

ENGINE-POWERED ARTICULATED BOOMS OF 32 M AND ABOVE

Operator's manual

Engine-powered articulated booms of 32 m
and above
**HA32PX (HA100JRT) - HA41PX-NT
(HA130JRT-NT)**

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You have just purchased a HAULOTTE® product
and we would like to thank you for your trust and
support.

1 - Operator's manual

As stated on the delivery slip, this manual is one of the documents in the on-board document holder located at the basket control station HAULOTTE® product.

The operator manual is a translation of the original note.

Safe operation of this product can only be assured if you follow the operating instructions contained in this manual.

We would like to draw your attention to 2 important points :

- Always comply with the safety warnings related to the machine, its operation and the operating environment in which the machine is being used
- Always use the equipment with the performance limits set out in this manual.

2 - After Sales Service

Our HAULOTTE Services® After Sales Service is at your disposal over the service life of the machine to ensure optimum use of your HAULOTTE product..

- When contacting our After Sales Service ensure that you provide the machine model and Serial Number. Refer to the Identification plate on the machine for this information.
- When ordering either consumable or replacement parts, please refer to the HAULOTTE Spare Parts Manual provided with the product, and ensure that you only use genuine HAULOTTE Spare parts to guarantee interchangeability and optimum service life for the product.
- If there is an equipment malfunction involving a HAULOTTE® product then contact HAULOTTE Services® immediately even if the malfunction does not involve material and/or bodily damage..

3 - Conformity

HAULOTTE® comply with the provisions of applicable design standards and directives in the countries where the products are sold.

HAULOTTE advises that no modifications are to be carried out on its products without the written permission of HAULOTTE®. We also advise that any unauthorized modifications will void the HAULOTTE warranty..

HAULOTTE® cannot be held liable for the technical specifications contained in this manual.

HAULOTTE® reserves the right to alter technical specifications and to make product improvements without prior notice, or necessarily altering this manual..



Certain options can modify the machine's operating characteristics and the safety associated with it. If your machine was originally delivered with this option, replacing a safety component associated to this option does not require any particular precautions other than those associated with the installation itself (static test).

Otherwise, it is essential to follow the manufacturer's recommendations below :

- **Installation by authorised HAULOTTE® personnel only.**
- **Update the manufacturer's plate.**
- **Have stability tests carried out by a certified agency.**
- **Ensure label compliance.**

4 - Contact details HAULOTTE Services®

Contact details HAULOTTE Services®

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A - Safety precautions

1 - Recommendations

1.1 - OPERATOR'S MANUAL

This operators manual is specific to the * products listed on the cover page of this manual..



The operator manual does not replace the basic training required for all worksite equipment operators.

HAULOTTE® has compiled this manual to assist in the safe and efficient operation of the products covered by the manual.



This manual must be kept on the machine in the storage container provided at the platform upper control station. The manual must be available to all operators and must be kept in good condition at all times. Additional copies of the manual can be purchased from HAULOTTE Services®.

1.2 - SYMBOLS USED

Symbols are used to alert the operator of safety precautions or to highlight practical information.

Symbol meanings

Symbol	Meaning
	Danger : Risk of injury or death (worker safety)
	Caution : Risk of material damage (worker quality)
	Prohibition relating working safety and quality
	Reminder : No identified risk, but a reminder of the need for common sense, good practice or pre-action prerequisites
	Cross-reference to another part of the manual (see section or sheet)
	Cross-reference to another manual (see manual)
	Cross-reference to repairs (contact HAULOTTE Services®)
N.B. :	Additional technical information

A - Safety precautions

1.3 - LABEL COLOURS

The potential dangers and any specific regulations are indicated around the product by labels and identification plates.



The labels must be kept in good condition. Additional labels can be obtained from HAULOTTE Services®.

Familiarize yourself with the labels and their respective color codes.

Label color code-CE - AS

Labels	Color	Meaning
	Red	Potentially fatal danger
	Orange	Risk of serious injury
	Yellow	Risk of material damage and/or minor injury
	Other	Additional technical information

Label color code-ANSI - CSA

Labels	Color	Meaning
	Red	Potentially fatal danger
	Orange	Risk of serious injury
	Yellow	Risk of material damage and/or minor injury
	Other	Additional technical information
	Green	CSA maintenance operation or information

A - Safety precautions

2 - Pre-operation instructions

2.1 - GENERAL INSTRUCTIONS



- The employer is obliged to issue a driving permit to the operator.
- The employer is obliged to inform the operator of the local regulations.



Do not operate the product in the following situations :

- On soft, unstable or cluttered ground.
- With wind blowing faster than the permissible limit. Check the maximum value (slope, ec..)in the Technical Characteristics (📖 Section G 1- Main characteristics). Consult the Beaufort scale (📖 Section A 3.2.4- Risk of uncontrolled movement and overturning).
- Close to power lines. Respect the safety distance (📖 Section A 3.2.3- Risk of electrocution).
- At ambient temperatures higher than 45 °C (113 °F) and lower than -15 °C (5 °F) . Consult HAULOTTE® if it is necessary to work outside this range.
- In an explosive atmosphere.
- During storms (risk of lightning).
- In the presence of strong electromagnetic fields (radar ...).

2.2 - SPECIFIC INSTRUCTIONS



Do not operate the product in the following situations :

- If the load in the platform exceeds the maximum load authorized. Check the maximum value (slope, ec..)in the Technical Characteristics (📖 Section G 1- Main characteristics).
- If the ground slope is greater than the permissible limit. Check the maximum value (slope, ec..)in the Technical Characteristics (📖 Section G 1- Main characteristics).
- In a non-ventilated area as the exhaust gases are toxic.
- At night unless the machine is equipped with the optional light or an other external lighting.
- If the number of persons greater than the permissible. Check the maximum value (slope, ec..)in the Technical Characteristics (📖 Section G 1- Main characteristics).
- If the side force on the platform is greater than the permissible force. Check the maximum value (slope, ec..)in the Technical Characteristics (📖 Section G 1- Main characteristics).

A - Safety precautions

3 - Operation instructions



It is preferable to operate the machine on flat, developed ground (tarmac, concrete, ec.).

3.1 - GENERAL WARNINGS



- Never use a defective machine (hydraulic leaks, worn tyres, malfunction).
- Never operate the machine controls suddenly.
- Never place the machine against a structure.
- Never use the machine to tow other machines or drag materials.
- Never expose the batteries or electrical components to water (pressure cleaner, rain).
- Never disable the safety devices.
- Do not make contact with a fixed or mobile obstacle. The contact can cause premature deterioration of the structure and lead to the rupture of certain safety elements.
- Do not climb on the covers.
- Never use the machine alone. It must be operated by a pair of operators.
- Never use the machine when the platform is cluttered.
- Never increase the surface area of the platform by using floor extensions or accessories not authorized by HAULOTTE®.
- Never leave the hydraulic cylinders entirely extended before switching off the machine, or during an extended stop period.



- Never use the machine with material or objects hanging from the guardrail or the boom.
- Never use the machine with the elements that can increase the wind force (e.g. placards, signs, boards).
- Never increase the working height by using attachments (ladder).
- Never use the guardrail as the means of access to climb in or out of the platform. Steps have been provided for this purpose where required.
- Never climb on the guardrail.
- Never use the machine without fully lowering the sliding midrail or without closing the platform entry gate.
- Never use the machine as a crane, goods lift or elevator.
- Never use the machine for any other purpose than to transport people, their tools and material to the desired place.
- Never drive fast in narrow or badly cleared areas. Reduce speed under control on bends.
- Never tow the machine over extended distances (it must be transported on a trailer).
- The LPG bottle must be firmly attached and in the correct position.
- Check the bottle and its connections periodically (every 250 h) to detect any leaks. Never use matches. Always use a specially-designed leak detector product.

A - Safety precautions

- The exterior of the LPG bottle must always be kept rust-free by regularly applying a specific paint.

3.2 - POTENTIAL RISKS

3.2.1 - Risk of command system disturbance

Risk of disrupted movement. Maintain clearance from high voltage lines or magnetic fields.

3.2.2 - Risk of falling

When in the machine platform, respect the following instructions :

- Carry individual protection equipment adapted to the work conditions and local rules.
- Avoid hitting fixed or mobile obstacles (other machines).
- Ensure that the adjustable midrail is closed (low position and against the guardrails).
- Ensure that the gate is closed and locked (For HB135JRT).
- Hold on securely to the guardrails during elevation and driving.
- Do not sit, stand, or climb on the guard rails of the platform.
- Always keep the feet firmly on the floor of the platform.
- Remove any trace of oil or grease from the steps, floor, handrail and the guardrails.
- Keep the floor of the platform free of debris.
- Do not leave the platform until it is in the fully in stowed position.



To climb up or climb down from the platform :

- The machine must be completely stowed.
- Face the machine to access the entry opening to the platform
- Keep 3 support points between the steps and the guardrail



3.2.3 - Risk of electrocution

The machine is not electrically insulated and does not offer any protection.

The risks of electrocution are high in the following situations :

- Close to live power lines, consider the movement of the machine and the swaying of the electric power lines.
- In the event that you were to make accidental contact with a high voltage line, wait for the power to the line to be switched off before operating the machine.
- During storms.



Never use the machine as a welding earth.

Maintain a minimum safe distance with regard to power lines and electrical devices.

Respect the local rules and the minimum safety distance.

A

- Safety precautions

Minimum safety distance

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

N.B.:-THIS TABLE IS APPLICABLE, EXCEPT WHEN THE LOCAL REGULATIONS ARE MORE STRICT.

3.2.4 - Risk of uncontrolled movement and overturning

When in the machine platform, respect the following instructions :

- Before engaging the machine on any indoor or outdoor surface (premises, bridge, truck, etc.), check that the surface is capable of supporting the load. Check the maximum value (slope, ec..)in the Technical Characteristics (📖 Section G 1- Main characteristics).
- During movement reversal from the platform or ground control box, the joysticks or switches must be stopped in neutral position before reversing the direction of motion.
- Taking note of the overall load dimensions, place the loads in the centre of the platform or distribute them it a uniform manner.
- Remain vigilant of driving direction reversal on platforms, pavements, etc.. Check the driving direction with the help of the red or green arrow on the chassis relative to the red and green arrows on the platform control box.
- Always ensure that the chassis is never driven any less than 1 m (3 ft 3 in) m from holes, bumps, tilts, obstructions, debris and ground coverings that may hide holes and other dangers.



- **Do not drive the machine on slopes or tilts beyond the design limits. Check the maximum value (slope, ec..)in the Technical Characteristics(📖 Section G 1- Main characteristics).**
- If the tilt alarm sounds when the platform is raised, lower platform completely, then reposition machine on level ground before raising platform.



- **Do not go down slopes at high speed.**
- **Do not raise the platform or drive with the platform raised on slopes or when the machine is tilted.**
- **Do not drive in reverse (direction opposite the field of vision).**
- **Do not pull or push objects with the boom.**
- **Never use the machine in winds exceeding the authorized limit.**
- **Do not increase the surface area exposed to the wind. The greater the surface area exposed, the more unstable the machine becomes.**

N.B.:-THE BEAUFORT SCALE MEASURES THE WIND FORCE WITH A GRADUATION SYSTEM. A WIND SPEED RANGE AT 10 M (32 FT 9 IN) ABOVE FLAT, CLEAR LAND IS ASSOCIATED WITH EACH DEGREE.

A - Safety precautions

Beaufort scale

Force	Meteorological description	Observed effects	m/s	km/h	mph
0	Calm	Smoke rises vertically.	0 - 0,2	0 - 1	0 - 0,62
1	Very light breeze	Smoke indicates the wind direction.	0,3 - 1,5	1 - 5	0,62 - 3,11
2	Light breeze	Wind felt on the face. Leaves rustle. Weathervanes turn.	1,6 - 3,3	6 - 11	3,72 - 6,84
3	Slight breeze	Leaves and small branches in constant movement. Flags move slightly.	3,4 - 5,4	12 - 19	7,46 - 11,8
4	Nice breeze	Dust and loose papers fly. Small branches bend.	5,5 - 7,9	20 - 28	12,43 - 17,4
5	Nice breeze	Small trees sway. Crested wavelets form on inland waters.	8,0 - 10,7	29 - 38	18,02 - 23,6
6	Cool wind	Large branches shake. Power lines and chimneys 'sing'. It is difficult to use an umbrella.	10,8 - 13,8	39 - 49	24,23 - 30,45
7	Strong cool wind	All trees shake. Walking against the wind becomes difficult.	13,9 - 17,1	50 - 61	31 - 37,9
8	Squall	Some branches break. Generally we cannot walk against the wind.	17,2 - 20,7	62 - 74	38,53 - 45,98
9	Strong squall	The wind causes slight damage to buildings. Tiles and chimney stacks are blown off.	20,8 - 24,4	75 - 88	46,60 - 54,68

3.2.5 - Risk of burns and explosion



For any intervention on the power sources, wear glasses and protective clothes (acid spray).

N.B.:-ACID IS NEUTRALISED WITH SODIUM BICARBONATE AND WATER.



- Do not work in an explosive or flammable atmosphere (spark, flame, etc.).
- Do not touch the hot parts of the hydraulic power (engine, filters, ec.).
- Do not use a tool to bridge the battery terminals with metallic objects.
- Do not service the battery close to a spark, naked flame, glowing tobacco (emissions of gas).



- Do not fill up the fuel tank, when the engine is running and/or close to a naked flame.

A - Safety precautions

3.2.6 - Risk of crushing and collision

When in the machine platform, respect the following instructions :

- During operation, keep all the parts of the body inside the platform.
- Adjust the movement speed to the ground conditions (traffic, slope, ec.).
- Respect stopping after the controls are released :
 - 3 m (9 ft 10 in) at high speed.
 - 1 m (3 ft 3 in) at low speed.
- To position the machine close to obstacles, use the raise controls (arm, boom, ec.) instead of the drive controls.
- Ensure there are no obstacles (structure) in the work area.
- When driving, position the platform so as to provide the best visibility possible.
- Always have someone to guide machine movements in case of poor visibility.
- All personnel on the machine or on the ground must wear an approved safety helmet.
- When lifting or lowering the machine and during driving, the operator must check that the area above, below and to each side of the machine are clear.
- When moving the machine, ensure that the machine operating areas is free of persons and obstacles.



Do not operate other machines (crane, platform, etc.) in the work area.

Take account of the distance, reduced visibility and blind spots during use of the machine.

B - Intervenor's responsibility

1 - Owner's (or hirer's) responsibility

The owner (or hirer) has the obligation to inform operators of the operator instructions in the Operator Manual.

The owner (or hirer) has the obligation to renew all manuals or labels that are either missing or in bad condition. Additional copies of the manual can be purchased from HAULOTTE Services®.

The owner (or hirer) is responsible for applying the local regulations applicable to the use of the machine.

2 - Employer's responsibility

. The employer is obliged to issue a driving permit to the operator.

N.B.: IN ACCORDANCE WITH THE REGULATION IN THE COUNTRY WHERE THE MACHINE IS OPERATING, THE USER MUST BE AUTHORIZED TO DRIVE BY THE DOCTOR OF LABOUR MINISTRY.



Forbid anyone from operating the machine who is :

- Under the influence of drugs, alcohol, ec..
- subject to fits, loss of motor skills, dizziness, ec..

3 - Trainer's responsibility

The trainer must be qualified to provide training to operators in accordance with applicable local regulations. The training must be given in an obstacle-free area until the trainee is considered competent as defined by the training program undertaken.

4 - Operator's responsibility

The operator must read and understanding the contents of this manual and the labels affixed on the machine.

The operator must inform the owner (or hirer) if the manual or any labels are missing or in poor condition, and of any malfunction of the machine.

The operator may only operate the machine within the parameters set down in this manual by the manufacturer.



Only authorized and qualified operators may operate HAULOTTE® machines.

All operators must become familiar with and fully understand the emergency controls and how to operate the machine in an emergency as a component of their formal operator training.

The operator must stop using the machine in the event of malfunction or safety problems on the machine or in the work area and report the problem to hsi supervisor.

B - Intervenor's responsibility

5 - Inspection and maintenance

The inspection and maintenance table below, identifies the role and the responsibilities of each party in the regular maintenance of the machine.



If the machine is operated in a hostile environment or intensively, increase the frequency of maintenance.

Inspections and maintenance

Type of intervention	Frequency	Person-in-charge	Intervenor	Reference document
Pre-delivery inspection	Before each delivery of sold, hired or resold equipment	Owner (or hirer)	Qualified HAULOTTE Services® technician	Operator's manual
Pre-operation inspection	Before operation or when the operator changes	Operator	Operator	Operator's manual
Regular preventive maintenance	At the specified intervals (250 h or 1 year)	Owner (or hirer)	On-site technician or qualified HAULOTTE Services® technician	Maintenance book
Regular visit	2 times a year or at the latest 6 months after the last regular visit, and according to the local regulations	Owner (or hirer)	Organization or technician approved by the employer or by the intermediary of HAULOTTE Services® in accordance with the HAULOTTE Services® contract	Maintenance book

C - Machine layout

1 - Identification

The manufacturers identification plate fixed on the chassis bears all information allowing machine identification (Please see machine configuration).



For any request for information, intervention or spare parts, specify the type and serial number of the machine.

Identification plate CE - AS

A3

 HAULOTTE GROUP HAULOTTE GROUP, La Péronnière, BP9 42152 L'Horme - France		
ENGIN / EQUIPMENT		
TYPE / TYPE		
N° SERIE / SERIAL N°		
MASSE / TOTAL WEIGHT		kg
ANNEE DE CONSTRUCTION / YEAR OF MANUFACTURE		
PUISSANCE NOMINALE / NOMINAL POWER		kW
CHARGE MAXI / MAXIMUM LOAD		kg
NOMBRE PERS. + CHARGE / NUMBER OF PERSONS + LOAD		P + kg
FORCE LATÉRALE MAXI / LATERAL FORCE MAX.		N
VITESSE DU VENT MAXI / WINDSPEED MAX.		m/s
DEVERS MAXI (degrés) / SLOPE OPERATION MAX. (degrees)		°
PENTE GRAVISSABLE MAXI / GRADEABILITY MAX.		%
		307P218070 c

Identification plate ANSI - CSA

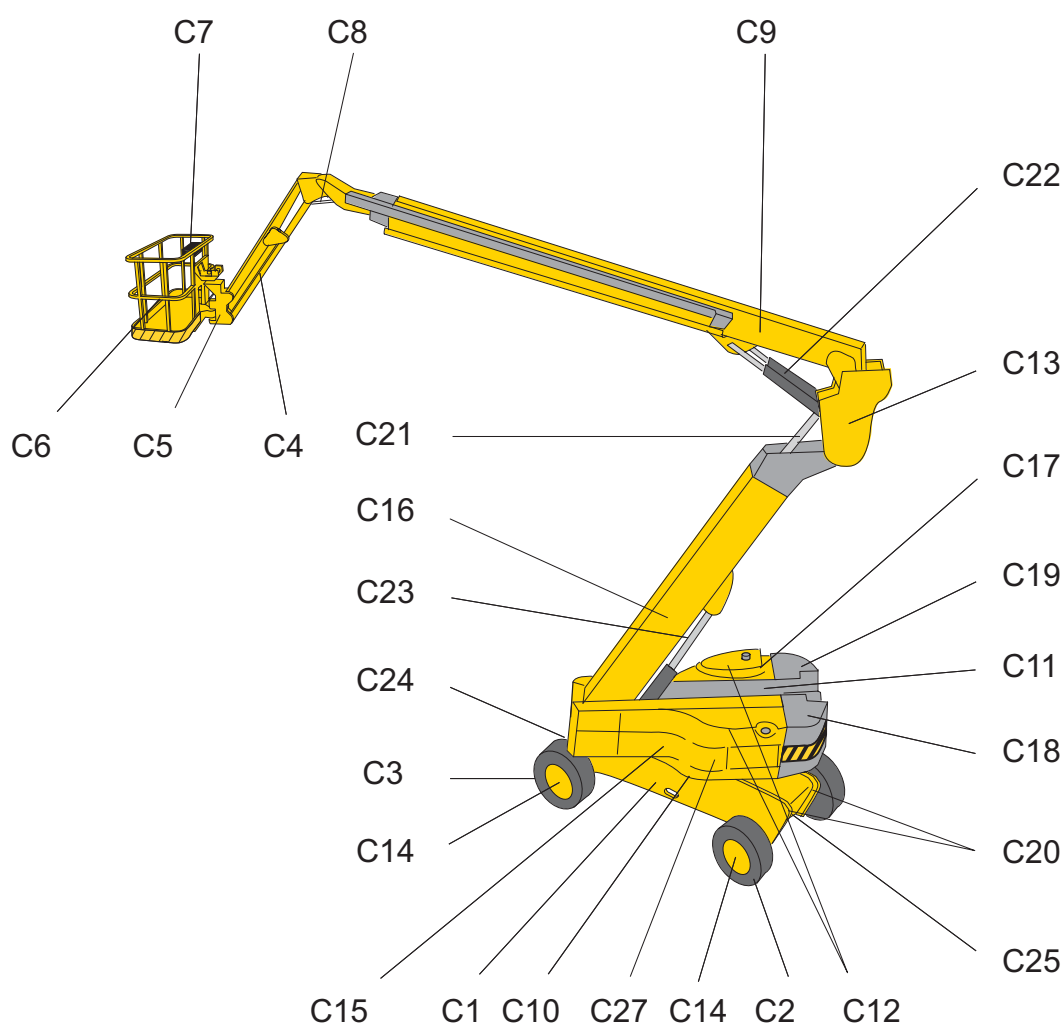
A3

 HAULOTTE GROUP HAULOTTE GROUP, La Péronnière, BP9 42152 L'Horme - France		
EQUIPMENT		
TYPE		
SERIAL N°		
TOTAL WEIGHT		lbs
YEAR OF MANUFACTURE		
POWER SOURCE (Fuel/gas/LPG)		kW
POWER SOURCE (electric)		V / Ah
MAXIMUM LOAD		lbs
NUMBER OF PERSONS + LOAD		P + lbs
MAXIMUM PLATFORM HEIGHT		ft
MAXIMUM PLATFORM REACH		ft
LATERAL FORCE MAX.		N lbs
SLOPE OPERATION MAX.		0 degrees
MADE IN FRANCE, THIS MACHINE HAS BEEN MANUFACTURED IN COMPLIANCE WITH :		
		307P218170 d

C - Machine layout

2 - Main components

HA32PX (HA100JRT) - HA41PX-NT (HA130JRT-NT) -
View of the components



C - Machine layout

HA32PX (HA100JRT) - HA41PX-NT (HA130JRT-NT) - Description of the components

Marking	Description
C1	Rolling chassis
C2	Front driven steering axle
C3	Rear drive and steer wheel
C4	Jib
C5	Platform support incorporating load limiter
C6	Platform
C7	Platform control box
C8	Compensation receiver cylinder
C9	Boom
C10	Slew ring
C11	Turntable assembly
C12	Hood
C13	Arm/Boom link piece
C14	Hydraulic drive motor and reducer
C15	Right compartment (hydraulic tank and fuel tank)
C16	Arm
C17	Left compartment (engine, pump and starter battery)
C18	Right counterweight
C19	Left counterweight
C20	Tie-down (and/or lifting) points
C21	Link piece compensation cylinder
C22	Boom lift cylinder
C23	Arm lifting cylinder
C24	Extendable fixed axle
C25	Extendable swing axle
C27	Ground control box

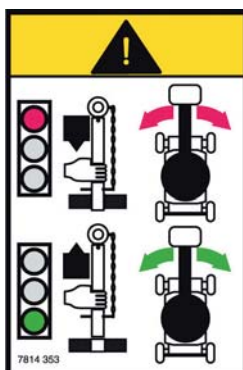
3 - Safety devices

3.1 - TURNTABLE ROTATION PIN

The turntable rotation pin allows turntable blocking during machine transportation



After each transportation, remove the turntable rotation pin.



C - Machine layout

Turntable locking pin (Please see machine configuration)



Turntable locking pin (Please see machine configuration)



Turntable locking pin (Please see machine configuration)



C - Machine layout

Turntable locking pin (Please see machine configuration)



3.2 - SLINDING (OR VERTICALLY) HINGED INTERMEDIATE GUARD-RAILS

The platform is comprised of guardrails and a sliding mid-rail facilitating platform access.



Do not restrain the sliding midrail to the guard rail.



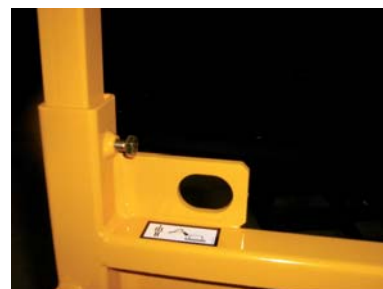
C - Machine layout

3.3 - ANCHORAGE POINT (PLEASE SEE MACHINE CONFIGURATION)

The machine is equipped with harness anchorage points which accept a single harness per anchorage point. The anchorage points are identified by the presence of the Anchorage point label.



If the local regulation imposes the wearing of a harness, use the approved anchorage points.



C - Machine layout

4 - Labels

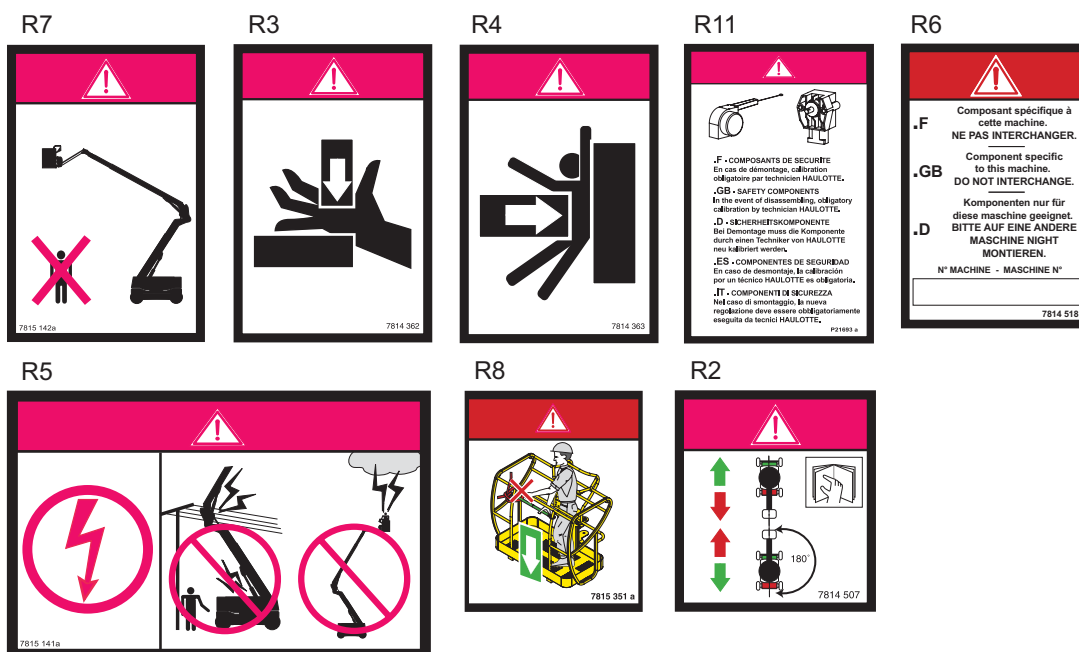
4.1 - CLASSIFICATION PLAN

4.1.1 - Red labels



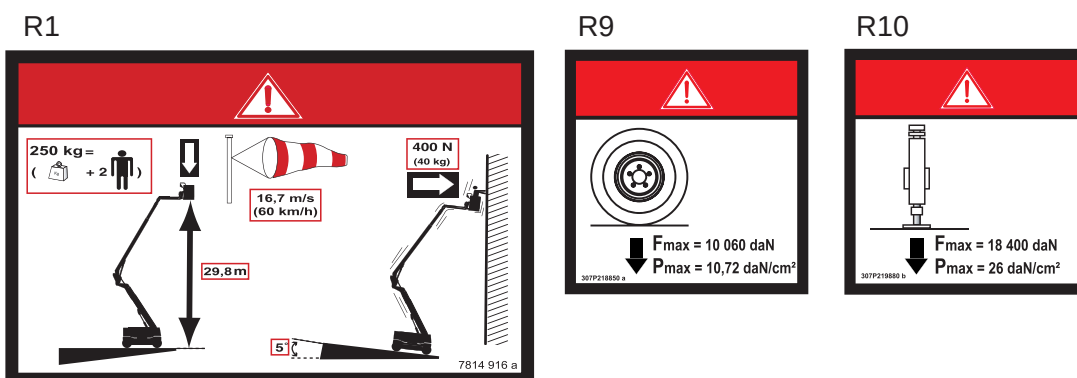
The red labels indicate a potentially fatal danger.

Common labels

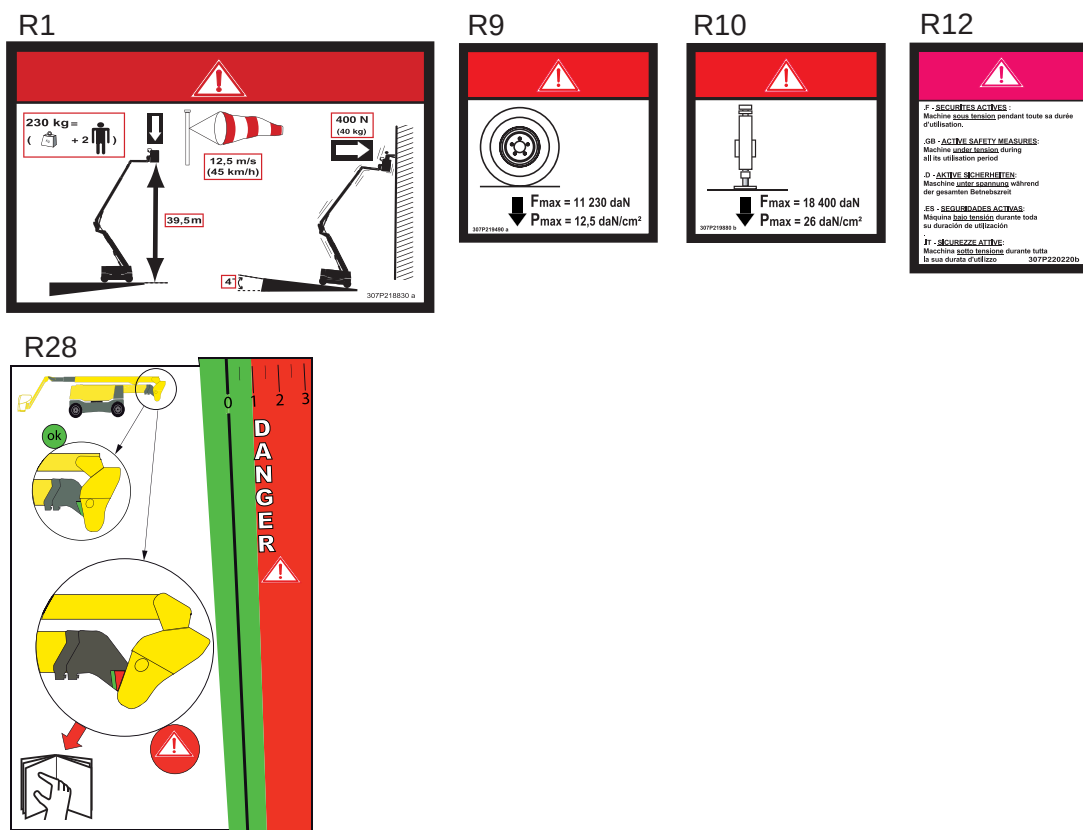


C - Machine layout

Specific labels HA32PX (HA100JRT)



Specific labels HA41PX - NT (HA130JRT - NT)



C - Machine layout

4.1.2 - Orange labels



The orange labels indicate a risk of serious injury.

Common labels

O1

RECOMMENDATIONS FOR USE
BEFORE USING THIS MACHINE THE OPERATOR MUST
1 - Read and understand the information in the operator's manual and the information marked on the machine, and become familiar with the controls. 2 - Receive training and practical experience in operating the machine, under the employer's supervision. 3 - Ensure that maintenance is performed according to the manufacturer's instructions. 4 - Refrain from using the machine in the event of any malfunction. 5 - Not wash the electrical components with a washer pressure. 6 - Not remove any parts which might affect the stability. 7 - Not modify the machine without the manufacturer's approval. 8 - Not use the machine as a welding earth. 9 - Not weld on the machine without first disconnecting the battery terminals. See the instructions in the maintenance manual.
DAILY INSPECTION
1 - Check the level of diesel fuel (for diesel engine platforms). 2 - Check that there are no apparent defects (hydraulic leaks, loose bolts, loose electric connections) 3 - Check that the tilt indicator operates correctly by sounding the buzzer.
INSTRUCTIONS BEFORE USE
1 - Remove the rotation locking pin (if there is a turntable). 2 - IMPORTANT when using the AC power line to the work platform, the power plug must be connected to an electrical installation protected by a 30 mA circuit breaker (C15 100 standard).
START-UP
1 - Turn the battery isolator switch to the "on" position. 2 - Unlock the emergency stop button then press the starter button. 3 - If the machine does not start, wait 10 seconds then repeat the operation.
THE MACHINE MUST NOT BE USED WHILE CHARGING THE BATTERIES
7814 345

C - Machine layout

Common labels

O1



RECOMMENDATIONS FOR USE

BEFORE USING THIS MACHINE
THE OPERATOR MUST

- 1 - Read and understand the information in the Operators Manual and the information marked on the machine, and become familiar with the controls.
- 2 - Receive training and practical experience in operating the machine, under the employer's supervision.
- 3 - Ensure that maintenance is performed in accordance with the manufacturer's instructions contained in the Operators Manual.
- 4 - Refrain from using the machine in the event of any malfunction.
- 5 - Avoid contact with electrical components when using high pressure cleaning equipment around the machine.
- 6 - Not remove any machine parts which might affect the stability.
- 7 - Not modify the machine without the manufacturer's written approval.
- 8 - Do not use the machine as a welding earth.
- 9 - Not carry out repairs on the machine involving welding without first disconnecting the battery.

DAILY INSPECTION

- 1 - Check the level of diesel fuel (for diesel engine platforms).
- 2 - Check that there are no apparent defects (hydraulic leaks, loose bolts, loose electric connections)
- 3 - Check that the tilt indicator operates correctly by manually tilting the switch with the power on.

INSTRUCTIONS BEFORE USE

- 1 - Remove the rotation locking pin (if fitted).
- 2 - **IMPORTANT** : when connecting AC power supply to the work platform, the wall power supply must be protected by 30 mA circuit breaker

START-UP

- 1 - Turn the battery isolator switch (if fitted) to the " on " position
- 2 - Unlock the emergency stop button then press the engine starter button.
- 3 - If the engine does not start, wait 10 seconds then repeat the operation.

THE MACHINE
MUST NOT BE USED
WHILE CHARGING THE BATTERIES

7814 456

C - Machine layout

Common labels

O1

WARNING

RECOMMENDATIONS FOR USE

THIS MACHINE MUST NOT BE USED UNTIL IT IS INSPECTED AND OPERATING PROPERLY.

- DO NOT operate this machine unless you have been properly trained as described in the HAULOTTE Operation and Safety Manual by a qualified person and authorized to operate this machine. Your training includes reading and understanding the safety, operating and maintenance instructions in manufacturer's manuals, knowing your employers work rules and applicable governmental regulations.
- Follow the instructions in the Operating Manual and sections 6, 7 and 8 of ANSI A92.5-2006 for daily, frequent and annual inspections. These may be obtained from your authorized HAULOTTE, Inc. equipment dealer or HAULOTTE, Inc.
- DO NOT replace items (i.e., batteries, tires, counterweight, etc.) with items of different weight or specification because this will affect the stability of the machine.
- DO NOT modify or change this machine without written approval from the manufacturer.
- Operate this machine with extreme caution. STOP all operation if a malfunction occurs.
- Test foot switch for proper operation.
- Test high engine and high drive cut out switches for proper operation.
- DO NOT wash the electrical components with a washer pressure.
- DO NOT use the machine as a welding earth.
- DO NOT weld on the machine without first disconnecting the battery terminals.

DAILY INSPECTION

- Check the level of diesel fuel (for diesel engine platform).
- Check that there are no apparent defects (hydraulic leaks, loose bolts, loose electric connections).
- Check that the tilt indicator operates correctly by sounding the buzzer (when machine is raised).

INSTRUCTION BEFORE USE

- Remove the rotation locking pin (if there is a turntable).
- IMPORTANT when using the AC power line to the work platform, the power plug must be connected to an electrical installation protected by a circuit breaker.

START-UP

- Turn the battery isolator switch to the "ON" position.
- Unlock the emergency stop button then press the starter button (for diesel engine platform).
- If the machine does not start, wait 10 seconds then repeat the operation.

The machine must not be used while charging the batteries (on electrical machine)
Improper use of this machine could cause death or serious injury. 7814 705 b

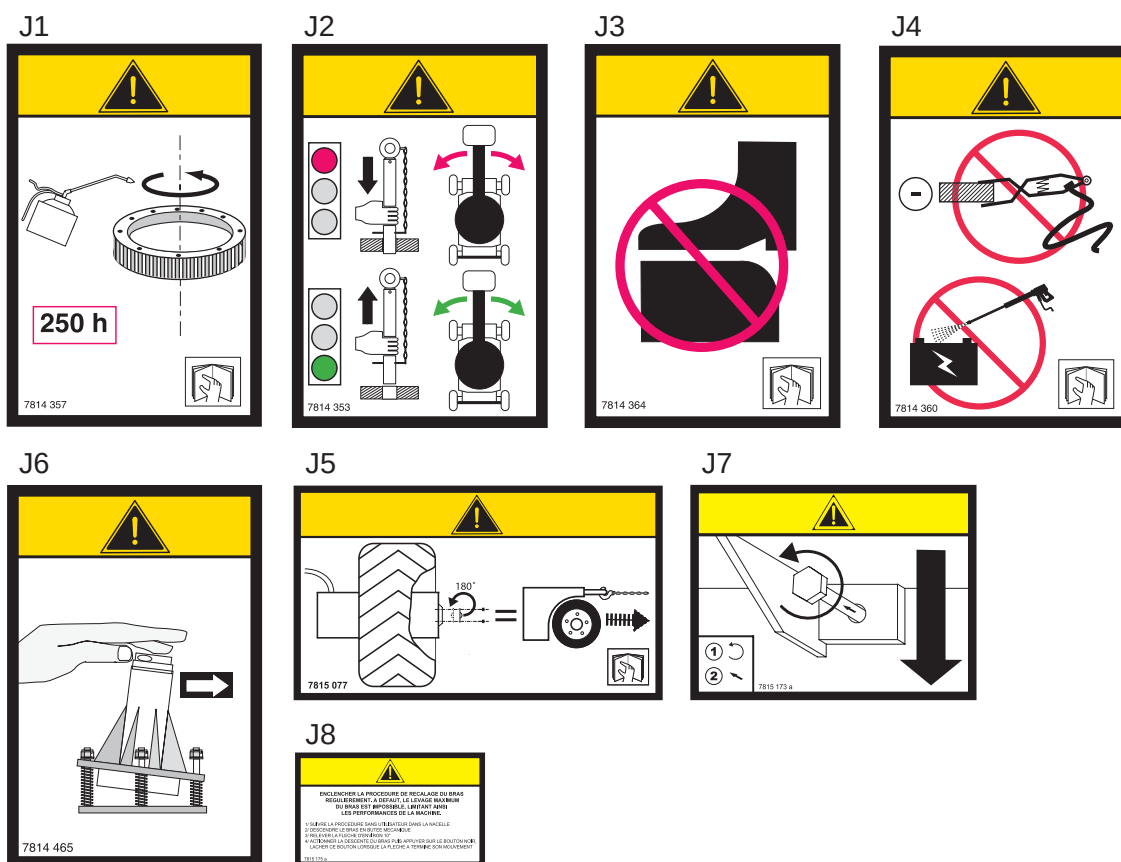
C - Machine layout

4.1.3 - Yellow labels



The yellow labels indicate a risk of material damage and/or minor injury.

Common labels



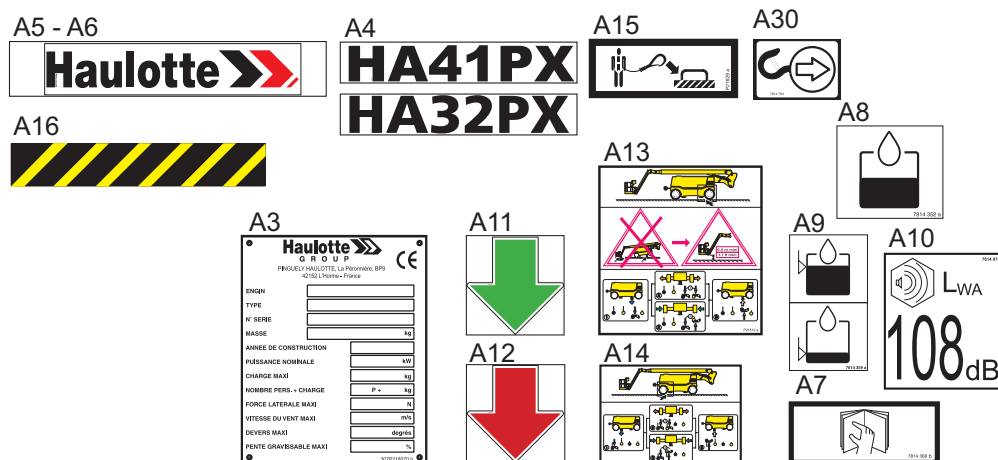
C - Machine layout

4.1.4 - Other labels

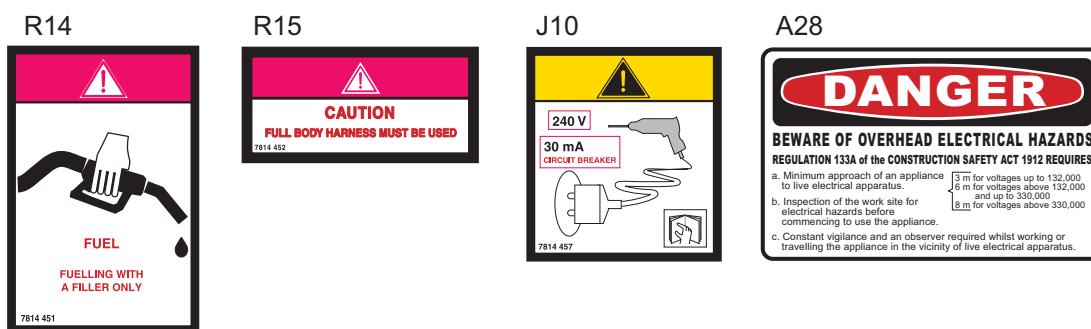


The other labels provide additional technical information.

Common labels

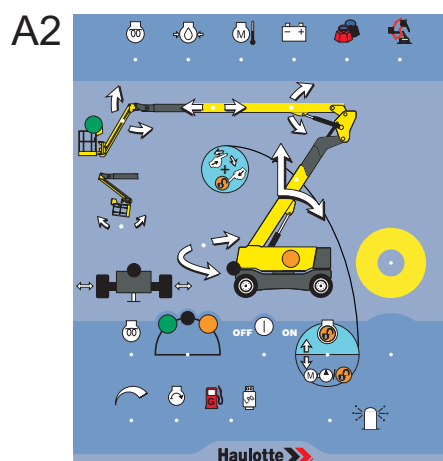


Specific labels AS



C - Machine layout

Specific labels HA 41PX-NT (HA 130JRT-NT)



4.1.5 - Green labels



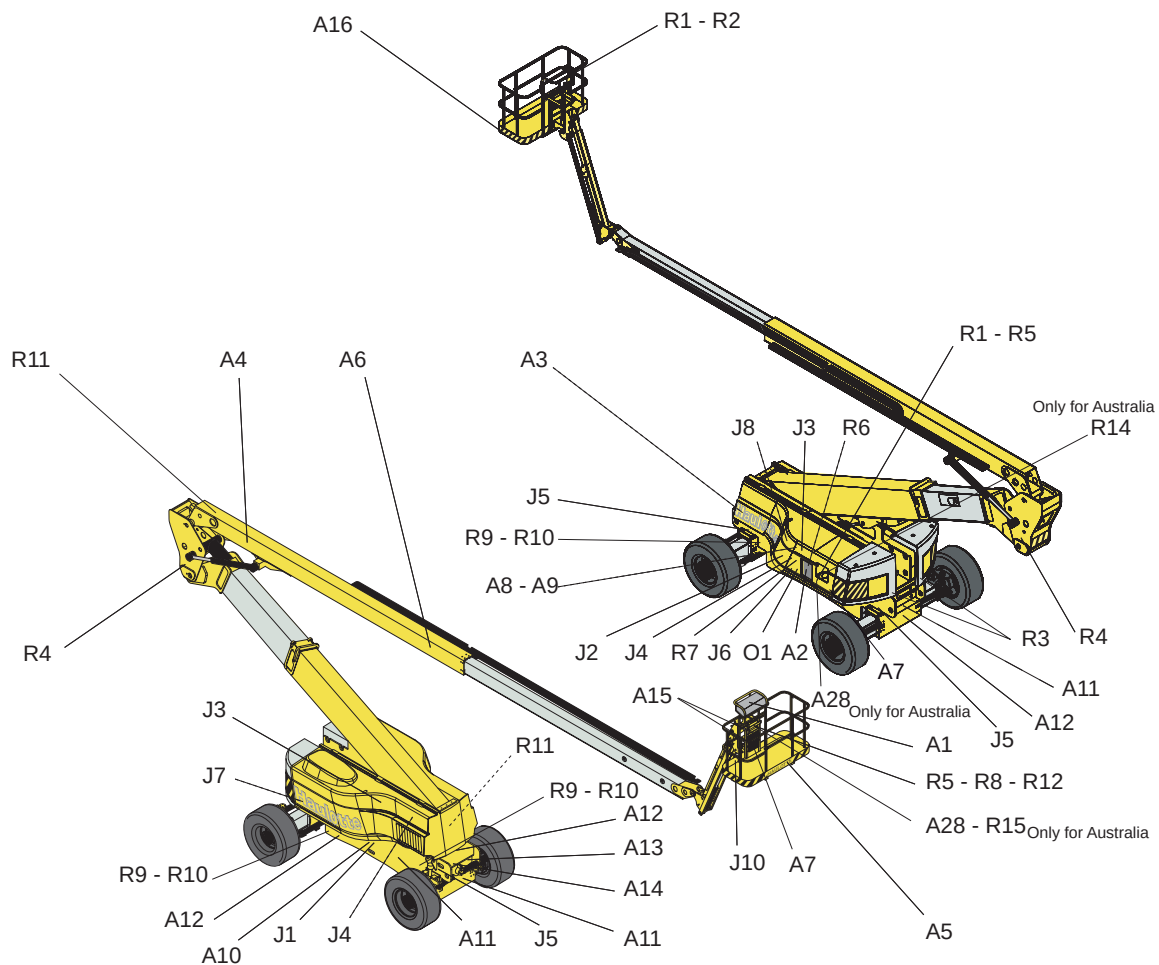
Green labels indicate maintenance, operations or information(CSA standard).

Common labels

C - Machine layout

4.2 - IDENTIFICATION

Locations - C E



C

- Machine layout

A

B

C

D

E

F

G

H

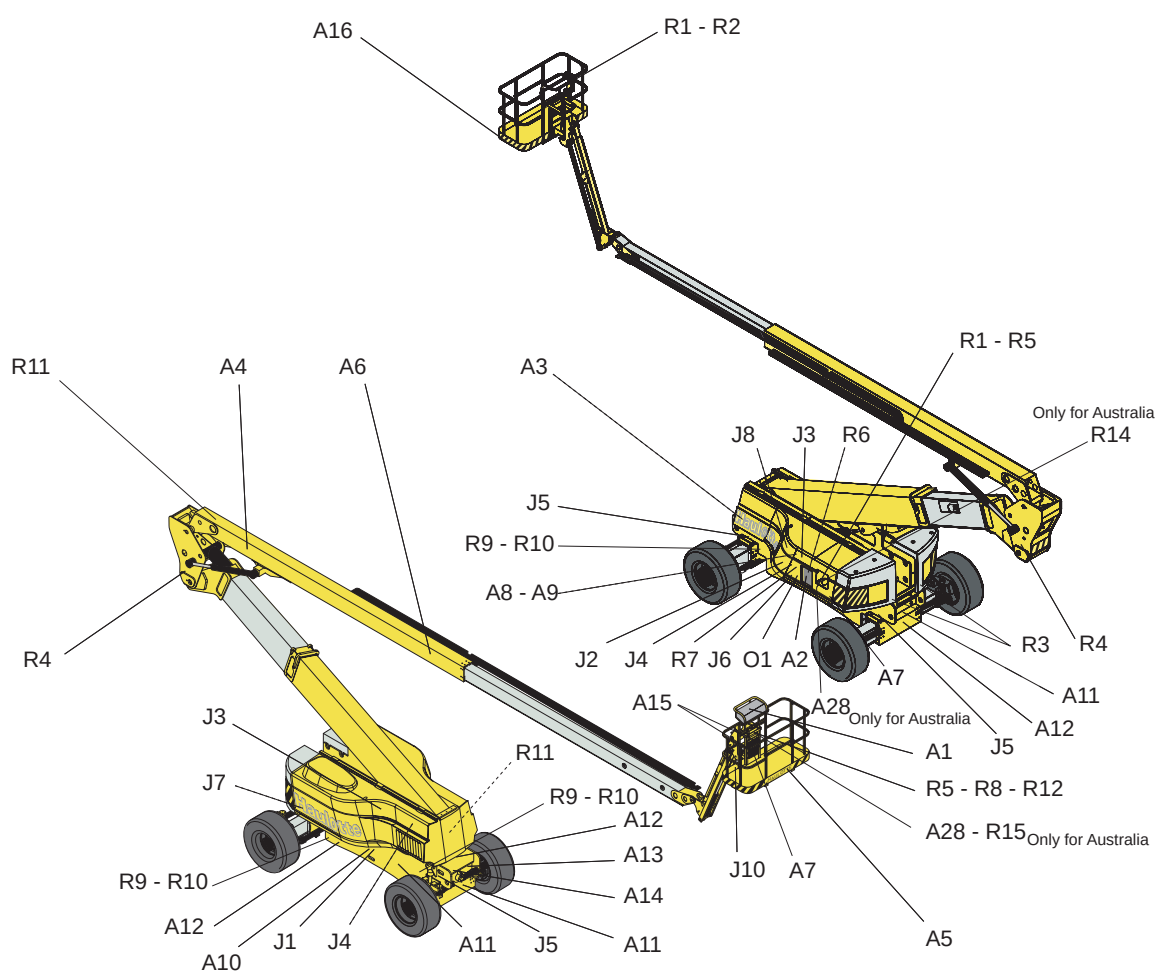
I

Label descriptions-CE

Color	Marking	Description	Quantity	HA32PX (HA100JRT)	HA41PX-NT (HA130JRT-NT)
Red	R1	Height of the floor and load	2	3078149160	307P218830
Red	R2	Travel direction	1	3078145070	3078145070
Red	R3	Risk of crushed hands	2	3078143620	3078143620
Red	R4	Risk of body crushing	2	3078143630	3078143630
Red	R5	Danger of electrocution	2	3078151410	3078151410
Red	R6	Do not interchange	1	3078145180	3078145180
Red	R7	Do not park in the work area	1	3078151420	3078151420
Red	R8	Close the hinged mid-rail	1	3078153510	3078153510
Red	R9	Wheel load	4	307P218850	307P219490
Red	R10	Maximum effort on the stabilizers	1	307P219880	307P219880
Red	R11	Calibration after dismantling	2	307P216930	307P216930
Red	R12	Security devices active	2	307P220220	307P220220
Red	R38	Arm compensation	1		307P223210
Orange	O1	Operation instructions	1	3078143450	3078143450
Yellow	J1	Greasing the turntable rotation gear	1	3078143570	3078143570
Yellow	J2	Remove the blocking pin before orientation	1	3078143530	3078143530
Yellow	J3	Do not place your foot on the cover	2	3078143640	3078143640
Yellow	J4	Do not use the machine as a welding earth	2	3078143600	3078143600
Yellow	J5	Brake release	4	3078150770	3078150770
Yellow	J6	Verification of tilt operation	1	3078144650	3078144650
Yellow	J7	Revolving cradle	1	3078151730	3078151730
Yellow	J8	Cylinder reset	1	3078152530	3078152530
Yellow	J10	Socket	1	3078143540	3078143540
Other	A1-1	Central platform control box	1	307P217550	307P220180
Other	A1-2	Left platform control box	1	307P217550	307P219440
Other	A1-3	Right platform control box	1	307P217550	307P219450
Other	A1-4	Upper central platform control box	1	307P217550	307P219470
Other	A2	Ground control box	1	307P217560	307P217060
Other	A3	Identification plate	1	307P218070	307P218070
Other	A4	Machine name logo	1	3078149180	307P216940
Other	A5	Small format HAULOTTE® logo	1	307P217080	307P217080
Other	A6	Large format HAULOTTE® logo	1	307P217220	307P217220
Other	A7	Read the operation manual	2	3078143680	3078143680
Other	A8	Hydraulic oil	1	3078143520	3078143520
Other	A8	Biodegradable oil	1	3078148890	3078148890
Other	A9	Upper and lower oil level	1	3078143590	3078143590
Other	A10	Sound power	1	3078148740	3078148740
Other	A11	Front green drive direction arrow	4	3078143930	3078143930
Other	A12	Rear red drive direction arrow	4	3078143940	3078143940
Other	A13	Swing axle extension/retraction	1	307P215120	307P215120
Other	A14	Fixed axle extension/retraction	1	3078153600	3078153600
Other	A15	Harness location	2	307P216290	307P216290
Other	A16	Yellow and black adhesive tape	1	2421808660	2421808660
Other	A30	Machine anchorage points	2	3078147930	3078147930

C - Machine layout

Locations - A S



C

- Machine layout

A

B

C

D

E

F

G

H

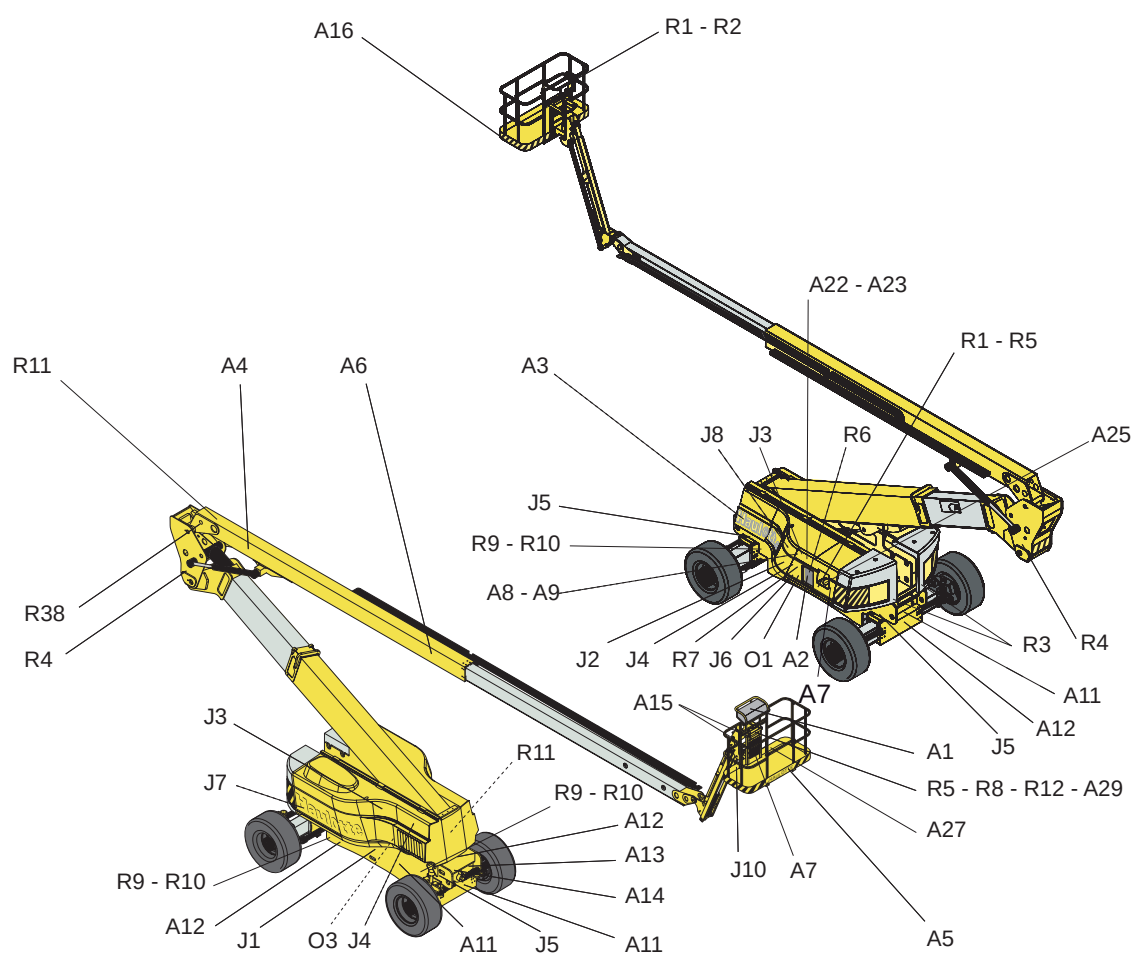
I

Label descriptions-AS

Color	Marking	Description	Quantity	HA32PX (HA100JRT)	HA41PX-NT (HA130JRT-NT)
Red	R1	Height of the floor and load	2	3078149160	307P218830
Red	R2	Travel direction	1	3078145070	3078145070
Red	R3	Risk of crushed hands	2	3078143620	3078143620
Red	R4	Risk of body crushing	2	3078143630	3078143630
Red	R6	Do not interchange	1	3078145180	3078145180
Red	R7	Do not park in the work area	1	3078151420	3078151420
Red	R8	Close the hinged mid-rail	1	3078153510	3078153510
Red	R9	Wheel load	4	307P218850	307P219490
Red	R10	Maximum effort on the stabilizers	1	307P219880	307P219880
Red	R11	Calibration after dismantling	2	307P216930	307P216930
Red	R12	Security devices active	2	307P220220	307P220220
Red	R14	Fuel filling-up	1	3078144510	3078144510
Red	R15	Harness use	1	3078144520	3078144520
Red	R38	Arm compensation	1		307P223210
Orange	O1	Operation instructions	1	3078143450	3078143450
Yellow	J1	Greasing the turntable rotation gear	1	3078143570	3078143570
Yellow	J2	Remove the blocking pin before orientation	1	3078143530	3078143530
Yellow	J3	Do not place your foot on the cover	2	3078143640	3078143640
Yellow	J4	Do not use the machine as a welding earth	2	3078143600	3078143600
Yellow	J5	Brake release	4	3078150770	3078150770
Yellow	J6	Verification of tilt operation	1	3078144650	3078144650
Yellow	J7	Revolving cradle	1	3078151730	3078151730
Yellow	J8	Cylinder reset	1	3078152530	3078152530
Yellow	J10	Socket	1	3078144570	3078144570
Other	A1-1	Central platform control box	1	307P217550	307P220180
Other	A1-2	Left platform control box	1	307P217550	307P219440
Other	A1-3	Right platform control box	1	307P217550	307P219450
Other	A1-4	Upper central platform control box	1	307P217550	307P219470
Other	A2	Ground control box	1	307P217560	307P217060
Other	A3	Identification plate	1	307P218070	307P218070
Other	A4	Machine name logo	1	3078149180	307P216940
Other	A5	Small format HAULOTTE® logo	1	307P217080	307P217080
Other	A6	Large format HAULOTTE® logo	1	307P217220	307P217220
Other	A7	Read the operation manual	2	3078143680	3078143680
Other	A8	Hydraulic oil	1	3078143520	3078143520
Other	A8	Biodegradable oil	1	3078148890	3078148890
Other	A9	Upper and lower oil level	1	3078143590	3078143590
Other	A11	Front green drive direction arrow	4	3078143930	3078143930
Other	A12	Rear red drive direction arrow	4	3078143940	3078143940
Other	A13	Swing axle extension/retraction	1	307P215120	307P215120
Other	A14	Fixed axle extension/retraction	1	3078153600	3078153600
Other	A15	Harness location	2	307P216290	307P216290
Other	A16	Yellow and black adhesive tape	1	2421808660	2421808660
Other	A28	Danger of electrocution	1	3078144430	3078144430
Other	A30	Machine anchorage points	2	3078147930	3078147930

C - Machine layout

Locations - ANSI - CSA



C - Machine layout

Label descriptions-ANSI - CSA

Color	Marking	Description	Quantity	HA32PX (HA100JRT)	HA41PX-NT (HA130JRT-NT)
Red	R1	Height of the floor and load	2	307P215350	307P218840
Red	R2	Travel direction	1	3078147300	3078147300
Red	R3	Risk of crushed hands	2	3078147240	3078147240
Red	R4	Risk of body crushing	2	3078147260	3078147260
Red	R5	Danger of electrocution	2	307P215330	307P215330
Red	R6	Do not interchange	1	3078147320	3078147320
Red	R7	Do not park in the work area	1	307P215340	307P215340
Red	R8	Close the hinged mid-rail	1	3078153630	3078153630
Red	R9	Wheel load	4	307P218860	307P219500
Red	R10	Maximum effort on the stabilizers	1	307P219890	307P219890
Red	R11	Calibration after dismantling	2	307P218880	307P218880
Red	R12	Security devices active	2	307P220320	307P220320
Red	R38	Arm compensation	1		307P223210
Orange	O1	Operation instructions	1	3078147050	3078147050
Orange	O3	Risks of explosion	1	3078148030	3078148030
Yellow	J1	Greasing the turntable rotation gear	1	3078147190	3078147190
Yellow	J2	Remove the blocking pin before orientation	1	3078147700	3078147700
Yellow	J3	Do not place your foot on the cover	1	3078147270	3078147270
Yellow	J4	Do not use the machine as a welding earth	1	3078147220	3078147220
Yellow	J5	Brake release	1	3078150780	3078150780
Yellow	J6	Verification of tilt operation	1	3078147090	3078147090
Yellow	J7	Revolving cradle	1	307P215290	307P215290
Yellow	J8	Cylinder reset	1	307P215320	307P215320
Yellow	J10	Socket	1	3078147580	3078147580
Other	A1-1	Central platform control box	1	307P217550	307P220180
Other	A1-2	Left platform control box	1	307P217550	307P219440
Other	A1-3	Right platform control box	1	307P217550	307P219450
Other	A1-4	Upper central platform control box	1	307P217550	307P219470
Other	A2	Ground control box	1	307P217560	307P217060
Other	A3	Identification plate	1	307P218170	307P218170
Other	A4	Machine name logo	1	307P215420	307P219510
Other	A5	Small format HAULOTTE® logo	1	307P217080	307P217080
Other	A6	Large format HAULOTTE® logo	1	307P217220	307P217220
Other	A7	Read the operation manual	2	3078147290	3078147290
Other	A8	Hydraulic oil	1	3078147140	3078147140
Other	A8	Biodegradable oil	1	3078148920	3078148920
Other	A9	Upper and lower oil level	1	3078147210	3078147210
Other	A11	Front green drive direction arrow	4	3078143930	3078143930
Other	A12	Rear red drive direction arrow	4	3078143940	3078143940
Other	A13	Swing axle extension/retraction	1	307P215380	307P215380
Other	A14	Fixed axle extension/retraction	1	307P215370	307P215370
Other	A15	Harness location	1	3078147950	3078147950
Other	A16	Yellow and black adhesive tape	1	2421808660	2421808660
Other	A22	Voltage table	1	3078147890	3078147890
Other	A23	Symbol summary	1	3078147960	3078147960
Other	A25	Fuel tank cap	1	3078150020	3078150020

C - Machine layout

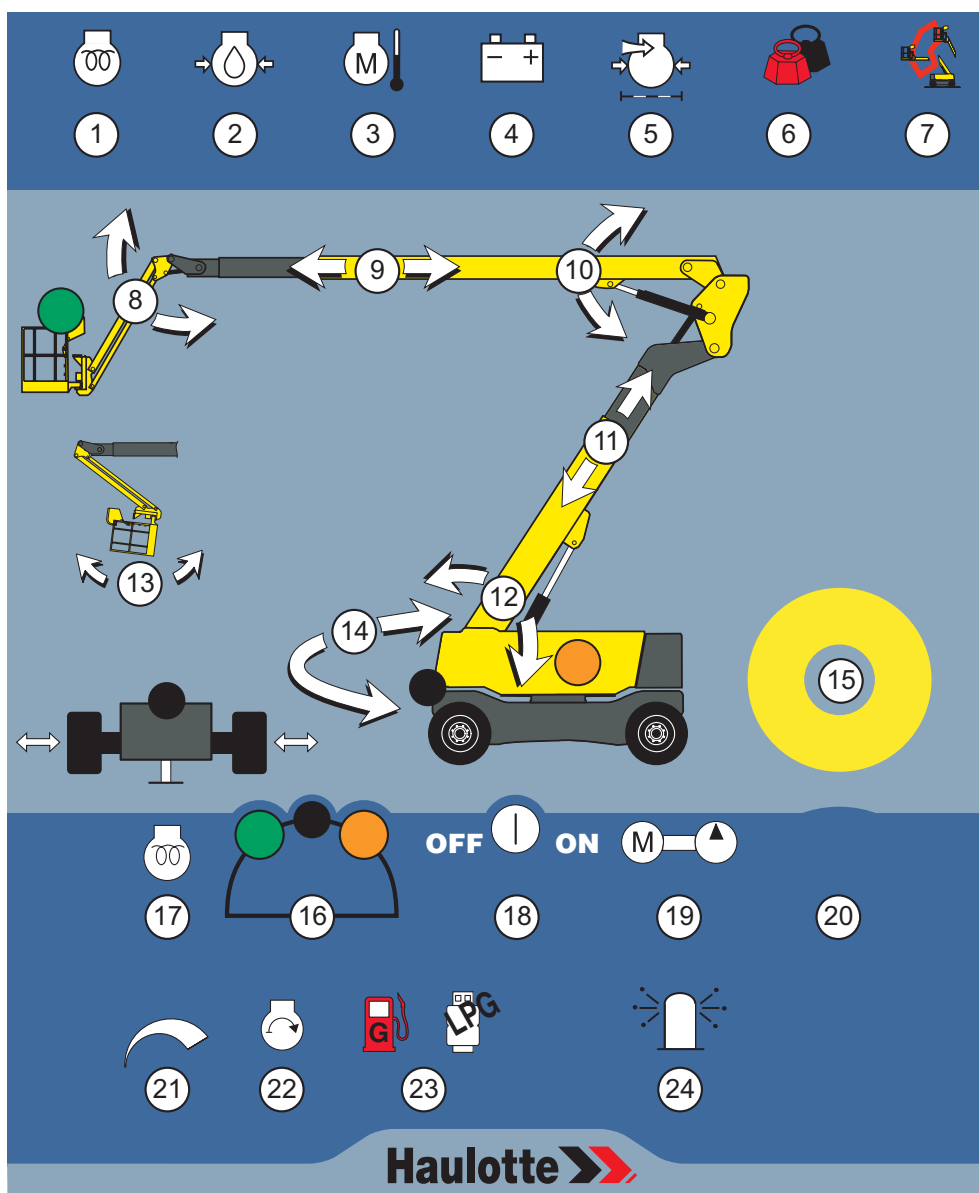
Color	Marking	Description	Quantity	HA32PX (HA100JRT)	HA41PX-NT (HA130JRT-NT)
Other	A27	Permissible load	1	3078150030	3078150030
Other	A30	Machine anchorage points	2	3078147930	3078147930

5 - Control boxes

N.B.:-THE FUNCTIONS FOR THE ENTIRE RANGE ARE DESCRIBED BELOW. REFER TO THE MACHINE MODEL YOU HAVE TO IDENTIFY THE FUNCTION CONTROLS AND INDICATORS.

5.1 - GROUND CONTROL BOX

HA32PX (HA100JRT) - General view



C - Machine layout

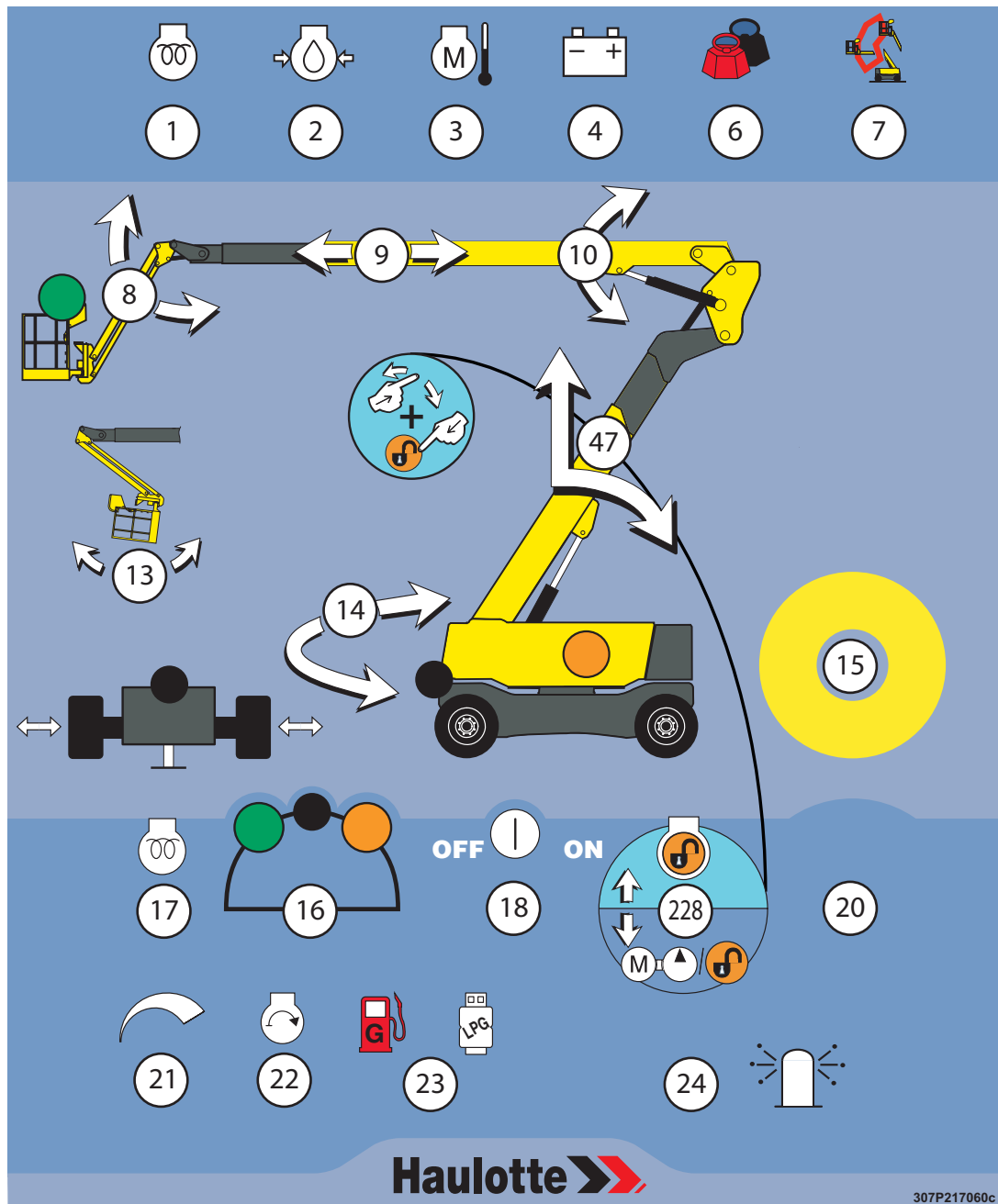
HA32PX (HA100JRT) - Controls and indicators

Marking	Description	Function
1	Electric pre-heating indicator	On : Engine in pre-heating mode Off : Engine pre-heated, starting possible
2	Engine oil pressure indicator	Low engine oil pressure ¹
3	Engine temperature indicator	High engine oil temperature ¹
4	Battery charge indicator	Low battery charge ¹
5	Air filter clogging indicator	Clogged air filter ¹
6	Platform overload indicator	Platform overload indicator
7	Radius limitation indicator	Close to radius limitation : • The indicator flashes • Movement is slowed down Radius limitation reached : • The indicator flashes continuously • An automatic movement is performed to return to the authorized radius limitation
8	Jib lifting / lowering selector button	Moved upwards : Jib lifting Moved downwards : Jib lowering
9	Boom telescoping selector	Move to the left : Telescope extension Move to the right : Telescope retraction
10	Boom raising selector	Moved upwards : Boom raising Moved downwards : Boom lowering
11	Telescoping selector	Moved upwards : Telescope extension Moved downwards : Telescope retraction
12	Arm lifting selector	Moved upwards : Arm lifting Moved downwards : Arm lowering
13	Platform compensation or transport position selector	Move to the right : Platform compensation lowered or placed in transport position Move to the left : Platform compensation lifted or placed in operating position
14	Turntable rotation selector	Move to the left : Counter clockwise (CCW) rotation Move to the right : Clockwise rotation
15	Emergency stop button	Pulled out (activated) : Ground control box switched on Pushed down (deactivated) : De-energizes control system
16	Control box activation keyed selector switch	Left : Platform control box activated Center : Axle control box activated Right : Ground control box activated
17	Engine pre-heating selector	Moved downwards : Engine pre-heating
18	ON/OFF selector	ON : Energizes control system OFF : De-energizes control system
19	Back-up unit selector	Press in and hold : Back-up unit activated Release : Back-up unit deactivated
20	Hour meter	Total machine running hours
21	Engine acceleration selector	Move to the right : Engine speed acceleration Move to the left : Engine speed when idle
22	Engine start-up selector	Engine start-up
23	Petrol/Gas selector ²	LPG : Gas supply G : Petrol supply
24	Beacon light selector	Move to the right : Beacon light activated Move to the left : Beacon light deactivation

1. Perform the required maintenance (see the machine maintenance book)
2. For equipped machines

C - Machine layout

HA 41PX-NT (HA 130JRT-NT) - General view



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C

- Machine layout

A

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I

HA41PX-NT (HA130JRT-NT) - Controls and indicators

Marking	Description	Function
1	Electric pre-heating indicator	On : Engine in pre-heating mode Off : Engine pre-heated, starting possible
2	Engine oil pressure indicator	Low engine oil pressure ¹
3	Engine temperature indicator	High engine oil temperature ¹
4	Battery charge indicator	Low battery charge ¹
6	Platform overload indicator	Platform overload indicator
7	Radius limitation indicator	Close to radius limitation : • The indicator flashes • Movement is slowed down Radius limitation reached : • The indicator flashes continuously • An automatic movement is performed to return to the authorized radius limitation
8	Jib lifting / lowering selector button	Moved upwards : Jib lifting Moved downwards : Jib lowering
9	Boom telescoping selector	Move to the left : Telescope extension Move to the right : Telescope retraction
10	Boom raising selector	Moved upwards : Boom raising Moved downwards : Boom lowering
13	Platform compensation or transport position selector	Move to the right : Platform compensation lowered or placed in transport position Move to the left : Platform compensation lifted or placed in operating position
14	Turntable rotation selector	Move to the left : Counter clockwise (CCW) rotation Move to the right : Clockwise rotation
15	Emergency stop button	Pulled out (activated) : Ground control box switched on Pushed down (deactivated) : De-energizes control system
16	Control box activation keyed selector switch	Left : Platform control box activated Center : Axle control box activated Right : Ground control box activated
17	Engine pre-heating selector	Moved downwards : Engine pre-heating
18	ON/OFF selector	ON : Energizes control system OFF : De-energizes control system
20	Hour meter	Total machine running hours
21	Engine acceleration selector	Move to the right : Engine speed acceleration Move to the left : Engine speed when idle
22	Engine start-up selector	Engine start-up and shutdown
23	Petrol/Gas selector ²	LPG : Gas supply G : Petrol supply
24	Beacon light selector	Move to the right : Beacon light activated Move to the left : Beacon light deactivation
47	Arm telescoping or lifting selector	Moved upwards : Telescope extension or arm lifting Moved downwards : Telescope retraction or arm lowering
228	'Dead man' selector / Back-up unit selector ³	Moved upwards : Movement validation Moved downwards : Back-up unit activated Movement validation

1. Perform the required maintenance (see the machine maintenance book)

2. For equipped machines

3. For equipped machines

C - Machine layout

Photo HA32PX (HA100JRT)

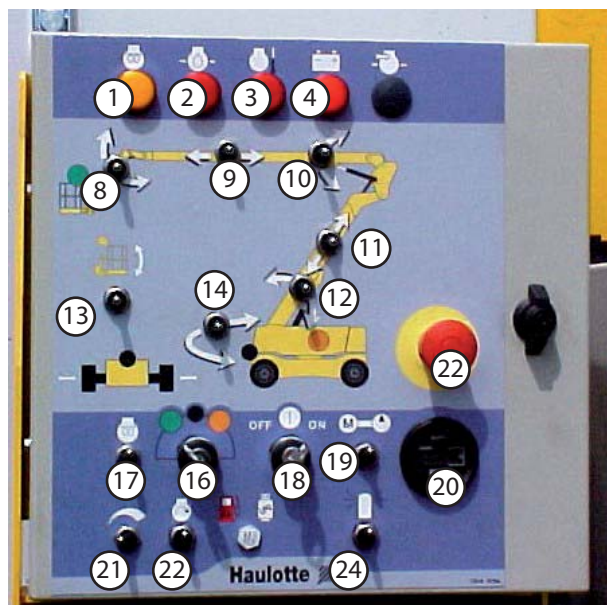
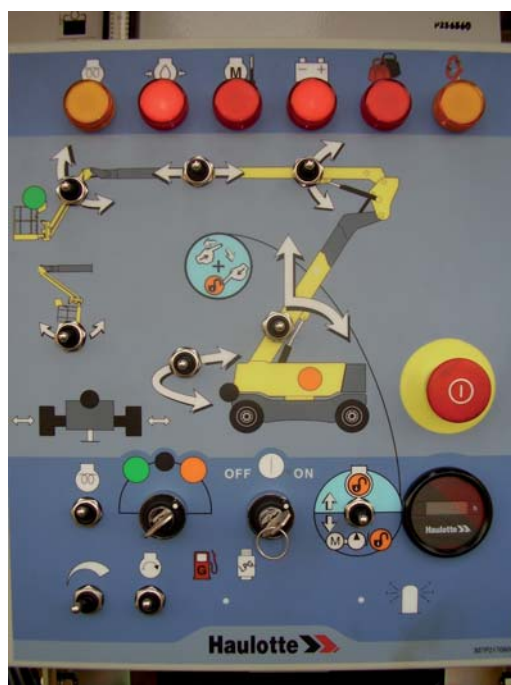


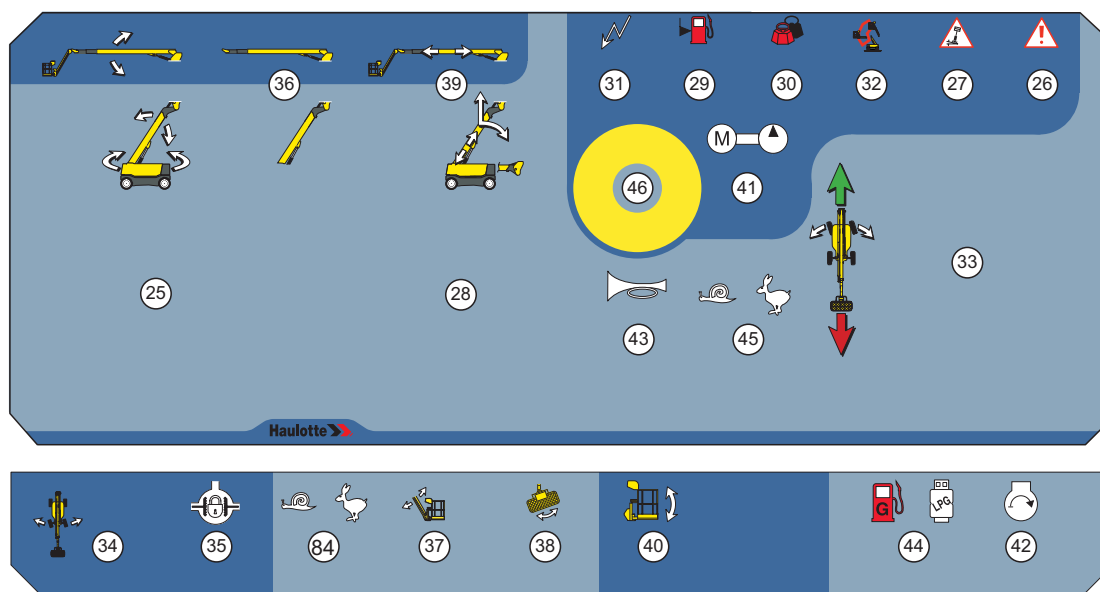
Photo HA41PX-NT (HA130JRT-NT)



C - Machine layout

5.2 - PLATFORM CONTROL BOX

HA 32 P X (HA 100 J R T) - General view



HA32PX (HA100JRT) - Controls and indicators

Marking	Description	Function
25	Turntable rotation joystick	Move to the left : Clockwise rotation Move to the right : Counter clockwise (CCW) rotation
	Boom lift joystick	Moved upwards : Boom raising Moved downwards : Boom lowering
	Arm lifting/lowering joystick	Move forward to the front : Arm lifting Movement backwards to rear : Arm lowering
26	Fault indicator	Operation malfunction ¹
27	Tilt indicator	Machine in tilted position
28	Boom telescope or arm lifting/lowering joystick	Moved upwards : Boom retraction or arm lifting Moved downwards : Boom extension or arm lowering
29	Fuel level indicator	Low fuel level
30	Platform overload indicator	Platform overload indicator
31	Power ON indicator	On : Machine switched on Off : Machine switched off
32	Radius limitation indicator	The indicator flashes : Close to radius limitation The indicator flashes continuously : Radius limitation reached
33	Drive joystick	Move forward to the front : Forward drive Movement backwards to rear : Reverse drive
	Front axle steering selector	Press right : Right-hand steering Press left : Left-hand steering
34	Rear axle steering selector	Move to the right : Right-hand steering Move to the left : Left-hand steering

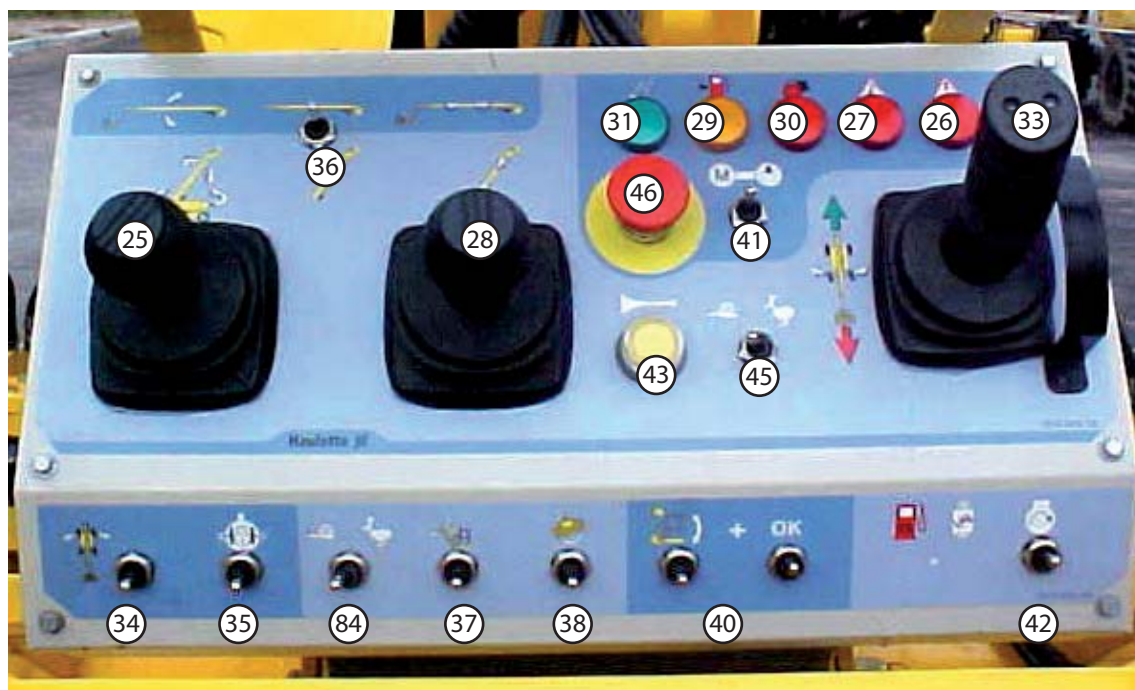
C - Machine layout

Marking	Description	Function
35	Differential blocking selector	Press in and hold (activated) : Maximum torque (on difficult or sloping ground) Release (deactivated) : Standard torque
36	Boom or arm position selector	Up : Boom selection Down : Arm selection
37	Jib lifting / lowering selector button	Moved upwards : Jib lifting Moved downwards : Jib lowering
38	Platform rotation selector	Move to the right : Counter clockwise (CCW) rotation Move to the left : Clockwise rotation
39	Boom telescoping selector	Move to the left : Telescope extension Move to the right : Telescope retraction
40	Platform compensation selector	Moved upwards : Lifting of platform Moved downwards : Lowering of platform
41	Back-up unit selector	Press in and hold : Back-up unit activated Release : Back-up unit deactivated
42	Engine start-up selector	Engine start-up
43	Horn selector	Horn
44	Petrol/Gas selector ²	LPG : Gas supply G : Petrol supply
45	Drive speed selector	 High-speed driving  Low-speed driving
46	Emergency stop button	Pulled out (activated) : Platform control box power supply on Pushed down (deactivated) : De-energizes control system
84	Platform movement speed selector	 High-speed movement  Low-speed movement

1. Perform the required maintenance (see the machine maintenance book)
2. For equipped machines

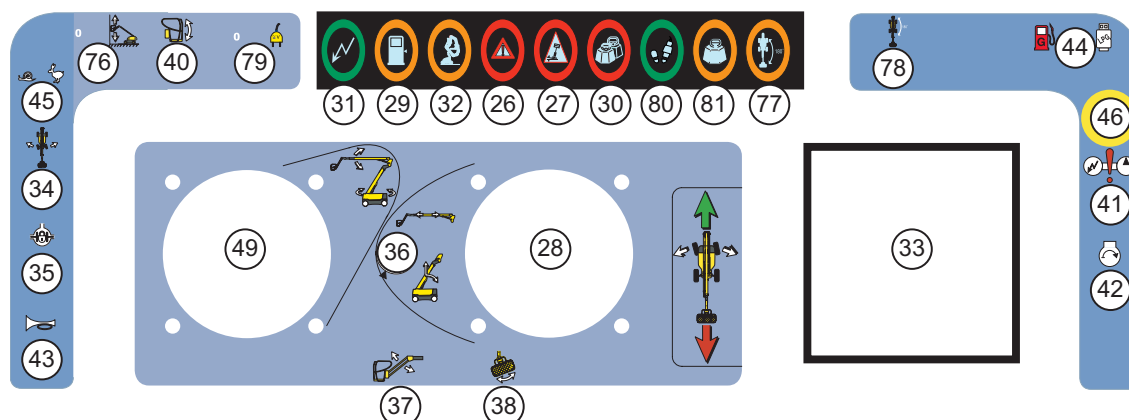
C - Machine layout

Photo HA32PX (HA100JRT)



C - Machine layout

HA 41PX - NT (HA 130JRT - NT) - General view



HA41PX-NT (HA130JRT-NT) - Controls and indicators

Marking	Description	Function
26	Fault indicator	Operation malfunction ¹
27	Tilt indicator	Machine in tilted position
28	Boom telescope or arm lifting/lowering joystick	Moved upwards : Boom extension or arm lifting Moved downwards : Boom retraction or arm lowering
29	Fuel level indicator	Low fuel level
30	Platform overload indicator	Platform overload indicator
31	Power ON indicator	On : Machine switched on Off : Machine switched off
32	Radius limitation indicator	Close to radius limitation : • The indicator flashes • Movement is slowed down Radius limitation reached : • The indicator flashes continuously • Control of a movement ensuring that the machine is maintained within the stability limits
33	Drive joystick	Move forward to the front : Forward drive Movement backwards to rear : Reverse drive
34	Front axle steering selector	Press right : Right-hand steering Press left : Left-hand steering
35	Rear axle steering selector	Move to the right : Right-hand steering Move to the left : Left-hand steering
36	Differential blocking selector	Press in and hold (activated) : Maximum torque (on difficult or sloping ground) Release (deactivated) : Standard torque
37	Boom or arm position selector	Up : Boom selection Down : Arm selection
38	Jib lifting / lowering selector button	Moved upwards : Jib lifting Moved downwards : Jib lowering
39	Platform rotation selector	Move to the right : Counter clockwise (CCW) rotation Move to the left : Clockwise rotation
40	Platform compensation selector	Moved upwards : Lifting of platform Moved downwards : Lowering of platform

C - Machine layout

Marking	Description	Function
41	Back-up unit selector	Press in and hold : Back-up unit activated Release : Back-up unit deactivated
42	Engine start-up and stop push-button	Engine start-up and shutdown
43	Horn selector	Horn
44	Petrol/Gas selector ²	LPG : Gas supply G : Petrol supply
45	Drive speed selector	 High-speed driving  Low-speed driving
46	Emergency stop button	Pulled out (activated) : Ground control box switched on Pushed down (deactivated) : De-energizes control system
49	Turntable rotation joystick	Move to the right : Counter clockwise (CCW) rotation Move to the left : Clockwise rotation
	Boom lift joystick	Moved upwards : Boom raising Moved downwards : Boom lowering
76	Not used	
77	Not used	
78	Not used	
79	Generator selector (option)	Move to the left : Generator deactivated Move to the right : Generator activated
80	'Dead man' pedal indicator	On : Pedal pressed Off : Pedal released
81	Not used	

1. Perform the required maintenance (see the machine maintenance book)
2. For equipped machines

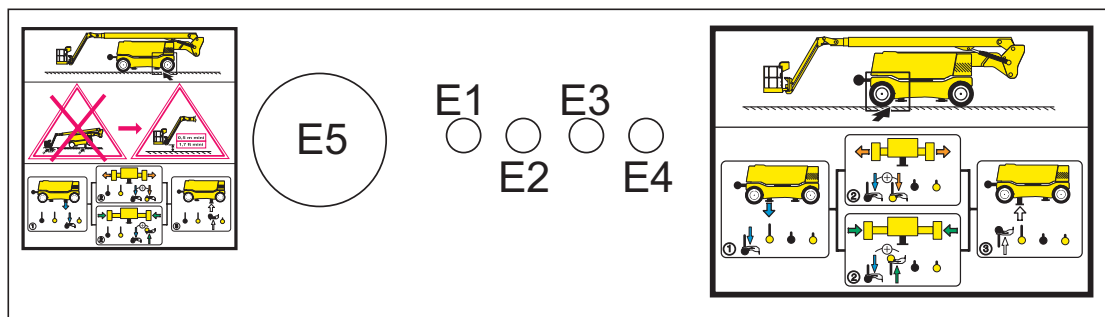
Photo HA 41 P X - N T (H A 1 3 0 J R T - N T)



C - Machine layout

5.3 - AXLE EXTENSION CONTROL BOX

General view



Controls and indicators

Marking	Function
E1	Outrigger cylinder lifting/lowering (chassis is lowered/raised) (Rear fixed axle)
E2	Fixed axle extension/retraction (Rear)
E3	Outrigger cylinder lifting/lowering (chassis is lowered/raised) (Front swing axle)
E4	Swing axle extension/retraction (Front)
E5	Emergency stop button

D - Operating principle

1 - Description

Hydraulic energy for machine movement is provided by a pump unit.

The controls and the starting of the thermal engine are powered by battery.

To protect the staff and the machine, safety systems prevent the operation of the machine beyond its capacities.  Section G Technical characteristics

These security systems if activated, immobilize the machine and neutralize the movements.

For HA41PX-NT (HA130JRT-NT) only

When the machine is unfolded, it must always remain under power so that the safety systems are activated.

This implies that the machine must be stationary and folded.

Only lifting the boom with the telescope retracted is authorised.

We strongly advise you not to store or park the machine unfolded to avoid jeopardising the safety of people and property.

It is therefore essential to respect these safety instructions.

To remind the user that the machine must be left powered up so that the safety systems are activated, the buzzer on the platform control box is activated continuously when the electrical supply is off and the arm telescope is not retracted.

To de-activate the buzzer, power up the machine.

The buzzer on the turntable is also activated continuously when the electrical supply is switched off and the arm telescope is not retracted.

This reminds the user that this storage position is not acceptable.

To de-activate the buzzer, the arm must be completely retracted and lowered before switching off the power.



Poor knowledge of the characteristics and operation of the machine can lead the operator to think that a normal safety operation is a malfunction.

D - Operating principle

2 - Safety devices

2.1 - ACTIVATION OF CONTROLS

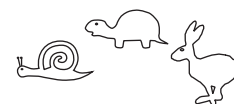
The controls must be validated by a 'Dead man' system to activate the different movements.

The 'Dead man' system depends on the machine configuration and will consist of one of the following :

- Joystick handle.
- Pedal.
- Validation button.

2.2 - DRIVE SPEED

All driving speed options are allowed when the machine is stowed (machine in fully lowered position).



2.3 - MOVEMENT SPEED

The movement speed of the following elements is regulated by the movement speed selector switch :

- Jib lifting/rotation.
- Platform rotation/compensation.

The movement speed depends on the user's choices and the environment.

N.B.-:JOYSTICK PROPORTIONALITY MUST BE USED TO ADJUST THE SPEED OF THE OTHER MOVEMENTS.

2.4 - ON-BOARD ELECTRONICS

The machines are equipped with a specific calculator configured for the machine's functionalities.



Do not interchange the calculator between machines.

2.5 - DETECTION OF INTERNAL FAULT

For HA41PX-NT (HA130JRT-NT) only



When the machine is unfolded, it must always remain under power so that the safety system is activated.



N.B.-:THE PRESENCE OF THIS DEVICE DEPENDS ON THE MACHINE CONFIGURATION.

The defect indicator flashes to indicate an internal malfunction.

The machine switches to downgraded mode.

Certain movements can be limited or forbidden to preserve the operator's safety.

D - Operating principle

2.6 - AUTOMATIC ENGINE CUT-OUT

The engine automatically cuts out in the following conditions (Please see machine configuration) :

- The alternator is not functioning.
- Engine temperature is too high.
- Oil pressure is too low.
- A machine malfunction is detected.

2.7 - LOAD LIMITING IN THE PLATFORM (IF FITTED)

If the platform load exceeds the maximum authorized load, no movement is possible from the platform control box.

The platform overload indicator and the buzzer warn the operator that the overload condition exists..

Remove some weight from the platform to return to an acceptable load condition.



2.8 - CHASSIS TILT

If the machine is located on a slope exceeding the authorized limit, the operator is warned by the slope sensor indicator on the platform control box and the buzzer.

Driving is cut (If the machine is unfolded).

To restore the drive function, only movements allowing the machine to be stowed are permitted :

- Telescope retraction.
- Lifting or lowering the boom to return to horizontal position.
- Lowering the arm.
- Lowering the jib until it is below horizontal position.

2.9 - RADIUS LIMITATION

N.B.-:-THE PRESENCE OF THIS DEVICE DEPENDS ON THE MACHINE CONFIGURATION.

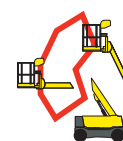
The radius limit indicator flashes to indicate that a controlled movement has occurred to maintain the machine within the stability limit.

Movement is slowed down.

Driving and other additional movements are forbidden.

The radius limit indicator is ON continuously if the operator requests a movement that causes the machine to exceed the radius limit.

For machines over 40 m (131 ft 2 in) , the red markers located on the telescope are a visual means of checking that the radius limit function is working properly.



D - Operating principle

2.10 - SWING AXLES

For the machines larger or equal to *1, axle extension improves machine stability.

If the axles are retracted, the machine's capacities are reduced.

Only the following movements are possible :

- Turntable rotation if the boom is in horizontal position.
- Boom raising if the turntable is aligned with the axis.

If the axles are extended, all movements are possible.

Axle extension is possible if the machine is completely stowed, the jib below horizontal position and the turntable aligned with the axis.

E - Driving

1 - Recommendations

The manager of the company responsible for the commissioning of the machine must ensure that the machine is fit for the work it is to perform. i.e. that the machine is suitable to carry out the work in complete safety in compliance with this Operator Manual. All managers who are responsible for persons operating the machine, must be familiar with the regulations currently applicable in the country of use and ensure that they are adhered to.



Before using the machine, read the previous chapters in this manual. Ensure that you have understood the following points :

- Safety precautions.
- Operator's responsibilities.
- Presentation and the operating principle of the machine.

2 - Checks before use

Each day and before the beginning of a new work period and on each change of operator, the machine must be subjected to a visual inspection and a complete functional test.

Any repairs required must be performed before the machine is used, its correct operation depends on it.



Find all the function indicators and controls in  Section C 5 - Control boxes

2.1 - VISUAL INSPECTIONS

2.1.1 - General mechanical functions

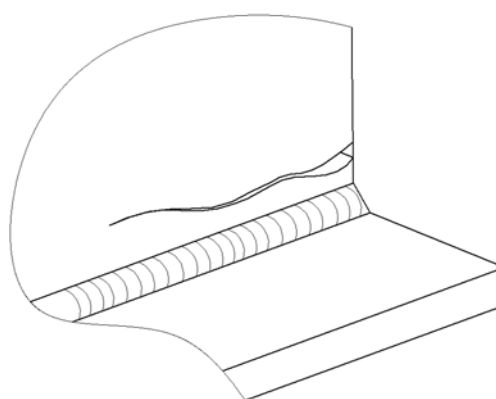
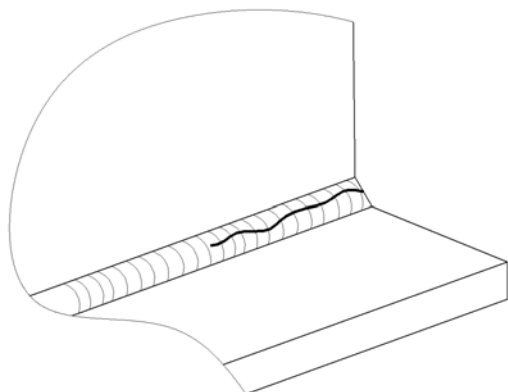
For all the following checks, ensure that the machine is switched off.

Check the following points :

- The presence of the identification plate, labels and operator manual :
 - Their state of cleanliness and visibility.
 - Clean or replace if necessary.
- Visual state of the machine :
 - Absence of leaks (battery acid, hydraulic oil, ec.). Absence of foreign objects on all surfaces. Call the staff in charge of the maintenance if necessary.
 - No missing or loose parts (bolts, nuts, connectors, cables, ec.). Refer to the tightening torques' table quoted in the Maintenance Book.
 - Absence of cracks, broken parts, damaged paint. No deformations or other anomalies on the structure's parts.

E - Driving

Example



- Cylinders' state :
 - No leaks. Refer to the Maintenance book.
 - No rust and shock on the cylinder rod.
 - Absence of foreign objects on all surfaces.
- Steering system's state : wheels, reducers, brakes and tires :
 - No cracks, shocks, damaged paint or other faults
 - No missing screws or unscrewed. Refer to the tightening torques' table quoted in the Maintenance Book.
 - Condition of the tyres (cuts, excessive wear, ec.).
- Status of the control boxes :
 - No damage.
 - Back to neutral for all joysticks, selectors, etc..
 - Presence and readable of the control box labels.
- Movement safety limit switches :
 - No damage.
 - No missing screws or unscrewed. Refer to the tightening torques' table quoted in the Maintenance Book.
 - Absence of foreign objects on all surfaces.
- The state and connection of the electric wires and cables :
 - No damage, wear marks or other faults.
 - No contact between connectors.
- State of the hydraulic unit and pump :
 - No leaks.
 - No missing or loose parts (bolts, nuts, connectors, cables, ec.).
- Hydraulic oil filter. Refer to the Maintenance book.

E - Driving

- State of the structure's parts : Arm, boom, jib, cage (or platform) :
 - No cracks, damaged paint.
 - No distortion, visible damage.
 - No foreign objects at the ends of the booms, between arms and link parts.
 - Presence and check the original position of the platform control box sliding bar.
- State of the rotate systems : Turntable rotation, Turntable rotation selector in platform.
 - No excessive clearance : Refer to the Maintenance book.
 - No missing screws or unscrewed.
 - Absence of foreign objects on all surfaces.
 - Greasing the turntable rotation gear Turntable and Platform.
- State of the tanks :
 - No leaks.
 - No missing or loose parts (bolts, nuts, connectors, cables, ec.). Top up the oil level, if necessary (Machine in transport position).
- Sufficient fuel level.

2.1.2 - Environment

 Section A - Safety precautions.

Check the following points :

- Wind speed ( Section G 1- Main characteristics).
- The permissible ground pressure and loading on the machine supporting surface ( Section G 1- Main characteristics).
- The maximum permissible load in the platform ( Section G 1- Main characteristics).
- The maximum permissible lateral force allowed at the platform ( Section G 1- Main characteristics).

2.2 - FUNCTIONAL TESTS

2.2.1 - Safety features

Features to be tested :

- Operation of the upper and lower emergency stop buttons.
- Operation of the tilt sensor.
- Visual and audible alarms.
- Platform load management system (Where fitted).
- The boom control system (for HA41PX-NT (HA130JRT-NT) only).

For functional test procedures refer to ( Section E 3.1- Test procedure).

E - Driving

2.2.2 - Ground control box controls (emergency station)

Refer to the corresponding operations to test the controls in the order mentioned ( Section E 3.2- Operation from ground position).

Step	Control
1	ON/OFF selector 18
2	Engine pre-heating selector 17
3	Engine acceleration selector 21
	Movements :
	• Lifting/lowering of arm 12 or 47 ¹
	• Lifting / lowering of boom 10
4	• Arm telescope extension/retraction 11 or 47 ¹ .
	• Boom telescope extension/retraction 9
	• Jib lifting/lowering 8
	• Turntable rotation 14
	• Platform compensation 13
5	Transport position selector 13
6	Beacon light selector 24
7	Control box activation keyed selector switch 16

1. (47) for HA41PX-NT (HA130JRT-NT)

2.2.3 - Platform control box controls (driving station)

Refer to the corresponding operations to test the controls in the order mentioned ( Section E 3.3- Operations from the platform).

Step	Control
1	Driving and steering 33
2	Rear axle steering selector 34
3	Platform rotation selector 38
	Movements :
	• Lifting/lowering of arm 25 or 38 ¹
	• Lifting / lowering of boom 25
4	• Arm telescope extension/retraction 28
	• Boom telescope extension/retraction 28
	• Jib lifting/lowering 37
	• Turntable rotation 25
	• Platform compensation 40
5	Drive speed selector 45
6	Differential blocking selector 35
7	Horn selector 43

1. (38) for HA41PX-NT (HA130JRT-NT)

E - Driving

2.2.4 - Axle control box controls

Refer to the corresponding operations to test the controls in the order mentioned (📄 Section E 3.4- Operations from the axles).

Tests from the axle control box

Step	Control
1	Cylinder lifting/lowering and chassis lifting/lowering on fixed axle E1
2	Fixed axle extension/retraction E2
3	Cylinder lifting/lowering and chassis lifting/lowering on swing axle E3
4	Swing axle extension/retraction E4
5	Emergency stop button E5

2.3 - PERIODICAL CHECKS

The machine must be on on a regular basis at interval in accordance with the requirement set down in the Country of use but no less than once per year. The purpose of the inspection is to detect any defect which could lead to an accident during routine use of the machine.

These inspections must be carried out by a competent company or person whose selection is under the responsibility of the manager (Company employee or other).

The inspection results must be recorded in the safety register or machine log book controlled opened by the company manager. This register or machine log book and the list of competent repair persons must be made available to the Government Work Inspector and company safety committee at all times.

N.B.: 📄 **SECTION H INTERVENTION LOG**

2.4 - REPAIRS AND ADJUSTMENTS

Extensive repairs, interventions or adjustments on the safety systems or elements must be performed by a HAULOTTE Services® employee or a HAULOTTE Services®-approved employee with HAULOTTE Services® training only using original spare parts.

HAULOTTE Services® technicians are specially trained to carry out extensive repairs, interventions or adjustments on the safety systems or elements of HAULOTTE® machines, and carry genuine HAULOTTE spare parts and tools as required, and also provide fully documented reports on all work completed..

HAULOTTE Services® will not take responsibility for any consequential outcomes resulting from inferior services/repairs carried out by others.

HAULOTTE advises that no modifications are to be carried out on its products without the written permission of HAULOTTE®. We also advise that any unauthorized modifications will void the HAULOTTE warranty..

2.5 - INSPECTION / TESTING REQUIREMENTS

Intervention to be made after :

- Extensive dismantling and reassembly.
- Repairs involving the machine's essential components.
- Any accident causing stress.

Perform a fitness for function inspection, a condition inspection and static and dynamic tests (Consult the After-Sales Service HAULOTTE Services®).

E - Driving

3 - Usage

N.B.:-THE FUNCTIONS FOR THE ENTIRE RANGE ARE DESCRIBED BELOW. REFER TO THE MACHINE MODEL YOU HAVE TO IDENTIFY THE FUNCTION CONTROLS AND INDICATORS.



Find all the function indicators and controls in  Section C 5 - Control boxes

3.1 - TEST PROCEDURE

3.1.1 - Emergency stop button operation

Ground control box emergency stop button

Step	Action
1	Pull the emergency stop buttons(15, 46, E5).
2	Set the ON/OFF (18) selector switch to ON.
3	Turn the key on the control box activation selector switch (16) to the right to activate the ground control box. The indicators light up.
4	Push the emergency stop button (15). The indicators go out.

Platform control box emergency stop button

Step	Action
1	Pull the emergency stop buttons(15, 46, E5).
2	Set the ON/OFF (18) selector switch to ON.
3	Turn the key on the control box activation selector switch (16) to the left to activate the platform control box. The indicators light up.
4	Push the emergency stop button (46). The indicators go out.

Axle control box emergency stop button

Step	Action
1	Pull the emergency stop buttons(15, 46, E5).
2	Set the ON/OFF (18) selector switch to ON.
3	Turn the control box activation selector switch (16) to the centre to activate the axle control box. The indicators light up.
4	Push the emergency stop button (E5). The indicators go out.

E - Driving

3.1.2 - Tilt sensor switch function

1. Pull the battery power (SB1) ( Section C 5.3 - Control boxes).
2. Pull the emergency stop push-buttons on the platform and ground control boxes and on the axle extension control box (15, 46, E5).
3. Set the selector ON/OFF of the ground control box to ON.
4. Set the control box activation selector switch (16) to the ground control box.
5. Locate the tilt sensor next to the ground control box.
6. Manually tilt and maintain the tilt sensor towards the front for a few seconds ( Section C 2- Main components) :
 - If the machine is unfolded : The audible beep sounds.
 - For equipped machines : The slope sensor prevents lifting and driving movements.

N.B.-:-MACHINE UNFOLDED, THE TILT SENSOR GIVES AN AUDIBLE SIGNAL INDICATING TO THE OPERATOR THAT THE BOOM COULD NOT RAISE. IN THIS CASE, LOWER PLATFORM COMPLETELY, THEN REPOSITION MACHINE ON A LEVEL GROUND BEFORE RAISING PLATFORM.

3.1.3 - Visual and audible alarms

1. Pull the emergency stop buttons (15, 46, E5).
2. Set the ON/OFF (18) selector switch to ON. All of the ground control box indicators light up and a sound signal (beep) is emitted.

3.1.4 - Platform load management system (Where fitted)

1. Pull the emergency stop buttons (15, 46, E5).
2. Set the ON/OFF (18) selector switch to ON. The platform overload indicators (6, 30) on the upper and lower control boxes flash.

3.1.5 - Boom control system

E - Driving

For HA41PX-NT (HA130JRT-NT) only

Machine stowed, extend the telescope from the platform control box.

Telescope extension must stop as soon as the 1er red stop on the right side of the telescope is visible.

If telescope extension continues once the 1er red stop is visible, stop telescope extension immediately.

Contact HAULOTTE Services® to repair the system.



3.2 -

Mark out the work area. Never use a faulty machine

OPERATION FROM GROUND POSITION

3.2.1 - Machine start-up

1. Pull the emergency stop button 15.
2. Set the ON/OFF (18) selector switch to ON.
3. Turn the key on the control box activation selector switch (16) to the right to activate the ground control box. The following indicators light up :
 - Electrical pre-heating 1.
 - Low engine oil pressure 2.
 - Engine temperature 3.
 - Battery charge 4.

N.B.-:-For HA41PX-NT (HA130JRT-NT), PRESS THE ENGINE PRE-HEATING SELECTOR (COLD MACHINE) 17.

4. The clogged air filter indicator (5) is switched off.
5. Press on the starter selector 22. The engine starts. The indicators go out.
6. Let the engine heat up.

N.B.-:-USING UNSUITABLE FUEL MAY CAUSE DIMINISHED PERFORMANCE, DIFFICULTIES WITH STARTING, EXCESSIVE POLLUTION AND PREMATURE WEAR. TO DETERMINE THE TYPE OF FUEL SUITABLE FOR THE ENGINE FITTED ON YOUR HAULOTTE® MACHINE, PLEASE REFER TO THE ENGINE MANUFACTURER'S MANUAL. THE ENGINE MAY NOT BE COVERED BY THE WARRANTY IN CASE OF DAMAGE CAUSED BY USING UNSUITABLE FUEL.

3.2.2 - Machine shutdown

- Turn the key of the control box activation selector (72) to the center.
- The machine is shut down.
- Close the gas bottle valve.

E - Driving

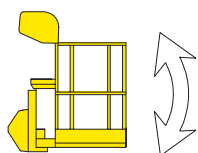
3.2.3 - Movement control

Ground control box controls (emergency station)

Control	Action
Lifting/lowering of arm	Push the arm lifting selector (12) or (47) upwards to lift the arm. ¹ Push the arm lifting selector (12) or (47) downwards to lower the arm. ¹.
Lifting / lowering of boom	Push the boom raising selector switch (10) upwards to lift the boom. Push the boom raising selector switch (10) downwards to lower the boom.
Arm telescope extension/retraction	Push the arm telescoping selector (11) or (47) upwards to extend the telescope. ¹. Push the arm telescoping selector (11) or (47) downwards to retract the telescope. ¹.
Boom telescope extension/retraction	Push the boom telescoping selector switch (9) to the left to extend the telescope. Push the boom telescoping selector switch (9) to the right to retract the telescope.
Jib lifting/lowering	Push the jib selector switch (8) upwards to lift the jib. Push the jib selector switch (8) downwards to lower the jib.
Turntable rotation	Push the turntable rotation selector switch (14) to the left for a clockwise rotation. Push the turntable rotation switch (14) to the right for an anticlockwise rotation.

E - Driving

Control	Action
Platform compensation	Push the platform compensation selector switch (13) upwards to lift the platform. Push the platform compensation selector switch (13) downwards to lower the platform.



1. (47) for HA41PX-NT (HA130JRT-NT)

N.B.-:-THE RELEASE OF THE SELECTOR CAUSES ALL MOVEMENT TO STOP.

3.2.4 - Other controls

- Switching from the ground control box to the platform control box :



The emergency stop button (15) must be pulled out.

- Turn the key on the control box activation selector switch (16) to the left to activate the platform control box. The ground control box controls are de-activated.

- Switching from the platform control box to the ground control box :



The emergency stop button (15) must be pulled out.

- Turn the key on the control box activation selector switch (16) to the right to activate the ground control box. The platform control box controls are de-activated.

- Putting in transport position :

- Turn the transport position selector (13) downwards to set the machine to the transport position.
- Turn the transport position selector (13) upwards to set the machine to the operating position.

N.B.-:-THE RELEASE OF THE SELECTOR CAUSES ALL MOVEMENT TO STOP.

- Engine speed acceleration :

- Turn the engine acceleration selector switch (21) to the right to switch to accelerated speed.
- Turn the engine acceleration selector switch (21) to the left to switch to idling speed.

N.B.-:-ACCELERATING THE ENGINE SPEED INCREASES THE SPEED OF MOVEMENTS FROM THE GROUND CONTROL BOX.

- For the machines equipped with beacon lights :

- Push the beacon light selector switch (24) to the right to switch on the beacon light.
- Push the beacon light selector switch (24) to the left to switch off the beacon light.

E - Driving

3.3 - OPERATIONS FROM THE PLATFORM

3.3.1 - Machine start-up

1. Pull the emergency stop button 46.
2. Press on the starter selector 42. The engine starts. The power-up indicator (31) lights up.
3. Let the engine heat up.

N.B.:-IF THE ENGINE DOES NOT START, SWITCH OFF THE IGNITION (EMERGENCY STOP BUTTON PUSHED IN). RESTART THE START-UP PROCEDURE.

3.3.2 - Machine shutdown

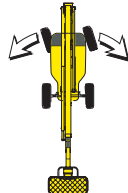
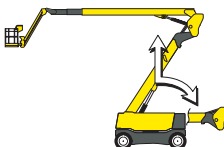
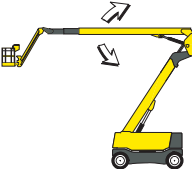
Press the emergency stop button (46).

3.3.3 - Movement control

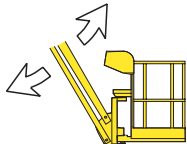
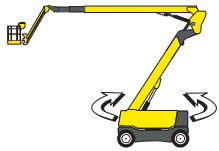
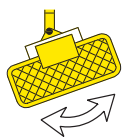
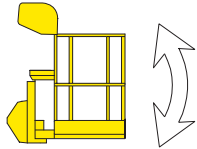
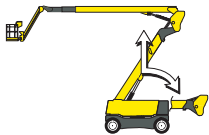


Activate the controls and the 'Dead man' system simultaneously to perform the various movements.

Platform control box controls (driving station)

Control	Action
Driving 	Push the drive joystick (33) forwards to move the machine forwards.
	Push the drive joystick (33) backwards to reverse the machine.
Front-axle steering 	Push the front-axle steering selector switch (33) to the right to steer to the right.
	Push the front-axle steering selector switch (33) to the left to steer to the left.
Lifting/lowering of arm 	Push the boom or arm position selector (36) or (39) downwards. ¹
	Push the arm lifting joystick (25) or (28) forwards to lift the arm. ¹
	Push the arm lifting joystick (25) or (28) backwards to lower the arm. ¹
Lifting / lowering of boom 	Push the boom or arm position selector (36) or (P39) upwards. ¹
	Push the boom raising joystick (25) forwards to lift the boom.
	Push the boom raising joystick (25) backwards to lower the boom.

E - Driving

Control	Action
	Push the jib selector switch (37) upwards to lift the jib.
Jib lifting/lowering 	Push the jib selector switch (37) downwards to lower the jib.
Turntable rotation 	Push the turntable rotation selector switch (25) to the left for a clockwise rotation. Push the turntable rotation switch (25) to the right for an anticlockwise rotation.
Platform rotation 	Push the platform rotation selector (38) to the right for an anticlockwise rotation. Push the platform rotation selector (38) to the left for a clockwise rotation.
Platform compensation 	Push the platform compensation selector switch (40) upwards to lift the platform. Push the platform compensation selector switch (40) downwards to lower the platform.
Drive speed (minimum) 	Set the drive speed selector switch (45) to  for high-speed driving (long distance driving, tarmac, concrete). Set the driving speed selector (45) to  for low-speed driving (short distance, final approach, unloading from lorries).
Arm telescope extension/retraction 	Push the boom or arm position selector (36) or (P39) upwards. ¹ Push the arm telescoping joystick (28) forwards to extend the telescope. Push the arm telescoping joystick (28) backwards to retract the telescope.

E - Driving

A

B

C

D

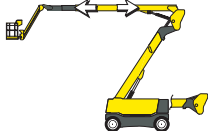
E

F

G

H

I

Control		Action
Boom telescope extension/ retraction		Push the boom or arm position selector (36) or (P39) downwards. ^{1.} Push the boom telescoping joystick (28) downwards to extend the telescope.
		Push the boom telescoping joystick (28) upwards to retract the telescope

1. (P39) or (P28) for HA41PX-NT (HA130JRT-NT)

N.B.:-THE RELEASE OF THE SELECTORS AND (OR) JOYSTICKS CAUSES ALL MOVEMENT TO STOP.

3.3.4 - Other controls

- Horn : Push the horn selector (43) to the right to sound the horn. The horn stops when the selector switch is released.
- Differential lock : Press the differential blocking touch pads (35).

3.4 - OPERATIONS FROM THE AXLES

3.4.1 - Extension of swing and fixed axles



The machine is started and stowed (jib below horizontal position, turntable aligned with the axis).

1. Set the control box activation selector switch (16) to the centre to activate the axle control box.

N.B.:-THE PLATFORM AND GROUND CONTROL BOX CONTROLS ARE DE-ACTIVATED IN THIS POSITION.



Extend the fixed axle before extending the swing axle. If the two outrigger cylinders are extended, the axle extension controls are de-activated.

2. Lower lever (E1) (fixed axle) or (E3) (swing axle).
 - The cylinder is lowered.
 - The chassis is lifted.
 - The wheels no longer touch the ground.
3. Keep lever (E1) (fixed axle) or (E3) (swing axle) lowered and lower lever (E2) (fixed axle) or (E4) (swing axle) to extend the axle.



While the axle is being extended, the buzzer sounds and driving is deactivated. The buzzer stops when the axle is totally extended and the cylinder completely raised.

Once the axle is totally retracted :

4. 1 to 2 s after the buzzer stops, release lever (E2) (fixed axle) or (E4) (swing axle).
5. Lift lever (E1) (fixed axle) or (E3) (swing axle).
 - The cylinder is raised.
 - The chassis is lowered.
 - The wheels touch the ground.

E - Driving



If the buzzer sounds during the movement, the axles are either not fully extended or not fully retracted.

3.4.2 - Retraction of swing and fixed axles



The machine is started and stowed (jib below horizontal position, turntable aligned with the axis).

1. Set the control box activation selector switch (16) to the centre to activate the axle control box.

N.B.-:-THE PLATFORM AND GROUND CONTROL BOX CONTROLS ARE DE-ACTIVATED IN THIS POSITION.



Retract the swing axle before retracting the fixed axle. If the two outrigger cylinders are extended, the axle retraction controls are de-activated.

2. Lower lever (E3) (swing axle) or (E1) (fixed axle).
 - The cylinder is lowered.
 - The chassis is lifted.
 - The wheels no longer touch the ground.
3. Keep lever (E3) (swing axle) or (E1) (fixed axle) lowered and lift lever (E4) (swing axle) or (E2) (fixed axle) to retract the axle.



While the axle is being retracted, the buzzer sounds and driving is deactivated. The buzzer stops when the axle is totally retracted and the cylinder completely lowered.

Once the axle is totally retracted :

4. 1 to 2 s after the buzzer stops, release lever (E2) (fixed axle) or (E4) (swing axle).
5. Lift lever (E3) (swing axle) or (E1) (fixed axle).
 - The cylinder is raised.
 - The chassis is lowered.
 - The wheels touch the ground.



If the buzzer sounds during the movement, the axles are either not fully extended or not fully retracted.

F - Special procedure



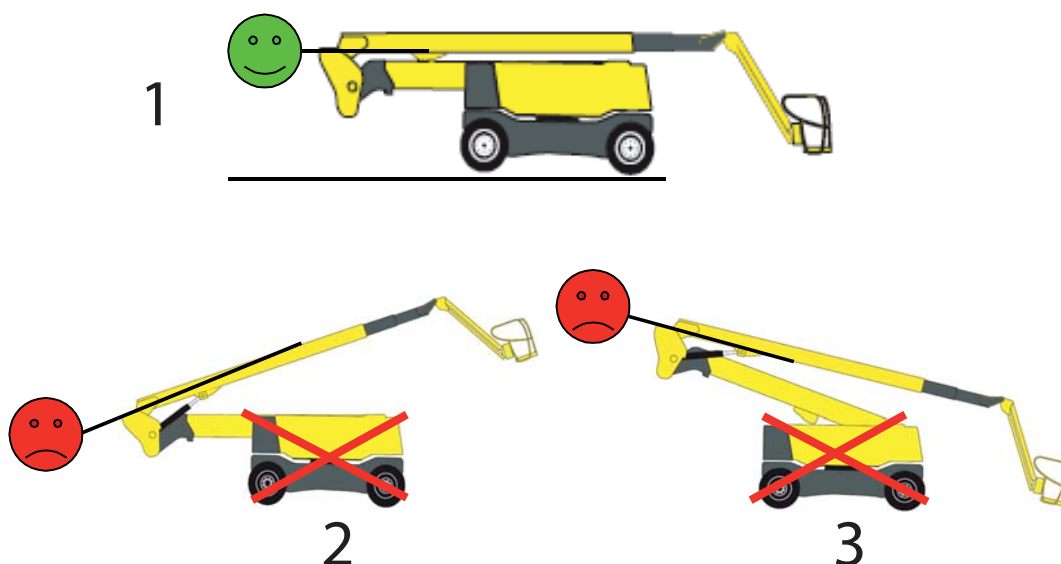
Find all the function indicators and controls in Section C 5 - Control boxes

1 - Link piece position check



Ensure that nothing is in the way before starting any manoeuvres.

Link piece position check



Marking	Description
1	If the link piece is not in the correct position, the machine must not be used until this has been corrected
2	Link piece to the front
3	Link piece to the rear

F - Special procedure

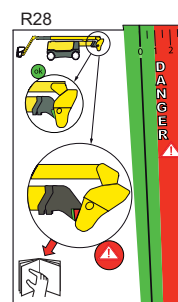
1.1 - FOR HA32PX (HA100JRT) ONLY

Arm at the lowest stop point, check that the link piece is in the correct position : Machine placed on a horizontal surface, the upper edge of the link piece must be horizontal.

If the link piece is too far to the rear (sketch 3), this is automatically corrected when the machine is fully stowed when arm lowering is completed.

If the link piece is too far forward (sketch 2), apply the following procedure from the ground control box

1. Lower the arm to the mechanical stop.
2. Raise the boom by around 10 ° .
3. Activate the arm lowering control by pressing simultaneously on the black button located above the PVG valve (see photo). This action corrects the position of the link piece as the arm is lowered.
4. Repeat operations 2 and 3 as many times as required until the compensation cylinder reaches the mechanical stop.
5. Perform an arm lifting/lowering cycle to check that the circuit is drained properly.



If it is impossible to reposition the link piece, DO NOT use the machine and call the HAULOTTE Services® After Sales Service

1.2 - FOR HA41PX-NT (HA130JRT-NT) ONLY

The link piece position reset is automatic when the arm reaches the end of its descent.



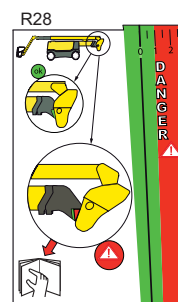
After each work shift, ensure that the arm is fully lowered and rests on the turntable.

To check that the link piece is positioned correctly, the arm must be at the lowest stop point and the machine on level ground. The upper edge of the link piece must then be horizontal.

The sticker (R28) placed on the link piece is a second source used in checks.



If it is impossible to reposition the link piece, DO NOT use the machine and call the HAULOTTE Services® After Sales Service



F

- Special procedure

2 - Radius limitation

For HA41PX-NT (HA130JRT-NT) only

2.1 - PRINCIPLE

When the machine is at the radius limit before driving is disabled, the (P32) indicator comes on. The telescope must be retracted to re-activate driving. If the rear radius limit is reached, the boom must be lowered slightly to re-activate driving.

3 - Procedure

3.1 - FRONT RADIUS LIMITATION

Boom extension is limited in zone A1 as long as the second arm telescope has not started to extend (boom length is limited to 14,2 m (46 ft 7 in) maximum, i.e. 2,40 m (7 ft 10 in) of the telescope). Boom movement is automatically stopped (the radius limit indicator is fixed).

As soon as the second telescope is partially extended, boom telescope extension is limited in zone (boom length is limited to 16,1 m (52 ft 10 in) maximum, i.e. 3,37 m (11 ft 1 in) of the telescope). Boom movement is automatically stopped (the radius limit indicator is fixed).

When the arm telescope is fully extended, the boom telescope extension is limited in zone (see Section G 3- Working area). Boom movement is automatically stopped (the radius limit indicator is fixed). In zone A3, when a boom lowering movement control is activated, the system automatically retracts the boom telescope to keep the user within the stable zone.

When an arm lowering control is activated from the platform control box, the boom telescope is automatically retracted to keep the user within the stable zone (the radius limit indicator flashes). The operator must retract the boom telescope to re-activate the arm lowering function.

3.2 - REAR RADIUS LIMIT

Boom raised : Lifting is automatically stopped when the radius limit is reached (the radius limit indicator is fixed).

F

- Special procedure

4 - Emergency lowering

4.1 - PRINCIPLE

Emergency lowering is required if the operator in the platform is no longer capable of controlling the movements even though the machine operates normally.

A ground operator trained in using the emergency controls and in possession of the starter key can use the ground control box with the main power source to lower the platform operator.

4.2 - PROCEDURE



Section A 2- Pre-operation instructions

1. Turn the key on the control box activation selector switch (16) to the right to activate the ground control box. The platform control box controls are de-activated.
2. Lower the platform from the ground control box.



If the machine is stuck or hooked in surrounding structures or equipment, it is essential to release the operators before intervening on the machine.

5 - Lowering for repairs

5.1 - PRINCIPLE

The lowering for repairs function allows the operator in the platform to descend again in case of failure of the main power source.

The electric pump, powered by the starting battery, allows movements to be controlled from both the ground and platform control boxes.

As the electric pump only has limited autonomy, it is advisable to come back to the ground in the most direct manner possible.



The use of the electric pump is exclusively reserved for the lowering for repairs function.

Performing other operations can lead to the deterioration of the electric pump.

5.2 - PROCEDURE

Depending on the control box used, push and hold the back-up hydraulic power system selector switch ((19) downwards or (41) upwards) and lower the platform.

For machines over 40 m (131 ft 2 in) :

1. Partially retract the boom telescope until all the red markers have disappeared. Lower the boom as far as possible.
2. Lower the arm to bring the platform to the ground.



If the operator in the platform must exit the platform to go on a sturdy, safe structure, the transfer must respect the following recommendations :

- The operator must fasten himself by using 2 lanyards. One strap is attached to the platform, the other to the structure.
- The operator must exit the platform via the standard access point.

F

- Special procedure

- The operator must not detach the strap connected to the platform until transfer is complete or while it still presents a danger.



If the operator cannot be lowered by any of the above mentioned methods, contact HAULOTTE Services® immediately.

6 - Towing

In case of a machine failure, it is possible to tow it to load it onto a trailer.

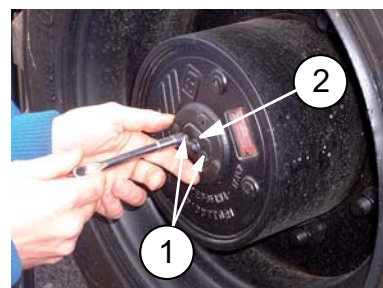
6.1 - DISCONNECTING THE DRIVE SYSTEM

To tow a broken-down machine, disconnect the wheel gears.



Perform these operations on flat, horizontal ground. Failing that, block the wheels to immobilize the machine. During an operation of releasing the clutch from the drive system, the machine is in free wheels, the brake system is no more operational.

1. Loosen the 2 fastening screws (1).
2. Remove the clutch stop (2).
3. Turn the clutch stop so that its domed part is towards the interior of the wheel gears.
4. Attach the clutch stop.



6.2 - TOWING

The machine can be towed.



In the towing configuration, the machine is no longer slowed down. Use a drawbar to avoid any risk of accident.



Do not exceed 5 km/h (3,10 mph) .

6.3 - RECONNECTING THE UNIT

After repairing the machine, reconnect the wheel gears.

1. Loosen the 2 fastening screws (1).
2. Remove the clutch stop (2).
3. Turn the clutch stop so that its domed part is towards the exterior of the wheel gears.
4. Attach the clutch stop.
5. Check the wheel gear oil level.

F - Special procedure

7 - Loading and unloading

N.B.:-WHEN CLIMBING, DURING LOADING OR UNLOADING HAULOTTE® RECOMMENDS POSITIONING THE COUNTERWEIGHT AT THE REAR.



Lift the platform again to avoid contact with the ground.



To avoid any risk of tipping over, the boom must be maintained in the axis of the chassis.



Section F 4.2 Putting in transport position.

7.1 - PRINCIPLE



To avoid any risk of sliding during loading, ensure that :

- The loading ramps can bear the load.
- The loading ramps are correctly attached.
- The loading ramp has sufficient grip.

As the slope of the ramp is usually greater than the authorised slope for driving, the arm and boom must be lowered to enable driving to take place.

In this case, the buzzer is not activated but driving is authorised.



To climb the slope, select low driving speed .

If the slope is too steep, use a winch in addition to traction.



Never place yourself below or too close to the machines during loading.

A wrong move can lead to the tipping over of the machine and cause serious bodily and material accidents.

7.2 - PUTTING IN TRANSPORT POSITION

The machine must be completely stowed.

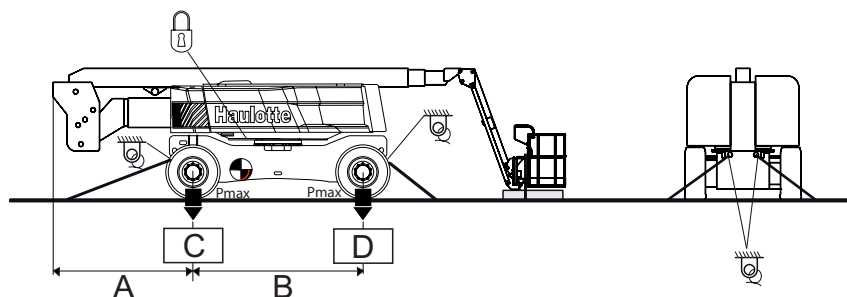
1. Check the absence of load in the platform.
2. Depending on the configuration of the machine, engage the transport position selector (13) to the right.
3. Secure the machine to the anchorage points provided for this purpose.
4. Block the turntable with the rotation stop pin located under the turntable.



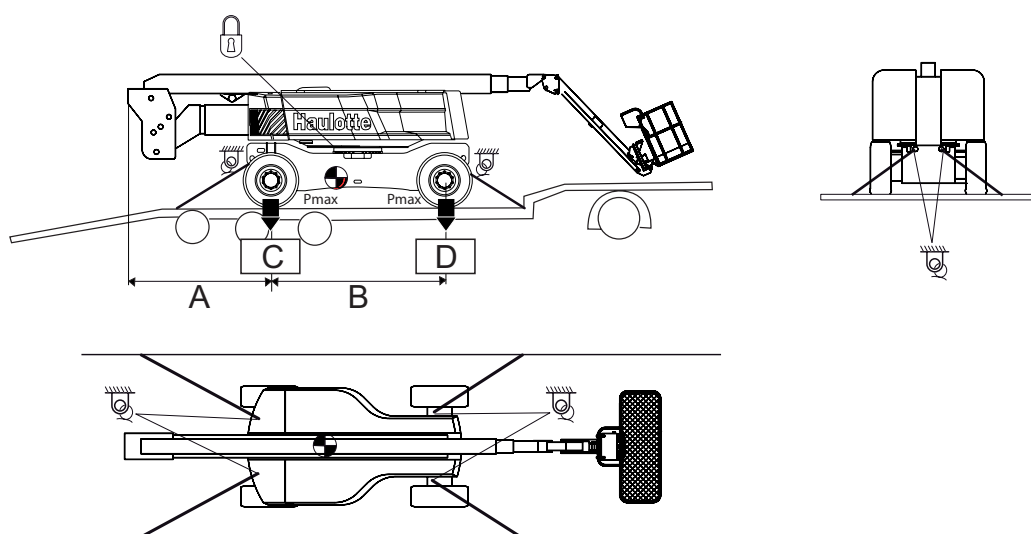
Do not transport the machine if the turntable is not blocked.

F - Special procedure

For HA32PX (HA100JRT)



For HA41PX-NT (HA130JRT-NT)



F

- Special procedure

Loading characteristics

Marking	Description	HA32PX (HA100JRT)	HA41PX-NT (HA130JRT-NT)
B	Lateral distance between the wheels	3,50 m (11 ft 5 in)	3,50 m (11 ft 5 in)
C	Front wheel pressure	10,72 daN/cm ² (2,196 lbf/sq.ft)	12,5 daN/cm ² (2,56 lbf/sq.ft)
D	Rear wheel pressure	10,72 daN/cm ² (2,196 lbf/sq.ft) 10.72 daN/cm ²	12,5 daN/cm ² (2,56 lbf/sq.ft)
	Anchorage point		
	Turntable rotation blocking		

7.3 - UNLOADING



Before operating, check that the machine is in good condition.

If the machine has been damaged during transportation, contact the transporter in writing.

1. Unlock the turntable rotation pin.
2. Remove the lanyards.
3. Start the machine.

7.4 - WARNING



Upon starting a machine that has been secured then transported, the safety system may detect a false overload forbidding all movement from the platform control box.

To reinitialize the system, lift the jib by a few centimetres from the ground control box.

Turn the transport position selector (13) upwards to set the machine to the operating position.

To unload the machine, select low driving speed .



Do not go down the ramp at a fast speed.

7.5 - STORAGE



The machine must always be powered up when it is unfolded so that the security systems are active.

This means that the machine must be parked in stowed position.

The boom may be raised but it cannot be telescoped.

We strongly advise you not to store or immobilize the machine unfolded to avoid jeopardising the safety of people and property.

F

- Special procedure

8 - Detection of internal fault

8.1 - PRINCIPLE

For equipped machines.

- The machine is equipped with an internal defect detection system.
- The number of times the defect indicator flashes indicates the type of fault to the operator.
- According to the type of fault, the machine switches in DOWNGRADED MODE; certain movements can be limited or forbidden by the system to maintain the operator's safety.

N.B.-:IF THE EMERGENCY STOP IS ACTIVATED DURING TELESCOPE RETRACTION AND BOOM LIFT CONTROLS, ON RESTARTING, THE MACHINE SWITCHES TO DOWNGRADED MODE. STOW THE MACHINE COMPLETELY. SWITCH THE MACHINE OFF.

8.2 - PROCEDURE

For HA41PX-NT (HA130JRT-NT) only

1. Note the number of flashes emitted by the fault indicator 26.
2. Note any other indicators which may be ON and the machine's situation when the fault appeared.
3. Use the telescope retraction controls (28) and boom lifting controls (25) to put the boom in a horizontal, retracted position.
4. Stow the machine.
5. Switch the machine off.

N.B.-:IF THE EMERGENCY STOP IS ACTIVATED DURING TELESCOPE RETRACTION AND BOOM LIFT CONTROLS, ON RESTARTING, THE MACHINE SWITCHES TO DOWNGRADED MODE. STOW THE MACHINE COMPLETELY. SWITCH THE MACHINE OFF.



Do not allow the machine to be used until the fault has been repaired.

Perform the required maintenance (see the machine maintenance book).

F

- Special procedure

G - Technical characteristics

1 - Main characteristics



Certain options can modify the machine's operating characteristics and the safety associated with it. If your machine was originally delivered with this option, replacing a safety component associated to this option does not require any particular precautions other than those associated with the installation itself (static test).

Otherwise, it is essential to follow the manufacturer's recommendations below :

- Installation by authorised HAULOTTE® personnel only.
- Update the manufacturer's plate.
- Have stability tests carried out by a certified agency.
- Ensure label compliance.



Because of constant improvements of its products, HAULOTTE® reserves the right to modify, without notice, their technical characteristics.

For HA32PX (HA100JRT) - Technical characteristics

Machine Characteristics	HA32PX		HA100JRT	
	Metric	Imperial	Metric	Imperial
Length of machine in stowed position	11,16 m	(36 ft 7 in)	11,16 m	(36 ft 7 in)
Width of the machine in stowed position	2,53 m	(8 ft 3 in)	2,53 m	(8 ft 3 in)
Machine height	2,70 m	(8 ft 10 in)	2,70 m	(8 ft 10 in)
Maximum ground clearance	0,294 m	(0 ft 11 in)	0,294 m	(0 ft 11 in)
Transport height	3,30 m	(10 ft 9 in)	3,30 m	(10 ft 9 in)
Transport length	8,90 m	(29 ft 2 in)	8,90 m	(29 ft 2 in)
Maximum work height	31,80 m	(104 ft 4 in)	31,80 m	(104 ft 4 in)
Maximum platform height	29,80 m	(97 ft 9 in)	29,80 m	(97 ft 9 in)
Maximum drift	21,00 m	(68 ft 10 in)	21,00 m	(68 ft 10 in)
Maximum radius	20,80 m	(68 ft 2 in)	20,80 m	(68 ft 2 in)
Turntable rotation	360 °			
Boom rotation angle	+70° / -40° s			
Jib working range	+70° / -70° s			
Platform length	0,80 m	(2 ft 7 in)	0,80 m	(2 ft 7 in)
Platform width	2,44 m	(8 ft 0 in)	2,44 m	(8 ft 0 in)
Platform rotation angle	+87° / -87° s			
Outer turning radius (without retracted axle adjustment)	5,10 m	(16 ft 8 in)	5,10 m	(16 ft 8 in)
Inner turning radius (with axles retracted)	2,70 m	(8 ft 10 in)	2,70 m	(8 ft 10 in)
Distance between centres of the wheels	3,50 m	(11 ft 5 in)	3,50 m	(11 ft 5 in)
Machine width, with axles extended	3,30 m	(10 ft 9 in)	3,30 m	(10 ft 9 in)
TiltCE - AS	5 °			
Rated slopeANSI - CSA	0 °			
Slope warningANSI - CSA	5 °			
Maximum wind speed allowed	60 km/h	(37 mph)	60 km/h	(37 mph)

G

- Technical characteristics

Machine	HA32PX		HA100JRT	
Characteristics	Metric	Imperial	Metric	Imperial
Front axle load	14550 kg	(32077 lb)	14550 kg	(32077 lb)
Rear axle load	6550 kg	(14440 lb)	6550 kg	(14440 lb)
Total weight	21100 kg	(46517 lb)	21100 kg	(46517 lb)
Maximum platform load	250 kg	(551 lb)	250 kg	(551 lb)
Maximum number of persons on the platform	2			
Engine type	Diesel - Perkins 1104D-44 Turbo			
Engine power	62 kW	(84 Hp)	62 kW	(84 Hp)
Engine power when idle	43 kW	57,6 kW (46,2 Hp)	43 kW	(57,6 Hp)
Fuel consumption when idle	220 g/kWh			
Sound level at 10 m (32 ft 9 in)	< 74 dB (A)			
Sound power	108 dB (A)			
Hand vibration	<2,5 m/s ²	(98,4 in/s ²)	<2,5 m/s ²	(98,4 in/s ²)
Feet vibration	<0,5 m/s ²	(19,6 in/s ²)	<0,5 m/s ²	(19,6 in/s ²)
Fuel tank capacity	140 l	(37 gal US)	140 l	(37 gal US)
Hydraulic tank capacity	196 l	(52 gal US)	196 l	(52 gal US)
Starter battery	12 V-135 Ah			
Differential lock	Yes			
Maximum climbable slope	45 %			
Type of tyres	Foam-filled-445/65D22,5			
Wheel nut torque	65 daN.m	(480 lbf.ft)	65 daN.m	(480 lbf.ft)
Slew ring torque	21,5 daN.m	(158 lbf.ft)	21,5 daN.m	(158 lbf.ft)
Maximum pressure on hard ground	11 daN/cm ²	2,25 lbf/sq.ft	11 daN/cm ²	2,25 lbf/sq.ft
Maximum pressure on soft ground	6,5 daN/cm ²	1,33lbf/sq.ft	6,5 daN/cm ²	1,33lbf/sq.ft
Micro drive speed	0,5 km/h	(0,3 mph)	0,5 km/h	(0,3 mph)
Low drive speed	1,5 km/h	(0,9 mph)	1,5 km/h	(0,9 mph)
High drive speed	5 km/h	(3,1 mph)	5 km/h	(3,1 mph)
Manual lateral effort	CE - AS : 400 N - 90 lbf		ANSI - CSA : 666 N / 150 lbf	

For HA41PX-NT (HA130JRT-NT) - Technical characteristics

Machine	HA41PX-NT		HA130JRT-NT	
Characteristics	Metric	Imperial	Metric	Imperial
Length of machine in stowed position	12,60 m	(41 ft 4 in)	12,60 m	(41 ft 4 in)
Width of the machine in stowed position	2,53 m	(8 ft 3 in)	2,53 m	(8 ft 3 in)
Machine height	2,99 m	(9 ft 9 in)	2,99 m	(9 ft 9 in)
Maximum ground clearance	0,38 m	(1 ft 3 in)	0,38 m	(1 ft 3 in)
Transport height	3,70 m	(12 ft 1 in)	3,70 m	(12 ft 1 in)
Transport length	12,30 m	(40 ft 4 in)	12,30 m	(40 ft 4 in)
Maximum work height	40,40 m	(132 ft 7 in)	40,40 m	(132 ft 7 in)
Maximum platform height	38,50 m	(126 ft 0 in)	38,50 m	(126 ft 0 in)
Maximum drift	19,80 m	(64 ft 11 in)	19,80 m	(64 ft 11 in)
Maximum radius	19,30 m	(63 ft 3 in)	19,30 m	(63 ft 3 in)
Turntable rotation	360 °			
Boom rotation angle	+70° / -40° s			
Jib working range	+65° / -65° s			
Platform length	0,80 m	(2 ft 7 in)	0,80 m	(2 ft 7 in)

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- Technical characteristics

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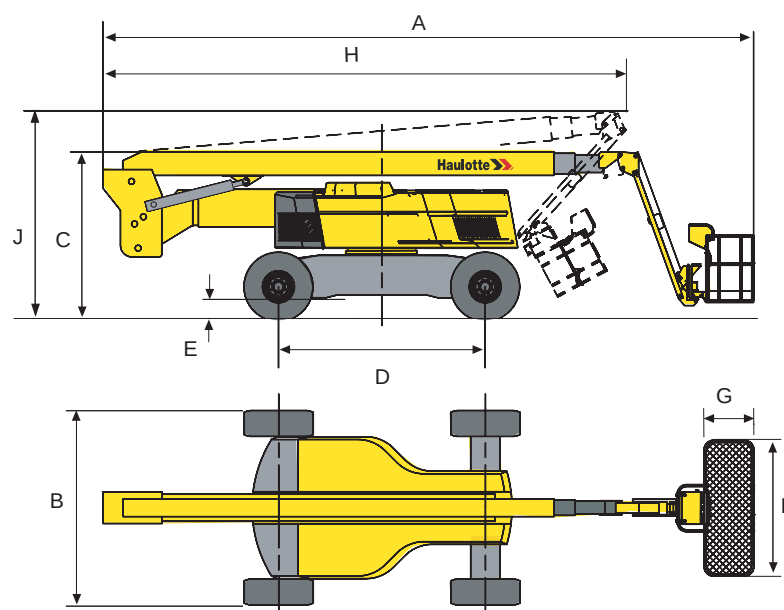
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Machine	HA41PX-NT		HA130JRT-NT	
Characteristics	Metric	Imperial	Metric	Imperial
Platform width	2,44 m	(8 ft 0 in)	2,44 m	(8 ft 0 in)
Platform rotation angle	+87° / -87° s			
Outer turning radius (without retracted axle adjustment)	5,10 m	(16 ft 8 in)	5,10 m	(16 ft 8 in)
Inner turning radius (with axles retracted)	2,70 m	(8 ft 10 in)	2,70 m	(8 ft 10 in)
Distance between centres of the wheels	3,50 m	(11 ft 5 in)	3,50 m	(11 ft 5 in)
Machine width, with axles extended	3,30 m	(10 ft 9 in)	3,30 m	(10 ft 9 in)
TiltCE - AS	2 °			
Rated slopeANSI - CSA	0 °			
Slope warningANSI - CSA	5 °			
Maximum wind speed allowed	45 km/h	(28 mph)	45 km/h	(28 mph)
Front axle load	16530 kg	(36442 lb)	16530 kg	(36442 lb)
Rear axle load	6570 kg	(14484 lb)	6570 kg	(14484 lb)
Total weight	23000 kg	(50715 lb)	23000 kg	(50715 lb)
Maximum platform load	230 kg	(507 lb)	230 kg	(507 lb)
Maximum number of persons on the platform	2			
Engine type	Diesel - Perkins 1104D-44 Turbo			
Engine power	62 kW	(84 Hp)	62 kW	(84 Hp)
Engine power when idle	43 kW	(57,6 Hp)	43 kW	(57,6 Hp)
Fuel consumption when idle	220 g/kWh			
Sound level at 10 m (32 ft 9 in)	< 74 dB (A)			
Sound power	108 dB (A)			
Hand vibration	<2,5 m/s ²	(98,4 in/s ²)	<2,5 m/s ²	(98,4 in/s ²)
Feet vibration	<0,5 m/s ²	(19,6 in/s ²)	<0,5 m/s ²	(19,6 in/s ²)
Fuel tank capacity	140 l	(37 gal US)	140 l	(37 gal US)
Hydraulic tank capacity	240 l	(63 gal US)	240 l	(63 gal US)
Starter battery	12 V-135 Ah			
Differential lock	Yes			
Maximum climbable slope	40 %			
Type of tyres	Foam-filled-445/65D22,5			
Wheel nut torque	57 daN.m	(420 lbf.ft)	57 daN.m	(420 lbf.ft)
Slew ring torque	21,5 daN.m	(158 lbf.ft)	21,5 daN.m	(158 lbf.ft)
Maximum pressure on hard ground	12,5 daN/cm ²	2,56 lbf/sq.ft	12,5 daN/cm ²	2,56 lbf/sq.ft
Maximum pressure on soft ground	6,1 daN/cm ²	1,25 lbf/sq.ft	6,1 daN/cm ²	1,25 lbf/sq.ft
Micro drive speed	0,5 km/h	(0,3 mph)	0,5 km/h	(0,3 mph)
High drive speed	5 km/h	(3,1 mph)	5 km/h	(3,1 mph)
Manual lateral effort	CE - AS : 400 N - 90 lbf		ANSI - CSA : 666 N / 150 lbf	

G - Technical characteristics

2 - Overall dimensions

General diagram



Overall dimension specifications HA32PX (HA100JRT)- HA41PX-NT (HA130JRT-NT)

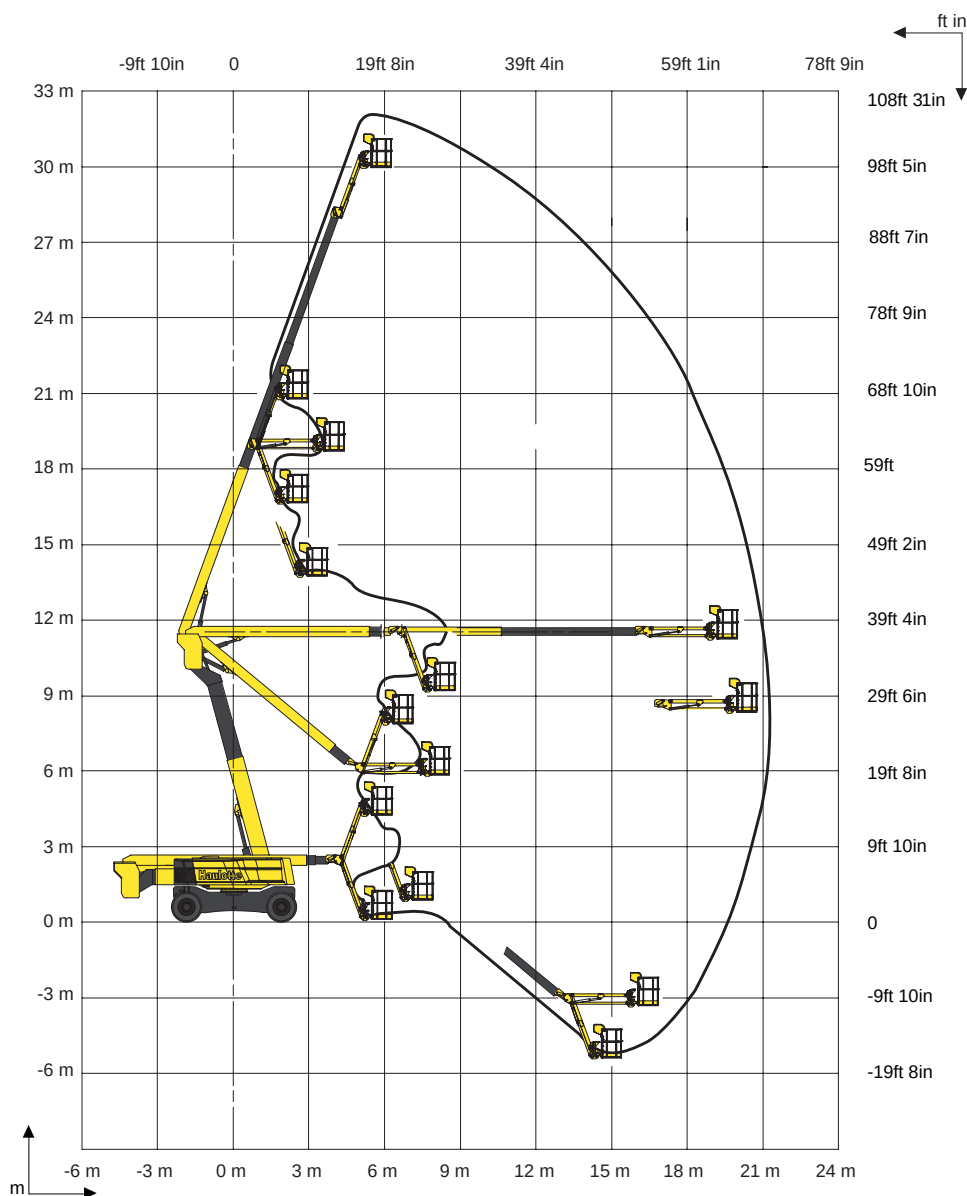
Marking	HA32PX (HA100JRT)		HA41PX-NT (HA130JRT-NT)	
	Mètre	Feet inch	Mètre	Feet inch
A	11,16	36-7	12,60	41-4
B	2,53	8-3	2,53	8-3
C	2,70	8-10	2,99	9-9
D	3,50	11-5	3,50	11-5
E	0,29	0-11	0,38	1-3
F x G	2,44 x 0,80	8-0 x 2-7	2,44 x 0,80	8-0 x 2-7
H	8,90	29-2	12,30	40-4
J	3,30	10-9	3,70	12-1

G - Technical characteristics

3 - Working area

3.1 - MACHINE HA32PX (HA100JRT)

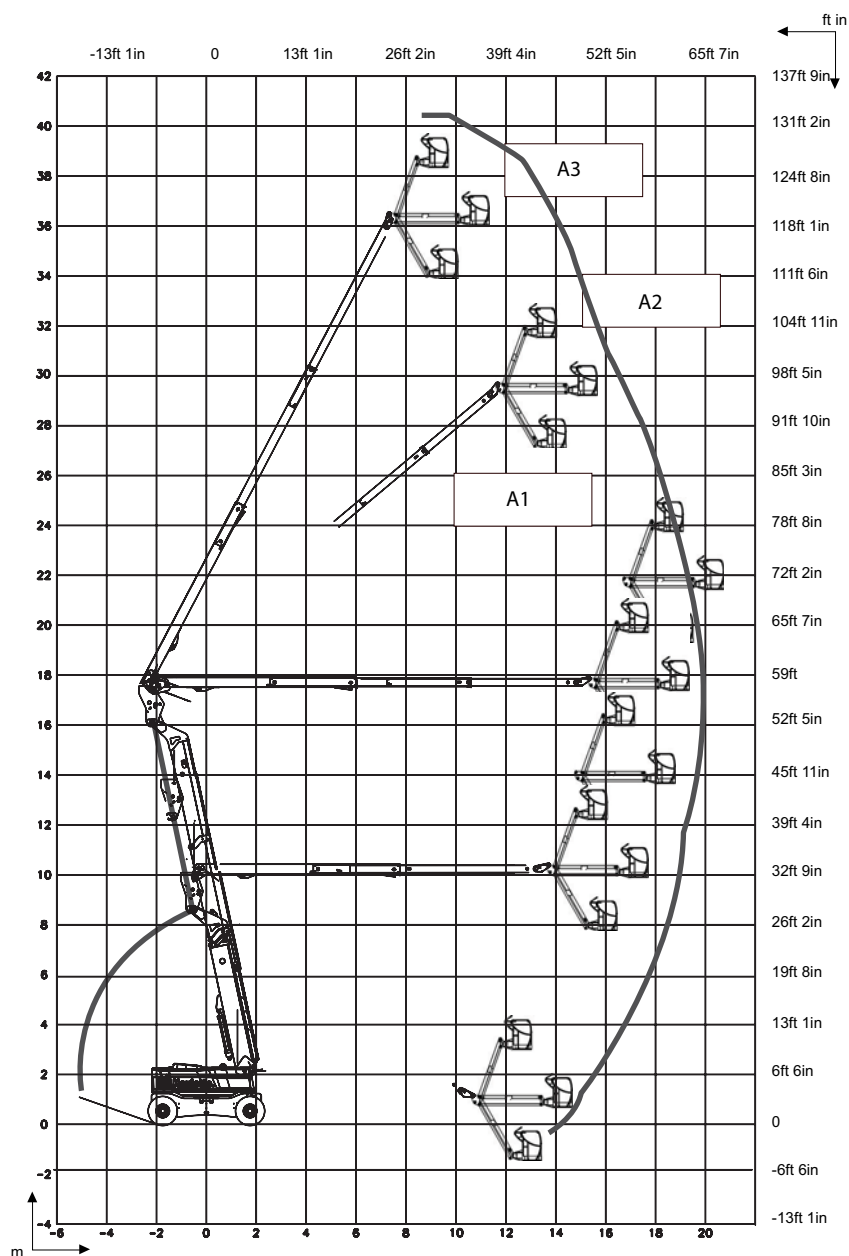
Working area



G - Technical characteristics

3.2 - MACHINE HA41PX-NT (HA130JRT-NT)

Working area



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- Technical characteristics

4 - AS standard specificities

The following tests must be performed after :

- A major technical intervention.
- An accident due to major component failure on the machine.



- The following tests must be performed by a qualified person in secure conditions.
- The results must be fully recorded.



To avoid the machine tipping over, it must be secured during the test (by a chain or anchorage point).

4.1 - OVERLOAD TEST

The overload test is performed with 125 % of the nominal load. See paragraph 1.12.3 of the AS1418.10-1996 standard for test details.

Load table

Machine	Test load	
	Pound (lb)	Kilogramme (kg)
HA32PX (HA100JRT)	688,9	312,5
HA41PX (HA130JRT)	633,8	287,5



The machine must not show any signs of permanent distortion.

Tests are performed by a qualified person under optimal conditions and results must be fully recorded.

4.2 - FUNCTIONAL TEST

Functional tests have confirmed the following: :

- The machine has performed all movements without jerking, while carrying the nominal load.
- All security systems are operating correctly.
- Maximum authorized operating speeds are not exceeded.

4.3 - STABILITY TEST

The stability test proves that the machine is stable in an unfavourable position. The moment when the machine tips is calculated by combining loads in the machine's most unfavourable position (load W applied over distance L).

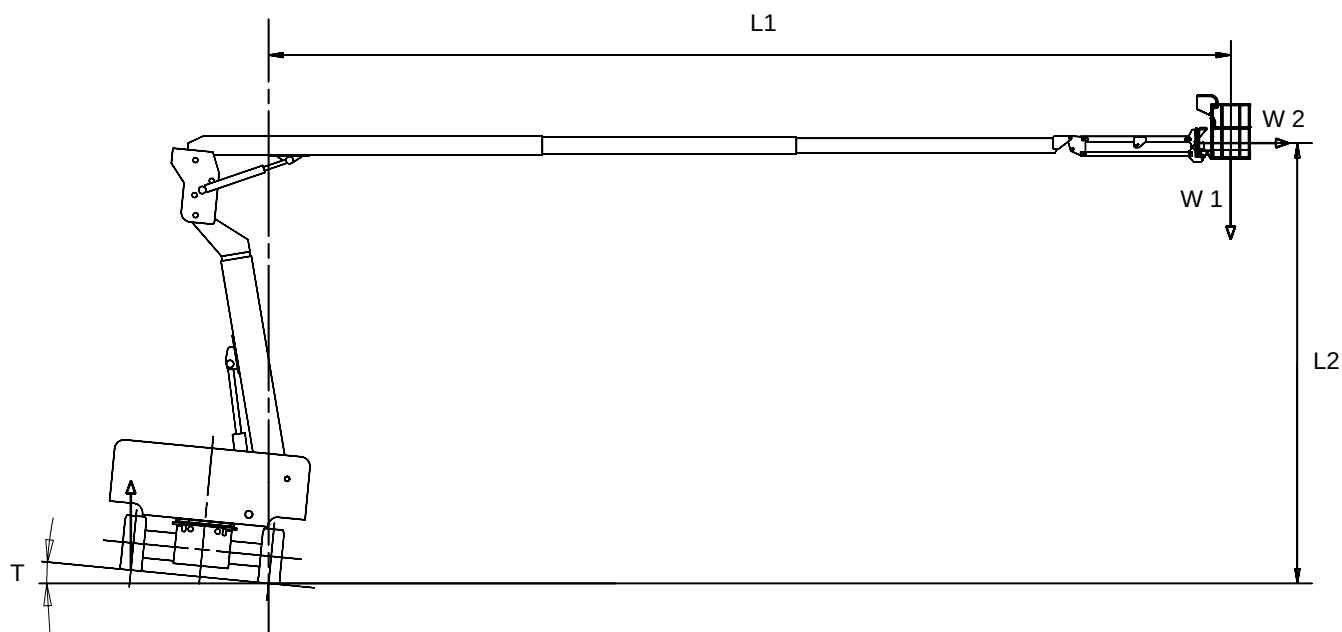
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- Technical characteristics

Stability table for HA32PX (HA100JRT)

	T (°)	W		L		Moment of tipping over	
		Pound (lb)	Kilogramme (kg)	Feet inch (ft in)	Mètre (m)	Feet Pound (ft.lb)	Mètre Newton (mN)
Horizontal (1)	5,5	690	313	65-0	19,831	52906	71731
Vertical (2)	5,5	242,5	110	29-9	9,073		

Stability for HA32PX (HA100JRT)



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- Technical characteristics

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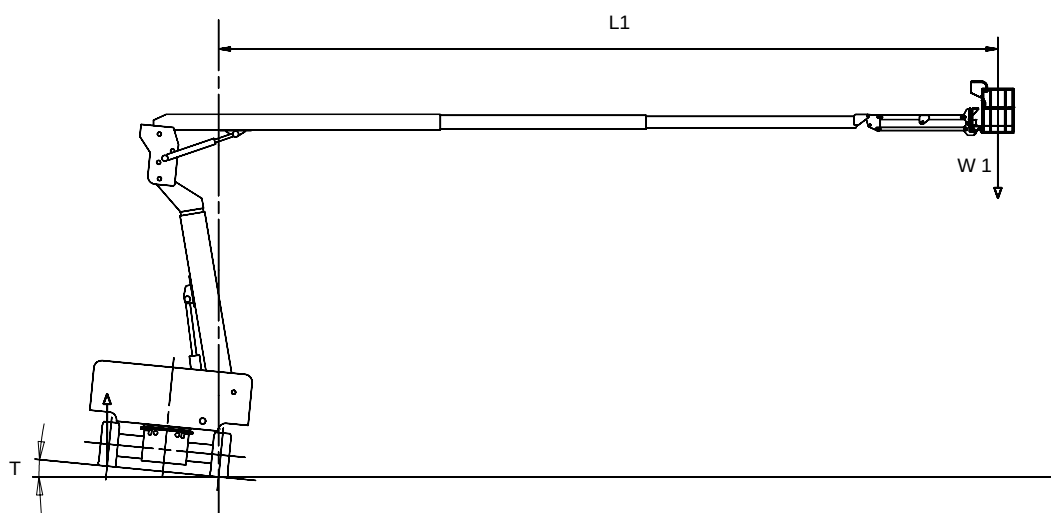
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Stability table for HA41PX (HA130JRT)

	T (°)	W		L		Moment of tipping over	
		Pound (lb)	Kilogramme (kg)	Feet inch (ft in)	Mètre (m)	Feet Pound (ft.lb)	Mètre Newton (mN)
Horizontal (1)	4,5	892,8	405	63-1	19,25	57473	77923

Stability for HA41PX (HA130JRT)



See paragraph 1.12.2 of the AS1418.10-1996 standard for test details.

The machine must return to a stable state without tipping over.

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G - Technical characteristics

H - Intervention log

1 - Intervention log

In order to benefit from the HAULOTTE® guarantee, each maintenance or repair operation must figure in the INTERVENTION LOG, which can be found at the end of the maintenance book delivered with your machine.

I n t e r v e n t i o n l o g

Haulotte GROUP

H - REGISTRE D'INTERVENTION

REGISTRE D'INTERVENTION HAULOTTE SERVICE				
Date	Nature de l'intervention	Nbre heures	Intervenant	N° intervention Haulotte service

H - Intervention log