

For online reference and to download the manuals for your machines HAULOTTE®, go to :  
<https://www.e-technical-information.com>  
or, scan the QR Code below :



# STAR 6 - STAR 13

Operator's manual

STAR 6 - STAR 13





# A

## FOREWORD

- 1 - User responsibility . . . . . 8**
  - 1.1- Owner's responsibility . . . . . 8
  - 1.2- Employer's responsibility . . . . . 8
  - 1.3- Trainer's responsibility . . . . . 8
  - 1.4- Operator's responsibility . . . . . 9
- 2 - Safety . . . . . 10**
  - 2.1- Safety instructions . . . . . 10
    - 2.1.1- Incorrect use . . . . . 10
    - 2.1.2- Falling Hazards . . . . . 10
    - 2.1.3- Overturning / Tip-over Hazards . . . . . 12
    - 2.1.4- Risk of electric shock (electrocution) . . . . . 14
    - 2.1.5- Explosion / Fire Hazards . . . . . 15
    - 2.1.6- Crushing / Collision Hazards . . . . . 15
    - 2.1.7- Risk of involuntary movements . . . . . 16
- 3 - Safety inquiries . . . . . 17**
- 4 - Incident notification . . . . . 17**
- 5 - Compliance . . . . . 18**
  - 5.1- Product modification . . . . . 18
    - 5.1.1- Implementing manufacturer safety campaigns . . . . . 18
  - 5.2- Product specifications . . . . . 18
  - 5.3- Change of Ownership Notification . . . . . 19
  - 5.4- Declaration of conformity . . . . . 20

# B

## FAMILIARIZATION

- 1 - General safety . . . . . 23**
  - 1.1- Intended use . . . . . 23
  - 1.2- Decal content . . . . . 24
  - 1.3- Symbols and colors . . . . . 25
  - 1.4- Level of severity . . . . . 26
  - 1.5- Symbols legend and definitions . . . . . 27
- 2 - Models description . . . . . 28**
- 3 - Primary machine components . . . . . 30**
  - 3.1- Layout . . . . . 30
  - 3.2- Maintenance support . . . . . 34
  - 3.3- Extension deck (If fitted) . . . . . 35
  - 3.4- Ground control box . . . . . 36
    - 3.4.1- Layout . . . . . 36
    - 3.4.2- HAULOTTE Activ'Screen . . . . . 37
      - 3.4.2.1- LCD screen . . . . . 38
  - 3.5- Platform control box . . . . . 42
    - 3.5.1- Layout . . . . . 42
- 4 - Performance Specifications . . . . . 44**
  - 4.1- Technical characteristics . . . . . 44
  - 4.2- Working area / Range of motion . . . . . 46
- 5 - Decals and markings locations . . . . . 49**

# CONTENTS



# C

## PRE-OPERATION INSPECTION

<b>1 - Recommendations</b> . . . . .	<b>59</b>
<b>2 - Working area assessment</b> . . . . .	<b>59</b>
<b>3 - Inspection and Functional test</b> . . . . .	<b>60</b>
3.1- Daily inspection . . . . .	60
<b>4 - Safety functional checks</b> . . . . .	<b>63</b>
4.1- E-Stop button check . . . . .	63
4.2- Activation of controls . . . . .	64
4.3- Fault detector . . . . .	64
4.3.1- Buzzers test . . . . .	64
4.4- Overload sensing system . . . . .	64
4.5- Slope warning device . . . . .	65
4.6- Travel speed limitation . . . . .	65
4.7- Electronic variable speed drive . . . . .	65
4.8- On-board electronics . . . . .	65
4.9- Machine braking . . . . .	66
4.10- Wheel motor brake release . . . . .	66
4.11- Pothole protection system . . . . .	66
4.12- On-board charger . . . . .	66

# D

## OPERATION INSTRUCTIONS

<b>1 - Operation</b> . . . . .	<b>67</b>
1.1- Introduction . . . . .	67
1.2- Operation from the ground control box . . . . .	68
1.3- Operation from the platform control box . . . . .	69
<b>2 - Ground control box</b> . . . . .	<b>70</b>
2.1- To start and stop the machine . . . . .	70
2.2- Movement control . . . . .	70
2.3- Additional controls . . . . .	70
<b>3 - Platform control box</b> . . . . .	<b>71</b>
3.1- To start and stop the machine . . . . .	71
3.2- Drive and steer control . . . . .	71
3.3- Movement control . . . . .	72
3.4- Additional controls . . . . .	72
<b>4 - Rescue and emergency procedures</b> . . . . .	<b>73</b>
4.1- Mast manual lowering procedure . . . . .	73
4.2- Exit from platform when elevated . . . . .	73



# CONTENTS

<b>5 - Transportation</b> .....	<b>74</b>
5.1- Transport configuration .....	74
5.2- Machine stowage for transport - STAR 6 - STAR 13 - STAR 8S - STAR 20 .....	74
5.3- Unloading .....	75
5.4- Towing .....	75
5.4.1- Electric brake release .....	76
5.5- Storage .....	77
5.6- Loading by ramp .....	78
5.7- Unloading by ramp .....	78
5.8- Lifting operation .....	79
5.8.1- Lifting with spreaders .....	79
5.8.1.1- Safety precautions .....	79
5.8.1.2- Necessary equipment .....	79
5.8.1.3- Preliminary procedures .....	80
5.8.1.4- Procedure for the use of slings - with spreader .....	80
5.8.2- Lifting without spreader .....	82
5.8.2.1- Safety precautions .....	82
5.8.2.2- Necessary equipment .....	82
5.8.2.3- Preliminary procedures .....	82
5.8.2.4- Procedure for the use of slings - without spreader .....	83
5.9- Loading and unloading with forklift .....	84
<b>6 - Cold Weather Recommendations</b> .....	<b>85</b>
6.1- Environmental conditions .....	85
6.1.1- Hydraulic oil .....	85
<b>7 - Battery care and maintenance</b> .....	<b>86</b>
7.1- Battery recharge .....	86
7.1.1- On-board charger .....	86
7.1.2- Battery charging .....	88
7.2- Battery care and maintenance .....	90
7.2.1- Filling batteries .....	90
7.2.1.1- Procedure to fill the batteries manually – Option .....	91
7.2.1.2- Procedure to fill the batteries automatically – Option .....	93
7.2.2- Desulfation charge .....	94
7.3- Optimise battery life .....	95

## E

### GENERAL SPECIFICATIONS

<b>1 - Machine dimensions</b> .....	<b>98</b>
<b>2 - Major component masses</b> .....	<b>100</b>
<b>3 - Acoustics and vibrations</b> .....	<b>101</b>
<b>4 - Wheel/Tire assembly</b> .....	<b>102</b>
4.1- Technical specifications .....	102
4.2- Inspection and maintenance .....	102
4.2.1- Procedure of replacement .....	103



**F****MAINTENANCE**

<b>1 - General</b> .....	<b>107</b>
<b>2 - Maintenance Schedule</b> .....	<b>108</b>
<b>3 - Inspection program</b> .....	<b>109</b>
3.1- General program .....	109
3.2- Daily inspection .....	109
3.3- Periodic inspection .....	110
3.4- Reinforced inspection .....	110
3.5- Major inspection .....	110
<b>4 - Repairs and adjustments</b> .....	<b>111</b>

**G****OTHER INFORMATION**

<b>1 - Conditions of warranty</b> .....	<b>113</b>
<b>2 - Subsidiary contact information</b> .....	<b>113</b>
2.1- California warning .....	114

**H****INTERVENTION REGISTER**

<b>1 - Intervention register</b> .....	<b>117</b>
--	------------



# 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 the safe and appropriate use of this equipment, only trained personnel are authorised to use and carry out maintenance on the aerial work platform.

**We would particularly like to draw your attention to 2 essential points :**

- Comply with safety instructions.
- use this equipment within the performance limits specified by this user manual.

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.**

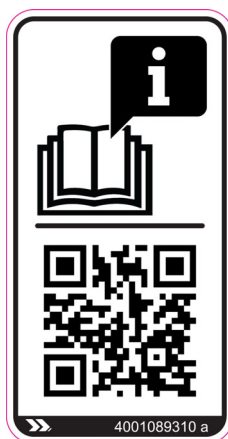
The user manual does not replace the necessary training that is required for all of this machine's operators. HAULOTTE® has compiled this manual to assist in safe and efficient operation of the products covered in the manual. The manual must be available to all operators and must be kept in a legible condition. Additional copies can be ordered from HAULOTTE Services®.

**Stay Safe and keep working with HAULOTTE® !**

For online reference and to download the manuals for your machines HAULOTTE®, go to :

<https://www.e-technical-information.com>

or, scan the QR Code below :



# A - Foreword

## 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.
- Follow local regulations regarding operation of the machine.
- Replace all manuals or labels that are missing or in poor condition. 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 (or plant superintendent) is required :

- To train and check the training of users.
- To authorise the trained user(s) 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, convulsions, 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 include all of the instructions in this manual.
- The training must be given in an obstacle-free area until the trainee is considered competent as defined by the training program undertaken.



# A - Foreword

## 1.4 - OPERATOR'S RESPONSIBILITY

The operator has the obligation to :

- Read and understand the contents of this manual and familiarize himself/herself 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.
- Inform the owner (or hirer) of any machine malfunction.

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.



**All users (driver, passenger, maintainer, transporter, etc.) must familiarise themselves with the emergency controls and machine operation in case of an emergency.**

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

A

B

C

D

E

F

G

H


I

# A - Foreword

## 2 - Safety

### 2.1 - SAFETY INSTRUCTIONS


#### 2.1.1 - Incorrect use

- Do not use the machine outside of the conditions specified in this manual.
  - Do not use the machine as a crane, material lift or elevator.
- 
- Do not use the work platform as a hoisting machine (crane) by suspending a load outside of 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 the wheels installed in the factory with wheels with different characteristics.
  - Do not alter or disable machine components that in any way affect safety and stability.
  - Do not disable the safety devices.
  - Do not use the machine if a label is missing or illegible.
  - Do not damage, modify or hide machine labels or inscriptions.

#### 2.1.2 - Falling Hazards

***N.B.-:THE GUARDRAIL IS THE MAIN PROTECTION SYSTEM AGAINST FALLS FROM THE MOBILE LIFTING PLATFORM (PEMP).***

#### **Before commencing operation :**

- Ensure that guard rails are correctly installed and secured.
  - Ensure that gate or sliding bar is in its securely locked position.
  - If using a machine that has a swing gate, check that the entry gate closes by itself and gate latches and locks.
  - Remove oil or grease from the steps, floor, handrail and the guardrails.
  - Clean the floor of the platform (no debris).
- 

# A- Foreword

## To enter or exit from the platform :

- The machine must be completely stowed (Access configuration).
- Face the machine to access the opening to the platform.
- Keep 3 points of contact (both hands and a foot) on the steps and the guardrail.
- Keep fingers away from moving parts near entry gate.



## When in the platform :

- Where personal fall protection equipment (FPE) is required by the employer, a competent authority or local regulations, we recommend using a full harness with a safety line.
- Personal fall protection equipment must only be fastened to approved fall protection anchoring points on the platform provided for this purpose.
- Refer to this decal located on the platform.
- Safety lines must never be attached to an object or structure outside of the work 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 on the gate or sliding bar.
- 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.



A

B

C

D

E

F

G

H

I

# A- Foreword

## 2.1.3 - Overturning / Tip-over Hazards

### Before positioning and operating the machine :


- Ensure that the surface is capable of supporting the machine weight including the rated capacity. Check the load bearing capacity of the supporting ground.
- 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.
- Position loads uniformly in the centre of the work platform.
- Do not use the machine at wind speeds that are above the permissible threshold. Refer to the display on the work platform to view the permissible wind speed.
- Do not increase the surface area of the platform exposed to wind. This includes adding panels, mesh, banners. Failure to follow this instruction may lead to a loss of stability and as a result, the machine could tip over.
- Do not raise the platform or drive with mast raised on inclines exceeding the rated slope.
- Do not drive the machine on slopes or grades exceeding the specified limits.
- Do not pull or push towards any object outside of the platform. Do not exceed the maximum allowable side force stated in the performance specifications.
- Do not use the machine to support any external structure.
- Do not use the machine to tow other machines or to drag materials.



# A - Foreword

Using the 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.



While machine is on a slope, take extra precautions :

- to make sure that the machine does not over steer.
- to make sure there is NO loss of traction causing machine movement.

WIND: the aerial work platform can be used up to the maximum wind speed indicated in the specifications in this manual. To identify the local wind speed, use the Beaufort scale below, 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

# A- Foreword

## 2.1.4 - Risk of electric shock (electrocution)



**Risk of death or serious injuries.**

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

Always position all parts of the aerial work platform, the occupants, accessories and tools at a reasonable distance from power lines to ensure that no part of the work platform accidentally comes into contact with a power line.

Apply local regulations pertaining to safety distances. If this is not possible, follow the distances in the table below at a minimum :

### 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

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



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

# A - Foreword

## 2.1.5 - Explosion / Fire Hazards

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

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



**Do not work on or operate a machine in an explosive or flammable atmosphere / environment.**

- Do not touch hot components.
- Do not bridge the battery terminals with metallic objects.
- Do not service the battery in proximity of spark, open flame, lit cigarettes.
- ALWAYS avoid contact with battery acid. Battery acid causes serious burns and should be kept away from skin or eyes. If contact occurs, flush with water and consult a physician immediately.



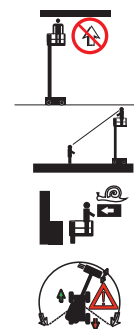
## 2.1.6 - Crushing / Collision Hazards



**Before using the machine, mark out the machine's work and circulation area using a marking system appropriate to the task at hand and the work environment.**

**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.



- Warn personnel not to work, stand, or walk under a raised boom/platform.
- Always ensure that the chassis is never kept 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.

# A- Foreword

- Be aware of driving direction.
  - Check the driving direction with the help of the red or white arrows on the chassis and 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.
- Personal Protection Equipment (EPI) :
  - The occupants of the aerial work platform must wear personal protection equipment and comply with local regulations in force.
  - Operators must comply with the safety standards of the job site and the employer, as well as the applicable state regulations relating to the use of personal protective equipment.
  - All personal fall protection equipment (PFPE) must comply with current regulations, must be inspected and used in accordance with the manufacturer's instructions.
- 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 - Risk of involuntary movements

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).



**While machine is on a slope, take extra precautions :**

- **to make sure that the machine does not over steer.**
- **to make sure there is NO loss of traction causing machine movement.**



# A - Foreword

## 3 - Safety inquiries

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

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

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

## 4 - Incident notification

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

<p>HAULOTTE Group - EUROPE Product Safety Department</p> <p>Address : Rue Emile Zola - 42420 Lorette - France</p> <p>Tel : +33 (0)4 77 29 24 24</p> <p>Email : productsafety.europe@haulotte.com</p>	<p>HAULOTTE Group - Australia, India and Asia Product Safety Department</p> <p>Address : No.26 Changi North Way - Singapore 498812 - Singapore</p> <p>Tel : +65 6546 0123</p> <p>Email : productysafety.apac@haulotte.com</p>	<p>HAULOTTE Group - North &amp; South America Product Safety Department</p> <p>Address : 3409 Chandler Creek Rd. - Virginia Beach, VA 23453 - United States</p> <p>Tel : +1 757 689 2146</p> <p>Email : productsafety.americas@haulotte.com</p>
--	---	---

Connect to our website : [www.haulotte.com](http://www.haulotte.com)



# A - Foreword

## 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.

Any requests for modification must be formulated in writing (form) and be 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 : [www.haulotte.com](http://www.haulotte.com)



**Never market (or sell) a machine without first having carried out all of the safety campaigns.**

### 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.

# A- Foreword

## 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 : [www.haulotte.com](http://www.haulotte.com)



A

B

C

D

E

F

G

H

I


# A- Foreword

## 5.4 - DECLARATION OF CONFORMITY



The CE declarations of conformity only apply to machines that have been approved and commissioned within the European Community (EC).

### Declaration of conformity - Electric platforms

**DECLARATION CE DE CONFORMITE  
(EC DECLARATION OF CONFORMITY)**

CE

Fabricant et personne autorisée à constituer le dossier technique : <i>(Manufacturer and the person authorised to compile the technical file:)</i>	Compliance & Regulation Director HAULOTTE GROUP S.A. RUE EMILE ZOLA
HAULOTTE GROUP	42420 LORETTE FRANCE
Adresse du site de production <i>(Address of the Division)</i>	Nacelle élévatrice de personnel <i>(Mobile Elevating Work Platform)</i>
en conformité avec le modèle type <i>(In compliance with the Model Type)</i>	Modèle type de la machine concernée <i>(Type model of the concerned machine)</i>
Nom commercial <i>(Commercial name)</i>	Nom commercial de la machine concernée <i>(Commercial name of the concerned machine)</i>
Numéro de série <i>(Serial number)</i>	Numéro de série de la machine concernée <i>(Serial number of the concerned machine)</i>
Organisme notifié <i>(Notified body)</i>	Nom et adresse de l'organisme notifié <i>(Name and address of the notified body)</i>
Numéro de certificat <i>(Certificate number)</i>	Numéro de certificat du type de machine <i>(Certificate number of the type of machine)</i>
Charge maximale d'utilisation <i>(Rated capacity)</i>	Charge maximale d'utilisation de la machine concernée <i>(Rated capacity of the concerned machine)</i>

Nous déclarons que cette machine est conforme aux dispositions des Directives suivantes  
*(We hereby declare that this machine conforms with all the relevant provisions of the Directives listed below)*

Directive CE Machine <i>(EC Machinery Directive)</i>	2006/42/CE
Se conforme aux principales exigences de la norme harmonisée <i>(This machine also fulfils the principles of the harmonised standard)</i>	EN280:2013 + A1:2015
Directive CE concernant la compatibilité électromagnétique <i>(EC Directive on electromagnetic compatibility)</i>	2014/30/EU
Directive CE RED concernant les équipements radioélectriques (si machine équipée) <i>(RED EC Directive on radio electrical equipment (if machine equipped))</i>	2014/53/UE

Cette déclaration porte exclusivement sur la machine dans l'état où elle a été placée sur le marché  
*(This declaration relates exclusively to the machinery in the state in which it was placed on the market)*

Toute modification de la machine décrite ci-dessus a pour effet d'invalider cette déclaration  
*(Any modification to the above described machine violates the validity of this declaration)*

Nom et signature du Directeur du site de production <i>(Name and signature of the Division Director)</i>	Lieu <i>(Place)</i>  Date <i>(Date)</i>
---	---


haulotte.com

# A- Foreword



UKCA Declarations of Conformity only apply to machines that are certified for England, Wales and Scotland.

## Declaration of conformity - Electric platforms

**Haulotte** 


UKCA DECLARATION OF CONFORMITY

**Manufacturer and the person authorised to compile the technical file:**  
**HAULOTTE GROUP**

**France**

**Certificate number**

**Rated Capacity**



**Nathalie Reynolds**  
General Manager UK and Ireland  
Haulotte UK Ltd

Unit 1 Gravelly Way, Four Ashes  
Wolverhampton, West Midlands WV10 7GW  
ENGLAND

**Mobile Elevating Work Platform**

In compliance with the Model Type	<i>Model Type of the concerned machine</i>
Commercial name	<i>Commercial name of the concerned machine</i>
Serial number	<i>Serial number of the machine</i>
Approved body	
Certificate number	
Rated Capacity	<i>Rated capacity of the concerned machine</i>

We hereby declare that this machine conforms with all the relevant provisions of the Regulations listed below

Supply of Machinery (safety)	2008
This machine also fulfils the principles of the designed standards	BS EN280 : 2013 + A1 : 2015
Electromagnetic compatibility	2016
Radio equipment (if machinery equipped)	2017

**This declaration relates exclusively to the machinery in the state in which it was placed on the market**  
**Any modification to the above described machine violates the validity of this declaration**

Name and signature division director

Date and place

[haulotte.com](http://haulotte.com)

A

B

C

D

E

F

G

H

I

# A- Foreword



## Notes

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

# B - Familiarization

## 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 performance 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.***

# B- Familiarization

## 1.2 - DECAL CONTENT

The purpose of the labels on the machine is to alert the user to the conditions of use and risks related to 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.

The labels must be kept in good condition, otherwise they must be replaced.

Familiarize yourself with the decals and their respective color codes.

Additional decals can be ordered from HAULOTTE Services®.

### CE, UKCA and AS standards



### ANSI and CSA standards



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










# B - Familiarization

## 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

# B - Familiarization

## 1.4 - LEVEL OF SEVERITY

Color	Title	Description
		Danger : Indicates a hazardous situation which if not avoided, <b>WILL</b> result in death or serious injury.
		Warning : Indicates a hazardous situation which if not avoided, <b>COULD</b> 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.

# B- Familiarization

## 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
	Risk of crushing or pinning		Foot crushing hazard		High pressure fluid ejection hazard
			Hand crushing hazard		Crushing hazard
			Health/safety hazards related to chemicals		Burn hazard
	Risk of electrocution		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
	Fall hazard		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
	Use of high-pressure cleaners prohibited		Ensure entry drop rail is down		Overload
	Flames prohibited		Maintain safe clearance from high voltage electrically charged conductors as described in manual - Do not use in thunderstorms		Use appropriate lanyard attached to dedicated anchor point.
	Refer to operator manual		Safety belt		Use safety prop before attempting any maintenance work
	Wheel pressure		Enable switch		Tie down point
	Tow point		Tie down point		Lift point
	Keep away from hot surfaces		Wear protective equipment		

# B - Familiarization

## 2 - Models description

Models	Regulations						
	CE	UKCA	ANSI	CSA	EAC	AS	JIS
STAR 6	✓	✓	✗	✗	✓	✓	✓
STAR 13	✗	✗	✓	✓	✗	✗	✗

### Legend

✓	Available
✗	Not available

# B- Familiarization



## Notes

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

A

**B**

C

D

E

F

G

H

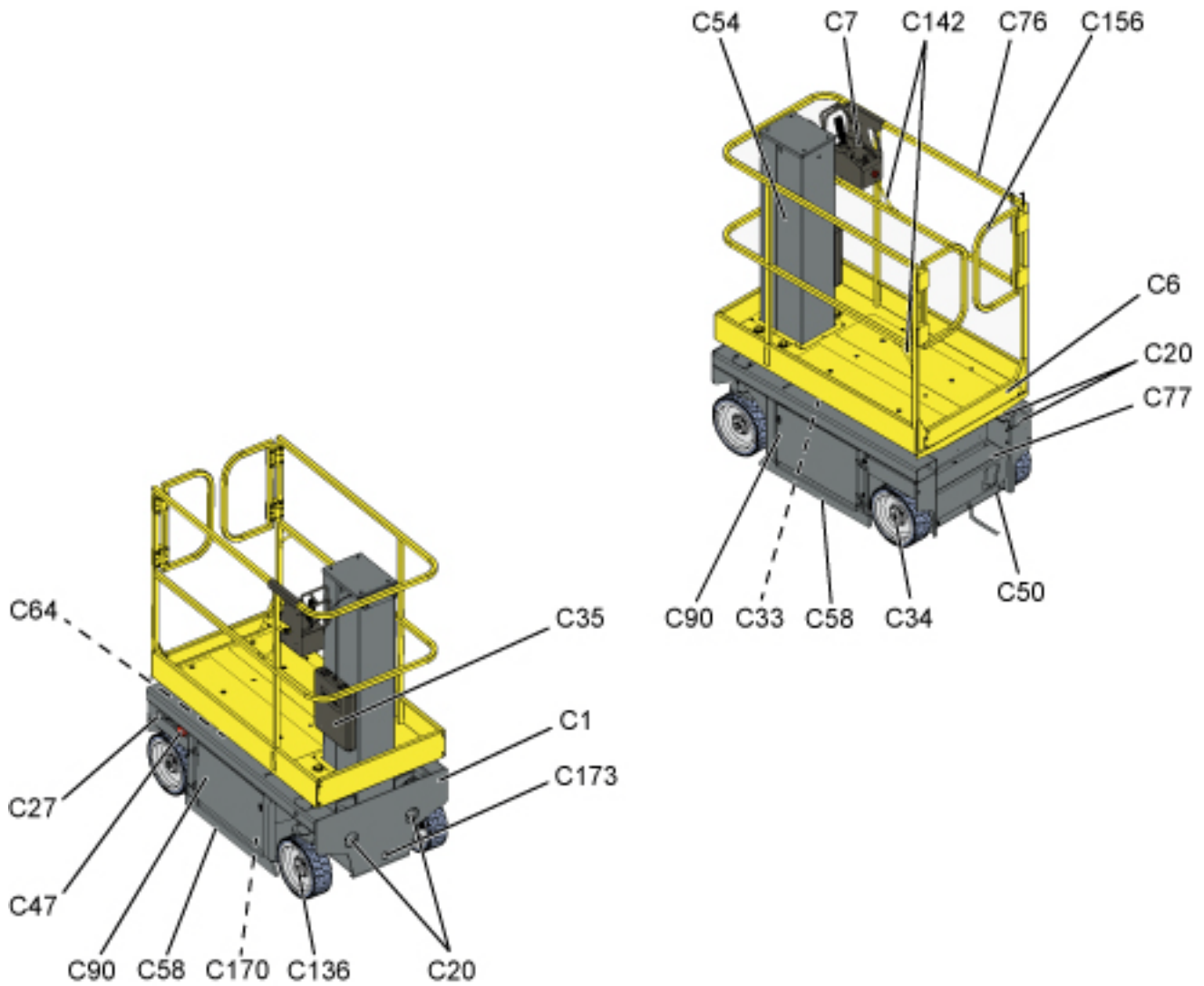
I

# B - Familiarization

## 3 - Primary machine components

### 3.1 - LAYOUT

STAR 6 - STAR 13



# B - Familiarization

Marking	Description	Marking	Description
C1	Chassis	C58	Pothole protection
C6	Platform	C64	Tilt sensor
C7	Platform control box	C76	Guardrail
C20	Tie-down (and/or forklift loading)	C77	Platform access step
C27	Ground control box + Universal plug	C90	Battery bay (block)
C33	Counterweight	C136	Front steer wheels
C34	Rear drive wheels	C142	Lanyard attachment points
C35	Document holder	C156	Platform entry
C47	Battery isolation switch	C170	Brake release switch
C50	Battery charger socket	C173	Emergency lowering valve
C54	Telescopic mast		

U n i v e r s a l   p l u g



A

B

C

D

E

F

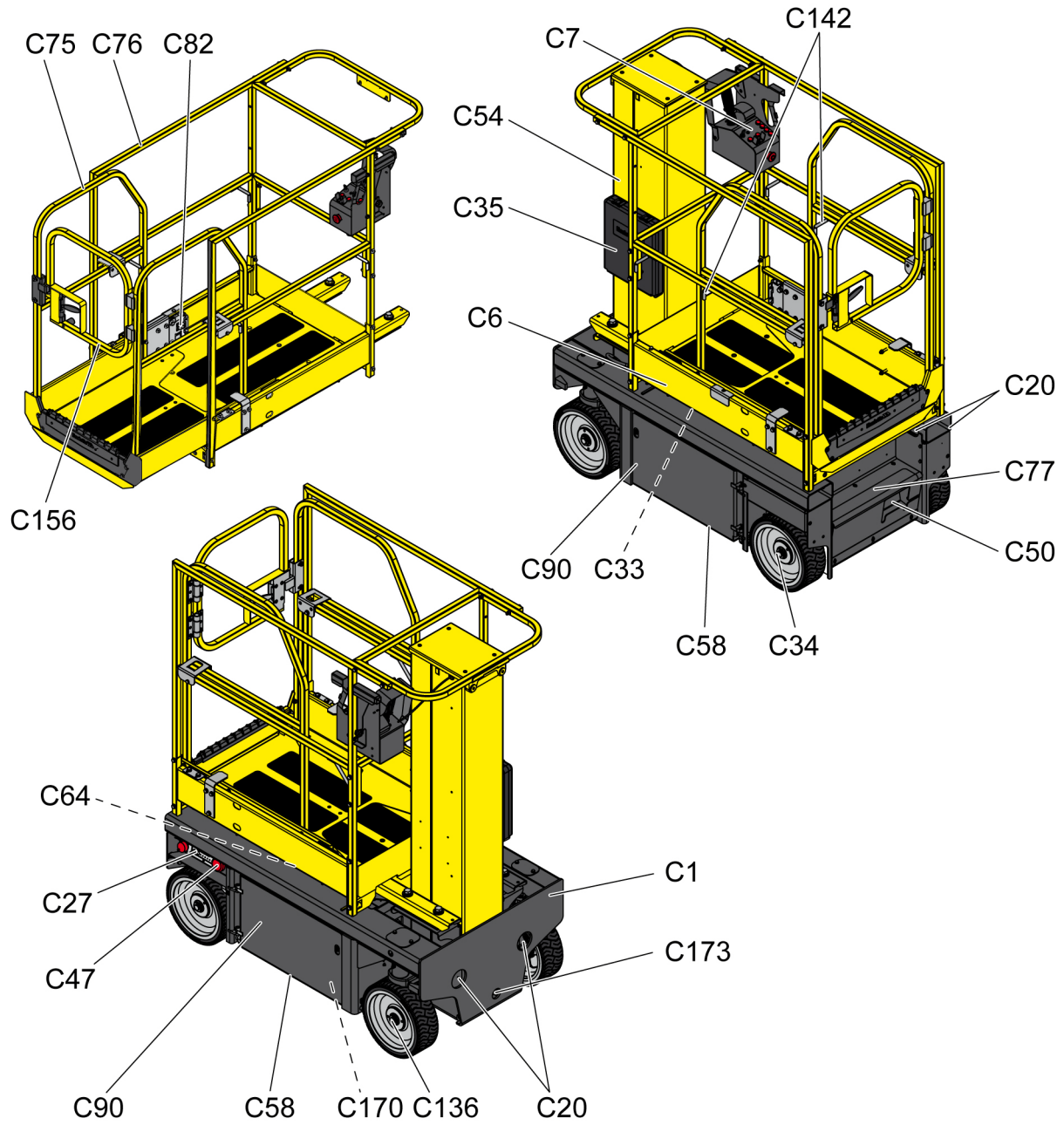
G

H

I

# B - Familiarization

## STAR 6 - STAR 13 with platform extension





# B - Familiarization

Marking	Description	Marking	Description
C1	Chassis	C64	Tilt sensor
C6	Platform	C75	Extension deck
C7	Platform control box	C76	Guardrail
C20	Tie-down (and/or forklift loading)	C77	Platform access step
C27	Ground control box + Universal plug	C82	Unlock pedal extension deck
C33	Counterweight	C90	Battery bay (block)
C34	Rear drive wheels	C136	Front steer wheels
C35	Document holder	C142	Lanyard attachment points
C47	Battery isolation switch	C156	Platform entry
C50	Battery charger socket	C170	Brake release switch
C54	Telescopic mast	C173	Emergency lowering valve
C58	Pothole protection		

## U n i v e r s a l   p l u g



# B - Familiarization

## 3.2 - MAINTENANCE SUPPORT

The maintenance stand must be in place before any maintenance operation is begun.

Placing the machine in maintenance configuration :

- Raise the telescoping mast upto 1,20 m (3 ft 11in).
- Insert the safety prop ( 1 ) in the hole to lock the mast.



**Ensure that the safety prop is properly positioned.**

- Push the E-stop button to cut off the electricity supply.

Putting in use position :

- To put back the machine into its normal operation, reverse the steps used above.



# B - Familiarization

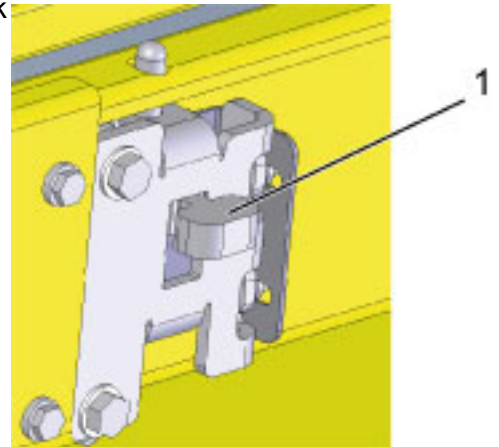
## 3.3 - EXTENSION DECK (IF FITTED)

***N.B.:-DO NOT LOAD THE EXTENSION DECK, FOR EASE OF MANOEUVRING.***

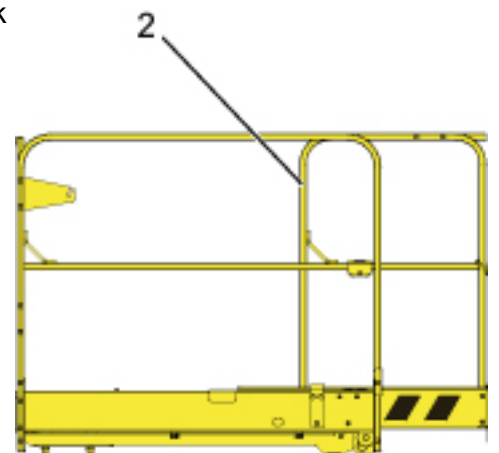
Ensure that gate or sliding bar is in it's proper closed position.

Perform these operations on flat, horizontal ground.

- Press the pedal ( 1 ) to release the extension deck lock pin.



- With pedal ( 1 ) pressed, push the extension deck guard rails ( 2 ) to the extended position.



**Make sure that the extension deck is in locked position.**

To retract the extension deck, press pedal and pull the extension deck rails inwards to the locked position. Release the pedal.

# B - Familiarization

## 3.4 - GROUND CONTROL BOX

### 3.4.1 - Layout

#### General view



#### Controls and indicators

Marking	Name	Description	Function
15	SB801	E-stop button	Pulled out : Ground control box energized
			Pushed in : De-energizes control system
43	HA907	Horn button <sup>1</sup>	Horn
92	SA901	Control box activation key switch	Move upwards : Platform control box energized
			Center : De-energizes control system
			Move downwards : Ground control box energized
105	EL901	Beacon light <sup>2</sup>	Move to the right : Activated
			Move to the left : Off
253	CN03	Diagnostic tool socket	Connection to the diagnostic tool (HaulotteDiag)

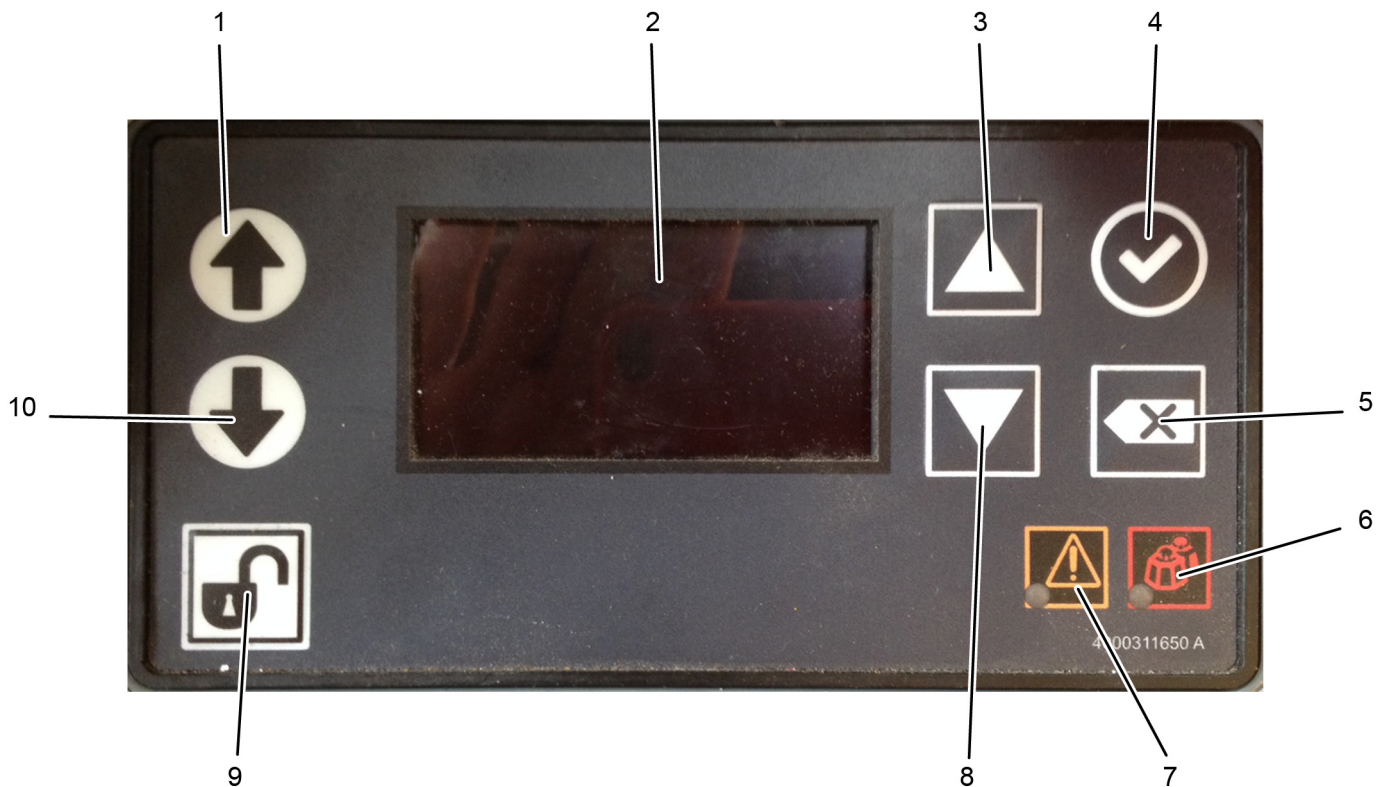
1. For machines fitted with  
 2. For machines fitted with

# B - Familiarization

## 3.4.2 - HAULOTTE Activ'Screen

Upon starting and during operation of the machine, the LCD screen "Activ'Screen" located on the ground control box displays in real time the machine operating status.

### HAULOTTE Activ'Screen



### Controls and indicators

Marking	Description	Function
1	Mast control	Mast lifting
2	LCD screen	Display status of operation of the machine
3	Navigation button	Navigation of menu to select function - Scroll up
4	Confirmation button	Confirmation of the selected function
5	Cancellation button	Go back
6	Platform overload indicator	Overload indicator
7	Machine fault indicator	Constantly lit in the event of an operation malfunction
8	Navigation button	Navigation of menu to select function - Scroll down
9	Enable Switch	Press in and hold : Enable switch
10	Mast control	Mast retraction

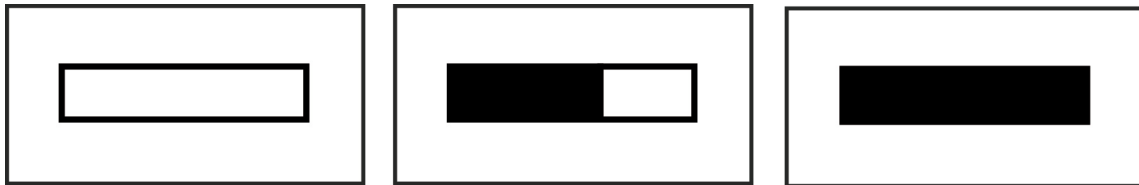
# B- Familiarization

## 3.4.2.1 - LCD screen

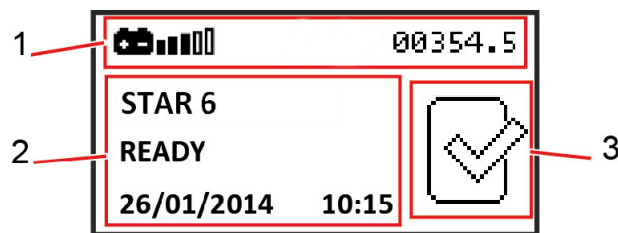
At startup :

At startup with the ground or platform controls selected; system initiates a self check :

- Bar gets filled up.



- Home screen comes on with status icon of the machine - okay to proceed functioning the controls.

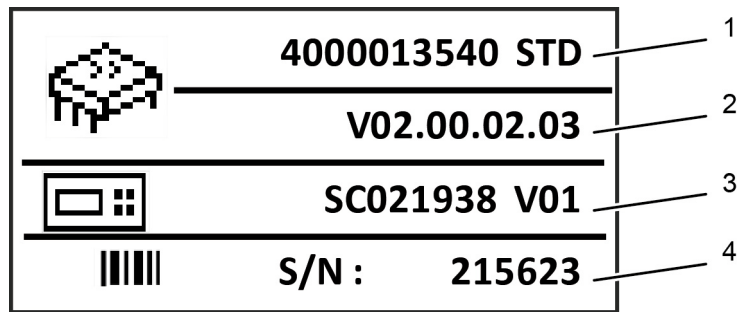


Symbol	Description
1	Information icons
2	Information text
3	Status icon of the machine

Symbol	Description
	Battery status
	Maintenance use
	Fault / alarms
	Hour meter

# B- Familiarization

- Pressing either one of the buttons  , the following screen shot will be displayed :



Symbol	Description
1	Software part number
2	Software version + Screen software version + Screen version
3	Screen identification + Screen software version
4	Machine serial number displayed

- After again pressing either one of the buttons  , the following screen shot will be displayed
- Access code screen comes on - refer to maintenance manual for entering the access code



- Validation by pressing on is active only if access code is known and entered - refer to maintenance manual for the procedure for the different level code usage

# B- Familiarization

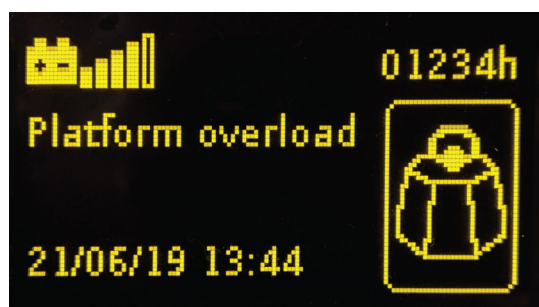
## Alarm status :

Alarm status displayed as applicable - samples shown below

### Tilt :



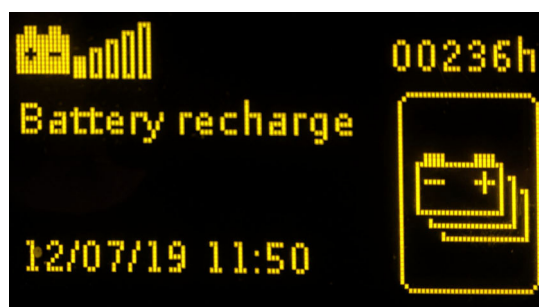
### Overload :



### Low battery :



### Recharge the batteries :



Fully recharge the batteries.



# B- Familiarization

Low battery water level :



Low water tank level :



Present fault :



A

B

C

D

E

F

G

H

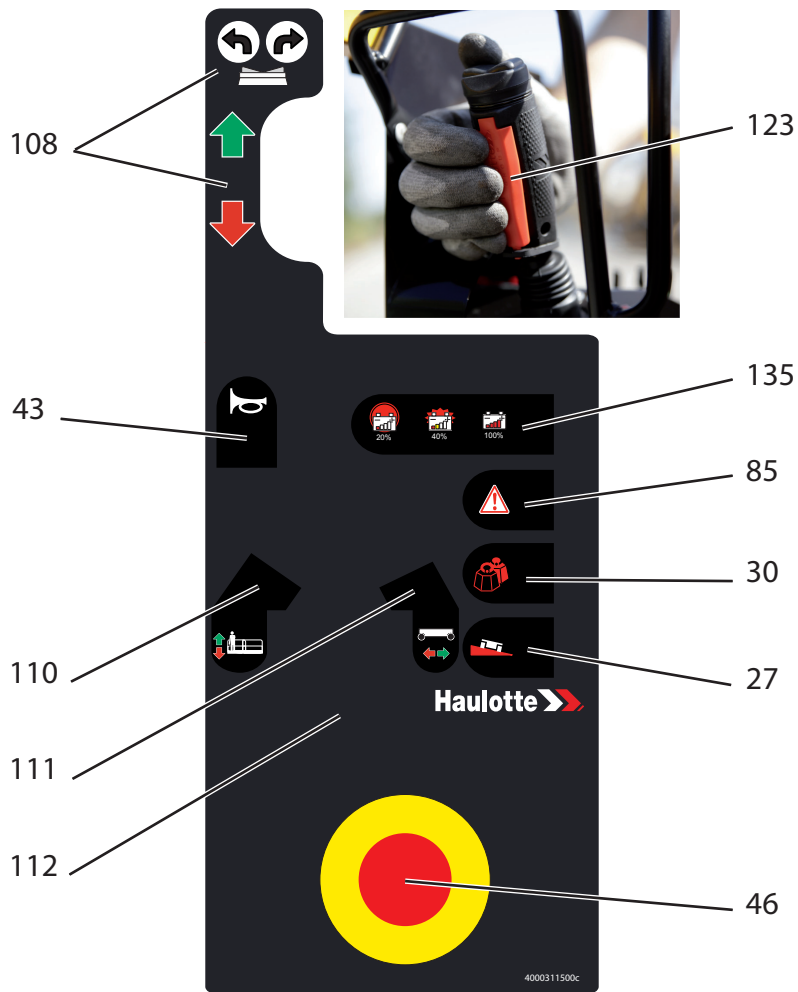
I

# B - Familiarization

## 3.5 - PLATFORM CONTROL BOX

### 3.5.1 - Layout

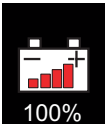


#### General view - STAR 6 - STAR 13



Controls and indicators

Marking	Name	Description	Function
27	HL800	Tilt indicator	Machine on excessive slope
30	HL802	Overload indicator	Overload indicator
43	SA907	Horn button	Move upwards and hold to activate horn
46	SB802	E-stop button	Pulled out : Platform control box power supply energized
			Pushed in : De-energizes control system
85	HL903	Fault indicator	Faulty or tilting machine
108	SM901	Movement joystick	Move forward : Forward drive or mast lifting Move backwards : Reverse drive or mast descent
		Front axle steering selector	Press right side of thumb button : Right-hand steering
			Press left side of thumb button : Left-hand steering
110	HL420	Mast lifting / descent selection indicator	On : Mast lifting / descent selection activated
			Off : Mast extension / retraction movement is not selected

# B - Familiarization

Marking	Name	Description	Function
111	HL100	Driving selection indicator	On : Driving function activated Off : Driving movement is not selected
112	SA908	2-position selector	Move to the left : Mast lifting / descent Move to the right : Drive and steer movements
123	SA905	Enable Switch	Press in : Associated command is validated Release : Associated command movement is halted
135	HL904	Battery charging indicator	 100% Battery charged
			 40% Flashing : Batteries have 40 % charge left
			 20% Constantly on : Batteries have only 20 % charge left

A

**B**

C

D

E

F

G

H

I

# B - Familiarization

## 4 - Performance Specifications

### 4.1 - TECHNICAL CHARACTERISTICS

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



Do not replace parts that are essential to the stability of the machine, such as batteries or tyres, with parts that have a different weight or different specifications. The stability of the machine could be affected.

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

Machine	STAR 6		STAR 13	
<b>Characteristics - Dimensions</b>	<b>SI</b>	<b>Imp.</b>	<b>SI</b>	<b>Imp.</b>
Maximum working height	5,80 m	19 ft 0 in	5,80 m	19 ft 0 in
Maximum platform height	3,80 m	12 ft 6 in	3,80 m	12 ft 6 in
Total weight	862 kg	1,867 lbs	862 kg	1,867 lbs
Maximum platform capacity	230 kg	507 lbs	230 kg	507 lbs
Maximum number of occupants	Indoor use : 2 Outdoor use : 1		Indoor use : 2 Outdoor use : 1	
Maximum wind speed	Indoor use : 0 km/h (0 m/s) Outdoor use : 45 km/h (12,5 m/s)	Indoor use : 0 mph (0 ft/s) Outdoor use : 28 mph (41 ft/s)	Indoor use : 0 km/h (0 m/s) Outdoor use : 45 km/h (12,5 m/s)	Indoor use : 0 mph (0 ft/s) Outdoor use : 28 mph (41 ft/s)
Manual force	Indoor use : 400 N (90 lbf) Outdoor use : 200 N (45 lbf)		Indoor use : 400 N (90 lbf) Outdoor use : 200 N (45 lbf)	
Gradeability	25 %		25 %	
Maximum side rated slope	1,5°		1,5°	
Maximum longitudinal rated slope	3°		3°	
Maximum load on wheel	631 kg	1391 lbs	631 kg	1391 lbs
Maximum ground pressure of wheel on paved ground	12 daN/cm <sup>2</sup>		12 daN/cm <sup>2</sup>	
Drive speed :				
• Folded machine maximum speed	4,5 km/h	2.8 mph	4,5 km/h	2.8 mph
• Unfolded machine maximum speed	0,8 km/h	0.5mph	0,8 km/h	0.5mph
Maximum freewheel speed during towed operation	4,5 km/h	2.8 mph	4,5 km/h	2.8 mph
Outside turning radius	1,56 m	5 ft 1 in	1,56 m	5 ft 1 in
Inside turning radius	0,14 m	6 in	0,14 m	6 in
<b>Energy storage</b>				
Type of battery			Traction	
<b>Standard</b>	<b>Option</b>	<b>Battery weight</b>	<b>System voltage</b>	<b>Battery capacity</b>
X		39 kg(86 lb)	24 V	120 Ah (C5)
	X	29 kg(63 lb)	24V	185 Ah (C5)
	X	30 kg(66 lb)	24 V	195 Ah (C5)
	X	46 kg(101 lb)	24 V	115 Ah (C5)
Hydraulic tank capacity		6 l	1.6 gal US	6 l 1.6 gal US

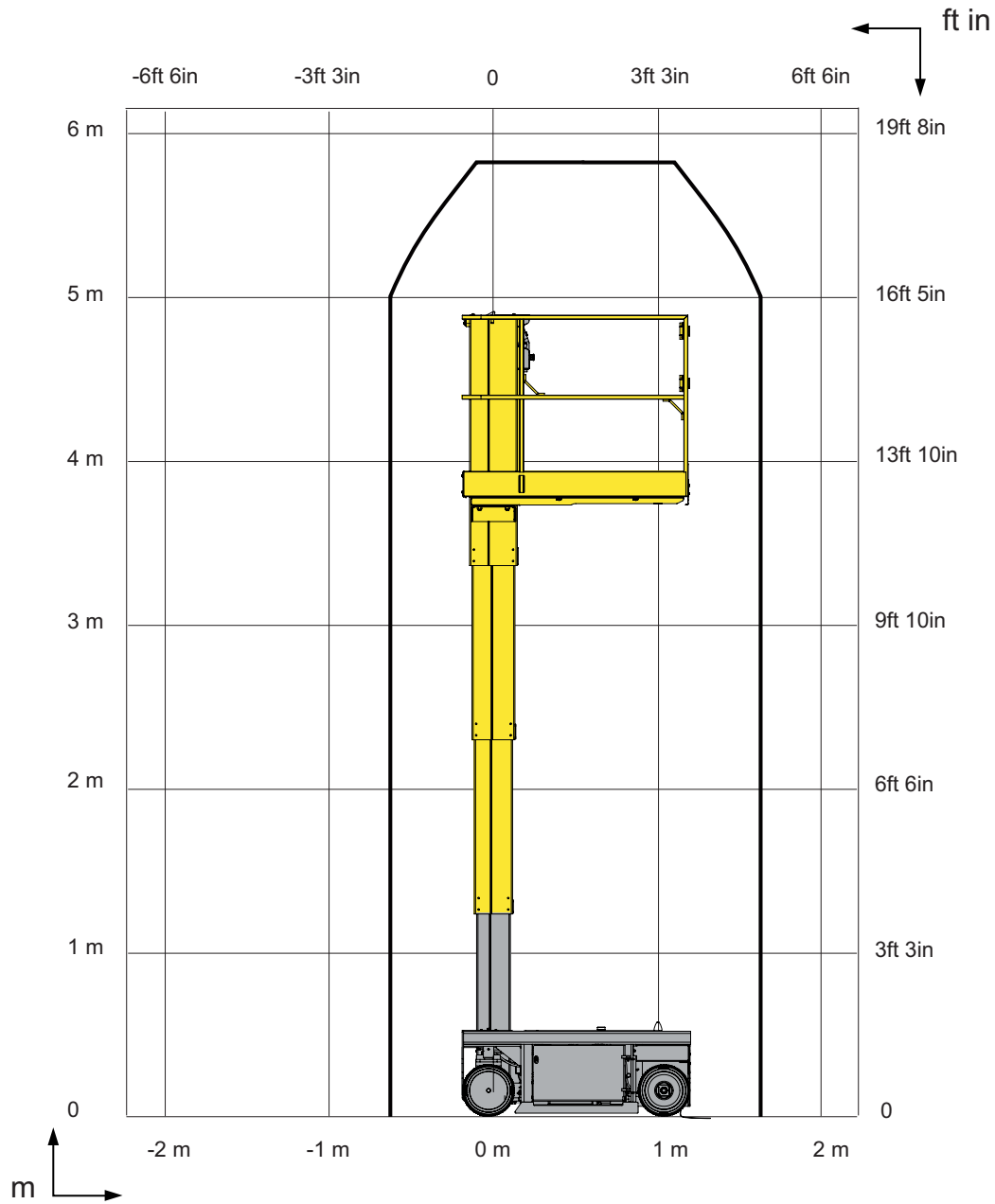
# B - Familiarization

Machine	STAR 6 with platform extension		STAR 13 with platform extension	
Characteristics - Dimensions	SI	Imp.	SI	Imp.
Maximum working height	5,80 m	19 ft 0 in	5,80 m	19 ft 0 in
Maximum platform height	3,80 m	12 ft 6 in	3,80 m	12 ft 6 in
Total weight	910 kg	2,006 lbs	910 kg	2,006 lbs
Number of extensions	1		1	
Extension deck length	0,40 m	1 ft 4 in	0,40 m	1 ft 4 in
Maximum extension deck capacity	120 kg	265 lbs	120 kg	265 lbs
Maximum platform capacity	230 kg	507 lbs	230 kg	507 lbs
Maximum number of occupants	Indoor use : 2 Outdoor use : 1		Indoor use : 2 Outdoor use : 1	
Maximum wind speed	Indoor use : 0 km/h (0 m/s) Outdoor use : 45 km/h (12,5 m/s)	Indoor use : 0 mph (0 ft/s) Outdoor use : 28 mph (41 ft/s)	Indoor use : 0 km/h (0 m/s) Outdoor use : 45 km/h (12,5 m/s)	Indoor use : 0 mph (0 ft/s) Outdoor use : 28 mph (41 ft/s)
Manual force	Indoor use : 400 N (90 lbf) Outdoor use : 200 N (45 lbf)		Indoor use : 400 N (90 lbf) Outdoor use : 200 N (45 lbf)	
Gradeability	25 %		25 %	
Maximum side rated slope	1,5°		1,5°	
Maximum longitudinal rated slope	3°		3°	
Maximum load on wheel	631 kg	1391 lbs	631 kg	1391 lbs
Maximum ground pressure of wheel on paved ground	12 daN/cm <sup>2</sup>		12 daN/cm <sup>2</sup>	
Drive speed :				
• Folded machine maximum speed	4,5 km/h	2.8 mph	4,5 km/h	2.8 mph
• Unfolded machine maximum speed	0,8 km/h	0.5mph	0,8 km/h	0.5mph
Maximum freewheel speed during towed operation	4,5 km/h	2.8 mph	4,5 km/h	2.8 mph
Outside turning radius	1,56 m	5 ft 1 in	1,56 m	5 ft 1 in
Inside turning radius	0,14 m	6 in	0,14 m	6 in
<b>Energy storage</b>				
Type of battery			Traction	
<b>Standard</b>	<b>Option</b>	<b>Battery weight</b>	<b>System voltage</b>	<b>Battery capacity</b>
X		39 kg(86 lb)	24 V	120 Ah (C5)
	X	29 kg(63 lb)	24V	185 Ah (C5)
	X	30 kg(66 lb)	24 V	195 Ah (C5)
	X	46 kg(101 lb)	24 V	115 Ah (C5)
Hydraulic tank capacity	6 l		1.6 gal US	
	6 l		1.6 gal US	

# B - Familiarization

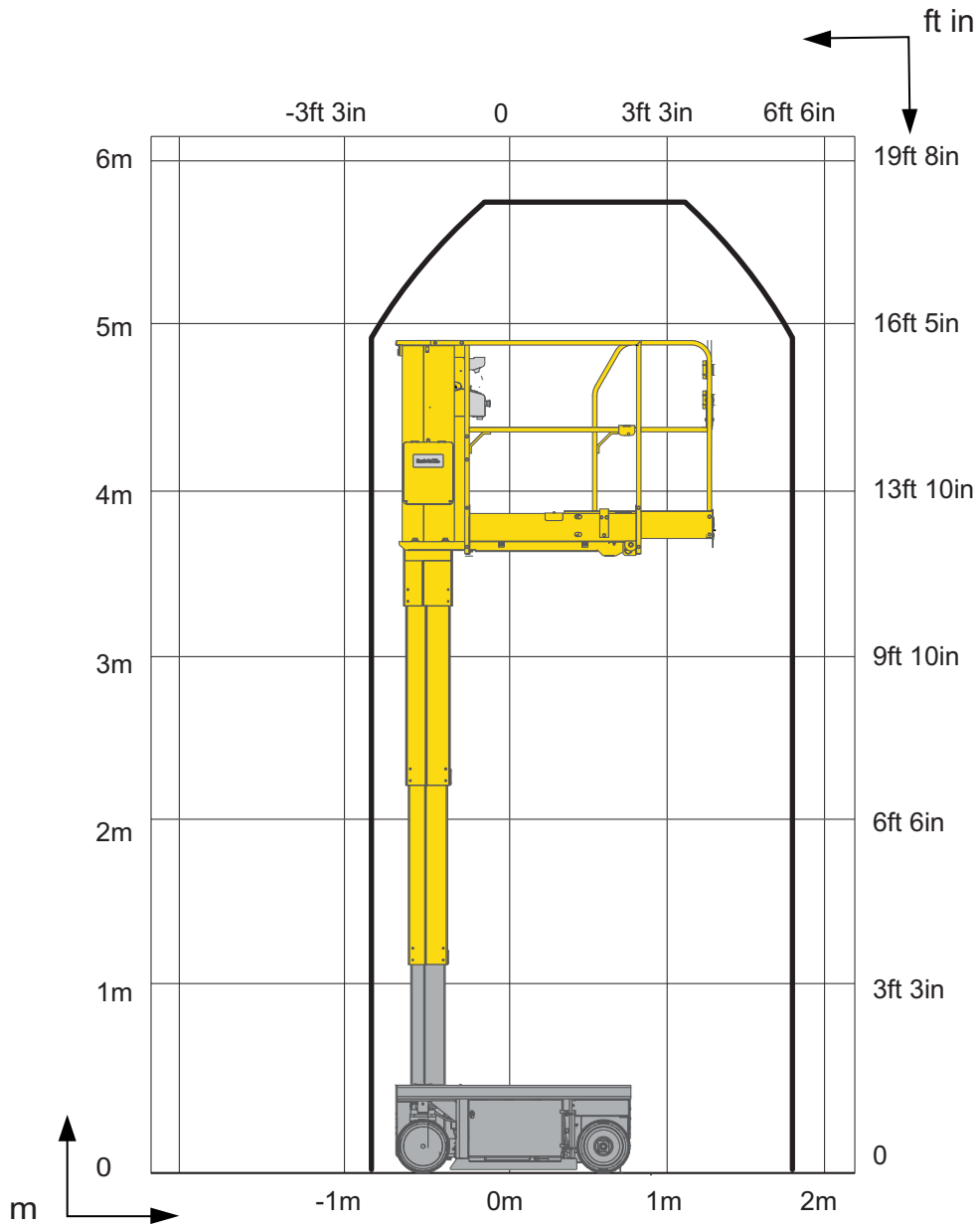
## 4.2 - WORKING AREA / RANGE OF MOTION

### STAR 6 - STAR 13



# B - Familiarization

## STAR 6 - STAR 13 with platform extension



A

B

C

D

E

F

G

H

I

# B - Familiarization



## Notes

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

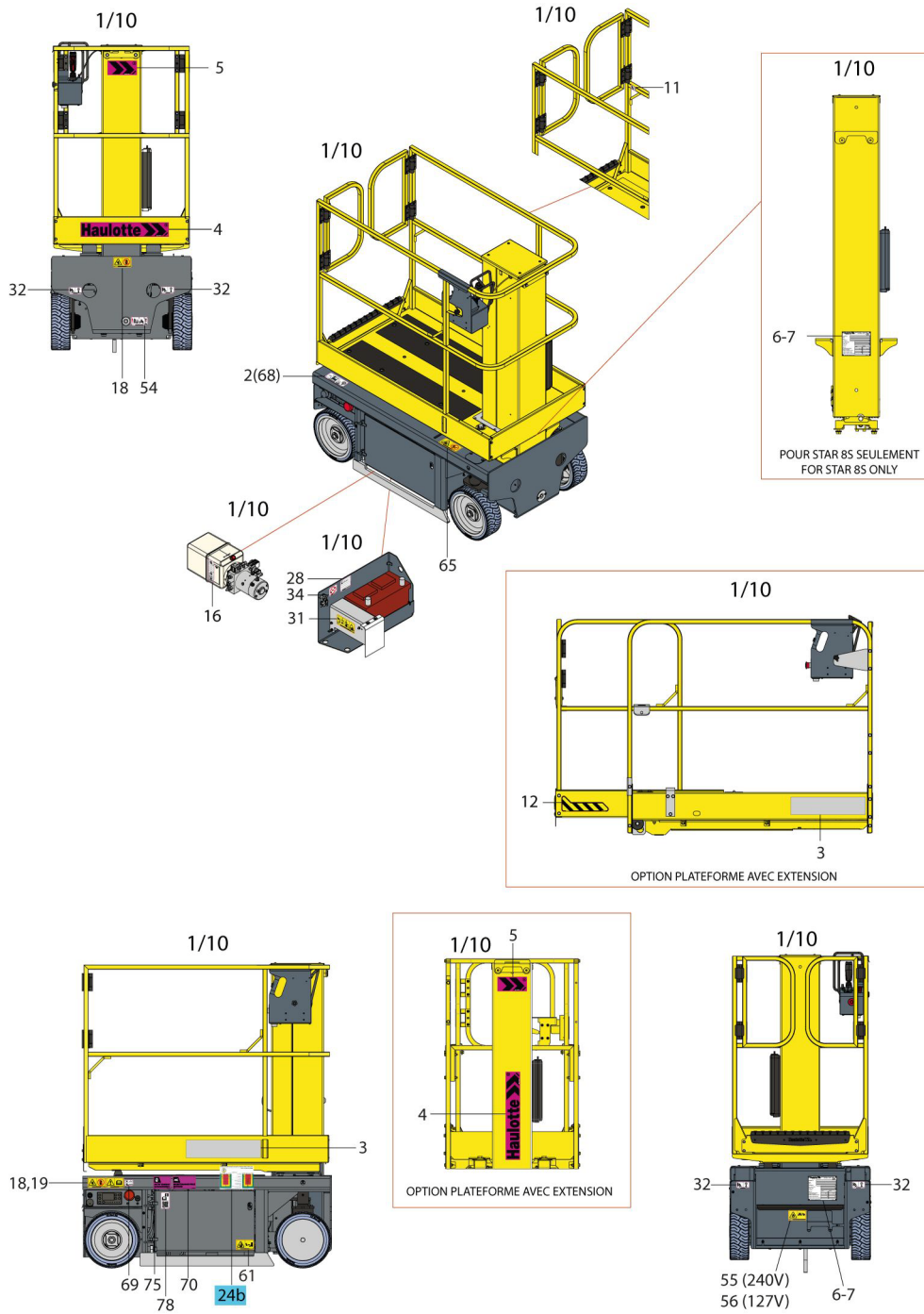
---



# B - Familiarization

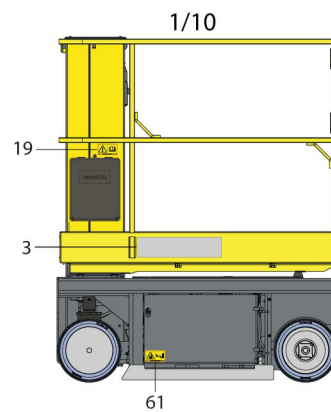
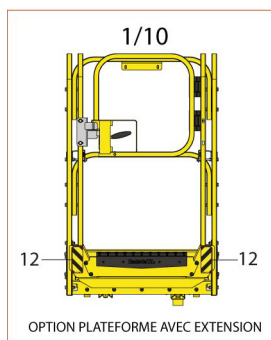
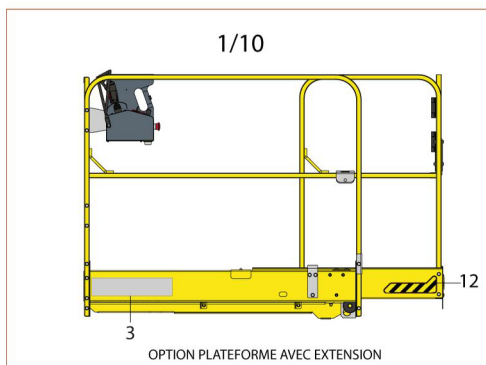
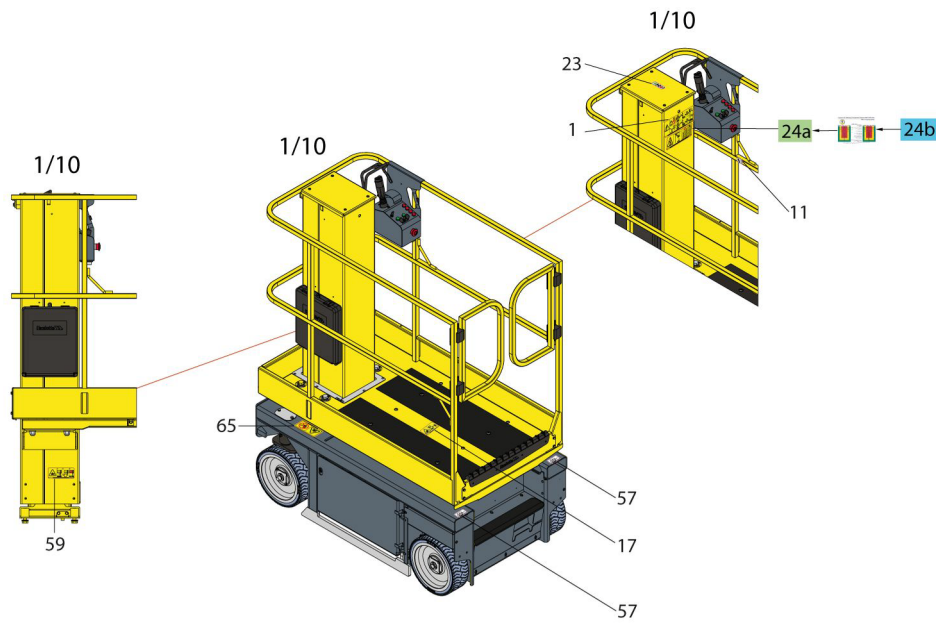
## 5 - Decals and markings locations

CE, UKCA, AS and EAC standards -  
4000389530 N - STAR 6 - 1/2



# B - Familiarization

CE, UKCA, AS and EAC standards -  
4000389530 N - STAR 6 - 2 / 2



24b Pour Australie seulement  
For Australia only


24a Pour Europe - CE seulement  
For Europe - CE only

# B - Familiarization

## CE, UKCA, AS and EAC standards

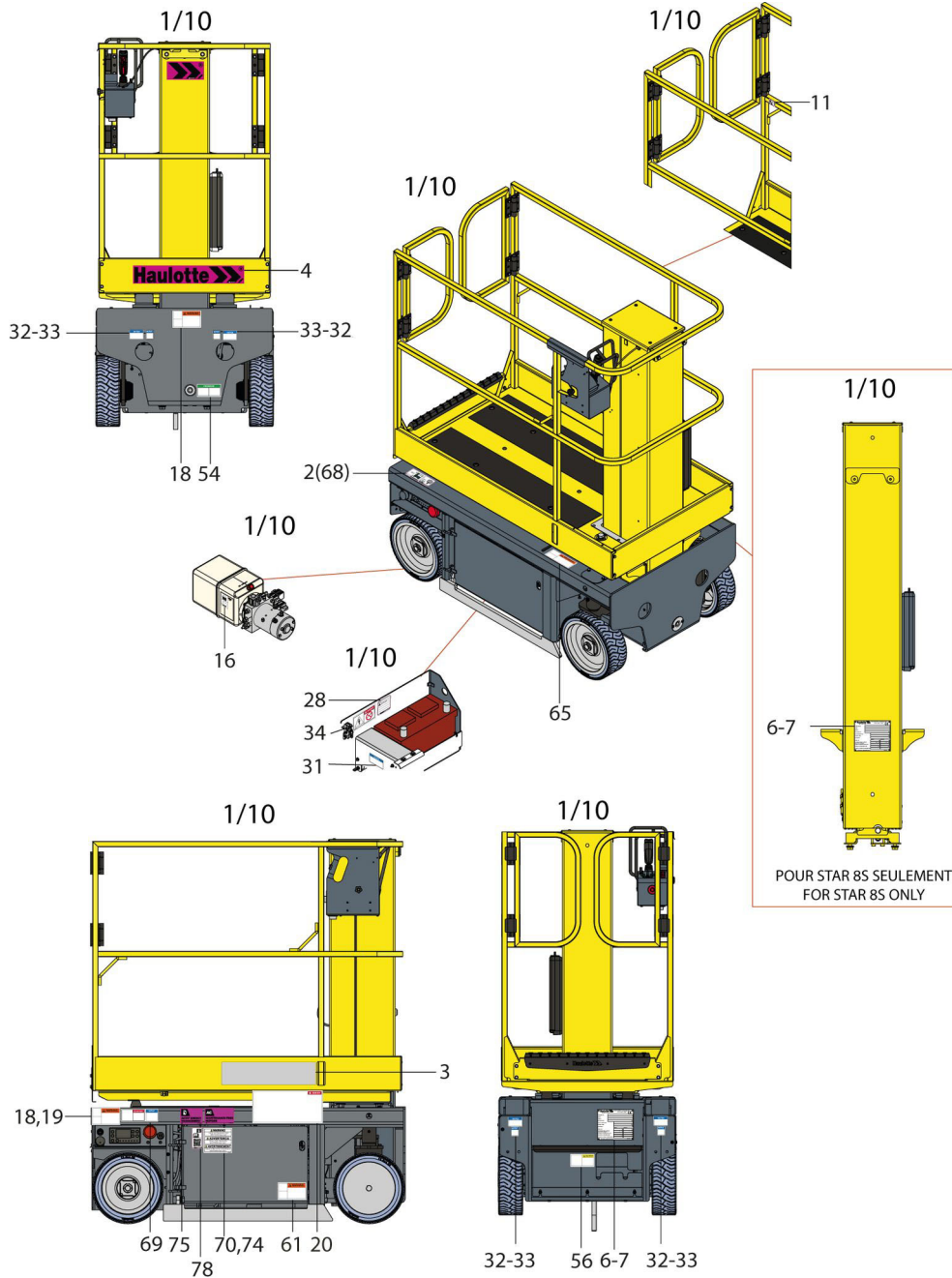
Marking	Description	Quantity	STAR 6
1	Height of the floor and load	1	4001176600
1	Height of the floor and load	1	For STAR 6 with extension only : 4001176610
1	Height of the floor and load	1	For Japan only : 4001176620
2 - 68	Maximum Pressure per Tire - Floor Loading	1	4001177560
2 - 68	Maximum Pressure per Tire - Floor Loading	1	For STAR 6 with extension only : 4001177570
2 - 68	Maximum Pressure per Tire - Floor Loading	1	For Japan only : 4001177580
3	Commercial name - Bright machine	2	4001177300
3	Commercial name - Dark machine	2	4001177310
4	Decal HAULOTTE® - Bright machine	1	4001072210
4	Decal HAULOTTE® - Dark machine	1	4001072220
4	Decal HAULOTTE® - Bright machine	2	For STAR 6 with extension only : 4001072210
4	Decal HAULOTTE® - Dark machine	2	For STAR 6 with extension only : 4001072220
5	Decal HAULOTTE® - Bright machine	1	4001072250
5	Decal HAULOTTE® - Dark machine	1	4001072260
5	Decal HAULOTTE® - Bright machine	2	For STAR 6 with extension only : 4001072250
5	Decal HAULOTTE® - Dark machine	2	For STAR 6 with extension only : 4001072260
6	Identification plate	1	4001243970
6	Identification plate	1	For Japan only : 4000572280
11	Lanyard attachment points	2	4001052020
11	Lanyard attachment points	4	For STAR 6 with extension only : 4001052020
12	Material risk - Yellow and black adhesive tape	1	For STAR 6 with extension only : 4001052030
12	Material risk - Yellow and black adhesive tape	2	For STAR 6 with extension only : 4001083250
16	Max and min oil level	1	4001052060
17	Risk of crushing	1	For STAR 6 with extension only : 4001177830
18	Hand crushing hazard - Risk of crushed hands	2	4001052080
19	Read the operation manual	2	4001052090
23	Driving direction	1	4001052100
24a	Danger of electrocution	1	For CE, UKCA and EAC standards only : 4001052120
24b	Danger of electrocution	2	For AS standard only : 4001052140
25	Risk of crushing - Closing drop rail	1	4000025080
26	Danger of electrocution - Ground for welding	1	4000027100
28	Software version	1	4000504670
31	Brake release	1	4001052170
32	Anchorage point - Tie down for transportation	4	4001052180
34	Risk of electrocution - Water projection	1	4001052200
54	Emergency lowering	1	4001177860
55	Risk of electrocution - Charger - 240 V	1	4001110960
56	Risk of electrocution - Charger - 127 V	1	4001110970
57	Position of the lift truck forks	2	4001052230
59	Scissors safety	1	4001177880
61	Risk of crushed feet	2	4001052260
65	Hazard - Battery	2	4001052270

# B - Familiarization

Marking	Description	Quantity	STAR 6
69	Battery isolation switch	1	4001052290
70	Information - AC MAINTENANCE-FREE MOTORS - Bright machine	1	4001053450
70	Information - AC MAINTENANCE-FREE MOTORS - Dark machine	1	4001053500
75	Information - ACTIV' ENERGY MANAGEMENT - Bright machine	1	4001053460
75	Information - ACTIV' ENERGY MANAGEMENT - Dark machine	1	4001053510
78	QR Code (  <a href="https://www.e-technical-information.com">https://www.e-technical- information.com</a> )	1	4001089310

# B - Familiarization

ANSI and CSA standards - 4000424690 P -  
STAR 13 - 1 / 3



A

B

C

D

E

F

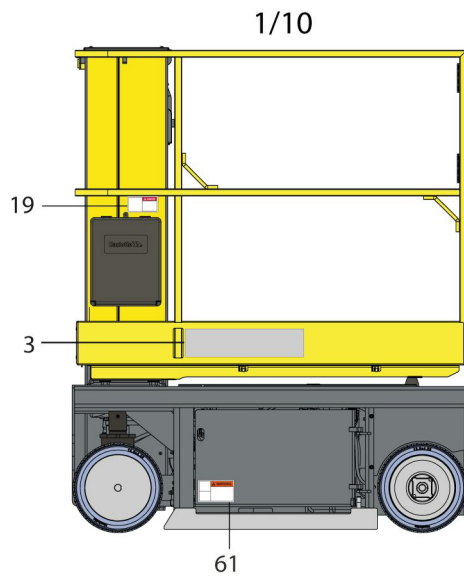
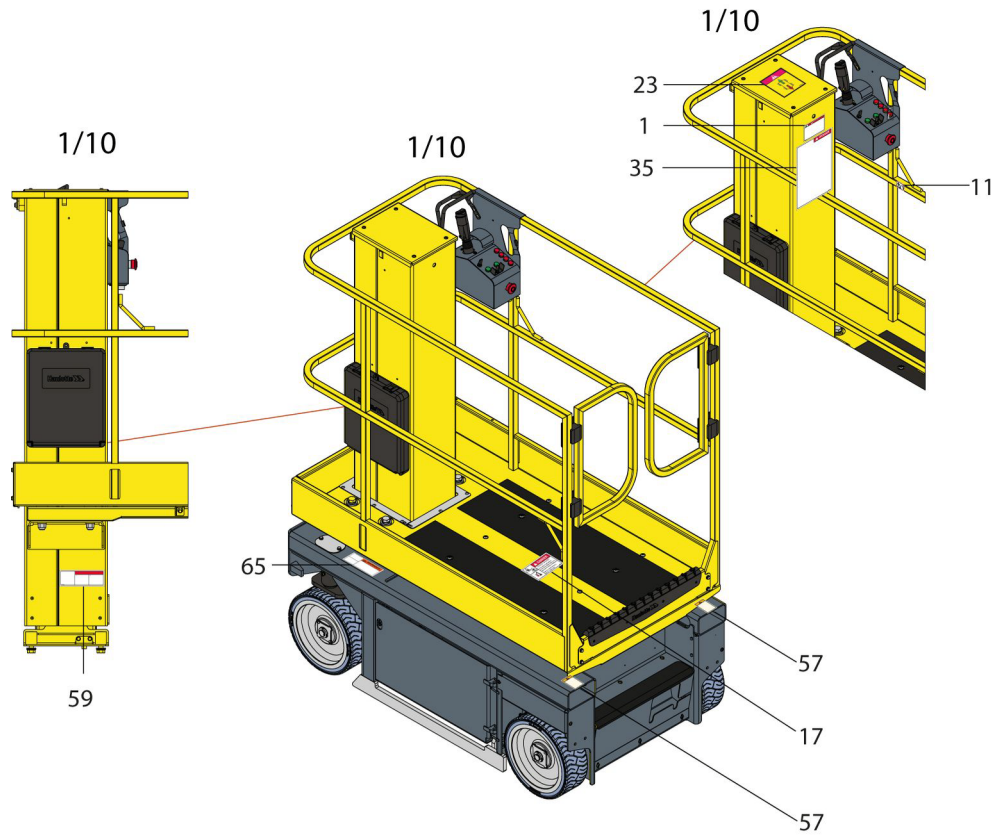
G

H

I

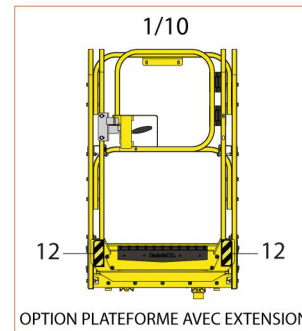
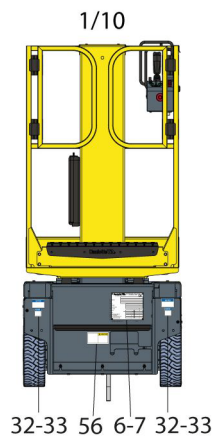
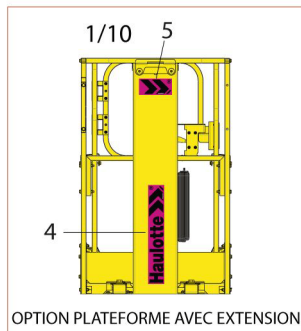
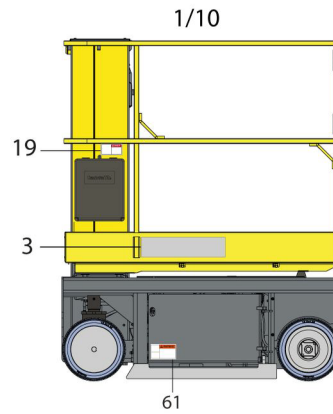
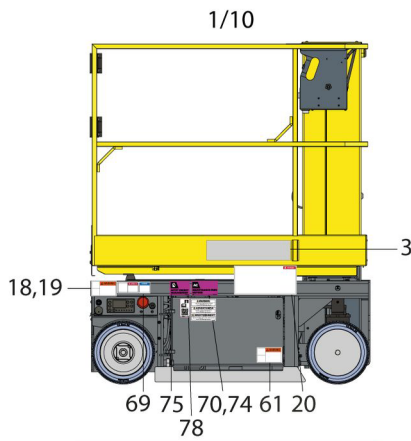
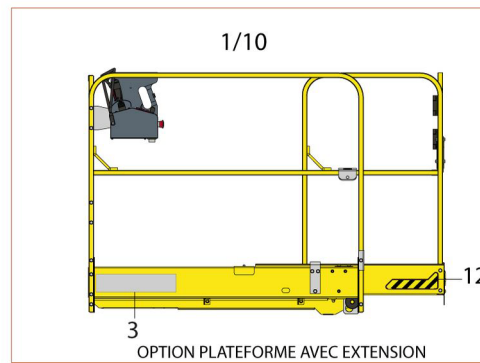
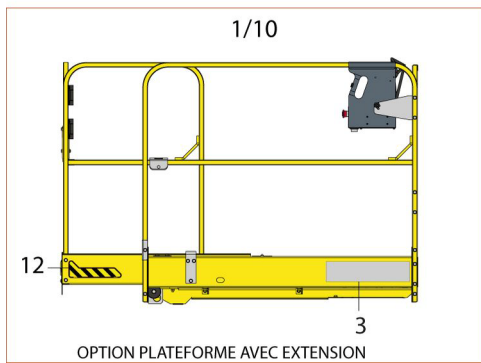
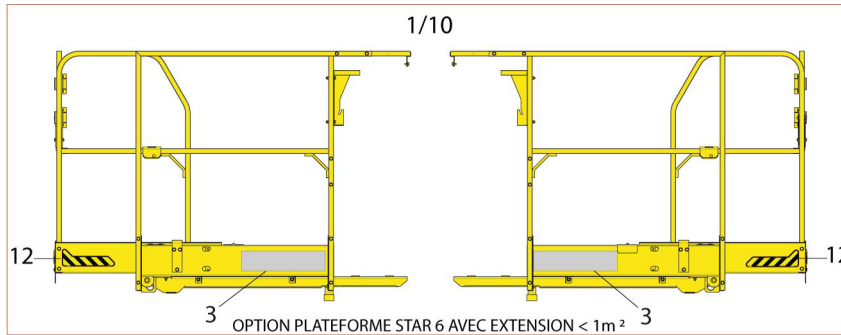
# B - Familiarization

ANSI and CSA standards - 4000424690 P -  
STAR 13 - 2 / 3



# B - Familiarization

ANSI and CSA standards - 4000424690 P -  
STAR 13 - 3 / 3




# B - Familiarization

## ANSI and CSA standards

Marking	Description	Quantity	STAR 13
1	Height of the floor and load - Single load machine	1	4000816060
1	Height of the floor and load - Single load machine	1	For STAR 13 with extension only : 4000816050
2 - 68	Maximum Pressure per Tire - Floor Loading	1	4001177560
2 - 68	Maximum Pressure per Tire - Floor Loading	1	For STAR 13 with extension only : 4001177570
3	Commercial name - Bright machine	2	4001177320
3	Commercial name - Dark machine	2	4001177330
4	Decal HAULOTTE® - Bright machine	1	4001072210
4	Decal HAULOTTE® - Dark machine	1	4001072220
4	Decal HAULOTTE® - Bright machine	2	For STAR 13 with extension only : 4001072210
4	Decal HAULOTTE® - Dark machine	2	For STAR 13 with extension only : 4001072220
5	Decal HAULOTTE® - Bright machine	1	4001072250
5	Decal HAULOTTE® - Dark machine	1	4001072260
5	Decal HAULOTTE® - Bright machine	2	For STAR 13 with extension only : 4001072250
5	Decal HAULOTTE® - Dark machine	2	For STAR 13 with extension only : 4001072260
6	Identification plate	1	4000700150
11	Lanyard attachment points	2	4001052020
11	Lanyard attachment points	4	For STAR 13 with extension only : 307P216290
12	Material risk - Yellow and black adhesive tape	1	For STAR 13 with extension only : 4001052030
12	Material risk - Yellow and black adhesive tape	2	For STAR 13 with extension only : 4001083250
16	Max and min oil level	1	307P221060
17	Risk of crushing	1	For STAR 13 with extension only : In english : 4000275590 In french : 4000275600 In spanish : 4000275610 In english : 4000024770
18	Hand crushing hazard - Risk of crushed hands	2	In french : 4000067710 In spanish : 4000086490
19	Operation instructions	1	4000025140
20	Operation instructions	1	In english : 4000027580 In french : 4000083200 In spanish : 4000086650
23	Driving direction	1	3078145100
28	Software version	1	4000504670
31	Brake release	1	4000361570
32	Anchorage point - Tie down for transportation	4	4000027310
33	Anchorage point - Lifting eyes	4	4000027330
34	Risk of electrocution - Water projection	1	4000025130
35	Vertical operating procedure	1	In english : 4000326910 In french : 4000326310 In spanish : 4000326900
54	Emergency lowering	1	4000481210
56	Socket - 127 V	1	4001134690
57	Position of the lift truck forks	2	3078143830



# B - Familiarization

Marking	Description	Quantity	STAR 13
59	Safety prop	1	4000467300
61	Risk of crushed feet	2	In english : 4000024780 In french : 4000067700 In spanish : 4000086480
65	Hand crushing hazard - Battery	2	In english : 4000025030 In french : 4000068120 In spanish : 4000086550
69	Battery isolation switch	1	4000420660
70	Information - AC MAINTENANCE-FREE MOTORS - Bright machine	1	4001053450
70	Information - AC MAINTENANCE-FREE MOTORS - Dark machine	1	4001053500
74	California warning - P65	1	4001026850
75	Information - ACTIV' ENERGY MANAGEMENT - Bright machine	1	4001053460
75	Information - ACTIV' ENERGY MANAGEMENT - Dark machine	1	4001053510
78	QR Code (  <a href="https://www.e-technical-information.com">https://www.e-technical-information.com</a> )	1	4001089310

# B - Familiarization



## Notes

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

# 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 any operation :

- 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.

# C - Pre-operation inspection

## 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.



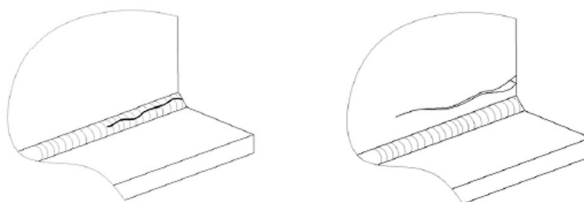
- Never use a defective or a malfunctioning aerial work platform.
- If any item on the check list is marked "No" during the inspection; machine must be tagged and placed out of service.
- Do not operate the machine until all identified items are corrected and it has been declared safe for operation.

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.









#### S a m p l e o f b r o k e n w e l d s



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

## Telescopic masts

	Page or associated procedure	Daily	OK	NOK	Corrected	Comments
<b>Chassis assembly : Wheel, reducer, steering, wheel pivot</b>						
Check state of tires/tyres and inflations						
<b>Batteries</b>						
Check the battery level						
Check the condition of the battery						
Check the operation of the lock on the engine casing						
<b>Hydraulic : oils, filters and hoses</b>						
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						
<b>Platform</b>						
Ensure that the gate or sliding bar shall be designed to either return automatically to the closed and latched position						
Check that the harness anchor points are not cracked or damaged						

A

B

C

D

E

F

















G

H

I

# C - Pre-operation inspection

## Telescopic masts

	Page or associated procedure	Daily	OK	NOK	Corrected	Comments
<b>General</b>						
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						
<b>Safety devices</b>						
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						

# C - Pre-operation inspection

## 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. A mast lowering device is provided on the chassis to assist in emergency situations. Each control box is equipped with an E-Stop button, which cuts all movements when pushed in.

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

For the location and description of these controls :  refer to section B 3.4 and D 2 - Ground panel and B 3.5 and D 3 - Platform panel.

### 4.1 - E-STOP BUTTON CHECK

#### Ground control box E-stop button

Step	Action
1	Pull the E-stop buttons (15, 46).
2	Turn the control box activation selector key ( 92 ) downwards to activate the ground control box.
3	The Activ'Screen turns on.
4	Push the E-stop button ( 15 ). The screen turns off.

#### Platform control box E-stop button

Step	Action
1	Pull the E-stop buttons (15, 46).
2	Turn the control box activation selector key ( 92 ) upwards to activate the platform control box.
3	Push the E-stop button ( 46 ). The system is de-energized and no function is operable.

# C - Pre-operation inspection

## 4.2 - ACTIVATION OF CONTROLS

The enable switch must be active to allow any movement.

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

- Enable trigger on platform control joystick.
- Enable switch on the ACTIV'Screen on ground control box.

## 4.3 - FAULT DETECTOR

The machine is equipped with an on-board fault detection system, which indicates the type of fault to the operator.

The fault is identified by a default code.

The default code is displayed at the ground control box.

According to the type of fault, the machine MAY switch into DOWNGRADEMODE mode and certain movements are prevented to maintain Operator's safety.

Do not use the machine until the fault has been corrected.

### 4.3.1 - Buzzers test

#### From the ground control box

Step	Action
1	Pull both the E-Stop buttons (46) at platform box and (15) at ground box.
2	Turn the control box activation selector key ( 92 ) downwards or upwards to activate a control box.
3	Check that the audible beep sounds.

## 4.4 - OVERLOAD SENSING SYSTEM

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

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

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

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

- Verify that the Overload system is active : Refer to Indicator ( 6 ) at ground control box and LED ( 30 ) at platform control box display.
- 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.



# C - Pre-operation inspection

## 4.5 - SLOPE WARNING DEVICE

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

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

When machine is on a slope greater than the rated slope, with extending structure out of the stowed position :


- The DRIVE and LIFTING (RAISING) commands are deactivated.

The lowering speeds are reduced.

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

To check the tilt sensor at ground level, perform the following steps :

### Daily check

Step	Action
1	Put the machine in stowed position on a slope with an angle greater than the permitted inclination (Refer to  Section B 4.1 Technical specifications).
2	Check that the tilt indicator is on ( 27).

## 4.6 - TRAVEL SPEED LIMITATION

Drive speed is proportional to control until the maximum speed is reached (machine in fully stowed position)

The only speed allowed when not in stowed position is microspeed (This speed is a default speed programmed into the machine).

## 4.7 - ELECTRONIC VARIABLE SPEED DRIVE

The machine is equipped with 2 electronic variable speed regulators configured for each function that manages the amount of power sent to each motor.



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

## 4.8 - ON-BOARD ELECTRONICS

The machine is equipped with a specific calculator configured for this machine's functionalities. Do not interchange the Calculator (calibration restoration) between machines..

# C - Pre-operation inspection

## 4.9 - MACHINE BRAKING

When electric power is cut off, the machine stops automatically.

Performance levels may be reduced in the following situations :

- Descending a bumpy ramp.
- Worn tires/tyres.
- Damp or muddy ground conditions.

Check that the brakes are applied automatically when the Drive joystick is released to the neutral position.

## 4.10 - WHEEL MOTOR BRAKE RELEASE

Each time a drive command is activated, electric power releases the brakes.

## 4.11 - POTHOLE PROTECTION SYSTEM

The machine is equipped with a pothole mechanism under the chassis that is deployed automatically when the platform is out of the stowed position.

Check the system for damage and ensure that it deploys when the platform is raised.

## 4.12 - ON-BOARD CHARGER

Battery charging starts as soon as an external supply is connected to the battery charger.



**When the battery pack is being charged with an external power supply, the machine's electric system is automatically deactivated.**

# D - Operation instructions

## 1 - Operation

### 1.1 - INTRODUCTION

Aerial Work platforms are equipped with two control boxes which allow operators to safely use the machine.

An auxiliary device is available on the chassis to assist with the emergency rescue of people.

Each control box is equipped with an E-Stop button, which allows operators to stop all movements, if necessary.

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.

A

B

C

D

E

F

G

H

I

# D - Operation instructions

## 1.2 - OPERATION FROM THE GROUND CONTROL BOX

- Turning "ON" and "OFF" of the machine is performed with selector key switch (92).
- Activation of a desired control box is achieved by turning the control box energizing selector switch ( 92 ) to the desired position.
- The ground control box is energized and is active ONLY when :
  - The emergency stop on the ground control box is not pushed in.
  - The machine is switched on.
  - Ground control box is selected.
- An E-stop button at each control box stops all movements when pressed in (deactivated).

***N.B.-:-AN E-STOP BUTTON PRESSED IN DOES NOT TURN OFF THE MAIN POWER SUPPLY TO THE MACHINE.***

- An Enable Switch ( 9 ) provided must be activated and maintained to authorize one or more function movements. If Enable Switch ( 9 ) is kept engaged without selecting a function movement for more than 8 s; Enable Switch is automatically de-activated.
- The release of "Enable switch" ( 9 ) while performing a movement stops all the movements. The stop of movements is progressive. If the Enable Switch system is re-pressed, the movement doesn't restart. It could restart only when the selected function switch/joystick is released to neutral position.
- All switches and joystick operating a movement, return automatically to neutral when released.
- At power up, a switch in it's neutral position will be taken into account to authorize movement.
- The ground control box is designed for maintenance and emergency rescue operations only.
- The status of the switches is tested automatically when the machine is switched on, and checked at every starting. A switch will be active only after it has been detected to be in neutral position. The following switches are not controlled :
  - Beacon light (if fitted)

A buzzer beeps in the following conditions :

- Machine out of stowed position and on a slope greater than allowable slope.
- Hydraulic oil overheating.
- Movements option.
- Indicators / Cluster : All indicators are checked after powering on the machine

# D - Operation instructions

## 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 before movement can occur.
  - The release of "Enable switch" ( 123 ) while performing a movement stops all the movements. The stop of movements is progressive. The function movements can only be selected when the corresponding function switch is returned 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 :
- Machine elevated on a slope greater than the rated slope.
  - Indicators - All the indicators are tested
    - When the machine is switched on.

# D - Operation instructions

## 2 - Ground control box

### 2.1 - TO START AND STOP THE MACHINE

- Pull the E-Stop button at the ground control box.
- Turn the control box activation selector key ( 92 ) downwards to activate the ground control box.

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

- Turn the control box activation selector ( 92 ) key to the center.
- Press in the E-Stop button on the ground control box.

***N.B.-:-THE ACTIV'SCREEN AUTOMATICALLY GOES INTO STANDBY IF IT IS NOT USED FOR AN EXTENDED PERIOD. TO SWITCH THE ACTIV'SCREEN BACK ON, TURN THE KEY SELECTOR TO POSITION OFF THEN FOLLOW THE START-UP PROCEDURE.***

### 2.2 - MOVEMENT CONTROL







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

Press and hold 'Enable switch' button ( 9 ) to perform movements.

***N.B.-:-RELEASING THE ENABLE SWITCH WILL STOP ALL MOVEMENTS.***

#### Ground box controls (emergency station)

Command	Action	
Mast lifting / descent	 	Press the mast extension touchpad ( 1 ) to telescope the mast.
	 	Press the mast retraction touchpad ( 10 ) to retract the mast.

### 2.3 - ADDITIONAL CONTROLS

For the machines equipped with beacon light :

- Press and hold the beacon button ( 105 ) to activate. Release beacon button ( 105 ) to turn OFF.

# D - Operation instructions

## 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 on the ground control box must be in ON position (pulled out / activated).
- Turn the control box activation selector key ( 92 ) upwards to activate the platform control box.

At the platform :

- Pull the E-stop button (46).

To stop the machine (Only in the event of an emergency) :

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

***N.B.-:-THE ACTIV'SCREEN AUTOMATICALLY GOES INTO STANDBY IF IT IS NOT USED FOR AN EXTENDED PERIOD. TO SWITCH THE ACTIV'SCREEN BACK ON, PRESS THE EMERGENCY STOP BUTTON THEN FOLLOW THE START-UP PROCEDURE.***

### 3.2 - DRIVE AND STEER CONTROL

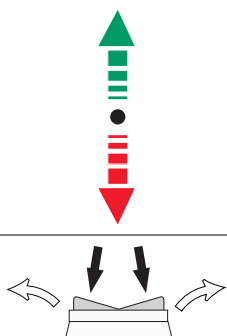
To operate driving/steering functions, move 2 position selector switch ( 112 ) to the right. Activate driving selection indicator ( 111 ). Simultaneously operate drive joystick ( 108 ) with joystick trigger (Enable switch ( 123 )) pressed in and maintained.



While machine is on a slope, take extra precautions :

- to make sure that the machine does not over steer.
- to make sure there is NO loss of traction causing machine movement.

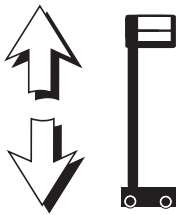
Command	Action
Driving	Move the drive joystick ( 108 ) forwards to drive the machine forwards.
	Move the drive joystick ( 108 ) backwards to drive in reverse.
Steering thumb button on joystick	Press right side of thumb button ( 108 ) on joystick to steer to the right.
	Press left side of thumb button ( 108 ) on joystick to steer to the left.



# D - Operation instructions

## 3.3 - MOVEMENT CONTROL

To operate Mast Extension / Retraction function, move 2 position selector switch ( 112 ) to the left. Mast extension / retraction indicator ( 110 ) lights up when activated. Simultaneously operate joystick ( 108 ) with joystick trigger (Enable switch ( 123 )) pressed in and maintained for desired extension/retraction.

Command	Action
Mast lifting / descent 	Push the joystick ( 108 ) forwards to extend the mast. <hr/> Pull the joystick ( 108 ) backwards to retract the mast.

## 3.4 - ADDITIONAL CONTROLS

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



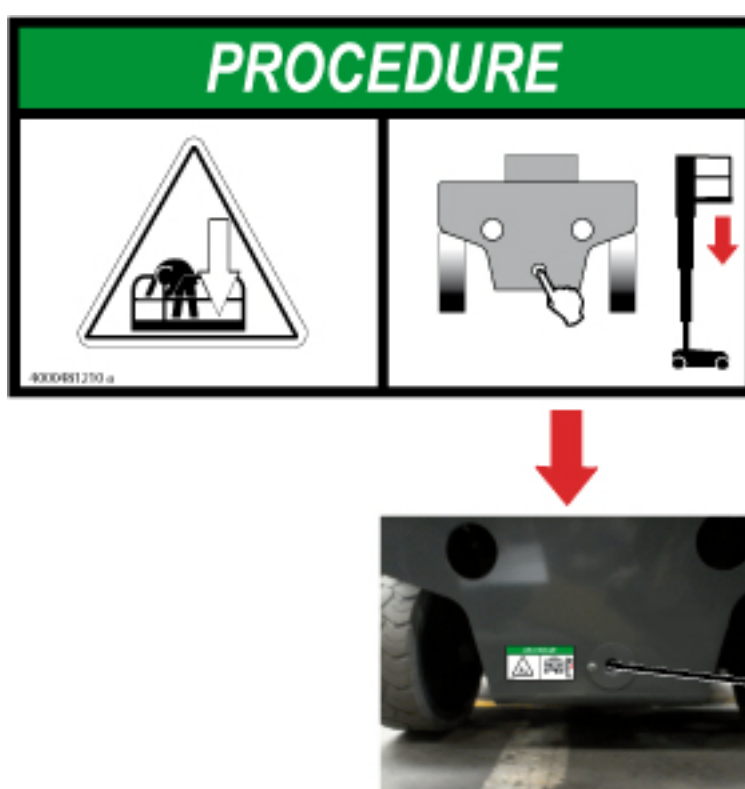
# D - Operation instructions

## 4 - Rescue and emergency procedures

In case of power loss or if an operating problem prevents the platform occupant from descending, a competent operator can perform the emergency procedures from the ground level.

### 4.1 - MAST MANUAL LOWERING PROCEDURE

- Press and hold the push button ( 1 ) on front of the machine, to lower the mast.
- Release it to halt lowering.



### 4.2 - EXIT FROM PLATFORM WHEN ELEVATED

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

- Exit onto a sturdy and safe structure.
- 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 THE MAST. INSTEAD WAIT FOR ASSISTANCE FOR A SAFE EXIT***

# D - Operation instructions

## 5 - Transportation

### 5.1 - TRANSPORT CONFIGURATION



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 :

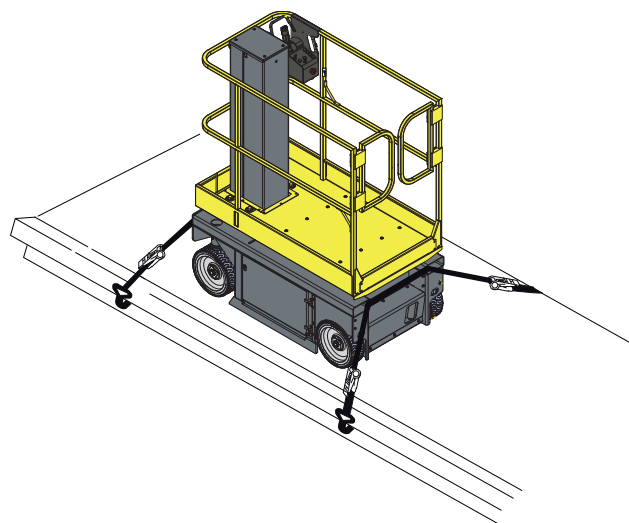
- Check the platform is completely empty.
- Drive the machine onto the truck bed.
- Secure the machine to the tie down points provided (See picture).
- The covers must be locked.



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

### 5.2 - MACHINE STORAGE FOR TRANSPORT - STAR 6 - STAR 13 - STAR 8S - STAR 20

S T A R 6 - S T A R 13 - S T A R 8 S - S T A R 20



# D - Operation instructions

## 5.3 - UNLOADING

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

- Remove the tie downs.
- Switch the machine on.
- Pull out the E-stop button if it was pressed in.
- Check that the platform indicators are ON.
- Move 2 positions selector switch ( 112 ) to the right. Driving / Steering indicator ( 111 ) lights up when activated. Simultaneously operate drive joystick ( 108 ) with enable switch ( 123 ) or Foot Switch ( C42 ) (if equipped) pressed in and maintained.



**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.


- Switch the machine on.
- Move progressively the drive joystick (108).

## 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.
- Prior to towing, ensure mast is fully retracted.
- 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, release brake (Refer to  Section D 5.4.1 - Brake release). Perform this operation on flat ground with wheels chocked.

In the towing configuration, the machine braking system is inactive. Use a drawbar to avoid any risk of accident :

- Do not exceed the maximum freewheel speed (Refer to  Section B 4.1 - Technical specifications).
- Do not use on a slope with a gradient greater than 25%.

A

B

C

D

E

F

G

H

I

# D - Operation instructions

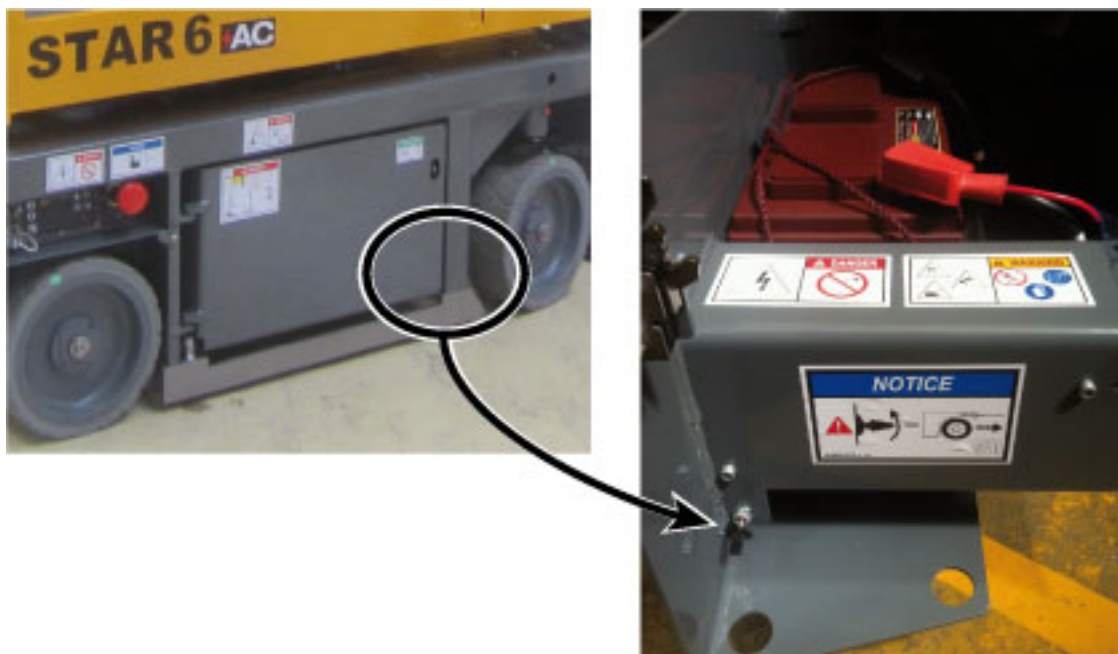
## 5.4.1 - Electric brake release

To tow a broken-down machine, the brakes can be released using the electric system.



**Perform these operations on flat, horizontal ground. Failing that, block the wheels to immobilize the machine. During brake release operation, the machine is in free wheel mode and the brake system no longer functions.**

If the machine needs to be towed, the drive wheels brake release is located inside the battery bay (ground control box side).



To release the machine's brakes, the following conditions must be met :

- The platform control box or the ground control box must be selected.
- The machine must be completely stowed.
- No movement selected.
- The machine must not be tilted.

Hold brake switch upwards to activate the brake release.

Push the brake release button for at least 3 s. An audible signal (beep) sounds.

Releasing the button disengages the brakes.

The brakes are re-applied automatically when the brake release button :

- is pushed again,
- any actions are taken at the control boxes,
- the machine is turned off,
- or the control box in use is changed.

# D - Operation instructions

## 5.5 - STORAGE



The machine can be stored in a designated area when not in use. If it is stored for more than 3 months without being used, an inspection must be carried out before it is put back into service.



Keep the batteries charged  Section D 7.4 -Optimise battery life.

Machine must be parked in a protected/designated area with the mast fully retracted. Make sure there is no load in the platform.

Do not store or immobilise the machine when it is unfolded.

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

Turn the energizing key selector switch ( 92 ) 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.

# D - Operation instructions

## 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.



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.

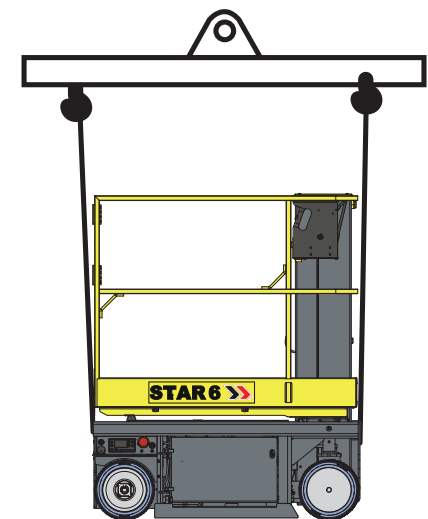
If the machine has been damaged during transportation, contact the transporter in writing

1. Remove the tie downs.
2. Start the machine.
3. The ramp is in good condition and of sufficient capacity.

# D - Operation instructions

## 5.8 - LIFTING OPERATION

### 5.8.1 - Lifting with spreaders



Before any lifting operation, it is necessary to take into account the following points :



**ONLY trained and authorized personnel should attempt to lift the machine.**

Do not operate machine unless you have :

- been fully trained and are qualified in proper operation.
- read and understood the information in the Operator's manual of the machine.

#### 5.8.1.1 - Safety precautions

It is the responsibility of the Operator to ensure there are no personnel or obstructions to safely perform the operation.

#### 5.8.1.2 - Necessary equipment

### Technical specifications

Machine type	Maximum weight
STAR 6	862 kg
STAR 13	1,867 lbs
STAR 6 with platform extension	910 kg
STAR 13 with platform extension	2,006 lbs



- PPE (Personal Protective Equipment: glove, safety shoes, glasses, etc ...)
- Standard tool kit
- 1 spreader 2 m (6 ft 7 in) 3T
- 4 shackles 3 T
- 4 slings 3 m (9 ft 10 in) 3 T

# D - Operation instructions

## **5.8.1.3 - Preliminary procedures**

- Inspect the surrounding area and position the machine at a safe distance from electrically charged conductors to ensure that no part of the machine is within an unsafe area. Always stay clear of overhead obstructions.
- Respect the local rules and the minimum safe distance from power lines.
- Stop the machine.
- Remove the ignition key.
- Ensure that the main power is disconnected.
- Place a "DO NOT USE" decal near the start/stop switches to inform personnel that machine is not operational during the lifting process.
- Cordon off the area surrounding the machine to keep personnel, vehicles and moving equipment away from the machine.
- Remove all loose items from the machine.
- Ensure that vehicle capacity and loading equipment - hoists, slings, straps, etc. are of sufficient strength to withstand maximum machine weight.
- Attach the rigging ONLY to the designated lifting points on the machine.

## **5.8.1.4 - Procedure for the use of slings - with spreader**

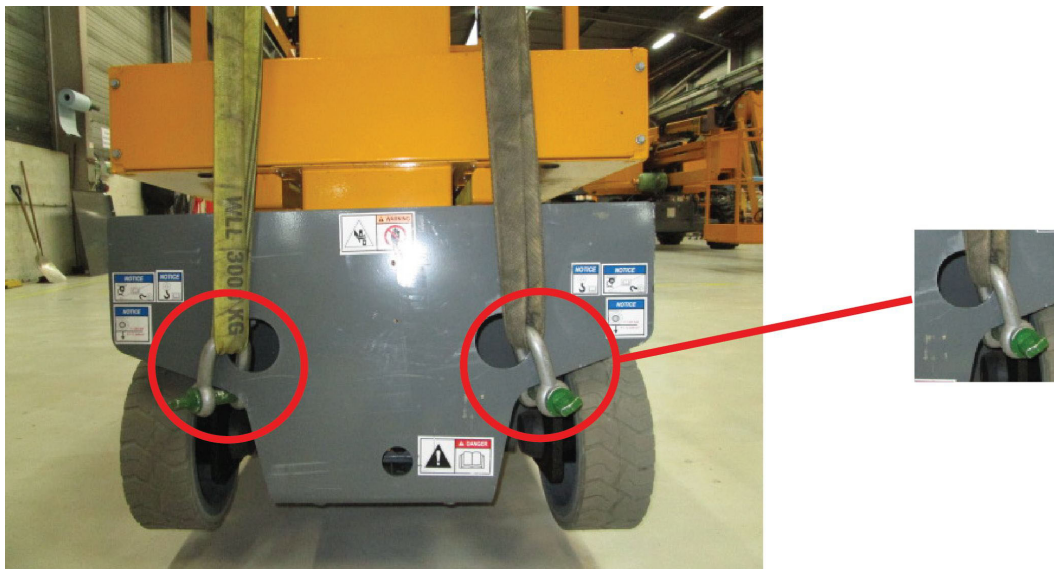
The machine must be completely stowed (Extension retracted). Designated lifting points are marked/labeled with the following symbol .

1. Position the spreader line up with the chassis.
2. Attach 4 shackles 3 T with the straps 3 m (9 ft 10 in) 3 T to the four lifting points on the chassis.



# D - Operation instructions

## Slings and shackles installation - Front view of the machine



## Slings and shackles installation - Rear view of the machine



Pay particular attention to avoid slings over sharp edged surfaces as they may be severed/damaged.



Properly adjust rigging to keep the machine level and to minimize the risk of damage to the machine.



- Lifting procedure must be handled very carefully.
- All movements of the machine must be performed slowly and deliberately to minimize swaying of the machine being lifted.
- Always keep machine as close as possible to the ground level.

# D - Operation instructions

## 5.8.2 - Lifting without spreader

Before any lifting operation, it is necessary to take into account the following points :



**ONLY trained and authorized personnel should attempt to lift the machine.**

Do not operate machine unless you have :

- been fully trained and are qualified in proper operation.
- read and understood the information in the Operator's manual of the machine.

### 5.8.2.1 - Safety precautions

It is the responsibility of the Operator to ensure there are no personnel or obstructions to safely perform the operation.

### 5.8.2.2 - Necessary equipment

## Technical specifications

Machine type	Maximum weight
STAR 6	862 kg
STAR 13	1,867 lbs
STAR 6 with platform extension	910 kg
STAR 13 with platform extension	2,006 lbs



- PPE (Personal Protective Equipment: glove, safety shoes, glasses, etc ...)
- Standard tool kit
- 4 shackles 3 T
- 4 slings 3 m (9 ft 10 in) 3 T

### 5.8.2.3 - Preliminary procedures

- Inspect the surrounding area and position the machine at a safe distance from electrically charged conductors to ensure that no part of the machine is within an unsafe area. Always stay clear of overhead obstructions.
- Respect the local rules and the minimum safe distance from power lines.
- Stop the machine.
- Remove the ignition key.
- Ensure that the main power is disconnected.
- Place a "DO NOT USE" decal near the start/stop switches to inform personnel that machine is not operational during the lifting process.
- Cordon off the area surrounding the machine to keep personnel, vehicles and moving equipment away from the machine.
- Remove all loose items from the machine.
- Ensure that vehicle capacity and loading equipment - hoists, slings, straps, etc. are of sufficient strength to withstand maximum machine weight.
- Attach the rigging ONLY to the designated lifting points on the machine.

# D - Operation instructions

## 5.8.2.4 - Procedure for the use of slings - without spreader

The machine must be completely stowed (Extension retracted). Designated lifting points are marked/labeled with the following symbol .

Attach 4 shackles 3 T with the straps 3 m (9 ft 10 in) 3 T to the four lifting points on the chassis.



Pay particular attention to avoid slings over sharp edged surfaces as they may be severed/damaged.



Properly adjust rigging to keep the machine level and to minimize the risk of damage to the machine.



- Lifting procedure must be handled very carefully.
- All movements of the machine must be performed slowly and deliberately to minimize swaying of the machine being lifted.
- Always keep machine as close as possible to the ground level.


# D - Operation instructions

## 5.9 - LOADING AND UNLOADING WITH FORKLIFT

- Completely lower the mast.
- Ensure that the potholes are retracted.



**The machine must be in the fully stowed transport position.**

- Ensure that the machine controls are in the OFF position.
- Forklift used to load and unload must have adequate capacity (Refer to  Section B 4 Technical specifications).
- Adjust the forklift forks spread to match with the machine fork pockets.
- Carefully insert the forklift forks in the designated machine fork pockets.
- Slightly tilt back the forklift forks.



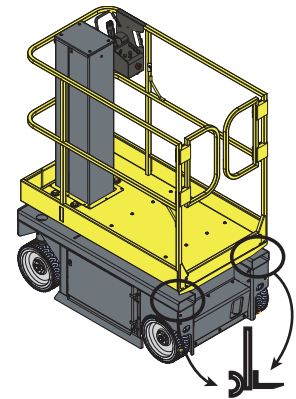
**Never place yourself below or too close to the machine during loading.**

**Brake slowly.**

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

### Unloading

- Carefully lift the machine and make sure that the machine weight is properly balanced.
- Slowly lower the machine and place it on the ground.



# D - Operation instructions

## 6 - Cold Weather Recommendations

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

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

### 6.1 - ENVIRONMENTAL CONDITIONS

#### 6.1.1 - Hydraulic oil

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

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

Environmental conditions	SAE Viscosity grade
Ambient temperature between - 15°C (5°F) and + 40°C (+ 104°F)	HV 46
Ambient temperature between - 20°C (- 4°F) and + 35°C (+ 95°F)	HV 32
Ambient temperature between 0°C (+ 32°F) and + 40°C (+ 104°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.***

# D - Operation instructions




## 7 - Battery care and maintenance

### 7.1 - BATTERY RECHARGE

#### 7.1.1 - On-board charger

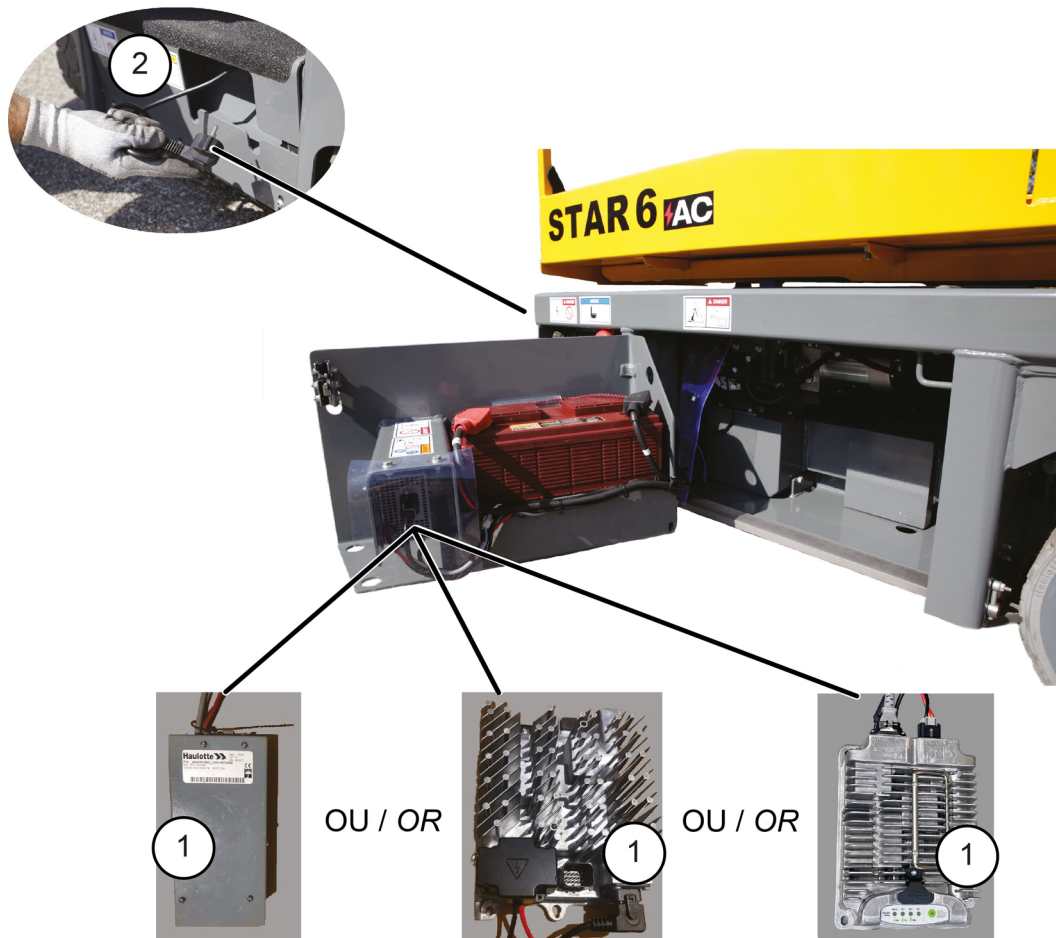
The on-board charger is used to charge the semi-drive batteries. The charger's power is 750W-1000W and the maximum intensity is 10A for 220V - 240V and 110V networks. Battery charging starts as soon as it is connected via the mains supply.

***N.B.:-NO MOVEMENTS ARE ALLOWED DURING BATTERIES CHARGING CYCLE AND WHILE CONNECTED TO AN EXTERNAL POWER OUTLET.***

			
Battery charger	36V / 35A	24V / 27A	24V / 30A
Electric power supply	190 - 265 Vac / 50Hz / 10A	85 - 265 Vac / 50-60Hz / 8A max	100 - 240 Vac / 50-60Hz / 10,5A
Battery voltage	24V		
Charging time	10h		

# D - Operation instructions

## Locations



Marking	Description
1	On-board charger
2	Battery charger mains cable



Never replace the charging cable without written permission from HAULOTTE®.

A

B

C

> D

E

F

G

H

I

# D - Operation instructions

## 7.1.2 - Battery charging



- Do not use an external charger or jump the batteries.
- Ensure the mains supply is compatible :
  - Do not use a cable reel with the cable wound up.
  - The socket must be able to deliver a current of 10 A.

Duration of charge cycle :

- 10 hours approximately, on 220 - 240 V AC network.






The charge cycle stops automatically when charging is complete.

It can take up to 24 hours for a full charge if the battery levels are very low (Charge status less than 5 %).

Internal parameter update		
Charging is going to start		
The first segment flashes		Charge from 0 % to 20 %
The second segment flashes		Charge from 20 % to 40 %



# D - Operation instructions

<p>The third segment flashes</p>		<p>Charge from 40 % to 60 %</p>
<p>The fourth segment flashes</p>		<p>Charge from 60 % to 80 %</p>
<p>The fifth segment flashes</p>		<p>Charge from 80 % to 100 %</p>
<p>Battery equalisation</p>		<p>Leave the batteries on charge(3h)</p>
<p>Charging is complete</p>		<p>Unplug the charging cable from the machine</p>

A

B

C

D

E

F

G

H

I

# D - Operation instructions

## 7.2 - BATTERY CARE AND MAINTENANCE

### 7.2.1 - Filling batteries

The procedure described below only applies to open lead acid batteries. 6 V open lead-acid battery blocks are composed of 3 2 V single cells connected together in series. The cells are immersed in an electrolyte composed of 1/3 sulfuric acid and 2/3 deionized water.



The batteries must **ONLY** be filled after charging them fully. Failure to comply with these instructions may lead to the electrolyte overflowing, etc...



The batteries **MUST** be filled when necessary or the batteries may be irreparably damaged. The lead plates oxidize in the air. They must always be covered with electrolyte.

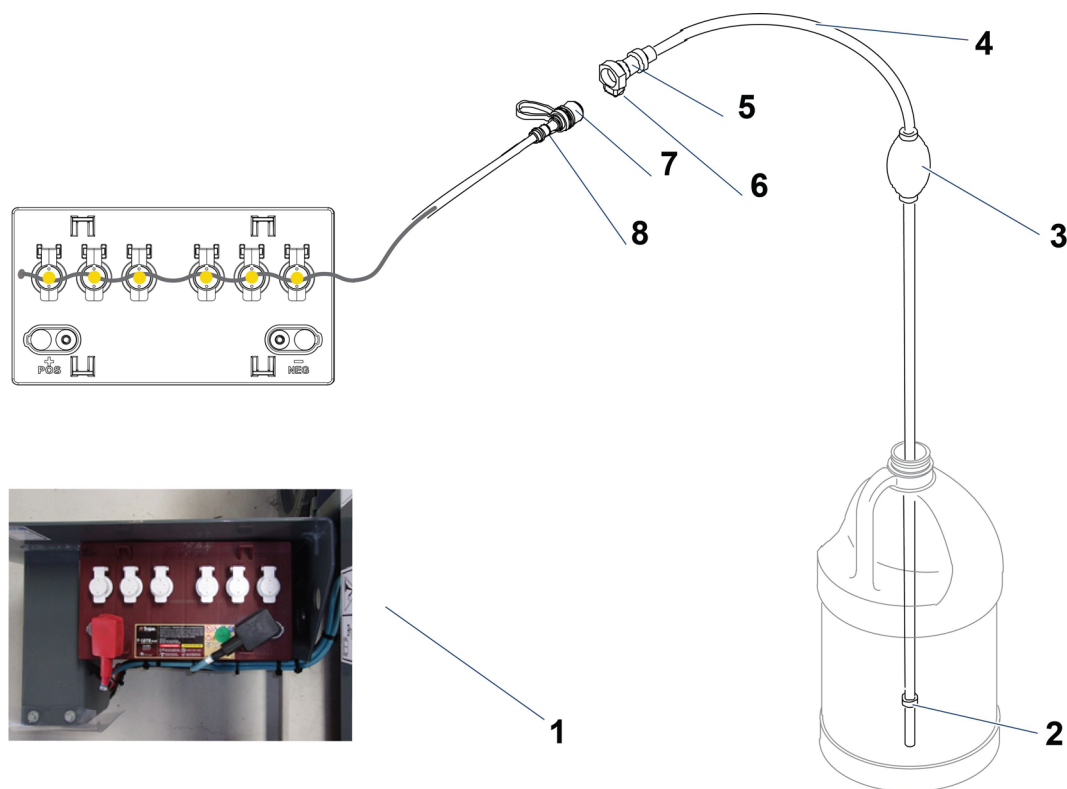


The water level in the batteries cannot be topped up if the temperature is lower than 0° as the distilled or deionized water freezes in the centralized filling system.

# D - Operation instructions

## 7.2.1.1 - Procedure to fill the batteries manually – Option

### Single - Point Watering System



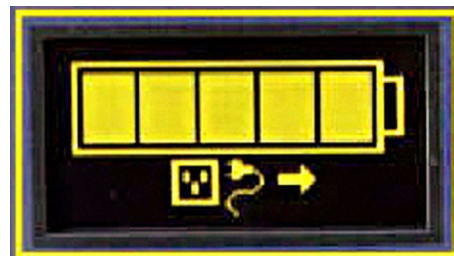
Marking	Description
1	Battery
2	Filtered intake
3	Hand pump
4	Hose
5	Female adapter
6	Push-button
7	Dust cover
8	Male adapter

**N.B.-:-COMPLETELY CHARGE THE BATTERIES BEFORE CONNECTING THE DISTILLED-WATER-FILLING UNIT.**

# D - Operation instructions

## Procedure :

1. Launch a full charge of the battery and check the charge indicator.
2. Disconnect the batteries charger and put back the plug in its housing.



Levelling of the elements should always be done after charging the batteries. Watering a battery before charge (or with a low charge level) can lead to boil-over, resulting in potential bodily injury and potential damage to the watering system and the battery.

3. Open the swing out trays on both sides.



4. Immerse the filtered inlet ( 2 ) of the transparent hose ( 4 ) fitted with a hand pump ( 3 ) in a demineralized water canister (Supplied with the machine).
5. Press the hand pump ( 3 ) to prime it until the water rises in the hose ( 4 )
6. Once the hand pump ( 3 ) is primed, remove the male connector ( 8 ) cap ( 7 ) from the black supply tube assembly
7. Connect the female connector ( 5 ) quick-hitch from the centralized filling system, including the hand-pump, to the male connector ( 8 ).
8. Press firmly on the hand pump to bring the distilled water to the batteries ( 1 ).
9. When the bulb ( 3 ) becomes resistant, this means that all the battery cells are filled appropriately.
10. Then uncouple the female connector ( 5 ) from the male connector ( 8 ) filling tube by pressing on the yellow button ( 6 ), then replace the cap ( 7 ) on the machine hose.
11. Close the battery compartment again.

# D - Operation instructions

## 7.2.1.2 - Procedure to fill the batteries automatically – Option

1. Open the swing out trays on both sides.
2. Open the cap.
3. Fill the can with demineralized water.
4. Correctly close the plug and battery compartment.
5. Fully recharge the batteries in order to restart an automatic filling or activate the automatic filling from the Activ'Screen of the ground control box.



A

B

C

D

E

F

G

H

I

# D - Operation instructions

## 7.2.2 - Desulfation charge

Normal battery use leads to sulfation of the lead plates during discharge (Formation of lead sulfate). Recharging the battery dissolves the lead sulfate. The plates are desulfated.

Moreover, sulfation also appears if the battery self-discharges during storage in a low state-of-charge (< 70%).

As the battery ages, the lead sulfate may become harder and harder and increasingly difficult to eliminate by normal charging. This leads to a loss of autonomy. The desulfation charge is a way of regenerating the battery.



To improve the efficiency of the desulfation charge, you are advised to launch it for a battery discharged to a state-of-charge less than 30%.

Procedure :

- Go to the machine set-up menu → 3.3 Machine config → 3.3.1 Option setting → Desulfation charge.

### D e s u l f a t i o n   c h a r g e



- The option is active and will be implemented during the next mains charge.
- Charging time is increased up to 72 h.
- For high efficiency in this charging mode, the batteries must be below 30%.

# D - Operation instructions

## 7.3 - OPTIMISE BATTERY LIFE

To optimize battery performance and life-time, you are advised to follow the recommendations below :

- Carry out regular battery maintenance as described.
- Do not store the machine discharged (Duration greater than 72 hours).
- Carry out full charges regularly.
- Do not keep a machine in a state-of-charge less than 70% for no useful purpose.
- **A full recharge of the batteries is recommended every 30 days that the machine is used.**



Keep the top of the batteries clean and dry. Incorrect connection or corrosion may cause a high loss of power.

	Full charge	Filling control	Desulfation charge
<b>In use</b>			
As soon as possible	X		
If state-of-charge < 50% at the end of a working day	X		
Every 30 days of use	X		
Before placing in storage	X		
1 time a week	X	X	
1 time every 2 weeks		X	
1 time a month		X	
1 time every 6 months			X
<b>In storage</b>			
1 time a month	X		



The battery's water consumption depends on its use. You are advised to check the water level 1 time a week.





# E - General Specifications



## Notes

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

A

B

C

D

E

F

G

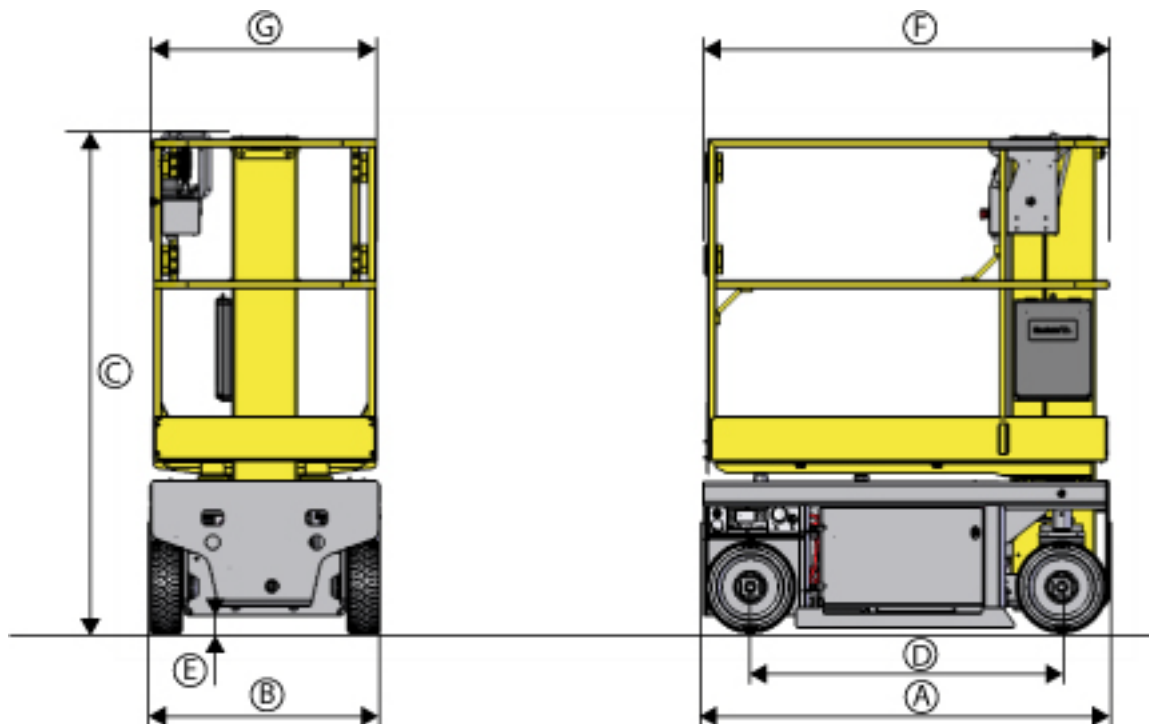
H

I

# E - General Specifications

## 1 - Machine dimensions

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



# E - General Specifications

## CE, UKCA, AS and EAC standards

Machine		STAR 6	
Marking	Specifications - Dimensions	SI	Imp.
A	Overall length of machine	1,40 m	4 ft 7 in
B	Overall width of machine	0,79 m	2 ft 7 in
C	Overall height of machine	1,75 m	5 ft 9 in
	Overall height of machine (If machine fitted with platform extension)	1,75 m	5 ft 9 in
D	Wheel base	1,08 m	3 ft 7 in
E	Ground clearance - Pothole mechanism deployed with platform raised	1,6 cm	1 in
	Ground clearance - Pothole mechanism retracted with platform fully lowered	6 cm	3 in
F X G	Platform dimensions	1,38 m x 0,77 m	4 ft 6 in x 2 ft 6 in
	Platform extended dimensions (If fitted)		

## ANSI and CSA standards

Machine		STAR 13	
Marking	Specifications - Dimensions	SI	Imp.
A	Overall length of machine	1,40 m	4 ft 7 in
B	Overall width of machine	0,79 m	2 ft 7 in
C	Overall height of machine	1,75 m	5 ft 9 in
	Overall height of machine (If machine fitted with platform extension)	1,75 m	5 ft 9 in
D	Wheel base	1,08 m	3 ft 7 in
E	Ground clearance - Pothole mechanism deployed with platform raised	1,6 cm	1 in
	Ground clearance - Pothole mechanism retracted with platform fully lowered	6 cm	3 in
F X G	Platform dimensions	1,38 m x 0,77 m	4 ft 6 in x 2 ft 6 in
	Platform extended dimensions (If fitted)		

# E - General Specifications

## 2 - Major component masses

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

Component	STAR 6	STAR 13
Frame assembly mass	328 kg	723 lbs
Counterweight mass	118 kg	260 lbs
Battery mass	74 kg	163 lbs
Wheel mass	72 kg	159 lbs
Platform assembly mass	70 kg	154 lbs
Mast assembly mass	200 kg	440 lbs

Component	STAR 6 with platform extension	STAR 13 with platform extension
Frame assembly mass	328 kg	723 lbs
Counterweight mass	118 kg	260 lbs
Battery mass	74 kg	163 lbs
Wheel mass	72 kg	159 lbs
Platform assembly mass	113 kg	249 lbs
Mast assembly mass	200 kg	440 lbs

# E - General Specifications

## 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	The measured sound pressure is below 70 dBA
Vibrations hand/arm	Vibration transmitted by this MEWP to the hand-arm does not exceed 2,5 m/s <sup>2</sup> (98,4 in/s <sup>2</sup> )
Vibrations whole body	Vibration transmitted by this MEWP to the whole body does not exceed 0,5 m/s <sup>2</sup> (19,6 in/s <sup>2</sup> )

A

B

C

D

E

F

G

H

I

# E - General Specifications

## 4 - Wheel/Tire assembly

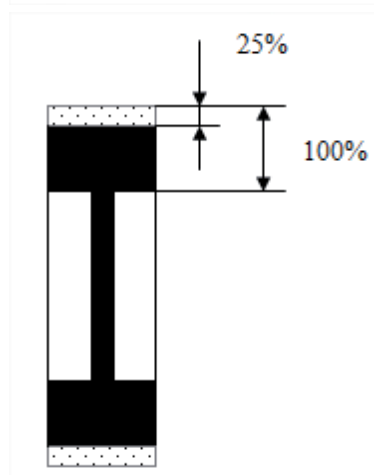
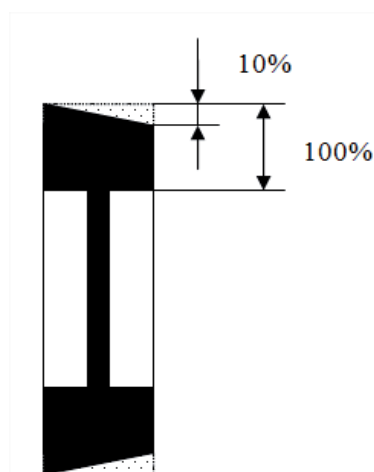
### 4.1 - TECHNICAL SPECIFICATIONS

Component	Standard wheel
Reference number	Solideal
Type	Solid tires/tyres
Wheel mass	19 kg - 42 lbs
Size	316 mm / 108 mm (12,5 in / 4,25 in)
Torque	250 Nm (184 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%
- Check that the pin 2352101250 is present and in good condition - Replace as necessary.



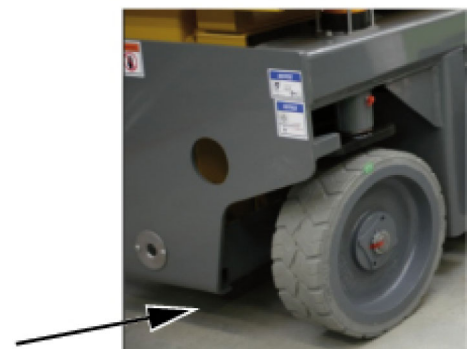
**Tires and rims are critical components for the stability of the machine. For safety reasons :**

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

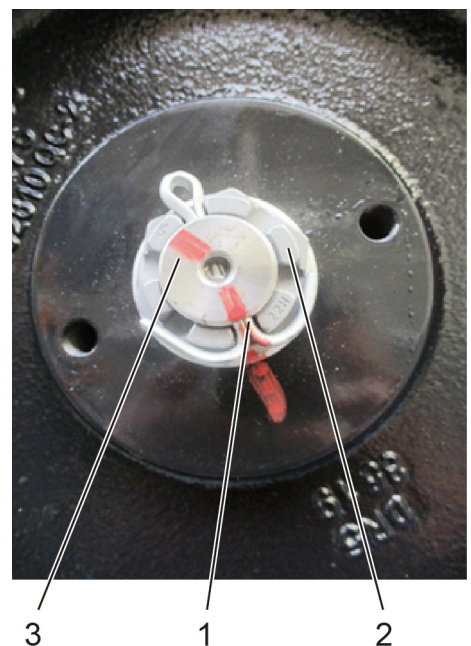
# E - General Specifications

## 4.2.1 - Procedure of replacement

- Slightly lift the machine using a forklift.
- Place a wooden spacer under the frame to support the machine after lifting off the ground.



- Remove the pin ( 1 ), the wheel nut ( 2 ) and the flat washer(3).
- Remove the wheel.



A

B

C

D

E

F

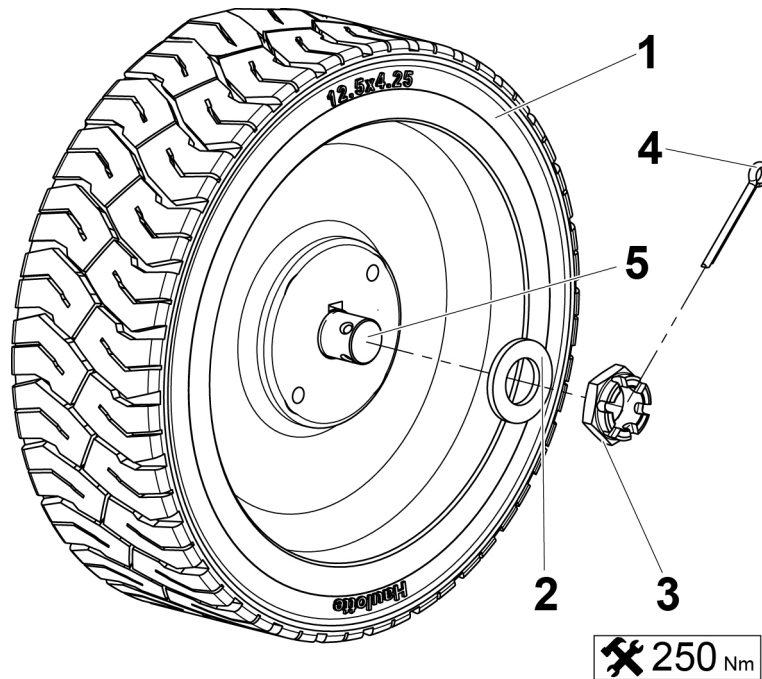
G

H

I

# E- General Specifications

## Reassembly of the wheel



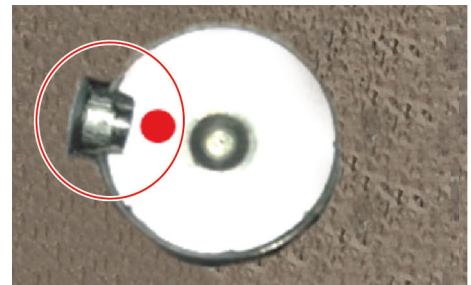
Marking	Description
1	Wheel
2	Washer
3	Nut
4	Pin
5	Motor shaft



# E- General Specifications

- Use a new flat washer (2700500110).
- Use a new nut (4000503700).
  1. Check that the shaft key is well positioned in the motor shaft.
  2. Mount the wheel on the motor shaft.
  3. Install the washer first then the nut.
  4. Tighten the wheel nut to the recommended torque : 250 Nm (184 ft.lbs).
  5. Add tightening until a groove of the nut is in coincidence with one hole of the shaft of the motoreducer.
  6. Insert the pin (2352101250) into its seating.
  7. Bend over the cotter pin legs to secure the nut.

***N.B.-:-LOCK IN PLACE WITH A NEW PIN.***



A

B

C

D

E

F

G

H

I

# E - General Specifications



## Notes

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

# F - Maintenance

## 1 - General

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

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

# F - Maintenance

## 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 designed 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 mechanical procedures.

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

# F - Maintenance

## 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	Daily inspection
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.

# F - Maintenance

## 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.***

# F - Maintenance

## 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 : [www.haulotte.com](http://www.haulotte.com)



***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.***

# F - Maintenance



## Notes

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---



# G. Other information

## 1 - Conditions of warranty

Our warranty conditions and extension contracts are now available on the websites of our sales network : [www.haulotte.com](http://www.haulotte.com)







## 2 - Subsidiary contact information

	<p>HAULOTTE FRANCE PARC DES LUMIERES 601 RUE NICEPHORE NIEPCE 69800 SAINT-PIERRE <b>TECHNICAL Department:</b> <b>+33 (0)820 200 089</b> <b>SPARE PARTS : +33 (0)820 205 344</b> FAX : +33 (0)4 72 88 01 43 E-mail : <a href="mailto:haulottefrance@haulotte.com">haulottefrance@haulotte.com</a> <a href="http://www.haulotte.fr">www.haulotte.fr</a></p>		<p>HAULOTTE ITALIA VIA LOMBARDIA 15 20098 SAN GIULIANO MILANESE (MI) <b>TEL : +39 02 98 97 01</b> FAX: +39 02 9897 01 25 E-mail : <a href="mailto:haulotteitalia@haulotte.com">haulotteitalia@haulotte.com</a> <a href="http://www.haulotte.it">www.haulotte.it</a></p>		<p>HAULOTTE INDIA Unit No. 1205, 12th floor, Bhumiraj Costarica, Plot No. 1&amp;2, Sector 18, Palm Beach Road, Sanpada, Navi Mumbai- 400 705 Maharashtra, INDIA <b>Tel. : +91 22 66739531 to 35</b> E-mail : <a href="mailto:hlindia@haulotte.com">hlindia@haulotte.com</a> <a href="http://www.haulotte.in">www.haulotte.in</a></p>
	<p>HAULOTTE HUBARBEITSBÜHNEN GmbH Ehrenkirchener Strasse 2 D-79427 ESCHBACH <b>TEL : +49 (0) 7634 50 67 - 0</b> FAX : +49 (0) 7634 50 67 - 119 E-mail : <a href="mailto:adv-gmbh@haulotte.com">adv-gmbh@haulotte.com</a> <a href="http://www.haulotte.de">www.haulotte.de</a></p>		<p>HAULOTTE VOSTOK 61A, bld.1, RYABINOVAYA STREET 121471 MOSCOW RUSSIA <b>TEL/FAX : +7 495 221 53 02 / 03</b> E-mail : <a href="mailto:salesrus@haulotte.com">salesrus@haulotte.com</a> <a href="http://www.haulottevostok.ru">www.haulottevostok.ru</a></p>		<p>HAULOTTE DO BRASIL Av. Alameda Caiapós, 589 CEP: 06460-110 – TAMBORÉ BARUERI – SÃO PAULO – BRASIL <b>TEL : +55 11 4196 4300</b> FAX : +55 11 4196 4316 E-mail : <a href="mailto:haulottebrasil@haulotte.com">haulottebrasil@haulotte.com</a> <a href="http://www.haulotte.com.br">www.haulotte.com.br</a></p>
	<p>HAULOTTE IBERICA C/ARGENTINA Nº 13 - P.I. LA GARENA 28806 ALCALA DE HENARES MADRID <b>TEL : +34 902 886 455</b> TEL SAT : +34 902 886 444 FAX : +34 911 341 844 E-mail : <a href="mailto:iberica@haulotte.com">iberica@haulotte.com</a> <a href="http://www.haulotte.es">www.haulotte.es</a></p>		<p>HAULOTTE POLSKA Sp. Z.o.o. UL. GRANICZNA 22 05-090 RASZYN - JANKI <b>TEL : +48 22 720 08 80</b> FAX : +48 22 720 35 06 E-mail : E-mail : <a href="mailto:haulottepolska@haulotte.com">haulottepolska@haulotte.com</a> <a href="http://www.haulotte.pl">www.haulotte.pl</a></p>		<p>HAULOTTE MÉXICO, S.A. de C.V. Calle 40 SUR ESQUINA 13 ESTE No. 5/N Colonia CIVAC, JUITEPEC, MORELOS CP 62578 México <b>TEL : +52 77 7321 7923</b> FAX : +52 77 7516 8234 E-mail : <a href="mailto:haulotte.mexico@haulotte.com">haulotte.mexico@haulotte.com</a> <a href="http://www.haulotte.com.mx">www.haulotte.com.mx</a></p>
	<p>HAULOTTE in JAPAN SBJ ShinOsaka BLDG 3F 4-6-5 Nishinakajima Yodogawa-ku, Osaka, JAPAN, Post Code: 532-0011 <b>TEL : +81 6 6795 9008</b> FAX : +81 6 6795 9009 <a href="http://www.haulotte.com">www.haulotte.com</a></p>		<p>HAULOTTE SINGAPORE Pte Ltd. No.26 CHANGI NORTH WAY, SINGAPORE 498812 <b>Parts and service Hotline:</b> <b>+65 6546 6150</b> FAX : +65 6536 3969 E-mail : <a href="mailto:haulotteasia@haulotte.com">haulotteasia@haulotte.com</a> <a href="http://www.haulotte.sg">www.haulotte.sg</a></p>		<p>HAULOTTE MIDDLE EAST FZE PO BOX 293881 Dubai Airport Free Zone DUBAI United Arab Emirates <b>TEL : +971 (0)4 299 77 35</b> FAX : +971 (0) 4 299 60 28 E-mail : <a href="mailto:haulottemiddle-east@haulotte.com">haulottemiddle-east@haulotte.com</a> <a href="http://www.haulotte.ae">www.haulotte.ae</a></p>
	<p>HAULOTTE SCANDINAVIA AB Taljegårdsgatan 12 431 53 Mölndal SWEDEN <b>TEL : +46 31 744 32 90</b> <b>FAX : +46 31 744 32 99</b> E-mail : <a href="mailto:info@se.haulotte.com">info@se.haulotte.com</a> <a href="mailto:spares@se.haulotte.com">spares@se.haulotte.com</a> <a href="http://www.haulotte.se">www.haulotte.se</a></p>		<p>HAULOTTE TRADING (SHANGHAI) Co. Ltd. #7 WORKSHOP No 191 HUA JIN ROAD MIN HANG DISTRICT SHANGHAI 201108 CHINA <b>TEL : +86 21 6442 6610</b> FAX : +86 21 6442 6619 E-mail : <a href="mailto:haulotteshanghai@haulotte.com">haulotteshanghai@haulotte.com</a> <a href="http://www.haulotte.cn">www.haulotte.cn</a></p>		<p>HAULOTTE ARGENTINA Ruta Panamericana Km. 34,300 (Ramal A Escobar) 1615 Gran Bourg (Provincia de Buenos Aires) Argentina <b>TEL : +54 33 27 445991</b> FAX : +54 33 27 452191 E-mail : <a href="mailto:haulotteargentina@haulotte.com">haulotteargentina@haulotte.com</a> <a href="http://www.haulotte.com.ar">www.haulotte.com.ar</a></p>
	<p>HAULOTTE UK Ltd 1 Gravely Way Four Ashes Wolverhampton WV10 7GW ENGLAND <b>TEL : +44 (0)1216 199753</b> FAX : +44 (0)1952 292758 E-mail : <a href="mailto:salesuk@haulotte.com">salesuk@haulotte.com</a> <a href="http://www.haulotte.co.uk">www.haulotte.co.uk</a></p>		<p>HAULOTTE GROUP / BILJAX 125 TAYLOR PARKWAY ARCHBOLD, OH 43502 – USA <b>TEL : +1 419 445 8915</b> FAX : +1 419 445 0367 Toll free : +1 800 537 0540 E-mail : <a href="mailto:sales@us.haulotte.com">sales@us.haulotte.com</a> <a href="http://www.haulotte-usa.com">www.haulotte-usa.com</a></p>		<p>HAULOTTE NORTH AMERICA 3409 Chandler Creek Rd. VIRGINIA BEACH, VA 23453 – USA <b>TEL : +1 757 689 2146</b> FAX : +1 757 689 2175 Toll free : +1 800 537 0540 E-mail : <a href="mailto:sales@us.haulotte.com">sales@us.haulotte.com</a> <a href="http://www.haulotte-usa.com">www.haulotte-usa.com</a></p>
	<p>HAULOTTE NETHERLANDS BV Koopvaardijweg 26 4906 CV OOSTERHOUT - Nederland <b>TEL : +31 (0) 162 670 707</b> FAX : +31 (0) 162 670 710 E-mail : <a href="mailto:info@haulotte.nl">info@haulotte.nl</a> <a href="http://www.haulotte.nl">www.haulotte.nl</a></p>		<p>HAULOTTE AUSTRALIA PTY Ltd 51 Port Link Drive DANDENONG – VIC – 3175 <b>TEL : 1 300 207 683</b> FAX : +61 (0)3 9792 1011 E-mail : <a href="mailto:sales@haulotte.com.au">sales@haulotte.com.au</a> <a href="http://www.haulotte.com.au">www.haulotte.com.au</a></p>		<p>HAULOTTE CHILE Panamerica Norte Altura Km 21,5 Colina (Cruce c/Lo Pinto) Santiago (RM) <b>TEL : +56 2 3727630</b> E-mail : <a href="mailto:haulotte-chile@haulotte.com">haulotte-chile@haulotte.com</a> <a href="http://www.haulotte-chile.com">www.haulotte-chile.com</a></p>

# G. Other information

## 2.1 - CALIFORNIA WARNING

For the US destined machines (ANSI and CSA standards)

<p style="text-align: center;"><b>CALIFORNIA</b></p> <p style="text-align: center;"> <b>Proposition 65 Warning</b></p> <p>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.</p> <p>For more information go to  <a href="http://www.P65Warnings.ca.gov/passenger-vehicle">www.P65Warnings.ca.gov/passenger-vehicle</a></p>
<p style="text-align: center;"><b>CALIFORNIE</b></p> <p style="text-align: center;"> <b>Avertissement de la Proposition 65</b></p> <p>L'exploitation, l'entretien et la maintenance d'un véhicule de tourisme ou d'un véhicule tout-terrain peuvent vous exposer à des produits chimiques, y compris les gaz d'échappement, le monoxyde de carbone, les phthalates et le plomb, identifiés par l'État de Californie comme pouvant causer le cancer et des malformations congénitales ou autres effets nocifs sur la reproduction. Pour limiter toute exposition: évitez de respirer les gaz d'échappement, ne laissez pas tourner le moteur au ralenti sauf si nécessaire, faites l'entretien du véhicule dans une zone bien aérée et portez des gants ou lavez vous fréquemment les mains lors de cette opération.</p> <p>Pour de plus amples informations, consulter  <a href="http://www.P65Warnings.ca.gov/passenger-vehicle">www.P65Warnings.ca.gov/passenger-vehicle</a></p>
<p style="text-align: center;"><b>CALIFORNIA</b></p> <p style="text-align: center;"> <b>Advertencia de la Proposición 65</b></p> <p>Operar, dar servicio y mantenimiento a un vehículo de pasajeros o vehículo todo terreno puede exponerle a químicos incluyendo gases del escape, monóxido de carbono, ftalatos y plomo, los cuales son conocidos por el Estado de California como causantes de cáncer y defectos de nacimiento u otros daños reproductivos. Para minimizar la exposición, evite respirar los gases del escape, no encienda el motor excepto si es necesario, dé servicio a su vehículo en un área bien ventilada y utilice guantes o lave sus manos frecuentemente cuando dé servicio a su vehículo.</p> <p>Para mayor información visite  <a href="http://www.P65Warnings.ca.gov/passenger-vehicle">www.P65Warnings.ca.gov/passenger-vehicle</a></p>

# G. Other information

## F o r e l e c t r i c ( b a t t e r y o p e r a t e d ) m a c h i n e s

### CALIFORNIA



#### Proposition 65 Warning

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

WASH HANDS AFTER HANDLING.

For more information go to  [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### CALIFORNIE



#### Avertissement de la Proposition 65

Les batteries, les bornes et autres accessoires contiennent du plomb et des composés à base de plomb, agents chimiques identifiés par l'État de Californie comme pouvant provoquer le cancer et des effets nocifs sur la reproduction. Les batteries contiennent également d'autres agents chimiques identifiés par l'Etat de Californie comme pouvant provoquer le cancer.

SE LAVER LES MAINS APRES MANIPULATION.

Pour de plus amples informations, consulter  [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### CALIFORNIA



#### Advertencia de la Proposición 65

Los bornes, los terminales y los accesorios de las baterías contienen plomo y compuestos de plomo, químicos conocidos por el Estado de California como causantes de cáncer y daños reproductivos. Las baterías también contienen otros químicos conocidos por el Estado de California como causantes de cáncer.

LAVESE LAS MANOS DESPUES DE MANIPULARLOS.

Para mayor información visite  [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# G. Other information



## Notes

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

# H - Intervention register

## 1 - Intervention register

The intervention register keeps a record of maintenance and repair work carried out inside or outside the maintenance programme.

***N.B.: -IN THE CASE OF A HAULOTTE SERVICES® INTERVENTION, THE QUALIFIED TECHNICIAN MUST INDICATE THE HAULOTTE SERVICES® INTERVENTION NUMBER.***

Date	Type of intervention	Number of hours	Intervenor	HAULOTTE Services® intervention number

A

B

C

D

E

F

G

**H**

I

# H - Intervention register

Date	Type of intervention	Number of hours	Intervenor	HAULOTTE Services® intervention number