hivatkozásai, (16) Kelt (hely), (17) Dátum, (18) Aláíró neve, (19) Funkció, (20) Vállalat, (21) Aláírás

is : (2) Framleiðandi, (3) Aðsetur, (4) Handhafi tækniskrár, (5) Framleiðandi staðfestir að vélin sem lýst er hér, (6) Samrræmist eftirfarandi stöðlum og staðfestu þeirra með hliðsjón af þjóðarétti (ef við á), (7) Fyrir tækjabúnað í IV. viðauka, (8) Númer vottorðs, (9) Tilkynnt til, (10) Aðferð beitt, (11) Hljóðstyrkur, (12) Mældist, (13) Ábyrgð, (14) Samhæfðir staðlar sem notaðir voru, (15) Aðrir staðlar eða tæknilegar forskriftir, (16) Staður, (17) Dagsetning, (18) Nafn undirritaðs, (19) Staða, (20) Fyrirtæki, (21) Undirskrift.

it : (2) Costruttore, (3) Indirizzo, (4) Titolare del fascicolo tecnico, (5) Il costruttore dichiara che la macchina descritta di seguito, (6) È conforme alle direttive seguenti e al relativo recepimento nella normativa nazionale (se applicabile), (7) Per le macchine Allegato IV, (8) Numero di Attestazione, (9) Organismo destinatario della notifica, (10) Procedura applicata, (11) Livello di potenza acustica, (12) Misurato, (13) Garantito, (14) Norme armonizzate applicate, (15) Norme e specifiche tecniche applicate, (16) Luogo, (17) Data, (18) Nome del firmatario, (19) Funzione, (20) Società, (21) Firma.

lt : (2) Gamintojas, (3) Adresas, (4) Techninės bylos turėtojas, (5) Gamintojas nurodo, kad mašina, aprašyta žemiau, (6) atitinka toliau nurodytas direktyvas ir į nacionalinius teisės aktus perkeltas jų nuostatas (jei taikytina), (7) IV priedas dėl mašinų, (8) Sertifikato Nr., (9) Notifikuotoji įstaiga, (10) Taikyta procedūra, (11) Garso stiprumo lygis, (12) Išmatuotas, (13) Garantuojamas, (14) Naudoti darniej standartai (15) Kiti naudoti standartai ir techninės specifikacijos, (16) Pasirašyta, (17) Data, (18) Pasirašiusio asmens vardas ir pavardė, (19) Pareigos, (20) Bendrovė, (21) Parašas

lv : (2) Ražotāja, (3) Adrese, (4) Tehniskās dokumentācijas turētāja, (5) Ražotājs apliecina, ka turpmāk aprakstītā mašīna, (6) Atbilst tālāk norādītajām direktīvām un to ieķļaušanai nacionālajā likumdošanā (ja piemērojams), (7) IV pielikuma iekārtām, (8) Sertifikāta numurs, (9) Pilnvarotā iestāde, (10) Piemērotā procedūra, (11) Skaņas jaudas līmenis, (12) Izmērīta, (13) Garantēts, (14) Piemērojamie saskaņotie standarti, (15) Piemērojamie tehniskie standarti un noteikumi, (16) Sastādīts, (17) Datums, (18) Parakstītāja vārds, (19) Amats, (20) Uzņēmums, (21) Paraksts

mt : (2) Manifattur, (3) Indirizz, (4) Detentur tal-fajl tekniku, (5) Il-manifattur jiddikjara li l-magna deskritta hawn taħt, (6) Hija konformi mja konformi mad-Direttivi segwenti u l-liġijet li jimplimentawhom fil-liġi nazzjonali (jekk applikabbli), (7) Għall-magni fi-Anness IV, (8) Numru tać-certifikat, (9) Entità enotifikata, (10) Proċedura applikata, (11) Livell ta' qawwa akustika, (12) Imkejjel, (13) Garantit, (14) l-istandards armonizzati użati, (15) standards tekniċi u speċifikazzjonijiet oħra użati, (16) Magħmul f', (17) Data, (18) Isem il-firmatarju, (19) Kariga, (20) Kumpanija (21) Firma.

nl : (2) Fabrikant, (3) Adres, (4) Houder van het technisch dossier, (5) De fabrikant verklaart dat de hieronder beschreven machine, (6) In overeenstemming is met de volgende richtlijnen en hun omzettingen in het nationale recht (indien van toepassing), (7) Voor de machines in bijlage IV, (8) Certificaatnummer, (9) Aangemelde instantie, (10) Toegepaste procedure, (11) Geluidsvermogensniveau, (12) Gemeten, (13) Gegarandeerd, (14) gehanteerde geharmoniseerde normen, (15) andere gehanteerde technische normen en specificaties, (16) Opgemaakt te, (17) Datum, (18) Naam van ondergetekende, (19) Functie, (20) Onderneming, (21) Handtekening.

no : (2) Produsent, (3) Adresse, (4) Innehaveren av den tekniske dokumentasjonen, (5) Produsenten sier at maskinen beskrevet nedenfor, (6) Oppfyller kravene i følgende direktiver og med nasjonale gjennomføringsbestemmelser (hvis aktuelt), (7) For maskinene i bilag IV, (8) Attestnummer, (9) Teknisk kontrollorgan, (10) Anvendt prosedyre, (11) Akustisk støy, (12) Målt, (13) Garantert, (14) harmoniserte standarder som brukes, (15) Andre standarder og spesifikasjoner som brukes, (16) Utstedt, (17) Dato, (18) Undertegnedes navn, (19) Stilling, (20) Firma (21) Underskrift

pl : (2) Producent, (3) Adres, (4) Posiadacz dokumentacji technicznej, (5) Producent oświadcza, że opisana poniżej maszyna, (6) Jest zgodna z następującymi dyrektywami i odpowiadającymi im przepisami prawa krajowego (jeśli dotyczy), (7) Dla maszyn załącznik IV, (8) Numer certyfikatu, (9) Jednostka certyfikująca, (10) Procedura stosowana, (11) Poziom mocy akustycznej, (12) Zmierzony, (13) Gwarantowany, (14) zastosowane normy zharmonizowane, (15) Zastosowane normy lub przepisy techniczne, (16) Sporządzono w, (17) Data, (18) Nazwisko podpisującego, (19) Stanowisko, (20) Firma (21) Podpis

pt : (2) Fabricante, (3) Morada, (4) Titular do processo técnico, (5) O fabricante afirma que a máquina descrita abaixo, (6) Está em conformidade com as seguintes directivas e as suas transposições para o direito nacional (se for o caso), (7) Para as máquinas no anexo IV, (8) Número de certificado, (9) Entidade notificada, (10) Procedimento aplicado, (11) Nível de potência acústica, (12) Medida, (13) Garantida, (14) normas harmonizadas utilizadas, (15) outras normas e especificações técnicas utilizadas, (16) Elaborado em, (17) Data, (18) Nome do signatário, (19) Cargo, (20) Empresa, (21) Assinatura

ro : (2) Producător, (3) Adresa, (4) Titularul din dosarul tehnic, (5) Producătorul afirmă că aparatul descris mai jos, (6) Este conform cu directivele următoare şi cu transpunerea lor în dreptul naţional (dacă este cazul), (7) Pentru maşinile din anexa IV, (8) Număr de atestare, (9) Organism notificat, (10) Procedura aplicată, (11) Nivel de putere acustică, (12) Măsurat, (13) Garantat, (14) standardele armonizate utilizate, (15) alte standarde si specificatii tehnice utilizate, (16) Întocmit la, (17) Data, (18) Numele persoanei care semnează, (19) Funcţia, (20) Firma, (21) Semnătura

sk : (2) Výrobca, (3) Adresa, (4) Držiteľ technickej dokumentácie, (5) Výrobca vyhlasuje, že nižšie popísaný stroj, (6) Je v súlade s nasledujúcimi smernicami a smernicami transponovanými do vnútroštátneho práva (v prípade potreby), (7) Pre stroje v prílohe IV, (8) Číslo certifikátu, (9) Notifikovaný orgán, (10) Použitý postup, (11) Akustická úroveň hluku, (12) Nameraná, (13) Zaručená, (14) Použité harmonizované normy, (15) Iné použité normy a technické predpisy, (16) Miesto vydania, (17) Dátum vydania, (18) Meno podpísanej osoby, (19) Funkcia, (20) Spoločnosť, (21) Podpis

sl : (2) Proizvajalec, (3) Naslov, (4) Imetnik tehnične dokumentacije, (5) Proizvajalec izjavlja, da naprava, opisana v nadaljevanju, (6) Ustreza naslednjim direktivam in nacionalni zakonodaji (če ta velja), (7) Za stroje v skladu s prilogo IV, (8) Številka potrdila, (9) Priglašen organ, (10) Uporabljen postopek, (11) Raven akustične moči, (12) Izmerjena, (13) Zajamčena, (14) Uporabljeni usklajeni standardi, (15) Drugi uporabljeni tehnični standardi in specifikacije, (16) V, (17) Datum, (18) Ime podpisnika, (19) Funkcija, (20) Podjetje, (21) Podpis.

sv : (2) Tillverkare, (3) Adress, (4) Ägaren av det tekniska underlaget, (5) Tillverkaren försäkrar att den maskin som beskrivs nedan, (6) Överensstämmer med nedanstående direktiv och införlivandet av dem i nationell rätt (om tillämpligt), (7) För maskinerna i bilaga IV, (8) Nummer för godkännande, (9) Anmält organ, (10) Förfarande som tillämpats, (11) Ljudtrycksnivå, (12) Uppmätt, (13) Garanterad (14) Harmoniserade standarder som använts, (15) andra tekniska standarder och specifikationer som använts, (16) Upprättat i, (17) Datum, (18) Namn på den som undertecknat, (19) Befattning, (20) Företag (21) Namnteckning

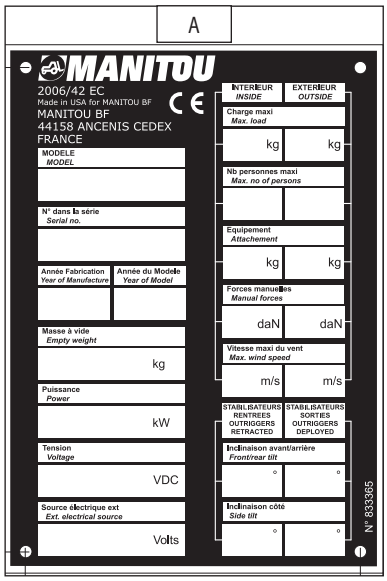
647367 (01/03/2017)
100/120 SC-2 / 140 SC

LIFTING PLATFORM ID

LIFTING PLATFORM'S MANUFACTURER'S PLATE (FIG.A)

- Type :
- Serial No.:
- Year of manufacture:

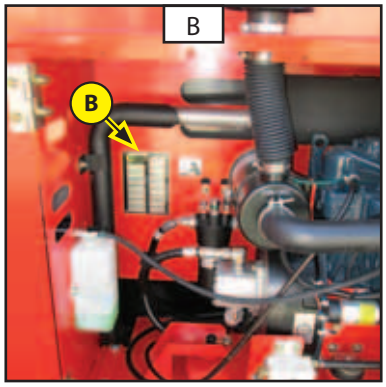
A



LOCATION OF THE MANUFACTURER'S PLATE (FIG. B)

The manufacturer's plate is fixed to the inside of the engin bonnet, on the left of the oil filtrer.

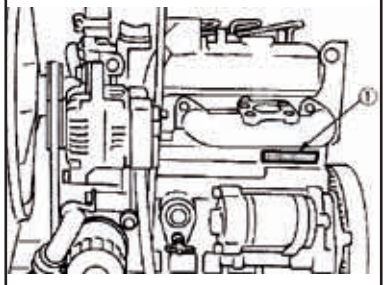
B



IC ENGINE (FIG. C)

- Engine number and model

C

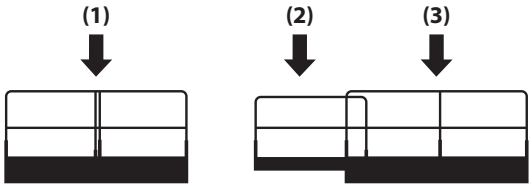


(1) Engine Serial No.

647367 (01/03/2017)
100/120 SC-2 / 140 SC

CHARACTERISTICS 100 SC-2, 120 SC-2 & 140 SC

LOAD SPECIFICATIONS	UNIT	100 SC-2	120 SC-2	140 SC	TOL ±
Lifting platform					
Nominal capacity for use indoor (Wind 0 Km/h) Nominal capacity for use outdoor (Wind 45 Km/h)	Kg	680 **(1)**	454 **(1)**	363 **(1)**	-
		136 **(2)**	136 **(2)**	136 **(2)**	-
		544 **(3)**	318 **(3)**	227 **(3)**	-
No. of people in the basket during indoor use		4 **(1)**	4 **(1)**	3 **(1)**	-
		1 **(2)**	1 **(2)**	1 **(2)**	-
		3 **(3)**	3 **(3)**	2 **(3)**	-
No. of people in the basket during outdoor use		4 **(1)**	2 **(1)**	2 **(1)**	-
		1 **(2)**	1 **(2)**	1 **(2)**	-
		3 **(3)**	1 **(3)**	1 **(3)**	-
Lifting platform unladen weight	Kg	3309	3490	4647	20
Slope rating					
Outriggers in/out	°	3 / 3	3 / 3	3 / 3	0,1
Side slope rating					
Outriggers in/out	°	2 / 0,8	2 / 0,8	2 / 0,8	0,1
Traversable slope	%	40	35	35	2
Work speed	Km/h	0,5	0,5	0,5	0,1
Fast transport speed	Km/h	5.6	5.6	5.6	0,2
Fast transport speed (max torque)	Km/h	1.4	1.4	1.4	0.1
Wheels					
Weight of a wheel	Kg	80.5	80.5	80.5	3,4
Max load on one wheel	Kg	1332	1409	1731	5
Contact surface on the ground (hard / soft ground)	Cm^2	- / -	- / -	- / -	3
Ground punch-through (Wheel / Stab)	daN/Cm^2	5.14 / 2.63	5.44 / 2.78	6.76 / 3.46	-
LwA acoustic power level	db	105	105	105	-
Sound pressure level at workstation					
Platform	db	79	79	78	-
Ground	db	85	85	85	-



HYDRAULIC MOVEMENT (basket control)	UNIT	100 SC-2	120 SC-2	140 SC	TOL ±
Plat-form movement					
Raising max laden	s	29 to 39	34 to 44	56 to 66	5
Lowering max laden	s	26 to 36	24 to 34	26 to 36	5

INTERNAL COMBUSTION ENGINE	UNIT	100 SC-2	120 SC-2	140 SC	TOL ±
Type		KUBOTA D1105 Tier 4			-
Fuel		Gasoil	Gasoil	Gasoil	-
No. of cylinders		3	3	3	-
Cubic capacity	Cm3	1,123	1,123	1,123	-
dling speed, unladen	tr/mn	1500	1500	1500	-
Max engine revs, unladen	tr/mn	3000	3000	3000	-
ISO power/ rpm (at 3000 rpm)	CV - KW	24.8 - 18.5	24.8 - 18.5	24.8 - 18.5	-
Max torque (at 2200 rpm)	Nm	71,5	71,5	71,5	-
Unladen weight	Kg	93	93	93	5
Air filtration	µm	-	-	-	-
Type of cooling		eau	eau	eau	-
Fan		-	-	-	-

TRANSMISSION	UNIT	100 SC-2	120 SC-2	140 SC	TOL ±
No. of steered wheels					
front / rear		2 / 0	2 / 0	2 / 0	-
No. of driven wheels					
front / rear		2 / 2	2 / 2	2 / 2	-
Axle / Front wheel					
Différential		NO			-
Pneumatic		26 x 12 x 380			-
Axle / Rear wheel					
Différential		NO			-
Pneumatic		26 x 12 x 380			-

LEVEL OF VIBRATIONS	UNIT	100 SC-2	120 SC-2	140 SC	TOL ±
Vibrations received by the hands, arms and body combined	m/s^2	2,5	2,5	2,5	-
Quadratic average values for the body	m/s^2	< 0,5	< 0,5	< 0,5	-

ELECTRICAL CIRCUIT	UNIT	100 SC-2	120 SC-2	140 SC	TOL ±
Battery					
C5 capacity	Ah	75	75	75	-
C20 Capacity	Ah	-	-	-	-
Nominal voltage	V	12	12	12	-
Alternator					
Type		-	-	-	-
intensity	A	40	40	40	-
Voltage	V	14	14	14	-

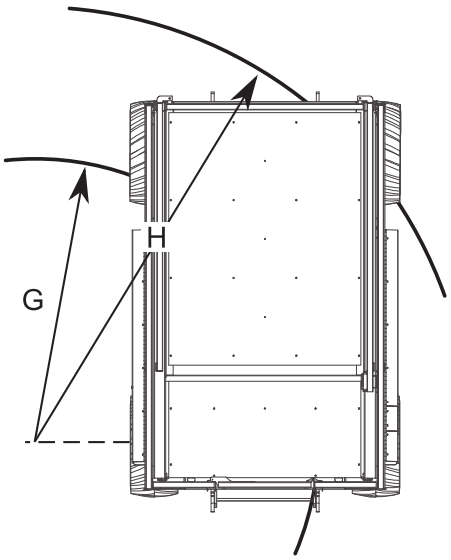
DIMENSIONS	UNIT	100 SC-2	120 SC-2	140 SC	TOL ±
Transport position					
Width	mm	1750	1750	1750	1%
Length	mm	3760	3760	3760	1%
Height, stowed, rails uppered	mm	2590	2590	2740	1%
Height, stowed, rails lowered	mm	1920	1920	2080	1%
Heght maximum	mm	1470	1470	1650	1%
Wheelbase	mm	2290	2290	2290	1%
Work position					
Work height	mm	9800	11900	14000	1%
Floor height	mm	8000	10000	12300	1%
Chassis clearance 1	mm	240	240	240	2%
INT drive gyration radius	mm	2110	2110	2110	3%
EXT drive gyration radius	mm	4600	4600	4600	3%
Basket					
External dimensions	mm	2790x1600			1%
Length extension	mm	1530			1%

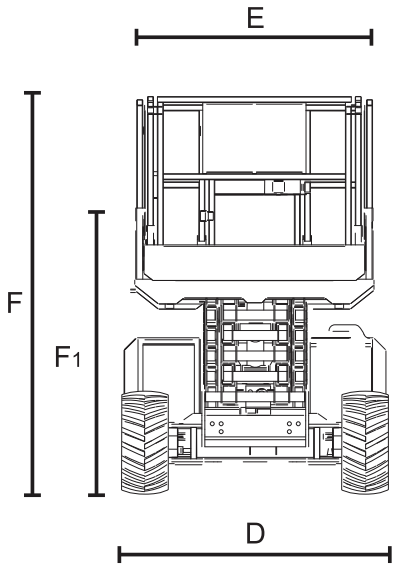
CAPACITY		100 SC-2	120 SC-2	140 SC	TOL ±
Hydraulic oil reservoir	l	62.5	62.5	62.5	2
Diesel tank	l	38	38	38	2
Engine oil sump	l	-	-	-	2
Coolant circuit	l	-	-	-	2

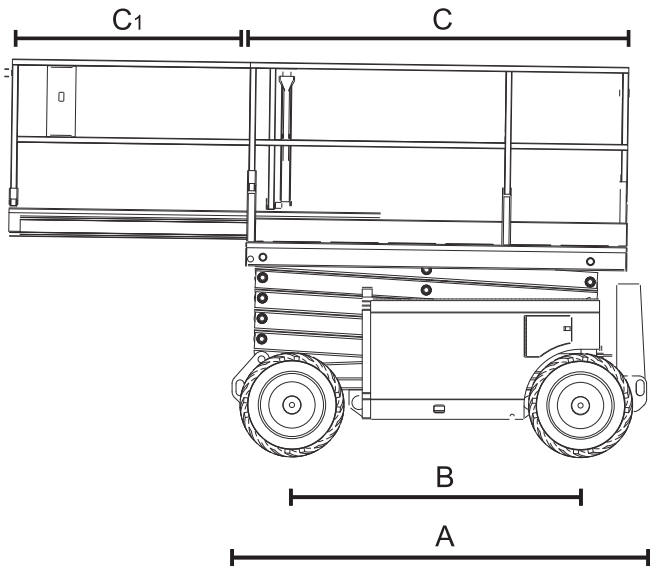
EQUIPEMENT		100 SC-2	120 SC-2	140 SC	TOL ±
Emergency pump					
Type		Manuelle			-
Flashing light		Option			-
Hour counter		Série			-
230V layout		Série			-
Stabiliser		Série			-

DIMENSIONS 100 SC-2, 120 SC-2, 140 SC

	100 SC-2	120 SC-2	140 SC
A	3760 mm		
B	2290 mm		
C	2790 mm		
C1	1530 mm		
D	1750 mm		
E	1600 mm		
F	2590 mm	2590 mm	2740 mm
F1	1920 mm	1920 mm	2080 mm
G	2110 mm		
H	4600 mm		







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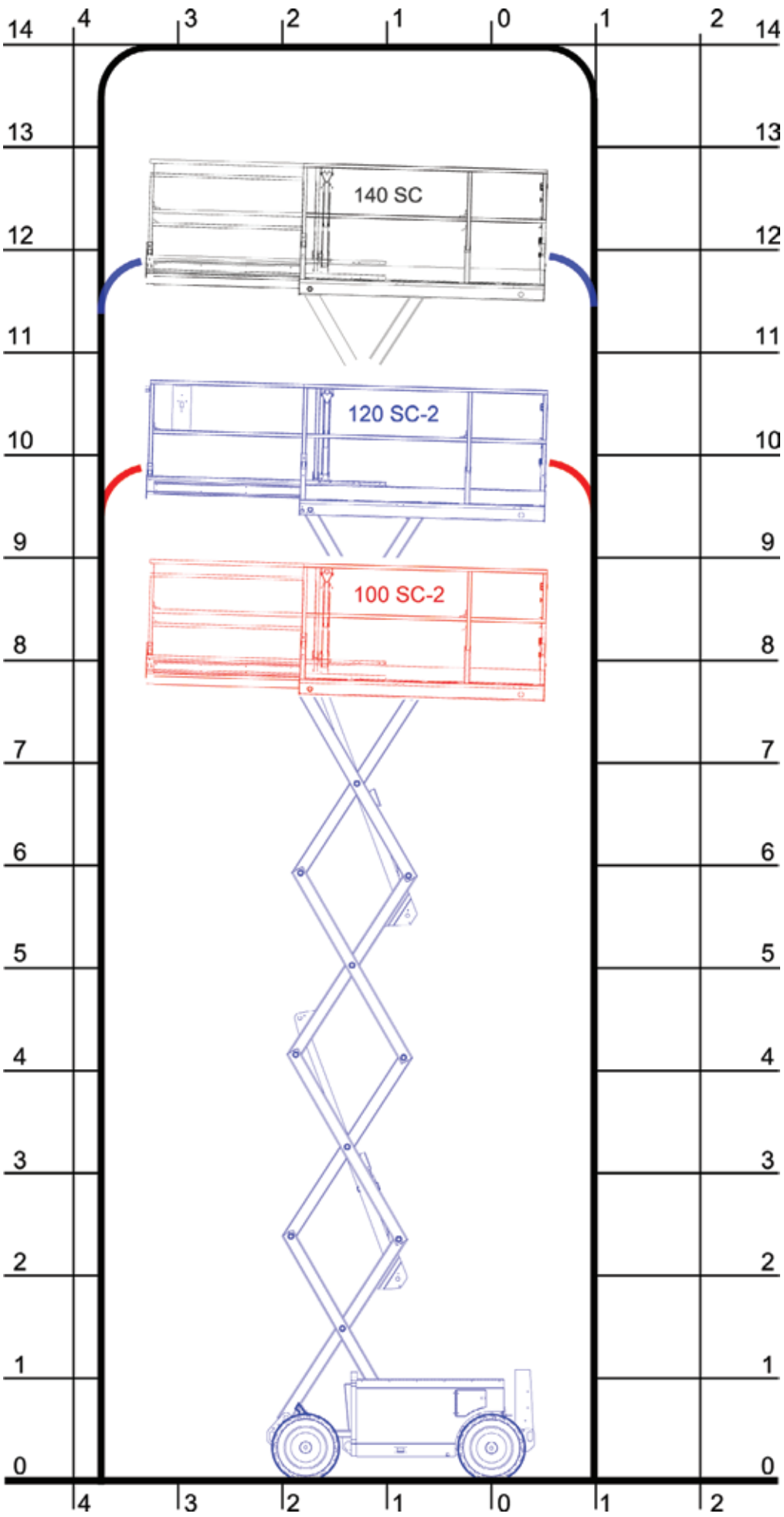
100/120 SC-2 / 140 SC

DIAGRAM 100 SC-2, 120 SC-2, 140 SC



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100/120 SC-2 / 140 SC

DESCRIPTION

- This machine is a mobile personnel lifting platform. It comprises a work platform fixed on the end of a scissors assembly.

- MANITOU lifting platforms are solely intended to be used to carry people, with their tools and supplies (up to the authorized weight limit: see the "SPECIFICATIONS" section), to the desired working height, to reach difficult to access areas over installations and buildings.

- The machine is fitted with a control station in the basket. From this, the operator can drive and operate his machine in a forward and reverse direction. The operator can raise and lower the scissors assembly.

- The lifting platform is also fitted with a ground maintenance and emergency station, from which all the lifting commands can be made, except for translation commands. The base controls are only to be used for rescue purposes, to bring the operator back to the ground if he is incapable of returning there himself.

- The operator must check on a daily basis that the ground maintenance and emergency station controls, and then the basket controls, are working correctly.

Stickers showing the characteristics, safety warnings and the rescue procedure are affixed to the machine. The operator must read these and fully understand their content. To avoid any risk of wrongly interpreting the pictograms, please refer to the paragraph "SAFETY STICKERS" Section 1 – SAFETY INSTRUCTIONS AND ADVICE.

- The lifting platform's movements are provided by a hydraulic pump operated by the IC engine. The hydraulic components are controlled by electro-valves actuated by means of contactors on the control joy stick.

- The controls on the base console, operating via contactors, are either in ON or OFF MODE.

- The base console is fitted with a so-called "Dead Man's" push button (9*). This must be pushed in at the same time as the contactor is pressed. Releasing it stops the manoeuvre.

- The lifting platform is a four-wheel drive machine driven by an IC engine. The drive wheels are fitted with spring brakes with hydraulic release. These brakes activate automatically as soon as the translation joy stick is returned to the Neutral position.

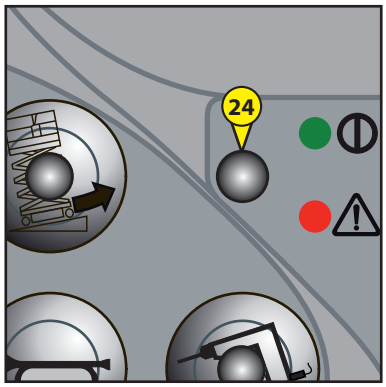
- The lifting platform can lift within the limits of its capabilities (see "SPECIFICATIONS" in this section). A load equal to or less than the maximum capacity in the basket enables you to move into any position provided that the machine is on a surface with a slope of no more than the maximum authorised inclination.

GENERAL

- On the following pages, you will find all the information you require for using the machine. This included the procedures for using, driving, parking, loading and transporting the lifting platform.

TILT

When the platform reaches the maximum authorised tilt (see the CHARACTERISTICS Section), the led (24*) on the basket console will show red. Also, the buzzer for the platform's controls will sound intermittently.
Any "AGGRAVATING" lifting movements are prohibited as a safety measure.



To take command of the controls again, only make non-aggravating movements:
- reposition the platform on a more level surface so that you can make lifting and extension movements.

OVERLOAD

When the platform reaches the authorised weight limit (see the CHARACTERISTICS Section) for the basket, the led (24*) on the basket console flashes. The buzzer for the platform's controls also sounds. All movements are prohibited as a safety measure.

To take command of the controls again:
- relieve the weight on the basket by removing the item or items causing the overload,
- Push and then pull the yellow Emergency Stop knob to re-initialise the system.
- If the platform is still overloaded, the indicator light will continue to flash.
OR,
- ask someone on the ground to perform a manually controlled basket descent (see the end of "Rescue procedure" in that Section, and also "Safety stickers" in Section 1 "Safety instructions and advice").

*: the numbers indicated above also correspond to those used in the descriptions of these components over the following pages.

OVERLOAD RECOVERY

If the ground controls LCD screen displays OVERLOAD RECOVERY, the emergency lowering system has been used while the platform was overloaded.

For information on how to reset this message, please consult your dealer.

DRIVING ON A SLOPE

Note any longitudinal and lateral slopes permissible for the platform and determine the percentage inclination.

Do not drive the machine over a slope with an inclination higher than the maximum longitudinal and lateral inclinations permissible for the machine. The permissible inclination applies to the platform in the folded position.

	**Maximum slope rating, stowed position:**	
	100 SC-2	40% (22°)
	120 SC-2	35% (19°)
	140 SC	35% (19°)
	**Maximum side slope rating, stowed position:**	
	100 SC-2	40% (22°)
	120 SC-2	35% (19°)
	140 SC	35% (19°)

Remarks: the permissible inclination is subject to the condition of the ground and there being suitable traction.

A - GROUND MAINTENANCE AND EMERGENCY STATION

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100/120 SC-2 / 140 SC

A - GROUND MAINTENANCE AND EMERGENCY STATION

Ground control panel

1 - Hour counter

2 - Engine starter button

3 - LPG/petrol models: LPG selector button, with indicator

4 - Engine speed selector, with indicator

5 - 15A control circuit breaker

5 - 20A control circuit breaker

7 - LCD screen

8 - LPG/petrol models: starter button
Diesel models: pre-heating button

9 - Lifting confirmation button

10 - Platform lifting button

11 - Platform lowering button

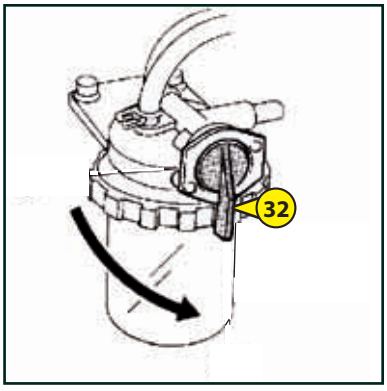
12 - Emergency descent confirmation button

13 - Emergency descent button

14 - 3-position key-operated ignition switch
(Platform/OFF/Ground)

15 - Red Emergency Stop knob

B - BASKET CONTROL STATION



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B - BASKET CONTROL STATION

16 - Stabiliser activation button, with indicator

17 - Engine starter button

18 - Engine speed selector, with indicator

19 - LPG/petrol models:
Starter button
Diesel models: pre-heating button

20 - LPG/petrol models: LPG button, with indicator

21 - Warning buzzer button

22 - Generator selector, with indicator

23 - Machine tilt button, with indicator: operation at reduced speed on a slope

24 - Greed power feed indicator / red fault button

25 - Red Emergency Stop knob

26 - Function confirmation switch

27 - Proportional control handle for translation function

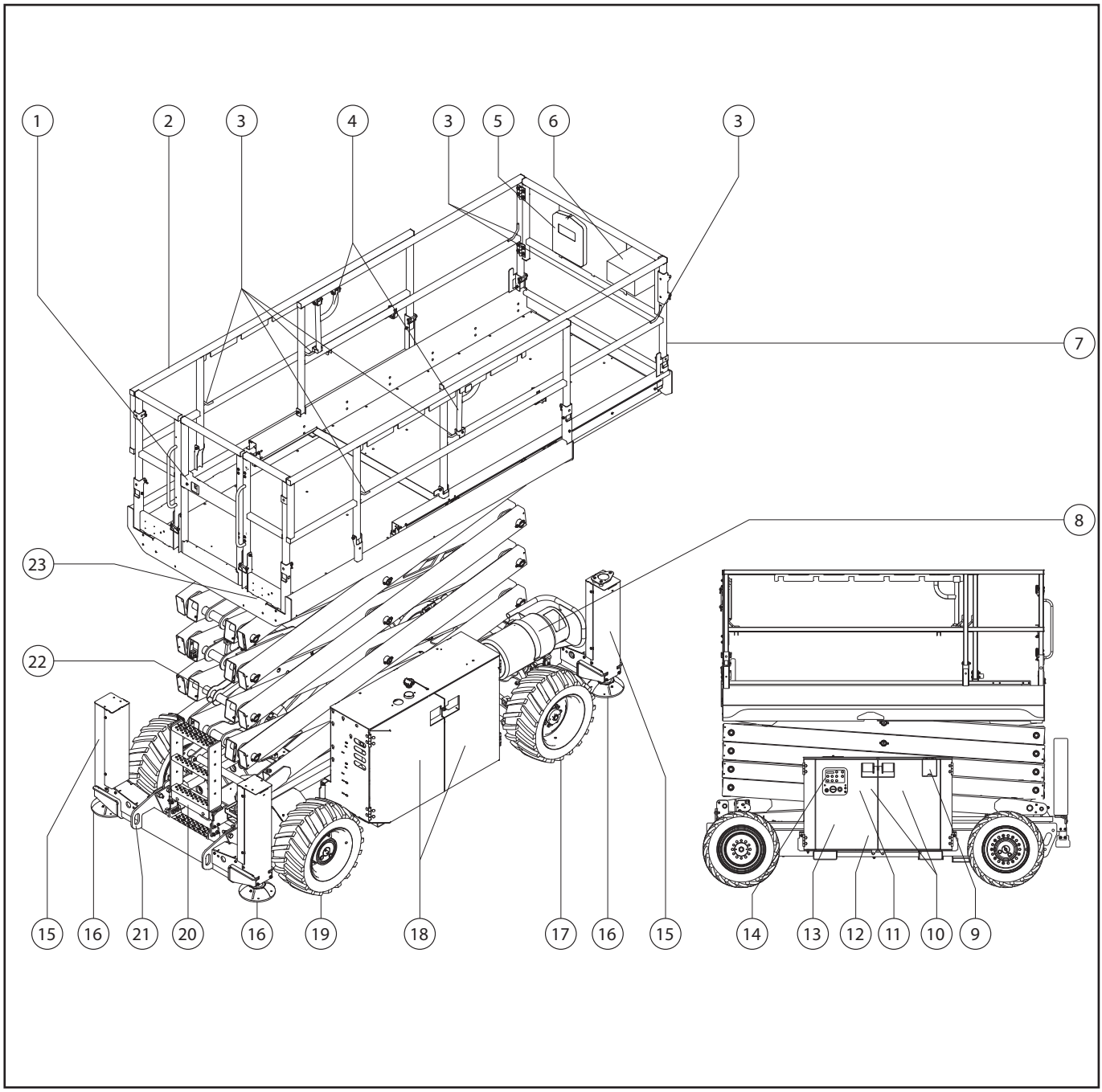
28 - Steering function thumb switch

29 - Wrist rest

30 - Lifting confirmation button, with indicator

31 - Proportional reverser for retracting/extending the stabilisers and raising/lowering the platform

32 - Diesel circuit open/shut tap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1- Platform entry gate

2- Platform guard rails

3- Lanyard anchorage point

4- Platform extension lock handle

5- Manual storage container

6- Platform controls

7- Platform extension

8- LPG tank

9- Fuel tank

10- Ground controls side covers

11- Hydraulic tank (behind cover)

12- Tilt alarm (behind cover)

13- Hydraulic oil level indicator (behind cover)

14- Ground controls with LCD readout screen

15- Outrigger housing (if equipped with outriggers)

16- Outrigger footpad (if equipped with outriggers)

17- Steer tire

18- Engine side covers

19- Non-steer tire

20- Entry ladder

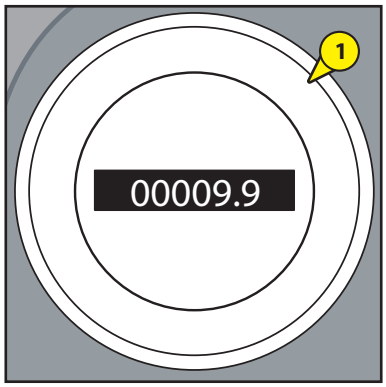
21- Transport tie-down

22- Safety arm

23- GFCI outlet

1- HOUR COUNTER

- This displays the number of hours the machine has operated.

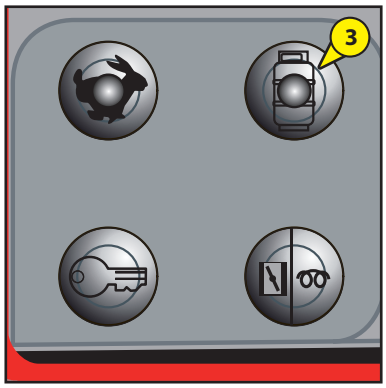


2- ENGINE STARTER BUTTON

- Press this button to start the engine.

3- LPG/PETROL MODELS: LPG SELECTOR BUTTON, WITH INDICATOR

- Press this button to select the fuel. The indicator light is lit when LPG is selected. The light is out when petrol is selected.



4- ENGINE SPEED SELECTOR, WITH INDICATOR

- Press this button to select the engine speed. The indicator light is lit when high idle speed is selected. The light is out when low idle speed is selected.

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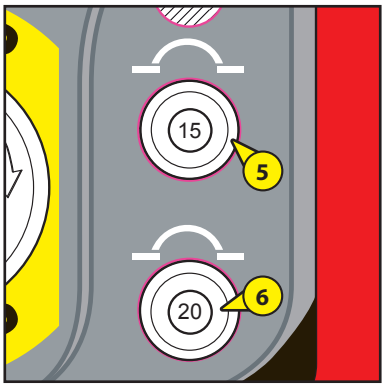
5- 15A CONTROL CIRCUIT BREAKER



6- 20A CONTROL CIRCUIT BREAKER

7- LCD SCREEN

- The LCD screen lights up and indicates 'System Ready' when the platform is switched on.
- Remarks: In cold weather, the LCD screen must heat up first, before it can show any readings.

8- LPG/PETROL MODELS: STARTER BUTTON

- Press this button to operate the starter.
- Diesel models: pre-heating button
- Press this button to switch on the glow plugs.

9- LIFTING CONFIRMATION BUTTON

- Press this button to activate the lifting function.

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10- PLATFORM LIFTING BUTTON

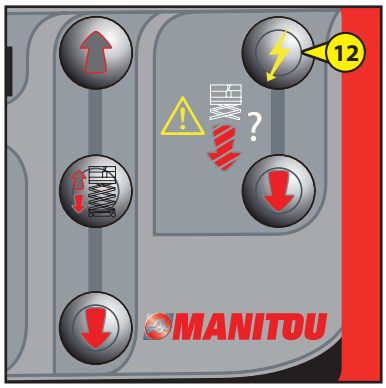
- Press this button to lift the platform and simultaneously press button 9.

11- PLATFORM LOWERING BUTTON

- Press this button to lower the platform and simultaneously press button 9.

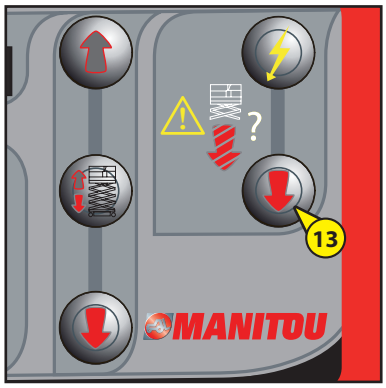
12- EMERGENCY DESCENT CONFIRMATION BUTTON

- Press this button to confirm the emergency descent function and simultaneously press button 13.



13- EMERGENCY DESCENT BUTTON

- Press this button to confirm the emergency descent function and simultaneously press button 12.



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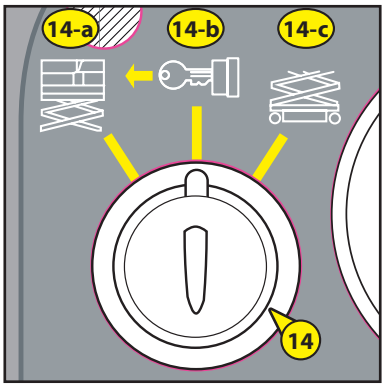
14- 3-POSITION KEY-OPERATED IGNITION SWITCH (PLATFORM/OFF/GROUND)



- Set the key switch to the Platform Control position (14-a) to switch on the platform controls.
- Set the key switch to the Stop position to switch off the machine (14-b).
- Set the key switch to the Ground Control position to switch on the ground controls (14-c).

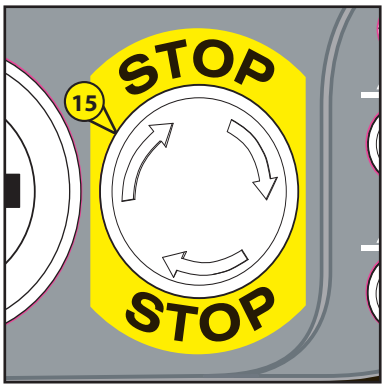
- NB: Ensure that the red Emergency Stop knobs on the ground control and platform control panels are pulled to the ON position.

- Remarks: In cold weather (below 10°C), hold down the pre-heating button for 5 or 10 seconds before starting the engine. Do not use the pre-heating button for more than 20 seconds at one time.

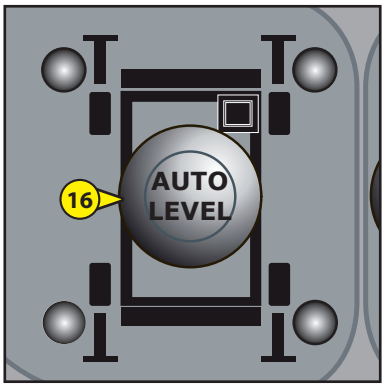
- If the engine does not start after 15 seconds, determine the cause of the problem and rectify it. Wait 60 seconds before trying to start the engine again.
- In cold weather (-6°C and below), preheat the engine for 5 minutes before using it to avoid damaging the hydraulic system.
- In extremely cold weather (below -18°C), the machines must be fitted with optional cold weather starting kits. Starting the engine when the temperature is below -18°C may require the use of an auxiliary battery.

15- RED EMERGENCY STOP KNOB

- Push in the red Emergency Stop knob to the OFF position to stop all the machine's functions. Pull the red Emergency Stop knob out to the ON position to use the machine.
- Repair any function that is active when one of the Emergency Stop knobs is pressed.

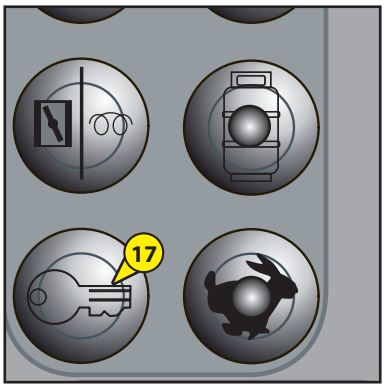


16- AUTOMATIC STABILISER LEVELLING BUTTON



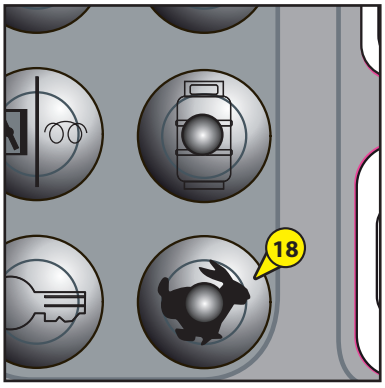
- Push and hold the auto level button Rep.16.
- Activate the up/down rocker switch in the down direction.
- Result: The outriggers should extend and level the machine. A beep will sound when the machine is level.
- The indicator lights on the outrigger LED will be green.
- Push and hold the auto level button.
- Activate the up/down rocker switch in the up direction.
- Result: The outriggers should retract and return to the stowed position.
- The indicator lights on the outrigger LED will be red.

17- ENGINE STARTER BUTTON



- Press this button to start the engine.

18- ENGINE SPEED SELECTOR, WITH INDICATOR



Press this button to select the engine speed.

- Indicator light unlit: low idle speed
- Indicator light lit: high idle speed

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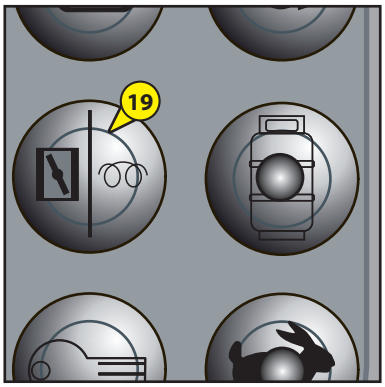
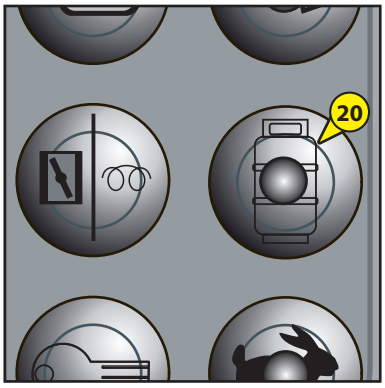
19- LPG/PETROL MODELS: STARTER BUTTON

- Press this button assist the engine in starting during cold weather. Diesel models: pre-heating button
- Press this button assist the engine in starting during cold weather.



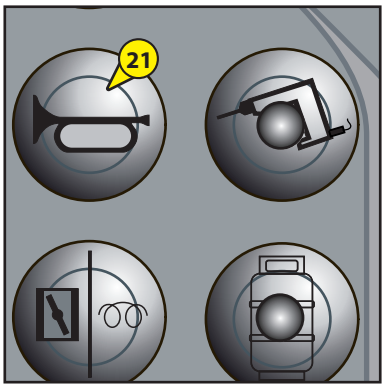
20- LPG/PETROL MODELS: LPG BUTTON, WITH INDICATOR

- Press this button to select LPG.



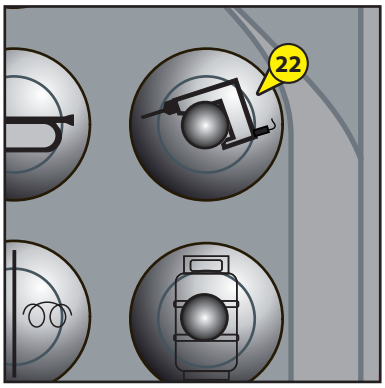
21- WARNING BUZZER BUTTON

- Press this button to activate the buzzer. Release the button to stop the buzzer.



22- GENERATOR SELECTOR, WITH INDICATOR

- Press this button to switch on the generator. The indicator light comes on. Press the generator button again to switch off the generator.



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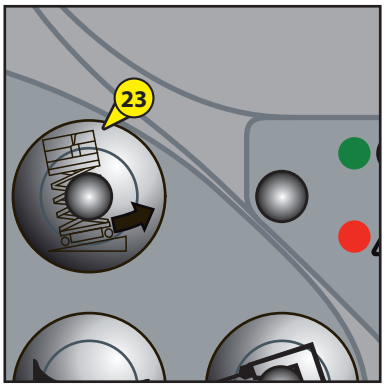
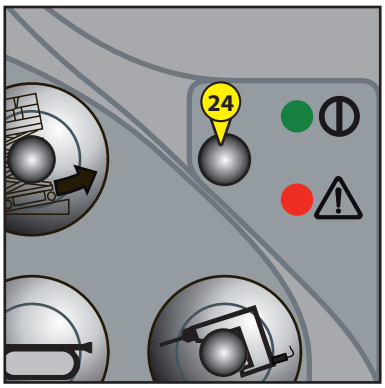
23- Machine tilt button, with indicator: operation at reduced speed on a slope

- Press this button to select the use of reduced speed on a slope.



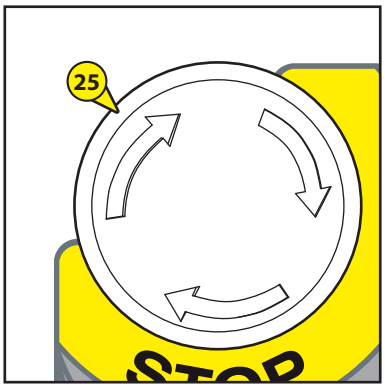
24- Greed power feed indicator / red fault button

- The green indicator light comes on when the red Emergency Stop knob is pulled into the ON position.
- If the red fault light is lit, push and the pull the red Emergency Stop knob to initialise the system. If the light remains red, report the machine and take it out of service.



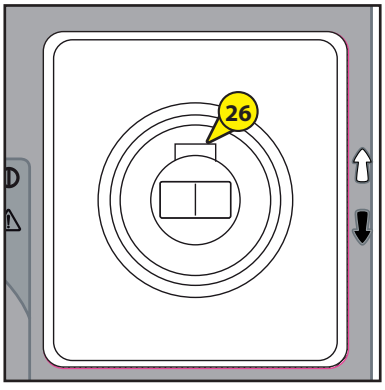
25- Red Emergency Stop knob

- Push the red Emergency Stop knob to the OFF position to stop all the functions and to switch off the engine. Pull the red Emergency Stop knob to the ON position to use the machine.
- Repair any function that is active when one of the Emergency Stop knobs is pressed.



26- Function confirmation switch

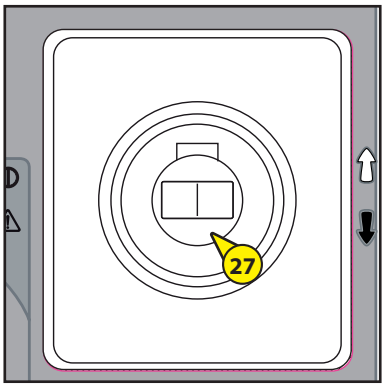
- Hold down the function confirmation switch to activate the translation function.



647367 (01/03/2017)
100/120 SC-2 / 140 SC

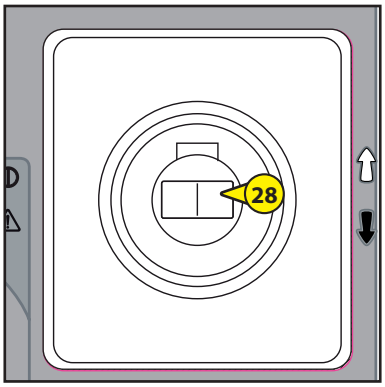
27- Proportional control handle for translation function

- Move the control lever in the direction indicated by the white arrow on the control panel to advance the machine in the direction indicated by the arrow. Move the control lever in the direction indicated by the black arrow on the control panel to advance the machine in the direction indicated by the arrow.



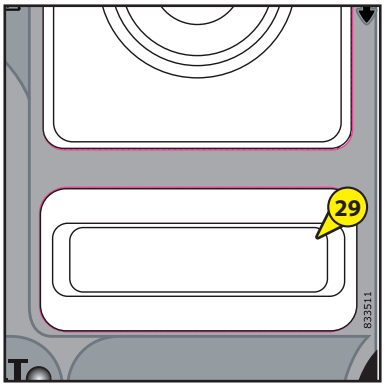
28- Steering function thumb switch

- Press the left side of the thumb switch to steer the machine left.
- Press the right side of the thumb switch to steer the machine right.



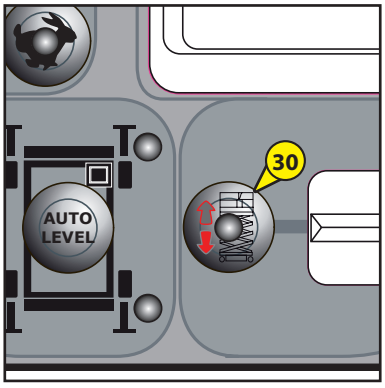
29- Wrist rest

- This helps you to grasp the joystick.

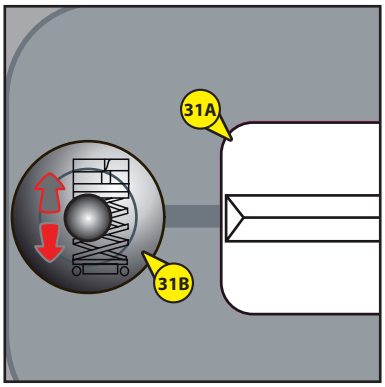


30- Lifting confirmation button, with indicator

- Press this button to activate the lifting function.
- NB: The translation and steering functions are not available from the ground controls.



31- PROPORTIONAL REVERSER FOR RETRACTING/EXTENDING THE STABILISERS AND RAISING/LOWERING THE PLATFORM

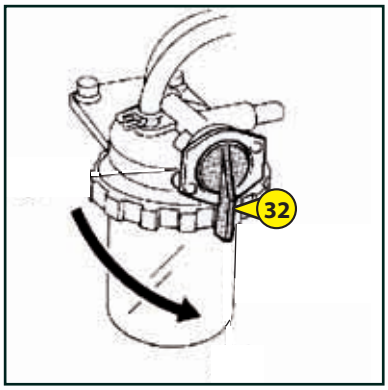


- When the confirmation light for the individual stabilisers is lit (16), push the thumb switch (31A) up to retract the stabiliser. Push the thumb switch down to extend the stabiliser.

- When the lifting confirmation button's indicator light is lit (31B), push the thumb switch (31A) up to raise the platform. Push the thumb switch down to lower the platform.

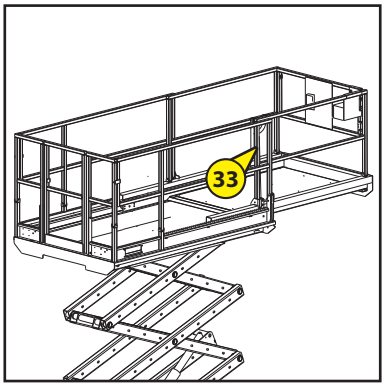
- The descent alarm must sound when the machine is descending.

32- DIESEL CIRCUIT OPEN/SHUT TAP



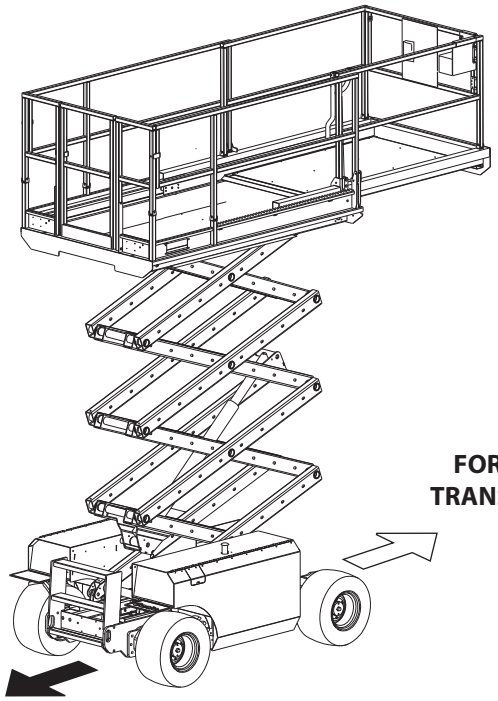
- Open the diesel tap before starting the engine.

33- EXTENSION ET RÉTRACTION DE LA NACELLE



- Raise the platform extension locking lever to the horizontal position.
- Push the handle until the platform is extended to the desired position.
- Do not lean on the extension while it is deploying.
- Lower the platform extension locking lever.

A

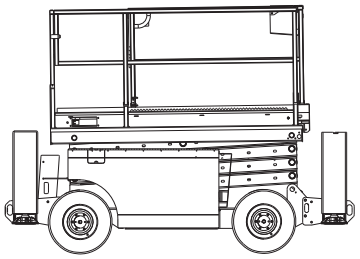


FORWARD TRANSLATION

REVERSE TRANSLATION

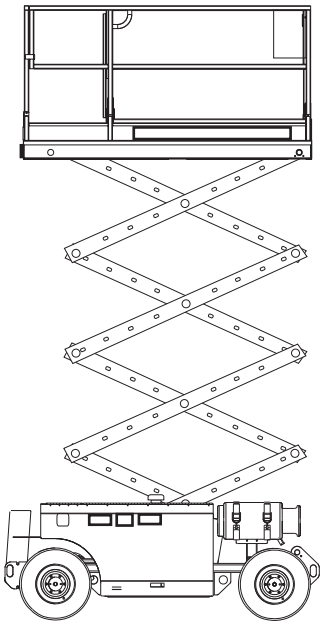
B

TRANSPORT MODE



C

WORK MODE



MOVEMENT IN TRANSPORT / WORK MODE

- The lifting platform has two separate movement modes: Transport mode (Fig. B) and Work mode (Fig. C). Direction of forward movement : Fig. A.
- Transport mode: the platform's scissor assembly is in the Low position. This mode enables you to travel at high speed (see the CHARACTERISTICS Section).
- Work mode: the scissor assembly is raised. In this mode, translations are made at slow speed.

In Work mode, any movement over broken ground, loose surfaces, slopes greater than the authorised level of tilt (see the CHARACTERISTICS section) likely to overturn or unbalance the lifting platform is PROHIBITED.

In the case of a steep slope: - no load in the basket; use reverse gear.

INSTALLATION ON THE WORK SITE AND LIFTING

- The lifting platform has been designed to work on a flat, horizontal surface; it is important to clear the space in which the lifting platform will be working.
- Bring the lifting platform to the work site.
- If necessary, load the equipment to be carried (stack so as not to inconvenience the operator and prevent anything falling).
- Climb into the lifting platform.

Wearing a safety helmet and a harness is compulsory.

- Press the "Dead Man's" pedal and start to manoeuvre to position yourself in the work area.

When manoeuvring the lifting platform (lifting,...), look around and above you. Pay particular attention to the electric cables and any items that may be in the lifting platform's operating space.

Familiarise yourself with the instruments on the ground maintenance and emergency station and in the basket, described in the previous pages and in particular the warnings specifying the risks involved in performing certain manoeuvres.

SAFETY SYSTEMS

When the platform is overloaded, the red Overload led on the basket console flashes, the audible vibrating alarm sounds, and all movements are prohibited as a safety measure.

- Solution: Lighten the load.

- When the platform reaches the maximum authorised tilt, the led on the basket console shows red. Also, the buzzer for the platform's controls sounds intermittently and any "AGGRAVATING" lifting movements are prohibited as a safety measure.

  - Solution : reposition the platform on a more level surface and only make non-aggravating movements.

LOWERING

- When the work is complete: lower the scissors assembly to bring the platform into Transport position.

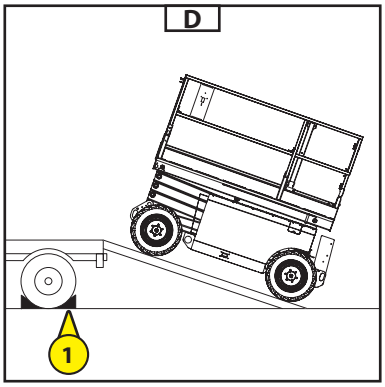
Pay attention to anyone present on the ground at the time of your descent, especially when the extension is extended.

STOPPING THE PLATFORM

- When the platform is not being used, switch it off by setting the ignition switch to the Neutral position (see 13 – Ignition Switch).

LOADING / UNLOADING THE LIFTING PLATFORM

Check that the safety instructions relating to the truck bed have been correctly applied before loading the lifting platform and ensure that the transport vehicle's driver is aware of the lifting platform's dimensional characteristics and its weight (see the CHARACTERISTICS section).



- When loading the lifting platform on to a truck bed, the platform must be in Transport position:
- The steered wheels must be facing the ramp (see 1 – Safety instructions and advice; SAFETY STICKERS Section; item 1).
- The extension must be retracted and locked in place.

Ensure that the truck bed is large enough and has a sufficient load capacity to transport the lifting platform. Also check the truck bed's permissible ground contact pressure with regard to the lifting platform.

There is a risk of the lifting platform losing adherence (sliding or slipping) when going up or down the loading ramps, when these are wet, muddy or damp. It is therefore necessary to ensure the platform's stability with a winch attached to the lash-down points on the machine.

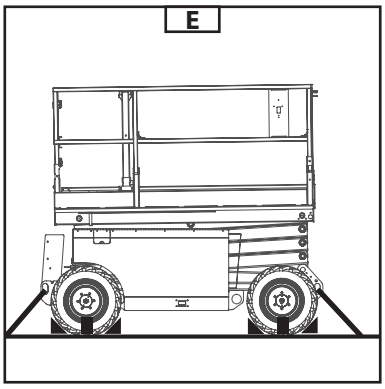
LOADING

- Fix the loading ramps to the truck bed so as to have the smallest angle possible for loading the machine (Fig D).
- Chock the truck bed's wheels Rep. 1 (Fig D).

Please adapt the lifting platform's translation speed by controlling it with the translation joystick.

TYING DOWN THE MACHINE FOR TRANSPORT BY TRUCK OR TRAILER

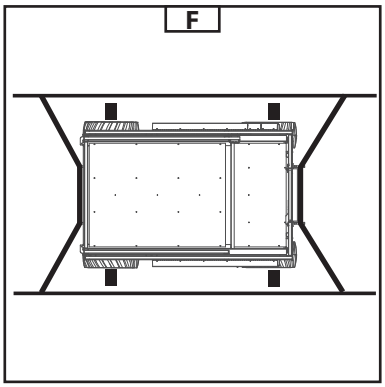
- Always chock the machine's wheels in preparation for transport.
- Retract and tie down the platform's extension.
- Use the tie-down points on the chassis to fasten the machine to the transport bed (Figs. E & F).
- Use at least two chains or belts.
- Use chains or belts with a sufficiently high load capacity.
- Fix the chocks to the bed in front of and behind each of the platform's tyres 1 (Figs. E & F).
- Also fix chocks to the bed on the inside and outside of each tyre 1 (Fig F).
- Set the ignition switch in the OFF position and remove the key before transporting the machine.
- Inspect the whole machine, looking for anything that may be loose or poorly fastened.
- If the ramps have been folded up, tie them down with belts before transporting the machine.



UNLOADING

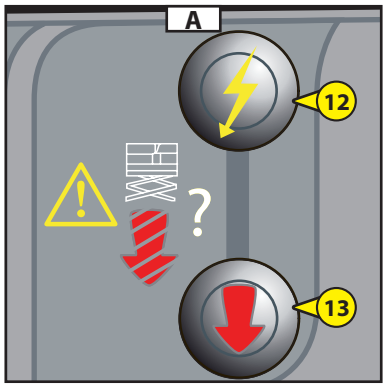
Never come down from a truck moving forwards (counterweight to the front over the steered wheels); the poor grip from the rear wheels reduces the braking efficiency.

Ensure that you adapt the platform's translation speed by controlling the speed with the translation joystick.



- This paragraph describes the procedures to follow, the controls to use in the event of a problem (breakdown of the lifting platform or someone trapped in the basket) while the lifting platform is working.
- When taking over the machine and regularly afterwards, the details of this procedure must be read and fully understood by the operator and everyone whose duties are centred on activities in contact with the machine.

IF THE OPERATOR FALLS ILL



- If the user is taken ill or accidently triggers the basket emergency stop or finds themselves unable to manoeuvre, the person present on the ground can take control of the lifting platform.
- Follow the instructions below.
- Proceed to lower the platform using the base controls.
- Hold down the lifting confirmation button 12 (Fig. A) without releasing it and lower the platform by pressing the descent button13 (Fig. A).

Pay attention to any constructions or objects that may be under the lifting platform.

RELEASING THE BRAKES

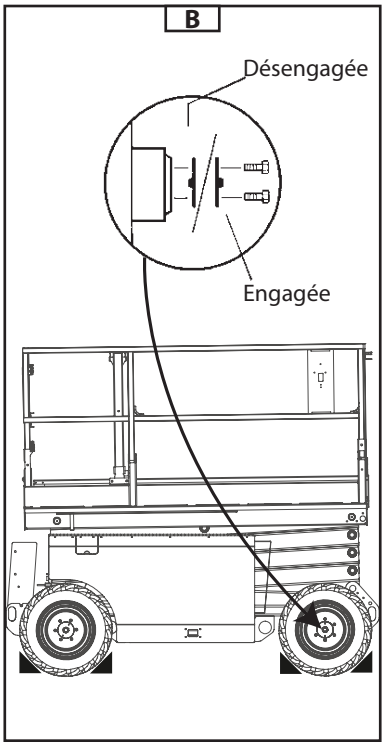
The platform may only be towed a short distance, and necessarily by a machine with significant braking power to hold it, and with a connecting bar between the two machines.

- To set the platform in Freewheel mode, it must not be subject to any translation stresses caused by a slope. The wheels must be able to turn freely.
- Release the wheel brakes by turning over the two rear torque hub disconnect caps. Turn needle valve on traction manifold counter-clockwise until it stops.
- Be sure the winch line is properly secured to the drive chassis tie points and the path is clear of all obstructions.
- Reverse the procedures described to re-engage the brakes.

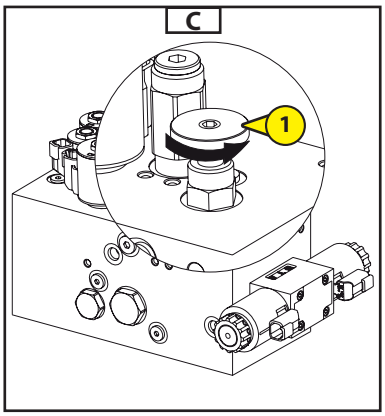
Note: The needle valve should always remain closed during normal operation.

Press the brake release pump button 2 (Fig. F).

- It is inadvisable to tow the 100 SC-2, 120 SC-2 and 140 SC models.
- If the platform must be towed, do not exceed 3.2 km/h.



Never try to push or pull the platform to start it. This type of manoeuvre would cause serious damage to the transmission.



3 - MAINTENANCE

647367 (01/03/2017)
100/120 SC-2 / 140 SC

CONTENTS

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MANITOU ORIGINAL EQUIPMENT AND REPLACEMENT PARTS

OUR PERSONNEL LIFTING PLATFORMS MUST ONLY BE SERVICED USING MANITOU ORIGINAL PARTS.

BY AUTHORISING THE USE OF MANITOU NON-ORIGINAL PARTS,

YOU RISK

- From a legal viewpoint, becoming liable in the event of an accident.

- From a technical viewpoint, causing operating breakdowns or reducing the lifting platform's operating life.

THE USE OF COUNTERFEIT PARTS OR COMPONENTS NOT APPROVED BY THE MANUFACTURER,
RESCINDS THE BENEFITS ACCRUING FROM THE CONTRACTUAL WARRANTY.

BY USING MANITOU ORIGINAL PARTS IN YOUR SERVICING OPERASTIONS,

YOU BENEFIT
FROM KNOW-HOW

Through its network, MANITOU provides the operator with,

- Know-how and competence.

- Guarantee of the quality of the work performed.

- Original replacement parts.

- Help with preventive maintenance.

- Efficient diagnostic assistance.

- Improvements based on feedback from experience.

- Training of the operating personnel.

- Only the Manitou network knows the lifting platform's design in detail and therefore has the best technical capabilities to provide for its maintenance.

ORIGINAL REPLACEMENT PARTS ARE ONLY DISTRIBUTED BY MANITOU
AND ITS DEALER NETWORK.
The list of dealers in the network is available on the MANITOU site www.manitou.com

COMMISSIONING CHECK LIST

0 = Good 1 = Missing 2 = Incorrect

100	IC ENGINE	
01	Air filter	
02	Fuel tank	
03	Fuel lines - Filter	
04	Injection or carburettor system	
05	Radiator and cooling system	
06	Belts	
07	Hoses	
101	TRANSMISSION	
01	Reversing system	
02	Gearbox control	
03	Cut-off pedal	
04	Clutch	
102	AXLES / TRANSFER BOX	
01	Function and sealing	
02	Endstop adjustment	
103	HYDRAULIC / HYDROSTATIC CIRCUIT	
01	Tank	
02	Pumps and attachments	
03	Tightness of the connections	
04	Lifting cylinder(s)	
05	Tilting cylinder(s)	
06	Accessory cylinder(s)	
07	Telescope cylinder(s)	
08	Compensation cylinder(s)	
09	Steering cylinder(s)	
10	Distributor	
11	Balancing valve	
104	BRAKING CIRCUIT	
01	Operation of the service and parking brake	
02	Brake fluid level	
105	LUBRICATION AND GREASING	
106	JIB / MANISCOPIC / MANIACCES ASSEMBLY	
01	Beam and telescope(s)	
02	Skid	
03	Joints	
04	Protective plate	
05	Forks	
107	MAST ASSEMBLY	
01	Fixed and mobile uprights	
02	Protective plate	
03	Chains	
04	Pulleys	
05	Forks	

108	ACCESSORIES	
01	Adaptations to the machine	
02	Hydraulic connections	
109	CAB / PROTECTOR / ELECTRICAL CIRCUIT	
01	Seat	
02	Dashboard and radio	
03	Buzzer and alarm light / safety system	
04	Heating / Air conditioning	
05	Windscreen wiper / Windscreen washer	
06	Operating warning	
07	Reversing warning	
08	Road lights	
09	Additional lights	
10	Flashing light	
11	Battery	
110	WHEEL	
01	Rims	
02	Tyres / Pressure	
111	NUTS AND BOLTS	
112	CHASSIS AND BODYWORK	
113	PAINTWORK	
114	GENERAL OPERATION	
115	INSTRUCTIONS MANUAL	
116	CUSTOMER'S INSTRUCTIONS	

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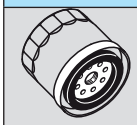
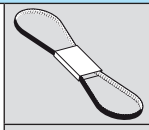
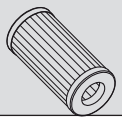
FILTER ELEMENTS AND BELTS

IC ENGINE			
	IC ENGINE OIL FILTER Reference: 900152 Replace: 500 H		BELT Reference: 900183
	DRY AIR FILTER CARTRIDGE Reference: 900153 Clean: 50 H* Replace: 500 H*		WATER-DIESEL SEPARATION FILTER Reference: 900582 Replace: 500 H
*: This interval is provided only as an indication (see: 3 - MAINTENANCE: MAINTENACE TABLE) for cleaning and replacing this.			

HYDRAULIC	
	HYDRAULIC OIL FILTER Référence: 901497 Remplacer: 1000 H

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USE THE RECOMMENDED LUBRICANTS AND FUEL:
- Oils may not be mixed when topping up.
- MANITOU oils are perfectly suitable for easy draining.

OIL DIAGNOSTIC ANALYSIS
If you set up a maintenance or servicing contract with the dealer, a diagnostic analysis of the engine and axle oils may be requested, depending on the usage level.

(*) CHARACTERISTICS OF THE RECOMMENDED FUEL
Use a quality fuel to obtain optimum performance from the engine.
- Type of Diesel fuel N590 - Auto/C0/C1/C2/C3/C4
- BS2869 Class A2
- ASTM D975-91 Class 2-2DA, US DF1, US DF2, US DFA
- JIS K2204 (1992) Grades 1, 2, 3 and Special Grade 3.

IC ENGINE				
COMPONENTS TO BE LUBRICATED	CAPACITY	RECOMMENDATION	PACKAGING	REFERENCE
ENGINE Kubota D 1105	5,1 Litres	MANITOU SAE 15W/40 engine oil	5 l 20 l 55 l 209 l 1000 l	661706 582357 582358 582359 490205
COOLANT	8 Litres	Cooling circuit (protection - 25°)	2 l 5 l 20 l	554002 788246 788247
FUEL TANK	54,9 Litres	Diesel (*)		

HYDRAULIC SYSTEM				
COMPONENTS TO BE LUBRICATED	CAPACITY	RECOMMENDATION	PACKAGING	REFERENCE
HYDRAULIC OIL TANK	59,6 Litres	MANITOU Hydraulic ISO VG 46 oil	5 l 20 l 55 l 209 l	545500 582297 546108 546109

LIFTING STRUCTURE			
COMPONENTS TO BE LUBRICATED	RECOMMENDATION	PACKAGING	REFERENCE
GENERAL LUBRICATION	MANITOU high-performance grease	Cartridge 400 g	479330

TRANSLATION				
COMPONENTS TO BE LUBRICATED	CAPACITY	RECOMMENDATION	PACKAGING	REFERENCE
WHEEL REDUCERS	0,8 Litre	Oil SHELL SPIRAX A 90	20 l 209 l	661950 662000

MAINTENANCE TABLE

(1): COMPULSORY OVERHAUL AFTER 500 HOURS or 6 MONTHS
This overhaul must compulsorily be performed after approximately the first 500 hours of operation or 6 months after the machine is put into service (when the earlier of the two periods is reached).

(2): The engine oil and the engine oil filter must be replaced after the first 50 hours of operation, and then every 500 hours of operation.

A = REGULATE, C = CHECK, G = GREASE, N = CLEAN, P = BLEED, R = REPLACE, V = DRAIN	PAGE	(1)	DAILY OR EVERY 10 HOURS OF OPERATION	EVERY 50 HOURS OF OPERATION	EVERY 250 HOURS OF OPERATION	EVERY 500 HOURS OF OPERATION OR 6 MONTHS	EVERY 1000 HOURS OF OPERATION OR 1 YEAR	EVERY 2000 HOURS OF OPERATION OR 2 YEARS	EVERY 40000 HOURS OF OPERATION	OCCASIONAL
IC ENGINE										
Engine oil level	3-12	C	C	<<<	<<<	<<<	<<<	<<<	<<<	
Coolant level	3-12	C	C	<<<	<<<	<<<	V	<<<	<<<	
Fuel level	3-12	C	C	<<<	<<<	<<<	<<<	<<<	<<<	
Dry air filter cartridge	3-17/22	R		C/N	<<<	R	<<<	<<<	<<<	
Radiator core	3-17	N		N	<<<	<<<	<<<	<<<	<<<	
Alternator / crankshaft / fan belt tensioning	3-19	C/A			C/A	<<<	<<<	<<<	<<<	
Fuel filter	3-14/19	R			N	R	<<<	<<<	<<<	
Engine oil (2)	3-22	V				V	<<<	<<<	<<<	
Engine oil filter (2)	3-22	R				R	<<<	<<<	<<<	
Injectors						C**	<<<	<<<	<<<	
Fuel tank	3-24						N	<<<	<<<	
Dry air filter safety cartridge	3-22						R	<<<	<<<	
Engine silentblocks							C**	<<<	<<<	
Engine rpm							C**	<<<	<<<	
Radiator							C**	<<<	<<<	
Valve play		C**						C**	<<<	
Water pump and thermostat								C**	<<<	
Alternator and starter								C**	<<<	
Fuel feed circuit	3-29									P
TRANSMISSION										
Braking	3-13	C	C	<<<	<<<	<<<	<<<	<<<	<<<	
TYRES										
Tightening the wheel nuts	3-13	C	C	<<<	<<<	<<<	<<<	<<<	<<<	
Condition of the tyres & wheels	3-13	C	C	<<<	<<<	<<<	<<<	<<<	<<<	
Wheel	3-29									R
LIFTING STRUCTURE										
Overload					C	<<<	<<<	<<<	<<<	
HYDRAULIC SYSTEM										
Hydraulic oil	3-13/23	C	C	<<<	<<<	V/R	<<<	<<<	<<<	
Hydraulic movement speeds							C**	<<<	<<<	
State of the hoses							C**	<<<	<<<	
State of the cylinders (leaks, rods)							C**	<<<	<<<	
Hydraulic circuit pressures								C**	<<<	
Hydraulic circuit flow rates								C**	<<<	
Hydraulic oil reservoir								N**	<<<	

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A = REGULATE, C = CHECK, G = GREASE, N = CLEAN, P = BLEED, R = REPLACE, V = DRAIN	PAGE	(1)	DAILY OR EVERY 10 HOURS OF OPERATION	EVERY 50 HOURS OF OPERATION	EVERY 250 HOURS OF OPERATION	EVERY 500 HOURS OF OPERATION OR 6 MONTHS	EVERY 1000 HOURS OF OPERATION OR 1 YEAR	EVERY 2000 HOURS OF OPERATION OR 2 YEARS	EVERY 40000 HOURS OF OPERATION	OCCASIONAL
ELECTRICAL SYSTEM										
Condition of the joystick bellows	3-13		C	<<<	<<<	<<<	<<<	<<<	<<<	
Level of battery electrolyte	3-17	C		C	<<<	<<<	<<<	<<<	<<<	
Density of the battery electrolyte	3-20	C			C	<<<	<<<	<<<	<<<	
Tilt sensor	3-20				C	<<<	<<<	<<<	<<<	
Overload sensors	3-20	C			C	<<<	<<<	<<<	<<<	
Emergency pump	3-21	C			C	<<<	<<<	<<<	<<<	
Condition of the cable bundles and the cables							C**	<<<	<<<	
FRONT AND REAR AXLE										
Rear axle brake disc wear									C**	
Universal joint for rear wheel reducers									C**	
Oil level for wheel reducers				R	R	<<<	<<<	<<<	<<<	
Play in the rear wheel reducers									C**	
CHASSIS										
Axles					G	<<<	<<<	<<<	<<<	
Tightening the bolts fixing the axles to the chassis					C	<<<	<<<	<<<	<<<	
LIFTING PLATFORM										
Pre-operation inspection	3-14	C	C	<<<	<<<	<<<	<<<	<<<	<<<	
Function tests	3-14	C	C	<<<	<<<	<<<	<<<	<<<	<<<	
Safety labels					C	<<<	<<<	<<<	<<<	
Freewheeling										XXX
Hoisting the lifting platform with a sling										XXX
Transporting the lifting platform on a truck bed										XXX
Maintenance stand										

(*): Every 10 hours for the first 50 hours and then a final time after 250 hours.
(**): Contact your dealer.

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A1 - Engine oil level

CHECK

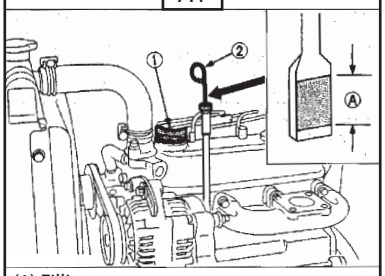
- For good performance and good service life, it is essential to keep the oil at a correct level. Using the machine with an unsuitable level of oil can damage the engine components.

  Remarks: check the oil level with the engine switched off. The engine should be on a horizontal surface.

- Check the oil level with the dipstick. Add oil if necessary.

- The oil level must be checked at least 5 minutes after the engine is switched off.

A1



(1) Filling cap
(2) Dipstick
(A) Acceptable oil level

A2 - Coolant level

CHECK

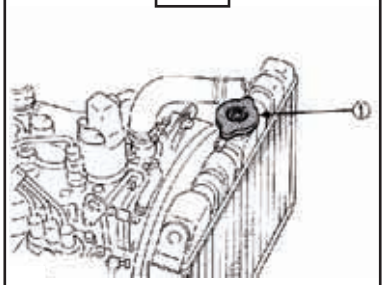
- It is essential to keep the coolant at a correct level to ensure good service life for the engine. A wrong dose of coolant would detract from the engine's cooling capabilities and damage its components. Daily checks enable the inspector to note variations in coolant level likely to indicate problems with the cooling system.

- Remove the radiator cap and check whether the coolant reaches the filler hole.

- If the radiator has a backup tank, check the level of coolant in this tank. If the level is between the "FULL" and "LOW" markings, the coolant will last for one working day.

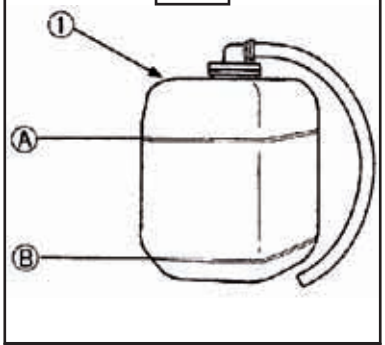
Risk of physical injury. The fluids in the radiator are under pressure and burning hot. Proceed very carefully when removing the cap and adding fluid.

A2-1



(1) Radiator pressure cap

A2-2



(1) Reserve tank
(A) "FULL" (B) "LOW"

A3 - Fuel level

CHECK

- Keep the fuel tank full as far as possible to reduce as much as possible any condensation due to atmospheric conditions.
- Remove the filler cap 1 (Fig. A3)
- Fill the tank via the filling hole with clean Diesel fuel, filtered through a strainer or a clean, lint-free cloth.

Never smoke or approach the tank with a naked flame during filling or when the tank is open. Never fill the tank with the engine running.

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A4 - Braking

CHECK

- Perform a translation and then release the control.
- No jerkiness, sudden and unusual translation or noise should be noted.
- In slow speed, the braking distance should be no more than 1.5 metres on a hard flat surface.

A5 - Condition of the wheels and tyres

CHECK

- Check the condition of the tyres to discern any cuts, tears, protuberances, wear spots, etc... on the tyres.

A6 - Tightness of the wheel nuts

CHECK

- Check the tightness of the wheel nuts.

Failure to comply with this instruction may result in damage to or breakage of the wheel pins and deformation of the wheels.

A6

A7 - Hydraulic oil level

CHECK

- It is essential to keep the hydraulic oil at a correct level for the machine to operate correctly. The wrong level of oil can damage the hydraulic components. Daily checks enable you to note any variation in oil level that could indicate the presence of problems in the hydraulic system.
- Remarks: perform this procedure with the platform in the folded position and with the engine switched off.
- Visually check the sight glass located on the side of the hydraulic oil reservoir.
- Result: the hydraulic oil level must be less than 5cm from the top of the sight glass.
- Add oil if necessary.

A7

A8 - Condition of the joystick bellows gaskets

CHECK

- For this operation, climb into the basket when the engine is switched off.
- Check that the joysticks' rubber bellows are in good condition by moving them as if you were making a manoeuvre.
- The bellows must not show any cracking or fissures; otherwise there is a risk that water penetration may prevent the machine from operating correctly.

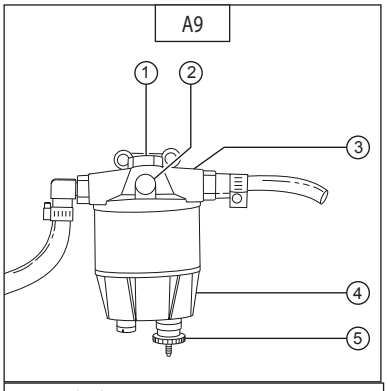
A9 - Fuel filter

DRAIN

- Correct maintenance of the fuel filter is essential for the engine to operate correctly.
- Failure to comply with this check can affect engine performance and damage its components.

Risk of explosion and danger of fire. Fuels are combustible. Perform this procedure in a well-ventilated place far from any heat source. Avoid sparks and flames. Do not smoke nearby. Have a fire extinguisher in hand's reach.

- Visually check for the presence of water in the fuel filter's lower casing.
- Drain this away, if necessary.
- Place a receptacle under the tank and loosen the drain plug 5 by two or three turns.
- Let the Diesel flow until there are no contaminants or water in it.
- Retighten the drain plug while the Diesel is still flowing.



1- Main bolt
2- Discharge point
3- Fuel filter head
4- Filter
5- Drainage point

A10 - Pre-operation inspection

CHECK

- Before each work shift, inspect the machine and check the absence of any crack weld, corrosion and structural damages, lossened or missing nuts, bolts or other fasteners, hydraulic leaks, damage electrical cables and loosened electrical connection.damaged cable of command and loosened electrical connection.
- Check the absence of any damage in the lanyard anchorage points.

A11 - Function tests

CHECK

All lifting platforms failures have to be dectected before switching on the machine. Identify et remove the platform from service in the event of any failures detected.

1- Select a test area that is firm, level and free of obstruction.

AT THE GROUND CONTROLS

2- Pull out the platform and ground red Emergency Stop buttons to the on position.

3- Turn the key switch to ground control.

> Result: The LCD screen will come on and display SYSTEM READY.

Note: In cold climates, the LCD readout screen will need to warm up before the display appears.

4- Start the engine. See Operating Instructions section.

Test Emergency Stop

5- Push in the ground red Emergency Stop button to the off position.

> Result: The engine should turn off and no functions should operate.

6- Pull out the red Emergency Stop button to the on position and restart the engine.

Test the Up/Down Functions

The audible warnings on this machine and the standard horn all come from the same central alarm. The horn is a constant tone. The descent alarm sounds at 60 beeps per minute. The alarm that goes off when the machine is not level sounds at 180 beeps per minute.

7- Do not push the lift function enable button. Push and hold the platform up button.

> Result: The platform should not raise.

8- Push and hold the lift function enable button. Push and hold the platform up button.

> Result: The platform should raise.

9- Push and hold the lift function enable button. Push and hold the platform down button.

> Result: The platform should lower. The descent alarm should sound while the platform is lowering.

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AT THE PLATFORM CONTROLS

Test Emergency Stop

10- Push in the platform red Emergency Stop button to the off position.
> Result: The engine should shut off and no functions should operate.

11- Pull the red Emergency Stop button out to the on position.
> Result: The indicator light should be green.

Test the Horn

12- Push the horn button.
> Result: The horn should sound.

Test Up/Down Functions and Function Enable

13- Start the engine.

14- Activate the up/down rocker switch in the direction indicated by the blue arrow.
> Result: The platform should not raise.

15- Push and hold the lift function enable button.

16- Activate the up/down rocker switch in the direction indicated by the blue arrow.
> Result: The platform should raise.

17- Push and hold the lift function enable button.

18- Activate the up/down rocker switch in the direction indicated by the yellow arrow.
> Result: The platform should lower. The descent alarm should sound while the platform is lowering.

Test the Steering

Note: When performing the steer and drive function tests, stand in the platform facing the steer end of the machine.

19- Press and hold the function enable switch on the control handle.

20- Depress the thumb rocker switch on top of the control handle in the direction identified by the blue triangle on the control panel.
> Result: The steer wheels should turn in the direction that the blue triangle points on the control panel.

21- Depress the thumb rocker switch in the direction identified by the yellow triangle on the control panel.
> Result: The steer wheels should turn in the direction that the yellow triangle points on the control panel.

Test Drive and Braking

22- Press and hold the function enable switch on the control handle.

23- Slowly move the control handle in the direction indicated by the blue arrow on the control panel until the machine begins to move, then return the handle to the center position.
> Result: The machine should move in the direction that the blue arrow points on the control panel, then come to an abrupt stop.

24- Press and hold the function enable switch on the control handle.

25- Slowly move the control handle in the direction indicated by the yellow arrow on the control panel until the machine begins to move, then return the handle to the center position.
> Result: The machine should move in the direction that the yellow arrow points on the control panel, then come to an abrupt stop.

Note: The brakes must be able to hold the machine on any slope it is able to climb.

Test Limited Drive Speed

26- Push and hold the lift function enable button.
Raise the platform approximately 1.8 m from the ground.
27- Press and hold the function enable switch on the control handle.
28- Slowly move the control handle to the full drive position.
> Result: The maximum achievable drive speed with the platform raised should not exceed 22 cm/s.

If the drive speed with the platform raised exceeds 22 cm/s, immediately tag and remove the machine from service.

Test the Tilt Sensor Operation

Note: Perform this test from the ground with the platform controller. Do not stand in the platform.
29- Fully lower the platform.
30- Drive both wheels on one side onto a 10 cm block or onto a curb.
31- Raise the platform at least 1.8 m.
> Result: The platform should stop and the tilt alarm will sound at 180 beeps per minute. The indicator light on the lift function enable button will be red.

32- Move the drive control handle in the direction indicated by the blue arrow, then move the drive control handle in the direction indicated by the yellow arrow.
> Result: The drive function should not work in either direction.

33- Lower the platform and drive the machine off the block.

Test the Emergency Lowering

34- Push and hold the lift function enable button and raise the platform approximately 60 cm.
35- Push in the red Emergency Stop button to shut off the engine.
36- Pull out the red Emergency Stop button to the on position.
37- Push and hold the lift function enable button.
Activate the up/down rocker switch in the direction indicated by the yellow arrow.
> Result: The platform should lower.

B - EVERY 50 HOURS OF OPERATION

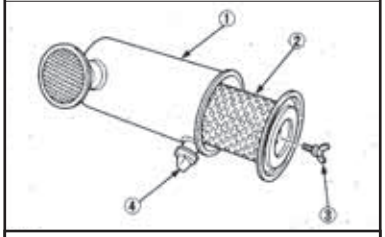
Perform the operations described above as well as the following operations.

B1 - Air filter cartridge

CLEAN

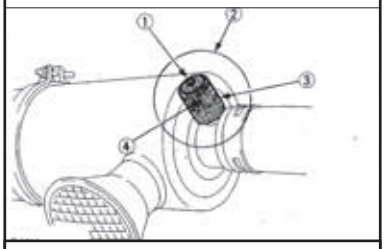
- Open the drain valve every week in normal operating conditions and every day in dusty operating conditions to remove large particles of dust and debris.
- When the red signal on the dust indicator attached to the air filter reaches the service level, immediately clean the filter element and then reset the signal to the original position using the "RESET" button.
- Reduce the intervals when working in a very dusty atmosphere.
- Because the type of filter element used on this engine is dry, never apply any oil to it.
- Open the drain valve once a week in normal operating conditions and once a day in dusty operating conditions to eliminate any large particles of dust or dirt.
- Wipe the inside of the air filter with a clean dry cloth.
- Avoid touching the filter element except during cleaning.
- When there is dust adhering to the element, vent compressed air from inside the element while turning the element. The pressure of the compressed air must be less than 205 kPa (2.1 Kgf/cm^2).
- Ensure that the wing bolt for the element is tight enough. If it is loose, dirt and dust can be sucked in, causing premature wear to the cylinder lining and the piston segments.

B1



1- Air filter body
2- Element
3- Wing bolt
4- Evacuation valve

B1



1- "Reset" button
2- Dust indicator
3- Service level
4- Signal

B2 - Radiator core

CLEAN

- If there is any dust between the fins and the water pipes, wash it away with running water.

B3 - Level of electrolyte in the battery

CHECK

- Check the electrolyte level in each battery element.
- If the ambient temperature is high, check the level more often than every 50 hours of operation.

Manipulating and servicing a battery can be dangerous operations; take the following precautions:
- Wear safety goggles.
- Keep the battery 'horizontal while manipulating it.
- Never smoke or work close to a naked flame.
- Work in a sufficiently well-ventilated area.
- If any electrolyte should splash on your skin or in your eyes, rinse the affected area thoroughly with cold water for 15 minutes and call a doctor.

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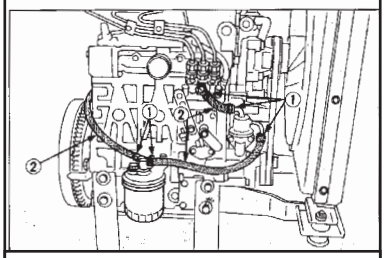
B4 - Fuel pipes and clamping rings

CHECK

- If the clamping collar is loose, apply oil to the collar's screw and tighten the screw securely.
- If the rubber fuel feed pipes and the clamping collars are worn or damaged before a period of 2 years has past, replace or repair them.
- After replacing the pipes and the collars, bleed the air from the fuel feed circuit.

Clean the radiator core every day when the platform is used in a very dusty area.

B4



1- Tensioning band
2- Fuel pipes

B5 - Front and rear wheel reducer oil

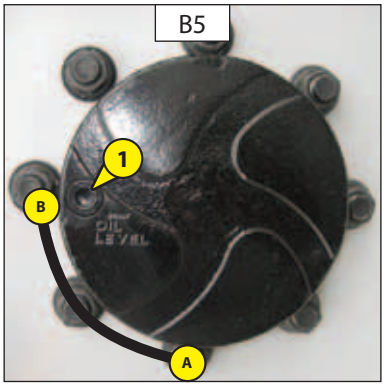
DRAIN - REPLACE

Set the platform on a horizontal surface with the engine off and the reducers' oil still warm.
- Drain and replace the oil of each of the front and rear wheel reducers.
- Set the drainage plug 1 (Fig. B5) to position A.
- Place a receptacle under the drain plug and unscrew it.
- Leave the oil to drain out completely.

Dispose of the drained oil in an environmentally-friendly manner.

- Set the drain hole to position B, i.e. to level hole.
- Refill with oil (see the LUBRICANTS section) via the level hole 1 (Fig. B5).
- The level is correct when the oil is flush with the hole.
- Refit the drain plug 1 (Fig. B5) and tighten it.
- Perform the same operation for each of the wheel reducers.

B5



C - EVERY 250 HOURS OF OPERATION

- Perform the operations described above as well as the following operations.

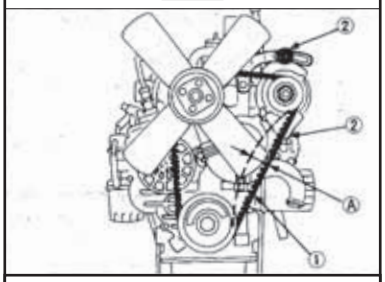
C1 - Tension of the alternator / fan / crankshaft belt

REGULATE

To avoid injury: ensure that the engine is switched off and remove the ignition key before checking the fan belt's tension.
Ensure that you install the safety shield after working on the belt.

- Stop the engine and remove the ignition key
- Apply moderate pressure to the belt, between the pulleys.
- If there is insufficient tension, loosen the alternator fixing bolts and, using a lever placed between the alternator and the engine block, pull the alternator until the flexing of the belt is within acceptable limits: approx. 7 to 9 mm when pressing on the middle of the belt.
- Replace the fan belt if it is damaged.

C1



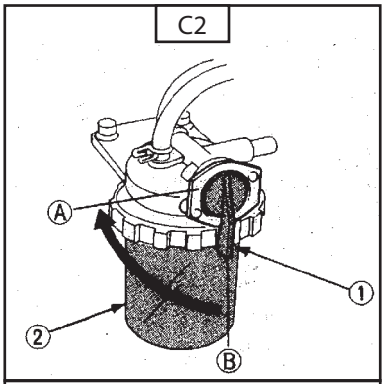
1- Fan belt
2- Nut and bolt

C2 - Fuel filter

CLEAN

- Perform this task in a clean location so as to protect the fuel filter from dust.
- Close the fuel filter tap (Fig. C2).
- Remove the top cap and rinse out the inside with Diesel fuel.
- Remove the filter element and rinse it with Diesel fuel.
- After cleaning, re-insert the fuel filter.
- Bleed the air from the injection pump

C2



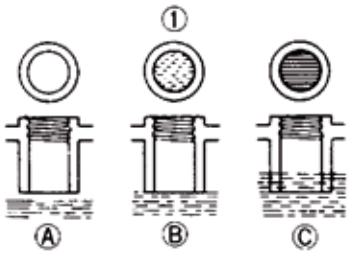
(1) Fuel filter tap
(2) Fuel filter cap
(A) "CLOSED"
(B) "OPEN"

C3 - Density of the electrolyte in the battery

CHECK

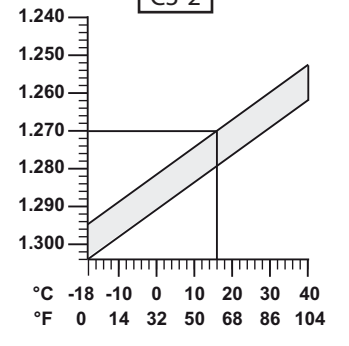
- There are two types of battery: refillable and non-refillable
- To use batteries of the refillable type, follow the instructions below.
- Do not use batteries or charge them if the level of fluid in them is below the bottom marking. Otherwise, the sections in the battery element could be damaged and shortened the battery's service life or cause an explosion. Immediately add distilled water until the battery fluid level is between the top and bottom markings.
- Ensure that each electrolyte level is at the bottom of the ventilation well (Fig. C3-1): the electrolyte's density varies according to the temperature, but a minimum of 1270 at 16°c must be maintained.
- In the hatched section (Fig. C3-2), the battery is charged normally. Above the hatched section, the battery must be recharged. The density should not vary by 0.0025 units from one battery element to the other.
- Recharge the battery and wait 1 hour before checking the electrolyte density in each battery element with an acidometer.
- Never check just after having added distilled water.

C3-1



(1) Battery electrolyte level
(A) Too low - (B) Moderate
(C) Too high

C3-2



Manipulating and servicing a battery can be dangerous operations; take the following precautions:
- Wear safety goggles.
- Keep the battery 'horizontal while manipulating it.
- Never smoke or work close to a naked flame.
- Work in a sufficiently well-ventilated area.
- If any electrolyte should splash on your skin or in your eyes, rinse the affected area thoroughly with cold water for 15 minutes and call a doctor.

C4 - Tilt sensor

CHECK

Remarks: perform this test on the ground with the platform controller. Do not stand up in the platform.
- Lower the platform fully.
- Drive two wheels on the same side over a 10cm wedge or a pavement kerb.
- Lift the platform at least 1.8m from the ground.
- Result: the platform must stop and the tilt alarm sound at 180 beeps per minute. The indicator on the lifting confirmation button must be red.
- Move the translation control handle in the direction indicated by the blue arrow, then in the direction indicated by the yellow arrow.
- Result: the translation function must not be active in any of the directions.
- Lower the platform and take the machine off the wedge.

In the event of a malfunction prevent use of the platform. Contact your dealer.

C5 - Overload sensors

CHECK

The machine's stability can be compromised by failure to observe these actions.
- Disconnect the basket console from the machine.
- Open the ground control panel and locate the electronic control unit.
- Disconnect the work platform control console cable bundle from the unit.
- Connect the basket control console to the unit.

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- Locate the terminal strip behind the ground control console.
- Identify and disconnect the black wire from the maximum height switch bundle on terminal A10 on the strip.
- Identify and disconnect the white wire from the maximum height switch bundle on terminal B9 on the strip
- Connect a wire between connectors A10 and B9 on the strip.
- Turn the key switch on the base control console and ensure that the Emergency Stop knobs are not engaged.
- Perform a work platform lifting command and then release the control.
- The engine must stop. An alarm must sound and Code 99 "OVERLOAD PLATFORM FAULT" appears.
- If the engine does not stop, if the alarm does not sound, or if Code 99 does not appear, please refer to the Repairs Manual. Lower the scissors assembly using the emergency pump on the base console and lower the work platform approximately 4.5m.
- Turn the key switch to position 0.
- Disconnect the wire between A10 and B9 on the terminal strip.
- Connect the black wire for the maximum height switch to terminal A10 on the strip.
- Connect the white wire for the maximum height switch to terminal B9 on the strip.

In the event of a malfunction prevent use of the platform. Contact your dealer.

C6- Backup pump

CHECK

- Please refer to "RESCUE PROCEDURE" in Section 2.

C7 - Axles

GREASE

- Clean and then grease the grease nipples (See the "LUBRICANTS" section) and remove any surplus.

C8 - Tightness of the reducer fixing screws on the chassis

CHECK

- Check the tightness of the reducer fixing screws on the chassis.

C9 - Machine stickers

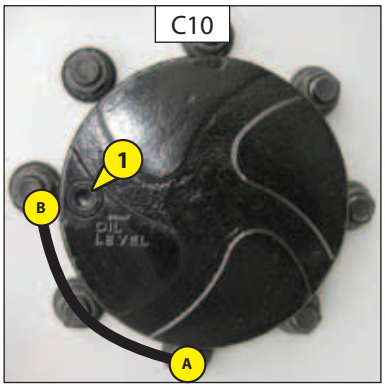
CHECK

- Check that the safety stickers are in place (See: 1 – SAFETY STICKERS).

C10 - Front and rear wheel reducer oil

DRAIN - REPLACE

Set the platform on a horizontal surface with the engine off and the reducers' oil still warm.
- Drain and replace the oil of each of the front and rear wheel reducers.
- Set the drainage plug 1 (Fig. C10) to position A.
- Place a receptacle under the drain plug and unscrew it.
- Leave the oil to drain out completely.



Dispose of the drained oil in an environmentally-friendly manner.

- Set the drain hole to position B, i.e. to level hole.
- Refill with oil (see the LUBRICANTS section) via the level hole 1 (Fig. C10).
- The level is correct when the oil is flush with the hole.
- Refit the drain plug 1 (Fig. C10) and tighten it.
- Perform the same operation for each of the wheel reducers.

C11 - Overload

CHECK

- The overload must activate at between 1.1 and 1.2 times the nominal load (see CHAPTER 2 - General characteristics).

Expected result:

- 100 SC-2 > Nominal load 680 Kg: activation load between 748 kg and 916 kg
- 120 SC-2 > Nominal load 454 Kg: activation load between 499 kg and 544 kg
- 140 SC > Nominal load 363 Kg: activation load between 399 kg and 435 kg

- The overload sensors must activate at the same time.

Refer to the repair manual for information about adjusting the overload

In the case of malfunction, forbid usage of the nacelle. Consult your dealership.

C12 - Stopping distance

CHECK

Proper brake action is essential to safe machine operation. The drive brake function should operate smoothly, free of hesitation, jerking and unusual noise. Hydraulically-released individual wheel brakes can appear to operate normally when they are actually not fully operational.

- Mark a test line on the ground for reference.
- Start the engine from platform controls.
- Choose a point on the machine; i.e., contact patch of a tire, as a visual reference for use when crossing the test line.
- Bring the machine to maximum drive speed before reaching the start line. Release the function enable switch on the joystick or release the joystick when your reference point on the machine crosses the test line.
- Measure the distance between the test line and your machine reference point.

Expected result:

On horizontal ground	Stopping distance
Transport speed	less than 600 mm

CHECK BRAKE HOLDING ON A SLOPE

- The brakes must be able to hold the machine on any slope it is able to climb.

D - EVERY 500 HOURS OF OPERATION

Perform the operations described above as well as the following operations.

D1 - Air filter cartridge

REPLACE

- See the dismantling procedure § B1.

D2 - Engine oil

DRAIN - REPLACE

- Change the oil after the first 50 hours of operation and every 500 hours thereafter.
- Set the platform on a horizontal surface. Always switch off the engine before changing the engine oil.
- Remove the drain plug located on the lower part of the engine (Fig. D2).
- Drain out all the used oil.
- Add new engine oil up to the top mark on the dipstick.

Dispose of the drained oil in an environmentally friendly manner.
Tighten the oil filter only by hand and then lock it by turning it a quarter turn with the filter wrench.

D3 - Engine oil filter

REPLACE

- Unscrew and replace the oil filter when draining the engine oil.

D4 - Fuel filter cartridge

REPLACE

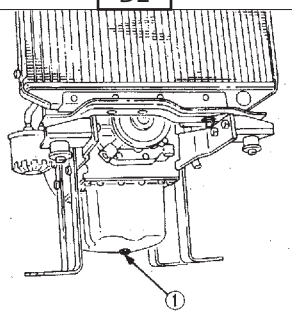
- Replace the petrol filter cartridge with a new one.
- Apply a fine layer of fuel oil to the seal and tighten the cartridge by hand
- Vent the air.
- Periodically replacing the fuel filter cartridge prevents premature wear on the plungers for the injection pump and the injector.

D5 - Injectors

(CONTACT YOUR DEALER)

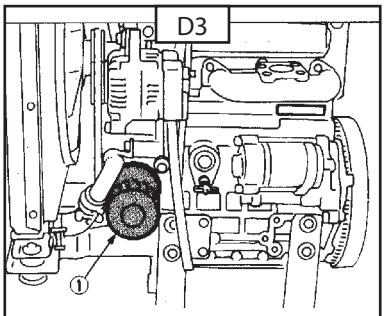
*(Contact your dealer)

D2



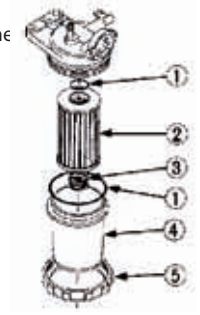
(1) Drain plug

D3



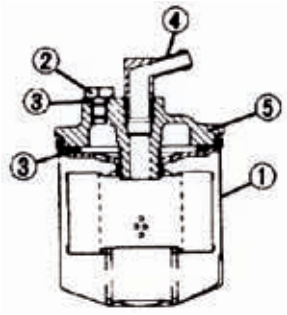
(1) Oil filter

D4-1



(1) O-ring
(2) Filter element
(3) Spring
(4) Filter housing
(5) Segment screw

D4-2



(1) Fuel filter cartridge
(2) Vent plug
(3) O-ring
(4) Hose seal
(5) Cover

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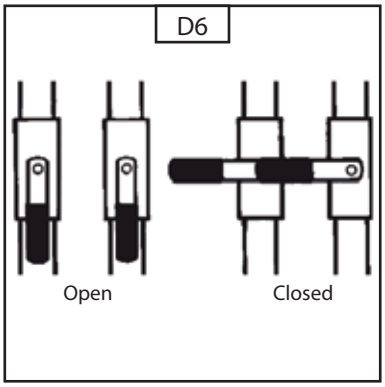
D6 - Hydraulic oil

DRAIN - REPLACE



- Set the platform on a horizontal surface in transport position, with the engine switched off.
- Raise the work platform approximately 3m.
- Turn the maintenance and then lower the scissors assembly by pressing on the arm.
- Close the hydraulic circuit shut off valves if the platform is equipped with these.

Use a very clean container and funnel and clean the top of the oil can before filling.
Dispose of the drained oil in an environmentally friendly manner.

The engine should not start if the automatic shut off valves on the hydraulic reservoir are in the closed position: there is a risk of damage to the components.
If the reservoir valves are shut, remove the machine's ignition key and stick a label on the platform to inform personnel of its condition.

- Remove the drain cap from the hydraulic reservoir and drain the reservoir completely into an appropriate container.

A fine spray of hydraulic oil can penetrate and burn the skin. Loosen hydraulic connections very slowly to enable the hydraulic pressure to dissipate gradually.

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E - EVERY 1000 HOURS OF OPERATION

Perform the operations described above as well as the following operations.

E1 - Fuel tank

DRAIN - CLEAN

- A dirty fuel tank can damage the fuel filter and reduce engine performance.

Never smoke or approach with a naked flame during this operation.
Clean up immediately any fuel spilt during this procedure.

Models with an automatic fuel cut-off valve:

- Close the manual fuel cut-off valve located above the fuel filter.
- Disconnect the filter return pipes and the injector fuel return pipe and protect them from contamination.
- Use a suitable pump to drain the fuel tank into an appropriate container.
- Detach the tank from the machine.
- Rinse the inside of the tank with a gentle solvent
- Inspect visually and by touch the parts likely to be subject to leaks on the fuel circuit and the fuel tank. In the event of a leak, please contact your dealer.
- Position the filter return pipes and the injector fuel return pipe on the tank.
- Fix the tank onto the machine, guiding the passage of the pipes. Tighten down the tank.
- Fix the filter return pipes and the injector fuel return pipe. Tighten the fixings.

Models with an automatic fuel cut-off valve:

- Open the manual fuel cut-off valve located above the fuel filter.

Never attempt to make a weld, or conduct any other operation yourself; this could cause an explosion or a fire.

E2 - Engine rubber chassis mounting blocks (*)

CHECK

- Check the rubber chassis mounting blocks for tightness and wear
- Replace them if they are cracked or torn

E3 - Engine speeds (*)

CHECK

*(Contact your dealer)

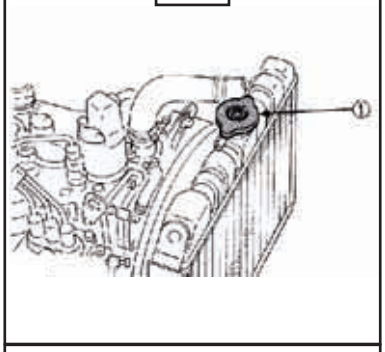
E4 - Coolant

DRAIN - REPLACE

- To drain the coolant, always open all the drain taps (Fig. E4-2) at once as well as the radiator cap (Fig. E4-1).
- The water cannot drain away completely with the radiator cap closed.
- Remove the overflow pipe from the radiator pressure cap to empty the expansion tank.
- Add the prescribed amount of coolant.
- Coolant will leak out if the radiator cap is poorly closed or there is a gap between the cap and the seat.

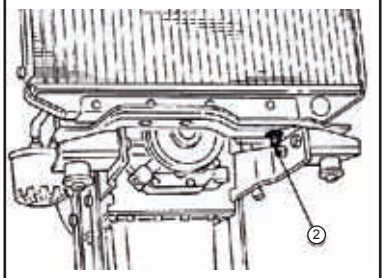
To avoid injury:
- Do not stop the engine suddenly. Only switch off 5 minutes after travelling unladen.
- Only work after letting the engine and the radiator cool down completely (more than 30 minutes after the engine has been switched off).
- Do not remove the radiator cap when the engine is hot. Then, only unscrew the cap slightly, with the engine switched off, to release any excessive pressure, before removing the cap completely.
- If the engine overheats, there is a risk that steam may jet out of the radiator or the emergency tank, resulting in serious scalds.

E4-1



(1) Radiator pressure cap

E4-2



(1) Coolant drain tap

E5 - Radiator (*)

CHECK - DESCALE

- Check that there is no dust or dirt between the radiator's fins and the water pipes. If there is any, carefully clean them by removing this.
- Check the tightness of the fan belt. Tighten it if it is loose.
- Check that there are no internal blockages in the rubber radiator hose.
- If scale has built up in the rubber hose, clean it away with a descaling treatment or an equivalent product.

E6 - Hydraulic circuit return filter

CLEAN

NB: The hydraulic filter is fitted on the hydraulic reservoir.
- Remove the filter.
- Clean the area where the hydraulic filter meets the head of the filter.
- Replace the filter.
- Apply a fine layer of oil again to the filter seal and then fit it, tightening it down tightly by hand.
- Recommendation: use a permanent ink marker to write the date and the number of hours on the filter.
- Raise the scissors assembly 1m.
- Inspect the filter and the hydraulic components for any leaks.

E7 - Movement speeds (*)

CHECK

*(Contact your dealer)

E8 - State of the hoses and rubber pipes

CHECK

- Check the apparent condition of the hoses (cracking), which are subject to thermal stresses and UV; their technical characteristics may be affected (porous spots).

WARNING ABOUT LEAKS

Hydraulic oil escaping under high pressure can penetrate the skin and cause severe injuries. Immediately consult a doctor if anyone is injured by a high-pressure jet of oil.

If you are in any doubt about a possible leak, do not look for it with your hand; instead, check with a piece of cardboard, while protecting your hands and body.

For safety's sake, replace any worn hoses.

E9 - State of the cylinders (leaks, rods)

CHECK

E10 - State of the cable bundles and the cables

CHECK

E11 - Front & rear wheel reducer oil

DRAIN – REPLACE

*(Contact your dealer)

F - EVERY 2000 HOURS OF OPERATION

Perform the operations described above as well as the following operations.

F1 - Valve play (*)

CHECK – REGULATE

F2 - Water pump and thermostat (*)

CHECK

F3 - Alternator and starter (*)

CHECK

F4 - Hydraulic circuit pressures (*)

CHECK

F5 - Hydraulic circuit flow rates (*)

CHECK

F6 - Hydraulic oil reservoir (*)

CLEAN

- The hydraulic reservoir is a ventilated tank fitted with a snuffler, which can become blocked or deteriorate.
- If the snuffler is defective, impurities can get into the hydraulic circuit and cause damage to the components.
- If the platform is used in a dirty environment, inspect the snuffler more often.
- Install a new snuffler on the reservoir.

*(Contact your dealer)

G - EVERY 4000 HOURS OF OPERATION

Perform the operations described above as well as the following operations.

G1 - Steering joints (*)

CHECK

G2 - Wear on the front & rear brake discs (*)

CHECK

G3 - Play in the rear wheel reducers (*)

CHECK

*(Contact your dealer)

H - OCCASIONAL MAINTENANCE

H1 - Fuel feed circuit (*)

BLEED

H2 - Wheel

CHANGE

For this operation, we recommend that you use the MANITOU hydraulic jack,
Reference 505507, and the MANITOU safety stand, Reference 554772.

- If possible, stop the platform on a stable, level surface.
- Proceed to stop the platform (see: 1 – SAFETY INSTRUCTIONS AND ADVICE: DRIVING INSTRUCTIONS WHEN LADEN AND UNLADEN).
- Chock the platform in both directions on the axle opposite the wheel to be changed.
- Loosen the nuts on the wheel to be changed until they can be removed quite easily.
- Set the jack on the axle carrier as close as possible to the wheel and then adjust the jack (Fig. G2/1).
- Lift the wheel until it detaches slightly from the ground and set the safety stand under the axle (Fig. G2/2).
- Fully loosen the nuts on the wheel and remove them.
- Release the wheel by moving it to and fro and roll it to one side.
- Slide the new wheel on to the hub.
- Screw up the nuts by hand and grease them if necessary.
- Remove the safety stand and lower the machine using the jack.
- Tighten the wheel nuts with a torque wrench.

*(Contact your dealer)

- Take note of the position of the platform's centre of gravity for lifting it.
- Insert hooks in the anchoring points provided for this purpose.
- Lower the platform fully. Ensure that the extension, the controls and the bonnets are secured. Remove any elements not fixed onto the machine.
- Determine the machine's centre of gravity using the table and the illustration on this page.
- Attach the tying systems only to the specified lifting points on the machine.
- Adjust the whole system avoid damaging the machine and to keep it level.

Centre of gravity	***Axis X***	***Axis Y***
100 SC-2	108,1 cm	78,5 cm
120 SC-2	108,2 cm	79,8 cm
140 SC	98,6 cm	79 cm