HA12CJ - HA32CJ - HA12CJ+ - HA32CJ+

Operator's manual

HA12CJ - HA32CJ - HA12CJ+ - HA32CJ+

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A- Foreword

You have just purchased a HAULOTTE® product and we would like to thank you for your business.
The Aerial Work Platform is a mechanical device primarily designed and manufactured with the intent to position people with the necessary tools and material to overhead elevated temporary workplaces. All other uses or alterations/ modifications to the aerial work platform must be approved by HAULOTTE®.
This manual shall be considered a permanent component of the machine and shall be kept with the aerial work platform in the designated Manual Holder, at all times.
Safe operation of this product can only be assured if you follow the operating instructions contained in this manual. To ensure proper and safe use of this equipment, it is strongly recommended that only trained and authorized personnel operate and maintain the aerial work platform.
We would particularly like to draw your attention to 2 essential points :

- Comply with safety instructions.
- Use the equipment within the specified/published performance limits.

With regard to the designation of our equipment, we stress that this is purely for commercial purposes and not to be confused with the technical specifications. Only the specifications in this manual should be used to study the suitability of the equipment for the intended use.
This operator's manual is specific to the HAULOTTE® products listed on the cover page of this manual.

Original language and version :

Manuals in English and French are the original instructions. Manuals in other languages are translations of the original instructions.

The operator's manual does not replace the basic training required for equipment operators. HAULOTTE® has compiled this manual to assist in safe and efficient operation of the products covered in the manual.
The manual must be available to all operators and must be kept in a legible condition. Additional copies can be ordered from HAULOTTE Services®.
Stay Safe and keep working with HAULOTTE® !

A- Foreword

1 - User responsibility

1.1 - OWNER'S RESPONSIBILITY

The owner (or hirer) has the obligation :

- To inform operators of the instructions contained in the Operator's Manual.
- For applying the local regulations regarding operation of the machine.
- To replace all manuals or decals that are either missing or not legible. Additional copies can be ordered from HAULOTTE Services®.
- To establish a preventive maintenance program in accordance with the manufacturer's recommendations, taking into account the environment and severity of use of the machine.
- To perform periodic inspections in accordance with HAULOTTE® recommendations and local regulations.

All malfunctions and problems identified during the inspection shall be corrected before the aerial work platform is returned to service.

1.2 - EMPLOYER'S RESPONSIBILITY

The employer has the obligation :

- To authorize the operator to use the machine.
- To inform and familiarize the operator with the local regulations.

Forbid anyone from operating the machine if :

- Under the influence of drugs, alcohol, etc.
- Subject to fits, loss of motor skills, dizziness, etc.

1.3 - 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.

1.4 - OPERATOR'S RESPONSIBILITY

The operator has the obligation to :

- Read and understand the contents of this manual and familiarize himself with the decals affixed on the machine.
- To inspect the machine before use according to HAULOTTE®'s recommendations..
- To inform the owner (or hirer) if the manual or any decals are missing or are not legible.
- To inform of any malfunctioning of the machine.

The operator shall ensure that frequent inspections were conducted by the owners and the operator may only operate the machine for the purpose intended 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 be able to operate the machine in an emergency.

The operator has the obligation to stop using the machine in the event of malfunction or safety problems on the machine or in the work area and report the problem immediately to his/her supervisor.

A- Foreword

2 - Safety

2.1 - SAFETY INSTRUCTIONS

2.1.1 - Misuse Hazards

- Do not use the machine for any other purpose than to position people, their tools and material to the overhead/elevated temporary work places.
- Do not use the machine as a crane, material lift or elevator. Only use the machine as it was intended.
- Do not attach overhanging loads when raising or lowering the platform.
- Do not tie the boom or platform to an adjacent fixed or mobile structure.
- Do not use/operate the machine when alone. A survey person or immediate Supervisor must be present on the ground in case of emergency.
- Do not use a faulty or poorly maintained machine. Remove defective/damaged machine from service.
- Do not climb onto the compartment covers of the machine.
- Do not replace items critical to machine stability with items of different weight or specification.
- Do not replace factory-installed tires with tires of different specifications or ply rating.
- Do not alter or disable machine components that in any way affect safety and stability.
- Do not disable the safety devices.

2.1.2 - Falling Hazards

To enter or exit from the platform :

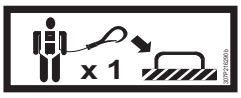
- The machine must be completely stowed.
- Face the machine to access the entry opening to the platform.
- Keep 3 points of contact (both hands and a foot) on the steps and the guardrail.

Before commencing operation :

- Ensure that guard rails are correctly installed and secured.
- Ensure that gate or sliding bar is in it's proper closed position.
- Remove oil or grease from the steps, floor, handrail and the guardrails.
- Clear the platform floor free of debris.

When in the platform :

- Occupants must wear a fall arrest harness with energy absorber, in accordance with applicable governmental regulations. Attach the lanyard to the designated fall arrest anchor provided in the platform.
- The correct use of the harness requires the lanyard to be connected to an anchorage point designated by the decals. Refer to this decal located on the platform.
- Hold on securely to the guardrails.



- Always keep your feet firmly on the floor of the platform.
- Do not sit, stand, or climb on the platform guard rails.
- Work only within the platform guardrails area and do not lean over guardrails to perform work.
- Do not exit the platform until it is in the completely stowed position.
- Do not use the guardrail as a means of access to climb in or out of the platform.

2.1.3 - Overturning / Tip-over Hazards

Before positioning and operating the machine :

- Ensure that the surface is capable of supporting the machine weight including the rated capacity. Check the load bearing capacity of the supporting ground.
- Remain vigilant of driving direction reversal at the platform. 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.

- Do not exceed the maximum rated capacity that includes the weight of both material and allowed number of occupants. Do not exceed the allowable number of occupants.
- Place the loads uniformly distributed on the platform floor.

- Do not increase the working height (using extensions, ladder, etc.).
- Do not place ladders or scaffolds in the platform or against any part of this machine.
- Do not use the machine in winds exceeding the permissible limit.

- Do not increase the surface area of the platform exposed to wind. This includes adding panels, mesh, banners. Be aware when working with materials with a large surface area. This will add to the wind load on the machine.
- Do not raise the platform or drive with platform elevated on an incline exceeding the rated slope for the machine.

- Do not drive the machine on slopes or grades exceeding the specified limits.
- Do not replace components critical to stability with components of different weight or specification.
- Do not use the machine with material or objects hanging from the guardrail or the boom.

- Do not pull or push towards any object outside of the platform. Do not exceed the maximum allowable side force stated in the performance specifications.
- Do not use the machine to support any external structure.
- Do not use the machine to tow other machines or to drag materials.

A- Foreword

Using a machine on a slope

Do not exceed the slope limit for each operation. **Section B 4.1Technical specifications.**

Gradeability :

- Driving UP or DOWN a slope in stowed position.

Rated slope :

- Operating with platform elevated.

- If the tilt alarm sounds with the platform uphill : First lower the boom and then retract the boom.
- If the tilt alarm sounds with the platform facing downhill : First retract the boom and then lower the boom.
- While driving, always place the boom above the rear axle, in the direction of movement.
- While driving on a slope:
  - Always orientate the machine in the direction of the slope.
  - Always place the boom and the arms in fully retracted and in stowed position.
  - Do not travel down slopes in high speed.
  - Do not drive fast in narrow or cluttered areas. Keep speed under control while making turns or sharp bends.

A- Foreword

WIND : The aerial work platform can operate up to a maximum wind speed as indicated in the specifications. To identify the local wind speed, use the Beaufort scale below, use a wind gauge or an anemometer.

N.B.-:-The Beaufort scale of wind force is accepted internationally and is used when communicating weather conditions. A wind speed range at 10 m (32 ft 9 in) above flat, clear land is associated with each degree.

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. Weather vanes turn.	1,6 - 3,3	6 - 11	3,72 - 6,84
3	Slight breeze	Leaves and small twigs in constant motion. Flags move slightly.	3,4 - 5,4	12 - 19	7,46 - 11,8
4	Nice breeze	Raised dust and loose papers. Small branches are moved.	5,5 - 7,9	20 - 28	12,43 - 17,4
5	Nice breeze	Small trees in leaf to sway. Crested wavelets form on inland waterways.	8,0 - 10,7	29 - 38	18,02 - 23,6
6	Cool wind	Large branches in motion. Power lines and chimneys 'sing'. Umbrellas used with difficulty.	10,8 - 13,8	39 - 49	24,23 - 30,45
7	Near gale	Whole trees in motion. Inconvenience felt when walking against wind.	13,9 - 17,1	50 - 61	31 - 37,9
8	Gale	Some branches break. Generally we cannot walk against the wind.	17,2 - 20,7	62 - 74	38,53 - 45,98
9	Strong gale	The wind causes slight damage to buildings. Tiles and chimney stacks are blown off.	20,8 - 24,4	75 - 88	46,60 - 54,68

2.1.4 - Electrocution Hazards

The machine is not electrically insulated and does not provide protection from contact or proximity to electrically charged conductors.

Always position the lift at a safe distance from electrically charged conductors to ensure that no part of the machine is within an unsafe area.

Respect the local rules and the minimum safety distance from power lines.

Minimum safe approach distances

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.-:-USE THIS TABLE EXCEPT WHERE LOCAL REGULATIONS INDICATE OTHERWISE.

- Do not operate the machine when close to live power lines, consider the movement of the machine and the sway of the electric power lines particularly in windy conditions.
- Do not operate the machine during lightning, thunderstorms, snow/ice or any weather condition that could compromise operator safety.
- Do not use the machine as a ground for welding.
- Do not weld on the machine without first disconnecting the battery terminals.
- Always disconnect ground cable first.
- The machine must not be used while charging the batteries.
- When using the AC power supply, ensure it is protected with a circuit breaker and residual current device.

Keep away from the machine if it contacts energized power lines. Personnel on the ground or in the platform must not touch or operate the machine until energized power lines are shut off.

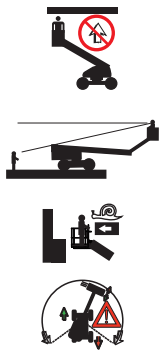
2.1.5 - Explosion / Fire Hazards

Always wear protective clothing and eye wear when working with batteries and power sources/systems.

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

- Do not work on or operate a machine in an explosive or flammable atmosphere / environment.
- Do not touch hot components.
- Do not bridge the battery terminals with metallic objects.
- Do not service the battery in proximity of spark, open flame, lit cigarettes.

2.1.6 - Crushing / Collision Hazards



When in the platform :

- Check the work area for overhead clearance, for any obstacles besides and below the platform when raising/lowering the platform and or before driving.
- During movement, keep all the parts of the body inside the platform. Hold onto the guardrails on the opposite side to any surrounding structures. Take care to avoid trapping hands whilst holding the guardrails.
- To position machine close to a building/structure, it is recommended using the upper boom and or arms movement control functions to position, rather than driving machine closer to structure.
- Always cordon off the area around the base of the machine to keep personnel and other equipment away from the machine while in use.
- Warn personnel not to work, stand, or walk under a raised boom/platform.
- Do not drive in reverse direction (opposite the field of vision).
- Be aware of the boom position and tail swing when rotating the turret (turntable).
- Always ensure that the chassis is never driven any closer than 1 m (3 ft 3 in) to holes, bumps, slopes, obstructions, debris and ground coverings that may hide holes and other dangers.
- Keep non-operating personnel at least 5 m (16 ft 5 in) away from the machine when driving and slewing.

- Be aware of driving direction.
  - When turret is slewed/rotated 180°, the platform is now facing the rear of the machine.
  - 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.
  - Also note that when changing the driving direction (Forward <> Reverse) the joysticks or switches must return to the neutral position before reversing the drive direction and for movement to occur.
- When driving, position the platform so as to provide the best possible visibility and to avoid any blind spots.
- Hold on securely to the guardrails.
- Occupants must wear a fall arrest harness with energy absorber, in accordance with applicable governmental regulations. Attach the lanyard to the designated fall arrest anchor provided in the platform.
- Avoid contact with fixed or mobile obstacles (other machines).
- Other machines (crane, aerial work platform, etc.) operating in the work area increase the risk of crushing or collision. Restrict the operation of machines moving within the aerial work platform work area.
- Take into consideration the stopping distance, reduced visibility and blind spots of the machine.
- Limit travel speed to suit the ground surface condition, slope (incline), and people in the vicinity.

2.1.7 - Uncontrolled movement Hazards

Do not use a damaged or malfunctioning machine.

Be aware of uncontrolled movement and always respect the following :

- Maintain clearance from high voltage lines.
- Maintain clearance from generators, radar, electromagnetic fields.
- Never expose the batteries or electrical components to water (high pressure washer, rain).
- Never tow the machine over extended distances.
- In case of a machine breakdown, it is possible to tow short distance to load it onto a trailer.
- Never leave the hydraulic cylinders fully extended before switching off the machine, or when stationary for an extended period of time.
- Retract the boom and lower the arms to the stowed position.
- Rotate the turntable so that the boom is between the non-steering wheels.
- Select a safe parking location, on a firm level surface, clear of obstruction and traffic.
- Ensure all compartments are closed and secured.
- Chock the wheels.
- Operator must remove the foot from the Enable foot pedal and/or release the trigger when any movement has ceased

A- Foreword

3 - Safety inquiries

Inquiries relating to design criteria/specifications of a product, standards compliance, or overall machine safety should be sent to the HAULOTTE® PRODUCT SAFETY department.

Each inquiry or request should include all relevant information; including contact name, telephone number, mailing address, email address, plus the machine model and serial number.

The HAULOTTE® Product Safety department will evaluate each request/inquiry and will provide a written response.

4 - Incident notification

Notify HAULOTTE® immediately when a HAULOTTE® product has been involved in an incident/ accident leading to personal injury or death, or when there is a major property damage.

HAULOTTE Group - EUROPE Product Safety Department Address : La Péronnière - BP 9 - 42152 L'Horme - France Tel : +33 (0)4 77 29 24 24 Email : ProductSafety@haulotte.com	HAULOTTE Group - Australia, India and Asia Product Safety Department Address : No.26 Changi North Way - Singapore 498812 - Singapore Tel : +65 6546 0123 Email : ProductSafety@haulotte.com	HAULOTTE Group - North & South America Product Safety Department Address : 3409 Chandler Creek Rd. - Virginia Beach, VA 23453 - United States Tel : +1 757 689 2146 Email : ProductSafety@haulotte.com

5 - Compliance

5.1 - PRODUCT INFORMATION

Without the written permission from Haulotte, modifying a HAULOTTE® product is a Safety concern. Any modification may violate Haulotte design parameters, government regulations and industry standards.

If you desire a modification to the product, submit a request in writing to HAULOTTE®.

With the utmost care to ensure enhanced reliability and greater safety of the HAULOTTE® products, it is pertinent that when a "Service or Safety Bulletin" is issued, action is taken immediately. Once the bulletin has been addressed, make sure that the completed form is submitted to HAULOTTE®.

Do not hesitate to contact HAULOTTE Services®, should you have any questions relating to the issued bulletin(s) or with questions on the policy itself.

5.1.1 - Change of Ownership Notification

It is important and necessary to keep HAULOTTE Services® updated with current ownership of the machine. This way, HAULOTTE® will be able to provide the necessary support for the product. If you have sold or transferred this machine(s); it is your responsibility to notify HAULOTTE Services®. It is not required to include Lessees/Renters of Leased/Rented machines on this form.

Use the HAULOTTE® Product Status Notification form to report scrapped, stolen, missing or recovered machine(s).

5.1.2 - Owner information update form

Owner information update form	
Complete this form and mail or fax it to :	
HAULOTTE® subsidiary Name :	Address 1 :
Fax :	Address 2 :
e.mail address :	Address 3 :
Product information :	
Model :	Machine serial number :
Owner / Servicing information : Do not include leased or rented units in this form	
Current product owner 1 :	Current product owner 2 :
Name :	Name :
Company :	Company :
Address 1 :	Address 1 :
Address 2 :	Address 2 :
Country :	Country :
Phone :	Phone :
Date of ownership :	Date of ownership :
Signature :	Signature :
Date :	Date :
Company stamp is mandatory :	Company stamp is mandatory :
Tick here if the machine has been permanently removed from service (scrapped). The manufacturer's nameplate must be removed and returned to HAULOTTE Group when the unit is removed from service.	
Reason for removal :	

5.2 - PRODUCT SPECIFICATIONS

HAULOTTE® cannot be held liable for any changes to the technical characteristics/ specifications contained in this manual. HAULOTTE® has a continuous improvement policy in place for its product range. Given this policy, the Company reserves the right to modify products technical characteristics / specifications without notice.

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

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

- Installation by authorised HAULOTTE® personnel only.
- Update the manufacturer's identification plate.
- Have stability tests carried out by a certified agency/competent person.
- Ensure decals are updated.

1 - General safety

1.1 - INTENDED USE

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 allowable wind speed specified in the performace specifications tabulation.
  - Consult the Beaufort scale.
- Close to power lines. Keep a safe distance.
- If the machine is stored at a temperature out of range - 20°C / + 50°C (- 4°F / + 122°F).
- In an explosive atmosphere / environment.
- During storms.
- In the presence of strong electromagnetic fields.

N.B.-:-USE THE MACHINE UNDER "NORMAL" CLIMATIC CONDITIONS. IF YOU NEED TO USE THE MACHINE IN CLIMATIC CONDITIONS LIKELY TO CAUSE DETERIORATION (EXTREME : HUMIDITY, TEMPERATURES, SALINITY, CORROSIVENESS, ATMOSPHERIC PRESSURE), CONTACT HAULOTTE SERVICES®. REDUCE INTERVALS BETWEEN SERVICING.

N.B.-:-WHILE THE MACHINE IS NOT IN USE, CARE MUST BE TAKEN TO BRING THE MACHINE TO THE FULLY STOWED POSITION. ENSURE THAT THE MACHINE IS LOCKED IN A SECURE LOCATION, AND THE CONTROL KEY IS REMOVED TO PREVENT UNAUTHORISED USE OF THE MACHINE.

1.2 - DECAL CONTENT

Decals are provided to alert the user of hazards inherent with the Aerial Work Platforms.

Decals provide the following information :

- The level of severity.
- The specific hazard.
- A method to avoid, suppress or reduce the hazard.
- Descriptive text (where required).

Familiarize yourself with the decals and the hazard severity levels.

Decals must be kept in good legible condition.

Familiarize yourself with the decals and their respective color codes.

Additional decals can be ordered from HAULOTTE Services®.

CE and AS standards

ANSI and CSA standards

Marking	Description
1	Hazard symbol
2	Level of severity
3	Avoidance symbol pictorial
4	Avoidance text

1.3 - SYMBOLS AND COLORS

Symbols and colors are used to alert the operator of safety precautions and/or to highlight important safety information.

The following safety symbols are used throughout this manual to indicate specific hazards and the hazard severity level when operating or maintaining the Aerial Work Platform.

Symbol	Description
	Danger : Risk of injury or death
	Caution : Risk of material damage
	Prohibited action
	Reminder to use good practice or follow pre-operation checks
	Cross-reference to another part of the manual
	Cross-reference to another manual
	Cross-reference to repair (contact HAULOTTE Services®)
N.B. :	Additional technical information

1.4 - LEVEL OF SEVERITY

Color	Title	Description
		Danger : Indicates a hazardous situation which if not avoided, WILL result in death or serious injury.
		Warning : Indicates a hazardous situation which if not avoided, COULD result in death or serious injury.
		Caution : Failure to comply could result in minor or moderate injury.
		Notice : Indicates recommended practices if not followed, may result in a malfunction or damage the machine or its components.
		Procedure : Indicates a maintenance operation.

1.5 - SYMBOLS LEGEND AND DEFINITIONS

Symbols are used throughout this manual to depict hazards, avoidance measures and indicate when information is required.

Refer to the following table to familiarize yourself with these symbols.

Symbol	Description	Symbol	Description	Symbol	Description
	Body crushing hazard		Foot crushing hazard		High pressure fluid ejection hazard
			Hand crushing hazard		Entanglement hazard
			Health/safety hazards related to chemicals		Health-damaging effects from hot work environment
	Electrical contact or lightning strike		Burns and scalds from contact with flames, explosion or radiation from heat sources		Injury from Electric arcs - Energy supply disconnecting devices - Batteries fire, emissions, etc
	Risk of operator(s) falling		Tip over due to excessive loading / wind load and excessive ground slope		Relate and coordinate directional arrows on the chassis with those on the control box
	Do not put foot in this area		Do not put your hand in this area		Keep away from product working area
	Never expose batteries and electrical component to high pressure washer		Ensure entry drop rail is down		
	Flames prohibited		Maintain safe clearance from high voltage electrically charged conductors as described in manual - Do not use in thunderstorms		Overload
	Refer to operator manual		Safety belt		Use appropriate lanyard attached to dedicated anchor point.
	Wheel pressure		Enable switch		Use safety prop before attempting any maintenance work
	Tow point		Tie down point		Lift point
	Keep away from hot surfaces		Wear protective equipment		

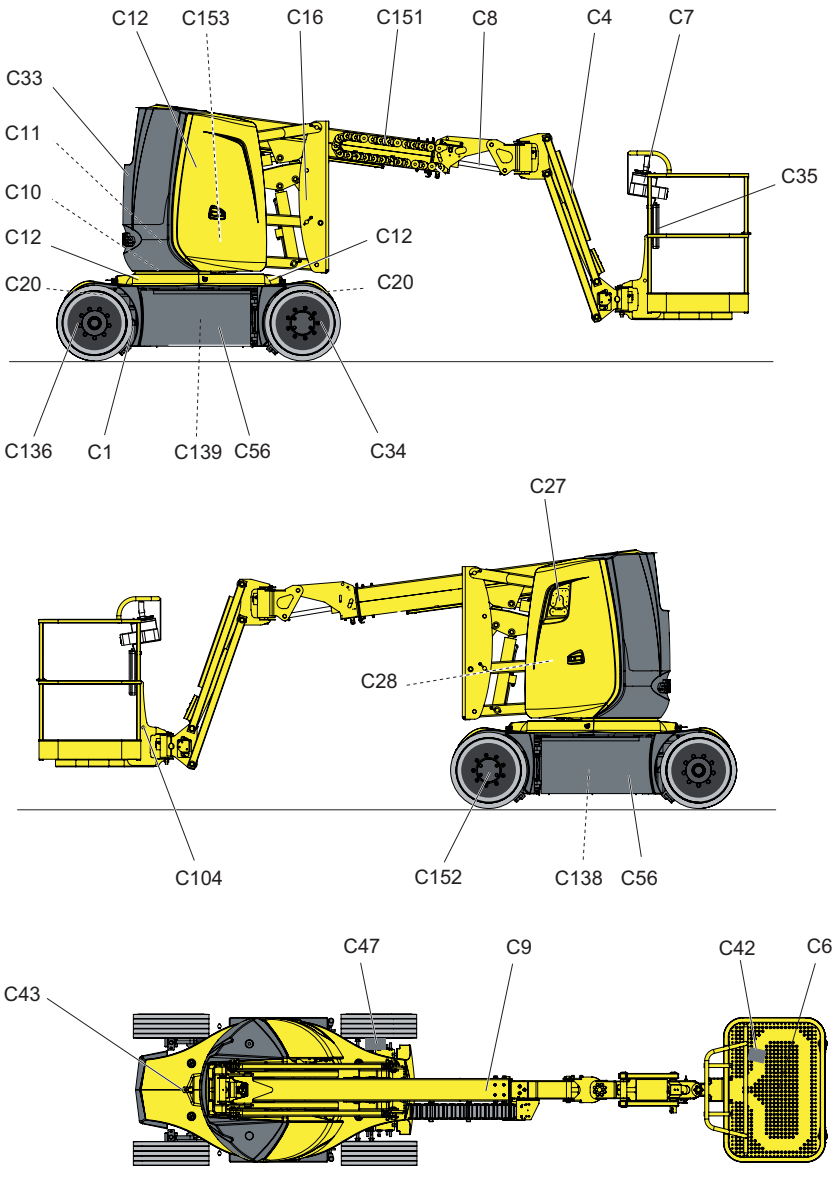
2 - Models description

Regulations	Models
ANSI and CSA standards	HA32CJ
	HA32CJ+
CE, AS and EAC standards	HA12CJ
	HA12CJ+

3 - Primary machine components

3.1 - LAYOUT

HA12CJ - HA32CJ - HA12CJ+ - HA32CJ+



Extérieur / *Outside*
Intérieur / *Inside*

B- Familiarization

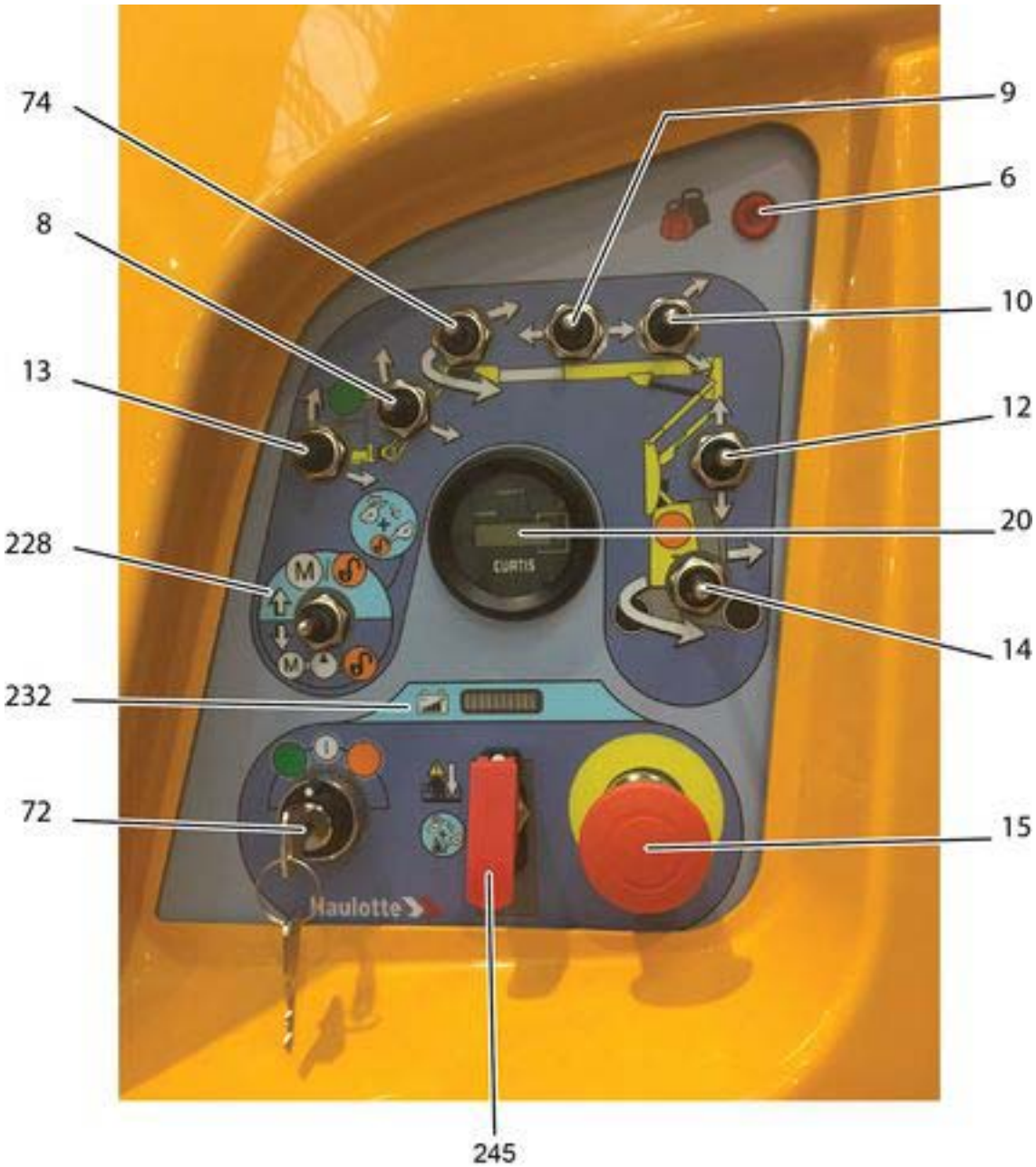
Marking	Description	Marking	Description
C1	Chassis	C34	Drive wheels
C4	Jib	C35	Document holder
C6	Platform	C42	'Enable Switch' pedal
C7	Platform control box	C43	Turntable rotation lock pin
C8	Input jib leveling cylinder	C47	Battery isolation switch
C9	Upper boom	C56	Battery box
C10	Slew ring	C104	Lanyard attachment points
C11	Turntable assembly	C136	Steer wheels
C12	Side cover (x 4)	C138	Battery charger
C16	Lower arm	C139	Electronic variable speed drive
C20	Tie-down (and/or lifting) points	C151	Cable carrier cat track
C27	Ground control box + Universal plug	C152	Electric drive motor - Brake - Wheel reducer
C28	Tilt / Slope sensor	C153	Hydraulic oil tank
C33	Counterweight		

Universal plug

3.2 - GROUND CONTROL BOX

3.2.1 - Layout

General view



B- Familiarization

Controls and indicators

Marking	Name	Description	Function
6	HL144	Platform overload indicator	Platform overload
8	SA50	Jib lifting / lowering switch	Move upwards : Jib lifting
			Move downwards : Jib lowering
9	SA22	Boom telescoping switch	Move to the left : To extend the boom out
			Move to the right : To retract the boom in
10	SA30	Boom raising switch	Move upwards : Boom raising
			Move downwards : Boom lowering
12	SA20	Arm lifting selector	Move upwards : Arm raises
			Move downwards : Arm lowers
13	SA40	Platform levelling	Move to the right : Platform leveling lowered or placed in transport position
			Move to the left : Platform leveling raised or placed in operating position
14	SA82	Turntable rotation switch	Move to the left : Counter clockwise (CCW) rotation
			Move to the right : Clockwise (CW) rotation
15	SA140	E-stop button	Pulled out : Ground control box energized
			Pushed in : De-energizes control system
20	H1	Hour meter	Total machine running hours
72	SA1	Control box activation key switch	Left : Platform control box energized
			Center : De-energizes control system
			Right : Ground control box energized
74	SA52	Jib rotation selector(1.)	Move to the left : Counter clockwise (CCW) rotation
			Move to the right : Clockwise (CW) rotation
228	SA10	'Enable Switch' selector / Back-up unit selector	Move upwards : Enable switch
			Move downwards : Back-up unit activated (If fitted).
232	BG3	Battery discharge indicator	Display battery charge status
245	SA801	"Overriding system" switch under cover	Emergency lowering system enabled when the cover is lifted. This must be used ONLY when normal operation from the ground box is unavailable - use in emergencies ONLY.

3.3 - PLATFORM CONTROL BOX

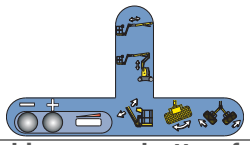
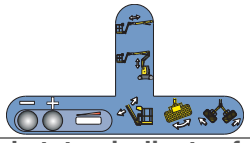
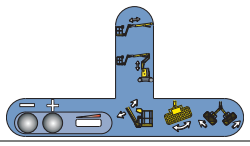
3.3.1 - Layout

General view

Controls and indicators

Marking	Name	Description	Function
27	HL143	Tilt indicator	Machine on excessive slope
30	HL142	Platform overload indicator	Platform overload
31	HL102	Power ON indicator / Fault	On : Machine switched on
			Flashing : Machine operating fault
			Off : Machine switched off
33	SM1	Drive joystick	Move forward : Forward drive
			Move backwards : Reverse drive
		Front axle steering selector	Press right side of button : Right-hand steering
			Press left side of button : Left-hand steering
37	SA51	Jib lifting / lowering switch	Move upwards : Jib lifting
			Move downwards : Jib lowering
38	SA43	Platform rotation switch	Move to the right : Counter clockwise (CCW) rotation
			Move to the left : Clockwise (CW) rotation
40	SA41	Platform leveling switch	Move upwards : Platform elevates
			Move downwards : Platform lowers
41	SB122	Back-up unit selector[1]	Toggle and hold : Back-up unit activated
			Release : Back-up unit deactivated
43	SB105	Horn button	Horn

B- Familiarization

Marking	Name	Description	Function
45	SA67	Drive speed selector	High-speed drive
			Low-speed drive
46	SA141	E-stop button	Pulled out : Ground control box energized
			Pushed in : De-energizes control system
49	SM2	Turntable rotation joystick	Move to the right : Counter clockwise (CCW) rotation
			Move to the left : Clockwise (CW) rotation
		Boom lift joystick	Move upwards : Boom raising
			Move downwards : Boom lowering
83	SA53	Jib rotation selector[2]	Move to the right : Counter clockwise (CCW) rotation
			Move to the left : Clockwise (CW) rotation
242	SB120	Speed reduction button for movements in zone 	Press the + button down : Increases the operating speed of functions controlled by the toggle switches.
243	SB121	Speed increase button for movements in zone 	Press the - button down : Deceases the operating speed of functions controlled by the toggle switches.
244	BG2	Speed status indicator for movements in zone 	The position of the light bar indicates where the speed selector is positioned within the minimum and maximum range.
245	BG1	Battery discharge indicator	Position of the light bar indicates the remaining battery charge - with minimum charge on the left to a maximum charge on the extreme right of the bar.
246	SA35	Boom telescoping switch	Move to the left : To extend the boom out
			Move to the right : To retract the boom in
247	SA21	Arm lifting selector	Move upwards : Arm raises
			Move downwards : Arm lowers

1. For machines fitted with
2. For HA12CJ+ only

4 - Performance Specifications

4.1 - TECHNICAL CHARACTERISTICS

For USA : The design standard used for manufacturing the machine depends on its date of manufacture.

This changes certain technical features :

- Maximum wind speed allowed.
- Maximum tilt allowed.
- Manual force.

The standard reference written on the manufacturer's plate identifies the features of the machine : ANSI A92.5, ANSI A92.6 or ANSI A92.20

Use the table to select the right Haulotte machine for the job.

CE, AS, EAC, CSA and ANSI A92.20 standards

Machine	HA12CJ - HA32CJ		HA12CJ+ - HA32CJ+	
Characteristics - Dimensions	**SI**	**Imp.**	**SI**	**Imp.**
Maximum working height	11,68 m	38 ft 4 in	11,68 m	38 ft 4 in
Maximum platform height	9,68 m	31 ft 9 in	9,68 m	31 ft 9 in
Maximum horizontal reach	7 m	23 ft 0 in	7,20 m	27 ft 7 in
Maximum outreach above the ground	6,44 m	21 ft 2 in	6,72 m	22 ft 1 in
Maximum platform height before driving speed restriction	2,67 m	8 ft 9 in	2,67 m	8 ft 9 in
Maximum boom articulation point height	4,74 m	24 ft 11 in	4,74 m	24 ft 11 in
Turret rotation	354°			
Platform rotation	180° (+ 90° / - 90°)			
Jib working range	132,5° (+63,5°/ -69°)			
Boom rotation angle	75°			
Total weight	7065 kg	15576 lb	7110 kg	15675 lb
Maximum platform capacity	250 kg	551 lb	230 kg	507 lb
Maximum number of occupants allowed	2			
Maximum wind speed allowed	45 km/h	28 mph	45 km/h	28 mph
Manual force	400 N - 90 lbf			
Gradeability	25%			
Maximum rated slope allowed	3°			
Maximum load on wheel	3550 daN	7,981 lb	3550 daN	7,981 lb
Maximum ground pressure of wheel on paved ground	17,5 daN/cm²	3,64 lb/ft²	17,5 daN/cm²	3,64 lb/ft²
Drive speed : • Unfolded machine maximum speed - Micro-speed • Folded machine maximum speed - High speed	 0,7 km/h 6 km/h	 0.4 mph 3.5 mph	 0,7 km/h 6 km/h	 0.4 mph 3.5 mph
Maximum freewheel speed during towed operation	5 km/h	3 m/h	6 km/h	3 m/h
Outside turning radius - 2WS	3,65 m	12 ft 0 in	3,65 m	12 ft 0 in
Inside turning radius - 2WS	2 m	6 ft 7 in	2 m	6 ft 7 in
Solid tires/tyres	600 x 190			
Electric motor				
Specifications - Performance				
Operating temperature	- 15° C/ + 45° C (- 59° F / + 113° F)			
Storage temperature	- 30° C / + 45° C (-22° F / + 113° F)			

B- Familiarization

Machine	HA12CJ - HA32CJ		HA12CJ+ - HA32CJ+	
Energy storage				
Type of battery	Semi traction			
Battery amperage	320Ah			
Battery voltage	48 V			
Battery capacity	320 Ah			
Hydraulic tank capacity	13,5 L	3,6 gal US	13,5 L	3,6 gal US

B- Familiarization

ANSI A92.5 standard

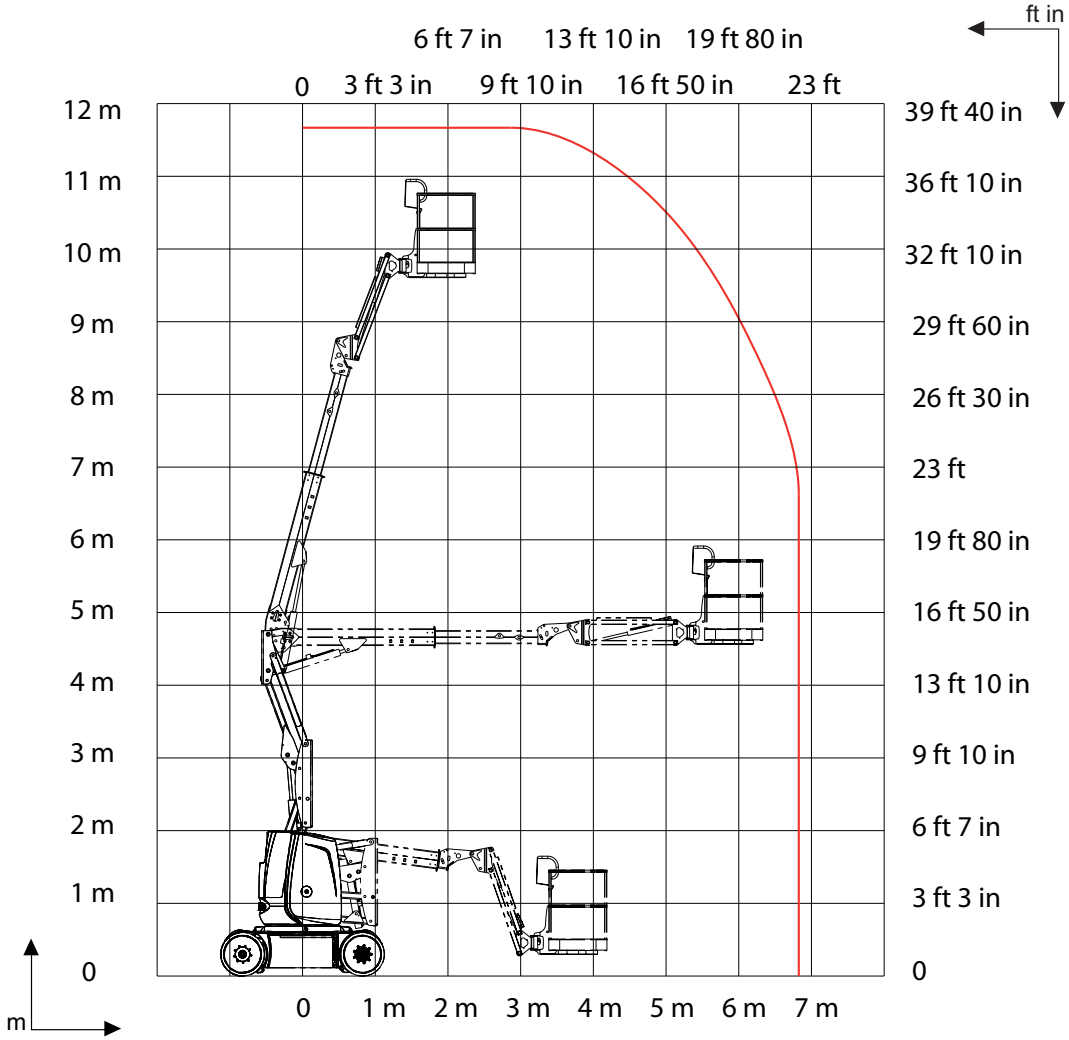
Machine	HA32CJ		HA32CJ+	
Characteristics - Dimensions	**SI**	**Imp.**	**SI**	**Imp.**
Maximum working height	11,68 m	38 ft 4 in	11,68 m	38 ft 4 in
Maximum platform height	9,68 m	31 ft 9 in	9,68 m	31 ft 9 in
Maximum horizontal reach	7 m	23 ft 0 in	7,20 m	27 ft 7 in
Maximum outreach above the ground	6,44 m	21 ft 2 in	6,72 m	22 ft 1 in
Maximum platform height before driving speed restriction	2,67 m	8 ft 9 in	2,67 m	8 ft 9 in
Maximum boom articulation point height	4,74 m	24 ft 11 in	4,74 m	24 ft 11 in
Turret rotation	354°			
Platform rotation	180° (+ 90° / - 90°)			
Jib working range	132,5° (+63,5°/ -69°)			
Boom rotation angle	75°			
Total weight	7065 kg	15564 lb	7110 kg	15664 lb
Maximum platform capacity	250 kg	551 lb	230 kg	507 lb
Maximum number of occupants allowed	2			
Maximum wind speed allowed	45 km/h	28 mph	45 km/h	28 mph
Manual force	666 N - 150 lbf			
Gradeability	25%			
Maximum rated slope allowed	0°			
Maximum load on wheel	3550 daN	7,981 lb	3550 daN	7,981 lb
Maximum ground pressure of wheel on paved ground	17,5 daN/cm²	3,64 lb/ft²	17,5 daN/cm²	3,64 lb/ft²
Drive speed : • Unfolded machine maximum speed - Micro-speed • Folded machine maximum speed - High speed	0,7 km/h 6 km/h	0.4 mph 3.7 mph	0,7 km/h 6 km/h	0.4 mph 3.7 mph
Maximum freewheel speed during towed operation	5 km/h	3m/h	5 km/h	3 m/h
Outside turning radius - 2WS	3,65 m	12 ft 0 in	3,65 m	12 ft 0 in
Inside turning radius - 2WS	2 m	6 ft 7 in	2 m	6 ft 7 in
Solid tires/tyres	600 x 190			
Electric motor				
Specifications - Performance				
Operating temperature	- 15° C/ + 45° C (- 59° F / + 113° F)			
Storage temperature	- 30° C / + 45° C (-22° F / + 113° F)			
Energy storage				
Type of battery	Semi traction			
Battery amperage	320Ah			
Battery voltage	48 V			
Battery capacity	320 Ah			
Hydraulic tank capacity	13,5 L	3,6 gal US	13,5 L	3,6 gal US

Notes

4.2 - WORKING AREA / RANGE OF MOTION

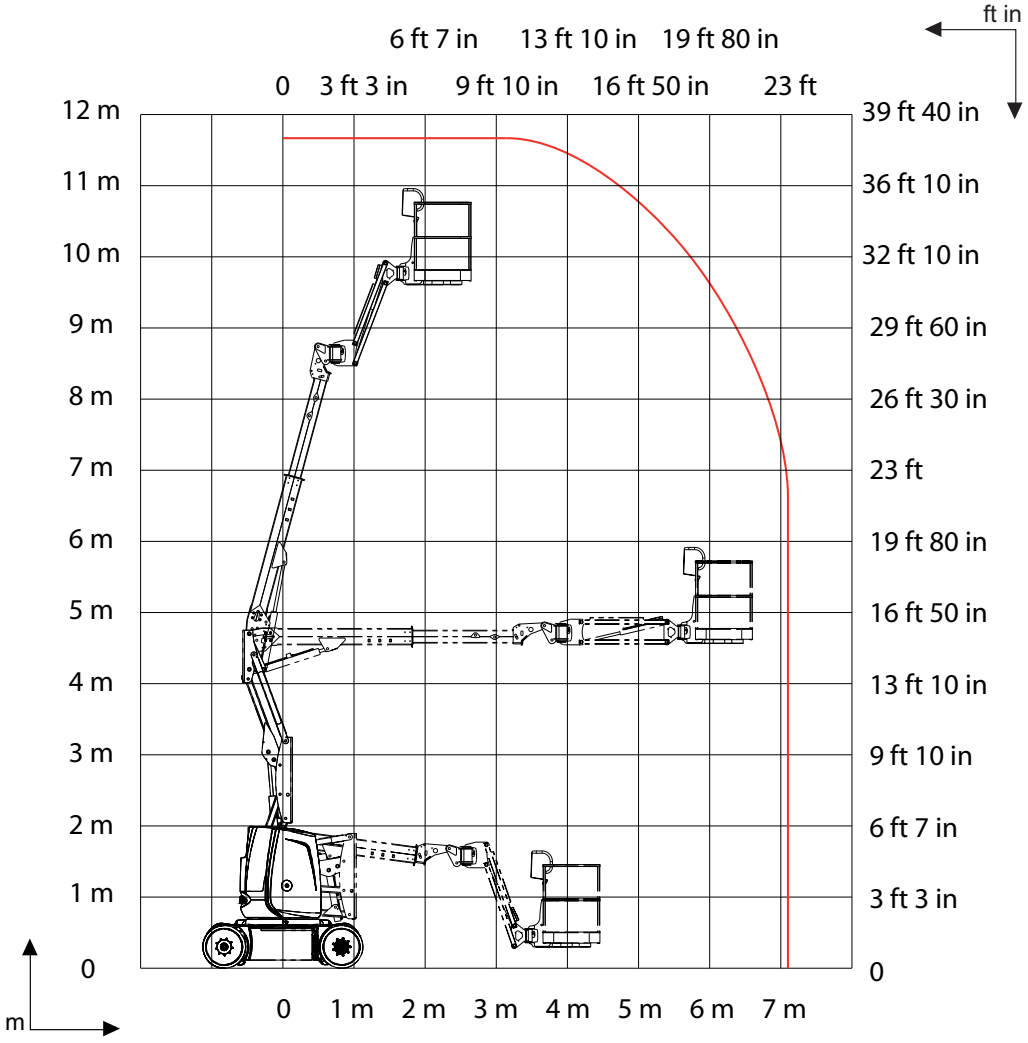
HA12CJ - HA32CJ

250 kg
551 lbs
/ 2x



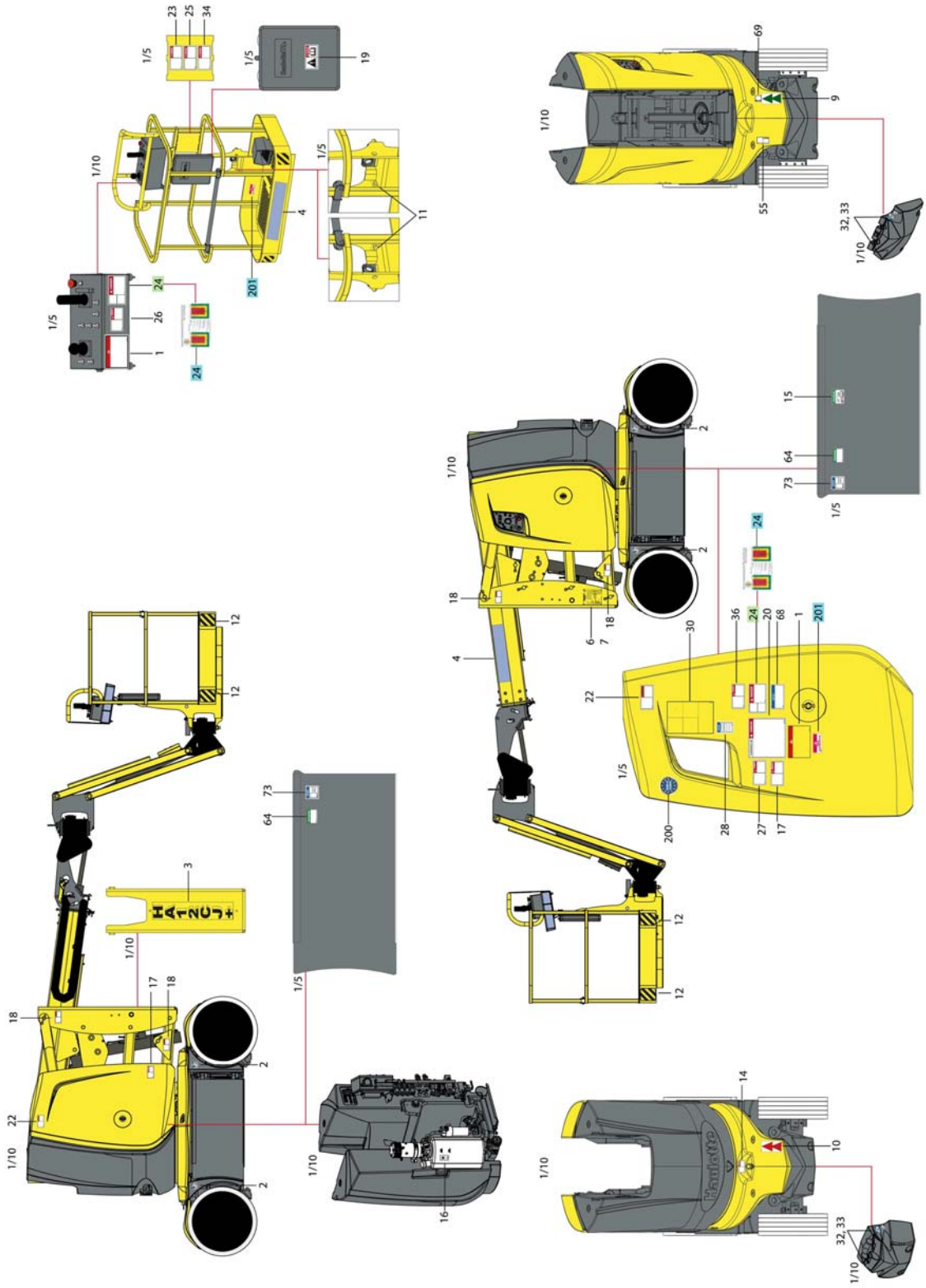
HA12CJ+ - HA32CJ+

230 kg
507 lbs
/ 2x



5 - Decals and markings locations

CE and AS standards



CE and AS standards

Marking	Color	Description	Quantity	HA12CJ	HA12CJ+
1	Red	Height of the floor and load	2	4000761770	4000761780
2	Blue	Maximum Pressure per Tire - Floor Loading	4	4000105830	
3	Other	Commercial name - Bright machine	2	307P227900	307P227880
3	Other	Commercial name - Dark machine	2	307P227910	307P227890
4	Other	Decal HAULOTTE® - Small format - Bright machine	2	307P217080	
4	Other	Decal HAULOTTE® - Small format - Dark machine	2	307P220350	
4	Other	Decal HAULOTTE® - Small format - Red machine	2	307P220360	
6	Other	Identification plate	1	4000700160	
9	Other	Control of movements - GREEN directional arrow	1	3078137440	
10	Other	Control of movements - RED directional arrow	1	3078137430	
11	Other	Lanyard attachment points	2	307P216290	
12	Other	Material risk - Yellow and black adhesive tape	4	4000421700	
14	Red	Remove the blocking pin before rotating	1	4000027080	
15	Other	Crown greasing	1	4000025160	
16	Other	Max and min oil level	1	307P221060	
17	Red	Risk of crushing - Do not park	2	4000024800	
18	Orange	Hand crushing hazard - Risk of crushed hands	4	4000024890	
19	Other	Read the operation manual	1	4000025140	
20	Red	Operation instructions	1	In german (CE standard) : 307P222730 In english (CE and AS standards) : 307P222740 In chineese (CE standard) : 4000698920 In croatian (CE standard) : 4000360810 In danish (CE standard) : 307P222760 In spanish (CE standard) : 307P222770 In estonian (CE standard) : 4000360870 In finnish (CE standard) : 307P222780 In french (CE standard) : 3078149030 In dutch (CE standard) : 307P222790 In hungarian (CE standard) : 4000360890 In italian (CE standard) : 307P222800 In japanese (CE standard) : 4000359830 In latvian (CE standard) : 4000359840 In lithuanian (CE standard) : 4000359850 In norwegian (CE standard) : 4000359900 In polish (CE standard) : 4000359860 In portuguese (CE standard) : 307P222810 In romanian (CE standard) : 4000359870 In slovakian (CE standard) : 4000359880 In slovenian (CE standard) : 4000359890 In swedish (CE standard) : 307P222820 In greek (CE standard) : 4000561810	
22	Orange	Risk of crushing - Do not place foot	2	4000027090	
23	Red	Risk of crushing - Driving direction	1	4000024690	
24	Red	Danger of electrocution	2	For CE only : 4000025070 For AS only : 4000227500	

B- Familiarization

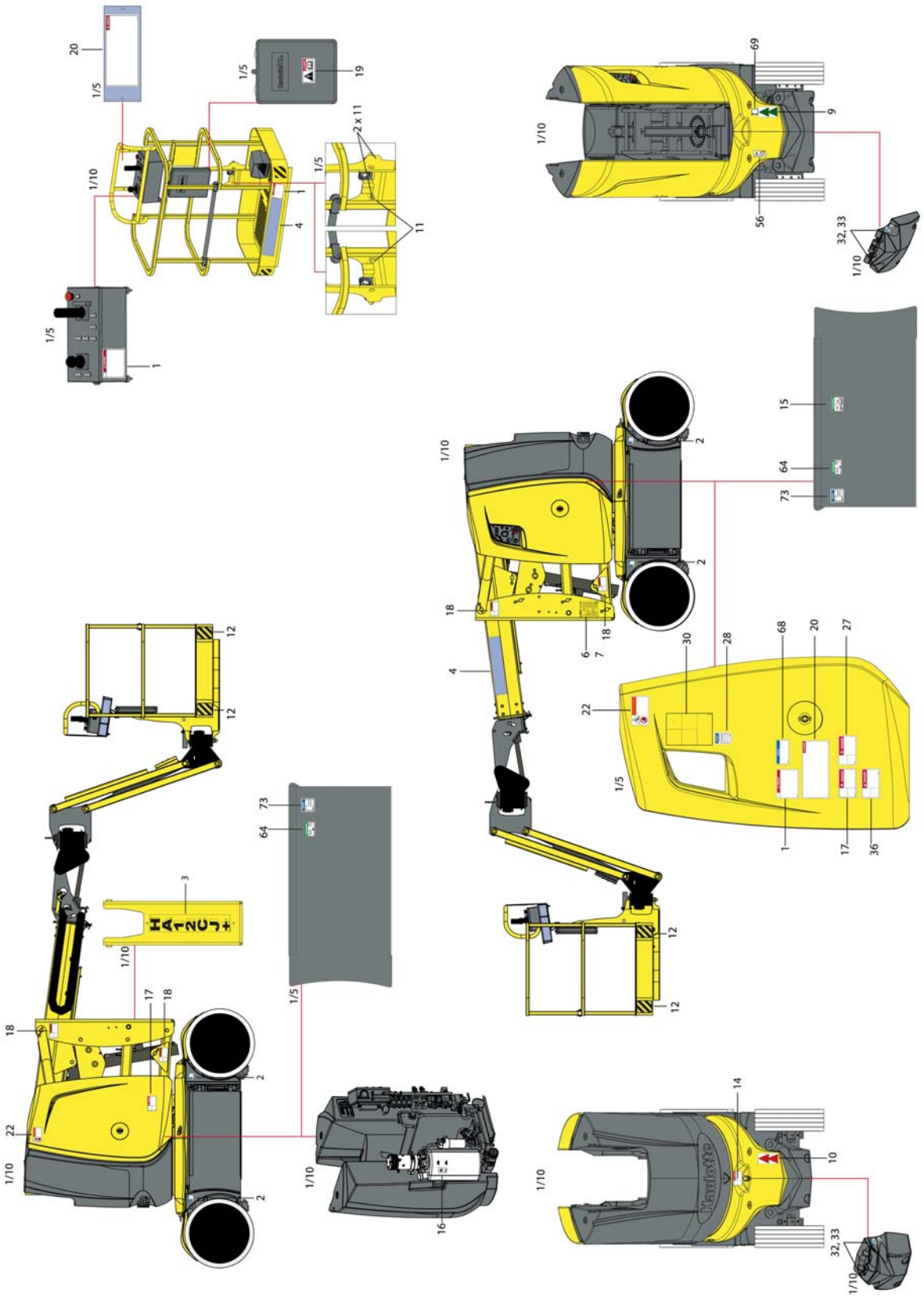
Marking	Color	Description	Quantity	HA12CJ	HA12CJ+
25	Red	Risk of crushing - Closing drop rail	1	4000025080	
26	Red	Danger of electrocution - Ground for welding	1	4000027100	
27	Other	Tilt verification	1	4000027110	
28	Other	Do not interchange	1	3078145180	
30	Other	Manual repair	1	307P228460	
32	Blue	Towing anchorage point	4	4000027310	
33	Blue	Lifting anchorage point	4	4000027330	
34	Red	Electrocution Hazard - Water projection	1	4000025130	
36	Red	Risk of crushing - Emergency lowering	1	4000027460	
55	Yellow	Battery charger socket 240 V	1	For CE only : 4000273940 For AS only : 4000307410	
64	Green	Battery verification	2	4000274040	
65	Orange	Risk of crushing-Protective clothing required	2	4000027440	
68	Other	Transport height	1	4000417470	4000667420
69	Blue	Battery isolation switch	1	4000420650	
73	Blue	Battery mass	2	4000702000	
200	Other	Made in Europe	1	For CE only : 4000137690	
201	Red	Wearing of a safety harness is essential	1	AS standard only : 3078144520	

B- Familiarization

Notes

B- Familiarization

ANSI and CSA standards



ANSI and CSA standards

Marking	Color	Description	Quantity	HA32CJ	HA32CJ+
1	Red	Height of the floor and load	2	ANSI A92.5 standard : In english : 4000101750 In french : 4000101760 In spanish : 4000101770 ANSI A92.20 and CSA B454.6 standards : 4000761770	ANSI A92.5 standard : In english : 4000101280 In french : 4000101270 In spanish : 4000101290 ANSI A92.20 and CSA B454.6 standards : 4000761780
2	Blue	Maximum Pressure per Tire - Floor Loading	4	4000105830	
3	Other	Commercial name - Bright machine	2	4000016170	4000016030
3	Other	Commercial name - Dark machine	2	4000016180	4000016070
4	Other	500 x 100 Decal HAULOTTE®Bright machine	2	307P217080	
4	Other	500 x 100 Decal HAULOTTE®Dark machine	2	307P220350	
4	Other	500 x 100 Decal HAULOTTE®Red machine	2	307P220360	
6	Other	Identification plates	1	4000700170	
9	Other	Control of movements - GREEN directional arrow	1	3078137440	
10	Other	Control of movements - RED directional arrow	1	3078137430	
11	Other	Lanyard attachment points - Harness attachment compulsory	2	307P216290	
12	Other	Material risk - Yellow and black adhesive tape	4	4000421700	
14	Red	Risk of crushing - Spindle	1	In english : 4000024830 In french : 4000068080 In spanish : 4000086510	
15	Other	Crown greasing	1	4000025160	
16	Other	Max and min oil level	1	307P221060	
17	Red	Risk of crushing - Do not park	2	In english : 4000024830 In french : 4000068080 In spanish : 4000086510	
18	Orange	Hand crushing hazard - Risk of crushed hands	4	In english : 4000024770 In french : 4000067110 In spanish : 4000086490	
19	Other	Read the operation manual	1	4000025140	
20	Red	Operation instructions-Horizontal	1	In english : 4000027580 In french : 4000083200 In spanish : 4000086650	
22	Orange	Risk of crushing - Do not place foot	2	In english : 4000024840 In french : 4000068180 In spanish : 4000086610	
27	Other	Tilt verification	1	In english : 4000024860 In french : 4000068090 In spanish : 4000086520	
28	Other	Do not interchange	1	3078145180	
30	Other	Manual repair	1	307P228460	
32	Blue	Towing anchorage point	4	4000027310	
33	Blue	Lifting anchorage point	4	4000027330	
36	Red	Risk of crushing - Emergency lowering	1	In english : 4000024640 In french : 4000067680 In spanish : 4000086460	

B- Familiarization

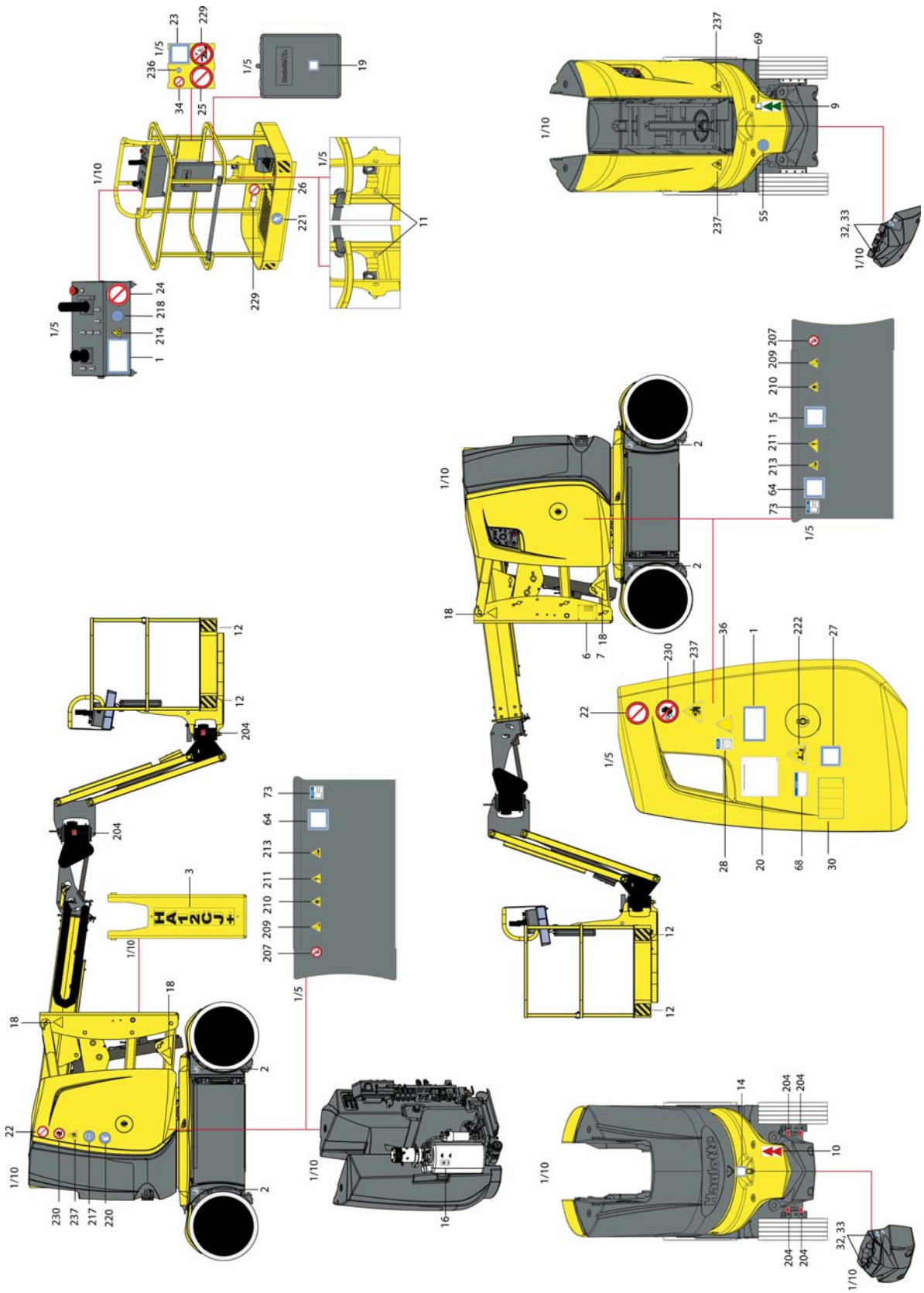
Marking	Color	Description	Quantity	HA32CJ	HA32CJ+
56	Yellow	Battery charger socket 110 V	1	4000419150	
64	Green	Battery verification	2	4000274040	
65	Orange	Risk of crushing-Protective clothing required	2	In english : 4000025030 In french : 4000068120 In spanish : 4000086550	
68	Other	Transport height	1	4000417470	4000667420
69	Blue	Battery isolation switch	1	4000420650	
73	Blue	Battery mass	2	4000702000	

B- Familiarization

Notes

B- Familiarization

EAC standard



B- Familiarization

EAC standard

Marking	Color	Description	Quantity	HA12CJ	HA12CJ+
1	Red	Height of the floor and load	2	4000421220	
2	Blue	Maximum Pressure per Tire - Floor Loading	4	4000105830	
3	Other	Commercial name-Bright machine	2	307P227900	307P227880
3	Other	Commercial name-Dark machine	2	307P227910	307P227890
6	Other	Identification plates	1	For Russia : 4000278870 For Ukraine : 307P227830	
9	Other	Control of movements - GREEN directional arrow	1	3078137440	
10	Other	Control of movements - RED directional arrow	1	3078137430	
11	Other	Lanyard attachment points - Harness attachment compulsory	2	307P226710	
12	Other	Material risk - Yellow and black adhesive tape	4	4000421700	
14	Red	Risk of crushing - Spindle	1	307P227810	
15	Other	Crown greasing	1	307P227020	
16	Other	Max and min oil level	1	307P221060	
18	Orange	Hand crushing hazard - Risk of crushed hands	4	307P227660	
19	Other	Read the operation manual	1	For Russia : 307P227190 For Ukraine : 307P227840	
20	Red	Operation instructions - Horizontal	1	For Russia : 4000359920 For Ukraine : 4000359910	
22	Orange	Risk of crushing - Do not place foot	2	307P227010	
23	Red	Risk of crushing - Driving direction	1	307P227040	
24	Red	Danger of electrocution	2	307P226960	
25	Red	Risk of crushing - Closing drop rail	1	307P226950	
26	Red	Danger of electrocution - Ground for welding	1	307P226970	
27	Other	Tilt verification	1	For Russia : 307P227060 For Ukraine : 307P227870	
28	Other	Do not interchange	1	3078145180	
30	Other	Manual repair	1	4000079730	
32	Blue	Towing anchorage point	4	4000135970	
33	Blue	Lifting anchorage point	4	4000135960	
34	Red	Electrocution Hazard - Water projection	1	4000025130	
36	Red	Risk of crushing - Emergency lowering	1	4000014290	
55	Yellow	Battery charger socket 240 V	1	307P227520	
64	Green	Battery verification	2	For Russia : 307P227180 For Ukraine : 307P227860	
65	Orange	Risk of crushing-Protective clothing required	2	4000027440	
68	Other	Transport height	1	4000417470	4000667420
69	Blue	Battery isolation switch	1	4000420650	
73	Blue	Battery mass	2	4000702000	
200	Other	Made in Europe	1	4000137690	
204	Other	Lubrication point	6	307P219370	
207	Other	Smoking forbidden	2	307P226760	
209	Other	Battery danger	2	307P226790	
210	Other	Fire Hazard	2	307P226800	

B- Familiarization

Marking	Color	Description	Quantity	HA12CJ	HA12CJ+
211	Other	Electrical danger	2	307P226810	
213	Other	Corrosion hazard	2	307P226830	
214	Other	Danger unstable side H41	1	307P226930	
218	Other	Caution helmet compulsory	1	307P226680	
221	Other	Obligatory routing	1	307P227510	
222	Other	Danger unstable side H87	1	307P227680	
228	Other	Horn	1	4000014830	
229	Other	Do not travel down slopes in high speed	1	307P226990	
230	Other	No admittance	2	307P227560	
231	Other	Do not park in the work area	2	307P227000	
236	Other	Caution glasses	1	307P226670	
237	Yellow	Risk of crushing	2	307P227670	

C- Pre-operation inspection

1 - Recommendations

The owner, the site manager, the supervisor and the operator are all responsible to ensure 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 and in compliance with this Operator's Manual. All managers who are responsible for persons operating the machine must be familiar with the local 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.
- Conditions and the operating principles of the machine.

2 - Working area assessment

To ensure safety during operation, the following should be considered :

- Segregate other site traffic (delivery vehicles, dumpers, etc) from the work area.
- Check the work area for localized features, e.g. manholes, service ducts, potholes, etc.
- Check ground covers (temporary and permanent) are strong enough to withstand the applied pressure.
- Check ground covers are secured and monitor them. Take similar action for permanent covers.
- Check the load bearing capacity (distributed load and point loading) when working inside a building, or on a structure.
- Check the load bearing capacity (distributed load and point loading) of the supporting ground.
- Provide supervision to ensure safe systems of work are appropriate and being used.
- Check for overhead crushing and contact hazards.
- Check weather conditions have not altered ground conditions (e.g. heavy or prolonged rain).
- Establish limits for safe operation (e.g. maximum wind speed). Remember conditions can change internally (e.g. if roller doors are opened).
- Comply with permit to work systems where sites have them (e.g. chemical plants).
- Provide a rescue plan for all risks, including falls and crush hazards. Ensure personnel understand and are appropriately trained in the rescuing procedures. Site based personnel trained in operation of functions and in the emergency lowering systems from the ground control box should be present. Ensure that access to the ground controls is available.
- Assess other alternative work methods or equipment before operating near a steep slope. If the machine must be placed near an edge or steep slope, ensure barriers are available to support the weight of the machine. Take into consideration the machine's stopping distance. If this is not possible, evaluate and establish the placement of machine and sequence of operations so that the aerial work platform can operate in a safe manner (e.g. machine is in line with the edge rather than towards the edge).

Extra care must be taken if aerial work platforms are used to manoeuvre up through several levels of steelwork. There is a risk of the operator being trapped should the basket strike the steelwork.

This risk increases with the number of steelwork levels and if material is piled up on lower level reducing the spacing between levels.

3 - Inspection and Functional test

3.1 - DAILY INSPECTION

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

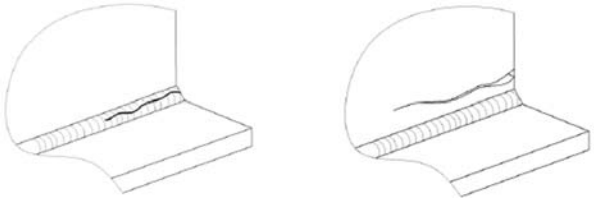
- **Never use a defective or a malfunctioning aerial work platform.**
- **If any item on the check list is marked "No" during the inspection; machine must be tagged and placed out of service.**
- **Do not operate the machine until all identified items are corrected and it has been declared safe for operation.**

In case of loose fasteners, refer to torque table value in maintenance book.

In case of leaks, replace the damaged part before use.

In case of structural part deformation (cracks, broken weld, paint chips) replace the part before use.

Sample of broken welds



We recommend these forms to be completed daily and stored to assist with your maintenance schedule.

Each action is depicted in the daily inspection sheet using the following symbols.

Use the detailed program below.

	Oil change		Lubrication-Lubrication		Tightening
	Levelling		Systematic replacement		Functional adjustments / Checks / Cleaning
	Visual inspection		To check by test		

C- Pre-operation inspection

Serial number : Hours of operation : HAULOTTE Services® contract reference : Intervention record number : Date : Name :	Model : Signature :

Haulotte	Page or associated procedure	Daily	OK	NOK	Corrected	Comments
Chassis assembly : Wheel, reducer, steering, wheel pivot						
Check state of tires/tyres and inflations						
Batteries						
Check the battery level						
Check the condition of the battery						
Check the operation of the lock on the engine casing						
Turntable						
Test the operation of the turntable locking system						
Hydraulic : oils, filters and hoses						
Check the hydraulic oil level (Top up the oil if necessary ; Machine stowed)						
Check the clogging indicator on the hydraulic pressure filter (change if clogged)						
Check the hoses, blocks and pumps, fittings, cylinders and the tank for the absence of leaks, deformations and damage						
Platform						
Test the automatic closure and locking of access basket						
Check that the harness anchor points are not cracked or damaged						
General						
Check for the presence, cleanliness and readability of the manufacturer's plates, security labels, user manual and maintenance manual						

C- Pre-operation inspection

Haulotte	Page or associated procedure	Daily	OK	NOK	Corrected	Comments
Check the cleanliness and readability of the control box						
Test the opening and closure of covers (chassis, turntable, upper control box)						
Check the condition of electrical harnesses, cables and connectors						
Check for the absence of abnormal noise and jerky movements						
Check for the absence of visible deterioration and damage						
Check for the absence of cracks, broken welds and chipped paintwork on the structure						
Check for the absence of missing or loose screws and bolts						
Check for the absence of deformation, cracking and breakage of axis stops, bushing and axes						
Check for the absence of foreign bodies in joints and sliding parts						
Safety devices						
Test the operation of the upper and lower control boxes: manipulators, switches, buttons, horn, emergency stops, screens and lights						
Test the operation of visual and audible alarms						
Check the absence of visual and audible alarms						
Test the operation of the emergency lowering system						
Test the operation of the axle locking system						
Test the operation of the loading control system (visual alarm on the control box)						
Test the operation of the Activ Shield Bar (If equipped)						

4 - Safety functional checks

To protect the user and the machine, safety systems prevent the movement of the machine beyond its operating limits. These safety systems when activated immobilize the machine and prevent further movement.

The operator must be familiar with this technology and understand that is not a malfunction but an indication that the machine has reached an operation limit.

Aerial Work platforms are equipped with two control boxes which allow operators to safely use the machine. An auxiliary device (overriding system) is available on ground control box when primary power source fails. Each control box is equipped with an E-Stop button, which cuts all movements when pushed in.

The following checks describe the operation of the machine and the specific controls required.

For the location and description of these controls : refer to section B 3.2 and D 2 - Ground control box and B 3.3 and D 3 - Platform control box.

4.1 - E-STOP BUTTON CHECK

Ground control box E-stop button

Step	Action
1	Pull both E-Stop buttons (15) at ground box and (46) at platform box.
2	Turn the key of the control box activation switch (72) to the right to energize the ground control box. The indicators light up.
3	Push the E-stop button (15). The indicators go out.

Platform control box E-stop button

Step	Action
1	Pull both E-Stop buttons (15) at ground box and (46) at platform box.
2	Turn the selector switch (72) to the left to energize platform control box. The indicators light up.
3	Push the E-stop button (46). The indicators go out.

C- Pre-operation inspection

4.2 - ACTIVATION OF CONTROLS

The deadman foot pedal (enable switch) must be activated to allow any movement.

The "Enable Switch" system depends on the machine configuration and will consist of one of the following :

- Joystick trigger at platform box (if fitted).
- Foot pedal (enable switch) in the platform.
- Enable switch button at ground box.

4.3 - FAULT DETECTOR

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

The fault indicator LED flashes to indicate a malfunction.

The machine switches to downgraded mode.

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

4.3.1 - Buzzers test

From the ground control box

Step	Action
1	Pull both E-Stop buttons (15) at ground box and (46) at platform box.
2	Select the ground control box or the platform control box by turning the control box activation selector (72). The indicator (31) at the platform control box lights up, and there is an audible signal (beep).

4.4 - OVERLOAD SENSING SYSTEM

If the platform load exceeds the maximum allowed load, no movement is possible from the 2 control boxes.

At ground and platform control boxes a buzzer sounds and an indicator light warns the operator.

To return the machine to normal operation remove weight from the platform until the load is below the maximum allowed load.

Daily check that the LED's illuminate when the machine is switched on :

- Verify that the Overload system is active : Refer to Indicators (6) at ground and (30) at platform.
- Verify that the buzzers are functioning : Refer to Buzzers test

A periodic inspection of this device must be performed according to the recommendation in Maintenance Schedule.

4.5 - SLOPE WARNING DEVICE

From each control box, a buzzer alerts the operator that the machine is not folded/stowed and is positioned on a slope exceeding the slope allowed.

N.B.-:-THE SLOPE SENSOR IS ONLY ACTIVE WHEN THE PLATFORM IS NOT IN THE STOWED POSITION.

When the unfolded machine is on a slope greater than the rated slope, out of the stowed position, DRIVE and LIFT functions are disabled(For CE and AS only).

All functions speeds are reduced.

In this case, fully lower the platform and reposition the machine on level ground before raising the platform again.

To restore the disabled functions, perform the following movements :

1. Lower the boom.
2. Lower the arm.
3. Lower the jib until it is below horizontal.

To check the tilt sensor at ground control box

Step	Action
1	Open the right hand compartment cover (Component location diagrams) and locate the tilt sensor (C28)
2	Pull both E-Stop buttons; (15) at ground box and (46) at platform box.
3	Turn the key of the control box activation switch (72) to the right to energize the ground control box. All of the ground control box indicators light up and a sound signal (beep) is emitted. The machine is switched on.
4	Manually tilt and maintain the tilt sensor (C28).
5	Check that the audible beep sounds.

C- Pre-operation inspection

4.6 - TRAVEL SPEED LIMITATION

The machine has a selector of 2 driving speeds - low and high.

All driving speeds are authorised when extending structure of the machine is in stowed position (transport configuration).

The electronic variable speed unit controls movement and driving speed.

It receives data from the joystick and buttons via the machine calculator. It also manages the operation and state of the machine safety systems.

The variable speed unit regulates the speed.

This device has the following functions :

- Prevents increase of speed/rpm.
- Triggering of reverse braking if necessary.

Daily check that the speed is limited to less than 1 km/h (0.6 mph) when :

- The boom is raised by more than 10° above horizontal.
- The boom is telescoped/extended more than 400 mm (16 in.).
- The arm is lifted.

4.7 - ELECTRONIC VARIABLE SPEED DRIVE

The machines are fitted with an electronic variable speed drive which manages the power supplied to the drive motors and hydraulic pump motor. Power to the motors is controlled by the machine "Calculator (calibration restoration program)".

• The speed regulators are configured for each individual machine

• Do not interchange the speed controllers/regulators between machines even if they are the same model.

4.8 - ON-BOARD ELECTRONICS

The machine is equipped with a specific calculator configured for this machine's functionalities.

Do not interchange the Calculator (calibration restoration) between machines..

4.9 - BATTERY DISCHARGE INDICATOR-HOUR METER

Display by % charge(The tenth lit bar graph segment corresponds to 100 %) :

- 100 % charge : Battery correctly charged.
- 20 % charge : The batteries must be recharged. The movement ascent is stopped.

4.9.1 - Hour meter

It totals up :

- The machine operating hours (Movements and travel).

4.9.2 - Automatic reset

The automatic restart is coming up at a certain voltage level.

The automatic restart doesn't mean that the battery is fully charged.

Only the indicator of the charger gives the real state of the batteries charge.

4.10 - ON-BOARD CHARGER

The on-board charger is used to charge the semi-traction or traction batteries.

the maximum amperage is 30 A for the 100 - 110 V networks and 16 A for the 220 - 240 V networks.

Battery charging starts as soon as it is connected via the mains supply (No movement is allowed during the charging process.).

4.10.1 - Black charger - Network 110 V - USA

Black charger

The (93) indicator indicates charge status :

- Green LED : Battery charged 100 %.
- Yellow LED : Battery charged 80 %.
- Red LED : Battery in initial charging phase.

If a fault occurs, the indicator flashes in different colours, depending on the type of fault (See machine maintenance book). The audible beep sounds.

C- Pre-operation inspection

4.10.2 - Metal charger - Network 230 V

Metal charger

The (93) indicator indicates charge status :

- Green LED : Battery charged 100 % (Flashing LED in the equalization phase).
- Yellow LED : Battery charged 80 %.
- Red LED : Battery in initial charging phase.

In case of a fault, the indicator flashes red to indicate an excessive charging time, short-circuit battery components, errors in the temperature reading, or an excessive ambient temperature.

D- Operation instructions

1 - Operation

1.1 - INTRODUCTION

Only trained and authorized personnel shall be permitted to operate this aerial work platform.

Prior to operation :

- Read, understand and obey all instructions and safety precautions in this manual and attached to the aerial work platform.
- Read, understand and obey all Federal, State and local codes and regulations.
- Become familiar with the proper use of all controls and emergency systems.

1.2 - MAJOR DESCRIPTION

All the machines are equipped with :

- Platform control box.
- Ground control box (Auxiliary power and overriding system).

1.3 - OPERATION FROM THE GROUND CONTROL BOX

The ground control box is designed for maintenance and emergency rescue operations only.

- Turning "ON" and "OFF" of the machine is performed with selector key switch (72).
- Activation of a desired control box is achieved by turning the control box energizing selector switch (72) to the desired position.
- The ground control box is energized and is active ONLY when :
  - The E-stop buttons on both ground and platform control boxes are not pressed in (Deactivated).
  - The machine is switched on.
  - Ground control box is selected.
- An E-stop button at each control box stops all movements when pressed in (deactivated).

N.B.-:-DO NOT TURN OFF THE POWER SUPPLY OF THE MACHINE USING THE E-STOP BUTTON (USE ONLY IN CASE OF EMERGENCY). TURN OFF THE POWER SUPPLY OF THE MACHINE USING THE CONTROL BOX ACTIVATION KEY SWITCH (72) TO ***POSITION.***

- An enable switch (228) provided must be activated and maintained to authorize one or more function movements. If enable switch (228) is kept engaged without selecting a function movement for more than 8 s; enable switch is automatically de-activated.
- The release of "Enable switch" (228) while performing a movement stops all the movements. The stop of movements is progressive. If the "Enable switch" system is re-pressed, the movement doesn't restart. It could restart only when the selected function switch/joystick is released to neutral position.
- All controls operating a movement, return automatically to neutral when released.
- At power up, all controls must be in their neutral position (not activated).
- Overriding system : Refer to Section D 4.2 - To rescue operator in platform.
- The status of the switches is tested automatically when the machine is switched on, and checked at every starting. A switch will be active only after it has been detected to be in neutral position. The following switches are not controlled :
  - Beacon light (if fitted)
- A buzzer beeps in the following conditions :
  - When power is switched on.
  - Overload (if fitted).
  - Slope if machine is out of stowed position.
  - Movements option.
  - Driving option.
- Indicators : All indicators are checked when the machine is powered ON.

D- Operation instructions

1.4 - OPERATION FROM THE PLATFORM CONTROL BOX

- The platform control box is energized only when :
  - The E-stop buttons on both ground and platform control boxes are not pressed in.
  - Machine switched on at ground control box.
  - Platform control box selected from ground control box.
  - Overriding system not activated.
- A faulty joystick is not taken into account to control a movement. If this fault disappears, the movement is authorised again.
- An E-Stop button is present at each control box. When pushed in, it stops all functions movements.

N.B.-:-DO NOT TURN OFF THE POWER SUPPLY OF THE MACHINE USING THE E-STOP BUTTON (USE ONLY IN CASE OF EMERGENCY). TURN OFF THE POWER SUPPLY OF THE MACHINE USING THE CONTROL BOX ACTIVATION KEY SWITCH (72) TO ***POSITION.***

- An Enable foot pedal and / or trigger in the basket is present and should be activated to authorize one or more function movements. If the enable switch is kept active for more than 8 seconds without selecting a function movement, then movement is disallowed. Before activating other movement controls, the foot pedal (C42) and/or the Enable switch system must be released in order to reset.
- The release of enable foot pedal and/or trigger while performing a movement stops all the movements. The stop of movements is progressive. If the enable foot pedal and / or trigger is pressed again quickly within (0,5 s) the movement restarts. If the enable foot pedal and / or trigger is not pressed again quickly enough within (+ 0,5 s) the movement will not restart. It could restart only when the selected function switch/joystick is released to neutral position.
- All switches and joystick operating a movement, return automatically to neutral when released.
- At power up, all switches and joysticks must be in their neutral position.
- The status of the switches is tested automatically when the machine is switched on, and checked at every starting.
- A buzzer beeps in the following conditions :
  - When power is switched on.
  - Overload (if fitted).
  - Slope if boom and/or arm is in stowed position.
- Indicators - All the indicators are tested
  - When the machine is switched on.

2 - Ground control box

2.1 - TO START THE MACHINE FROM THE GROUND CONTROL BOX

1. Turn the battery main/isolation switch (SB1).
2. Pull the E-stop button (15) : This will de-activate the state of E-stop button located in platform.
3. Turn the key of the control box activation switch (72) to the right to energize the ground control box.

To shut-down the machine from the ground control box :

- Turn the control box activation selector (72) key to the center.
- Power supply is now switched off.

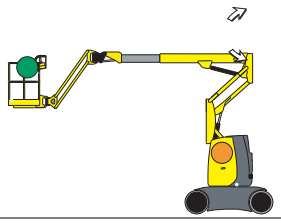
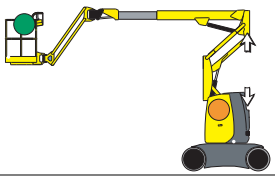
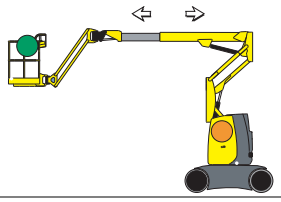
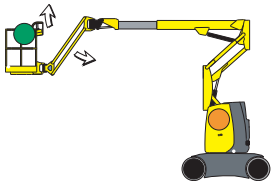
N.B.-:-THIS OPERATION TURNS OFF THE POWER SUPPLY TO MACHINE AND IT IS REQUIRED TO PREVENT BATTERY DISCHARGE.

2.2 - BOOM AND ARM CONTROLS

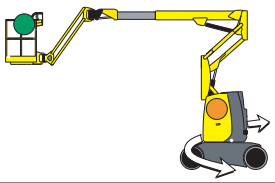
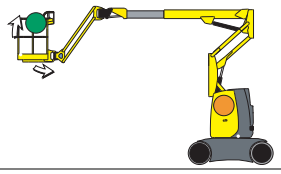
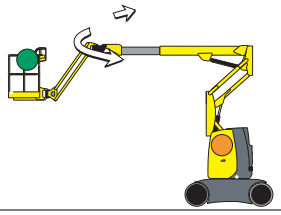
Platform leveling is available, regardless of the work height. Even at low movement speeds, use the controls with caution.

N.B.-:-RELEASING THE ENABLE SWITCH (228) WILL STOP ALL MOVEMENTS.

Ground box controls (emergency station)

Control		Action
Raising / lowering of boom		Push the boom raising switch (10) upwards to raise the boom. Push the boom raising switch (10) downwards to lower the boom.
Raising / lowering of arm		Push the arm raise / lower selector (12) upwards to raise the arm. Push the arm lift/lower selector (12) downwards to lower the arm.
Boom telescoping extend / retract		Push the boom telescoping switch (9) to the left to extend the boom. Push the boom telescoping switch (9) to the right to retract the boom.
Jib raising / lowering		Push the jib switch (8) upwards to raise the jib. Pull the jib switch (8) downwards to lower the jib.

D- Operation instructions

Control		Action
Turntable rotation		Push the turntable rotation switch (14) to the right for a clockwise (CW) rotation.
		Push the turntable rotation switch (14) to the left for a counter clockwise (CCW) rotation.
Platform leveling		Move the platform leveling switch (13) upwards to raise the platform.
		Move the platform leveling switch (13) downwards to lower the platform.
Jib rotation		Push the jib rotation selector switch (74) to the left for a clockwise (CW) rotation.
		Push the jib rotation selector switch (74) to the right for a counter clockwise (CCW) rotation.

2.3 - ADDITIONAL CONTROLS

For the machines equipped with beacon light :

- Push the beacon light selector switch (24) to the right to turn ON the beacon light.
- Push the beacon light selector switch (24) to the left to turn OFF the beacon light.

D- Operation instructions

3 - Platform control box

3.1 - TO START AND STOP THE MACHINE

3.1.1 - To start the machine :

At the ground control box :

- Check that the E-stop button (15) is not pressed in.
- Turn the control box energizing selector switch (72) to the left to energize platform box. The ground box controls are de-energized.

At the platform control box :

- Pull the E-stop button 46. The power on indicator (31) lights up.

3.1.2 - To stop the machine :

- Push in the E-stop button (46).
- Turn the control box activation selector (72) key to the center in order to remove it.

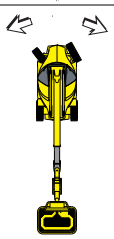
3.2 - DRIVE AND STEER CONTROL

To activate drive and steer functions, press the 'Enable switch' foot pedal and simultaneously operate the joystick (33) for the desired function.

Before driving, locate the green / red orientation arrows on the chassis and platform controls.

Move the drive control joystick (33) in the direction matching the directional arrows.

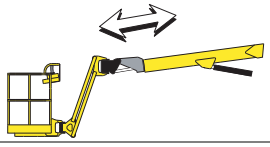
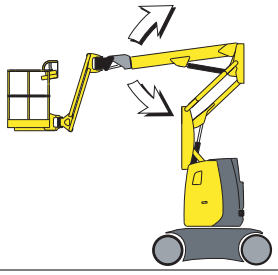
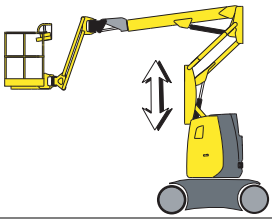
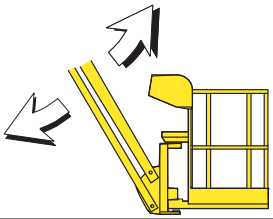
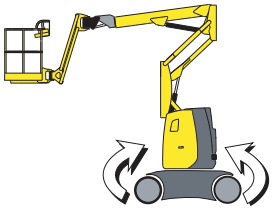
N.B.-:-ON UNEVEN TERRAIN, LOWER THE BOOM TO IMPROVE THE DRIVE PERFORMANCE.

Control		Action
Driving		Push the low or high speed selector 45. Move the drive joystick (33) forwards to drive the machine forwards.
		Push the low or high speed selector 45. Move the drive joystick (33) backwards to drive in reverse.
Steering		Push the low or high speed selector 45. Move the drive joystick (33) forwards to drive the machine forwards. Push the front-axle steering selector thumb switch (33) to the right to steer to the right.
		Push the low or high speed selector 45. Move the drive joystick (33) forwards to drive the machine forwards. Push the front-axle steering selector thumb switch (33) to the left to steer to the left.
Drive speed		Position the drive speed selector switch (45) on for high-speed driving.
		Position the driving speed selector (45) on for low-speed driving (short distance, final approach, unloading from lorries/trucks).

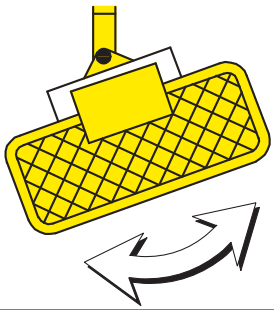
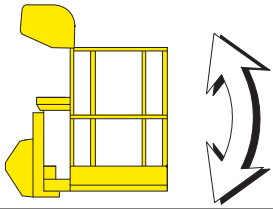
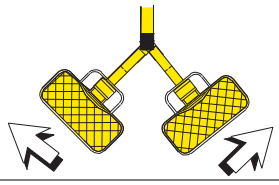
3.3 - BOOM AND ARM CONTROLS

Activate the desired control and the 'Enable switch' foot pedal simultaneously to perform that selected function.

Foot pedal switch

Control		Action
Boom telescoping extend / retract		Push the boom telescoping switch (246) to the left to extend the boom. Push the boom telescoping switch (246) to the right to retract the boom.
Raising / lowering of boom		Push the boom raising joystick (49) forwards to raise the boom. Push the boom raising joystick (49) backwards to lower the boom.
Raising / lowering of arm		Push the arm raise / lower selector (247) upwards to raise the arm. Push the arm lift/lower selector (247) downwards to lower the arm.
Jib raising / lowering		Push the jib switch (37) upwards to raise the jib. Push the jib switch (37) downwards to lower the jib.
Turntable rotation		Move the boom/turntable joystick (49) to the left for a clockwise (CW) rotation. Move the boom/turntable joystick (49) to the right for a counter clockwise (CCW) rotation.

D- Operation instructions

Control		Action
Platform rotation		Move the platform rotation selector (38) to the right for a counter clockwise (CCW) rotation Move the platform rotation selector (38) to the left for a clockwise (CW) rotation.
Platform leveling		Move the platform leveling switch (40) upwards to raise the platform. Move the platform leveling switch (40) downwards to lower the platform.
Jib rotation (For HA12CJ+ only)		Push the jib rotation selector switch (83) to the left for a clockwise (CW) rotation. Push the jib rotation selector switch (83) to the right for a counter clockwise (CCW) rotation.

3.4 - ADDITIONAL CONTROLS

- Horn : Push the horn selector (43) to the right to sound the horn. The horn stops when the selector switch is released.

4 - Emergency procedure

4.1 - MAIN POWER SUPPLY FAILURE

There is a way of performing movements from the ground, when the main energy source malfunctions. It is a hand pump located next to the hydraulic distributors on the turntable.

This pump can be used in combination with a manual override multi bank electro-hydraulic valve, to perform the movement required the work platform can be safely returned into a position from which it is possible to leave it without danger :

- Raising / lowering of arm.
- Raising / lowering of boom.
- Telescope extension/retraction.
- Turntable rotation.
- Jib raising / lowering.

D- Operation instructions

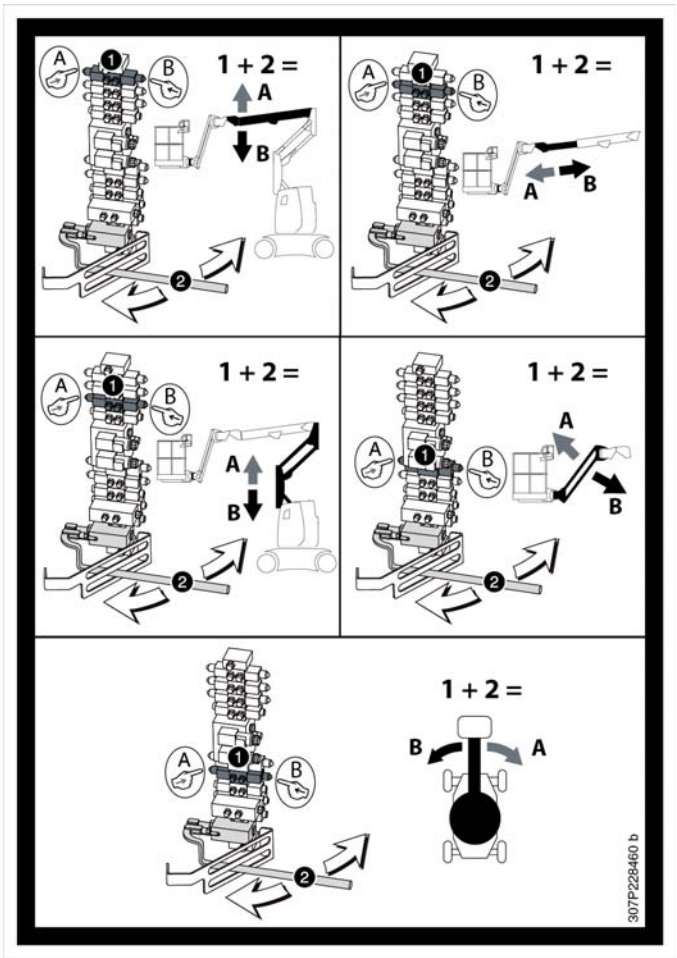
4.1.1 - Procedure

- Insert the lever (1) in the return bend of the pump (3).

D- Operation instructions

- Push the lever from left to right several times whilst keeping down the manual electro-distributor control (2) for the required movement, as shown on the plate (30)(Please refer to paragraph B.5 - Decals and markings locations).

Manual repair – Marking (30)



D- Operation instructions

N.B.-:-AN ELECTRIC EMERGENCY PUMP IS AVAILABLE AS AN OPTION. IT REPLACES THE MAIN PUMP IN CASE OF A MALFUNCTION. DEPENDING ON THE CONTROL BOX USED, PUSH AND HOLD THE BACK-UP HYDRAULIC POWER SYSTEM SELECTOR SWITCH ((228) OR (41) DOWNWARD) AND LOWER THE PLATFORM.

In an emergency, if the operator has to exit the platform while it is elevated, the transfer of the platform occupant(s) must respect the following recommendations :

- **Exit onto a sturdy and safe structure.**
- **Allowance must be made for the possibility of boom deflection when egressing from the platform.**
- **The occupant(s) must ensure that 2 lanyards are used for security/safety. One must be attached to the designated anchorage point on platform the occupant(s) is in and the other attached to the structure intended to get on.**
- **Do not leave platform without taking into account the allowance for possibility of boom deflection when exiting platform.**
- **Occupant(s) must exit the current platform through the normal access.**

Do not detach the lanyard from the current platform if the transfer to the new structure poses any danger or until the transfer is safely completed. Do not attempt to climb down from the platform. Wait for assistance to leave the cradle safely.

4.2 - TO RESCUE OPERATOR IN PLATFORM

In a situation where an operator located in the platform needs to be rescued (for example in case of illness, injury or trapped against a structure making the control box inaccessible), the rescue personel at ground level needs to obtain rapid and direct access to operating functions.

HAULOTTE® provides a ground control emergency system that should be used to safely bring the operator into such a position that appropriate medical attention could be provided.

Unlike the ground control box used in lowering the boom, the overriding system allows trapped occupant(s) be lowered to the ground level, even if an E-Stop is engaged or if an overload is detected.

In this situation, supervisor(s) at ground level must turn the control box selector (72) to the "right" on the ground control box to take control. To safely activate movements from the ground control box, the enable switch (228) must be held activated/depressed.

Procedure :

- Turn the control box selector (72) to the "right" to energize the ground control box.
- The platform box controls are now de-energized.
- Check that the E-Stop button (15) at ground is not pressed in.
- To lower the platform, hold enable switch (228) upwards and simultaneously push the desired function switch.
- If the platform E-stop button (46) or a safety device does not allow normal movement from the ground control box, use the overriding system :
  - Simultaneously, push upwards and maintain overriding switch in addition to desired movements actuator to obtain movement of the extending structure.

It is recommended to first retract the boom before lowering the boom.

N.B.-:-OPERATION OF THE "OVERRIDING SYSTEM" SWITCH MUST BE AN EXCEPTION.

4.2.1 - Operation of overriding system from ground control box

ONLY in these conditions, activate the "overriding system" switch (245) located under the cover and simultaneously press the platform lowering button until the safety mechanisms are deactivated (alarms stop) and therefore normal movements are possible again, or until the operator can be rescued.

"Overriding system" switch under cover

Once rescue operations are complete, write an incident report.

5 - Transportation

5.1 - PUTTING IN TRANSPORT POSITION

During loading, ensure that :

- The loading ramp can support the machine weight.
- The loading ramp is correctly attached to transport vehicle.
- The loading ramp has sufficient grip surface.
- The transport vehicle must be parked on a level surface and must be secured to prevent rolling away while machine is being loaded or unloaded.

Do not place yourself below or too close to the machine during loading.

The machine must be completely in the stowed configuration :

- Check the platform is completely empty.

To climb the slope, select low driving speed.

If the slope is too steep, use a winch in addition to the low speed drive.

- Lower the boom.
- Ensure that the jib is raised as necessary to give ground clearance when driving the machine onto the loading ramp.
- Drive onto the truck bed slowly.
- Secure the machine to the tie down points provided (Section D-Machine layout).
- Lock the turntable with the rotation stop pin located under the turntable before transporting (Section D-Machine layout).
- The platform/basket must be chocked and the boom strapped to prevent bouncing up and down, thus preventing possible material damage during transporting.
- Do not use excessive downward force when securing boom section.

A wrong move can lead to machine tipping over and may cause serious injuries and material damage.

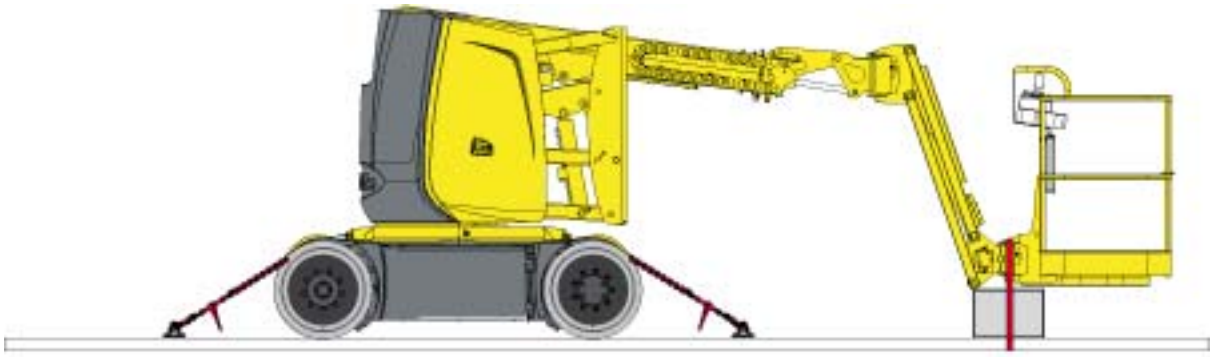
5.2 - MACHINE LAYOUT

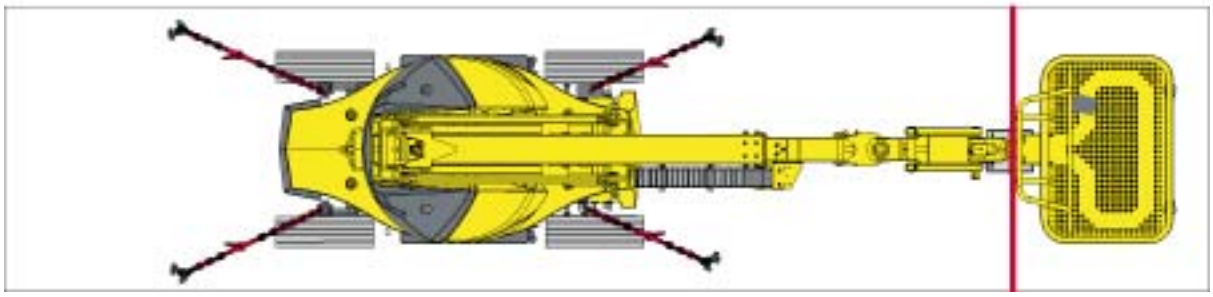
Turntable rotation enabled

Turntable rotation disabled

D- Operation instructions

Machine stowing





N.B.-:-SECURE TURNTABLE WITH THE TURNTABLE LOCKING PIN BEFORE TRAVELING LONG DISTANCES OR HAULING MACHINE ON A TRUCK.

5.3 - UNLOADING

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

- Remove the turntable rotation locking pin (Section D-Machine layout).
- Remove the tie downs.
- Select low drive speed at the platform control box.
- Start the machine from platform control box.

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

To reinstate the system, lift the jib a few centimetres (inches) using the ground control box.

D- Operation instructions

5.4 - TOWING

In the event of a machine breakdown, the machine can be towed a short distance to load it onto a transport vehicle :

- **Ensure that no one is in the platform during towing.**
- **Ensure boom is in the stowed position and the turntable is locked, prior to towing.**
- **The platform must be empty.**

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

Perform this operation on flat ground with wheels chocked.

In the towing configuration, the machine braking system is inactive. Use of a drawbar is recommended :

- Do not exceed the maximum freewheel speed (Refer to Section B 4.1 - Technical specifications).
- Do not exceed a grade of 25%.

5.4.1 - Disengaging the drive hubs

Unscrew the central nut (1) until the nut is at the limit.

When drive hubs are disengaged, the machine is in free wheel mode and the brake system no longer functions.

5.4.2 - Re-engaging the drive hubs

- To return machine to normal operation and braking, reverse the steps performed in disengaging the drive hubs.

Carry out a few driving movements. The drive hubs are now re-engaged.

5.5 - STORAGE

The machine can be stored in a designated area when not in use. If it has been stored for longer than 3 months without use then a periodic inspection must be conducted.

For engine storage condition follow engine supplier operator and maintenance manuals.

Machine must be parked in a protected/designated area with the boom in a stowed configuration, however the boom can be raised but must not be extended. Make sure there is no load in the platform.

It is recommended that the machine is not stored or immobilized unfolded.

Ensure all access panels, doors and side compartment covers are shut and secured.

Turn the energizing key selector switch (72) at the ground control box to the "center" position to shut OFF the power.

Ensure that the turntable rotation locking pin is removed and stored properly.

Remove the ignition key to prevent unauthorized operation of the machine.

Storing of the machine with an obstacle under the boom structure is forbidden.

To avoid any risk of corrosion on rods of cylinders during a storage period of more than 1 month :

- **In a normal atmospheric environment : perform a complete cycle for the cylinders every 2 months while they are in storage.**
- **In harsh environments (high levels of salinity in the atmosphere: close to the sea, industrial environment with chloride emissions and/or humidity >70%), we recommend applying the following protection process :**
  - Wash and rinse the entire machine with plenty of clean water.
  - Dry all the cylinder rods using an air gun.
  - Apply a solvent-based oil leaving an oily film after evaporation of the solvent directly to all rods left exposed when the machine is in storage position.
  - Re-apply the product every month.

After washing the machine, make sure it is fully air-dry and does not contain moisture on corrosive parts (cylinders rods for example).

Do not wash any electrical components, particularly with high pressure washer. Wipe away dirt from around electrical components with a dry cloth.

D- Operation instructions

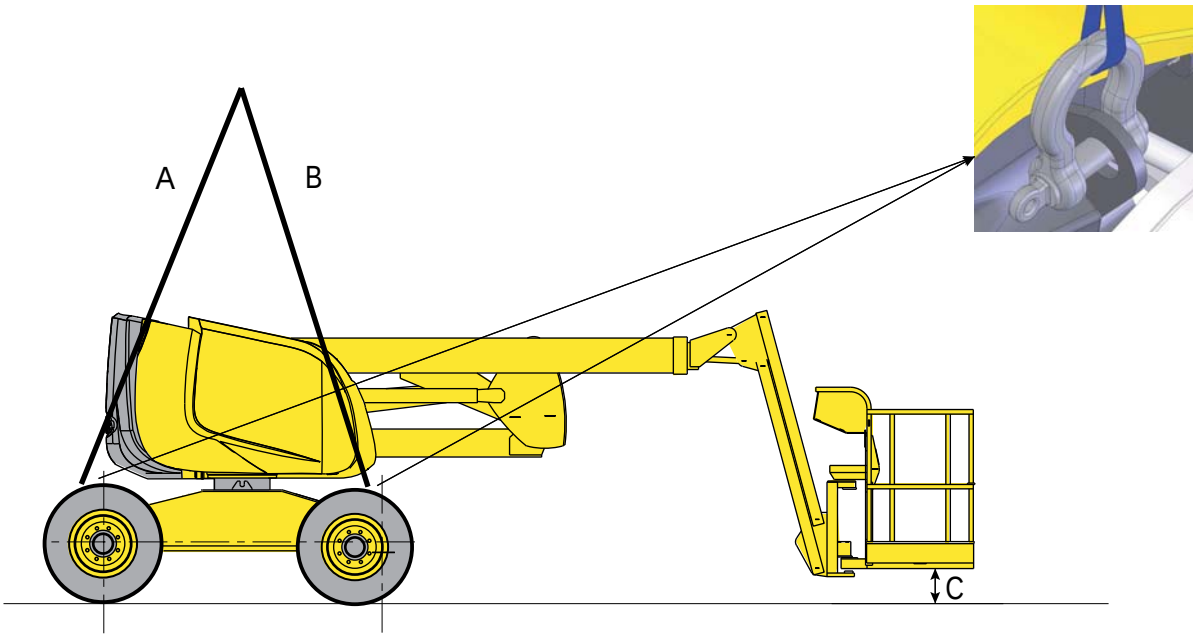
5.6 - LIFTING OPERATION

During loading / unloading operation with an overhead crane, it is important to respect the following :

- Put the machine in stowed position, boom and arm fully retracted and lowered.
- Platform must be empty.
- Rotate the turret and the jib to the configuration in the photos below.
- Verify that lifting accessories are in good operating condition and match the technical specifications. Lifting devices must be attached only to the designated lifting eyes.
- Each of the slings used for lifting the machine must be adjusted to keep the machine level and to minimize the risk of damage to the machine.
- Anchorage point for lifting are identified / labeled by the following symbol .
- ONLY trained and authorized personnel should attempt to lift the machine.

Never lift the machine with slings attached to counterweight.

Lifting configuration with slings



Machine	Distance C	Number of slings	Length A	Length B	Maximum load per sling and shackle
HA12CJ/CJ+ HA32CJ/CJ+	20 cm (8 in)	4	5 m (16 ft 5 in)	5 m (16 ft 5 in)	5000 DaN (11241 lbf)

Before using slings, lift the jib to obtain a minimum 20 cm (8in) clearance between the ground and cage.

6 - Cold Weather Recommendations

In extreme cold conditions, machines should be equipped with optional cold start kits.

N.B.-:-INITIAL STARTING SHOULD ALWAYS BE PERFORMED FROM THE GROUND CONTROL BOX.

7 - Environmental conditions

7.1 - HYDRAULIC OIL

External environmental conditions can reduce performance of the machine if the hydraulic oil temperature does not reach its optimum range.

It is recommended to use the hydraulic oil according to weather condition. Refer to the table below.

Environmental conditions	SAE Viscosity grade
Ambient temperature between - 15°C (5°F) and + 40°C (+ 104°F)	HV 46
Ambient temperature between - 35°C (- 31°F) and + 35°C (+ 95°F)	HV 32
Ambient temperature between 0°C (+ 32°F) and + 45°C (+ 113°F)	HV 68

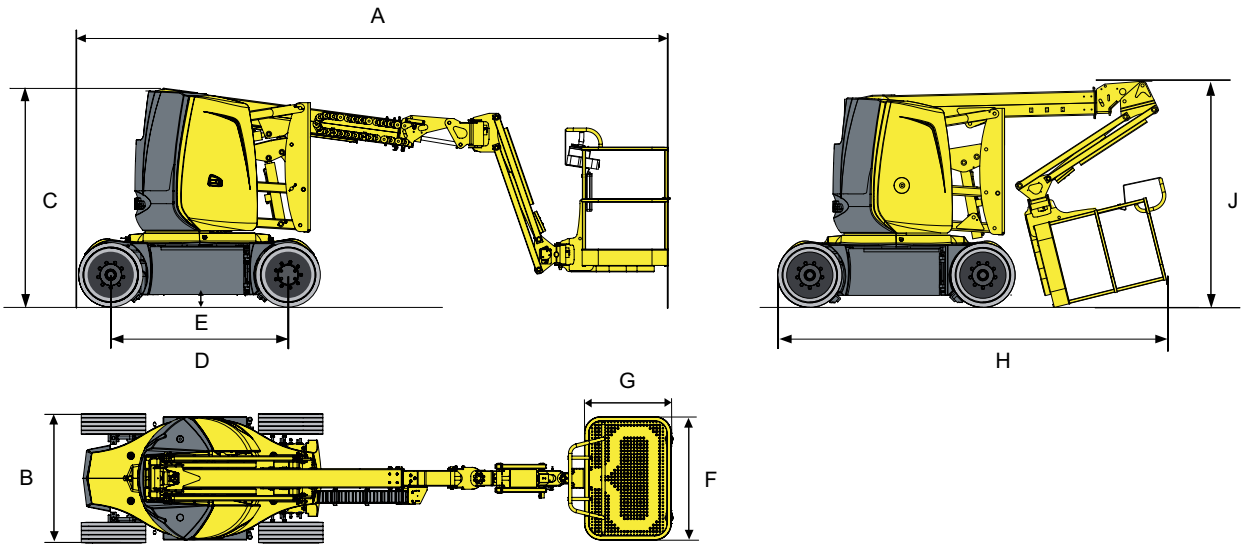
N.B.-:-IT IS RECOMMENDED TO REPLACE LOW TEMPERATURE OIL AS THE AMBIENT TEMPERATURE REACHES + 15°C (59°F). IT IS NOT ADVISABLE TO MIX OILS OF DIFFERENT BRANDS OR TYPES.

Notes

E- General Specifications

1 - Machine dimensions

Stowed / Transport position : Configuration that takes the minimum floor space necessary for storage and / or delivery of the machine - Access position.



CE, AS and EAC standards

Machine		HA12CJ		HA12CJ+	
Marking	**Specifications - Dimensions**	**SI**	**Imp.**	**SI**	**Imp.**
A	Overall length of machine	5,36 m	17 ft 7 in	5,64 m	22 ft 2 in
B	Overall width of machine	1,20 m	3 ft 11 in	1,20 m	3 ft 11 in
C	Overall height of machine	2,00 m	6 ft 57in	2,00 m	6 ft 57 in
D	Wheel base	1,65 m	5 ft 5 in	1,65 m	5 ft 5 in
E	Ground clearance	107 cm	43 in	107 cm	43 in
F X G	Platform dimensions	1,14 x 0,80 m	3 ft 9 in x 2 ft 7 in	1,14 x 0,80 m	3 ft 9 in x 2 ft 7 in
H	Storage length	3,86 m	12 ft 8 in	4,20 m	16 ft 7 in
J	Storage height	2,30 m	7 ft 55in	2,70 m	8 ft 86 in

ANSI and CSA standards

Machine		HA32CJ		HA32CJ+	
Marking	**Specifications - Dimensions**	**SI**	**Imp.**	**SI**	**Imp.**
A	Overall length of machine	5,36 m	17 ft 7 in	5,64 m	22 ft 2 in
B	Overall width of machine	1,20 m	3 ft 11 in	1,20 m	3 ft 11 in
C	Overall height of machine	2,00 m	6 ft 57in	2,00 m	6 ft 57 in
D	Wheel base	1,65 m	5 ft 5 in	1,65 m	5 ft 5 in
E	Ground clearance	107 cm	43 in	107 cm	43 in
F X G	Platform dimensions	1,14 x 0,80 m	3 ft 9 in x 2 ft 7 in	1,14 x 0,80 m	3 ft 9 in x 2 ft 7 in
H	Storage length	3,86 m	12 ft 8 in	4,20 m	16 ft 7 in
J	Storage height	2,30 m	7 ft 55in	2,70 m	8 ft 86 in

E- General Specifications

2 - Major component masses

N.B.-:-MASSES MEASURED WITH EMPTY TANKS.

Component	HA12CJ - HA32CJ	HA12CJ+ - HA32CJ+
Frame assembly mass	**2630 kg - 5798 lb**	
• Mass of each wheel	**51,3 kg +/- 1 kg (113,1 lb +/- 2,2 lb)**	
Turret assembly mass	**350 kg - 772 lb**	
• Counterweight mass - Turntable	**1178 kg +/-29 kg (2597 lb +/- 64 lb)**	
• Battery mass	**576 kg - 1370 lb**	
Boom assembly mass	**410 kg - 904 lb**	**500 kg - 1102 lb**
Arm assembly mass	**490 kg - 1080 lb**	
Jib assembly mass	**40 kg - 80 lb**	
Platform assembly mass	**109 kg - 240 lb**	

3 - Acoustics and vibrations

The acoustics and vibrations specifications are based upon the following conditions :

- The airborne noise emissions at workstation are determined per European Directive 2006/42/CE.
- The guaranteed sound power level LWA (displayed on the product) is determined per European Directive 2000/14/CE.
- The vibrations transmitted by the machinery to the hand/arm system and to the whole body are determined per European Directive 2006/42/CE.

Specifications	
Sound pressure level at workstation	97 dBA
Vibrations hand/arm	Vibration transmitted by this MEWP to the hand-arm does not exceed 2,5 m/s²(98,4 in/s²)
Vibrations whole body	Vibration transmitted by this MEWP to the whole body does not exceed 0,5 m/s²(19,6 in/s²)

4 - Wheel/Tire assembly

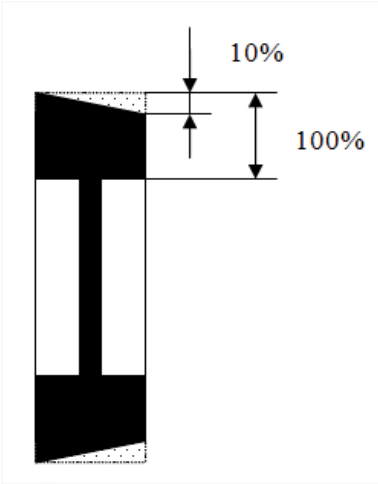
4.1 - TECHNICAL SPECIFICATIONS

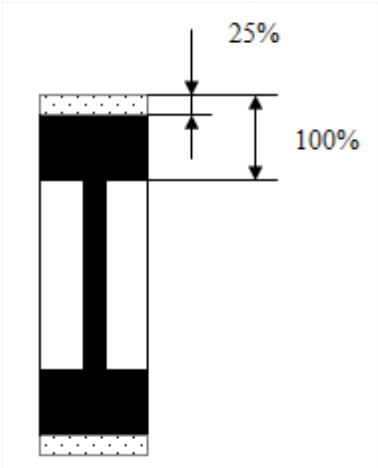
Component	Standard wheel
Reference number	"solideal 600 x 190"
Type	Solid tires/tyres - NO MARKING
Size	898 mm /190 mm (36 in /8 in)
Torque	210 Nm (154 ft lb)

4.2 - INSPECTION AND MAINTENANCE

Replace the wheels and the tires if any of the following conditions exist :

- Presence of cracks, damage, deformation or other faults on the hub
- Damage to the tire :
- Cut or hole > 3 cm (2 in) in the rubber side wall.
- Blister or pronounced lump on the external and lateral wall.
- Damaged wheel stud.
- Damage or wear on the side wall to the extent that the reinforcing wire is visible.
- Consistent wear of the ground contact surface greater than 25%





Tires and rims are critical components for the stability of the machine. For safety reasons :

- **Use only HAULOTTE® spare parts according to the technical characteristics of the machine. Refer to the spare parts catalog.**
- **Do not replace factory-installed tires with tires of different specifications or ply rating.**
- **Never replace foam filled tire with a pneumatic (air filled) tire.**

E- General Specifications

Procedure of replacement :

- Loosen the wheel nuts on the wheel to be removed.
- Raise the machine using a jack or a hoist.
- Remove the wheel nuts.
- Remove the wheel.
- Install the new wheel.
- Lower the machine to the ground.
- Tighten the wheel nuts to the recommended torque Refer to maintenance and repair manuals.

N.B.-:-IF A WHEEL HAS BEEN REPLACED, WHILE OBSERVING THE AXLE TRACK PATTERN CHECK FOR CORRECT INSTALLATION.

5 - Options

5.1 - ACTIV' SHIELD BAR - SECONDARY GUARDING SYSTEM

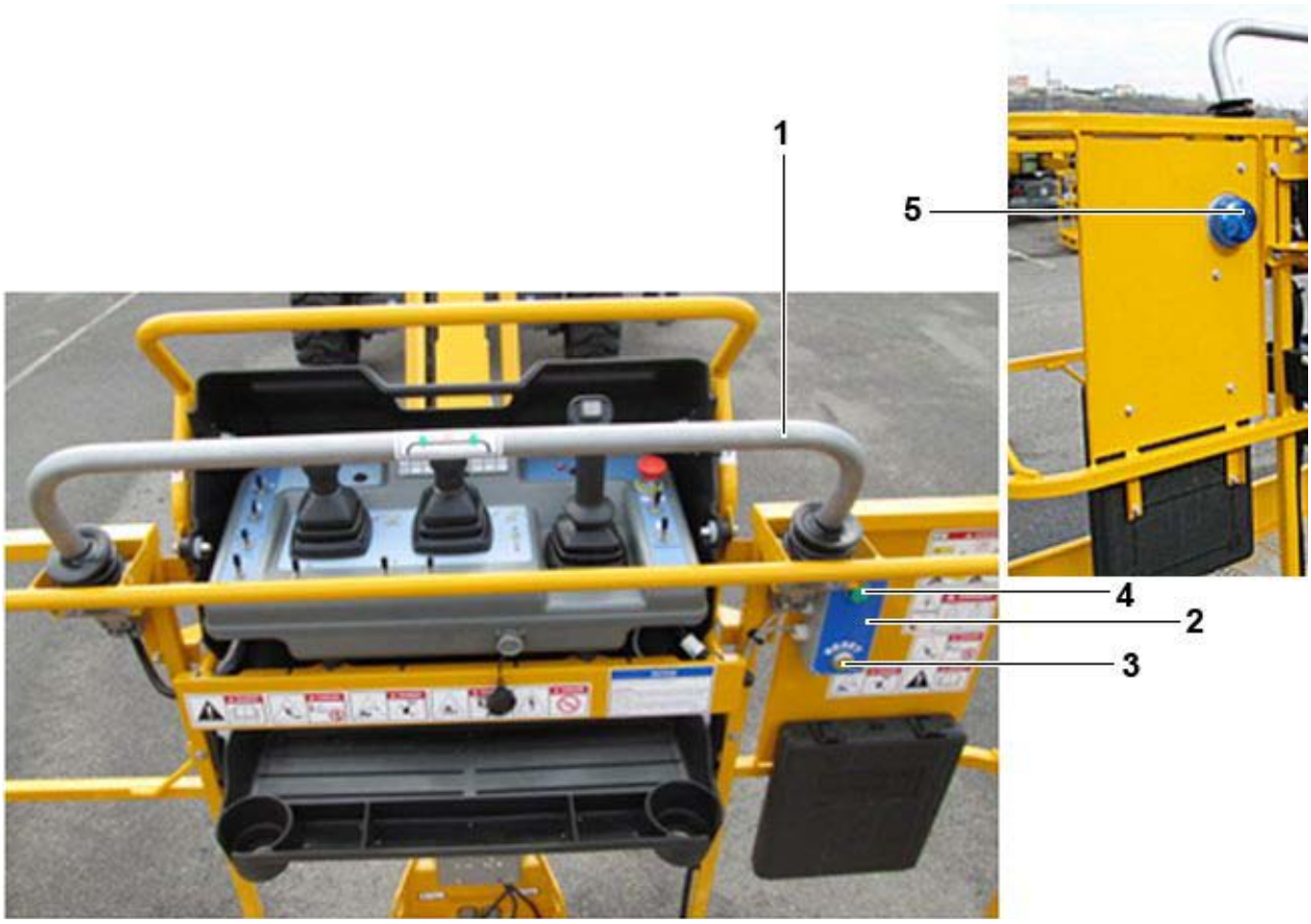
5.1.1 - Description

General Specification Activ' Shield Bar :

- The Activ' Shield Bar is a device designed to reduce the risk of entrapment against the control panel when the platform is in confined spaces.
- This device is complementary to the existing operator protection including the enable switch system (Trigger of joystick, 'Enable switch' foot pedal and 'Enable switch' on ground control box).
- The Activ' Shield Bar is active when the platform is elevated (boom or arm) and creep speed is automatically engaged. It is not enabled when stationary or in the transport position, when drive, turret rotation and jib raise are possible.
- The green indicator light of the Activ' Shield Bar is illuminated indicating the device is active.

This system does not relieve the operator from the responsibilities of learning and practicing the principles of safe use and operation of the machine as provided by the manufacturer's instructions, employer's safety rules and worksite regulations

5.1.2 - Characteristics



Marking	Description
1	Activation bar
2	Electrical box
3	RESET push-button
4	Green indicator light
5	Blue flashing indicator, indicates activation bar operates

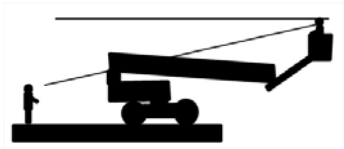
5.1.3 - Safety precautions

It is mandatory to ensure that the Activ' Shield Bar is functional at each start-up of the machine

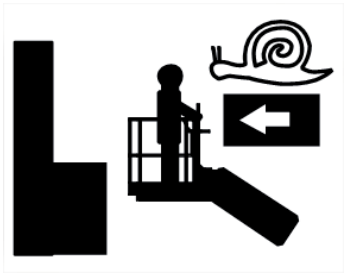
Do not use the Activ' Shield Bar as a handhold. This could result in an inadvertent triggering of the Activ' Shield Bar.

- Check the work area for overhead clearances, obstructions or other possible hazards.

- When driving, position the platform so as to provide the best visibility possible and avoid any blind spots.



- Always ensure that the chassis is never driven any closer than 1 m (3 ft3 in) from holes, bumps, tilts, obstructions, debris and ground coverings that may hide dangers.
- During operation, keep all the parts of the body inside the platform.
- To position the machine close to obstacles, it is recommended to use boom movements (arm, boom, etc.) instead of the drive movements.
- Do not drive fast in narrow or cluttered areas. Keep speed under control while making turns or sharp bends.



- Do not use the Activ' Shield Bar as a handhold. To prevent unintentional activation of the system.

5.1.4 - Pre-operation inspection

- **If any item on the checklist is marked NO during the inspection; machine must be tagged and locked out and placed out of service.**
- **DO NOT operate the machine until all identified items are corrected and it has been declared safe for operation.**

Description	Yes	No
Perform all specified machine functional tests		
• All machine functional tests result positive		
Start the machine from platform control box		
Switch off (pushed in) all E-Stop buttons		
• Check absence of warning signal		
• Check that the light indicator is not activated when the machine is in stowed position		
To ensure Activ' Shield Bar device is functioning correctly, perform the following :		
When stowed : • Check that the green indicator light is not illuminated		
When boom or arm is raised above 15° : • Check that the green indicator light is illuminated		
Simultaneously make a movement and push forward the activation bar to trigger the system : • Check that all movements stop • Check that the horn and the blue flashing light are activated		

5.1.5 - Operation

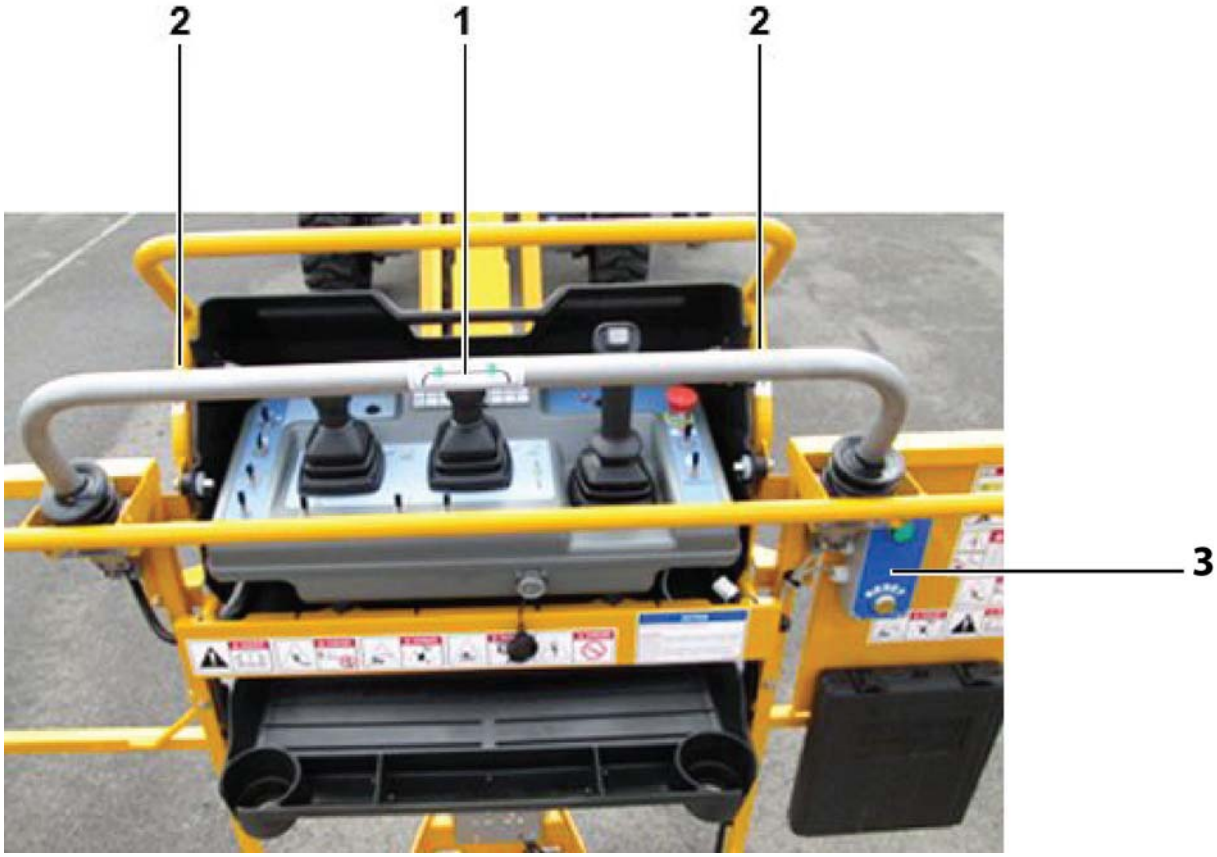
If the Activ' Shield Bar is pushed forward, all movements are stopped. The horn sounds and the warning blue light flashes. Only movements to move away from the entrapment are authorised.

To re-set the Activ' Shield Bar, release the activation bar, the 'Enable switch' and controls. Then press the reset button.

Care must be taken during all operations to prevent collision and entrapment against structures.

5.1.6 - Specific decals

Location of the decals



Marking	Description	Quantity	Part number
1	Do not lean on the bar	1	4000206690
2	Activ' Shield Bar controls	1	4000614500
3	Activ' Shield Bar instructions	1	4000609540

Notes

F- Maintenance

1 - General

As an owner and/or operator of Haulotte equipment, your Safety is of utmost importance to HAULOTTE® , which is why HAULOTTE® places such a high priority on product safety.

INSPECTIONS are not only required by HAULOTTE®, but may also be required by industry standards and/or governmental regulations.

To ensure that your equipment continues to perform to the factory set performance levels, it is important that you regularly maintain your equipment and avoid making any modifications that are not approved by HAULOTTE®. Regular and timely inspections will reduce equipment down time as well as prevent possible injury.

N.B.-:-DO NOT OPERATE UNLESS YOU ARE FAMILIAR AND TRAINED IN THE PRINCIPLES OF SAFE MACHINE OPERATION.

Overview :

- Walk-around inspections take only a few minutes at the beginning and end of each shift – one of the best ways to prevent mechanical problems and safety hazards.

What to Do :

- Use your senses: sight, smell, hearing and touch.

Frequency :

- Check your machine periodically during your entire workday.
- Make sure to do your inspection the same way every time.
- Complete one of these inspections at the start and end of each shift.

N.B.-:-IF DAMAGE OR UNAUTHORIZED MODIFICATIONS ARE DISCOVERED, THE MACHINE MUST BE REMOVED FROM SERVICE UNTIL REPAIRS ARE MADE BY A QUALIFIED SERVICE TECHNICIAN.

It is the owner's responsibility to ensure the required maintenance as recommended by Haulotte is completed prior to the operation of the machine.

If regular maintenance is not carried out, this may :

- Void the warranty.
- Cause machine malfunction.
- Reduce machine reliability and shorten its service life.
- Jeopardize operator safety.

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

The inspection and maintenance table, identifies the role and the responsibilities of each party in periodical machine maintenance. Section C 3 - Inspection and Functional test.

2 - Maintenance Schedule

This section provides the necessary information needed to place the machine in safe operation. According to the current regulations, this machine has been designed for a minimum service life of 10 years. The life may be extended or reduced dependent on the severity of operating conditions, the machine condition itself and by conducting effective inspections and maintenance in addition to other external factors. There are a number of factors which can affect the design life including but not limited to, severity of operating conditions/routine maintenance which should be carried out in accordance with this manual.

Severity of operating conditions may require a reduction in time between maintenance periods. Machines that have been out of service or have not been in use for more than 3 months must undergo a periodic inspection before the machine is put back into service.

Maintenance must be carried out by a competent company or person familiar with mechanicalprocedures.

Maintenance operations performed must be recorded in a register / log book of the machine.

3 - Inspection program

3.1 - GENERAL PROGRAM

The machine must be inspected on a regular basis at intervals of no less than once 1 per year. The purpose of the inspection is to detect any defect which could lead to an accident during routine use of the machine. Local standards and regulations may require more frequent inspections.

HAULOTTE® requires Reinforced and Major Inspections to be carried out on the product to extend its service life.

Inspections must be carried out by a competent company or person.

The inspection results must be recorded in the safety register or machine log book controlled and overseen 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 HAULOTTE Services®.

When	Responsible	Stakeholder	What
Before sale	Owner (or renter)	Competent technician or qualified technician HAULOTTE Services®	Periodic inspection
Before rent	Owner (or renter)	Competent technician or qualified technician HAULOTTE Services®	Daily inspection
Before use or every change of user	User	User	
Annually (1 year)	Owner (or renter)	Competent technician or qualified technician HAULOTTE Services®	Periodic inspection
5 years	Owner (or renter)	Qualified technician HAULOTTE Services®	Reinforced inspection
10 years	Owner (or renter)	Qualified technician HAULOTTE Services®	Major inspection

3.2 - DAILY INSPECTION

The Daily inspection includes a visual inspection, operational checks and testing of the safety systems. This must be conducted by the operator before using the machine.

This inspection is the responsibility of the user. Refer to Section C 3.1 - Daily inspection.

3.3 - PERIODIC INSPECTION

The Periodic inspection is a thorough evaluation of the operation and safety features of the machine.

It must be conducted before the sale / resale of the machine and/or at least once every year.

Local regulations may have specific requirements on frequency, and content of inspections.

The severity of operating conditions may require frequent inspections.

This inspection is the responsibility of the owner, and inspections must be carried out by a competent company or person.

This inspection is in addition to the daily inspection.

This inspection should also be conducted after :

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

3.4 - REINFORCED INSPECTION

The Reinforced inspection is a thorough evaluation of the machine's structural components, to ensure proper functionality of the machine.

This evaluation must occur at a frequency of 5000 hours or every 5 years.

This inspection is the responsibility of the owner, and it must be conducted by a HAULOTTE Services® technician or by a competent company or person.

This inspection includes :

- Daily inspection
- Periodic inspection

N.B.-:-REFER TO THE MAINTENANCE MANUAL FOR DETAILS.

3.5 - MAJOR INSPECTION

The Major inspection is a thorough evaluation of the machine's integrity and proper functioning; after a normal service life of 10 years.

This evaluation must take place after 10 years of operation and then repeated every 5 years thereafter.

The severity of operating conditions may require frequent inspections.

This inspection is the responsibility of the owner, and it must be conducted by a HAULOTTE Services® technician.

This inspection includes :

- Daily inspection
- Periodic inspection
- Reinforced inspection

N.B.-:-REFER TO THE MAINTENANCE MANUAL FOR DETAILS.

4 - Repairs and adjustments

Extensive repairs, interventions or adjustments on the safety systems or components must be performed by a HAULOTTE Services® technician. Use original spare parts and components only.

N.B.-:-HAULOTTE SERVICES® TECHNICIANS ARE TRAINED PROFESSIONALS TO PERFORM EXTENSIVE REPAIRS, INTERVENTIONS AND ADJUSTMENTS ON THE SAFETY SYSTEMS OR COMPONENTS OF HAULOTTE® MACHINES. THE TECHNICIAN CARRIES GENUINE HAULOTTE® SPARE PARTS AND TOOLS AS REQUIRED, AND ALSO PROVIDES FULLY DOCUMENTED REPORTS ON ALL WORK COMPLETED.

HAULOTTE Services® will not take responsibility for any outcomes resulting from inferior services or repairs performed by other unauthorised personnel.

HAULOTTE® reminds that NO modifications SHALL be carried out without the written permission of HAULOTTE®.

Any unauthorised repairs/modifications will void HAULOTTE® warranty.

With the utmost care to ensure enhanced reliability and greater safety of the HAULOTTE® products, it is pertinent that when a "Service or Safety Bulletin" is issued, action is taken immediately. Once the bulletin has been addressed, make sure that the completed form is submitted to HAULOTTE®.

N.B.-:-WHEN DISPOSING OR SCRAPPING THIS MACHINE, PLEASE CONSIDER APPROPRIATE METHODS OF RECYCLING. ANY ITEMS THAT REQUIRE SPECIFIC DISPOSAL ARE LISTED WITH INSTRUCTIONS IN THE MAINTENANCE MANUAL.

G- Other information

1 - Warranty disclosure

1.1 - After Sales Service

Our HAULOTTE Services® After Sales Service is at your disposal throughout your machine's service life to ensure the optimum use of your HAULOTTE product :

- When contacting our After Sales Service, ensure that you provide the machine model and serial number.
- When ordering any consumables or spare parts, please use this manual and the HAULOTTE® Essential catalogue to receive your genuine HAULOTTE® spare parts, your only guarantee of parts interchangeability and correct machine operation.
- 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.

1.2 - Manufacturer's warranty

1.2.1 - Warranty acceptance

On reception of his machine, the owner or rental company must check the machine's condition and fill out the machine reception slip provided.

1.2.2 - Warranty period

The present warranty is valid for a period of 12 months or up to a maximum of 1000 operating hours for lifting and handling equipment and 2000 operating hours for public works machinery, starting from delivery and terminating when the first limit is reached.

Spare parts are covered by a 6 month warranty.

1.2.3 - Procedure conditions

To benefit from the warranty, the owner or rental company must inform the nearest HAULOTTE® subsidiary or the subsidiary that delivered the machine (the only dealer authorised to carry out an intervention under the manufacturer's warranty agreement) of the defect in writing as quickly as possible.

The subsidiary will decide whether to repair or replace the part that proves to be faulty.

The owner or rental company must present the duly completed maintenance book supplied with the machine as proof that the maintenance operations recommended by the manufacturer have been carried out.

The owner or rental company must ensure that the defect covered by the HAULOTTE® warranty is reported to and acknowledged by the HAULOTTE® subsidiary as rapidly as possible or must report the defect in writing.

Work carried out under the HAULOTTE® warranty will be performed by the subsidiary which delivered the machine, wherever possible.

G- Other information

1.2.4 - Conditions of warranty

HAULOTTE® guarantees its products against defects, faults or manufacturing defects when the owner or rental company has informed HAULOTTE® of the defect.

The warranty does not cover the consequences of normal wear, nor any defects, failure or damage resulting from poor maintenance or abnormal usage, in particular overloading, impact by an external source, faulty installation or any modification made to products marketed by HAULOTTE® and performed by the owner or rental company.

In the event of operation or use which does not comply with the instructions or recommendations in the maintenance book, warranty claims will not be accepted.

The machine utilisation period must be recorded by reading the engine hour meter whenever an intervention is made. The engine hour meter must be maintained in good working order to guarantee maximum working life and to justify maintenance at the recommended time.

Warranty obligations for the time period stated above will cease immediately in situations where the defect is due to the following reasons :

- Use of spare parts that are not HAULOTTE® originals.
- If elements or products other than those recommended by the manufacturer are used.
- If the HAULOTTE® name, serial numbers or identification marks are removed or altered.
- After an unreasonably long delay before reporting a manufacturing problem.
- If the owner or rental company continues to use the machine despite problems.
- If damage is caused by modifications that do not comply with HAULOTTE® specifications.
- If lubricants, hydraulic oils or fuels that do not comply with HAULOTTE® recommendations are used.
- If the machine is incorrectly repaired or used by the customer.
- In case of an accident caused by a third party.

If no particular agreement has been made, any claims made after the previously established warranty period has expired will be refused.

G- Other information

The present warranty does not cover damage that may result directly or indirectly from any flaws or defects covered by the latter :

- Consumables : No claims will be accepted for objects or parts replaced in the context of normal machine usage.
- Settings : Adjustments of all sorts may become necessary at any time. Therefore adjustments are considered a part of normal machine usage conditions and are not covered by the warranty.
- Hydraulic and fuel circuit contamination : Every possible precaution is taken to ensure that fuel and hydraulic liquid delivered is clean. HAULOTTE® will not accept any claims concerning cleaning of the fuel circuit, filter, injection pump or any other equipment in direct contact with fuel or lubricants.
- Wearing parts (pads, bearings, tires/tyres, connections, etc.) : These parts are, by definition, subject to deterioration during the period of operation. Wearing parts will therefore not be covered by the warranty agreement.

2 - Subsidiary contact information

	HAULOTTE FRANCE PARC DES LUMIERES 601 RUE NICEPHORE NIEPCE 69800 SAINT-PRIEST **TECHNICAL Department:** **+33 (0)820 200 089** **SPARE PARTS : +33 (0)820 205 344** FAX : +33 (0)4 72 88 01 43 E-mail : haulottefrance@haulotte.com www.haulotte.fr		HAULOTTE ITALIA VIA LOMBARDIA 15 20098 SAN GIULIANO MILANESE (MI) **TEL: +39 02 98 97 01** FAX: +39 02 9897 01 25 E-mail : haulotteitalia@haulotte.com www.haulotte.it		HAULOTTE INDIA Unit No. 1205, 12th foor,Bhumiraj Costarica, Plot No. 1&2, Sector 18, Palm Beach Road, Sanpada, Navi Mumbai- 400 705 Maharashtra, INDIA Tel. : +91 22 66739531 to 35 E-mail : sray@haulotte.com www.haulotte.in
	HAULOTTE HUBARBEITSBÜHNEN GmbH Ehrenkirchener Strasse 2 D-79427 ESCHBACH **TEL : +49 (0) 7634 50 67 - 0** FAX : +49 (0) 7634 50 67 - 119 E.mail : haulotte@de.haulotte.com www.haulotte.de		HAULOTTE VOSTOK 61A, RYABINOVAYA STREET Bldg. 3 121471 MOSCOW RUSSIA **TEL/FAX : +7 495 221 53 02 / 03** E.mail : info@haulottevostok.ru www.haulotte-international.com		HAULOTTE DO BRASIL AV. Tucunaré, 790 CEP: 06460-020 – TAMBORE BARUERI – SAO PAULO – BRASIL **TEL : +55 11 4196 4300** FAX : +55 11 4196 4316 E.mail : haulotte@haulotte.com.br www.haulotte.com.br
	HAULOTTE IBERICA C/ARGENTINA N° 13 - P.I. LA GARENA 28806 ALCALA DE HENARES MADRID **TEL : +34 902 886 455** TEL SAT : +34 902 886 444 FAX : +34 911 341 844 E.mail : iberica@haulotte.com www.haulotte.es		HAULOTTE POLSKA Sp. Z.o.o. UL. GRANICZNA 22 05-090 RASZYN - JANKI **TEL : +48 22 720 08 80** FAX : +48 22 720 35 06 E-mail : haulottepolska@haulotte.com www.haulotte.pl		HAULOTTE MÉXICO, Sa de Cv Calle 9 Este, Lote 18, Civac, Jiutepec, Morelos CP 62500 Cuernavaca México **TEL : +52 77 7321 7923** FAX : +52 77 7516 8234 E-mail : haulotte.mexico@haulotte.com www.haulotte-international.com
	HAULOTTE PORTUGAL ESTRADA NACIONAL NUM. 10 KM. 140 - LETRA K 2695 - 066 BOBADELA LRS **TEL : + 351 21 995 98 10** FAX : + 351 21 995 98 19 E.mail : haulotteportugal@haulotte.com www.haulotte.es		HAULOTTE SINGAPORE Pte Ltd. No.26 CHANGI NORTH WAY, SINGAPORE 498812 **Parts and service Hotline:** **+65 6546 6150** FAX : +65 6536 3969 E-mail: haulotteasia@haulotte.com www.haulotte.sg		HAULOTTE MIDDLE EAST FZE PO BOX 293881 Dubaï Airport Free Zone DUBAÏ United Arab Emirates **TEL : +971 (0)4 299 77 35** FAX : +971 (0) 4 299 60 28 E-mail : haulottemiddle- east@haulotte.com www.haulotte-international.com
	HAULOTTE SCANDINAVIA AB Taljegårdsgatan 12 431 53 Mölndal SWEDEN **TEL : +46 31 744 32 90** **FAX : +46 31 744 32 99** E-mail : info@se.haulotte.com spares@se.haulotte.com www.haulotte.se		HAULOTTE TRADING (SHANGHAI) Co. Ltd. #7 WORKSHOP No 191 HUA JIN ROAD MIN HANG DISTRICT SHANGHAI 201108 CHINA **TEL : +86 21 6442 6610** FAX : +86 21 6442 6619 E-mail : haulotteshanghai@haulotte.com www.haulotte.cn		HAULOTTE ARGENTINA Ruta Panamericana Km. 34,300 (Ramal A Escobar) 1615 Gran Bourg (Provincia de Buenos Aires) Argentina **TEL.: +54 33 27 445991** FAX. +54 33 27 452191 E-mail : haulotteargentina@haulotte.com www.haulotte-international.com
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G- Other information

2.1 - CALIFORNIA WARNING

For electric (battery operated) machines

CALIFORNIA

PROPOSITION 65 BATTERY WARNING

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Batteries also contain other chemicals known to the State of California to cause cancer.
WASH HANDS AFTER HANDLING.

G- Other information

Notes