

OPERATION AND MAINTENANCE INSTRUCTIONS



PUSH AROUND Quick Up 7 - 8 - 9 - 11 - 12 - 13 - 14

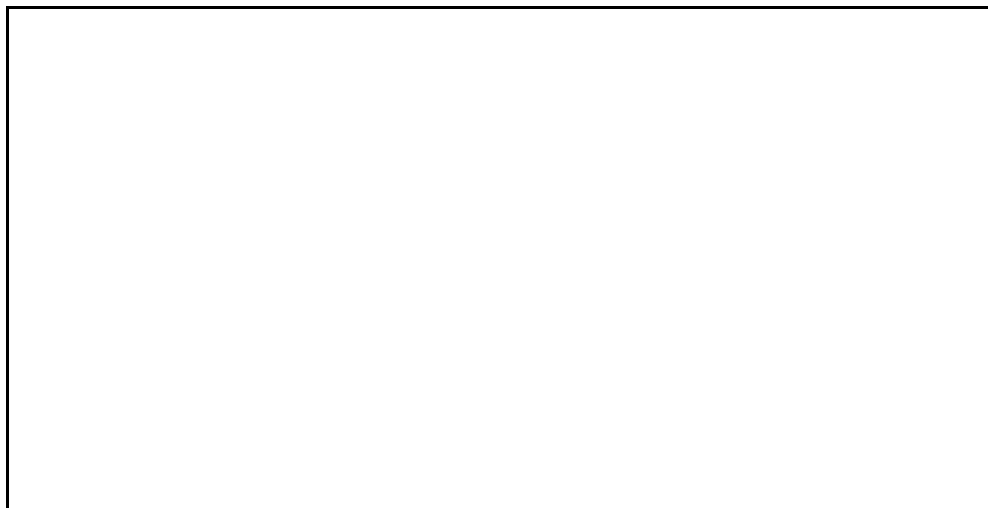
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Why use only Haulotte original spare-parts ?

1. RECALLING THE EEC DECLARATION OF CONFORMITY IN QUESTION

Components, substitutions, or modifications other than the ones recommended by **Haulotte** may recall in question the initial security conditions of our **Haulotte** equipment. The person who would have intervened for any operation of this kind will take responsibility and recall in question the EEC marking validity granted by **Haulotte**. The EEC declaration will become null and void and **Haulotte** will disclaim regulation responsibility.

2. END OF THE WARRANTY

The contractual warranty offered by **Haulotte** for its equipment will no longer be applied after spare-parts other than original ones are used.

3. PUBLIC AND PENAL LIABILITY

The manufacture and unfair competition of fake spare-parts will be sentenced by public and penal law. The usage of fake spare-parts will invoke the civil and penal liability of the manufacturer, of the retailer, and, in some cases, of the person who used the fake spare-parts.

Unfair competition invokes the civil liability of the manufacturer and the retailer of a “slavish copy” which, taking unjustified advantage of this operation, distorts the normal rules of competition and creates a “parasitism” act by diverting efforts of design, perfection, research of best suitability, and the know-how of **Haulotte**.

FOR YOUR SECURITY, REQUIRE HAULOTTE ORIGINAL SPARE-PARTS



4. QUALITY

Using **Haulotte** original spare-parts means guarantee of :

- High quality parts
- The latest technological evolution
- Perfect security
- Peak performance
- The best service life of your **Haulotte** equipment
- The **Haulotte** warranty
- **Haulotte** technicians' and repair agents' technical support

5. AVAILABILITY

Using Haulotte original spare-parts allows you to take advantage of 40 000 references available in our permanent stock and a 98% service rate.

WHY NOT TAKE ADVANTAGE ?



GENERAL

You have just received your Quick Up machine.

This machine will give you total satisfaction if you follow these operation and maintenance instructions carefully.

This manual is intended to help you.

We insist on the importance of:

- compliance with the safety instructions concerning the machine itself, its use and its environment,
- use within the limits of the machine,
- correct maintenance, which will affect the machine's lifetime.

During and after the warranty period, our Aftersales department is available to provide any services you may require.

When contacting your local agent or our aftersales department, specify the exact machine type and its serial number.

When ordering consumables or spare parts, use this manual and the "Spare parts" catalogue to ensure use of original parts, which is the sole guarantee of interchangeability and proper operation.

This instruction manual is supplied with the machine and is mentioned on the delivery note.

REMINDER: Quick Up machines conform to the clauses of the Machines Directive, 89/392/CEE dated June 14 1989, amended by directives 91/368/CEE dated June 21 1991, 93/44/CEE dated June 14 1993, 93/68/CEE (98/37/CE) dated July 22 1993 and 89/336 CEE dated May 3 1989; as well as to directive 2000/14/CE and directive EMC/89/336/CE.



Caution!

**THE TECHNICAL DATA GIVEN IN
THIS MANUAL IS NOT BINDING.
WE RESERVE THE RIGHT TO
MAKE IMPROVEMENTS OR
ALTERATIONS WITHOUT
MODIFYING THIS MANUAL.**

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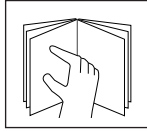
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1 - GENERAL RECOMMENDATIONS - SAFETY

1.1 - GENERAL WARNING



1.1.1 - Manual

This manual aims to help the operator to get to know the Quick Up machine to provide for efficient and SAFE use. However, this manual cannot be a substitute for the basic training required by any site equipment operator.

The company manager is required to inform operators of the recommendations in the instruction manual. He is also responsible for applying any "user regulations" in force in the country of use.

Before using the machine, it is essential to be familiar with and understand all these instructions to ensure safe and efficient use of the equipment.

This instruction manual must be available to all operators. Extra copies can be supplied on request.

1.1.2 - Labels

Potential hazards and machine instructions are indicated by labels and plates. Read the instructions on these labels and plates.

All labels use the following colour code:

- Red indicates a potentially fatal hazard.
- Orange indicates a hazard that may cause serious injury.
- Yellow indicates a hazard that may cause material damage or slight injury.

The company manager must ensure that all labels and plates are in good condition and legible. Extra copies can be supplied by the manufacturer on request.



1.1.3 - Safety

Ensure that any person entrusted with the machine is able to comply with the safety measures required by its use.

Avoid any work conditions liable to affect safety. Any use that does not conform to the instructions may incur risks and damage to people and materials.



Caution!

To attract the reader's attention, instructions are indicated by this standard symbol.

Ensure that all plates and labels related to safety and hazards are complete and legible.

1.2 - GENERAL SAFETY INSTRUCTIONS



Caution!

Only trained operators may use Haulotte self-propelled platforms.

1.2.1 - Operators

Operators must be aged over 18 and hold an operating permit issued by the employer after verification of physical aptitude and practical platform operation tests.

There must be at least two operators so that one can:

- react quickly in an emergency,
- take over the controls in the event of accident or failure,
- monitor and prevent vehicles and pedestrians from moving around the platform,

1.2.2 - Environment

This machine is for indoor use only.

Never use the machine:

- on soft, unstable or cluttered ground,
- on a slope that is greater than the permitted slope,
- with a windspeed higher than the permitted limit. If the machine is used outside, use an anemometer to check that wind speed is less than or equal to the permitted limit.
- near electric lines (find out minimum distances according to voltage),
- in temperatures of less than -29°C (particularly in cold rooms), consult us if work is to be carried out at less than -29°C.
- in an explosive atmosphere,
- during storms (lightning risk),
- in the dark without floodlighting,
- in the presence of intense electromagnetic fields (radar, or high currents).

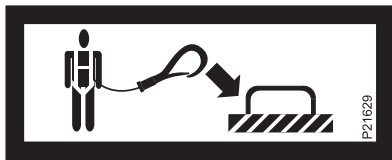
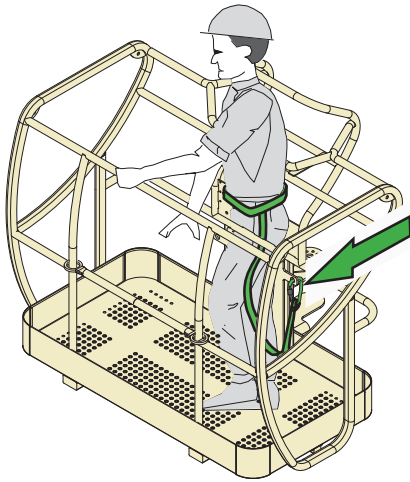


1.2.3 - Using the machine

It is important to ensure that in normal operation, i.e. platform operation, the platform/turntable station selection key must be removed and kept on the ground by a person present and trained in emergency/rescue manoeuvres.

Do not use the machine with:

- load greater than the allowed load,
- more people than the authorised number,
- a lateral force in the platform greater than the permissible limit (See Chap 2.3, page 9).



Caution!

Do not use the machine as a crane, goods lift or elevator.



To reduce the risk of **falls**, operators **must comply with the following instructions**:

- firmly hold the barrier when the machine is moving,
- wipe all traces of oil or grease from the steps, floor or hand rails,
- wear personal protective gear suited to the work conditions and applicable local regulations, in particular when working in hazardous areas,
- do not disable the safety end of travel sensors,
- avoid hitting stationary or moving obstacles,
- do not use ladders or other accessories to increase working height,
- do not use the barrier as a means of access to climb into or out of the platform (use the steps provided on the machine),
- do not climb on the barrier while the machine is raised,
- do not use the machine without setting up the platform's protective bar or closing the safety gate,
- do not climb on the covers.

All Quick Up machines are equipped with approved anchor points that will accept a single harness per point of anchor. These anchor points are indicated by the label opposite.

If local and government regulations in force in the country of use impose the wearing of a harness, we recommend use of these approved anchor points.

To avoid **risks of overturning**, operators **must comply with the following instructions**:

- stabilisers must always be engaged whilst the platform is raised and must not be released until the platform is in the fully stowed position,
- do not disable safety end of travel contactors,
- respect the maximum load, and the number of people authorised in the platform,
- spread the load and place in the centre of the platform if possible,
- check that the ground resists the pressure and load per wheel,
- avoid hitting stationary or moving obstacles,
- do not use the machine with a cluttered platform,
- do not use the machine with equipment or objects hanging from the guardrails,
- do not use the machine with elements that may increase its wind resistance (e.g.: panels),
- do not perform machine maintenance operations while the machine is raised without implementing the necessary safety precautions (gantry crane, crane),
- perform daily checks and monitor correct operation during periods of use.

NOTE: *Do not tow the Quick Up (it is not designed to be towed and must be transported on a trailer).*

1.3 - RESIDUAL RISKS

1.3.1 - Risks of trembling or overturning

The risks of trembling or overturning are high in the following situations:

- sudden action on the control levers,
- platform overload,
- ground collapse (be careful during thaw periods in winter),
- gusts of wind,
- hitting an obstacle on the ground or overhead,
- working on raised pavements, etc.

1.3.2 - Electric risks

Electric risks are high in the following situations:

- contact with a live line,
- use during storms.

See "Minimum safety distances", page 6

1.3.3 - Risks of explosion or burning

The risks of explosion or burning are high in the following situations:

- work in an explosive or inflammable atmosphere,
- use of a machine with a hydraulic leak.

1.3.4 - Risks of collision

- Risk of crushing people located within the machine's operating area.
- The operator must evaluate any overhead risks before using the machine.



Caution!

If the machine has a 220 V, 16A max. socket, the extension must be connected to a mains socket, protected by a 30mA differential circuit breaker.



1.4 - VERIFICATIONS

Comply with current legislation in the country of use.

In FRANCE: Order dated March 1st 2004 + DRT 2005-04 instruction dated march 24th 2005 specifying:

1.4.1 - Periodic checks

The machine must be examined every 6 months to detect any defects that may cause an accident.

These examinations are carried out by an external organisation or a person specially appointed by the company manager and reporting directly to him (employee of the company or otherwise) Articles R 233-5 and R 233-11 of the Labour Code.

The results of these examinations are recorded in a safety log kept by the company manager, available at all times to the factory inspector and the company's health and safety committee, if the re is one. The list of any specially appointed persons is also to be available similarly (Article R 233-5 of the Labour Code).

NOTE: *This log can be obtained from professional organisations and from the OPPBTP or private prevention organisations.*

The appointed persons must be experienced in the field of risk prevention (Articles R 233-11 of decree no. 93-41).

No-one may perform any verifications during machine operation (Article R 233-11 of the Labour Code).

1.4.2 - Examination of machine suitability

The manager of the company in which this machine is used must ensure that the machine is suitable, i.e. suitable to the work to be carried out safely and that it is used in compliance with the instruction manual. Furthermore, the French order dated 01/03/2004 refers to problems related to rental, examination of the state of repair, verification before resuming operation after repair, and the static test conditions coefficient 1.25 and dynamic test coefficient 1.1. Each user manager must find out and comply with the requirements of this order.

1.4.3 - State of repair

The user manager must detect any deterioration liable to cause dangerous situations (safety systems, load limiters, tilt control, jack leaks, deformation, state of welds, tightness of bolts, hoses, electric connections, condition of tyres, excessive mechanical play).

NOTE: If the machine is rented, the user manager of the rented machine is responsible for checking the state of repair and machine suitability. He must make sure with the lessor that the general periodical checks and verifications before use have been carried out.

1.5 - REPAIRS AND ADJUSTMENTS

Major repairs, interventions or adjustments of the safety systems or devices (concerning mechanical, hydraulic or electric elements) must be carried out by manufacturer or distributor personnel or people working on behalf of the manufacturer and use original parts only.

Any modification not controlled by the manufacturer or distributor is not authorised.

The manufacturer or distributor cannot be held responsible if original parts are not used or the work specified above is not carried out by personnel approved by the manufacturer or distributor.

1.6 - VERIFICATIONS BEFORE RESUMING OPERATION

To be carried out after:

- major dismantling/remounting operations,
- repair of the essential elements of the machine,
- any accident caused by failure of an essential element.

A suitability check, check of state of repair, static test and dynamic test must be carried out (See Chap 1.4.2, page 5).

1.7 - BEAUFORT SCALE

The Beaufort Scale is recognised throughout the world for measuring wind force and communicating weather conditions. The scale goes from 0 to 17 and each level represents a certain wind force or speed at 10 m (33 feet) on flat, clear ground.

Wind description	Effects observed on land	Kmh	m/s
0 Calm	Smoke rises vertically	0-1	0-0.2
1 Light air	Smoke indicates wind direction	1-5	0.3-1.5
2 Light breeze	Wind felt on fac. Leaves rustle. Wind vanes move	6-11	1.6-3.3
3 Gentle breeze	Leaves and small twigs constantly moving, flags move slightly	12-19	3.4-5.4
4 Moderate breeze	Dust and light papers lifted, small branches move	20-28	5.5-7.9
5 Fresh breeze	Small trees sway. Waves form on lakes	29-38	8.0-10.7
6 Strong breeze	Large branches move, electric wires and chimneys whistle. Umbrellas difficult to use	39-49	10.8-13.8
7 Near gale	All trees move. Resistance felt walking against the wind	50-61	13.9-17.1
8 Gale	Broken branches, generally cannot walk against the wind	62-74	17.2-20.7
9 Strong gale	Wind causes slight damage to buildings. Tiles and chimney pots lifted from rooftops.	75-88	20.8-24.4

1.8 - MINIMUM SAFETY DISTANCES

- Quick Up machines are not insulated. They must therefore be kept clear of electric lines and switchgear, conform to applicable regulations and the following diagram:

Electric voltage	Minimum safety distance	
	Mètre	Feet
0 - 300 V	Avoid contact	
300 V - 50 kV	3	10
50 kV - 200 kV	5	15
200 kV - 350 kV	6	20
350 kV - 500 kV	8	25
500 kV - 750 kV	11	35
750 kV - 1000 kV	14	45

NOTE: This table is applicable, except when the local regulations are more strict.

2 - PRESENTATION

Quick Up machines, types 7, 8, 9, 11, 12, 13 and 14 are designed for overhead work within the limits of their characteristics (Chap. 2.3, page 9) in compliance with the safety instructions specific to the equipment and places of use.

The machine is equipped with two control panels:

- the control panel on the platform is used normally for machine operation;
- the control panel on the mast is used to check correct operation and stability of the machine. It is also an emergency panel that can be used by a second operator if the operator in the platform is unable to return to the ground (fainting, etc.).

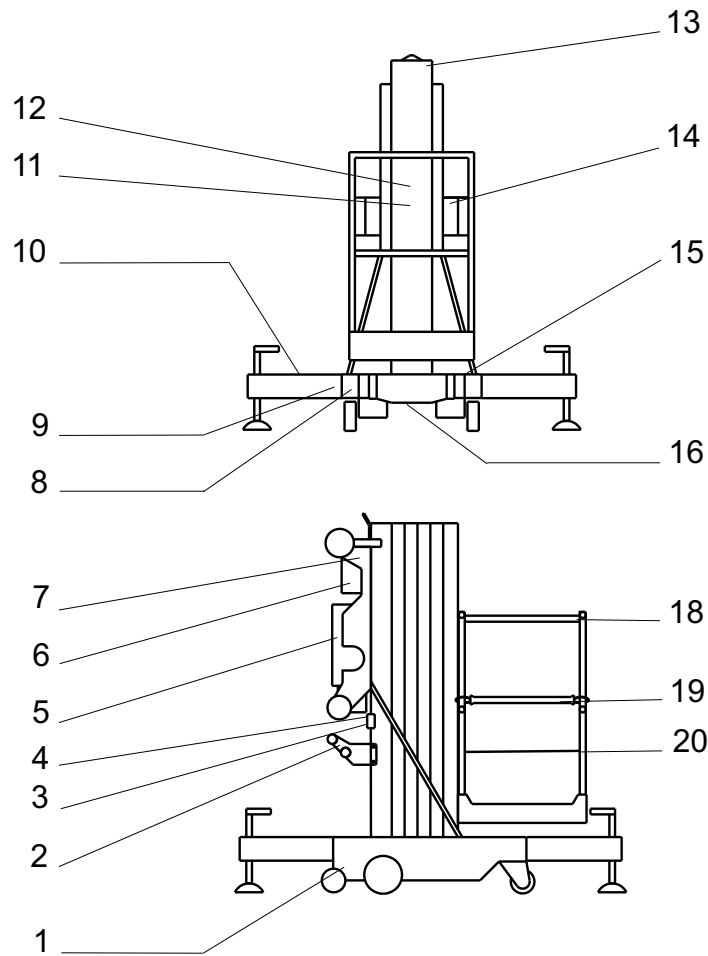
2.1 - IDENTIFICATION

A plate on the front of the chassis is engraved with the machine's identification information.

REMINDER: When requesting information, intervention or spare parts, specify the type and serial number of the machine.

2.2 - MAIN COMPONENTS

Fig. 1 - Main components



1 - Chassis	11 - Electric sockets
2 - Loading support bar	12 - Platform control panel
3 - Support bar lowering stop	13 - Mast top
4 - Blocking pin positioning point	14 - Stabiliser bar support in transport position
5 - Hydraulic unit	15 - Tilt sensor
6 - Mast control panel	16 - Handling bar
7 - Electric motor	17 - Mast
8 - Stabiliser bar blocking pin	18 - Platform
9 - Stabiliser bar support in work position	19 - Platform access bar
10 - Stabiliser bar	20 - Harness anchor point

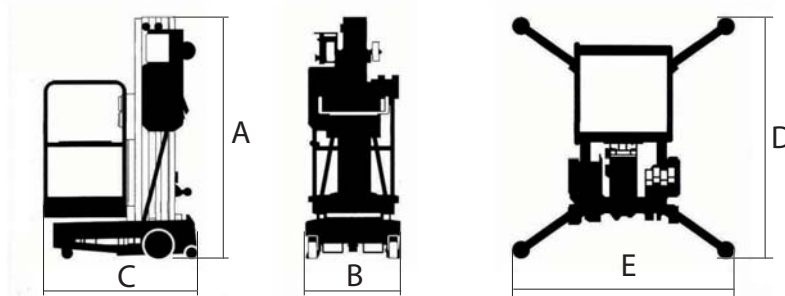
2.3 - TECHNICAL CHARACTERISTICS

2.3.1 - Quick Up technical characteristics

	7	8	9	11	12	13	14
Working height (m)	6.50	7.90	9.30	10.70	12.00	12.80	13.90
Floor height (m)	4.50	5.90	7.30	8.70	10.00	10.80	11.90
Useful load (kg)	159				136		
Mains power (V)	110 - 220						
Battery power (V)	12						
Operating temperature	- 29° C to 57° C						
Sound level	80 dB						
Mass (mains version) (kg)	346	366	386	421	460	461	565
Mass (battery version) (kg)	366	386	406	441	480	501	585
Slope	0°						
A - Folded height (m)	1,97					2,77	
B - Folded width (m)	0.74					0.80	
C - Folded length (m)	1.21	1.27	1.34	1.40	1.46	1.34	1.40
Platform dimensions (m)	0.66 x 0.68						
D x E - Floor space taken with stabiliser bars extended (m)	1,70 x 1,40			1,9 x 1,6	2,10x1,81		2,32x2,02
Max. wind speed (km/h)	0 km/h						

2.4 - SIZE

2.4.1 - Size

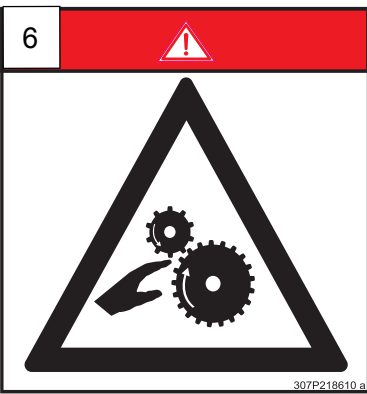


2.5 - LABELS

2.5.1 - List of labels

<i>Ref</i>	<i>Code</i>	<i>Qty</i>	<i>Description</i>
1	307P218560	1	Floor height + load (Quick Up 7 - 8 - 9 - 11)
1	307P222880	1	Floor height + load (Quick Up 12 - 13 -14)
2	307P218570	1	Danger
3	307P218580	1	Do not climb ...
4	307P218590	1	Risk of overturn
5	307P218600	1	Collision risk
6	307P218610	1	Hand crush
7	307P218620	1	Manual repair
8	307P218660	1	Forbidden: danger
9	307P218680	1	Tilt
10	307P218690	1	Stabiliser locking
11	307P218700	1	Lock for loading
12	307P218710	1	Disconnect the battery
13	307P220060	1	Operating instructions
14	307P216290	1	Harness anchor point
15	307P215920	1	Lifting point
16	3078143680	1	See operating instructions
17	307P217120	1	Risk of body crush
18	3078143610	1	Burn risk - Wear protective gear
19	307P220190	1	Turret lectern
20	307P220200	1	Platform lectern
21	307P217080	1	HAULOTTE Group logo
22	307P222920	1	Battery Weight

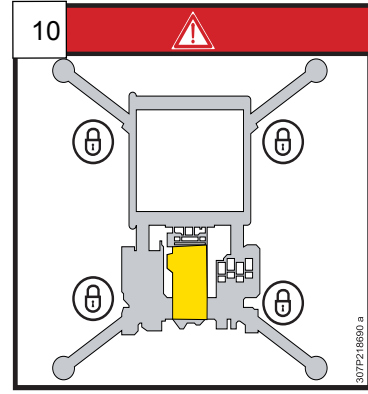
2.5.2 - Common "red" labels



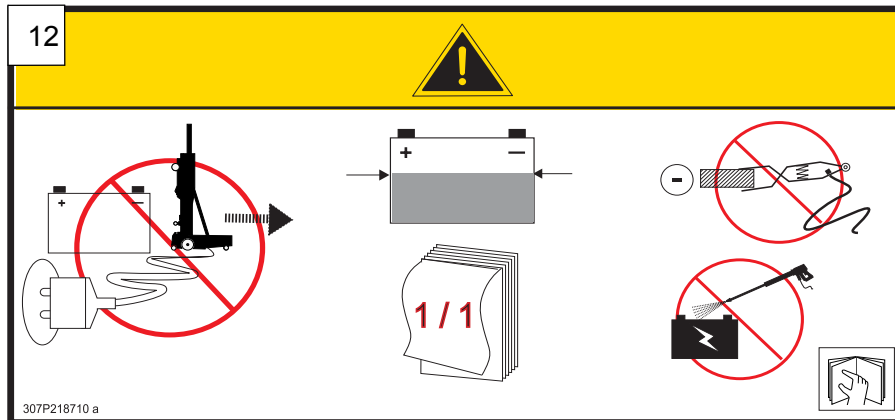
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0 → 300 V	1m
300 → 50 kV	3.05 m
50 kV → 200 kV	4.60 m
200 kV → 350 kV	6.10 m
350 kV → 500 kV	7.62 m
500 kV → 750 kV	10.67 m
750 kV → 1000 kV	13.72 m

307P218660 a



2.5.3 - Common "yellow" labels



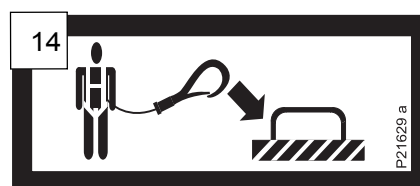
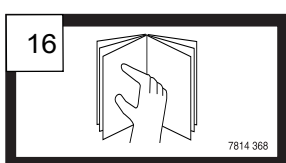
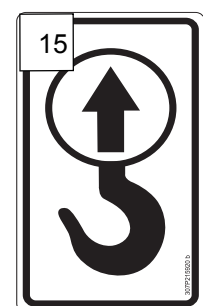
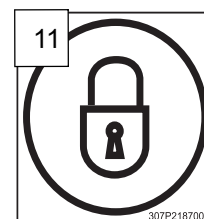
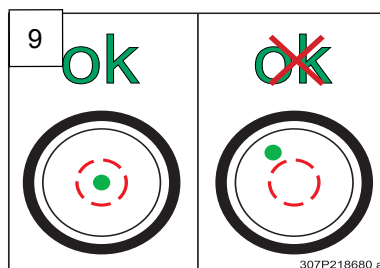
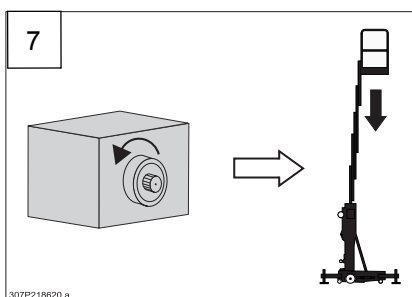
2.5.4 - Common "orange" labels

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USER NOTES	DAILY INSPECTION
<p>PLEASE READ CAREFULLY BEFORE OPERATING THE MACHINE THE OPERATOR MUST:</p> <ol style="list-style-type: none"> 1 - Read and understand the information in the operating manual and the symbols and instructions on the machine and familiarise himself with the controls. 2 - Have received training and practice as an operator under the responsibility of his employer. 3 - Ensure proper maintenance of the machine in accordance with the manufacturer's specifications. 4 - Not use the machine in the event of a technical failure. 5 - Not hydro-blast any of the electrical components of the machine. 6 - Not remove any parts from the machine, as this may affect the stability of the machine. 7 - Not make any changes or alterations to the machine unless he has obtained formal approval from the manufacturer. 8 - Not use the machine as a welding mass. 9 - Not carry out any welding works on the machine unless the battery terminal has been disconnected (see operating and maintenance manuals). <p>DO NOT OPERATE THE MACHINE WHILE THE BATTERIES ARE BEING RECHARGED!</p>	<ol style="list-style-type: none"> 1 - Check level of battery fluid.. 2 - Check that there are no faults or defects on the machine (leakage of hydraulic parts, screws, electrical connections).
	INSTRUCTIONS BEFORE USE
	<p>IMPORTANT. The plug must be connected to an electrical installation which is protected by a differential circuit-breaker (30 mA). (Standard C15 100)</p>
	LAUNCH
	<ol style="list-style-type: none"> 1 - Connect machine. 2 - Insert key and turn selector switch to "lower control station". 3 - Release Emergency-Stop button. 4 - The light signal indicating the launch of the machine will come on. 5 - The light signal indicating circuit or battery supply will come on.

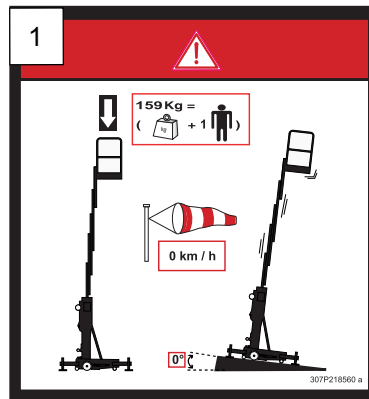
307P220060 A

2.5.5 - Miscellaneous common labels

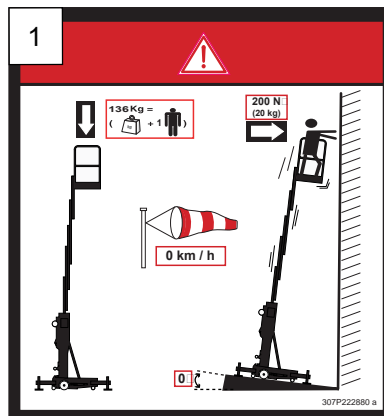


2.5.6 - Specific "red" labels

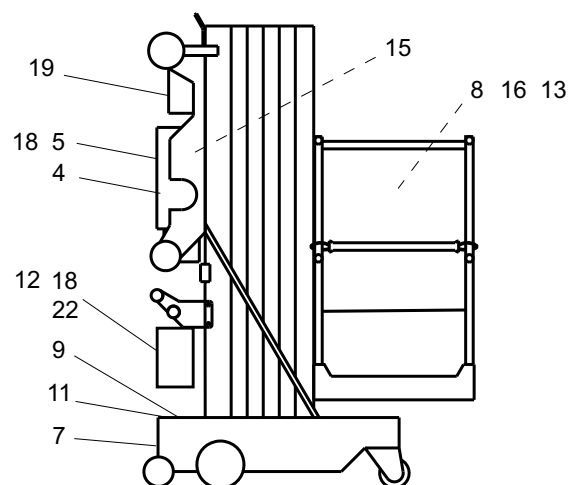
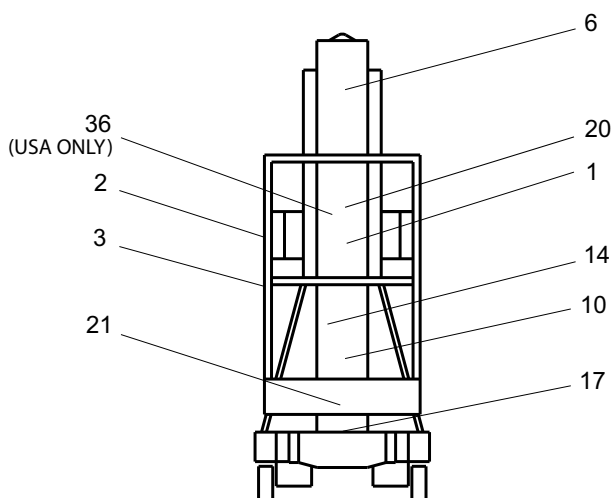
Quick Up 7 - 8 - 9 - 11 :



Quick Up 12 - 13 -14 :



2.5.7 - Positioning labels



3 - OPERATING PRINCIPLE

3.1 - HYDRAULIC CIRCUIT

The Quick Up machine's up/down movement is powered by hydraulic energy from an electropump supplied with 12V, 110V or 220V (ref. 2 page 35).

This pump supplies a single action lifting jack.

Circuit pressure is limited to 144b by a pressure limiter (ref. 3 page 35).

A suction filter protects the installation from pollution.

Lifting speed depends on pump output.

Lowering speed depends on the output regulator (ref. 5 page 35) built into the lifting jack; the jack is lowered under the effect of the weight of the load when the electrovalve lower command is activated (ref. 4 page 35). This electrovalve is equipped with a manual emergency command in the event of control solenoid failure.

3.2 - ELECTRIC CIRCUIT

The electric power used to drive the electropump and supply the commands comes from a 12V 100Ah battery or 110 or 220V mains supply. The electric circuit has two separate parts:

- power circuit, for electropump operation: 12V or 110V or 220V.
- control circuit: 12V for supply of commands and safety systems.

3.2.1 - Stabiliser control

4 detectors establish authorisation enabling platform lifting.

4 - USE

4.1 - UNLOADING - LOADING - MOVING



Caution!

Incorrect manoeuvres can cause the machine to fall, causing very serious injuries and material damage.



Caution!

Before making any movements, make sure there are no obstacles that may hinder manoeuvres.



Caution!

No operators should be inside the platform during the various manoeuvres.

Before any manipulation:

- check that the machine is in good condition and that it was not damaged during transport. If damage is observed, make any reserves to the transport company,

- check that no tools or debris are in the platform,

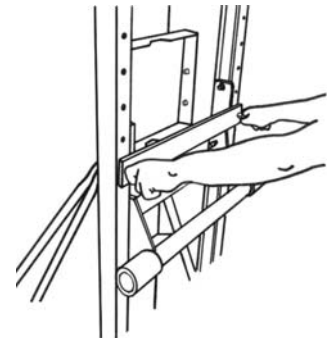
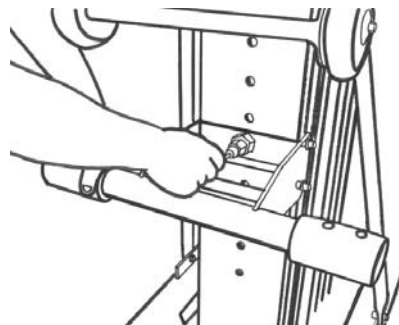
- make sure that the platform is fully folded and that the stabilisers are retracted.

4.1.1 - Manual loading

Carry out loading operations on a stable, flat and clear surface that is sufficiently resistant.

NOTE: *For battery machines, place the battery in the basket and secure with straps during transport.*

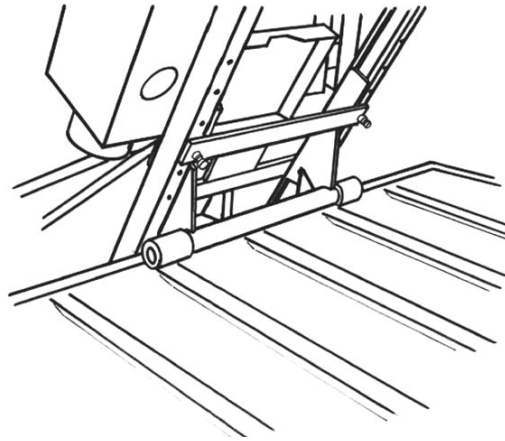
- Release the loading pivot blocking pin.



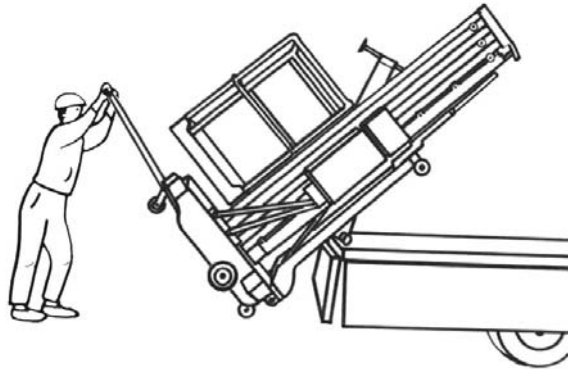
Caution!

Make sure that the truck floor is able to bear the weight of the Quick Up.

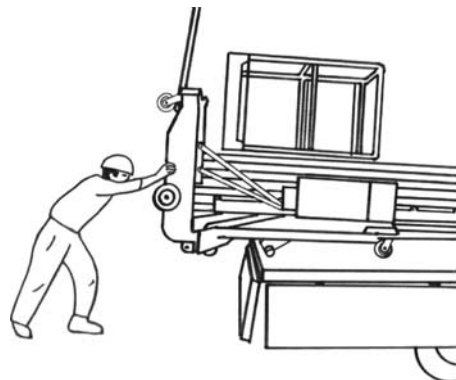
- Lower the loading pivot until it comes into contact with the floor of the transport vehicle. Remember to put the blocking pin into place before manoeuvring the QUICK UP.



- Release the handling bar, pull towards you and lock again to enable totally safe handling of the Quick Up.
- Tip the Quick Up forwards to position it on the floor.



- Push so that the whole machine is on the transport vehicle after retracting the handling bar



4.1.2 - Manual unloading

REMINDEr: Perform unloading operations on a stable, flat and clear surface that is sufficiently resistant.

- Perform the same operations as for loading but in reverse order.
- When loading, be careful that the Quick Up does not fall off the truck (overturn).

4.1.3 - Unloading with a lift truck



Caution!

A lift truck can only be used to unload the Quick Up if it is vertical



Caution!

Never stand underneath or too close to the machine during manoeuvres.

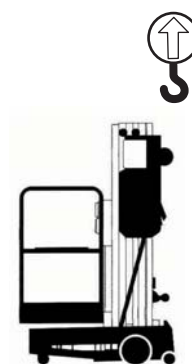
Precautions: use a lift truck of sufficient capacity and make sure that:

- the machine is totally folded,
- the personnel operating the manoeuvres is authorised to use lifting equipment,
- the machine is stable.

- Unloading:
 - lift slowly, ensuring that the load is distributed evenly and set the machine down gently.

4.1.4 - Unloading by lifting

- Use a sling.
- Precautions: check that:
 - the lifting accessories are in good working order and of sufficient capacity,
 - the sling accessories can bear the weight and are not abnormally worn,
 - the slinging lugs are clean and in good condition,
 - the personnel operating the manoeuvres is authorised to use lifting equipment.
- Unloading:
 - fasten the sling to the slinging lug,
 - lift slowly, ensuring that the load is distributed evenly and set the machine down gently.



4.1.5 - Moving

BEFORE ANY MOVEMENT:

- **MAKE SURE THERE ARE NO PEOPLE, HOLES, BUMPS, SLOPES, OBSTACLES, DEBRIS AND COVERS THAT MAY DISSIMULATE OTHER HAZARDS ON THE ROUTE**
- **CHECK THAT THERE IS ENOUGH ROOM TO MOVE THE MACHINE IN RESTRICTED AREAS**
- **ASK ANOTHER OPERATOR TO HELP MOVE THE MACHINE IF VISIBILITY IS LIMITED.**

**Caution!**

To avoid all risk of overturning, drive with the Quick Up platform towards the front on flat surfaces.

REMINDER: Perform manoeuvres on stable, flat and clear surfaces that are sufficiently resistant. Make sure the platform is fully folded and the stabilisers are retracted.

**Caution!**

Makes sure that non-operative personnel are at least 1.8m from the machine during movement.

TO GO UP OR DOWN A SLOPE:

- TWO OPERATORS ARE REQUIRED TO GO DOWN SLOPES OF 5°. USE A LIFT TRUCK TO MOVE THE MACHINE ON SLOPES OF MORE THAN 5°.
- IT IS ESSENTIAL TO MOVE UP OR DOWN A SLOPE WITH THE END OF THE MACHINE PLATFORM POINTING DOWNHILL. THE TWO OPERATORS MUST REMAIN BESIDE THE QUICK UP TO GUIDE IT.

4.2 - OPERATIONS BEFORE FIRST USE

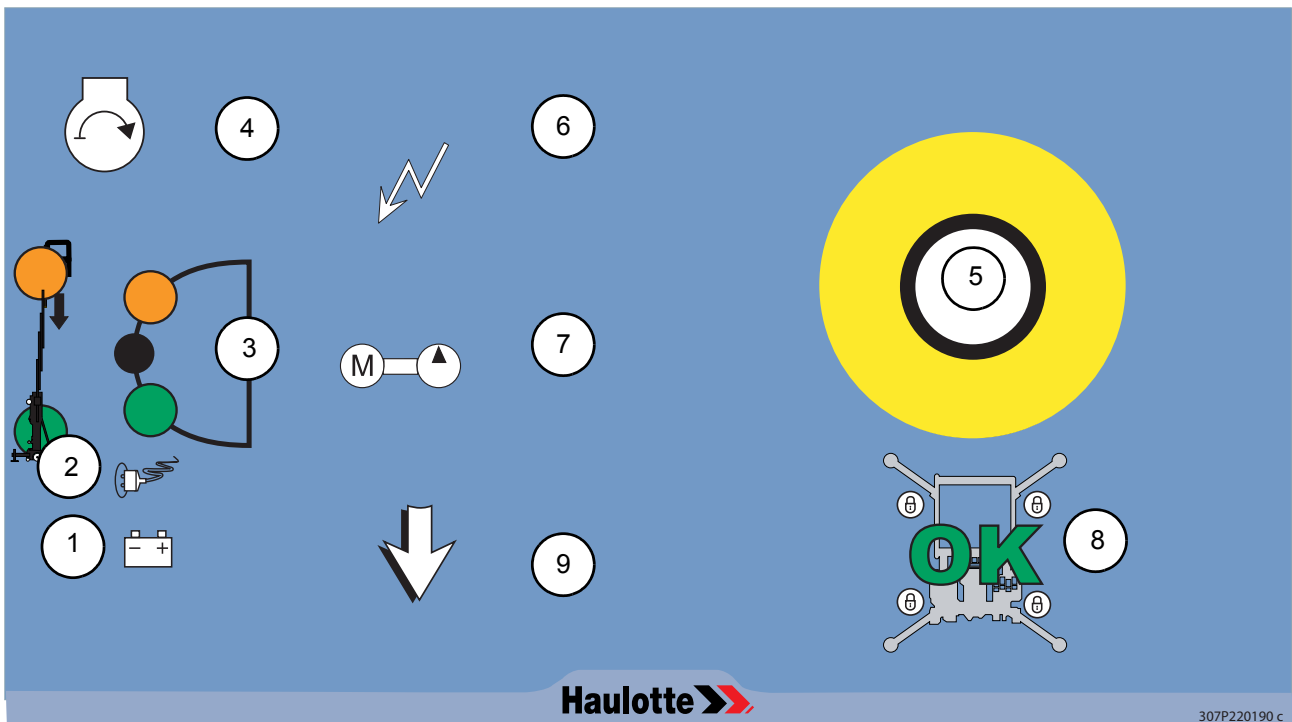
REMINDER: Before any operation, get to know the machine by reading this manual and the instructions marked on the various plates.

Before using the machine:

- Identify obstacles such as cranes, lifting equipment, construction machines in the working area.
- Make sure that operators of other overhead or ground level machines are aware of the presence of the Quick Up.
- The operator must take the safety precautions necessary to avoid all risks in the work area.

4.2.1 - "Mast" control panel

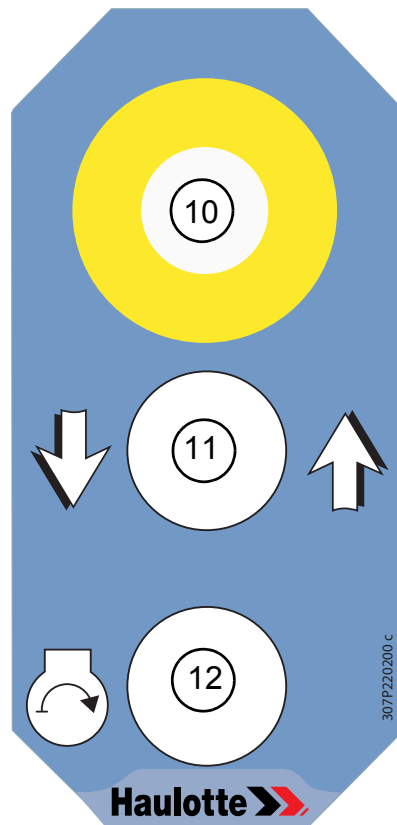
Photo 1: "Mast" control panel



1 - Mains light indicator	6 - Power on light indicator
2 - Battery light indicator	7 - Emergency lowering push button
3 - Platform/chassis control panel/machine stop selection	8 - Stabiliser bar OK light indicators
4 - Start push button	9 - Lowering light indicator
5 - Emergency stop push button	

4.2.2 - "Platform" control panel

Photo 2: Platform control panel



10 - Emergency stop button
11 - Up/down switch
12 - Start button

⚠ Caution!
DURING HIGH PRESSURE WASHING, DO NOT DIRECT THE JET AT THE ELECTRIC BOXES AND CABINETS

4.2.3 - Checks before use

- Make sure that the machine is on a flat, stable floor that can take the weight of the machine
 - Visually inspect the whole machine for paint chips, leaking battery acid, etc.
 - Check that there are no loose bolts, nuts, connections or hoses, no oil leaks, no broken or disconnected electric wires.
 - Check the mast, chassis, stabiliser bars and platform: no visible damage, no indications of wear or deformation.
 - Check that there are no leaks, traces of wear or impact, scratches, rust or foreign matter on the jack rods.
 - Hydraulic unit and pump: no leaks, tight components.
 - Check the level of hydraulic oil: top up if necessary.
 - Check that the battery terminals are clean and tight: slack or corroded terminals may result in a loss of power.
 - Check battery charge: recharge if necessary.
-
- Check that the platform control panel power cable is in good condition.
 - Check correct operation of the emergency stops.
 - Check that the labels are clean and legible.
 - Check that the wheels work properly.
 - Visually check the underside of the chassis.

⚠ Caution!
These machines are not insulated and must not be used near electric lines.

4.3 - STARTING UP

IMPORTANT: Only start work after careful completion of all the operations in the previous chapter.

REMINDER: The main control panel is in the platform.

In normal use, the "mast" control panel is used to check correct operation and stabilisation of the machine. It is also an emergency control panel to be used by a second operator if the operator in the platform is unable to get down (fainting, etc.).

The platform/mast panel selection key must be removed and kept on the ground by a person present and trained in emergency/rescue manoeuvres.

4.3.1 - Power on

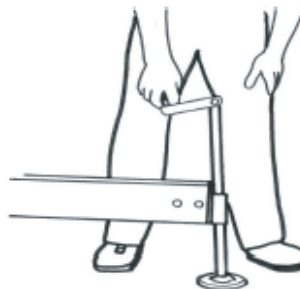
- Connect the battery or plug the machine in to the mains.
- Put the key in and turn the selector to the chassis position (ref. 3 Photo 1).
- Unlock the emergency stop button (ref. 5 Photo 1).
- The power light indicator (ref. 6 Photo 1) comes on.
- The mains or battery power light indicator (ref. 1 or ref. 2 Photo 1) comes on.

4.3.2 - Machine stabilisation

- Insert the stabiliser bars and ensure that they are properly locked with the blocking pins.



- Move the stabilisation foot in either direction until the relevant light indicator comes on on the bottom control panel.



- When the machine is perfectly stable, the 4 light indicators are on.

4.3.3 - Up/Down

 **Caution!**
MAXIMUM LOAD:
QUICK UP 7, 8, 9, 11, 12, 13: 159 kg
QUICK UP 14: 136 kg

- Put the control panel selection key (ref. 3 Photo 1) in the platform position.
- Unlock the emergency stop button (ref. 7 Photo 1) on the bottom panel.
- In the platform, move the switch to the up or down position (ref. 11 Photo 2), while holding down the start button (ref. 12 Photo 2).
- Release of the switch (ref. 11 Photo 2) or of the start button (ref. 12 Photo 2) interrupts movement.

**Caution!**

Climb into the basket, respecting the maximum load recommendations, distributing the load over the whole floor if necessary.

**Caution!**

Make sure there are no people or obstacles under the platform before lowering it.

4.3.4 - Testing the platform control panel

- Make sure that the platform emergency stop button (ref. 10 Photo 2) is enabled.
- If a movement is not made when commanded, push the emergency stop button (ref. 10 Photo 2) then reset.
- Test the up/down movements (ref. 11 Photo 2).

4.3.5 - Stopping the machine

- Press the emergency stop button on the bottom panel (ref. 5 Photo 1).
- Put the key selector in the "NORMAL" position (ref. 3 Photo 1).
- Remove the key.

4.4 - EMERGENCY AND RESCUE OPERATIONS

4.4.1 - Emergency lowering

If the operator in the platform is no longer able to control the movements in spite of the machine operating normally, an authorised operator on the ground can do so.

**Caution!**

If the platform is trapped by overhead structures or equipment, the operator must be evacuated from the platform before freeing the Quick Up.

- Put the selector (ref. 3 Photo 1) in the chassis position.
- Press the emergency stop button (ref. 7 Photo 1).
- The platform moves down.

NOTE: 8 x LR6 batteries, inside the mast control panel, take over from the main batteries if they are discharged to enable lowering of the platform.

4.4.2 - Rescue lowering

If a disorder of operation prohibited to the user to go down the ground, an authorised operator on the ground can do so:

- Turn the manual valve anti-clockwise.
- The platform moves down.

**Caution!**

Remember to screw the valve back into place once the platform reaches the ground, otherwise the machine will be lowered again the next time it is raised.

4.5 - USE AND MAINTENANCE OF BATTERIES

The batteries provide the power for your platform. When they are discharged, the battery light indicator on the mast control panel flashes. Here are some tips to help you use the batteries to their full capacity without risk of premature deterioration.

4.5.1 - Starting operation

- Check the electrolyte level.
- Do not force the batteries during the first few cycles. Ensure not to exceed discharges higher than 4 hours of use.
- The batteries will provide full capacity after about ten work cycles. Do not add water before these ten cycles have been completed.

4.5.2 - Discharge

- Never discharge the batteries by more than 80% of their capacity in 3 hours.
- Never leave the batteries discharged.

4.5.3 - Charge

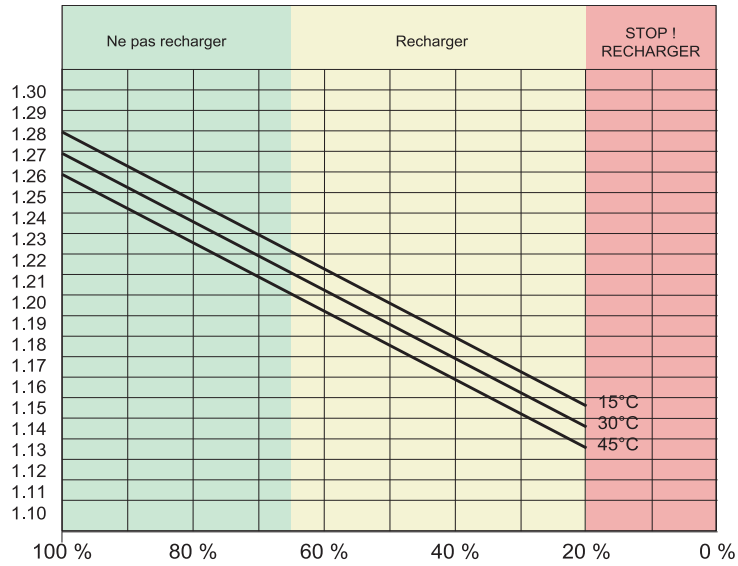
- When to recharge?
 - after 3 hours of use or after a long period of inactivity.
- How to recharge?
 - make sure the mains power is suitable to charger consumption,
 - fill with electrolyte to the minimum level if the level of an element is below this minimum,
 - work in a clean, aired area, away from any naked flames,
 - open the box covers,
 - use the machine's built-in charger. Its charge output is suited to battery capacity.
- During charging
 - do not remove or open the caps of the elements,
 - make sure element temperature does not exceed 45°C (be careful in summer or in areas where ambient temperature is high).
- After charging
 - fill up with electrolyte if necessary.

4.5.4 - Servicing

- Never add acid (in the event of spillage, contact Aftersales).
- Never leave discharged batteries inactive.
- Avoid overflow.
- Clean the batteries to avoid salt formation and current drift.
- Wash the top without removing the caps.
- Dry with compressed air and wipe with clean cloths.
- Grease the terminals.
- Implement adequate safety measures for batteries servicing operations (wear protective gloves and goggles).

To enable rapid diagnosis of the state of your batteries, note the density of each element once a month using a battery hydrometer, as a function of the temperature, using the graphs below (do not measure just after filling).

BATTERY CHARGE STATE AS A FUNCTION OF DENSITY AND TEMPERATURE



Caution!

DO NOT PERFORM ELECTRIC ARC WELDING ON THE MACHINE WITHOUT FIRST DISCONNECTING THE BATTERIES

IMPORTANT: DISCONNECT THE BATTERIES FIRST. NEVER TRY TO USE THE BATTERIES TO START ANOTHER VEHICLE

5 - MAINTENANCE

5.1 - GENERAL RECOMMENDATIONS



Caution!

Before any intervention on the machine, position it on a firm, horizontal floor, fold it completely, disconnect electric power and depressurise the hydraulic circuit.

The maintenance operations indicated in this manual are given for normal operating conditions.

In difficult conditions: extreme temperatures, high hygrometry, polluted atmosphere, high altitude, etc., certain operations should be carried out more frequently and specific precautions may be necessary. Consult the manufacturer's or distributor's Aftersales service for more information.



Caution!

Any technical intervention must be performed by a HAULOTTE service technician or an approved HAULOTTE agent.

Only approved, skilled technicians may intervene on the machine. They must comply with the safety instructions concerning personnel and environmental protection.

Check correct operation of the safety systems before use.



Caution!

Never work underneath a lifted platform without first securing it with wedges or overhead slings.



Caution!

Before straightening an overturned machine, make sure it has not suffered any damage that could prevent it from standing correctly on its wheels in the vertical position. Use a crane, lift truck or other machine and gradually bring the Quick Up back to the vertical position.

IMPORTANT: For any repair operation, use manufacturer certified original parts. Any non compliance with this rule may incur serious safety and stability risks for the machine.

IMPORTANT: For major maintenance operations requiring dismantling of one or more of the machine's components, contact the manufacturer for specific recommendations to avoid any dangerous situations.

After dismantling a component affecting the lifting structure, static and dynamic tests must be performed before putting the machine back into operation (see Chap. 1.4.2, page 5).



Caution!

**Do not use the machine as a welding earth -
do not weld without disconnecting the (+) and (-) terminals of the batteries -
Do not start other vehicles with the batteries connected.**



Caution!

After an incident, inspect the machine carefully and test all the functions. Only lift the platform after checking that all damage has been repaired and that all commands work properly.

THE MANUFACTURER MUST BE INFORMED IMMEDIATELY OF ANY INCIDENT INVOLVING A QUICK-UP, EVEN IF NO MATERIAL DAMAGE OR INJURY IS CAUSED.

5.1.1 - Periodical servicing

IMPORTANT: IF USING "ORGANIC" OR "EXTREME COLD" OIL, THE PRERIODICITIES INDICATED BELOW SHOULD BE HALVED .

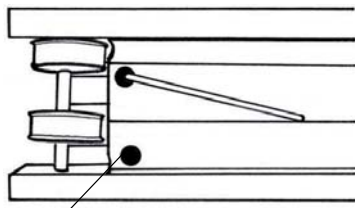
PERIODICITY	OPERATION
Before use	<ul style="list-style-type: none"> • Check all the machine's safety systems
Every day	<ul style="list-style-type: none"> • Check: <ul style="list-style-type: none"> - that there are no oil leaks (traces on the ground under the parked machine) - that the mast pad slide paths are clean - the condition of protections - the condition of welding - the electric connections and battery power cables - the stabiliser bars and their blocking pins - the manual lowering valve
Every week	<ul style="list-style-type: none"> • Visually check <ul style="list-style-type: none"> - the battery level. If necessary, top up with distilled water, only after charging - the condition of the cables. • If necessary, clean and/or oil the masts and cables.
Every 3 months	<ul style="list-style-type: none"> • Check: <ul style="list-style-type: none"> - battery density - masts - platform - control boxes - platform overload • Oil the mast chains • Check tightness of wheels, hydraulic connectors and bolts
Every 6 months	<ul style="list-style-type: none"> • Change the batteries
Every year	<ul style="list-style-type: none"> • Check: <ul style="list-style-type: none"> - Perform a complete check of masts and/or contact the manufacturer and/or distributor - Electric connections. • Empty the hydraulic tank and change the oil. • Have the machine examined by a certified inspection organisation (Order dated March 15th 2004)

- Collect old oil to prevent environmental pollution.

NOTE: Maintenance personnel must refer to the requirements of local standards, in regard to the general and 10 year inspection requirement which apply to this product.

5.1.2 - Operating instructions

5.1.2.1 -Disassembly of Mast



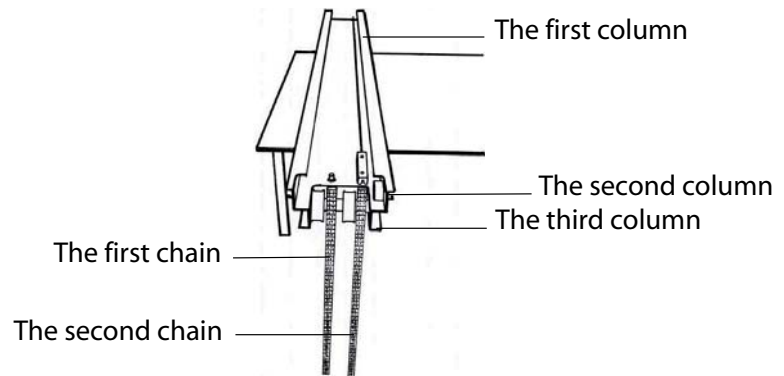
Holding bolt

1. Remove the mast just as like the previous mentioned.
2. Remove holding bolt from clevis block at the end of cylinder rod for raising.
3. Push carefully outward under part of mast supporting cylinder.
4. Turn carefully mast in order first column to be positioned behind.
5. Remove adjustable nut from sequence cable. Down sequence pulley bracket and remove it.
6. Remove control box on working platform.
7. Release installation screw connecting box under part of mast. Remove control cable from mast.
8. Remove adjust screw and rock nut from carrier chain terminal.
9. Push carrier outward to under part of mast and remove it.



Caution!
Chain shall not be twisted.

10. Lay the chain on the upper part of mast.



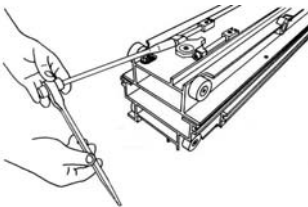
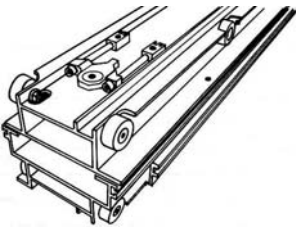
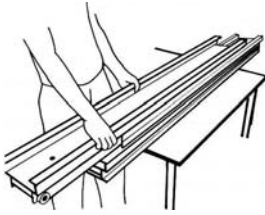
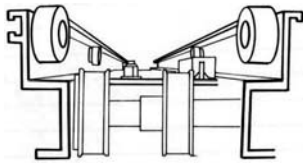
11. Push up per column upward in order to be get 30 cm above and assemble installation bolt of idle wheel.
12. Remove idle wheel for installation of wheel shaft plate at the upper part of column.
13. Remove adjust nut of rock nut at the chain terminal of upper part of column.
14. Push mast outward to under part of mast and lay down it.



Caution!
Chain shall not be twisted.

15. Lay the chain down outside of column. Pick the chain and lay it on the upper part of column.
16. Repeat 11 to 15 step for the rest.

Before detaching chains, the chains shall be marked for prevention of misconnection.



5.1.2.2 -Assembly of mast

1. Remove seams under the roller wheel button and clean all the column.
2. Put first column on the supporting plate and put the chain on the upper part.
3. Paste wax on outside and inside channel of column.
4. Push the second column into the inside of first column so that the upper part of column could contacts to the upper part of roller wheel at the first column.
5. Spread grease on end of the roller bolt and button.
6. Install seam on the upper and middle part of roller wheel. Install roller wheel button. Don't install lower roller button.
7. Push the second column into the chain column and inspect whether it is placed in between.
8. The seam at the side for adjustment shall be identical and it will be fasten so that it shall withstand the 6.8~9kg of loads.
9. Seam of roller wheel will be fasten so that it shall withstand the 6.8-9kg of loads.
10. Repeat 3 to 9 step for the rest.
11. Remove all column from supporting plate in turn after supporting seam.
12. Install chain inside column and installation plate for chain fastening.
13. Put the chain in each column.

Caution!

The chain shall not be contaminated or twisted.

14. Put the chain in first column.
15. Push the second column into the first column in order to be get 30 cm above the upper part of first column.
16. Install idle wheel in upper part of the second column. Be sure to securely installed and inspect it is smoothly rotated without moving 1mm to the side. When it is worn so that it shall be changed, outside diameter shall maintain equal distance.

Caution!

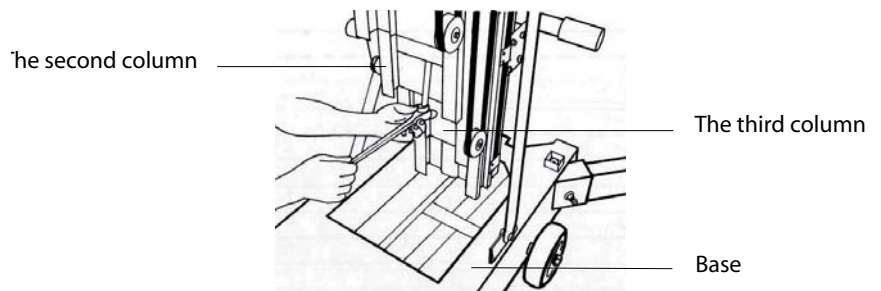
The chain shall not be contaminated or twisted.

17. Put the chain in second column.
18. Connect chains inside of the first and second column. The idle wheel in the second column shall be located to be pulled up.
19. Push the third column into the second column in order to be get 30 cm above the upper part of second column.
20. Install chain in the bracket of third column.
21. The second column is constrained by the first column.
22. Push the third column into the second column in order to be get 30 cm above the upper part of second column.
23. Repeat 16 to 25 step for the rest column.
24. Press the second column until the bottom part of the first column is identical.
25. Increase the tension so that the chain connected to the end of rod has the identical tension.
26. Install rock nut in 4th and 5th column.
27. Put the third column placed 5.08 cm projected.

28. Push carrier under the mast.
29. Adjust the end of chain rod until the bottom of the third column contacts the reference line of the second column. Tension of rod at the end of chain shall be identical.
30. Install rock nut at the third column. There shall be no shake.
31. Repeat 29 to 30 for the rest of column.
32. Push the third column 15.2 cm ahead.
33. Install idle wheel plate as the same level of column.

5.1.2.3 -Adjustment of raising chain

1. Lower the machinery completely and adjust the distance as specified after measuring the space between the bottoms of second and third column.



2. Raise the working platform 2 mm high.
3. Release rock nut at the end of chain rod in the third column.
4. Turn nut at the chain end clockwise or counterclockwise in order to be strong. Lock rock nut.
5. Lower the machine completely and adjust the chain as specified after measuring the space between the bottoms of third and fourth column.
6. Adjust the rest as the same method.

5.1.2.4 -Electric batteries

- Disconnect the battery.
- Remove the battery from its support.

6 - OPERATING INCIDENTS

REMINDER: Compliance with the machine's operating and maintenance instructions will avoid most incidents.

However, if an incident does occur, before any intervention, check the table below for information and follow the instructions.

Only common incidents that can be solved by the operator are mentioned. For any other incident, contact your HAULOTTE agent or the manufacturer's Aftersales service.

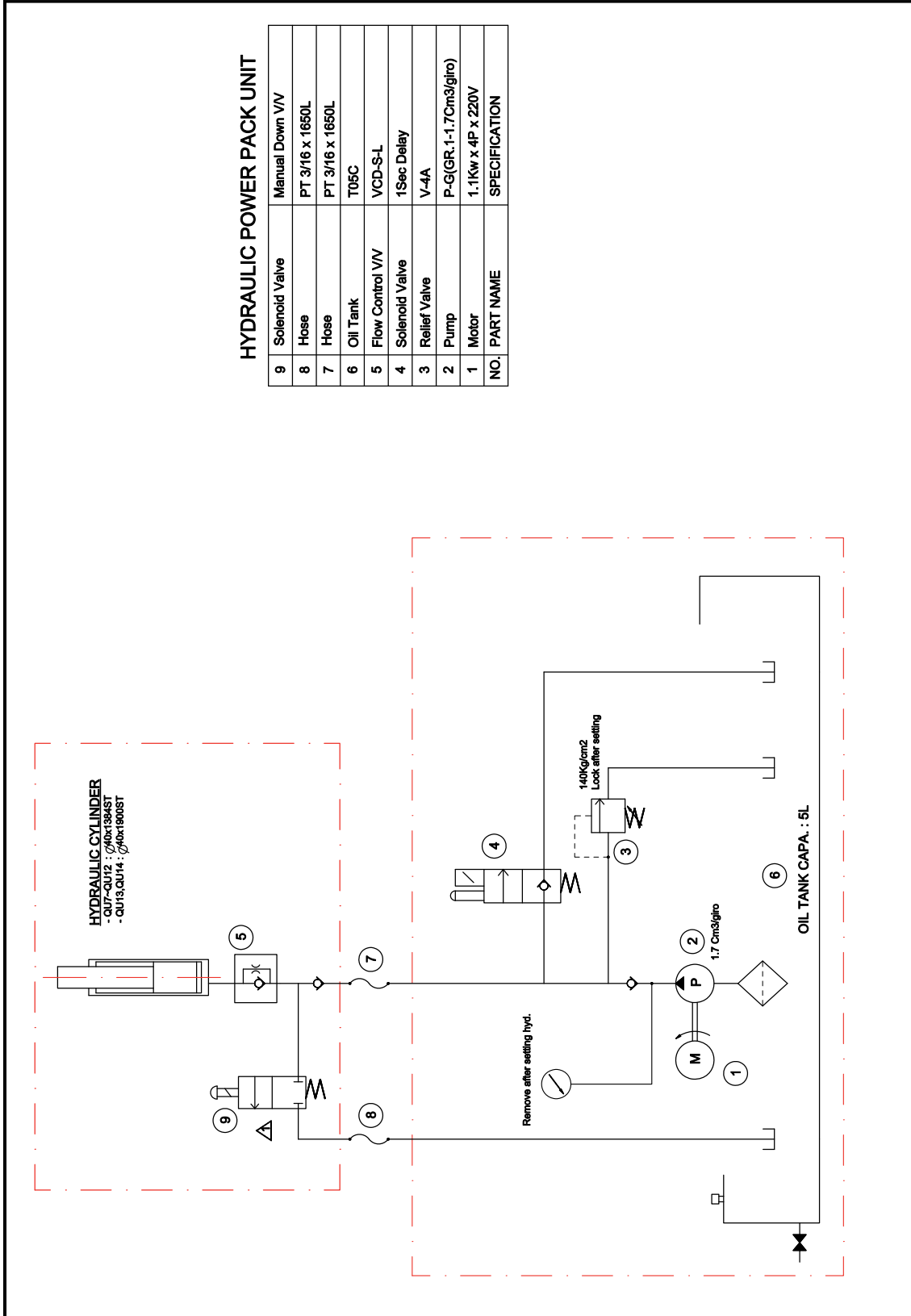
Before diagnosing a failure, check that:

- the mast and platform emergency stop buttons are unlocked
- the batteries are properly charged.

INCIDENTS	PROBABLE CAUSES	SOLUTION
No movement from the platform	<ul style="list-style-type: none"> • Mast key selector in the wrong position • Platform overload • Lifting button operating fault • Panel power cable damaged • Batteries discharged • Check cable voltage 	<ul style="list-style-type: none"> • Put in platform position • Remove load • Replace the button • Repair or replace the cable • Recharge the batteries • Repair or replace the cables
Electropump not working	<ul style="list-style-type: none"> • Reset button not working • Defective or discharged batteries • The battery cable is not making contact 	<ul style="list-style-type: none"> • Check tightness of the power cables • Repair or replace the contactor • Replace or recharge the batteries • Clean and tighten the terminals
Insufficient pressure or power	<ul style="list-style-type: none"> • Hydraulic pump not working properly • Unit pressure regulation screw requires calibration • Oil leak on connector, hose or component • Hydraulic unit fault 	<ul style="list-style-type: none"> • Repair or replace the pump • Calibrate (contact Aftersales) • Repair or replace • Replace the unit (contact Aftersales)
Noisy hydraulic pump	<ul style="list-style-type: none"> • Insufficient oil in the tank • Broken or loose hose or connector (suction side) 	<ul style="list-style-type: none"> • Fill up • Repair, tighten or replace

7 - HYDRAULIC DIAGRAM

7.1 - AC VERSION



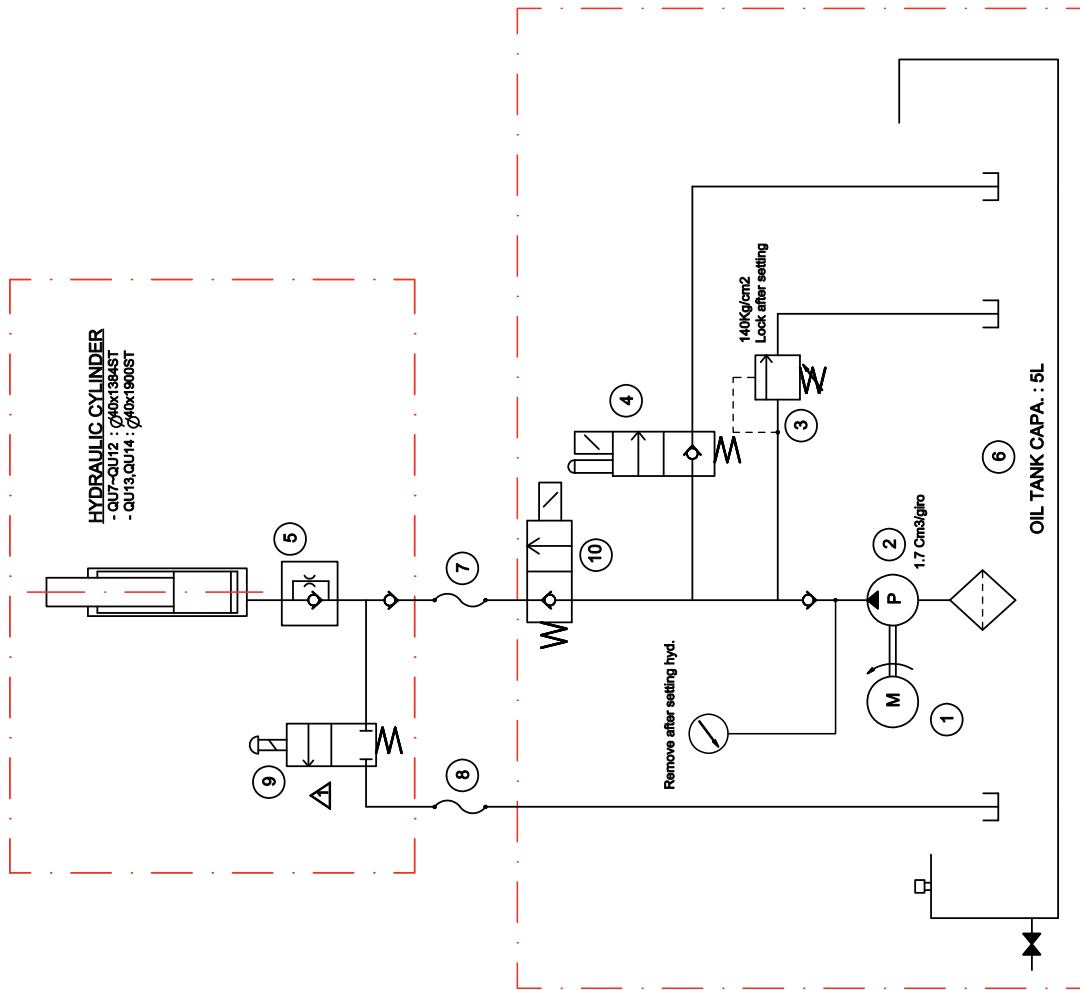
HYDRAULIC POWER PACK UNIT

NO.	PART NAME	SPECIFICATION
9	Solenoid Valve	Manual Down V/V
8	Hose	PT 3/16 x 1650L
7	Hose	PT 3/16 x 1650L
6	Oil Tank	T05C
5	Flow Control V/V	VCD-S-L
4	Solenoid Valve	1Sec Delay
3	Relief Valve	V-4A
2	Pump	P-G(GR.1-1.7Cm3/giro)
1	Motor	1.1Kw x 4P x 220V

7.2 - DC VERSION

HYDRAULIC POWER PACK UNIT

10	Shut Off V/V	Manual Down V/V
9	Solenoid Valve	PT. 3/16 x 1650L
8	Hose	PT. 3/16 x 1650L
7	Hose	T05C
6	Oil Tank	VCD-S-L
5	Flow Control V/V	1Sec Delay
4	Solenoid Valve	V-4A
3	Relief Valve	P-G(GR.1-1.7Cm3/giro)
2	Pump	1.1Kw x 4P x 220V
1	Motor	SPECIFICATION
	NO.	PART NAME



8 - WIRING DIAGRAMS

8.1 - AC VERSION

