H12 SX - HS3388 RT - H12 SXL - HS3388 RT XL - H15 SX - HS4388 RT - H15 SXL - H18 SX - HS5388 RT - H18 SXL

Operator's manual

H12 SX - HS3388 RT -
H12 SXL - HS3388 RT XL -
H15 SX - HS4388 RT - H15 SXL -
H18 SX - HS5388 RT - H18 SXL

4001011590 01.20 USA / GB

CONTENTS

A

FOREWORD

B

FAMILIARIZATION

C

PRE-OPERATION INSPECTION

D

OPERATION INSTRUCTIONS

CONTENTS

E

GENERAL SPECIFICATIONS

F

MAINTENANCE

G

OTHER INFORMATION

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 device for lifting people designed and manufactured with the intent to enable users to access overhead elevated temporary workplaces with the necessary tools and equipment. 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® !

1 - User responsibility

1.1 - OWNER'S RESPONSIBILITY

The owner (or hirer) has the obligation to :

- 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..
- 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.

Operators must ensure that the inspections have been carried out by the owner and that they can use 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.

2 - Safety

2.1 - SAFETY INSTRUCTIONS

2.1.1 - Misuse Hazards

- Do not use the machine for other purposes than to lift people, their tools and equipment to the desired position.
- 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 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.
- Do not deface, modify or obscure any decals or markings on the aerial work platform.

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.

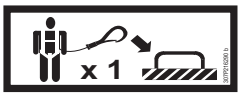
Before commencing operation :

- 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.
- Clean the floor of the platform (no debris).

When in the platform :

- If local regulations require the wearing of a harness, use only the anchor points provided for this purpose.
- 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.
- Do not lean over the guard rails or climb over them. Only work in the platform area within the guard rails.
- 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.
- 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.

- 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.
- Place the loads uniformly distributed on the platform floor.
- 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.
- Never use the machine with material or objects suspended from the guard-rail.

- 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.

Using a machine on a slope

Do not drive the machine on slopes with gradients exceeding the authorised transversal and lateral limits for the machine. Section B 4.1 - Technical specifications.

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 platform 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.*

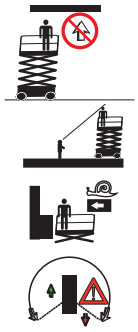
- Do not start the engine if you smell or detect liquid propane gas (LPG), gasoline, diesel fuel or other explosive substances.
- Do not work on or operate a machine in an explosive or flammable atmosphere / environment.

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

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, use extension deck feature, instead of 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).
- 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.
- Be aware of driving direction.
  - 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 safety harness, in accordance with local regulations. Attach the lanyard to the designated fall restraint anchor provided in the platform.
- Lanyard must be attached to the designated anchorage point.
- 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

Never use a damaged or malfunctioning machine.

Always respect the following rules :

- 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).

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.

Connect to our website :

5 - Compliance

5.1 - PRODUCT MODIFICATION

It is strictly forbidden to modify a HAULOTTE® product. Any modification may violate Haulotte design parameters, local regulations and industry standards.

All modifications must be submitted in writing (form) and approved by the manufacturer.

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 - Implementing manufacturer safety campaigns

It is essential to implement the safety campaigns issued by the manufacturer. All of these campaigns are accessible on our website.

Connect to our website :

Never place a machine on the market without having applied the Safety Bulletins.

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/accessories 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.

5.3 - 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.

Connect to our website. :

Notes

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		

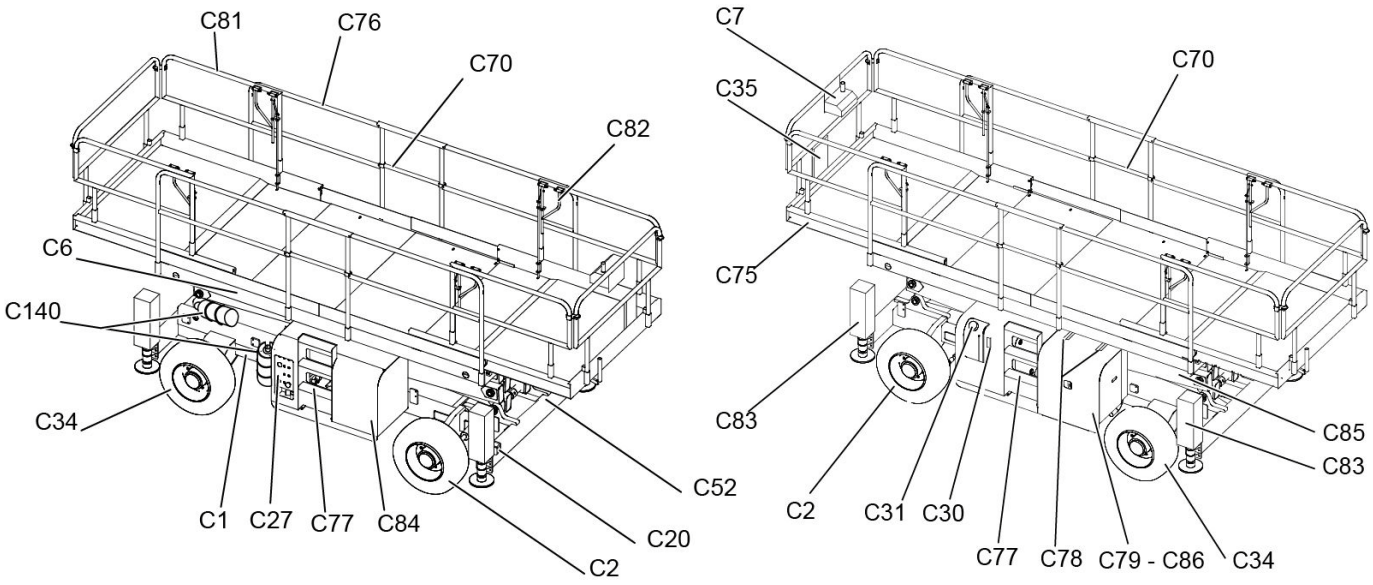
2 - Models description

Regulations	Models
ANSI and CSA standards	HS3388 RT - HS3388 RT XL
	HS4388 RT
	HS5388 RT
CE, AS and EAC standards	H12 SX - H12 SXL
	H15 SX - H15 SXL
	H18 SX - H18 SXL

3 - Primary machine components

3.1 - LAYOUT

H12 SX - HS3388 RT - H12 SXL - HS3388 RT XL - H15 SX - HS4388 RT - H15 SXL - H18 SX - HS5388 RT - H18 SXL



Marking	Description	Marking	Description
C1	Chassis	C75	Extension
C2	Front driven steering axle	C76	Guardrail
C6	Platform	C77	Platform access ladder
C7	Platform control box	C78	Hood locking catch
C20	Anchorage point	C79	Engine bay
C27	Ground control box + Universal plug	C81	Sliding guardrail
C30	Hydraulic oil tank	C82	Deck extension handle
C31	Fuel tank	C83	Stabiliser
C34	Drive wheels	C84	Hydraulic circuit
C35	Document holder	C85	Scissors
C52	Pull T-handle for emergency lowering	C86	Internal combustion engine
C70	Platform access bar	C140	Propane bottles(1)

(1.) For US only

Universal plug

3.2 - MAINTENANCE SUPPORT

The illustrations in this paragraph do not necessarily correspond to the range of products designated in the manual.

The maintenance support (on both sides of the machine) must be put in place before any maintenance operations.

B - Familiarization

Maintenance operation — The stand located under one of the scissor arms must be set up :

- Unscrew, rotate and put the stand in the vertical position.
- The stand should remain in the vertical position.
- Lower the scissor arms.
- Scissor arm pivoting rod should rest on the V groove of the stand.

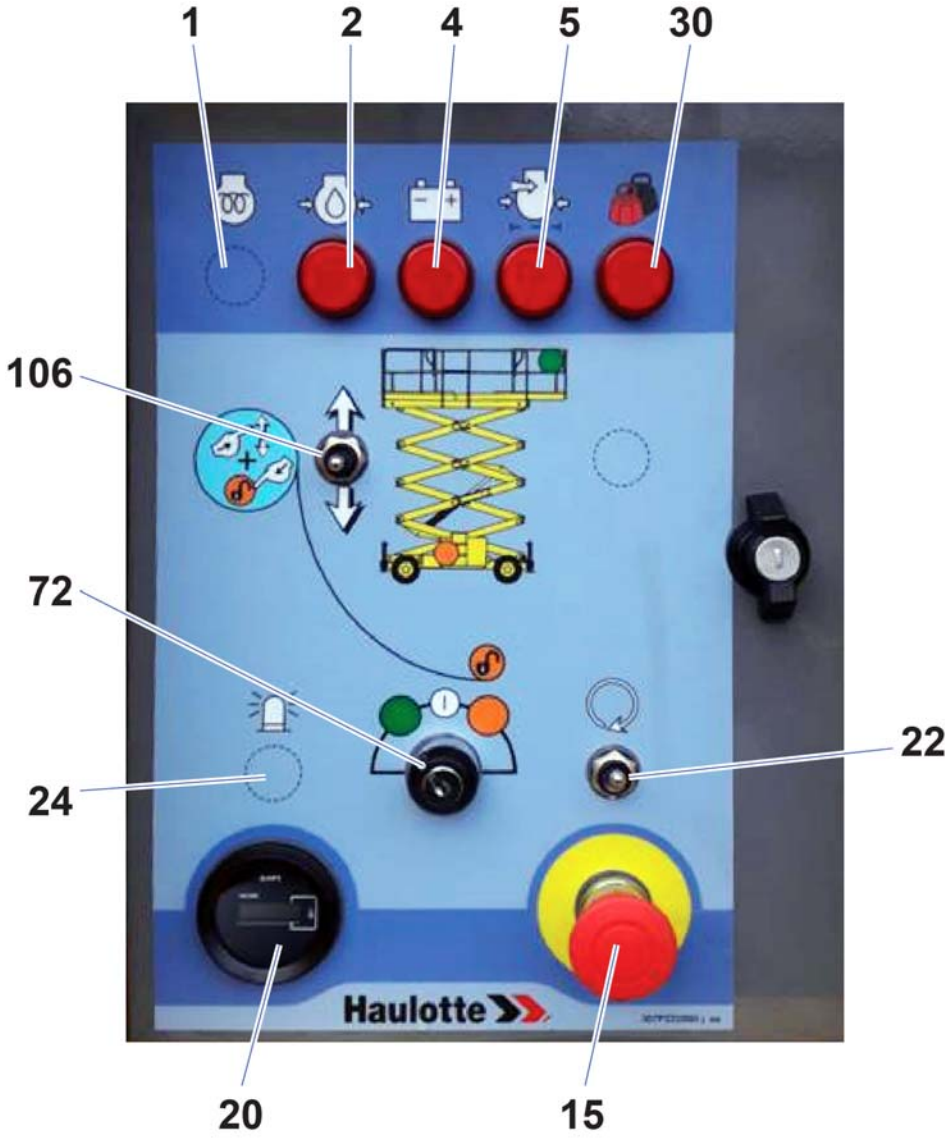
At the end of the maintenance operation :

- Lift scissor arms to a sufficient height to tilt the stand. .
- Free the V of the stand from the scissor pin.
- Attach the stand on the scissor arm.

3.3 - GROUND CONTROL BOX

3.3.1 - Layout

General view - H12 SX - HS3388 RT - H12 SXL - HS3388 RT XL - H15 SX - HS4388 RT - H15 SXL - H18 SX - HS5388 RT - H18 SXL



Controls and indicators

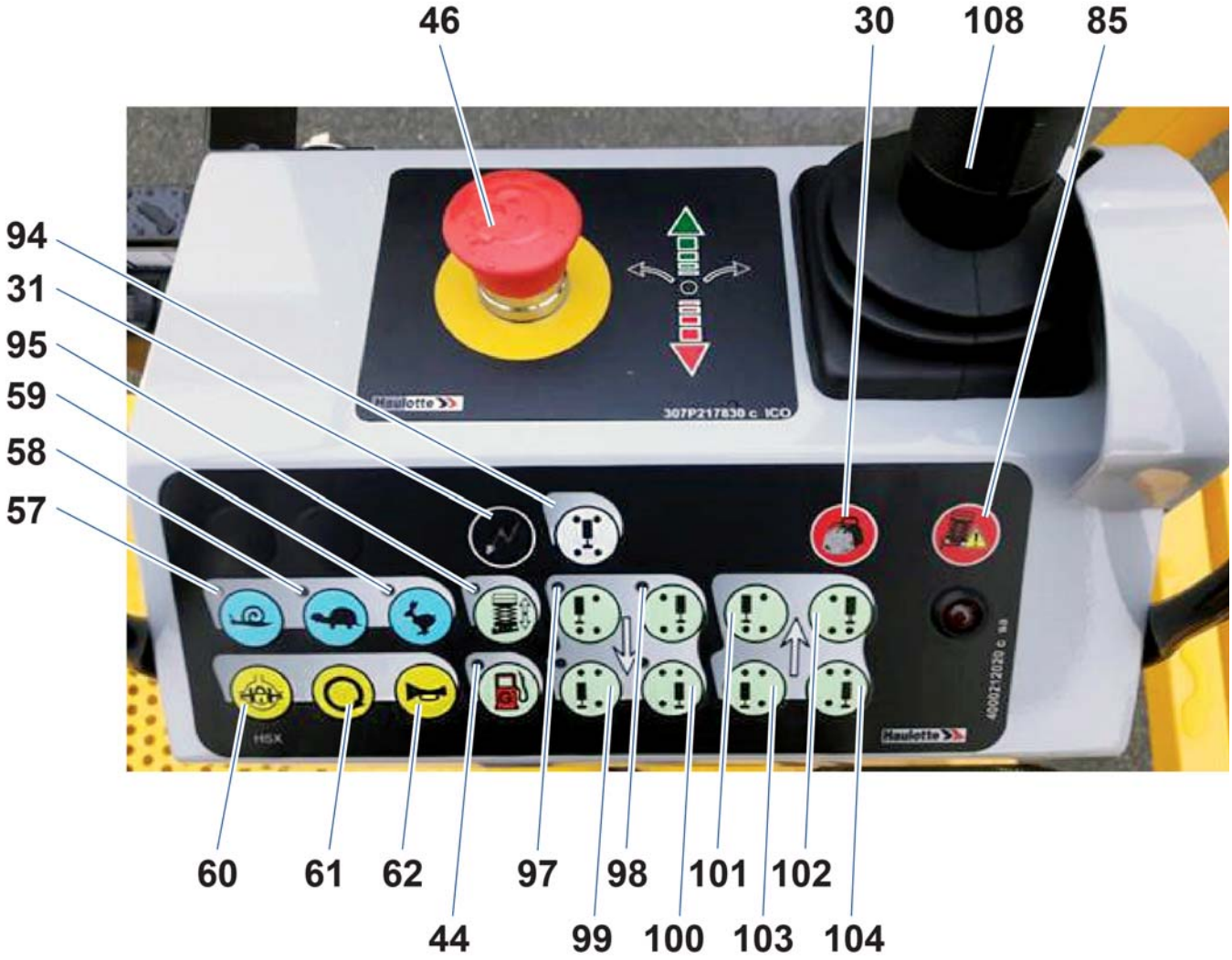
Marking	Description	Function
1	Electric pre-heating indicator	On : Engine in pre-heating mode
		Off : Engine pre-heated, starting possible
2	Engine oil pressure light	Low engine oil pressure(1)
4	Battery charging indicator	Low battery charge((1.))
5	Air filter clogging indicator	Clogged air filter((1.))
15	E-stop button	Pulled out : Ground control box energized
		Pushed in : De-energizes control system
20	Hour meter	Total machine running hours
22	Engine start-up selector	Starting the engine
24	Beacon light on/off(2)	Move to the right : Beacon light on
		Move to the left : Beacon light off
30	Platform overload indicator	Platform overload
72	Control box activation key switch-Enable Switch	Left : Platform control box energized
		Center : De-energizes control system
		Right : Ground control box energized
106	Platform raising / lowering selector	Move upwards : Platform raises
		Move downwards : Platform lowers

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

3.4 - PLATFORM CONTROL BOX

3.4.1 - Layout

General view - H12 SX - HS3388 RT - H12 SXL - HS3388 RT XL - H15 SX - HS4388 RT - H15 SXL - H18 SX - HS5388 RT - H18 SXL



B - Familiarization

Controls and indicators

Marking	Description	Function
30	Platform overload indicator	Platform overload
31	Power ON indicator	On : Machine switched on
		Off : Machine switched off
46	E-stop button	Pulled out : Ground control box energized
		Pushed in : De-energizes control system
57	Low-speed drive selector switch with indicator light	Pressed down (activated and LED on) : Low-speed drive selection (for short distance and final approach)
58	Medium-drive speed selector switch and indicator	Pressed down (activated and LED on) : Medium-drive speed selection (difficult ground, slope)
59	High-speed drive selector switch with indicator light	Pressed down (activated and LED on) : High-speed drive selection (for long distance)
60	Differential lock selector switch	Pressed down (activated) : Differential blocking selection
61	Engine start-up selector	Pressed down (activated) : Starting the engine
62	Horn selector switch	Pressed down (activated) : Horn
85	Fault indicator	Flashes if fault and/or tilt
94	Centralized outriggers selector switch	Pressed down (activated) : Automatic stabilizer lowering until the machine is stabilized
95	Platform raising/lowering selector switch and indicator	Pressed down (activated and LED on) : Platform raising/lowering selection
97	Front left stabilizer extension selector switch and indicator	Pressed down (activated) : Stabilizer extended and LED on (continuously: stabilizer extended and set against the ground; rapid flashing: stabilizer extended but not yet set; slow flashing: stabilizer totally extended but not set)
98	Front right stabilizer extension selector switch and indicator	Pressed down (activated) : Stabilizer extended and LED on (continuously: stabilizer extended and set against the ground; rapid flashing: stabilizer extended but not yet set; slow flashing: stabilizer totally extended but not set)
99	Rear left stabilizer extension selector switch and indicator	Pressed down (activated) : Stabilizer extended and LED on (continuously: stabilizer extended and set against the ground; rapid flashing: stabilizer extended but not yet set; slow flashing: stabilizer totally extended but not set)
100	Rear right stabilizer extension selector switch and indicator	Pressed down (activated) : Stabilizer extended and LED on (continuously: stabilizer extended and set against the ground; rapid flashing: stabilizer extended but not yet set; slow flashing: stabilizer totally extended but not set)
101	Front left stabilizer retraction selector switch	Pressed down (activated) : Stabilizer retraction and corresponding LED off during lowering 97
102	Front right stabilizer retraction selector switch	Pressed down (activated) : Stabilizer retraction and corresponding LED off during lowering 98
103	Rear left stabilizer retraction selector switch	Pressed down (activated) : Stabilizer retraction and corresponding LED off during lowering 99
104	Rear right stabilizer retraction selector switch	Pressed down (activated) : Stabilizer retraction and corresponding LED off during lowering 100

B - Familiarization

Marking	Description	Function
108	Movement joystick	Move forward : Forward drive or platform raising
		Move backwards : Reverse drive or platform lowering
	Front axle steering selector	Press right side of button : Right-hand steering
		Press left side of button : Left-hand steering
123	Enable Switch	Press in and hold : Associated command is validated
		Release : Associated command movement is halted

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	H12 SX - HS3388 RT		H12 SXL - HS3388 RT XL	
Characteristics - Dimensions	**SI**	**Imp.**	**SI**	**Imp.**
Maximum working height	11,95 m	39 ft 2 in	11,95 m	39 ft 2 in
Maximum platform height	9,95 m	32 ft 8 in	9,95 m	32 ft 8 in
Maximum horizontal reach	3,5 m	11 ft 6 in	4,15 m	13 ft 7 in
Maximum outreach above the ground	3 m	9 ft 10 in	3,65 m	12 ft
Total weight	5440 kg	11993 lb	5610 kg	12367 lb
Maximum platform capacity	700 kg	1544 lb	700 kg	1544 lb
Maximum platform capacity extension 2	700 kg	1544 lb	700 kg	1543 lb
Capacity when extended	200 kg	441 lb	200 kg	441 lb
Maximum number of occupants	4			
Maximum person on extension (refer to the capacity on extension recommended)	2			
Maximum wind speed	45 km/h	28 mph	45 km/h	28 mph
Manual force	400 N - 90 lbf			
Gradeability - 4WD	45%			
Maximum rated slope allowed	5°		2°	
Maximum load on wheel	3570 daN	8025 lb	2784 daN	6258 lb
Maximum ground pressure of wheel on paved ground	11 daN/cm²	2,29 lb/ft²	10,5 daN/cm²	2,19 lb/ft²
Drive speed (2WS) : • Micro-speed • Slow speed • Medium speed • High speed	• 0,7 km/h • 1,6 km/h • 3,2 km/h • 6 km/h	• 0.4 mph • 1 mph • 2 mph • 3.7 mph	• 0,6 km/h • 1,6 km/h • 3,2 km/h • 6 km/h	• 0.4 mph • 1 mph • 2 mph • 3.7 mph
Maximum freewheel speed during towed operation	1,6 km/h	1 mph	1,6 km/h	1 mph

B - Familiarization

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

Machine	H15 SX - HS4388 RT		H15 SXL	
Characteristics - Dimensions	**SI**	**Imp.**	**SI**	**Imp.**
Maximum working height	15,01 m	49 ft 3 in	15,01 m	49 ft 3 in
Maximum platform height	13,01 m	42 ft 8 in	13,01 m	42 ft 8 in
Maximum horizontal reach	3,50 m	11 ft 6 in	4,15 m	13 ft 7 in
Maximum outreach above the ground	3 m	9 ft 10 in	3,65 m	12 ft
Total weight	6300 kg	13,892 lb	6470 kg	14,266 lb
Maximum platform capacity	500 kg	1102 lb	500 kg	1102 lb
Maximum platform capacity extension 2	500 kg	1102 lb	500 kg	1102 lb
Capacity when extended	200 kg	441 lb	200 kg	441 lb
Maximum number of occupants	4			
Maximum person on extension (refer to the capacity on extension recommended)	2			
Maximum wind speed	45 km/h	28 mph	45 km/h	28 mph
Manual force	400 N - 90 lbf			
Gradeability - 4WD	45%			
Maximum rated slope allowed	5°		2°	
Maximum load on wheel	3681 daN	8275 lb	2488 daN	5593 lb
Maximum ground pressure of wheel on paved ground	12,2 daN/cm²	2,55 lb/ft²	9,4 daN/cm²	1,96 lb/ft²
Drive speed (2WS) : • Micro-speed • Slow speed • Medium speed • High speed	• 0,7 km/h • 1,6 km/h • 3,2 km/h • 6 km/h	• 0.4 mph • 1 mph • 2 mph • 3.7 mph	• 0,6 km/h • 1,6 km/h • 3,2 km/h • 6 km/h	• 0.4 mph • 1 mph • 2 mph • 3.7 mph
Maximum freewheel speed during towed operation	1,6 km/h	1 mph	1,6 km/h	1 mph

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

Machine	H18 SX - HS5388 RT		H18 SXL	
Characteristics - Dimensions	**SI**	**Imp.**	**SI**	**Imp.**
Maximum working height	17,96 m	58 ft 11 in	17,96 m	48 ft 11 in
Maximum platform height	15,96 m	52 ft 4 in	15,96 m	52 ft 4 in
Maximum horizontal reach	3,50 m	11 ft 6 in	4,15 m	13 ft 7 in
Maximum outreach above the ground	3 m	9 ft 10 in	3,65 m	12 ft
Total weight	7240 kg	15,961 lb	7360 kg	16,226 lb
Maximum platform capacity	500 kg	1102 lb	500 kg	1102 lb
Maximum platform capacity extension 2	500 kg	1102 lb	500 kg	1102 lb
Capacity when extended	200 kg	441 lb	200 kg	441 lb
Maximum number of occupants	4			
Maximum person on extension (refer to the capacity on extension recommended)	2			
Maximum wind speed	45 km/h	28 mph	45 km/h	28 mph
Manual force	400 N - 90 lbf			
Gradeability - 4WD	45%			
Maximum rated slope allowed	3°		2°	
Maximum load on wheel	4426 daN	9950 lb	2600 daN	5845 lb
Maximum ground pressure of wheel on paved ground	16,3 daN/cm²	3,41 lb/ft²	9,80 daN/cm²	2,05 lb/ft²
Drive speed (2WS) : • Micro-speed • Slow speed • Medium speed • High speed	 • 0,7 km/h • 1,6 km/h • 3,2 km/h • 6 km/h	 • 0.4 mph • 1 mph • 2 mph • 3.7 mph	 • 0,6 km/h • 1,6 km/h • 3,2 km/h • 6 km/h	 • 0.4 mph • 1 mph • 2 mph • 3.7 mph
Maximum freewheel speed during towed operation	1,6 km/h	1 mph	1,6 km/h	1 mph

B - Familiarization

ANSI A92.6 standard

Machine	HS3388 RT		HS3388 RT XL	
Characteristics - Dimensions	**SI**	**Imp.**	**SI**	**Imp.**
Maximum working height	11,95 m	39 ft 2 in	11,95 m	39 ft 2 in
Maximum platform height	9,95 m	32 ft 8 in	9,95 m	33 ft 8 in
Maximum horizontal reach	3,5 m	11 ft 6 in	4,15 m	13 ft 7 in
Maximum outreach above the ground	3 m	9 ft 10 in	3,65 m	12 ft
Total weight	5440 kg	11993 lb	5610 kg	12367 lb
Maximum platform capacity	700 kg	1544 lb	700 kg	1544 lb
Maximum platform capacity Option extension 1	900 kg	1985 lb	900 kg	1985 lb
Maximum platform capacity extension 2	700 kg	1544 lb	700 kg	1544 lb
Capacity when extended	200 kg	441 lb	200 kg	441 lb
Maximum number of occupants	4			
Maximum person on extension (refer to the capacity on extension recommended)	2			
Maximum wind speed	45 km/h	28 mph	45 km/h	28 mph
Manual force	400 N - 90 lbf			
Gradeability - 4WD	45%			
Maximum rated slope allowed	0°		0°	
Maximum load on wheel	3570 daN	8025 lb	2784 daN	6258 lb
Maximum ground pressure of wheel on paved ground	11 daN/cm²	2,29 lb/ft²	10,5 daN/cm²	2,19 lb/ft²
Drive speed (2WS) : • Micro-speed • Slow speed • Medium speed • High speed	 • 0,7 km/h • 1,6 km/h • 3,2 km/h • 6 km/h	 • 0.4 mph • 1 mph • 2 mph • 3.7 mph	 • 0,6 km/h • 1,6 km/h • 3,2 km/h • 6 km/h	 • 0.4 mph • 1 mph • 2 mph • 3.7 mph
Maximum freewheel speed during towed operation	1,6 km/h	1 mph	1,6 km/h	1 mph

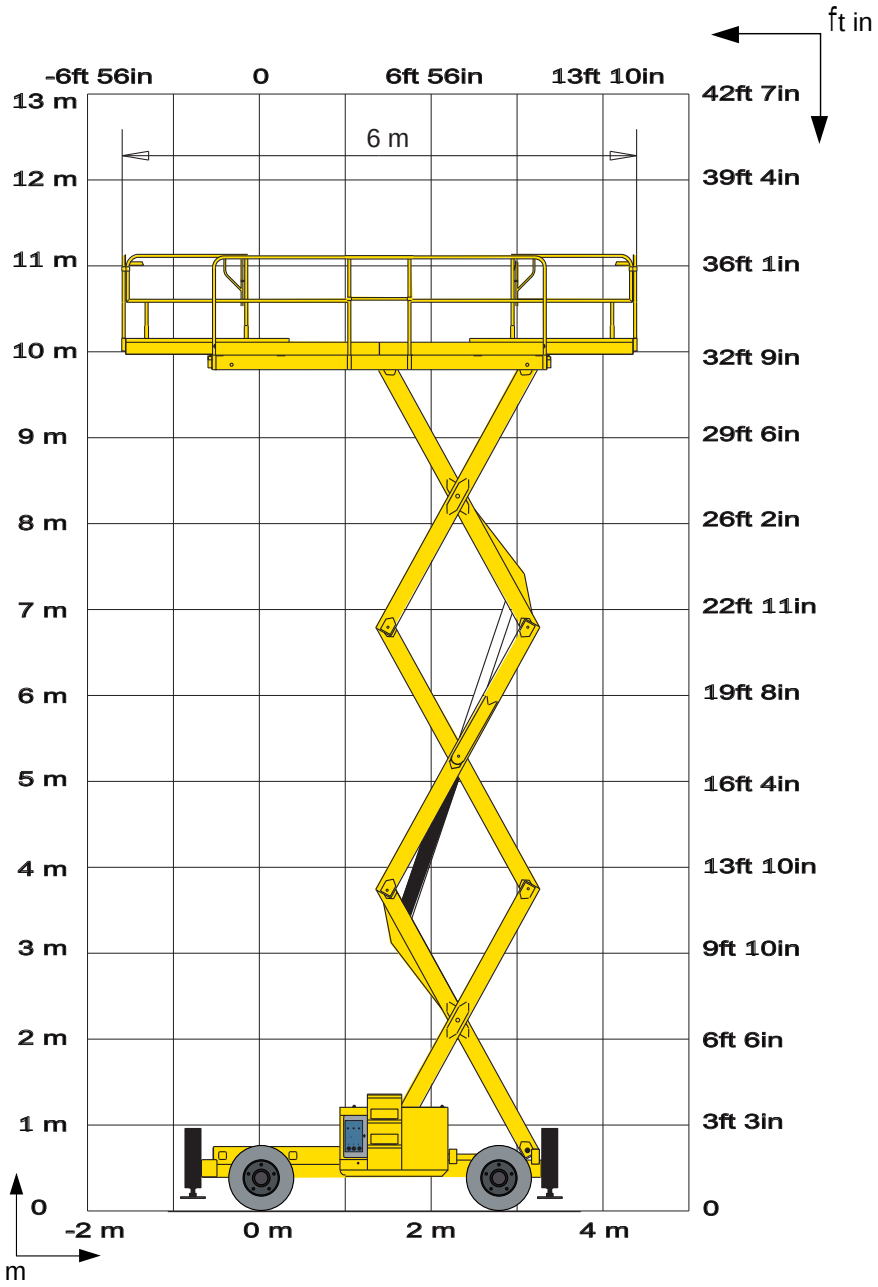
B - Familiarization

ANSI A92.6 standard

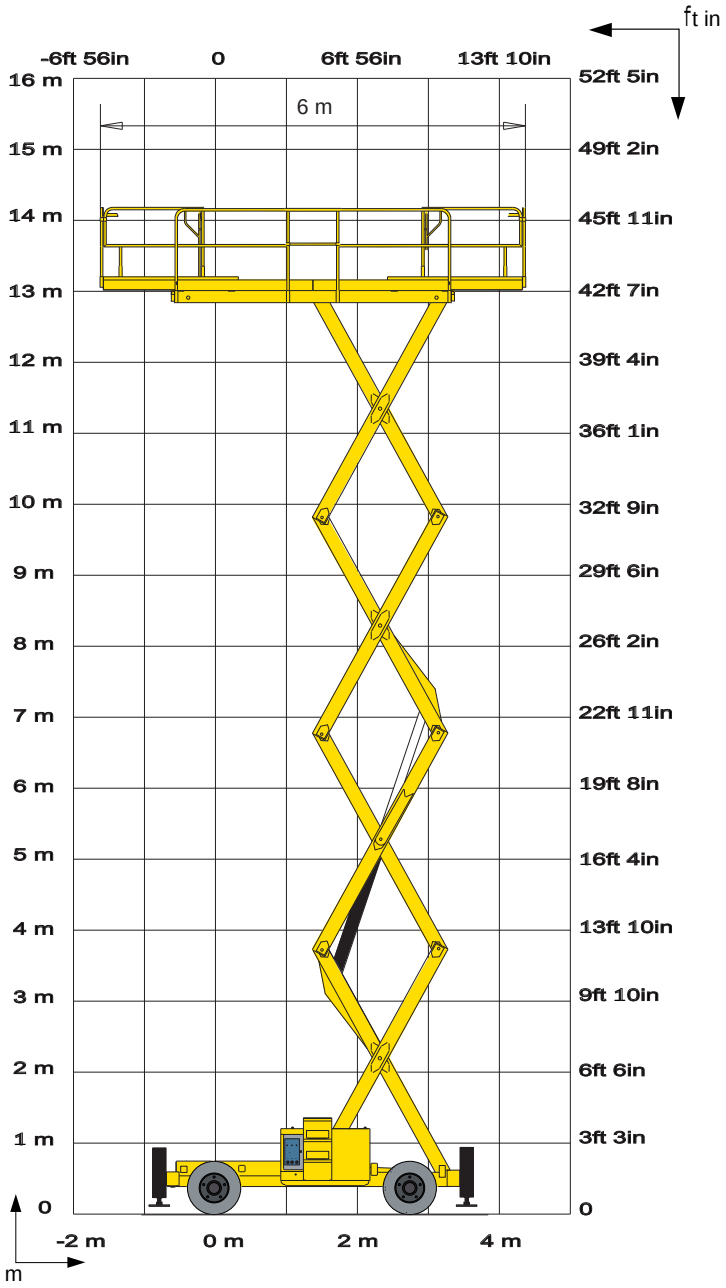
Machine	HS4388 RT		HS5388 RT	
Characteristics - Dimensions	**SI**	**Imp.**	**SI**	**Imp.**
Maximum working height	15,01 m	49 ft 3in	17,96 m	58 ft 11 in
Maximum platform height	13,01 m	42 ft 8 in	15,96 m	52 ft 4 in
Maximum horizontal reach	3,50 m	11 ft 6 in	3,50 m	11 ft 6 in
Maximum outreach above the ground	3 m	9 ft 10in	3 m	9 ft 10 in
Total weight	6300 kg	13,892 lb	7240 kg	15,961 lb
Maximum platform capacity	500 kg	1102 lb	500 kg	1102 lb
Maximum platform capacity Option extension 1	700 kg	1544 lb	700 kg	1544 lb
Maximum platform capacity extension 2	500 kg	1102 lb	500 kg	1102 lb
Capacity when extended	200 kg	441 lb	200 kg	441 lb
Maximum number of occupants	4			
Maximum person on extension (refer to the capacity on extension recommended)	2			
Maximum wind speed	45 km/h	28 mph	45 km/h	28 mph
Manual force	400 N - 90 lbf			
Gradeability - 4WD	45%			
Maximum rated slope allowed	0°		0°	
Maximum load on wheel	3681 daN	8275 lb	4426 daN	9950 lb
Maximum ground pressure of wheel on paved ground	12,2 daN/cm²	2,55 lb/ft²	16,3 daN/cm²	3,41 lb/ft²
Drive speed (2WS) : • Micro-speed • Slow speed • Medium speed • High speed	• 0,7 km/h • 1,6 km/h • 3,2 km/h • 6 km/h	• 0.4 mph • 1 mph • 2 mph • 3.7 mph	• 0,7 km/h • 1,6 km/h • 3,2 km/h • 6 km/h	• 0.4 mph • 1 mph • 2 mph • 3.7 mph
Maximum freewheel speed during towed operation	1,6 km/h	1 mph	1,6 km/h	1 mph

4.2 - WORKING AREA / RANGE OF MOTION

H12 SX - HS3388 RT

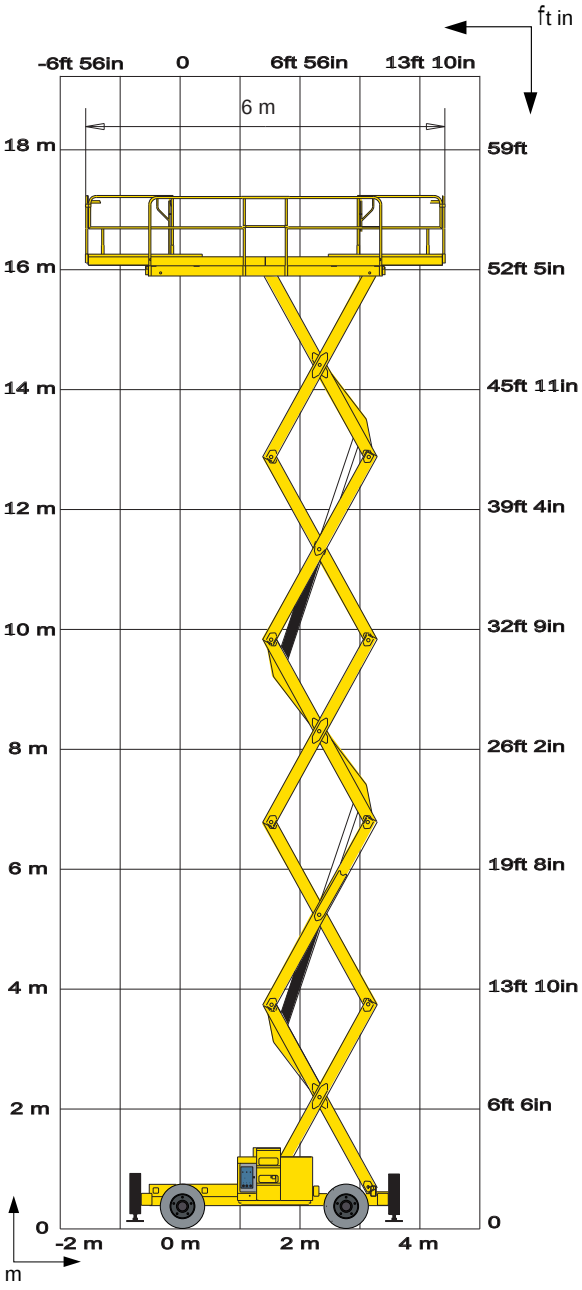


H15 SX - HS4388 RT



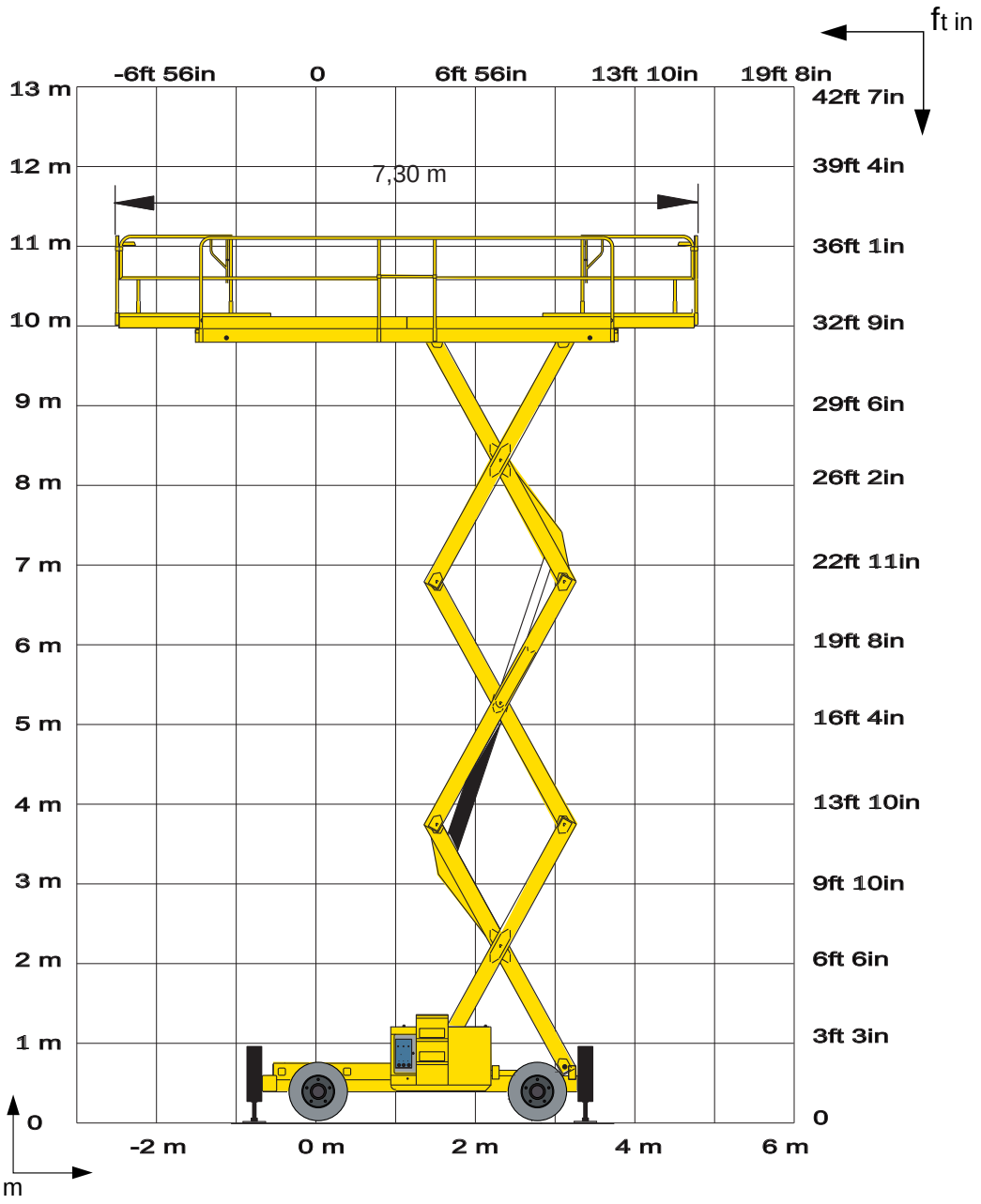
B - Familiarization

H18 SX - HS5388 RT

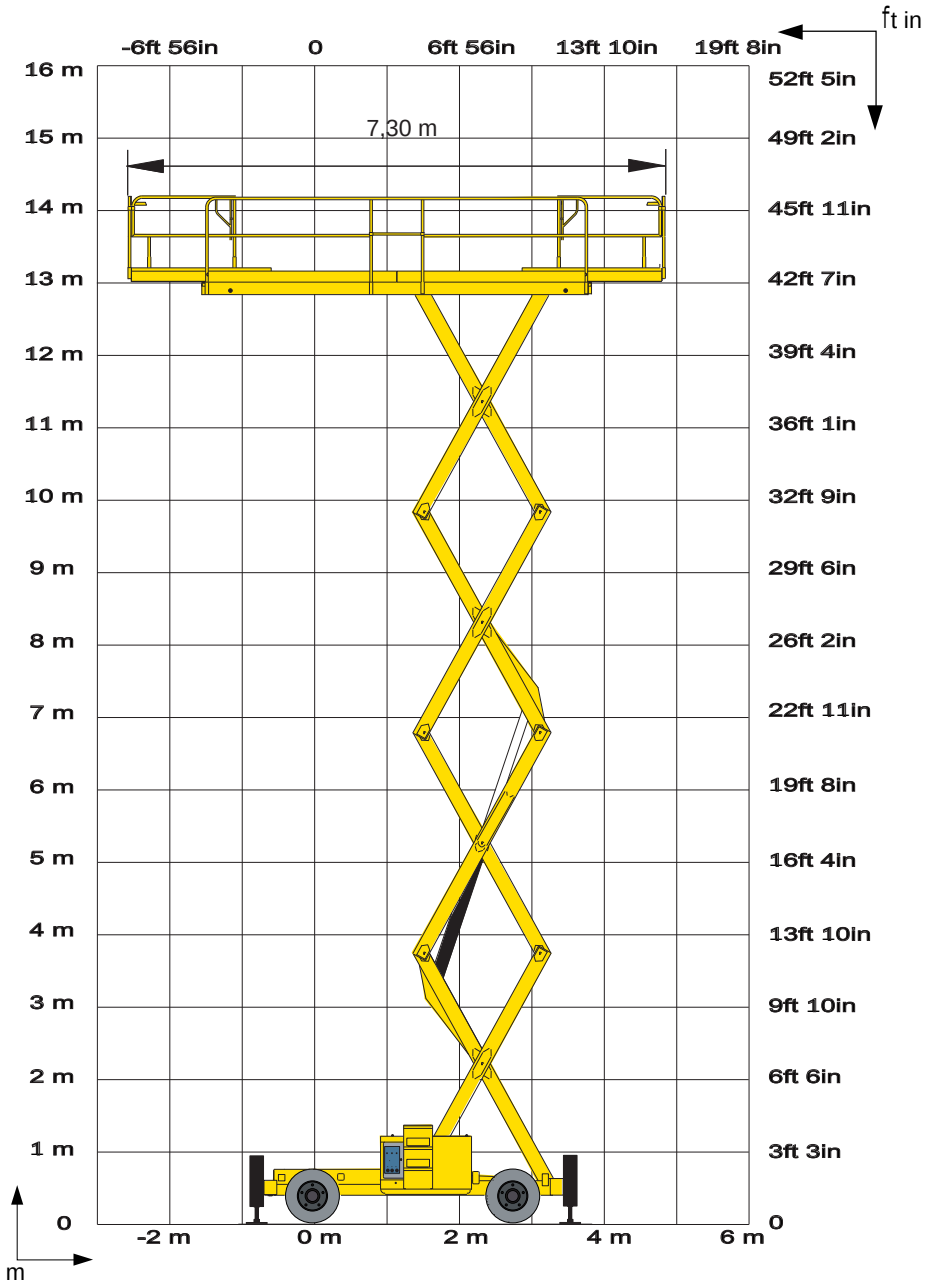


B - Familiarization

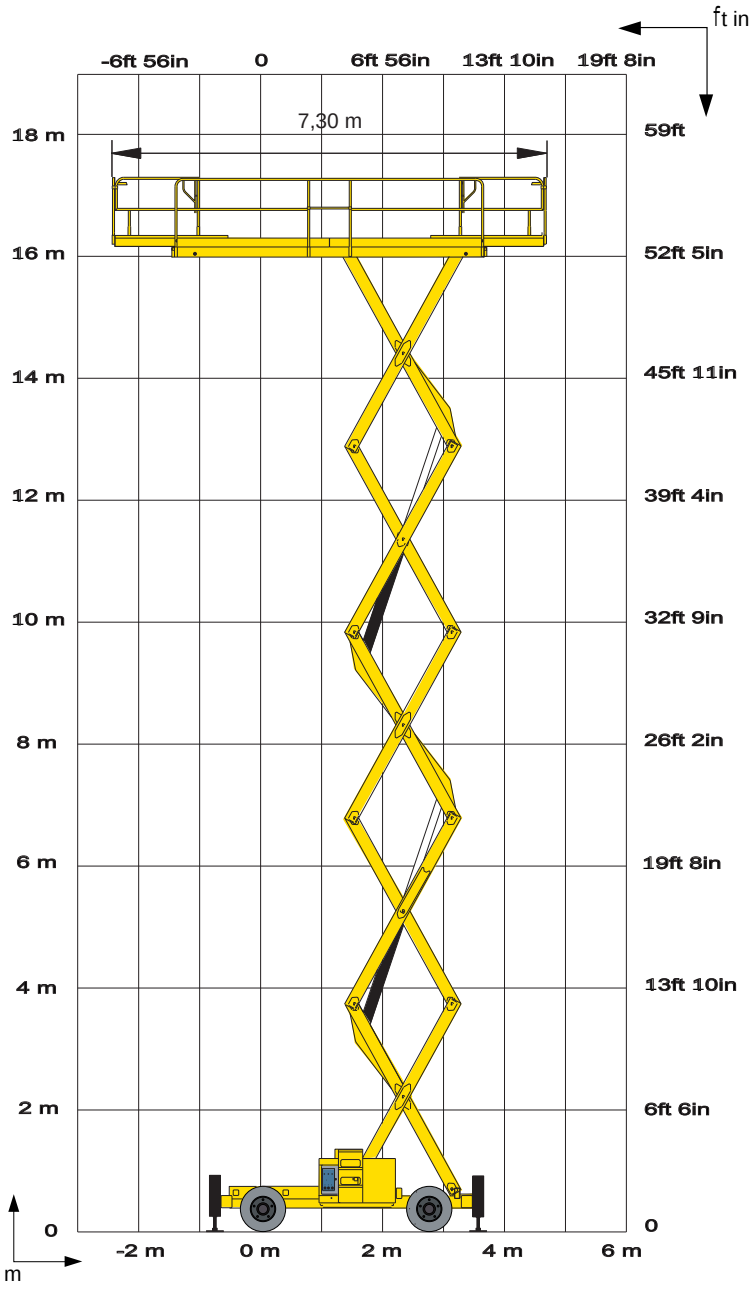
H12 SXL - HS3388 RT XL



H15 SXL

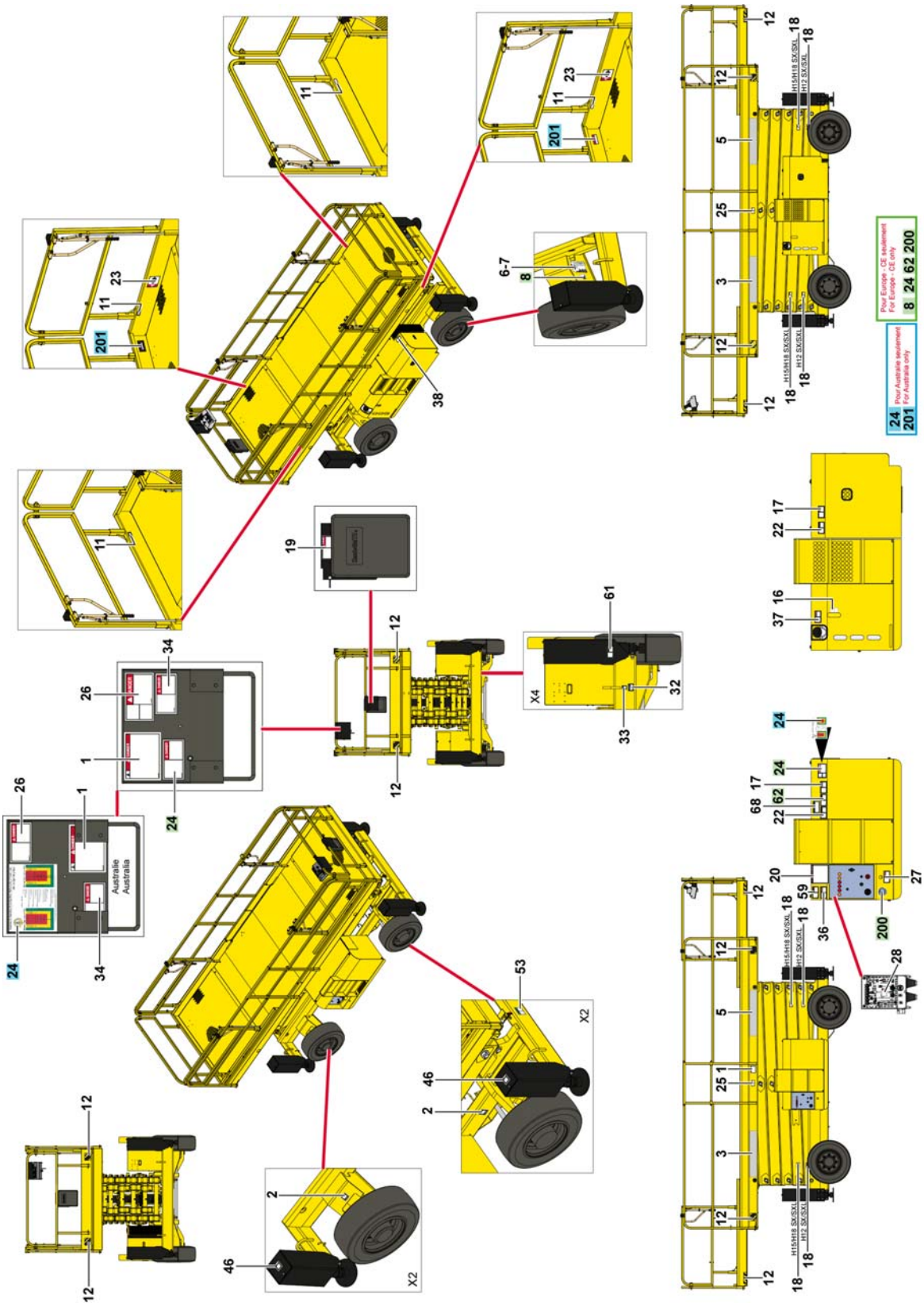

ft in
-6ft 56in
0
6ft 56in
13ft 10in
19ft 8in
16 m
15 m
14 m
13 m
12 m
11 m
10 m
9 m
8 m
7 m
6 m
5 m
4 m
3 m
2 m
1 m
0
52ft 5in
49ft 2in
45ft 11in
42ft 7in
39ft 4in
36ft 1in
32ft 9in
29ft 6in
26ft 2in
22ft 11in
19ft 8in
16ft 4in
13ft 10in
9ft 10in
6ft 6in
3ft 3in
0
7,30 m
-2 m
0 m
2 m
4 m
6 m
m

H18 SXL


ft in
-6ft 56in
0
6ft 56in
13ft 10in
19ft 8in
7,30 m
18 m
16 m
14 m
12 m
10 m
8 m
6 m
4 m
2 m
0
59ft
52ft 5in
45ft 11in
39ft 4in
32ft 9in
26ft 2in
19ft 8in
13ft 10in
6ft 6in
0
m
-2 m
0 m
2 m
4 m
6 m

5 - Decals and markings locations

CE and AS standards : H12 SX - H12 SXL - H15 SX - H15 SXL - H18 SX - H18 SXL



B - Familiarization

CE and AS standards : H12 SX - H12 SXL - H15 SX - H15 SXL - H18 SX - H18 SXL

Marking	Color	Description	Quantity	
1	Red	Height of the floor and load	2	For H12 SX : 4000701700 For H12 SXL : 4000701710 For H15 SX : 4000701720 For H15 SXL : 4000865310 For H18 SX : 4000701730 For H18 SXL : 4000865320
2	Blue	Maximum Pressure per Tire - Floor Loading	4	For H12 SX : 4000243720 For H12 SXL : 4000243730 For H15 SX : 4000243770 For H15 SXL : 4000243790 For H18 SX : 4000243810 For H18 SXL : 4000243830
3	Other	Commercial name - Bright machine	2	For H12 SX : 3078150610 For H12 SXL : 307P215500 For H15 SX : 3078150620 For H15 SXL : 307P215510 For H18 SX : 3078150630 For H18 SXL : 307P215520
3	Other	Commercial name - Dark machine	2	For H12 SX : 4000415790 For H12 SXL : 4000415800 For H15 SX : 4000415810 For H15 SXL : 4000415820 For H18 SX : 4000415830 For H18 SXL : 4000415840
5	Other	Decal HAULOTTE® - Bright machine	2	307P217230
5	Other	Decal HAULOTTE® - Dark machine	2	307P224930
5	Other	Decal HAULOTTE® - Red machine	2	307P224920
6	Other	Identification plate	1	4000700160
8	Other	Noise emission level	1	CE standard only 3078148700
11	Other	Lanyard attachment points	4	307P216290
12	Other	Material risk - Yellow and black adhesive tape 200 x 50 mm	4	4000424630
12	Other	Material risk - Yellow and black adhesive tape 110 x 135 mm	H12 SX : 4 H15 SX : 4 H18 SX : 4 H12 SXL : 8 H15 SXL : 8 H18 SXL : 8	4000421700
16	Other	Max and min oil level	1	307P221060
17	Red	Risk of crushing	2	4000244370
18	Orange	Hand crushing hazard - Risk of crushed hands	4	4000024890
19	Red	Operation instructions	1	4000025140

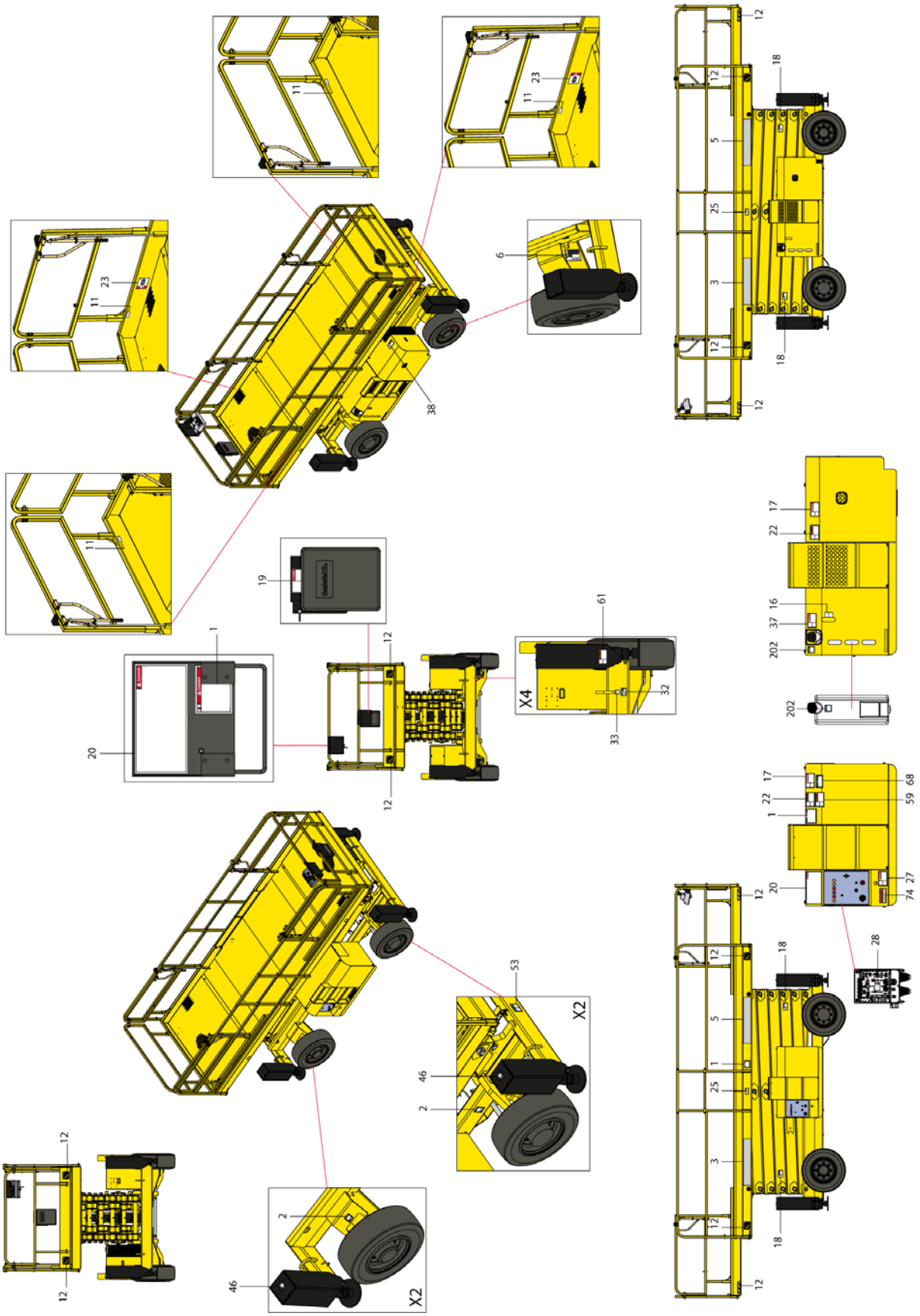
B - Familiarization

Marking	Color	Description	Quantity	
20	Red	Operation instructions	1	In german : 307P222730 In english : 307P222740 In korean : 4000618590 In croatian : 4000360810 In danish : 307P222760 In spanish : 307P222770 In estonian : 4000360870 In finnish : 307P222780 In french : 3078149030 In greek : 4000561810 In dutch : 307P222790 In hungarian : 4000360890 In italian : 307P222800 In japanese : 4000359830 In latvian : 4000359840 In lithuanian : 4000359850 In norwegian : 4000359900 In polish : 4000359860 In portuguese : 307P222810 In romanian : 4000359870 In Russian : 4000359920 In slovakian : 4000359880 In slovenian : 4000359890 In swedish : 307P222820 In ukrainian : 4000359910
22	Orange	Wound foot - Do not place foot	2	4000027090
23	Red	Risk of crushing - Driving direction	2	3078145100
24	Red	Danger of electrocution	2	CE standard only : 4000244350 AS standard only : 4000227500
25	Red	Risk of crushing - Closing drop rail	2	4000025080
26	Red	Danger of electrocution - Ground for welding	1	4000027100
27	Red	Verification of tilt operation	1	4000244380
28	Red	Do not interchange	1	3078145180
32	Blue	Anchorage point - Traction	4	4000027310
33	Blue	Anchorage point - Elevation	4	4000027330
34	Red	Risk of electrocution - Water projection	1	4000025130
36	Red	Risk of crushing - Platform	1	4000244340
37	Red	Explosion hazard	1	4000027370
38	Orange	Hand crushing hazard - Heat burns	1	4000027450
46	Red	Maximum effort on the stabilizers	4	For H12 SX : 4000243900 For H12 SXL : 4000481060 For H15 SX : 4000243910 For H15 SXL : 4000506810 For H18 SX : 4000243920 For H18 SXL : 4000506880
53	Green	Emergency lowering	1	For H12 SX - H12 SXL : 4000227200 For H15 SX - H15 SXL : 4000227200 For H18 SX - H18 SXL : 4000244400
59	Orange	Scissors safety	1	4000027550

B - Familiarization

Marking	Color	Description	Quantity	
61	Orange	Risk of crushed feet	4	4000025060
62	Yellow	Stop time during descent	1	4000271010
68	Other	Transport height	1	For H12 SX - H12 SXL : 4000417350 For H15 SX - H15 SXL : 4000417360 For H18 SX - H18 SXL : 4000417370
200	Other	"Made in Europe"	1	CE standard only : 4000137690
201	Red	Wearing of a safety harness is essential	2	AS standard only : 3078144520

ANSI and CSA standards : HS3388 RT - HS3388 RT XL - HS4388 RT - HS5388 RT



B - Familiarization

ANSI and CSA standards : HS3388 RT - HS3388 RT XL - HS4388 RT - HS5388 RT

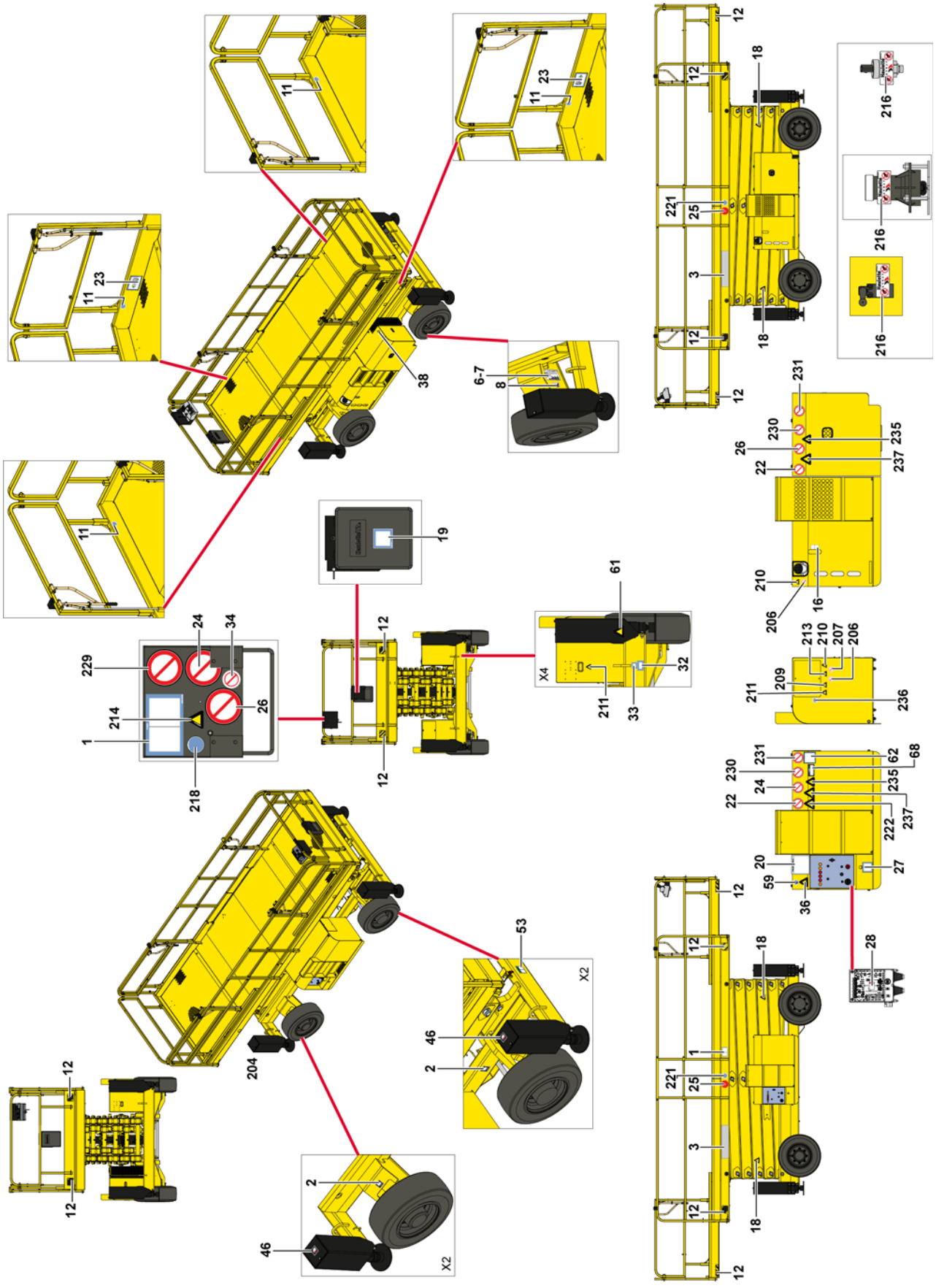
Marking	Color	Description	Quantity	
1	Red	Height of the floor and load	3	ANSI A92.6 standard : For HS3388 RT - HS3388 RT XL-In english : 4000244000 For HS3388 RT - HS3388 RT XL-In french : 4000244190 For HS3388 RT - HS3388 RT XL-In spanish : 4000244200 For HS4388 RT-In english : 4000244040 For HS4388 RT-In french : 4000244210 For HS4388 RT-In spanish : 4000244220 For HS5388 RT-In english : 4000244080 For HS5388 RT-In french : 4000244230 For HS5388 RT-In spanish : 4000244240 ANSI A92.20 and CSA B454.6 standards : For HS3388 RT : 4000701700 For HS3388 RT XL : 4000701710 For HS4388 RT : 4000701720 For HS5388 RT : 4000701730
2	Blue	Maximum Pressure per Tire - Floor Loading	4	For HS3388 RT : 4000243720 For HS3388 RT XL : 4000243730 For HS4388 RT : 4000243770 For HS5388 RT : 4000243810
3	Other	Commercial name - Bright machine	2	For HS3388 RT : 3078147630 For HS3388 RT XL : 307P219260 For HS4388 RT : 3078147620 For HS5388 RT : 3078147610
3	Other	Commercial name - Dark machine	2	For HS3388 RT : 4000415860 For HS3388 RT XL : 4000415870 For HS4388 RT : 4000415880 For HS5388 RT : 4000415900
5	Other	Decal HAULOTTE® - Bright machine	2	307P217230
5	Other	Decal HAULOTTE® - Dark machine	2	307P224930
5	Other	Decal HAULOTTE® - Red machine	2	307P224920
6	Other	Identification plate	1	4000700170
11	Other	Lanyard attachment points	4	307P216290
12	Other	Material risk - Yellow and black adhesive tape 200 x 50 mm	4	4000424630
12	Other	Material risk - Yellow and black adhesive tape 110 x 135 mm	HS3388 RT : 4 HS4388 RT : 4 HS5388 RT : 4 HS3388 RT XL : 8	4000421700
16	Other	Max and min oil level	1	307P221060
17	Red	Risk of crushing	2	In english : 4000130190 In french : 4000130200 In spanish : 4000130210
18	Orange	Hand crushing hazard - Risk of crushed hands	4	In english : 4000024770 In french : 4000067710 In spanish : 4000086490
19	Red	Operation instructions	1	4000025140

B - Familiarization

Marking	Color	Description	Quantity	
20	Red	Operation instructions	1	In english : 4000243670 In french : 4000243680 In spanish : 4000243690
22	Orange	Wound foot - Do not place foot	2	In english : 4000024840 In french : 4000068180 In spanish : 4000086610
23	Red	Risk of crushing - Driving direction	2	3078145100
27	Red	Verification of tilt operation	1	In english : 4000130300 In french : 4000130310 In spanish : 4000130320
28	Red	Do not interchange	1	3078145180
32	Blue	Anchorage point - Traction	4	4000027310
33	Blue	Anchorage point - Elevation	4	4000027330
37	Red	Explosion hazard	1	In english : 4000025010 In french : 4000068130 In spanish : 4000086560
38	Orange	Hand crushing hazard - Heat burns	1	In english : 4000025040 In french : 4000068110 In spanish : 4000086540
46	Red	Maximum effort on the stabilizers	4	For HS3388 RT : 4000243900 For HS3388 RT XL : 4000481060 For HS4388 RT : 4000243910 For HS5388 RT : 4000243920
53	Green	Emergency lowering	1	For HS3388 RT - HS3388 RT XL : 4000227200 For HS4388 RT : 4000227200 For HS5388 RT : 4000244400
59	Orange	Scissors safety	1	In english : 4000024850 In french : 4000068070 In spanish : 4000086500
61	Orange	Risk of crushed feet	4	In english : 4000024780 In french : 4000067700 In spanish : 4000086480
68	Other	Transport height	1	For HS3388 RT - HS3388 RT XL : 4000417350 For HS4388 RT : 4000417360 For HS5388 RT : 4000417370
74	Orange	California warning - Decal - Lower control box	1	4001026850
202	Blue	Diesel Fuel Only	2	4000201430

Notes

EAC standard : H12 SX - H12 SXL - H15 SX - H15 SXL - H18 SX - H18 SXL



B - Familiarization

EAC standard : H12 SX - H12 SXL - H15 SX - H15 SXL - H18 SX - H18 SXL

Marking	Color	Description	Quantity	
1	Red	Height of the floor and load	2	For H12 SX : 4000011250 For H12 SXL : 4000271270 For H15 SX : 4000011310 For H15 SXL : 4000273310 For H18 SX : 4000011320 For H18 SXL : 4000273380
2	Blue	Maximum Pressure per Tire - Floor Loading	4	For H12 SX : 4000243720 For H12 SXL : 4000243730 For H15 SX : 4000243770 For H15 SXL : 4000243790 For H18 SX : 4000243810 For H18 SXL : 4000243830
3	Other	Commercial name - Bright machine	2	For H12 SX : 3078150610 For H12 SXL : 307P215500 For H15 SX : 3078150620 For H15 SXL : 307P215510 For H18 SX : 3078150630 For H18 SXL : 307P215520
3	Other	Commercial name - Dark machine	2	For H12 SX : 4000415790 For H12 SXL : 4000415800 For H15 SX : 4000415810 For H15 SXL : 4000415820 For H18 SX : 4000415830 For H18 SXL : 4000415840
6	Other	Identification plate	1	For Russia : 4000278870 For Ukraine : 307P227830
8	Other	Noise emission level	1	3078148700
11	Other	Lanyard attachment points	4	307P226710
12	Other	Material risk - Yellow and black adhesive tape 200 x 50 mm	4	4000424630
12	Other	Material risk - Yellow and black adhesive tape 110 x 135 mm	H12 SX : 4 H15 SX : 4 H18 SX : 4 H12 SXL : 8 H15 SXL : 8 H18 SXL : 8	4000421700
16	Other	Max and min oil level	1	307P221060
18	Orange	Hand crushing hazard - Risk of crushed hands	4	307P227660
19	Red	Operation instructions	1	For Russia : 307P227190 For Ukraine : 307P227840
20	Red	Operation instructions	1	For Russia : 4000359920 For Ukraine : 4000359910
22	Orange	Wound foot - Do not place foot	2	307P227010
23	Red	Risk of crushing - Driving direction	2	For Russia : 4000010890 For Ukraine : 4000011390
24	Red	Danger of electrocution	2	4000010920
25	Red	Risk of crushing - Closing drop rail	2	307P226950
26	Red	Danger of electrocution - Ground for welding	1	307P226970
27	Red	Verification of tilt operation	1	For Russia : 307P227060 For Ukraine : 307P227870
28	Red	Do not interchange	1	3078145180

B - Familiarization

Marking	Color	Description	Quantity	
32	Blue	Anchorage point - Traction	4	4000135970
33	Blue	Anchorage point - Elevation	4	4000135960
34	Red	Risk of electrocution - Water projection	1	307P226780
36	Red	Risk of crushing - Platform	1	4000014290
38	Orange	Hand crushing hazard - Heat burns	1	4000200810
46	Red	Maximum effort on the stabilizers	4	For H12 SX : 4000243900 For H12 SXL : 4000481060 For H15 SX : 4000243910 For H15 SXL : 4000506810 For H18 SX : 4000243920 For H18 SXL : 4000506880
53	Green	Emergency lowering	1	4000227200
59	Orange	Scissors safety	4	4000270960
61	Orange	Risk of crushed feet	4	4000270970
62	Yellow	Stop time during descent	1	For Russia : 4000011400 For Ukraine : 4000011430
68	Other	Transport height	1	For H12 SX - H12 SXL : 4000417350 For H15 SX - H15 SXL : 4000417360 For H18 SX - H18 SXL : 4000417370
204	Red	Lubrication point	0	307P219370
206	Red	Flames prohibited	2	307P226750
207	Red	Smoking forbidden	1	307P226760
209	Yellow	Battery danger	1	307P226790
210	Yellow	Fire Hazard	2	307P226800
211	Yellow	Electrical danger	2	307P226810
213	Yellow	Corrosion hazard	1	307P226830
214	Yellow	Danger unstable side	1	307P226930
216	Other	Tamper-proof	0	307P227450
218	Blue	Caution helmet compulsory	1	307P226680
221	Blue	Obligatory routing	2	307P227510
222	Yellow	Danger unstable side	1	307P227680
223	Blue	Plug 12 V	0	307P227700
229	Red	Do not travel down slopes in high speed	1	307P226990
230	Red	No admittance to unauthorized persons	2	307P227560
231	Red	Do not park in the work area	2	4000010910
235	Yellow	Vertical crushing of the body	2	4000014270
236	Blue	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

Before carrying out any operations, ensure that the machine corresponds to the work to be done and the working environment :

- Carry out a thorough inspection of the site to identify any potential risks within the work zone.
- Take the necessary precautions to avoid collisions with other machinery within the work zone.

Ensure that :

  - The weather conditions (wind, rain, etc.) allowing the machine to be used.
  - The ground withstands the weight of the machine and has not been affected by the poor weather conditions.

- Check that the authorisations to work with the machine on the site in question have been obtained (.g. chemical product factories).
- Define a rescue plan for all the risks, including the risk of falls and crushing.

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.

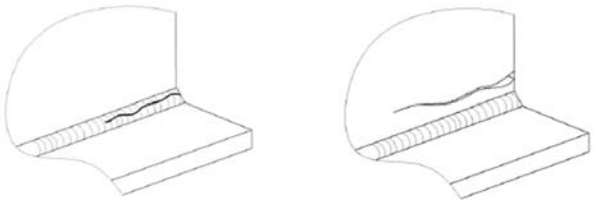
- **Never use a defective or a malfunctioning aerial work platform.**
- **If any item on the check list is marked "No" during the inspection; machine must be tagged and placed out of service.**
- **Do not operate the machine until all identified items are corrected and it has been declared safe for operation.**

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		

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

C - Pre-operation inspection

Engine-powered scissor lifts

Haulotte	Page or associated procedure	Daily	OK	NOK	Corrected	Comments
Chassis assembly : Wheel, reducer, steering, wheel pivot						
Check state of tires/tyres and inflations						
Clean the pads slide						
Thermal engines						
Check engine fuel level (Top up the oil if necessary)						
Check engine oil level (Top up the oil if necessary)						
No leaks from engine components (engine, hoses, radiator)						
Check the condition of the battery						
Check the cooling circuit level (Top up the oil if necessary)						
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						
Clean the platform extension						
Check the quick ties and the good location of the guardrail						

C - Pre-operation inspection

Engine-powered scissor lifts

Haulotte	Page or associated procedure	Daily	OK	NOK	Corrected	Comments
General						
Check for the presence, cleanliness and readability of the manufacturer's plates, security labels, user manual and maintenance manual						
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						
Check the absence of visual and audible alarms						
Test the operation of the tilt system						
Test the operation of the emergency lowering system						
Test the operation of the load control system - Calibrate if necessary						

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 system (Overriding systm) is available on the ground control box in order to rescue anyone trapped on the platform.

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 battery charge (4) and engine oil pressure (2) indicators remain lit.

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 key on the control box activation selector switch (72) to the left to energize the platform control box. The indicators light up.
3	Push the E-stop button (46). The power on indicator (31) remains lit. The engine start-up (61) and horn (62) functions are disabled.

***N.B.**-:-An audible signal signal repeated 1 or 2 times every 20-30 seconds intermittently when the machine is in transport position indicates that an emergency stop button has been pushed in, the machine is stopped but the power is still switched on. To switch off the power to the machine, turn the console activation selector key (72) on the lower console in the centre to neutral position.*

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 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 upper console (72).
3	The indicator (31) at the platform control box lights up, and there is an audible signal (beep).

4.4 - AUTOMATIC ENGINE CUT-OUT

The engine automatically cuts out in the following conditions :

- The alternatorand/or fan is no longer working.
- Engine temperature is too high.
- Oil pressure is too low.
- The air filter of the engine is clogged.
- The E-stop(s) is (are) pushed in.

4.5 - OVERLOAD SENSING SYSTEM (ALL STANDARDS EXCEPT ANSI A92.6)

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 (30) at ground and 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.

4.6 - 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.

When the unfolded machine is on a slope greater than the rated slope, out of the stowed position, DRIVE and LIFT functions are disabled(All standards except ANSI 92.6).

All functions speeds are reduced.

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

***N.B.**-:-Depending on your machine configuration, outside assistance may be necessary in order to carry out this operation.*

To check the tilt sensor at ground control box

Step	Action
1	Pull the E-stop push-buttons on the platform and ground control boxes (15, 46).
2	Switch on the machine from the ground control box (72).
3	Start the engine from the ground control box with engine start-up selector (22).
4	Position the platform at a height of at least 3 m(9 ft10 in) using the lifting control (106).
5	Locate the tilt sensor next to the ground control box.
6	Manually tilt and maintain the tilt sensor towards the front for a few seconds (Section B 3.1 - Layout).
7	Check that the audible beep sounds.

4.7 - TRAVEL SPEED LIMITATION

The machine has a selector of 3 driving speeds - low, medium and high.

All driving speeds are enabled when the machine is not elevated.

The maximum travelling speeds are reduced when the following lifting height is reached :

Machine	Transport configuration limit height	
	Mètre	Feet
H12 SX - HS3388 RT H15 SX - HS4388 RT H18 SX - HS5388 RT H12 SXL - HS3388 RT XL H15 SXL H18 SXL	2,80 - 2,90	9 ft 2 in - 9 ft 6 in

Above these values, only micro-speed is authorized :

- Driving is only possible if machine outriggers is raised.
- Driving is cut off if the tilt exceeds the authorized limit.
- For H15 SX - HS4388 RT - H18 SX - HS5388 RT only : As soon as the base reaches 10 m(32 ft10 in) from the ground, driving movements are cut off.

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 - ANTI-CRUSH SYSTEM WHEN LOWERING

A device alerts people on the ground of a risk of crushing :

- Between the lifting systems.
- Under platform extension.

This device automatically operates between the transport height position limit and the lower position(Refer to Driving speed).

All versions, lowering control from the platform and ground control boxes :

- Slows the downward movement and emits an audible signal.

Standards CE and EAC, lowering movement from platform control box :

- At the end of the lowering operation, a 3 (second) automatic delay is initiated before resuming lowering, to avoid the risk of crushing.

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 local regulations.
- Become familiar with the proper use of all controls and emergency systems.

1.2 - OPERATION FROM THE GROUND CONTROL BOX

- 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.
  - The machine is switched on.
  - Ground control box is selected.
- An EMERGENCY STOP button located on each control box stops all movements and shuts off the engine when pressed in.
- When the engine is running, the switch (72) operates as an activation control only.
- An Enable Switch (72) provided must be activated and maintained to authorize one or more function movements. If Enable Switch (72) is kept engaged without selecting a function movement for more than 8 s; Enable Switch is automatically de-activated.
- Only movements of lifting and lowering the platform are possible from the ground control box.
- All switches and joystick operating a movement, return automatically to neutral when released.
- Enable Switch / Emergency pump
  - Engine running, the switch acts as an Enable Switch only.
  - Engine stopped, the switch acts as the Enable switch and operate the emergency pump control.
- Overriding system : The ground control box is designed for maintenance and emergency rescue operations only. Refer to Section D 4.2 - To rescue operator in platform.

D - Operation instructions

- 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 :
  - Accelerator: engine rpm
  - Beacon light (if fitted)
- A switch provides the start and stop of the engine.
- Engine speed (If fitted) : This switch increases the engine rpm to the maximum speed.
- A buzzer beeps in the following conditions :
  - When power is switched on.
  - Overload (if fitted).
  - Slope if machine is out of stowed position.
  - Hydraulic oil overheating.
  - Movements option.
  - Driving option.
  - Movement option and driving.
- Indicators / Cluster : All indicators are checked after powering on the machine

1.3 - OPERATION FROM THE PLATFORM CONTROL BOX

- The platform control box can only be used if :
  - 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.
- 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.
- An Enable /Foot Switch (123) is present that should be activated and maintained to authorize one or more movements. If the Enable Switch is kept active for more than 8 seconds without selecting a function movement, then movement is disallowed. The enable switch must be released (reset) before movement can occur.
- The release of "Enable switch" (123) while performing a movement stops all the movements. The stop of movements is progressive. 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.
- The status of the switches and joysticks is tested automatically when the machine is switched on. A switch or joystick will be active only after it has been detected in neutral position.

A buzzer beeps in the following conditions :

- Overload.
- Machine elevated on a slope greater than the rated slope.
- Indicators - All the indicators are tested
  - When the machine is switched on.

While driving on a slope :
• While driving on a slope:
• Always orientate the machine in the direction of the slope.
• Stow the machine completely.
• 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.

2 - Ground control box

2.1 - TO START AND STOP THE MACHINE

- Ensure that the E-Stop buttons (46) and (15) at the ground and platform control boxes are pulled out.
- Turn the key of the control box activation switch (72) to the right and hold it to activate the ground control box.
- Push the engine start switch (22) downwards to start the machine.

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

- Turn (release) the control box activation selector (72) key to the center.

or

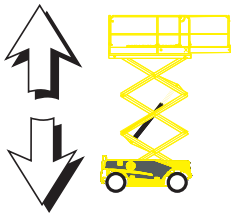
- Push in the E-stop button (15).

2.2 - MOVEMENT CONTROL

Even at low movement speeds, use the controls with caution.

***N.B.**-:-Releasing the Enable Switch will stop all movements.*

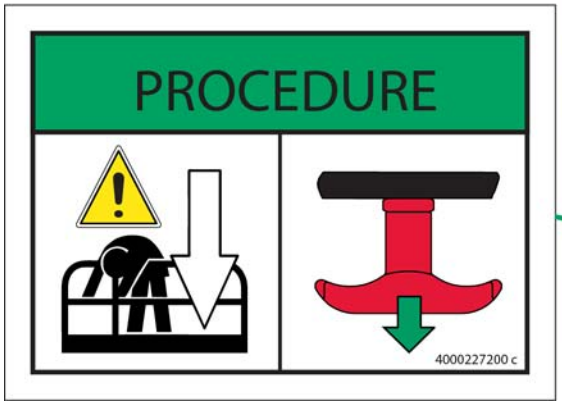
Ground box controls (emergency station)

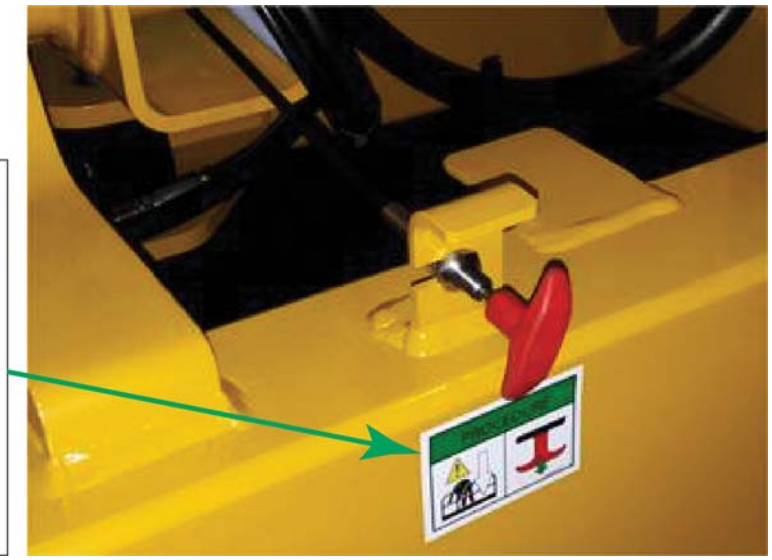
Command		Action
Platform raising / lowering		Push the platform raising / lowering selector (106) upwards to raise the platform.
		Press the platform raising / lowering selector (106) downwards to lower the platform.
		Note : For these actions, the key selector (72) needs to be held in the ground control box position, that is to say to the right.
Emergency lowering / Emergency platform lowering halted		Pull the T-handle (C52) to lower the platform.
		Release the T-handle (C52) to stop platform lowering.

Once rescue operations are complete, write an incident report.

D - Operation instructions

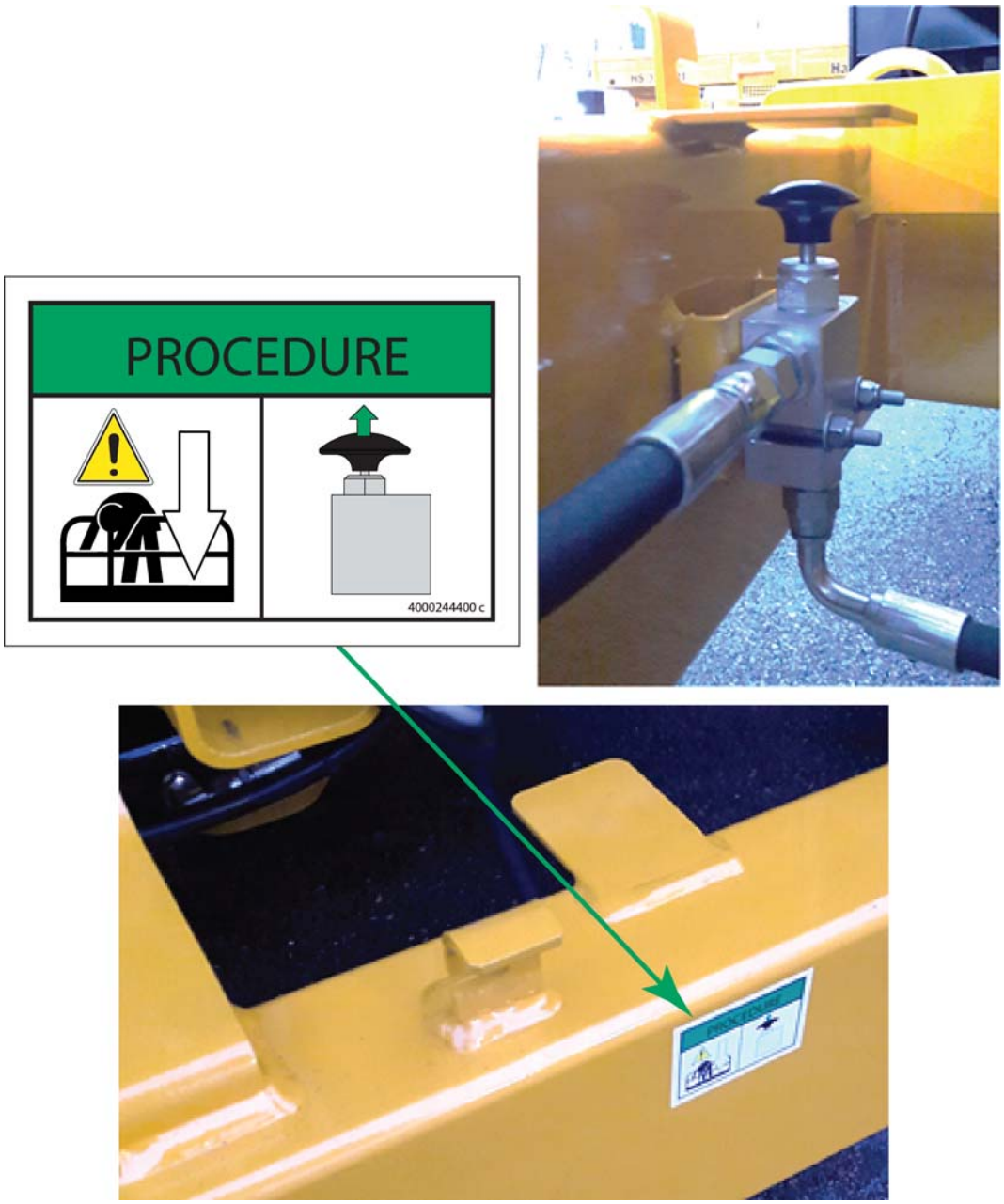
Pull T-handle for emergency lowering - H12 SX - HS3388 RT - H15 SX - HS4388 RT - H12 SXL - HS3388 RT XL - H15 SXL





D - Operation instructions

Pull T-handle for emergency lowering - H18 SX - HS5388 RT - H18 SXL



N.B.-:-*Pulling on to the T-Handle, immediately activates the emergency lowering of the platform.*

ALWAYS keep personnel and obstructions clear of the aerial work platform that might block the lowering.

2.3 - ADDITIONAL CONTROLS FROM THE GROUND CONTROL BOX

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.

3 - Platform control box

3.1 - TO START AND STOP THE MACHINE

To start the machine :

At the ground control box :

- The E-stop button (15) on the ground control box must be in ON position (pulled out / activated).
- Turn the key on the control box activation selector switch (72) to the left to energize the platform control box.

At the platform control box :

- Pull the E-stop button (46).
- Press the engine start-up selector (61) to start the machine.

To stop the machine :

- Push in the E-stop button (46).

3.2 - DRIVE AND STEER CONTROL

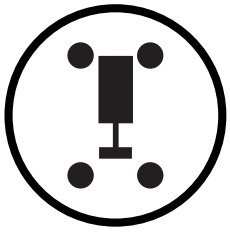
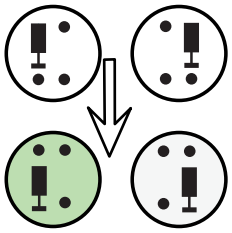
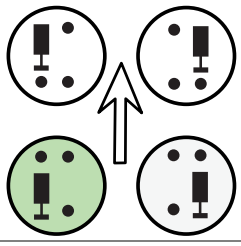
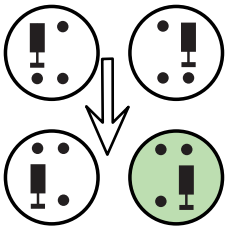
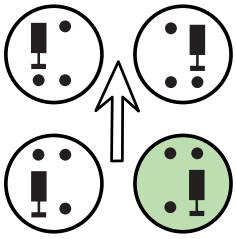
Activate the controls and the Enable Switch simultaneously to perform the various movements. Except for stabilizing movements.

Command		Action
Driving		Move the drive joystick (108) forwards to drive the machine forwards.
		Move the drive joystick (108) backwards to drive in reverse.
Front-axle steering		Push the front-axle steering selector thumb switch (108) to the right to steer to the right.
		Push the front-axle steering selector thumb switch (108) to the left to steer to the left.
Drive speed		Position the drive speed selector switch (59) on  for high-speed driving.
		Position the driving speed selector (58) on  for medium speed driving (crossing uneven ground, slope).
		Position the driving speed selector (57) on  for low-speed driving (short distance, final approach, unloading from lorries/trucks).

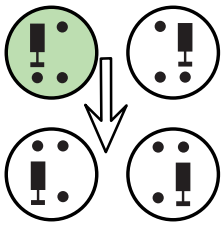
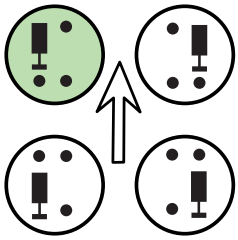
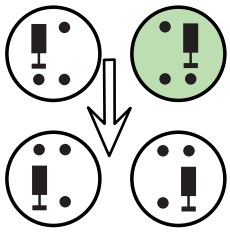
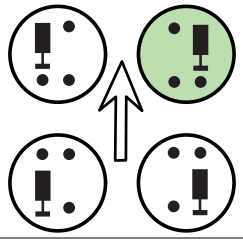
***N.B.**-:-The release of the selectors and (or) joysticks causes all movement to stop.*

D - Operation instructions

Outriggers controls

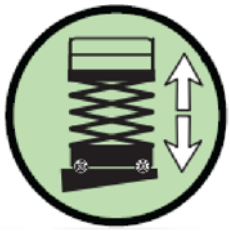
Command		Action
If outriggers option : Centralised stabilizer		Push the centralised outriggers touch pads (94) until the machine is stabilized (LED on)
If outriggers option : Front left stabilizer extension/retraction		Push the touch pads (97) until the front left stabilizer is set against the ground (LED on).
		Push the touch pads (101) until the front left stabilizer is totally retracted (LED off).
If outriggers option : Front right stabilizer extension/retraction		Push the touch pads (98) until the front right stabilizer is set against the ground (LED on).
		Push the touch pads (102) until the front right stabilizer is totally retracted (LED off).

D - Operation instructions

Command		Action
If outriggers option : Rear left stabilizer extension/retraction		Push the touch pads (99) until the rear left stabilizer is set against the ground (LED on).
		Push the touch pads (103) until the rear left stabilizer is totally retracted (LED off).
If outriggers option : Rear right stabilizer extension/retraction		Push the touch pads (100) until the rear right stabilizer is set against the ground (LED on).
		Push the touch pads (104) until the rear right stabilizer is totally retracted (LED off).

N.B.-:-*The release of the selectors and (or) joysticks causes all movement to stop.*

3.3 - MOVEMENT CONTROL

Command		Action
Platform raising / lowering		Push the platform raising / lowering selector (95) upwards to raise the platform. Push the movement joystick (108) forwards to raise the platform.
		Press the platform raising / lowering selector (95) downwards to lower the platform. Push the movement joystick (108) backwards to lower the platform.

3.4 - ADDITIONAL CONTROLS

- Horn : Push the horn selector (62) to the right to sound the horn. The horn stops when the selector switch is released.
- Differential lock : Press the differential blocking touch pads (60).

4 - Rescue and emergency procedures

4.1 - IN CASE OF POWER LOSS

In case of loss of the main power source, lower the basket (or platform) using the T-handle on the chassis.

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

- Exit onto a sturdy and safe structure.
- 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.
- Occupant(s) must exit the current platform through the normal access.

***N.B.**-:-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® has implemented a control system for safely lowering the operator to the ground in the event of an emergency to enable him to receive the neccessary treatment.

1. Turn the key of the control box activation switch (72) to the right to energize the ground control box. The platform box controls are de-energized.
2. Lower the platform from the ground control box.
3. Lower the platform using the selector (106) while holding the key (72).
4. Release it to halt lowering.

If a safety systems do not allow normal movement from the ground control box, lower the basket (or platform) using the T-handle on the chassis.

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.

To climb the slope, move progressively the drive joystick (108).

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

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

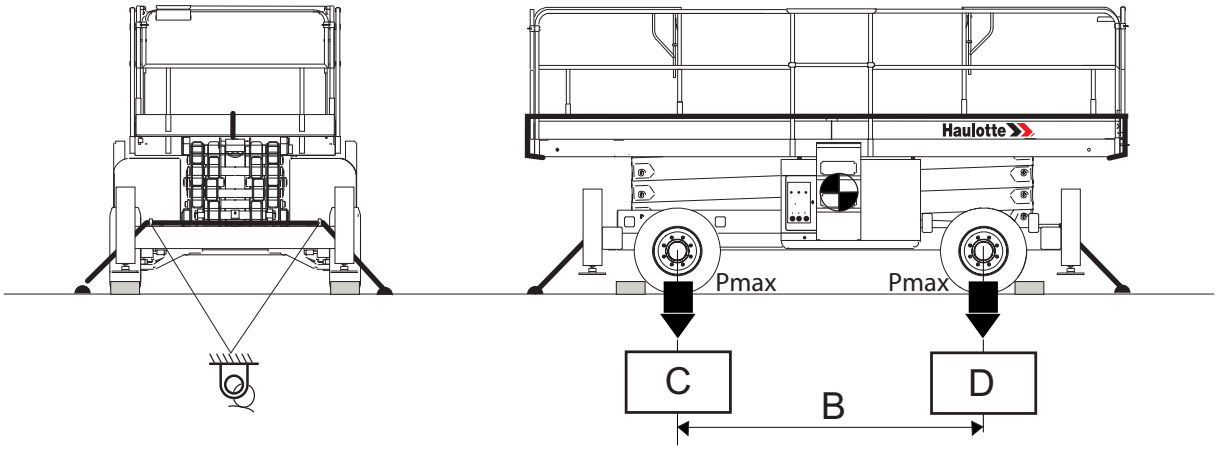
The machine must be completely in the stowed configuration :

- Check the platform is completely empty.
- Platform extension must be retracted in the locked position.
- Drive the machine onto the truck bed.
- Secure the machine to the tie down points provided (See picture).

The manual extension (if fitted) must be retracted and locked during transport or towing.

5.2 - MACHINE LAYOUT — H12 SX - HS3388 RT - H12 SXL - HS3388 RT XL - H15 SX - HS4388 RT - H15 SXL - H18 SX - HS5388 RT - H18 SXL

H12 SX - HS3388 RT - H12 SXL - HS3388 RT XL - H15 SX - HS4388 RT - H15 SXL - H18 SX - HS5388 RT - H18 SXL



Loading characteristics

Marking	Description	H12 SX - HS3388 RT	H12 SXL - HS3388 RT XL
B	Lateral distance between the wheels(1).	2.75 m(9 ft0 in)	2.75 m(9 ft0 in)
C	Front wheel ground pressure((1.))	11 daN/cm² (2,25 lbf/sq.ft)	9,2 daN/cm² (1,88 lbf/sq.ft)
D	Rear wheel ground pressure((1.))	11 daN/cm² (2,25 lbf/sq.ft)	9,2 daN/cm² (1,88 lbf/sq.ft)
	Anchorage point		

(1.) Check the technical data in the technical characteristics

Loading characteristics

Marking	Description	H15 SX - HS4388 RT	H15 SXL
B	Lateral distance between the wheels(1).	2.75 m(9 ft0 in)	2.75 m(9 ft0 in)
C	Front wheel ground pressure((1.))	12 daN/cm² (2,46 lbf/sq.ft)	9,2 daN/cm² (1,88 lbf/sq.ft)
D	Rear wheel ground pressure((1.))	12 daN/cm² (2,46 lbf/sq.ft)	9,2 daN/cm² (1,88 lbf/sq.ft)
	Anchorage point		

(1.) Check the technical data in the technical characteristics

Loading characteristics

Marking	Description	H18 SX - HS5388 RT	H18 SXL
B	Lateral distance between the wheels(1).	2.75 m(9 ft0 in)	2.75 m(9 ft0 in)
C	Front wheel ground pressure((1.))	16 daN/cm² (3,28 lbf/sq.ft)	9,6 daN/cm² (1,97 lbf/sq.ft)
D	Rear wheel ground pressure((1.))	16 daN/cm² (3,28 lbf/sq.ft)	9,6 daN/cm² (1,97 lbf/sq.ft)
	Anchorage point		

(1.) Check the technical data in the technical characteristics

5.3 - UNLOADING

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

- Remove the tie downs.
- At ground control box turn control box activation switch (72) to the left to energize platform box.
- On the platform control box, press and hold the activation switch (123) while gently and progressively moving the drive joystick (108).

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 platform a few centimetres (inches) from the ground control box.

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.**
- **Before towing, ensure that the platform is fully lowered.**
- **The platform must be empty.**
- **ALWAYS keep personnel and obstructions clear of the aerial work platform when brakes are released.**

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

Perform this operation on flat ground with wheels chocked.

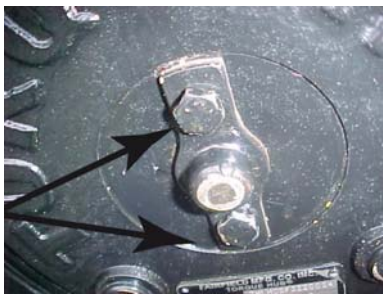
In the towing configuration, the machine braking system is inactive. Use of a drawbar is recommended :

- 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

For H12 SX - HS3388 RT - H12 SXL - HS3388 RT XL - H15 SX - HS4388 RT - H15 SXL :

Unscrew the 2 nuts with an 11 mm spanner.



Turn the part and screw it back on.

The gears are released.

For H18 SX - HS5388 RT - H18 SXL :

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

After repairing the machine, re-engage the wheel drive hubs.

For H12 SX - HS3388 RT - H12 SXL - HS3388 RT XL - H15 SX - HS4388 RT - H15 SXL :

- Perform in reverse order to the drive hub disengaging procedure.

For H18 SX - HS5388 RT - H18 SXL :

- Machine with outriggers
    1. Stabilize the machine.
    2. Screw the central nut up again to engage the internal gear.
    3. Turn the wheel to line up the gear teeth in case of resistance.
    4. Screw the central nut up completely when the once the drive gear has commenced to engage.
- Machine without stabilizers
    5. Screw the central nut up again to engage the internal gear.
    6. Engage the driving gear slowly in case of resistance.
    7. Screw the central nut up completely when the once the drive gear has commenced to engage.

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.

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.

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

Storing of the machine with an obstacle under the platform 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.

5.6 - LOADING BY RAMP

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

- **The loading ramp can bear the load.**
- **The loading ramp is correctly attached.**
- **The loading ramp has sufficient grip.**
- **The machine is completely stowed.**

To climb the slope, select low driving speed .

If the slope exceeds 25% grade, use a winch to assist in loading on to the ramp.

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

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

5.7 - UNLOADING BY RAMP

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

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

1. The machine is completely stowed.
2. Remove the tie downs.
3. Start the machine.
4. The ramp is in good condition and of sufficient capacity. The lifting equipment ie. slings, shackles, hooks, lifting beam etc. are in good condition and of sufficient capacity.

Do not travel down the ramp at a fast speed.

5.8 - LIFTING OPERATION

When loading/unloading, if it is necessary to raise the machine using a crane, it is important to comply with the following :

- The technician should take all steps to protect themselves or others against all risks of injury connected with this operation.
- The technician should ensure that suitable PPE (personal protective equipment) for the job is used, and check the particular conditions of environment in which the material can be found (see safety information specific to the operation site).
- Position the machine on a flat and firm surface, clear of obstructions (beware of power lines).
- Switch off the ignition, remove the ignition key, activate the battery power.
- Put a "DO NOT USE" decal near the start/stop button to inform personnel that work is currently in progress on the equipment.
- Mark out the work area.
- Ensure the platform is empty.
- The pressure in the hydraulic system is very important. It can cause accidents. Relieve the pressure before beginning any work and never search for oil leaks using your hands.
- Beware of the risk of burns; the hydraulic system operates at high temperatures.
- Engine exhaust gases contain harmful products of combustion. Always start and run the engine in a well-ventilated area. In a closed room, ensure the exhaust gases are evacuated to the outside.
- Verify that lifting accessories are in good operation and match the technical specifications listed below. It is important that the lifting devices are 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.

D - Operation instructions

5.8.1 - Procedure for the use of slings - H12 SX - HS3388 RT - H12 SXL - HS3388 RT XL - H15 SX - HS4388 RT - H15 SXL - H18 SX - HS5388 RT - H18 SXL

Machine type	Maximum weight
H12 SX - HS3388 RT	5510 kg (12150 lb)
H12 SXL - HS3388 RT XL	5700 kg (12569 lb)
H15 SX - HS4388 RT	6340 kg (13980 lb)
H15 SXL	6530 kg (14399 lb)
H18 SX - HS5388 RT	7300 kg (16097 lb)
H18 SXL	7490 kg (16515 lb)

The machine must be fully folded, with platform extensions retracted and locked.

The spreader beams must be perpendicular to the chassis.

Attach 4 shackles 8 T with the straps 4 m (13 ft 1 in) 8 T to the 4 chassis rings.

Attach the slings using shackles.

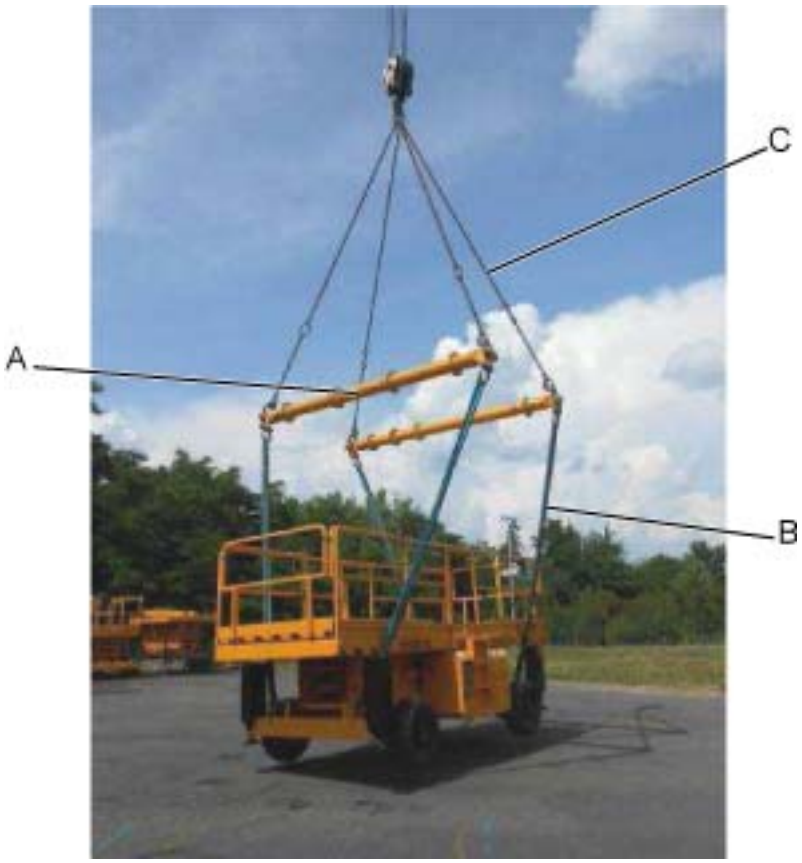
Ensure that the shackles are correctly locked.

The strap should be held in the position shown below when tensioning in order to prevent damage to the beam of the upper console.

D - Operation instructions

Check that the rings do not catch on the ground jacks and the platform.

The machine must be handled very slowly.



Marking	Description
A	2 spreaders 4 m (13 ft 1 in) 10 T at 90 ° to the axis of the chassis
B	4 straps 4 m (13 ft 1 in) 8 T and 8 shackles 8 T between the machine and the spreader bars
C	4 slings 6 m (19 ft 8 in) 8 T and 4 shackles 8 T between the spreader beams and the crane

6 - Cold Weather Recommendations

In cold weather conditions, allow engine to run for at least 5 min to warm up ; before operating any function thereby preventing any damage to the hydraulic system.

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

Attempting to start engine when temperature is in the negative range, may require the use of a booster battery.

If engine fails to start, do not crank for an extended time. Allow starter to "cool off" for a few minutes before attempting again. If engine fails after several attempts, refer to the engine maintenance manual.

***N.B.**-:-Initial starting should always be performed from the ground control box.*

6.1 - ENGINE OIL

The correct SAE viscosity grade of oil is determined by the minimum ambient temperature during cold engine start-up, and the maximum ambient temperature during engine operation.

Generally, use the highest viscosity oil that is available to meet the requirement for the temperature at start-up.

Engine oil viscosity		
EMA LGR-1 / API CH-4 Viscosity grade	Ambient temperature	
	Minimum	Maximum
SAE 0W20	-40°C (-40°F)	10°C (50°F)
SAE 0W30	-40°C (-40°F)	30°C (86°F)
SAE 0W40	-40°C (-40°F)	40°C (104°F)
SAE 5W30	-30°C (-22°F)	30°C (86°F)
SAE 5W40	-30°C (-22°F)	40°C (104°F)
SAE 10W30	-20°C (-4°F)	40°C (104°F)
SAE 15W40	-10°C (14°F)	50°C (122°F)

***N.B.**-:-For additional engine oil recommendations, refer to the engine manual provided with the machine.*

6.2 - HYDRAULIC OIL

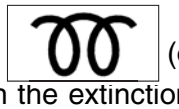
External environmental conditions can reduce performance of the machine if the hydraulic oil temperature does not reach its optimum range.

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

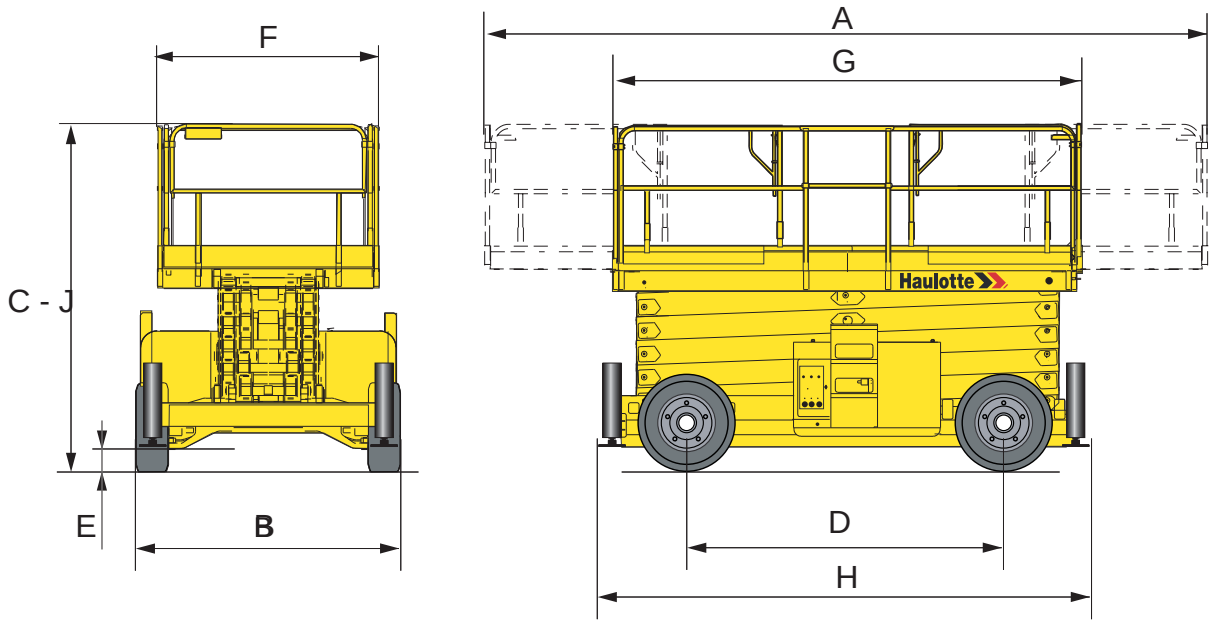
***N.B.**-:-It is recommended to replace low temperature oil as the ambient temperature reaches + 15°C (59°F). It is not advisable to mix oils of different brands or types.*

6.3 - PREHEATING OPERATION

When power is switched ON, the electric pre-heating indicator (1) (at the ground control box) and / or (51)  (on the platform control box) flashes, the motor is in automatic pre-heating. Upon the extinction of this light (just seconds) at the ground display, starting of the machine is possible.

1 - Machine dimensions

Stowed / Transport position : Configuration that takes the minimum floor space necessary for storage and / or delivery of the machine - Access position - H12 SX - HS3388 RT - H15 SX - HS4388 RT - H18 SX - HS5388 RT

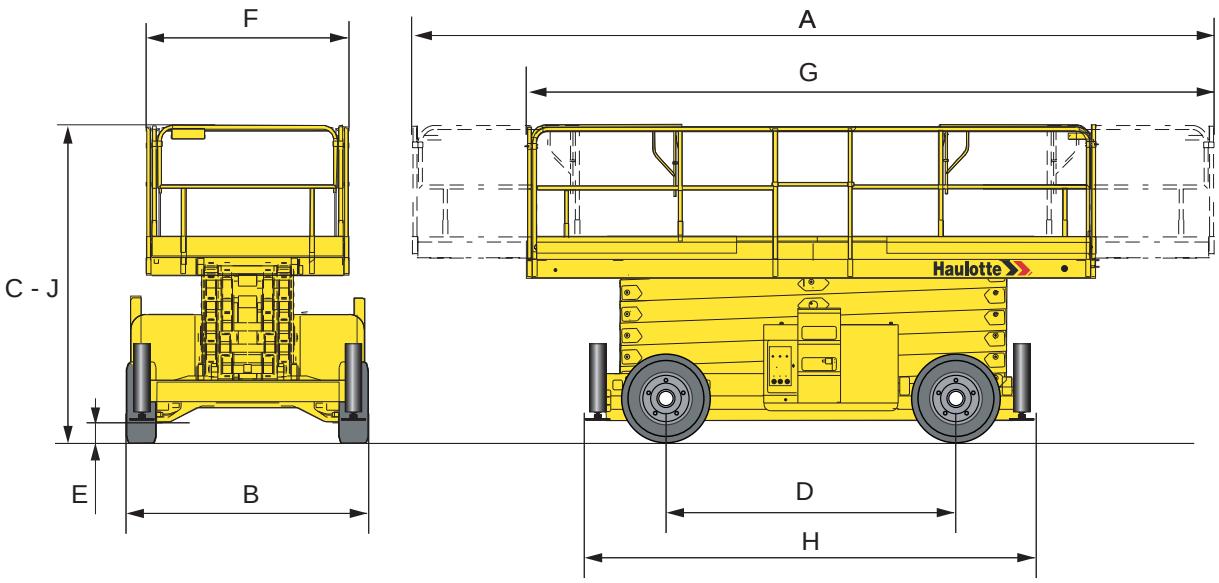


Overall dimension specifications

Marking	H12 SX - HS3388 RT		H15 SX - HS4388 RT		H18 SX - HS5388 RT	
	Mètre	Feet inch	Mètre	Feet inch	Mètre	Feet inch
A	6,00	19 ft 8 in	6,00	19 ft 8 in	6,00	19 ft 8 in
B	2,25	7 ft 4 in	2,25	7 ft 4 in	2,25	7 ft 4 in
C	2,57	8 ft 5 in	2,77	9 ft 1 in	2,97	9 ft 8 in
D	2,75	9 ft 0 in	2,75	9 ft 0 in	2,75	9 ft 0 in
E	0,27	0 ft 10 in	0,27	0 ft 10 in	0,27	0 ft 10 in
F x G	4,00 x 1,89	13 ft 1 in x 6 ft 2 in	4,00 x 1,89	13 ft 1 in x 6 ft 2 in	4,00 x 1,89	13 ft 1 in x 6 ft 2 in
H	4,18	13 ft 8 in	4,18	13 ft 8 in	4,18	13 ft 8 in
J	2,57	8 ft 5 in	2,77	9 ft 1 in	2,97	9 ft 8 in

E - General Specifications

Stowed / Transport position : Configuration that takes the minimum floor space necessary for storage and / or delivery of the machine - Access position - H12 SXL - HS3388 RT XL - H15 SXL - H18 SXL



Overall dimension specifications

Marking	H12 SXL - HS3388 RT XL		H15 SXL		H18 SXL	
	Mètre	Feet inch	Mètre	Feet inch	Mètre	Feet inch
A	7,30	23 ft 11 in	7,30	23 ft 11 in	7,30	23 ft 11 in
B	2,25	7 ft 4 in	2,25	7 ft 4 in	2,25	7 ft 4 in
C	2,57	8 ft 5 in	2,77	9 ft 1 in	2,97	9 ft 8 in
D	2,75	9 ft 0 in	2,75	9 ft 0 in	2,75	9 ft 0 in
E	0,27	0 ft 10 in	0,27	0 ft 10 in	0,27	0 ft 10 in
F x G	5,30 x 1,89	17 ft 4 in x 6 ft 2 in	5,30 x 1,89	17 ft 4 in x 6 ft 2 in	5,30 x 1,89	17 ft 4 in x 6 ft 2 in
H	4,18	13 ft 8 in	4,18	13 ft 8 in	4,18	13 ft 8 in
J	2,57	8 ft 5 in	2,77	9 ft 1 in	2,97	9 ft 8 in

2 - Major component masses

N.B.-:-*Masses measured with empty tanks.*

Specifications	H12 SX SI	HS3388 RT Imp.
Frame assembly mass	2515 kg	5545 lbs
Scissors assembly mass	1960 kg	4321 lbs
Platform assembly mass	850 kg	1874 lbs
Mass of one wheel	92 kg	203 lbs
Battery mass	22 kg	49 lbs

Specifications	H12 SXL SI	HS3388 RT XL Imp.
Frame assembly mass	2515 kg	5545 lbs
Scissors assembly mass	1960 kg	4321 lbs
Platform assembly mass	972 kg	2143 lbs
Mass of one wheel	92 kg	203 lbs
Battery mass	22 kg	49 lbs

Specifications	H15 SX SI	HS4388 RT Imp.
Frame assembly mass	2870 kg	6327 lbs
Scissors assembly mass	2500 kg	5512 lbs
Platform assembly mass	850 kg	1874 lbs
Counterweight mass	355 kg	783 lbs
Mass of one wheel	92 kg	203 lbs
Battery mass	22 kg	49 lbs

Specifications	H15 SXL SI	- Imp.
Frame assembly mass	2870 kg	6327 lbs
Scissors assembly mass	2502 kg	5516 lbs
Platform assembly mass	972 kg	2143 lbs
Counterweight mass	355 kg	783 lbs
Mass of one wheel	92 kg	203 lbs
Battery mass	22 kg	49 lbs

E - General Specifications

Specifications	H18 SX SI	HS5388 RT Imp.
Frame assembly mass	2870 kg	6327 lbs
Scissors assembly mass	3470 kg	7650 lbs
Platform assembly mass	850 kg	1874 lbs
Counterweight mass	355 kg	783 lbs
Mass of one wheel	92 kg	203 lbs
Battery mass	22 kg	49 lbs

Specifications	H18 SXL SI	- Imp.
Frame assembly mass	2870 kg	6327 lbs
Scissors assembly mass	3470 kg	7650 lbs
Platform assembly mass	972 kg	2143 lbs
Counterweight mass	355 kg	783 lbs
Mass of one wheel	92 kg	203 lbs
Battery mass	22 kg	49 lbs

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	104 dBA
Vibrations hand/arm	Vibration transmitted by this MEWP to the hand-arm does not exceed 2,5 m/s^2(98,4 in/s^2)
Vibrations whole body	Vibration transmitted by this MEWP to the whole body does not exceed 0,5 m/s^2(19,6 in/s^2)

4 - Wheel/Tire assembly

4.1 - TECHNICAL SPECIFICATIONS

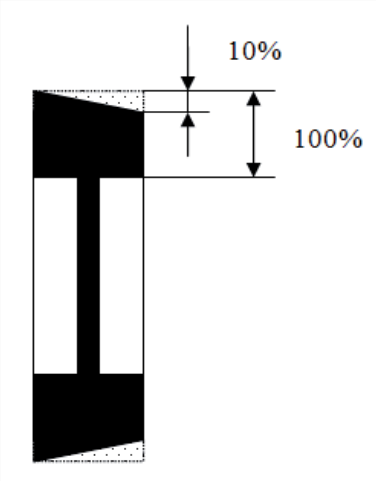
H12 SX - HS3388 RT - H12 SXL - HS3388 RT XL - H15 SX - HS4388 RT - H15 SXL - H18 SX - HS5388 RT - H18 SXL

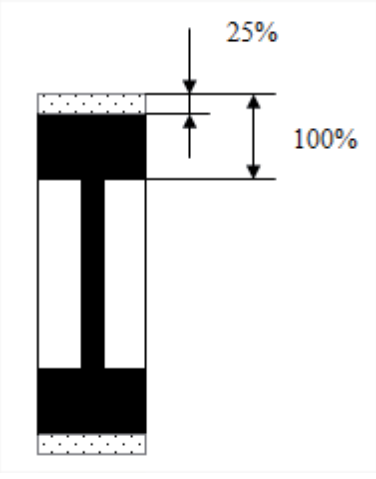
Component	Standard wheel
Reference number	Solideal XTRA WALL - 10-16,5
Type	Notched tires/tyres
Size (Diameter / Width)	420 mm / 255 mm (17 in / 10 in)
Torque	320 Nm (ft lbs)

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.

4.2.1 - Procedure of replacement

1. Loosen the wheel nuts on the wheel to be removed.
2. Raise the machine using a jack or a hoist.
3. Remove the wheel nuts.
4. Remove the wheel.
5. Install the new wheel.
6. Tighten the wheel nuts to the recommended torque.
7. Lower the machine to the ground

5 - Options

5.1 - ON-BOARD GENERATOR

5.1.1 - Principle

For H12/15/18SX(L) (HS3388/4388/5388RT(XL))

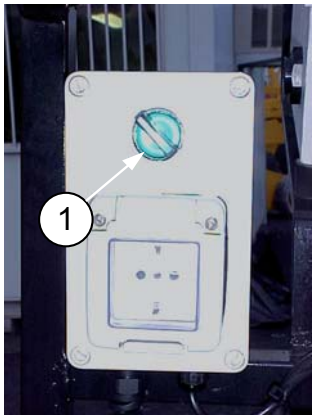
The on-board generator supplies voltage (220 V or 110 V depending on the option) in the platform ; able to connect a tool with the maximum power of 3 kW (4 hp).

Do not expose the on-board generator to direct contact with a water beam or a high pressure cleaner.

5.1.2 - Procedure

Put into service :

1. Start up the machine with the platform control box (or platform). Heat the engine for 15 mn before any operation.
2. Set the switch selector, above the socket power, to ON (1). The starting of the generator will begin only when all Leds of the platform control box are off (No movement therefore selected). The engine accelerate. The green light comes on indicating the on-board generator start-up.
3. Connect the tool to the socket.
4. You can change the tool at any time.



***N.B.**-:-When using the on-board generator, you cannot make any machine movements. To make a movement, you must switch off the on-board generator.*

Power off :

5. Disconnect the tool from the socket.
6. Set the switch selector, above the socket power, to OFF. The green light is turned off.
7. Machine movements are once again functional.

The tension varies according to hydraulic oil.

5.2 - FOLDING GUARDRAILS

5.2.1 - Description

Folding guardrails system is designed to allow guardrails to be lowered to reduce the overall height of the machine.

This system facilitates moving the machine through low height doorways/passages.

5.2.2 - Safety precautions

- **Fully lower the platform to the stowed position.**
- **Take care to avoid trapping the hands while folding the guardrails.**
- **User must wear gloves.**
- **Keep hands clear of pinch points.**
- **Perform the folding of the guardrails from outside of the platform.**

5.2.3 - Fold down operation

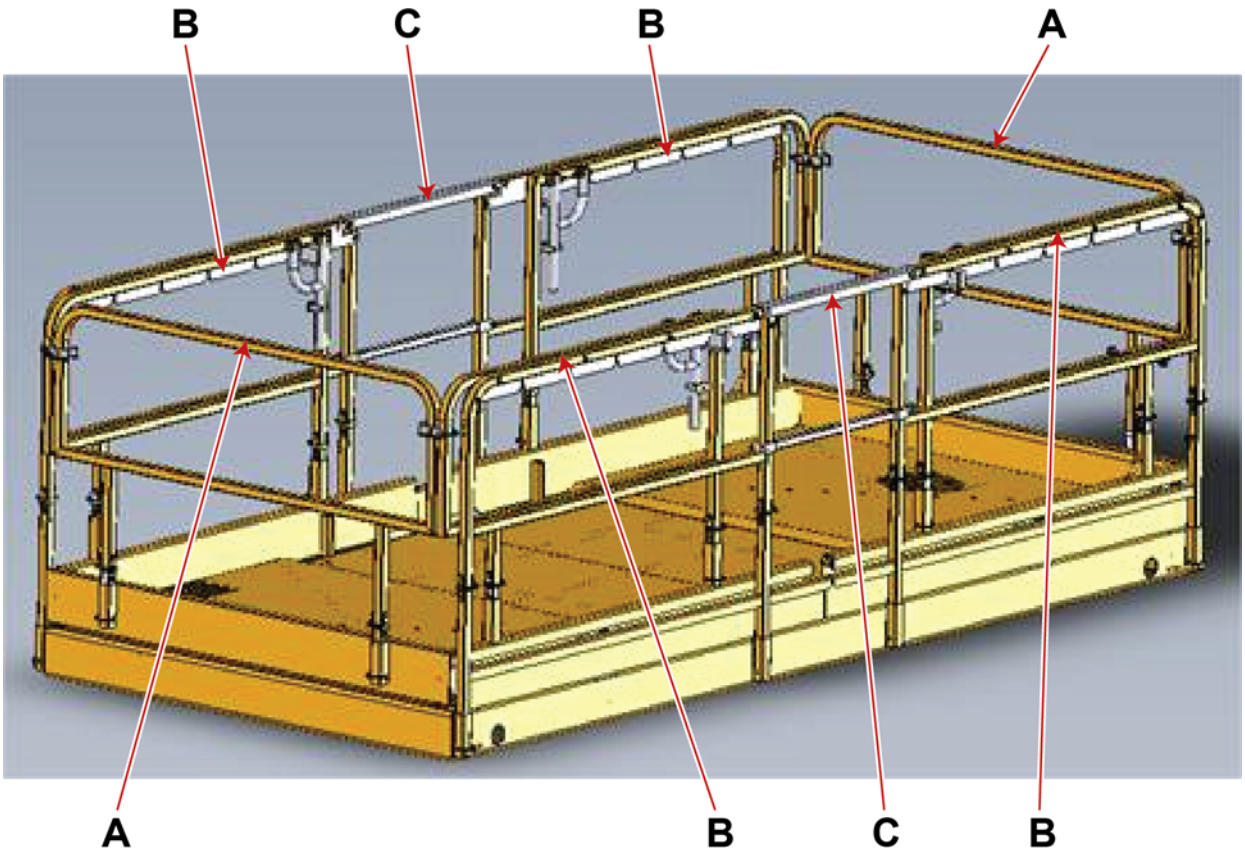
- Extension deck must be fully retracted and in locked position.
- The intermediate sliding entrance bar must be at its lowest position.

E - General Specifications

Remove platform control box from its designated position and place it on platform floor.

All guardrails are to be folded inwards onto the platform floor in the following order :

1. the 2 guardrails at the ends (A) ;
2. the 4 side guardrails of the extensions (B) ;
3. the side guardrails of the main platform (C).



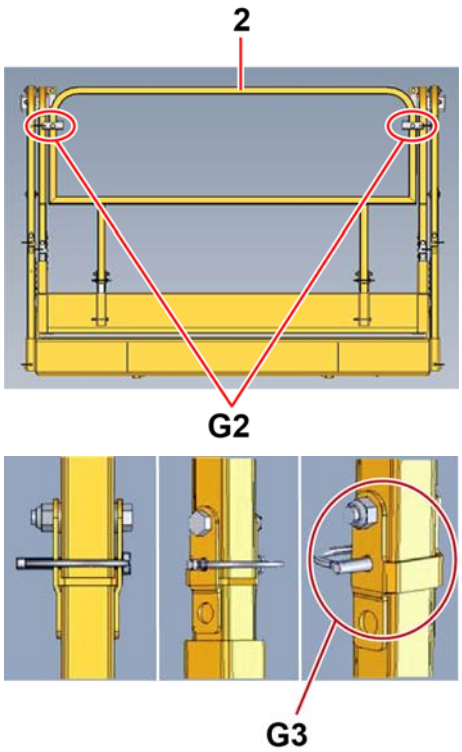
E - General Specifications

Remove the 2 pins (G2) from the platform front guardrails.

Remove the connections (G3) between the guardrail and the platform.

Tip element (2) inwards onto the platform floor.

Do the same thing with the guardrail on the other end (A).



For each of the side guardrails of the extensions (B) :

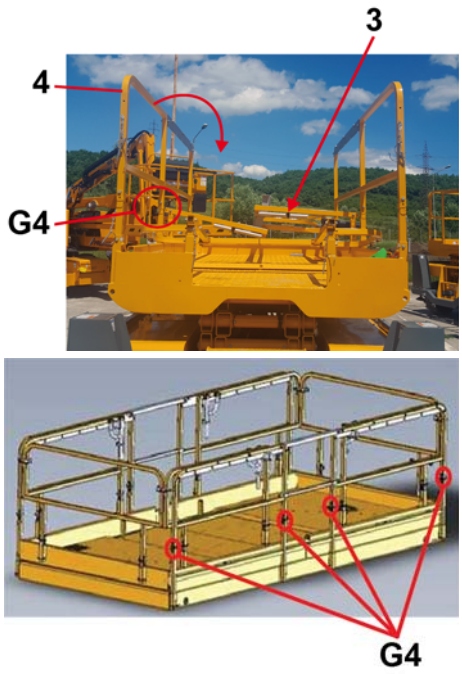
- Unlock the handle (P1).
- Remove the pins (G3) of the extension guardrail.
- Lift the guardrail and slowly tip it inwards, onto the platform floor.

Fold down the side guardrails of the main platform.

E - General Specifications

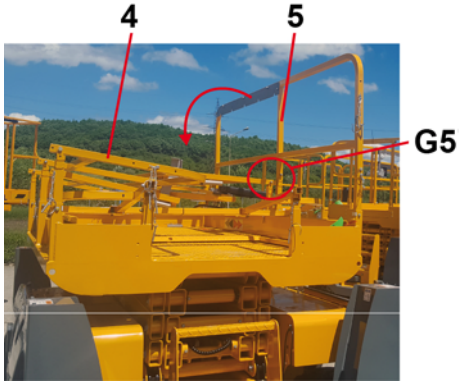
Remove the connections (G4) between the guardrail and the platform.

Lift the right side guardrail (4) and slowly tip it inwards until it contacts element (3).



Remove the connections (G5) between the guardrail and the platform.

Lift the left side guardrail (5) and slowly tip it inwards until it contacts element (4).



5.2.4 - Raising guardrails to working position

To raise the folded guardrails to the vertical working position :

- Follow the fold down operational sequence in the reverse order.
- Ensure all pins are installed and secured.

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 local regulations.

To ensure your equipment continues to achieve the level of performance set in the factory, it is important to maintain it regularly. We remind you that it is strictly forbidden to make any modifications. 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. In accordance with the regulations that are currently applicable, this machine is deisgned to have a 10 year life span in normal usage conditions. 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 or by a competent company or person.

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.

To check for safety campaigns, consult our website :

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.*

Notes

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.

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.

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 : hlgindia@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 : adv-gmbh@haulotte.com www.haulotte.de		HAULOTTE VOSTOK 61A, bld.1, RYABINOVAYA STREET 121471 MOSCOW RUSSIA **TEL/FAX : +7 495 221 53 02 / 03** E-mail : salesrus@haulotte.com www.haulottevostok.ru		HAULOTTE DO BRASIL Av. Alameda Caiapós, 589 CEP: 06460-110 – TAMBORE BARUERI – SAO PAULO – BRASIL **TEL : +55 11 4196 4300** FAX : +55 11 4196 4316 E-mail : haulottebrasil@haulotte.com 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 : E-mail : haulottepolska@haulotte.com www.haulotte.pl		HAULOTTE MÉXICO, S.A. de C.V. Calle 40 SUR ESQUINA 13 ESTE No. S/N Colonia CIVAC, JIUTEPEC, MORELOS CP 62578 México **TEL : +52 77 7321 7923** FAX : +52 77 7516 8234 E-mail : haulotte.mexico@haulotte.com www.haulotte.com.mx
	HAULOTTE in JAPAN SBJ ShinOsaka BLDG 3F 4-6-5 Nishinakajima Yodogawa-ku, Osaka, JAPAN, Post Code: 532-0011 **TEL : +81 6 6795 9008** FAX : +81 6 6795 9009 www.haulotte.com		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.ae
	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.com.ar
	HAULOTTE UK Ltd 1 Gravely Way Four Ashes Wolverhampton WV10 7GW ENGLAND **TEL : +44 (0)1216 199753** FAX : + 44 (0)1952 292758 E-mail : salesuk@haulotte.com www.haulotte.co.uk		HAULOTTE GROUP / BILJAX 125 TAYLOR PARKWAY ARCHBOLD, OH 43502 – USA **TEL : +1 419 445 8915** FAX :+1 419 445 0367 Toll free : +1 800 537 0540 E-mail : sales@us.haulotte.com www.haulotte-usa.com		HAULOTTE NORTH AMERICA 3409 Chandler Creek Rd. VIRGINIA BEACH, VA 23453 – USA **TEL : +1 757 689 2146** FAX :+1 757 689 2175 Toll free : +1 800 537 0540 E-mail : sales@us.haulotte.com www.haulotte-usa.com
	HAULOTTE NETHERLANDS BV Koopvaardijweg 26 4906 CV OOSTERHOUT - Nederland **TEL : +31 (0) 162 670 707** FAX : +31 (0) 162 670 710 E-mail :info@haulotte.nl www.haulotte.nl		HAULOTTE AUSTRALIA PTY Ltd 51 Port Link Drive DANDENONG – VIC – 3175 **TEL : 1 300 207 683** FAX : +61 (0)3 9792 1011 E-mail : sales@haulotte.com.au www.haulotte.com.au		HAULOTTE CHILE Panamerica Norte Altura Km 21,5 Colina (Cruce c/Lo Pinto) Santiago (RM) **TEL : + 562 2 3727630** E-mail : haulotte-chile@haulotte.com www.haulotte-chile.com

2.1 - CALIFORNIA WARNING

For the engine powered machines destined to the US market (Standards ANSI and CSA)

CALIFORNIA

Proposition 65 Warning

Operating, servicing and maintaining a passenger vehicle or off-road vehicle can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle.

For more information go to www.P65Warnings.ca.gov/passenger-vehicle

CALIFORNIA

Proposition 65 Warning

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- Always start and operate the engine in a well-ventilated area
- If in an enclosed area, vent the exhaust to the outside
- Do not modify or tamper with the exhaust system
- Do not idle the engine except as necessary

For more information go to www.P65Warnings.ca.gov/diesel