

TELESCOPIC MACHINES, 28 - 43 M

Maintenance book

TELESCOPIC MACHINES, 28 - 43 M

H28TJ+ (HB86TJ+)

H43TPX (HB135JRT)

2420333140

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EN



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

1 - Maintenance book

As indicated on the delivery slip, this maintenance book is one of the documents in our on-board case supplied on delivery of your machine.

Person using this product must do so in accordance with the instruction provided in this manual.

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

- Compliance with safety instruction (machine, use, environment).
- Use of the equipment within the performance limits.

2 - After Sales Service

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

- When contacting our After Sales Service, ensure that you provide the machine model and serial number.
- When ordering any consumables or spare parts, please use this manual and the Haulotte Essential catalogue to receive your genuine HAULOTTE spare parts, your only guarantee of parts interchangeability and correct machine operation..
- If there is an equipment malfunction involving a HAULOTTE® product, then contact HAULOTTE Services® immediately even if the malfunction does not involve material and/or bodily damage..
- HAULOTTE® must be informed in the event of an incident that either involves one of these products or has caused bodily injury or significant deterioration of property (personal property or the product); contact HAULOTTE Services® immediately (See : HAULOTTE Services® contact details)

3 - Compliance

We would like to remind you that HAULOTTE® complies with the provisions of any applicable directives applicable to this type of machine.

HAULOTTE advises you that NO modifications carried out without the written permission of HAULOTTE® will void the HAULOTTE warranty..

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

HAULOTTE® reserves the right to alter technical specifications and to make improvements or modifications to the machine without modifying this manual.



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

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

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

A - Safety precautions

1 - Recommendations

1.1 - MAINTENANCE BOOK

The maintenance book is intended for the on-site maintenance technician.

It is the on-site maintenance technician's duty to carry out the regular maintenance work recommended by HAULOTTE Services®.

This maintenance work is essential for correct machine operation.

If regular maintenance is not carried out, this may :

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

To ensure that the regular maintenance requirements are fully satisfied, contact HAULOTTE Services®.

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

A**B****C****D****E****F****G****H****I**

A - Safety precautions

1.2 - SYMBOLS USED

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

Symbol meanings

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

A - Safety precautions

1.3 - LABEL COLORS

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



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

Familiarize yourself with the labels and their respective color codes.

Label color code

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

Label color code-For Russia and the Ukraine only

Labels	Color	Meaning
	Red	Prohibitions - Danger
	Yellow	Warning : Risk of material damage and/or minor injury
	Blue	Precaution
	Blue	Information
	Other	Additional technical information

A

- Safety precautions

2 - Manufacturer's warranty

2.1 - WARRANTY ACCEPTANCE

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

2.2 - WARRANTY PERIOD

The present warranty is granted for a period of 12 months or a limit of 1000 operating hours for lifting and handling equipment and 2000 operating hours for public works machinery, to run from delivery and terminating with the first period to be reached.

Spare parts are covered by a 6 month warranty.

2.3 - CONDITIONS OF WARRANTY

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

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

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

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

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

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

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

A - Safety precautions

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

- Consumables : No claims will be accepted for objects or parts replaced in the context of normal machine usage.
- Settings : Adjustments of all sorts may become necessary at any time. Therefore adjustments are considered a part of normal machine usage conditions and are not covered by the warranty.
- Hydraulic and fuel circuit contamination : Every possible precaution is taken to ensure that fuel and hydraulic liquid delivered is clean. On the other hand, in certain cases it is possible to contaminate fuel and hydraulic circuits, especially when fuel and lubricants are stored on the work site. Moreover, irregular or poor cleaning of the decanting device may also cause fuel/hydraulic circuit contamination and therefore damage the parts in direct contact with these liquids. HAULOTTE® will not accept any claims concerning cleaning of the fuel circuit, filter, injection pump or any other equipment in direct contact with fuel or lubricants.
- Wearing parts (pads, bearings, tyres, connections, etc.) : These parts are, by definition, subject to deterioration during the period of operation. Wearing parts will therefore not be covered by the warranty agreement.

2.4 - WARRANTY CONDITIONS

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

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

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

The owner or rental company must ensure that the defect covered by the HAULOTTE® warranty is reported to and acknowledged by the HAULOTTE® branch (the only dealer authorised to carry out work covered by the warranty) as rapidly as possible or must report the defect in writing.

Work carried out under the HAULOTTE® warranty will be performed by the branch which participated in delivery of the machine, wherever possible.

A - Safety precautions

3 - Scope of intervention

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



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

Inspections and maintenance

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

A - Safety precautions

4 - Instructions for intervention



Do not use the machine during while maintenance work is being completed on it.



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

N.B.-: Acid is neutralised with sodium bicarbonate and water.



Do not operate the product in the following situations :

- Do not work in an explosive or flammable atmosphere (spark, flame, etc.).
- Do not touch the hot parts of the hydraulic power source (engine, filters, etc.).
- Do not bridge the battery terminals with metallic objects.
- Do not service the battery close to a spark, naked flame, glowing tobacco (emissions of gas).
- Never expose the batteries or electrical components to water (pressure cleaner, rain).
- Never disable the safety devices.
- Do not climb onto the covers.
- Do not fill up the fuel tank, when the engine is running and/or close to a naked (open) flame.



Use an oil collection pan to avoid polluting the environment.

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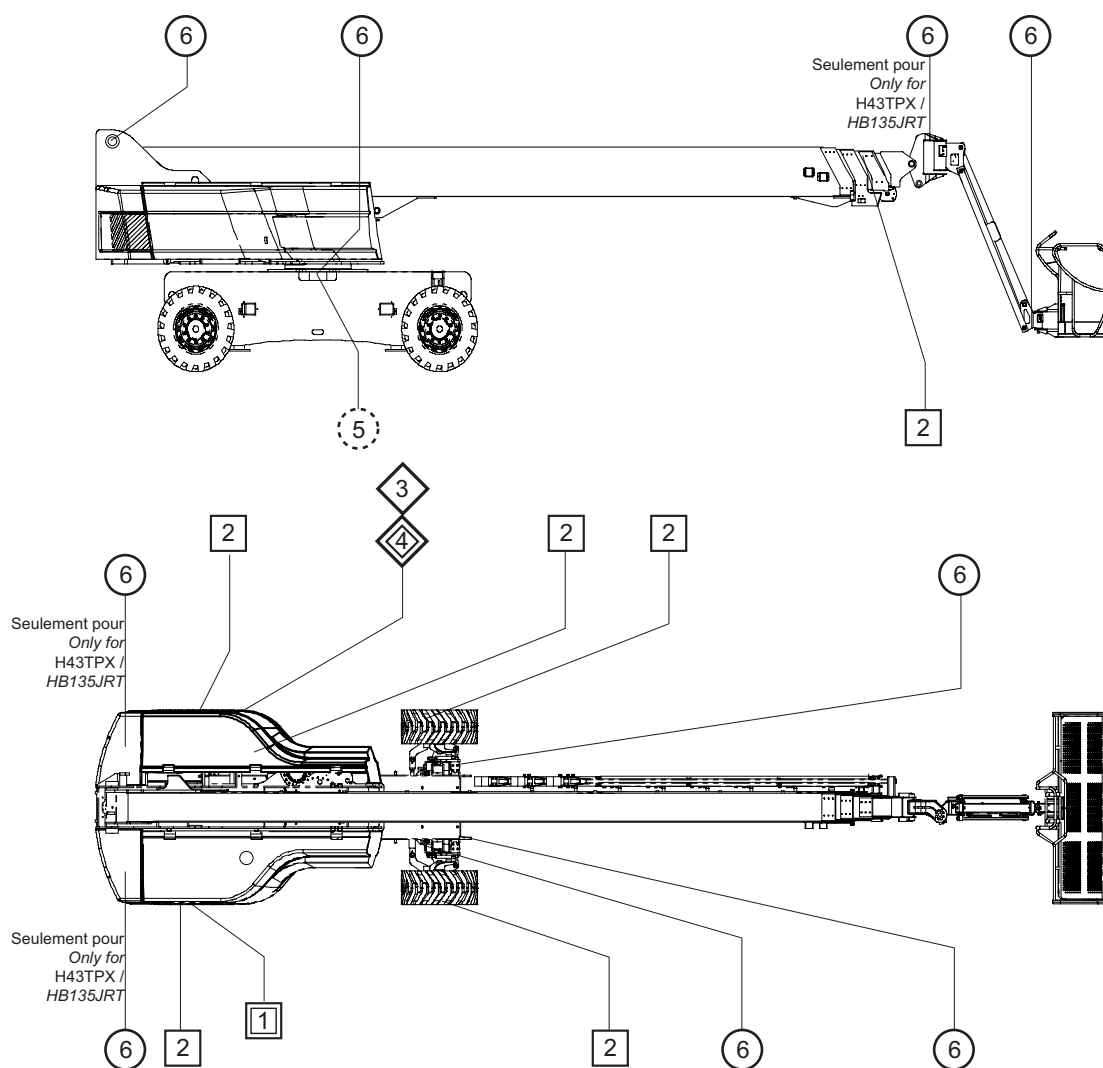
I

A - Safety precautions

B - Recommendations

1 - Lubrication diagram

Diagram



B - Recommendations

List of ingredients

Marking	Ingredient	Symbol	HAULOTTE® code
1	Engine oil - Can 20 l(5,3 gal US)		2420801360
	Engine oil - Barrel 209 l(55,2 gal US)		2420801350
	Engine oil (+30° / - 20°)		2820305670
	Engine oil (Winter option)		4000010660
2	Box oil - Can 20 l(5,3 gal US)		2420801370
	Box oil - Barrel 209 l(55,2 gal US)		2420801380
3	Hydraulic oil (Standard) - Barrel 209 l(55,2 gal US)		2420801310
	Hydraulic oil (Winter option)		2505002640
4	Biological hydraulic oil - Barrel 209 l(55,2 gal US)		2820304310
5	Extreme-pressure lithium grease		2820304320
6	Lead-free grease - Aerosol 0,4 l(0.1 gal US)		2820304330
	Lead-free grease - Can 5 l(1,32 gal US)		2820304340
7	Molybdenum grease		
8	Oil		
9	High-pressure lubricant		

2 - Consumables

List of consumables

Consumable	HAULOTTE® code	Applicability
Hydraulic filter cartridge- Movements	2427002910	H43TPX (HB135JRT)
		H28TJ+ (HB86TJ+)
Hydraulic filter cartridge- Driving	2427003110	H43TPX (HB135JRT)
		H28TJ+ (HB86TJ+)
Primary air filter	2427003090	H43TPX (HB135JRT)
		H28TJ+ (HB86TJ+)
Secondary air filter	2427003100	H43TPX (HB135JRT)
		H28TJ+ (HB86TJ+)
Diesel filter	2427003070	H43TPX (HB135JRT)
		H28TJ+ (HB86TJ+)
Engine oil filter	2427003080	H43TPX (HB135JRT)
		H28TJ+ (HB86TJ+)
Filter pack ⁽¹⁾	KKIT250H-HA32	H43TPX (HB135JRT)
		H28TJ+ (HB86TJ+)

(1.) 1 hydraulic filter cartridge + 1 air filter + 1 diesel pre-filter + 1 diesel filter + 1 engine oil filter

B - Recommendations

2.1 - FUELS

These fuels can be used on any type of mechanical injection engine. Please see machine configuration.

N.B.:- The fuel to be used is regulated by national laws; refer to these requirements and to the table below to define the appropriate fuel.

Table of technically permitted fuels

Engines	Fuels			
Hydraulic filter cartridge	European gas oil according to EN590	European fuel oil according to BS2869 class 2	American gas oil according to ASTM D975-07b	Japanese gas oil according to NATO F54
HATZ 41C	✓	✓	✓	✓
DEUTZ 2011/2012	✓	✓	✓	✓
PERKINS 403/804/1104	✓	✓	✓	✓
LOMBARDINI LDW 1404	✓	✗	✗	✓
KUBOTA D1105-W1	✓	✗	✓	✗

Compliant



Not compliant



Other fuels :

- Biofuels : According to EN14214 (EU) and ASTM D6751-07a (USA) biofuels are allowed on some engines and under certain conditions. For more information, please contact HAULOTTE Services®.
- Jet engine fuels (kerosene) : F34 and F35 types under OTAN designation are possible on some engines and under certain conditions. For more information, please contact HAULOTTE Services®.

The use of vegetable oils is forbidden.

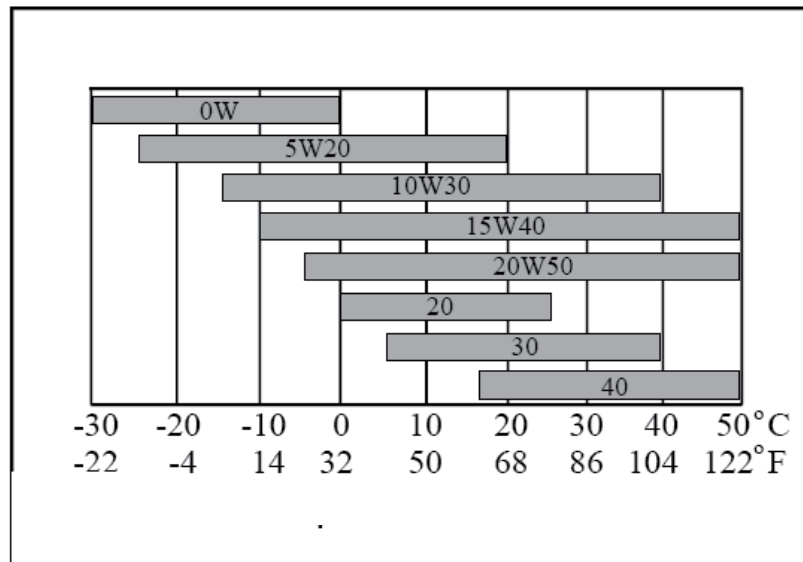
B

- Recommendations

2.2 - MOTOR OILS

In order to ensure that the engine will run properly, it is recommended to use the following oils

Viscosity table



B - Recommendations

2.3 - HYDRAULIC OILS

Hydraulic oils must comply with the following requirements :

- Oil filterability must be compatible with absolute filters .
- Have properties such as :
- Antifoam and deaeration.
- Anti-wear, anti-shear and antioxydant.
- Rust and corrosion inhibitors (copper).

The recommended viscosity grades depending on the environmental conditions are as follows :

Environmental conditions	ISO Viscosity grade
Ambient temperature between - 15 °C(- 9 °F) and + 40 °C(+ 104 °F)	HV 46
Ambient temperature between - 35 °C(- 31 °F) and + 35 °C(+ 95 °F)	HV 32
Ambient temperature between 0 °C(32 °F) and + 45 °C(+ 113 °F)	HV 68

Biodegradable oils may be used if they comply with the following requirements :

- Ambient operating temperature between -15 °C(-9 °F) and + 40 °C(+ 104 °F) .
- HEES type biodegradable oil only according to standards ISO 15380 and VDMA 24568.
- Necessary characteristics

Viscosity grade	ISO Viscosity grade
Viscosity at + 40 °C(+ 104 °F)	46 +/- 3 mm ² / s
Viscosity at + 100 °C(+ 260 °F)	> 8 mm ² / s
Viscosity index	> 160
Flashpoint	> 220° C (> 572° F)
Pour point	< - 40° C (> - 104° F)

B - Recommendations

3 - Labels

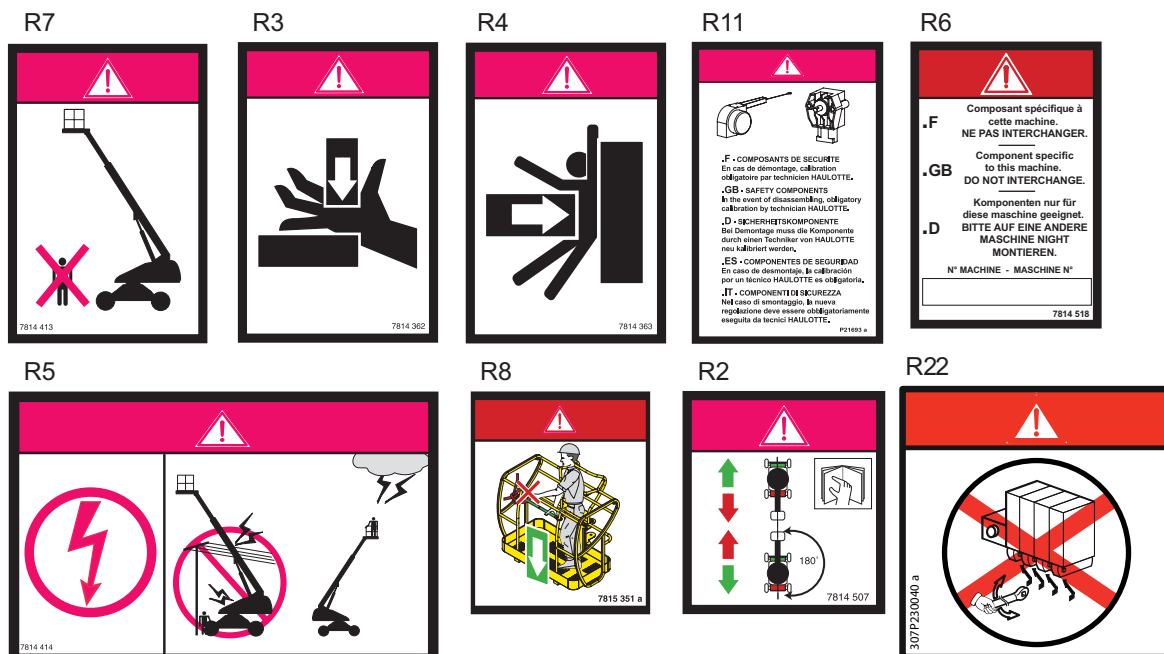
3.1 - CLASSIFICATION PLAN

3.1.1 - Red labels

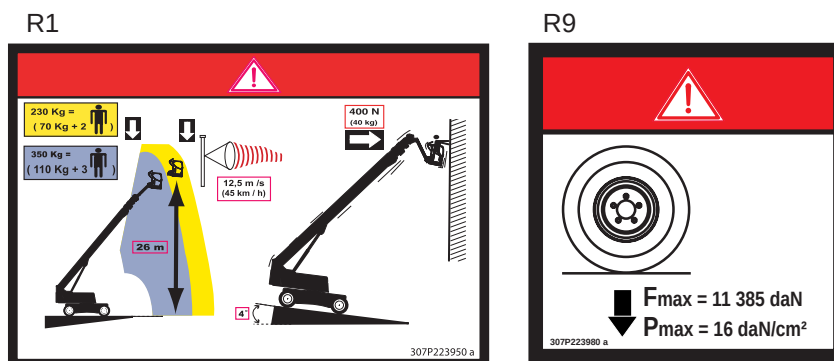


The red labels indicate a potentially fatal danger.

Common labels

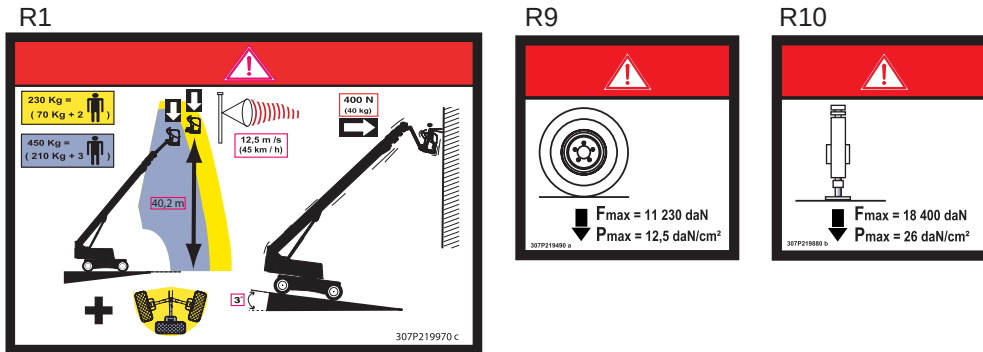


Specific labels H28TJ+ (HB86TJ+)



B - Recommendations

Specific labels H43TPX (HB135JRT)



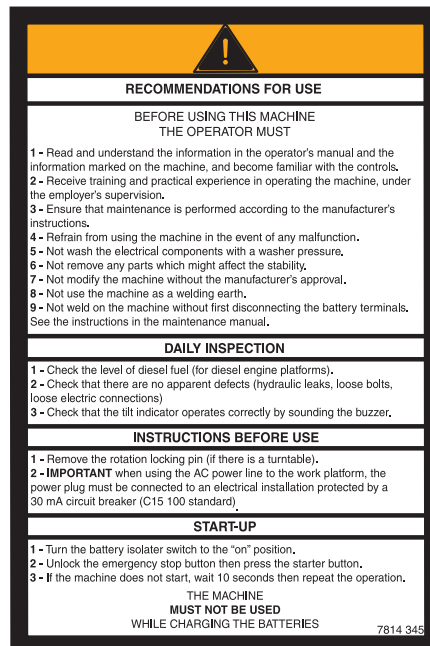
3.1.2 - Orange labels



The orange labels indicate a risk of serious injury.

Common labels - CE

O1



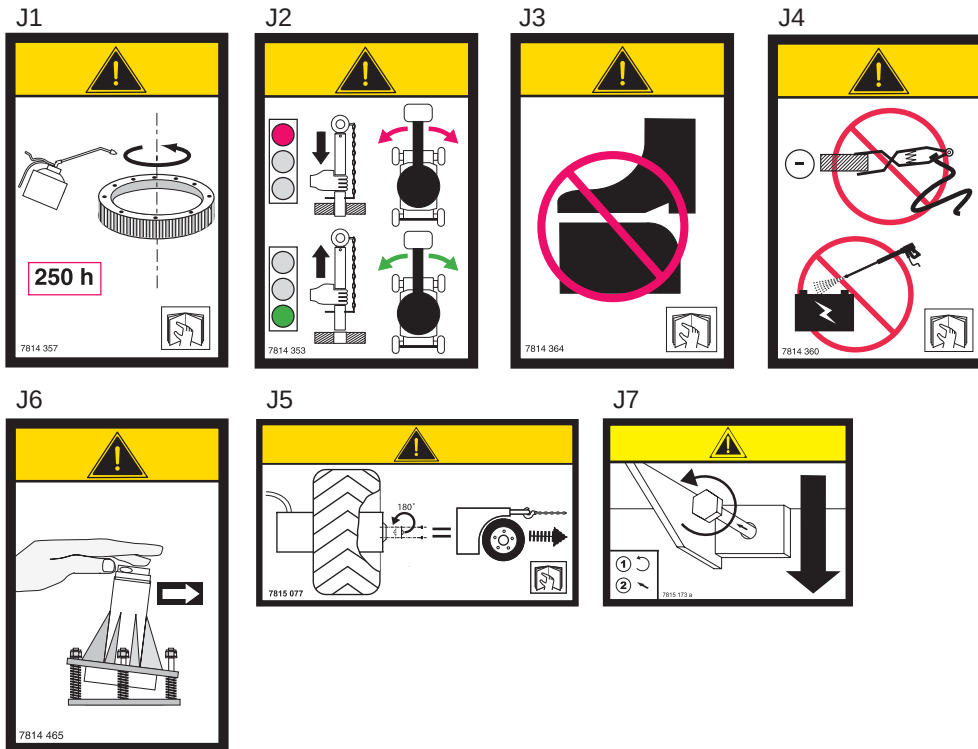
B - Recommendations

3.1.3 - Yellow labels



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

Common labels



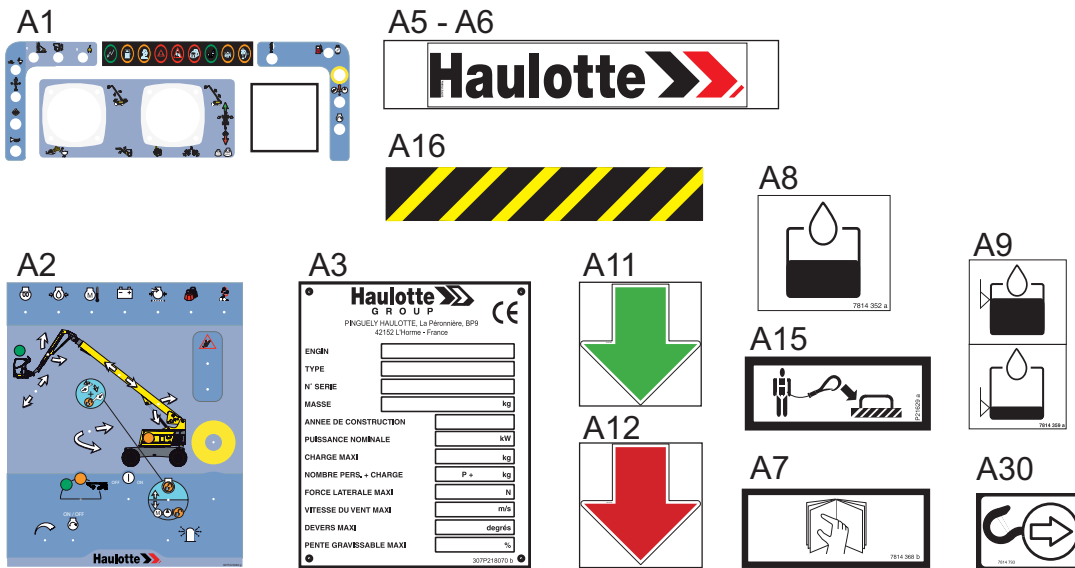
B - Recommendations

3.1.4 - Other labels

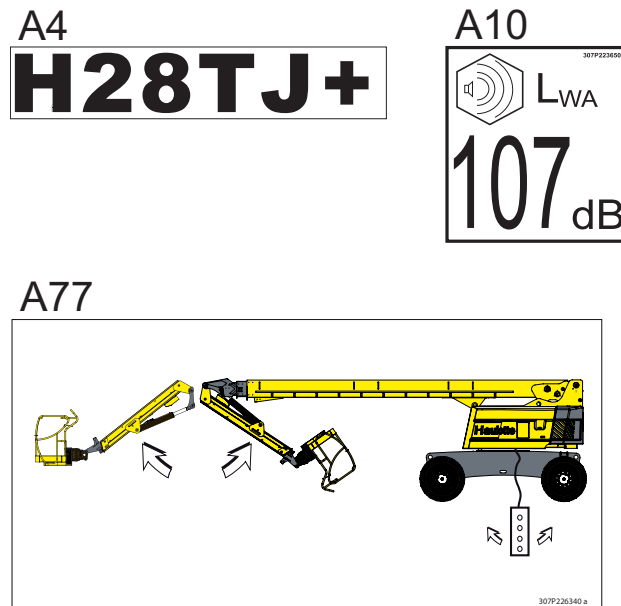


The other labels provide additional technical information.

Common labels

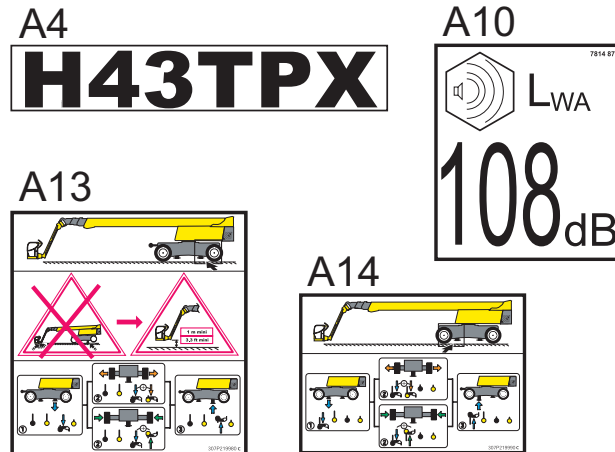


Specific labels : H28TJ+ (HB86TJ+)

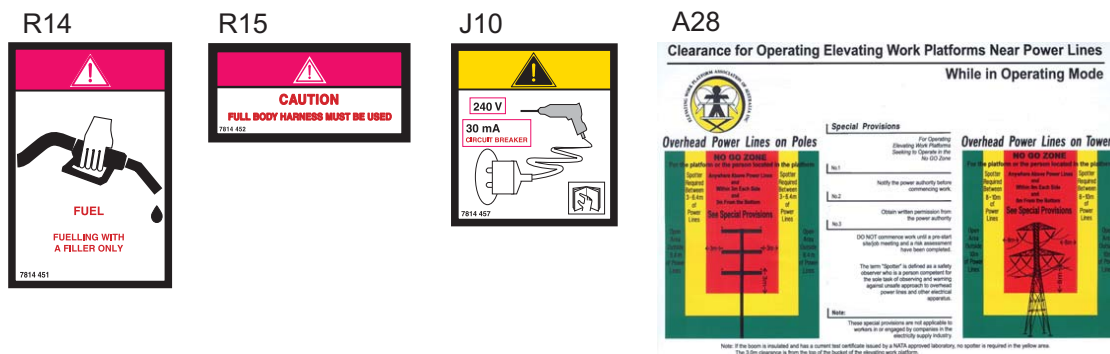


B - Recommendations

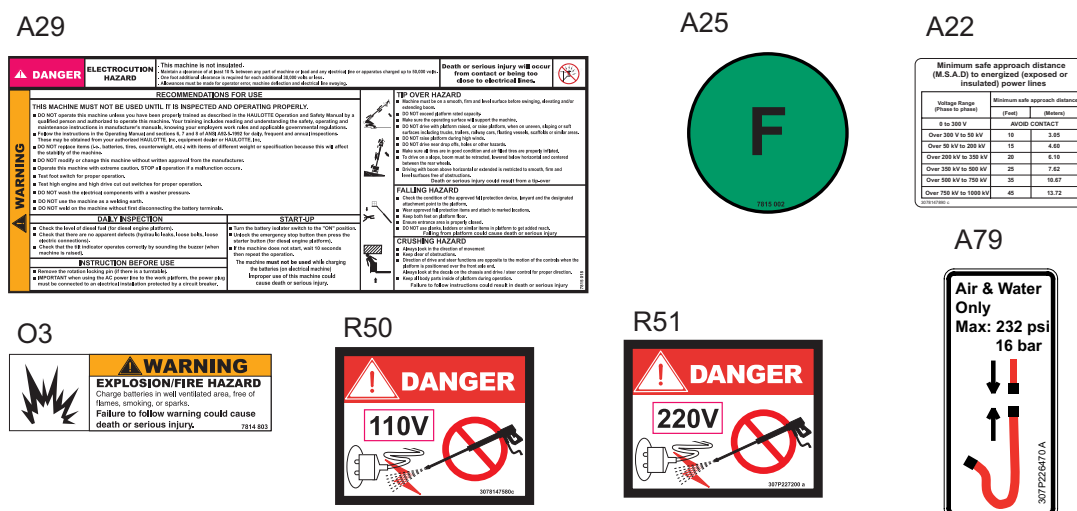
Specific labels : H43TPX (HB135JRT)



Specific labels AS



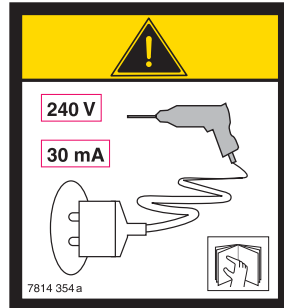
Specific labels ANSI



B - Recommendations

Specific labels, optional

J10



A8



3.1.5 - Green labels

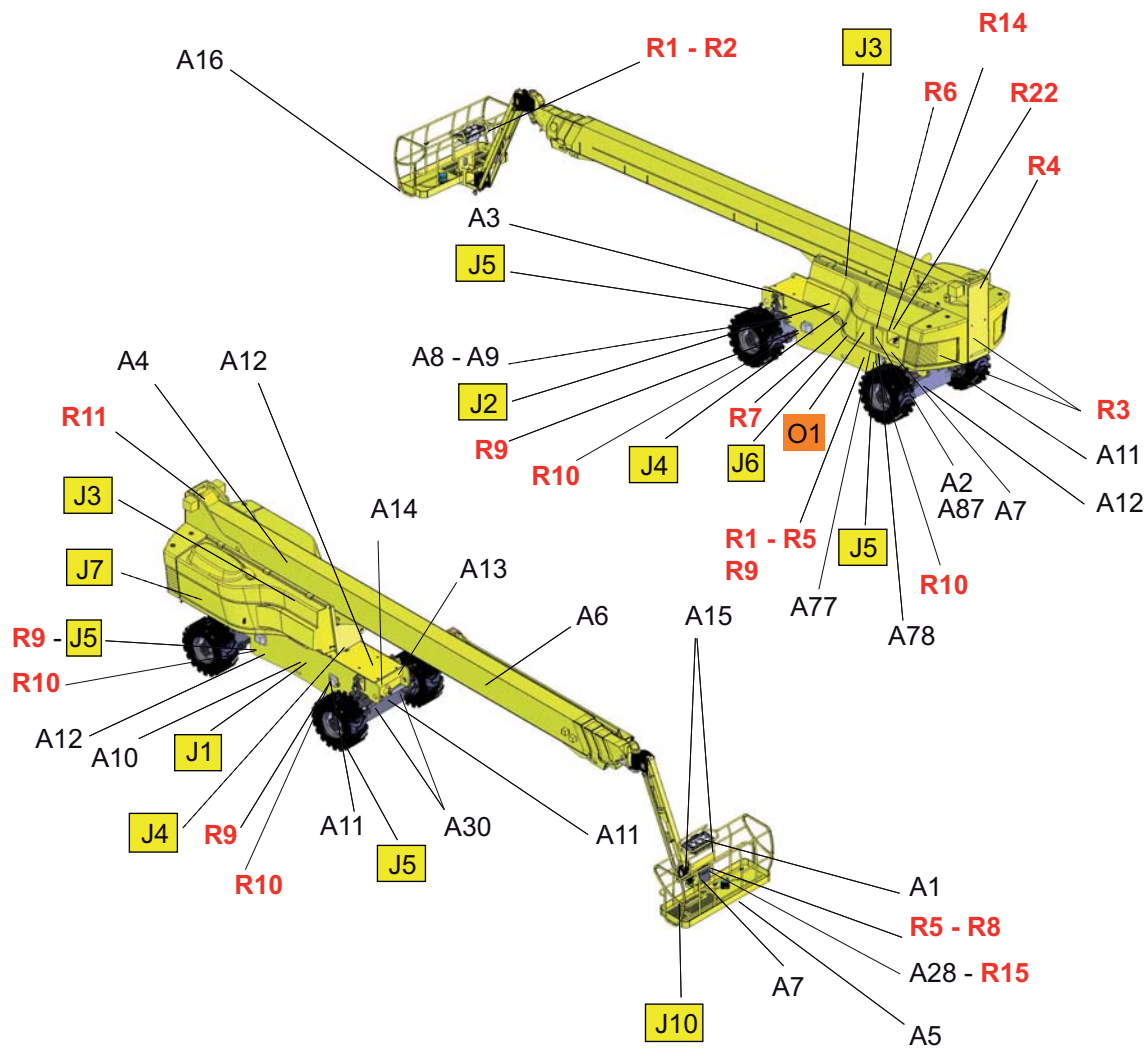


Green labels indicate maintenance, operations or information (CSA standard).

3.1.6 - Blue labels

N.B.-: The blue labels indicate information or a precaution to be taken in case of danger.

Locations - Standards CE and AS



B - Recommendations

Label descriptions - Standards CE and AS

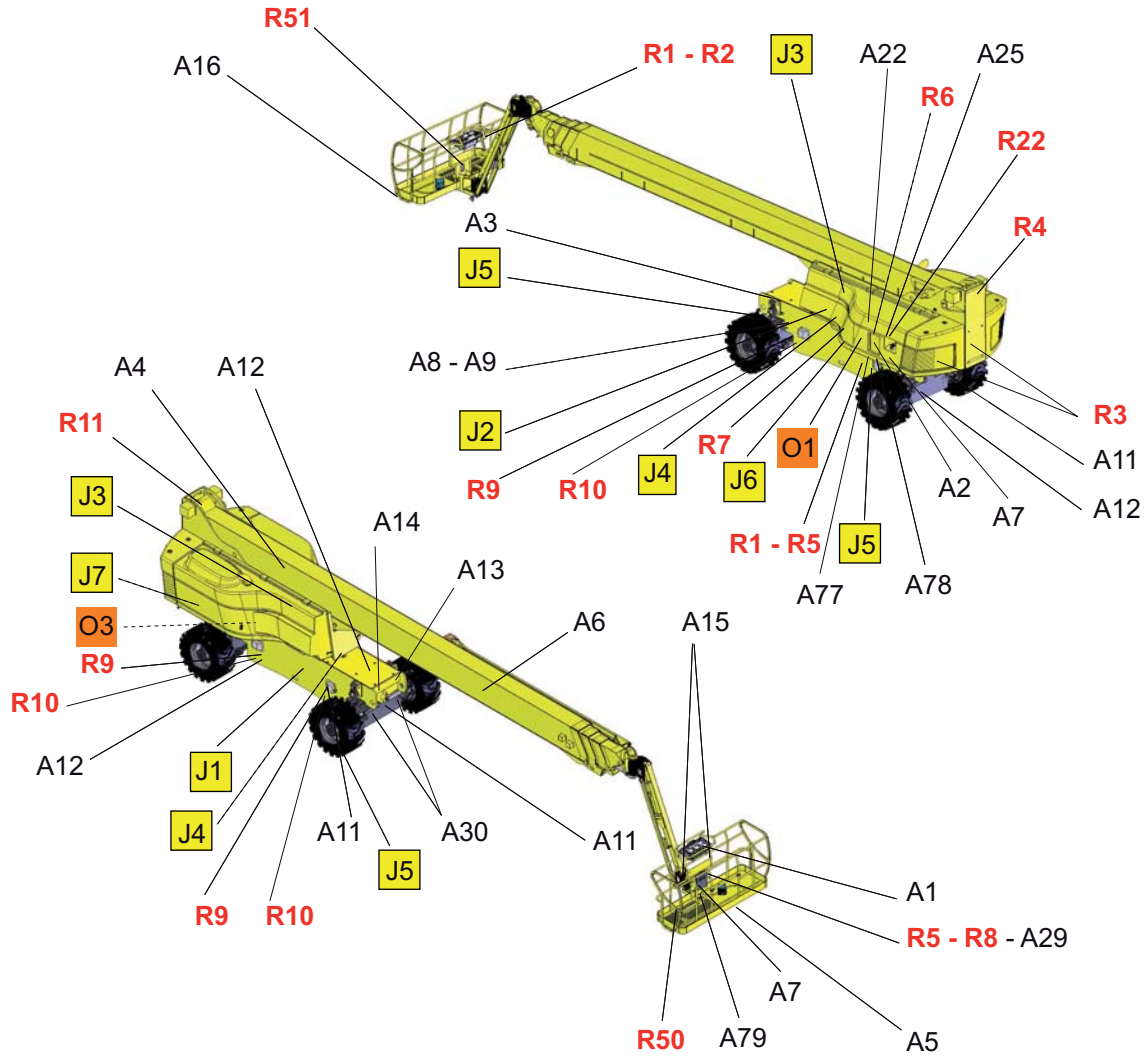
Color	Marking	Description	Quantity	H28TJ+ (HB86TJ+)	H43TPX (HB135JRT)
Red	R1	Height of the floor and load	2	307P223950	307P219970
Red	R2	Travel direction	1	3078145070	3078145070
Red	R3	Risk of crushed hands	2	3078143620	3078143620
Red	R4	Risk of body crushing	2	3078143630	3078143630
Red	R5	Danger of electrocution	2	For CE standard only : 3078144140	For CE standard only : 3078144140
Red	R6	Do not interchange	1	3078145180	3078145180
Red	R7	Do not park in the work area	2	3078144130	3078144130
Red	R8	Close the sliding mid-rail	1	3078153510	3078153510
Red	R9	Wheel load	4	307P223980	307P219490
Red	R10	Maximum effort on the stabilizers	4		307P219880
Red	R11	Calibration after dismantling	1	307P216930	307P216930
Red	R14	Fuel filling-up	1	For AS standard only : 3078144510	For AS standard only : 3078144510
Red	R15	Harness use	1	For AS standard only : 3078144520	For AS standard only : 3078144520
Red	R22	Prohibited use of the PVG	1	307P230040	307P230040
Orange	O1	Operation instructions	1	In french (CE standard) : 3078143420	In french (CE standard) : 3078143420
				In english (Standards CE and AS) : 3078144560	In english (Standards CE and AS) : 3078144560
				In german (CE standard) : 3078143440	In german (CE standard) : 3078143440
				In spanish (CE standard) : 3078143430	In spanish (CE standard) : 3078143430
				In italian (CE standard) : 3078143460	In italian (CE standard) : 3078143460
				In dutch (CE standard) : 3078143470	In dutch (CE standard) : 3078143470
				In danish (CE standard) : 3078144940	In danish (CE standard) : 3078144940
				In finish (CE standard) : 3078145540	In finish (CE standard) : 3078145540
				In portuguese (CE standard) : 3078145830	In portuguese (CE standard) : 3078145830
				In swedish (CE standard) : 3078145940	In swedish (CE standard) : 3078145940
Yellow	J1	Greasing the turntable rotation gear	1	3078143570	3078143570
Yellow	J2	Remove the blocking pin before rotating	1	3078143530	3078143530
Yellow	J3	Do not place your foot on the cover	2	3078143640	3078143640

B - Recommendations

Color	Marking	Description	Quantity	H28TJ+ (HB86TJ+)	H43TPX (HB135JRT)
Yellow	J4	Do not use the machine as a welding earth	2	3078143600	3078143600
Yellow	J5	Brake release	4	3078150770	3078150770
Yellow	J6	Verification of tilt operation	1	3078144650	3078144650
Yellow	J7	Revolving cradle	1	3078151730	3078151730
Yellow	J10	Socket	1	For CE standard only : 3078143540	For CE standard only : 3078143540
Yellow	J10	Socket	1	For AS standard only : 3078144570	For AS standard only : 3078144570
Other	A1-1	Central platform control box	1	307P223390	307P219430
Other	A1-2	Left platform control box	1	307P219440	307P219440
Other	A1-3	Right platform control box	1	307P223410	307P219450
Other	A1-4	Upper central platform control box	1	307P223400	307P219470
Other	A2	Ground control box	1	307P223380	307P218380
Other	A3	Identification plate	1	307P218070	307P218070
Other	A4	Machine name logo	1	307P223930	307P219950
Other	A5	Small format HAULOTTE® logo	1	307P217080	307P217080
Other	A6	Large format HAULOTTE® logo	1	307P217220	307P217220
Other	A7	Read the operation manual	2	3078143680	3078143680
Other	A8	Hydraulic oil	1	3078143520	3078143520
Other	A8	Biodegradable oil	1	3078148890	3078148890
Other	A9	Upper and lower oil level	1	3078143590	3078143590
Other	A10	Noise emission level	1	307P223650	3078148740
Other	A11	Front green drive direction arrow	4	3078143930	3078143930
Other	A12	Rear red drive direction arrow	4	3078143940	3078143940
Other	A13	Swing axle extension/retraction	1		307P219980
Other	A14	Fixed axle extension/retraction	1		307P219990
Other	A15	Harness anchor point location	2	307P216290	307P216290
Other	A16	Yellow and black adhesive tape	1	2421808660	2421808660
Other	A28	Risks of electrocution	1	For AS standard only : 307P226440	For AS standard only : 307P226440
Other	A30	Machine tie down points	4	3078147930	3078147930
Other	A77	Putting in transport position	1	For CE standard only : 307P226340	
Other	A78-1	Right transport positioning box	1	307P226280	
Other	A78-2	Left transport positioning box	1	307P226290	
Other	A78-3	Dead Man	1	307P224810	
Other	A87	Emergency control panel	1	For Italy only : 307P232500	

B - Recommendations

Locations-Standards ANSI and CSA



B - Recommendations

Label descriptions-Standards ANSI and CSA

Color	Marking	Description	Quantity	H28TJ+ (HB86TJ+)	H43TPX (HB135JRT)
Red	R1	Height of the floor and load	2	307P224020	307P222010
Red	R2	Travel direction	1	3078147300	3078147300
Red	R3	Risk of crushed hands	2	3078147240	3078147240
Red	R4	Risk of body crushing	2	3078147260	3078147260
Red	R5	Danger of electrocution	2	3078147460	3078147460
Red	R6	Do not interchange	1	3078147320	3078147320
Red	R7	Do not park in the work area	2	3078147430	3078147430
Red	R8	Close the sliding mid-rail	1	3078153630	3078153630
Red	R9	Wheel load	4	307P223990	307P219500
Red	R10	Maximum effort on the stabilizers	1		307P219890
Red	R11	Calibration after dismantling	1	307P218880	307P218880
Red	R22	Prohibited use of the PVG	1	307P230040	307P230040
Red	R50	Socket - 110V	1	3078147580	3078147580
Red	R51	Socket - 220V	1		307P227200
Orange	O1	Operation instructions	1	3078147050	3078147050
Orange	O3	Risks of explosion	1	3078148030	3078148030
Yellow	J1	Greasing the turntable rotation gear	1	3078147190	3078147190
Yellow	J2	Remove the blocking pin before rotating	1	3078147700	3078147700
Yellow	J3	Do not place your foot on the cover	2	3078147270	3078147270
Yellow	J4	Do not use the machine as a welding earth	2	3078147220	3078147220
Yellow	J5	Brake release	4		3078150780
Yellow	J6	Verification of tilt operation	1	3078147090	3078147090
Yellow	J7	Revolving cradle	1	307P215290	307P215290
Other	A1-1	Central platform control box	1	307P223390	307P219430
Other	A1-2	Left platform control box	1	307P219440	307P219440
Other	A1-3	Right platform control box	1	307P223410	307P219450
Other	A1-4	Upper central platform control box	1	307P223400	307P219470
Other	A2	Ground control box	1	307P223380	307P218380
Other	A3	Identification plate	1	307P218170	307P218170
Other	A4	Machine name logo	1	307P224010	
Other	A5	Small format HAULOTTE® logo	1	307P217080	307P217080
Other	A6	Large format HAULOTTE® logo	1	307P217220	307P217220
Other	A7	Read the operation manual	2	3078147290	3078147290
Other	A8	Hydraulic oil	1	3078147140	3078147140
Other	A8	Biodegradable oil	1	3078148920	3078148920
Other	A9	Upper and lower oil level	1	3078147210	3078147210
Other	A11	Front green drive direction arrow	4	3078143930	3078143930
Other	A12	Rear red drive direction arrow	4	3078143940	3078143940
Other	A13	Swing axle extension/retraction	1		307P215380
Other	A14	Fixed axle extension/retraction	1		307P215370
Other	A15	Harness anchor point location	2	3078147950	3078147950
Other	A16	Yellow and black adhesive tape	1	2421808660	2421808660
Other	A22	Voltage table	1	3078147890	3078147890
Other	A25	Fuel tank cap	1	3078150020	3078150020
Other	A27	Permissible load	1		307P222020
Other	A29	Summary safety instructions	1	3078150180	3078150180
Other	A30	Machine tie down points	4	3078147930	3078147930
Other	A77	Putting in transport position	1	307P226350	
Other	A78-1	Right transport positioning box	1	307P226300	
Other	A78-2	Left transport positioning box	1	307P226310	

B

 - Recommendations

Color	Marking	Description	Quantity	H28TJ+ (HB86TJ+)	H43TPX (HB135JRT)
Other	A78-3	Dead Man	1	307P224810	
Other	A79	Air line	1		307P226470

A

B

C

D

E

F

G

H

I

B - Recommendations

C - Maintenance

1 - General program / Recommendations

The design service life of the products covered by this manual is for a period of 10 years. This service life is based on the machine being maintained within the maintenance regime set down in the Maintenance Manual supplied with the product.

It must be noted that should the product be subject to ongoing use in harsh environments, then the effective service life will be reduced. Contact Haulotte Services for further advice.

The time periods below are recommended for fuel-powered machines in normal use.

Symbol	Meaning	Symbol	Meaning
	Visual inspections		Systematic replacement Operation requiring HAULOTTE Services® authorisation
	Check-Test See user manual or machine maintenance book	 (1)	Visual inspection with dismantling and exchange or replacement if necessary Operation requiring HAULOTTE Services® authorisation Increase in periodical inspections
	Check level		Tightening (bolt, etc.)
	Lubrication-Lubrication		Tolerance (clearance lubrication)
	Oil change	 (2)	Static and dynamic tests For countries where machines are not subject to controlled periodic maintenance

1 - Increase in periodical inspections

2 - For countries where machines are not subject to controlled periodic maintenance

C - Maintenance



Increase in periodical inspections : Depending on the condition of certain critical components after 5000 hours, the maintenance staff may have to reduce the interval between periodical inspections and maintenance. If the decision is made not to replace a part, the part concerned must be recorded in the inspection schedule.

Each day and before the beginning of a new work period and on each change of operator, the machine must be subjected to a visual inspection and a complete functional test. Any repairs required must be performed before the machine is used, its correct operation depends on it. Inspect the following items :

- State of the structure's parts : Wheel axles, Chassis, Turntable, Boom, jib, platform.
 - Absence of cracks, broken parts, damaged paint.
 - No distortion in metal components or visible damage.
 - Absence of foreign objects at the ends of boom/attachments.
 - Presence and check the original position of the platform control box sliding bar.
- Cylinders :
 - No leaks : Refer to the Maintenance book.
 - No rust and abrasions on the cylinder rod.
 - Absence of foreign objects on all surfaces.
- Steering system : Wheels, Driving reducer, Brake and Tyres :
 - No cracks, distortions, damaged paint or other faults.
 - No missing or loose bolts.
 - Condition of the tyres (cuts, excessive wear, etc.)
- State of the rotation systems : Turntable rotation, Turntable rotation selector in platform :
 - No excessive clearance : Refer to the Maintenance book.
 - No missing or loose bolts.
 - Absence of foreign objects on all surfaces.
 - Greasing the turntable rotation gear Turntable and Platform.
- Condition of the pulley system :
 - No excessive clearance : Refer to the Maintenance book.
 - No missing or loose bolts.
 - Absence of foreign objects on all surfaces.
 - Grease the extension system if necessary.

C - Maintenance

Area	Intervals				
	Daily	After 250 h (hours) or 1 year(s)	After 500 h (hours) or 1 year(s)	After 5000 h (hours) or 5 years	After 10000 h (hours) or 10 years
Platform assembly					
Structure parts					
Platform					
Guardrail					
Sliding (or swinging) intermediate guardrail					
Gate		 (4)			
Floor					
Platform rotation (Rotary cylinder)					
Harness anchorage point					
Boom assembly					
Structure parts					
Bearings		 			
Caps and covers					
Cables and chains				 (1)	
Cables and chains (Cable carrier cat track)				 (1)	
Turntable assembly					
Structure parts					
Slew ring (1)					
Revolving joint and commutator					
Turntable rotation gearbox		 	 		
Turntable rotation locking pin					
Bearings		 			
Caps and covers					
Chassis assembly					
Structure parts					
Anchorage point					
Tyres and rims					
Wheel nuts and bolts					
Wheel reducer					
Fixed and swing axles					
Axle extension and chassis lifting cylinder					

C

 - Maintenance

Area	Intervals				
	Daily	After 250 h (hours) or 1 year(s)	After 500 h (hours) or 1 year(s)	After 5000 h (hours) or 5 years	After 10000 h (hours) or 10 years
Steering bar and cylinder			 (2) 		
Wheel axles					
Functions and controls					
Platform control box (indicators, etc.)	 				
Ground control box (indicators, etc.)	 				
'Enable Switch' pedal	 				
Emergency stop buttons (on all control boxes)	 				
Circuit breaker and contactors	 				
Overload					
Horn	 				
Brakes					
Emergency lowering					
Indicators, switches, joysticks and selectors	 				
Dumping	 				
Limit switch (PV, radius limit, weighing)					
Back to neutral for all joysticks, selectors, etc.					
Power system					
Engine See manufacturer's guide					
Fuel	 				
Air filter (dust indicator)					
Engine oil filter					
Diesel filter (decanting device)					
Exhaust system					
Batteries (terminals, cleanliness, attachment)					
Fuel tank, cap and breather					
Alternator (indicator)					
Hydraulic and electric assemblies					
On-board generator		 (4)			
Hydraulic pump					
Hydraulic tank, cap and breather					
Hydraulic filter (clogging indicator)					

C - Maintenance

Area	Intervals				
	Daily	After 250 h (hours) or 1 year(s)	After 500 h (hours) or 1 year(s)	After 5000 h (hours) or 5 years	After 10000 h (hours) or 10 years
Hydraulic oil	 				
Electrical connections					
Common areas					
Structure parts					
Welds					 (1)
Hoses and couplings					 (1)
Pins, rings and pin stop				 (1)	
Pulleys and wear pads		 		 (1)	
Bearings		 			
Cylinders (welds, leakproofness, external leak, excessive distortion)			 (2) 		
Caps and covers					
General points					
User manual and intervention register					
Safety stickers and manufacturer's plate					
Mandatory inspection	According to current legislation in the country of use and at least once a year				
Performance check for all functions and safety devices	 				
Greasing and lubrication according to the maintenance plan					
General condition of the machine, paint, no leaks, cracks or excessive distortion, etc.					
Machine integrity, no modifications without HAULOTTE Services® authorisation					

1 - Increase in periodical inspections

2 - For countries where machines are not subject to controlled periodic maintenance

3 - Particular attention to be paid when checking the crown gear



Particular attention to be paid when checking the crown gear :

- Visual appearance of the interior and exterior (floating or broken bolts, etc.).
- Check bolt tightness by testing a sample, making sure that the bolts are slightly loosened before retightening with a torque wrench.  Section C E005Maintenance sheet
- Check the crown gear's functional clearance (every 2000 h). Consult the After-Sales Service

4 - For machines fitted with

C - Maintenance

2 - Detailed program

The time periods below are recommended for fuel-powered machines in normal use.

Symbol	Meaning	Symbol	Meaning
	Visual inspections		Systematic replacement Operation requiring HAULOTTE Services® authorisation
	Check-Test See user manual or machine maintenance book	 (1)	Visual inspection with dismantling and exchange or replacement if necessary Operation requiring HAULOTTE Services® authorisation Increase in periodical inspections
	Check level		Tightening (bolt, etc.)
	Lubrication-Lubrication		Tolerance (clearance lubrication)
	Oil change	 (2)	Static and dynamic tests For countries where machines are not subject to controlled periodic maintenance

1 - Increase in periodical inspections

2 - For countries where machines are not subject to controlled periodic maintenance



During the periodic inspection of the 5000 h (visual inspection with dismantling and exchange or replacement if necessary), a record must be made of all parts that have been dismantled but not replaced

C - Maintenance

250 h (hours) or 1-year service			
Area		Type of intervention	Area
Type of intervention		Area	Type of intervention
Platform assembly		General points	
Platform rotation (Rotary cylinder)		Mandatory inspection	According to current legislation in the country of use and at least once a year
Gate	 (1)	Greasing and lubrication according to the maintenance plan	
Boom assembly		Functions and controls	
Pulleys and wear pads	 	Platform control box (indicators, etc.)	
Bearings	 	Ground control box (indicators, etc.)	
Cables and chains		'Enable Switch' pedal	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Emergency stop buttons (on all control boxes)	
Turntable assembly		Circuit breaker and contactors	
Slew ring		Overload	
Revolving joint and commutator		Horn	
Turntable rotation gearbox	 	Brakes	
Pulleys and wear pads	 	Emergency lowering	
Bearings	 	Indicators, switches, joysticks and selectors	
Chassis assembly		Dumping	
Wheel nuts and bolts		Limit switch (PV, radius limit, weighing)	
Wheel reducer		Power system	
Bearings	 	Engine	See manufacturer's guide
Wear pads	 	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

500 h (hours) or 1-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

750 h (hours) or 1-year service					
Area		Type of intervention	Area	Type of intervention	
Platform assembly			General points		
	Platform rotation (Rotary cylinder)			Mandatory inspection	According to current legislation in the country of use and at least once a year
	Gate	 (1)		Greasing and lubrication according to the maintenance plan	
Boom assembly			Functions and controls		
	Pulleys and wear pads	 		Platform control box (indicators, etc.)	
	Bearings	 		Ground control box (indicators, etc.)	
	Cables and chains			'Enable Switch' pedal	
	Cylinders (welds, leakproofness, external leak, excessive distortion)			Emergency stop buttons (on all control boxes)	
Turntable assembly				Circuit breaker and contactors	
	Slew ring			Overload	
	Revolving joint and commutator			Horn	
	Turntable rotation gearbox	 		Brakes	
	Pulleys and wear pads	 		Emergency lowering	
	Bearings	 		Indicators, switches, joysticks and selectors	
Chassis assembly				Dumping	
	Wheel nuts and bolts			Limit switch (PV, radius limit, weighing)	
	Wheel reducer				
	Bearings	 		Engine	See manufacturer's guide
	Wear pads	 		Air filter (dust indicator)	
Hydraulic and electric assemblies				Engine oil filter	
	Hydraulic filter (clogging indicator)			Diesel filter (decanting device)	
	Hydraulic oil			Batteries (terminals, cleanliness, attachment)	
	On-board generator	 (1)			
Date :			Comments		
Number of hours :					
Intervenor :					
HAULOTTE Services® contract number :					
Intervention sheet number :					
Signature :					

(1) : For machines fitted with.

C - Maintenance

1000 h (hours) or 1-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil	 	Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

1250 h (hours) or 1-year service			
Area		Type of intervention	Area
Type of intervention		Area	
Type of intervention		Area	
Platform assembly		General points	
Platform rotation (Rotary cylinder)		Mandatory inspection	According to current legislation in the country of use and at least once a year
Gate	 (1)	Greasing and lubrication according to the maintenance plan	
Boom assembly		Functions and controls	
Pulleys and wear pads	 	Platform control box (indicators, etc.)	
Bearings	 	Ground control box (indicators, etc.)	
Cables and chains		'Enable Switch' pedal	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Emergency stop buttons (on all control boxes)	
Turntable assembly		Circuit breaker and contactors	
Slew ring		Overload	
Revolving joint and commutator		Horn	
Turntable rotation gearbox	 	Brakes	
Pulleys and wear pads	 	Emergency lowering	
Bearings	 	Indicators, switches, joysticks and selectors	
Chassis assembly		Dumping	
Wheel nuts and bolts		Limit switch (PV, radius limit, weighing)	
Wheel reducer		Power system	
Bearings	 	Engine	See manufacturer's guide
Wear pads	 	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

1500 h (hours) or 1-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

1750 h (hours) or 1-year service			
Area		Type of intervention	Area
Type of intervention		Area	
Type of intervention		Area	
Platform assembly		General points	
Platform rotation (Rotary cylinder)		Mandatory inspection	According to current legislation in the country of use and at least once a year
Gate	 (1)	Greasing and lubrication according to the maintenance plan	
Boom assembly		Functions and controls	
Pulleys and wear pads	 	Platform control box (indicators, etc.)	
Bearings	 	Ground control box (indicators, etc.)	
Cables and chains		'Enable Switch' pedal	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Emergency stop buttons (on all control boxes)	
Turntable assembly		Circuit breaker and contactors	
Slew ring		Overload	
Revolving joint and commutator		Horn	
Turntable rotation gearbox	 	Brakes	
Pulleys and wear pads	 	Emergency lowering	
Bearings	 	Indicators, switches, joysticks and selectors	
Chassis assembly		Dumping	
Wheel nuts and bolts		Limit switch (PV, radius limit, weighing)	
Wheel reducer		Power system	
Bearings	 	Engine	See manufacturer's guide
Wear pads	 	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

2000 h (hours) or 2-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

2250 h (hours) or 2-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		General points	
Platform rotation (Rotary cylinder)		Mandatory inspection	According to current legislation in the country of use and at least once a year
Gate	 (1)	Greasing and lubrication according to the maintenance plan	
Boom assembly		Functions and controls	
Pulleys and wear pads	 	Platform control box (indicators, etc.)	
Bearings	 	Ground control box (indicators, etc.)	
Cables and chains		'Enable Switch' pedal	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Emergency stop buttons (on all control boxes)	
Turntable assembly		Circuit breaker and contactors	
Slew ring		Overload	
Revolving joint and commutator		Horn	
Turntable rotation gearbox	 	Brakes	
Pulleys and wear pads	 	Emergency lowering	
Bearings	 	Indicators, switches, joysticks and selectors	
Chassis assembly		Dumping	
Wheel nuts and bolts		Limit switch (PV, radius limit, weighing)	
Wheel reducer		Power system	
Bearings	 	Engine	See manufacturer's guide
Wear pads	 	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

2500 h (hours) or 2-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

2750 h (hours) or 2-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		General points	
Platform rotation (Rotary cylinder)		Mandatory inspection	According to current legislation in the country of use and at least once a year
Gate	 (1)	Greasing and lubrication according to the maintenance plan	
Boom assembly		Functions and controls	
Pulleys and wear pads	 	Platform control box (indicators, etc.)	
Bearings	 	Ground control box (indicators, etc.)	
Cables and chains		'Enable Switch' pedal	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Emergency stop buttons (on all control boxes)	
Turntable assembly		Circuit breaker and contactors	
Slew ring		Overload	
Revolving joint and commutator		Horn	
Turntable rotation gearbox	 	Brakes	
Pulleys and wear pads	 	Emergency lowering	
Bearings	 	Indicators, switches, joysticks and selectors	
Chassis assembly		Dumping	
Wheel nuts and bolts		Limit switch (PV, radius limit, weighing)	
Wheel reducer		Power system	
Bearings	 	Engine	See manufacturer's guide
Wear pads	 	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

3000 h (hours) or 3-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

Area		3250 h (hours) or 3-year service	
Area		Type of intervention	Type of intervention
Platform assembly		General points	
Platform rotation (Rotary cylinder)		Mandatory inspection	According to current legislation in the country of use and at least once a year
Gate	 (1)	Greasing and lubrication according to the maintenance plan	
Boom assembly		Functions and controls	
Pulleys and wear pads	 	Platform control box (indicators, etc.)	
Bearings	 	Ground control box (indicators, etc.)	
Cables and chains		'Enable Switch' pedal	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Emergency stop buttons (on all control boxes)	
Turntable assembly		Circuit breaker and contactors	
Slew ring		Overload	
Revolving joint and commutator		Horn	
Turntable rotation gearbox	 	Brakes	
Pulleys and wear pads	 	Emergency lowering	
Bearings	 	Indicators, switches, joysticks and selectors	
Chassis assembly		Dumping	
Wheel nuts and bolts		Limit switch (PV, radius limit, weighing)	
Wheel reducer		Power system	
Bearings	 	Engine	See manufacturer's guide
Wear pads	 	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

3500 h (hours) or 3-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

3750 h (hours) or 3-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		General points	
Platform rotation (Rotary cylinder)		Mandatory inspection	According to current legislation in the country of use and at least once a year
Gate	 (1)	Greasing and lubrication according to the maintenance plan	
Boom assembly		Functions and controls	
Pulleys and wear pads	 	Platform control box (indicators, etc.)	
Bearings	 	Ground control box (indicators, etc.)	
Cables and chains		'Enable Switch' pedal	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Emergency stop buttons (on all control boxes)	
Turntable assembly		Circuit breaker and contactors	
Slew ring		Overload	
Revolving joint and commutator		Horn	
Turntable rotation gearbox	 	Brakes	
Pulleys and wear pads	 	Emergency lowering	
Bearings	 	Indicators, switches, joysticks and selectors	
Chassis assembly		Dumping	
Wheel nuts and bolts		Limit switch (PV, radius limit, weighing)	
Wheel reducer		Power system	
Bearings	 	Engine	See manufacturer's guide
Wear pads	 	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

4000 h (hours) or 4-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

4250 h (hours) or 4-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		General points	
Platform rotation (Rotary cylinder)		Mandatory inspection	According to current legislation in the country of use and at least once a year
Gate	 (1)	Greasing and lubrication according to the maintenance plan	
Boom assembly		Functions and controls	
Pulleys and wear pads	 	Platform control box (indicators, etc.)	
Bearings	 	Ground control box (indicators, etc.)	
Cables and chains		'Enable Switch' pedal	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Emergency stop buttons (on all control boxes)	
Turntable assembly		Circuit breaker and contactors	
Slew ring		Overload	
Revolving joint and commutator		Horn	
Turntable rotation gearbox	 	Brakes	
Pulleys and wear pads	 	Emergency lowering	
Bearings	 	Indicators, switches, joysticks and selectors	
Chassis assembly		Dumping	
Wheel nuts and bolts		Limit switch (PV, radius limit, weighing)	
Wheel reducer		Power system	
Bearings	 	Engine	See manufacturer's guide
Wear pads	 	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

4500 h (hours) or 4-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

4750 h (hours) or 4-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		General points	
Platform rotation (Rotary cylinder)		Mandatory inspection	According to current legislation in the country of use and at least once a year
Gate	 (1)	Greasing and lubrication according to the maintenance plan	
Boom assembly		Functions and controls	
Pulleys and wear pads	 	Platform control box (indicators, etc.)	
Bearings	 	Ground control box (indicators, etc.)	
Cables and chains		'Enable Switch' pedal	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Emergency stop buttons (on all control boxes)	
Turntable assembly		Circuit breaker and contactors	
Slew ring		Overload	
Revolving joint and commutator		Horn	
Turntable rotation gearbox	 	Brakes	
Pulleys and wear pads	 	Emergency lowering	
Bearings	 	Indicators, switches, joysticks and selectors	
Chassis assembly		Dumping	
Wheel nuts and bolts		Limit switch (PV, radius limit, weighing)	
Wheel reducer		Power system	
Bearings	 	Engine	See manufacturer's guide
Wear pads	 	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

5000 h (hours) or 5-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		Hydraulic tank, cap and breather	
Platform rotation (Rotary cylinder)		Hydraulic filter (clogging indicator)	
Gate	 (1)	Hydraulic oil	
Boom assembly		General points	
Pins, rings and pin stop		Mandatory inspection	According to current legislation in the country of use and at least once a year
Pulleys and wear pads	  	Greasing and lubrication according to the maintenance plan	
Bearings	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Cables and chains		Functions and controls	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Platform control box (indicators, etc.)	
Turntable assembly		Ground control box (indicators, etc.)	
Slew ring	  	'Enable Switch' pedal	
Revolving joint and commutator		Emergency stop buttons (on all control boxes)	
Turntable rotation gearbox	  	Circuit breaker and contactors	
Pins, rings and pin stop		Overload	
Pulleys and wear pads	  	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	  	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Pins, rings and pin stop		Engine	See manufacturer's guide
Wear pads	  	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Diesel filter (decanting device)	
Rings		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

5250 h (hours) or 5-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		General points	
Platform rotation (Rotary cylinder)		Mandatory inspection	According to current legislation in the country of use and at least once a year
Gate	 (1)	Greasing and lubrication according to the maintenance plan	
Boom assembly		Functions and controls	
Pulleys and wear pads	 	Platform control box (indicators, etc.)	
Bearings	 	Ground control box (indicators, etc.)	
Cables and chains		'Enable Switch' pedal	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Emergency stop buttons (on all control boxes)	
Turntable assembly		Circuit breaker and contactors	
Slew ring		Overload	
Revolving joint and commutator		Horn	
Turntable rotation gearbox	 	Brakes	
Pulleys and wear pads	 	Emergency lowering	
Bearings	 	Indicators, switches, joysticks and selectors	
Chassis assembly		Dumping	
Wheel nuts and bolts		Limit switch (PV, radius limit, weighing)	
Wheel reducer		Power system	
Bearings	 	Engine	See manufacturer's guide
Wear pads	 	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

5500 h (hours) or 5-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

5750 h (hours) or 5-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		General points	
Platform rotation (Rotary cylinder)		Mandatory inspection	According to current legislation in the country of use and at least once a year
Gate	 (1)	Greasing and lubrication according to the maintenance plan	
Boom assembly		Functions and controls	
Pulleys and wear pads	 	Platform control box (indicators, etc.)	
Bearings	 	Ground control box (indicators, etc.)	
Cables and chains		'Enable Switch' pedal	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Emergency stop buttons (on all control boxes)	
Turntable assembly		Circuit breaker and contactors	
Slew ring		Overload	
Revolving joint and commutator		Horn	
Turntable rotation gearbox	 	Brakes	
Pulleys and wear pads	 	Emergency lowering	
Bearings	 	Indicators, switches, joysticks and selectors	
Chassis assembly		Dumping	
Wheel nuts and bolts		Limit switch (PV, radius limit, weighing)	
Wheel reducer		Power system	
Bearings	 	Engine	See manufacturer's guide
Wear pads	 	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

6000 h (hours) or 6-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

6250 h (hours) or 6-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		General points	
Platform rotation (Rotary cylinder)		Mandatory inspection	According to current legislation in the country of use and at least once a year
Gate	 (1)	Greasing and lubrication according to the maintenance plan	
Boom assembly		Functions and controls	
Pulleys and wear pads	 	Platform control box (indicators, etc.)	
Bearings	 	Ground control box (indicators, etc.)	
Cables and chains		'Enable Switch' pedal	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Emergency stop buttons (on all control boxes)	
Turntable assembly		Circuit breaker and contactors	
Slew ring		Overload	
Revolving joint and commutator		Horn	
Turntable rotation gearbox	 	Brakes	
Pulleys and wear pads	 	Emergency lowering	
Bearings	 	Indicators, switches, joysticks and selectors	
Chassis assembly		Dumping	
Wheel nuts and bolts		Limit switch (PV, radius limit, weighing)	
Wheel reducer		Power system	
Bearings	 	Engine	See manufacturer's guide
Wear pads	 	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

6500 h (hours) or 6-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

6750 h (hours) or 6-year service			
Area		Type of intervention	Area
Type of intervention		Area	
Type of intervention		Area	
Platform assembly		General points	
Platform rotation (Rotary cylinder)		Mandatory inspection	According to current legislation in the country of use and at least once a year
Gate	 (1)	Greasing and lubrication according to the maintenance plan	
Boom assembly		Functions and controls	
Pulleys and wear pads	 	Platform control box (indicators, etc.)	
Bearings	 	Ground control box (indicators, etc.)	
Cables and chains		'Enable Switch' pedal	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Emergency stop buttons (on all control boxes)	
Turntable assembly		Circuit breaker and contactors	
Slew ring		Overload	
Revolving joint and commutator		Horn	
Turntable rotation gearbox	 	Brakes	
Pulleys and wear pads	 	Emergency lowering	
Bearings	 	Indicators, switches, joysticks and selectors	
Chassis assembly		Dumping	
Wheel nuts and bolts		Limit switch (PV, radius limit, weighing)	
Wheel reducer		Power system	
Bearings	 	Engine	See manufacturer's guide
Wear pads	 	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

7000 h (hours) or 7-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

7250 h (hours) or 7-year service			
Area		Type of intervention	Area
Type of intervention		Area	
Type of intervention		Area	
Platform assembly		General points	
Platform rotation (Rotary cylinder)		Mandatory inspection	According to current legislation in the country of use and at least once a year
Gate	 (1)	Greasing and lubrication according to the maintenance plan	
Boom assembly		Functions and controls	
Pulleys and wear pads	 	Platform control box (indicators, etc.)	
Bearings	 	Ground control box (indicators, etc.)	
Cables and chains		'Enable Switch' pedal	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Emergency stop buttons (on all control boxes)	
Turntable assembly		Circuit breaker and contactors	
Slew ring		Overload	
Revolving joint and commutator		Horn	
Turntable rotation gearbox	 	Brakes	
Pulleys and wear pads	 	Emergency lowering	
Bearings	 	Indicators, switches, joysticks and selectors	
Chassis assembly		Dumping	
Wheel nuts and bolts		Limit switch (PV, radius limit, weighing)	
Wheel reducer		Power system	
Bearings	 	Engine	See manufacturer's guide
Wear pads	 	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

7500 h (hours) or 7-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

7750 h (hours) or 7-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		General points	
Platform rotation (Rotary cylinder)		Mandatory inspection	According to current legislation in the country of use and at least once a year
Gate	 (1)	Greasing and lubrication according to the maintenance plan	
Boom assembly		Functions and controls	
Pulleys and wear pads	 	Platform control box (indicators, etc.)	
Bearings	 	Ground control box (indicators, etc.)	
Cables and chains		'Enable Switch' pedal	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Emergency stop buttons (on all control boxes)	
Turntable assembly		Circuit breaker and contactors	
Slew ring		Overload	
Revolving joint and commutator		Horn	
Turntable rotation gearbox	 	Brakes	
Pulleys and wear pads	 	Emergency lowering	
Bearings	 	Indicators, switches, joysticks and selectors	
Chassis assembly		Dumping	
Wheel nuts and bolts		Limit switch (PV, radius limit, weighing)	
Wheel reducer		Power system	
Bearings	 	Engine	See manufacturer's guide
Wear pads	 	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

8000 h (hours) or 8-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

8250 h (hours) or 8-year service			
Area		Type of intervention	Area
Type of intervention		Area	
Type of intervention		Area	
Platform assembly		General points	
Platform rotation (Rotary cylinder)		Mandatory inspection	According to current legislation in the country of use and at least once a year
Gate	 (1)	Greasing and lubrication according to the maintenance plan	
Boom assembly		Functions and controls	
Pulleys and wear pads	 	Platform control box (indicators, etc.)	
Bearings	 	Ground control box (indicators, etc.)	
Cables and chains		'Enable Switch' pedal	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Emergency stop buttons (on all control boxes)	
Turntable assembly		Circuit breaker and contactors	
Slew ring		Overload	
Revolving joint and commutator		Horn	
Turntable rotation gearbox	 	Brakes	
Pulleys and wear pads	 	Emergency lowering	
Bearings	 	Indicators, switches, joysticks and selectors	
Chassis assembly		Dumping	
Wheel nuts and bolts		Limit switch (PV, radius limit, weighing)	
Wheel reducer		Power system	
Bearings	 	Engine	See manufacturer's guide
Wear pads	 	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

8500 h (hours) or 8-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

8750 h (hours) or 8-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		General points	
Platform rotation (Rotary cylinder)		Mandatory inspection	According to current legislation in the country of use and at least once a year
Gate	 (1)	Greasing and lubrication according to the maintenance plan	
Boom assembly		Functions and controls	
Pulleys and wear pads	 	Platform control box (indicators, etc.)	
Bearings	 	Ground control box (indicators, etc.)	
Cables and chains		'Enable Switch' pedal	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Emergency stop buttons (on all control boxes)	
Turntable assembly		Circuit breaker and contactors	
Slew ring		Overload	
Revolving joint and commutator		Horn	
Turntable rotation gearbox	 	Brakes	
Pulleys and wear pads	 	Emergency lowering	
Bearings	 	Indicators, switches, joysticks and selectors	
Chassis assembly		Dumping	
Wheel nuts and bolts		Limit switch (PV, radius limit, weighing)	
Wheel reducer		Power system	
Bearings	 	Engine	See manufacturer's guide
Wear pads	 	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

9000 h (hours) or 9-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

9250 h (hours) or 9-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		General points	
Platform rotation (Rotary cylinder)		Mandatory inspection	According to current legislation in the country of use and at least once a year
Gate	 (1)	Greasing and lubrication according to the maintenance plan	
Boom assembly		Functions and controls	
Pulleys and wear pads	 	Platform control box (indicators, etc.)	
Bearings	 	Ground control box (indicators, etc.)	
Cables and chains		'Enable Switch' pedal	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Emergency stop buttons (on all control boxes)	
Turntable assembly		Circuit breaker and contactors	
Slew ring		Overload	
Revolving joint and commutator		Horn	
Turntable rotation gearbox	 	Brakes	
Pulleys and wear pads	 	Emergency lowering	
Bearings	 	Indicators, switches, joysticks and selectors	
Chassis assembly		Dumping	
Wheel nuts and bolts		Limit switch (PV, radius limit, weighing)	
Wheel reducer		Power system	
Bearings	 	Engine	See manufacturer's guide
Wear pads	 	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

9500 h (hours) or 9-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

9750 h (hours) or 9-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		General points	
Platform rotation (Rotary cylinder)		Mandatory inspection	According to current legislation in the country of use and at least once a year
Gate	 (1)	Greasing and lubrication according to the maintenance plan	
Boom assembly		Functions and controls	
Pulleys and wear pads	 	Platform control box (indicators, etc.)	
Bearings	 	Ground control box (indicators, etc.)	
Cables and chains		'Enable Switch' pedal	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Emergency stop buttons (on all control boxes)	
Turntable assembly		Circuit breaker and contactors	
Slew ring		Overload	
Revolving joint and commutator		Horn	
Turntable rotation gearbox	 	Brakes	
Pulleys and wear pads	 	Emergency lowering	
Bearings	 	Indicators, switches, joysticks and selectors	
Chassis assembly		Dumping	
Wheel nuts and bolts		Limit switch (PV, radius limit, weighing)	
Wheel reducer		Power system	
Bearings	 	Engine	See manufacturer's guide
Wear pads	 	Air filter (dust indicator)	
Hydraulic and electric assemblies		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
On-board generator	 (1)		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

Area		10000 h (hours) or 10-year service	
Area	Type of intervention	Area	Type of intervention
Platform assembly		Chassis assembly	
Welds		Bearings	
Boom assembly		Turntable assembly	
Welds		Welds	
Hoses and couplings		Hoses and couplings	
Pins, rings and pin stop		Pins, rings and pin stop	
Pulleys and wear pads		Pulleys and wear pads	
Bearings		Bearings	
Cables and chains			
Power system			
Engine	See manufacturer's guide		
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

C - Maintenance

Area		10250 h (hours) or 10-year service		Area	Type of intervention
Platform assembly			General points		
	Platform rotation (Rotary cylinder)			Mandatory inspection	According to current legislation in the country of use and at least once a year
	Gate	 (1)		Greasing and lubrication according to the maintenance plan	
Boom assembly			Functions and controls		
	Pulleys and wear pads	 		Platform control box (indicators, etc.)	
	Bearings	 		Ground control box (indicators, etc.)	
	Cables and chains			'Enable Switch' pedal	
	Cylinders (welds, leakproofness, external leak, excessive distortion)			Emergency stop buttons (on all control boxes)	
Turntable assembly				Circuit breaker and contactors	
	Slew ring			Overload	
	Revolving joint and commutator			Horn	
	Turntable rotation gearbox	 		Brakes	
	Pulleys and wear pads	 		Emergency lowering	
	Bearings	 		Indicators, switches, joysticks and selectors	
Chassis assembly				Dumping	
	Wheel nuts and bolts			Limit switch (PV, radius limit, weighing)	
	Wheel reducer		Power system		
	Bearings	 		Engine	See manufacturer's guide
	Wear pads	 		Air filter (dust indicator)	
Hydraulic and electric assemblies				Engine oil filter	
	Hydraulic filter (clogging indicator)			Diesel filter (decanting device)	
	Hydraulic oil			Batteries (terminals, cleanliness, attachment)	
	On-board generator	 (1)			
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :			Comments		

(1) : For machines fitted with.

C - Maintenance

10500 h (hours) or 10-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

Area		10750 h (hours) or 10-year service		Area	Type of intervention
Platform assembly				General points	
	Platform rotation (Rotary cylinder)			Mandatory inspection	According to current legislation in the country of use and at least once a year
	Gate	 (1)		Greasing and lubrication according to the maintenance plan	
Boom assembly				Functions and controls	
	Pulleys and wear pads	 		Platform control box (indicators, etc.)	
	Bearings	 		Ground control box (indicators, etc.)	
	Cables and chains			'Enable Switch' pedal	
	Cylinders (welds, leakproofness, external leak, excessive distortion)			Emergency stop buttons (on all control boxes)	
Turntable assembly				Circuit breaker and contactors	
	Slew ring			Overload	
	Revolving joint and commutator			Horn	
	Turntable rotation gearbox	 		Brakes	
	Pulleys and wear pads	 		Emergency lowering	
	Bearings	 		Indicators, switches, joysticks and selectors	
Chassis assembly				Dumping	
	Wheel nuts and bolts			Limit switch (PV, radius limit, weighing)	
	Wheel reducer			Power system	
	Bearings	 		Engine	See manufacturer's guide
	Wear pads	 		Air filter (dust indicator)	
Hydraulic and electric assemblies				Engine oil filter	
	Hydraulic filter (clogging indicator)			Diesel filter (decanting device)	
	Hydraulic oil			Batteries (terminals, cleanliness, attachment)	
	On-board generator	 (1)			
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :			Comments		

(1) : For machines fitted with.

C - Maintenance

11000 h (hours) or 11-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

Area		11250 h (hours) or 11-year service		Area	Type of intervention
Platform assembly				General points	
	Platform rotation (Rotary cylinder)			Mandatory inspection	According to current legislation in the country of use and at least once a year
	Gate	 (1)		Greasing and lubrication according to the maintenance plan	
Boom assembly				Functions and controls	
	Pulleys and wear pads	 		Platform control box (indicators, etc.)	
	Bearings	 		Ground control box (indicators, etc.)	
	Cables and chains			'Enable Switch' pedal	
	Cylinders (welds, leakproofness, external leak, excessive distortion)			Emergency stop buttons (on all control boxes)	
Turntable assembly				Circuit breaker and contactors	
	Slew ring			Overload	
	Revolving joint and commutator			Horn	
	Turntable rotation gearbox	 		Brakes	
	Pulleys and wear pads	 		Emergency lowering	
	Bearings	 		Indicators, switches, joysticks and selectors	
Chassis assembly				Dumping	
	Wheel nuts and bolts			Limit switch (PV, radius limit, weighing)	
	Wheel reducer			Power system	
	Bearings	 		Engine	See manufacturer's guide
	Wear pads	 		Air filter (dust indicator)	
Hydraulic and electric assemblies				Engine oil filter	
	Hydraulic filter (clogging indicator)			Diesel filter (decanting device)	
	Hydraulic oil			Batteries (terminals, cleanliness, attachment)	
	On-board generator	 (1)			
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :			Comments		

(1) : For machines fitted with.

C - Maintenance

11500 h (hours) or 11-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder		Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

Area		11750 h (hours) or 11-year service		Area	Type of intervention
Platform assembly				General points	
	Platform rotation (Rotary cylinder)			Mandatory inspection	According to current legislation in the country of use and at least once a year
	Gate	 (1)		Greasing and lubrication according to the maintenance plan	
Boom assembly				Functions and controls	
	Pulleys and wear pads	 		Platform control box (indicators, etc.)	
	Bearings	 		Ground control box (indicators, etc.)	
	Cables and chains			'Enable Switch' pedal	
	Cylinders (welds, leakproofness, external leak, excessive distortion)			Emergency stop buttons (on all control boxes)	
Turntable assembly				Circuit breaker and contactors	
	Slew ring			Overload	
	Revolving joint and commutator			Horn	
	Turntable rotation gearbox	 		Brakes	
	Pulleys and wear pads	 		Emergency lowering	
	Bearings	 		Indicators, switches, joysticks and selectors	
Chassis assembly				Dumping	
	Wheel nuts and bolts			Limit switch (PV, radius limit, weighing)	
	Wheel reducer				
	Bearings	 		Engine	See manufacturer's guide
	Wear pads	 		Air filter (dust indicator)	
Hydraulic and electric assemblies				Engine oil filter	
	Hydraulic filter (clogging indicator)			Diesel filter (decanting device)	
	Hydraulic oil			Batteries (terminals, cleanliness, attachment)	
	On-board generator	 (1)			
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments			

(1) : For machines fitted with.

C - Maintenance

12000 h (hours) or 12-year service			
Area	Type of intervention	Area	Type of intervention
Platform assembly		On-board generator	 (1)
Platform rotation (Rotary cylinder)		General points	
Gate	 (1)	Mandatory inspection	According to current legislation in the country of use and at least once a year
Boom assembly		Greasing and lubrication according to the maintenance plan	
Pulleys and wear pads	 	Machine integrity, no modifications without HAULOTTE® authorisation	
Bearings	 	Functions and controls	
Cables and chains		Platform control box (indicators, etc.)	
Cylinders (welds, leakproofness, external leak, excessive distortion)	 	Ground control box (indicators, etc.)	
Turntable assembly		'Enable Switch' pedal	
Slew ring	 	Emergency stop buttons (on all control boxes)	
Revolving joint and commutator		Circuit breaker and contactors	
Turntable rotation gearbox	  	Overload	
Pulleys and wear pads	 	Horn	
Bearings	 	Brakes	
Chassis assembly		Emergency lowering	
Wheel nuts and bolts		Indicators, switches, joysticks and selectors	
Wheel reducer		Dumping	
Bearings	 	Limit switch (PV, radius limit, weighing)	
Steering bar and cylinder	 	Power system	
Wear pads	 	Engine	See manufacturer's guide
Hydraulic and electric assemblies		Air filter (dust indicator)	
Cylinders (welds, leakproofness, external leak, excessive distortion)		Engine oil filter	
Hydraulic filter (clogging indicator)		Diesel filter (decanting device)	
Hydraulic oil		Batteries (terminals, cleanliness, attachment)	
Date : Number of hours : Intervenor : HAULOTTE Services® contract number : Intervention sheet number : Signature :		Comments	

(1) : For machines fitted with.

C - Maintenance

3 - Maintenance sheets

Each specific procedure is described in the following maintenance instructions.

Before performing any maintenance interventions, place the machine in maintenance configuration.

Report that the machine is under maintenance by tagging the platform and ground control boxes.

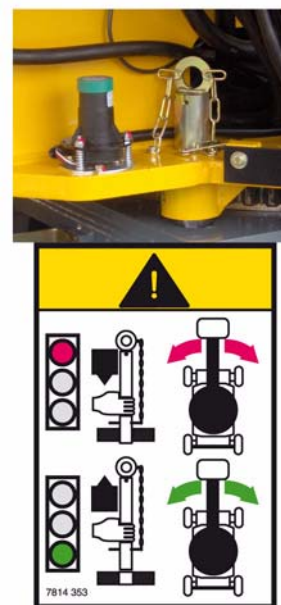
Using the machine during maintenance is strictly forbidden.

Return the machine to operating configuration after maintenance has been completed.

N.B.:-For Russia and the Ukraine only : All the fillings, drain and lubrication points (tanks caps, engines drain plugs, ...) are red.

3.1 - PLACING THE MACHINE IN MAINTENANCE CONFIGURATION

1. Place the machine on firm, level ground.
2. Stow the machine completely.
3. Push the emergency stop push-button to cut off the electricity supply.
4. Insert the turntable rotation locking pin.



3.2 - PLACING IN OPERATING CONFIGURATION

1. Remove the turntable rotation locking pin.
2. Pull the emergency stop button.

3.3 - GENERAL POINTS

3.3.1 - Recommendations on the conditions of maintenance

- Your safety and the safety of the people around are essential. The handling of parts must be carried out using appropriate equipment (Chains, Lifting slings, Lifting anchors, ...).
- Keep the elements of the machine in configuration of maintenance thanks to mechanics devices (Supports, ...).
- Make sure the work area is clean in order to not to pollute the system of the machine.
- Plug the end of any hoses removed, and cap any open ports to prevent contamination during maintenance.

C

- Maintenance

3.3.2 - Mechanical

3.3.2.1 - Bolts and Tightening torques

- Bolts that become damaged and need to be replaced, must be replaced with bolts of identical specification : Type, Length, Diameter, Class .
- Tighten to the torque indicated when reassembling.
- If there are no specific requirements, apply the normalized tightening torques( Section C 3 - Maintenance sheets E007).

3.3.2.2 - Pins and bearings

Except maintenance schedule, check pins and bearings in the following cases :

- Abnormal noise during the movements of the structure.
- Observance of excessive amounts of foreign material around the bearing extremities during the daily visual inspections.
- Poor or no maintenance.

Replace slew ring in the following cases :

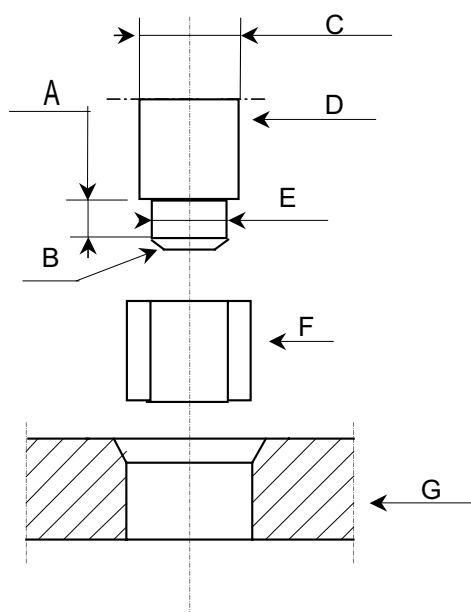
- Deformations, fatigue failure of the bearings and/or the pins.
- Presence of excessive clearance between the pin and housing(> at 0,5 mm).
- Presence of deformations, cracks or breakage of the bearings and/or the pins.
- Presence of scoring on the surface of the bearing.
- If there is excessive friction.

C - Maintenance

When reassembling bearings and pins ensure that :

- Lightly lubricate the housing into which the bearing is to be installed.
- Insert the bearing using a bearing drift, preferably out of mild steel.
- The bearing, the bearing drift and the bearing housing must be correctly aligned during the assembly process.
- The recommended values for the bearing drift are given on the diagram below :

Recommended Values



Marking	Description
A	At least 0,5 times the nominal diameter
B	Make a chamfer
C	Nominal diameter of the bearing - 0,2 / - 0,3 mm
D	Bearing drift
E	Diameter of the bearing guide - 0,20 / - 0,25 mm
F	Bearing
G	Housing

- After inserting the bearing, lubricate and fit the pin.

C - Maintenance

3.3.2.3 - Bearings

Action on bearings needs to be taken outside the normal maintenance schedule if the following occurs :

- Abnormal noise during the movements of the structure.
- Machine not use for a period of 6 months or more.
- Environment of storage and specific uses(Strong moisture and salinity of the air).

Checking procedure :

- After disassembling the affected pivot, protect the bearing from external pollutants and potential damage.
- Clean the bearing with a suitable solvent.
- Replace the bearing in the following cases :
 - Presence of abrasions in the bearing housing and/or inside the bearing itself.
 - Presence of abrasion, wear, oxidation, deformations of the balls (or rollers) and the ring rollers.
- Reassembly of the bearing/pivot :
 - Clean the bearing housing or pin in order to remove all the foreign objects/abrasions.
 - Lightly lubricate the bearing housing and/or pin.
 - Lightly lubricate the outer ring of the bearing.
 - Fit a bearing in a boring, take support on the external ring of the bearing.
 - Fit a bearing on a pin, take support on the interior ring of the bearing.

3.3.2.4 - Brakes

The brake system is an important component of the safety of the machine. It is essential to carry out functional tests periodically (every 6 month).



For safety reasons, ensure that the following precautions are taken prior to testing commencing :

- **Set up barriers to define the test area.**
- **Place the machine in transport position(Jib in horizontal position accepted)**
- **Wearing of a safety harness is essential.**

First test : High speed :

- This test must be completed on flat ground or on ground that has a incline(less than that for which the machine is rated. Refer to the manufacturers ID plate on the machine to determine the maximum incline).
- Draw a line on the ground to create a stopping reference.
- Drive forward until the maximum speed is reached (Between 3 km/h (1,9 mph) or 6 km/h (3,7 mph) depending on the machine being tested(Check the specification in the Operation Manual)).
- Release the joystick when the front wheels make contact with the stopping line previously drawn.
- When the machine comes to a stop, measure the distance between the middle of the front wheels and the reference mark on the ground :
- If the distance is between 0,2 m(0 ft8 in) and 1,5 m(4 ft11 in), the test validates correct operation.
- Otherwise, contact HAULOTTE Services® to repair the system.

C - Maintenance

Second test : On ramp :

- On non slipping loading ramp (maximum slope 20 %).
- Draw a line on the slope to create a stopping reference.
- Climb on the ramp at microspeed.
- Release the joystick when the front wheels make contact with the stopping line previously drawn.
- When the machine comes to a stop, measure the distance between the middle of the front wheels and the reference mark on the ground :
- If the distance is lower than 0,5 m(1 ft8 in) : the test validates correct operation.
- If the machine goes down again (skids, slips) of a distance higher than 0,5 m(1 ft8 in) : Contact HAULOTTE Services® to repair the system.

3.3.3 - Hydraulics

3.3.3.1 - Oil replacement

Replace oil after each major intervention, and each time an anomaly has been detected.

Take an oil sample each year, check the viscosity, ensure there are no foreign bodies and change if necessary. Systematically change the oil in the hydraulic circuit every 2 years.

- Only use oils that match the technical characteristics that correspond to HAULOTTE® recommendations ( Section B 1 - Lubrication diagram - List of ingredients) or contact HAULOTTE Services®.
- Do not mix two oils with different characteristics : If necessary, drain and clean the whole system.
- Check the cleanliness of the oil filter cartridge (no metal shavings, rubber, plastic, ...) : If necessary, drain and clean the whole system.
- Respect the following step during filling :
 - The machine must be completely stowed (For machines fitted with : Stabilisers raised).
 - Fill the tank.
 - 1 : Perform a complete cycle (fully extend and retract) of each cylinder.
 - 2 : Fill the tank if necessary(Never above of the maximum level).
 - Repeat the step (1) and (2) for each cylinder on the machine.

C - Maintenance

3.3.3.2 - Replacing damaged of hoses

Replace hoses in the following circumstances :

- Tears in the outer casing.
- Cracks in the outer casing.
- Apparent shielding.
- Visible leak in the hose.
- Damage to the outer casing caused by chemical reaction from a foreign source.



To protect personal safety, observe the following conditions when disassembling or reassembling components :

- **Stow and park the machine on level cleared ground (The machine should not be tilted. The boom at horizontal position).**
- **Stow the machine completely.**
- **Place barriers around the perimeter of the work area (risk area = maximum height of the machine).**
- **Locate the faulty hose/s and their end connection points, to ensure proper machine operation after intervention.**
- **Identify and memorise the hose path of the hose to be replaced.**



Use an oil collection pan to avoid polluting the environment.

***N.B.:-** Slowly undo the hose end fitting to allow the residual hydraulic pressure to dissipate.*



- **After hose removal, plug the the hose ends and components the ports from which the hose was removed, to avoid polluting the hydraulic system.**
- **Check the cleanliness of the hoses and hydraulic components (no metal cutting, rubber, plastic, ...).**
- **If necessary, drain and clean the whole system (tank included).**
- **Tighten to the torque indicated when reassembling.**

Tightening torque table

Description	Torque (JIC)	Torque (ORFS)
Hose 1/4" (diameter 6mm)	1,5 daN.m(11,08 lbf.ft)	2,6 daN.m(19,22 lbf.ft)
Hose 3/8" (diameter 10mm)	3,5 daN.m(25,86 lbf.ft)	4,2 daN.m(31,04 lbf.ft)
Hose 1/2" (diameter 12mm)	5 daN.m(36,95 lbf.ft)	5,7 daN.m(42,12 lbf.ft)
Hose 5/8" (diameter 16mm)	8 daN.m(59,12 lbf.ft)	8,5 daN.m(62,82 lbf.ft)
Hose 3/4" (diameter 19)	10 daN.m(73,91 lbf.ft)	12,2 daN.m(90,17 lbf.ft)



- **Place the machine in its operating configuration.**
- **To purge the hydraulic system, operate the function/s on the machine that correspond to the hose/s that has/have been replaced, a few times.**
- **Check the oil level in the hydraulic oil tank.**
- **Check the pressure.**

C - Maintenance

3.3.3.3 - Evaluation of leaks on hydraulic cylinders

These measures must be taken each time an anomaly has been detected in the hydraulic cylinder during daily inspection and periodic maintenance checks.

Generic Control :

- Position a load equal to the rated capacity on the cage (or platform).
- Raise the cage (or the platform) using the ground control box. To activate the cylinder to be tested, proceed as follows :
- Lift Arm hydraulic cylinder : Lift the arm to approximately half full height. The telescopic boom should be fully extended and in the horizontal position. (For machines fitted with).
- Boom lifting cylinder or Jib cylinder : Lift the concerned equipment (boom or jib) of approximately half way. Extend the telescope to its maximum.
- Telescoping cylinder : Lift the boom to its maximum angle and telescope approximately 50 cm.
- Measure the distance between the floor of the cage (or of the platform) and the ground.
- Leave the machine in this condition for 15 mn (minutes).
- Measure the distance between the floor of the cage (or of the platform) and the ground.
- If the difference between two measurements does not exceed 4 cm : the test validates correct operation.
- If the difference between two measurements exceeds 4 cm, contact HAULOTTE Services® or carry out the additional tests described below.

C - Maintenance

Control cylinder by cylinder :

- Position a load equal to the rated capacity on the cage (or platform).
- Perform the movement of the concern cylinder to half of its stroke.
- Fix the cylinder with a comparator :
- Attach the body of the comparator on the cylinder rod.
- The needle of the comparator must be in contact with the end of the casing of the cylinder.
- The target is to measure the creep of the cylinder rod.
- If the creep of the cylinder rod is higher than the values indicated in the table below, replace the cylinder.

Type of cylinders	Maximum drift authorised due to an internal leak of the cylinder	
Lift cylinder arm or boom (Machine with working heights > 26 m(85 ft4 in))	After 10 mn, creep < 0,2 mm	After 60 mn, creep < 1 mm
Outriggers cylinder, Oscillating axle locking, Lift cylinder arm or boom (Machine with range-limiting system)	After 10 mn, creep < 0,5 mm	After 60 mn, creep < 2,5 mm
Lift cylinder arm or boom, Telescoping, Compensation, ...	After 10 mn, creep < 1 mm	After 60 mn, creep < 6 mm
Steering cylinder	After 10 mn, creep < 1,5 mm	After 60 mn, creep < 9 mm

3.3.4 - Electric

3.3.4.1 - Replacing damaged cables

- Locate the faulty wire/s and its/their points of connection to ensure continuity of machine operation after the wire is replaced.
- Note the cable path to facilitate reassembly.
- Respect the order (configuration) of origin during the reassembly.



1 - You will need



- Standard tool kit
- Protective goggles
- Gloves
- Oil collection pan



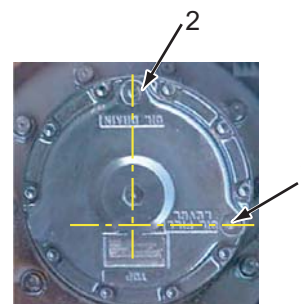
- Place barriers around the perimeter of the work area

2 - Preliminary procedure

1. Place the machine in maintenance configuration.  3.3.1-Placing the machine in maintenance configuration

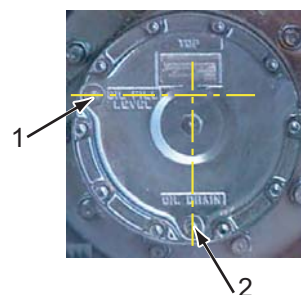
3 - Control

1. Turn the wheel to obtain the following configuration :
2. Plug (1) is on a horizontal line.
3. Plug (2) is on a vertical line.
4. Loosen and remove plug (1).
5. Check the oil level.
6. Top up the oil level to the hole, if necessary.
7. Refit and tighten plug (1).



4 - Oil change

1. Turn the wheel until plug (2) is directed downwards.
2. Loosen and remove plugs (1) and (2).
3. Let the oil drain out.
4. Refit and tighten plug (2).
5. Turn the wheel again to the level control position.
6. Fill the wheel reducer with oil up to hole (1)
7. Refit and tighten plug (1).



Use an oil collection pan to avoid polluting the environment.

5 - Additional operation

1. Place the machine in its operating configuration.  3.3.2-Placing in operating configuration

Control-Oil change

Wheel reducer



15 mn



E002

Hydraulic filter cartridge



15 min



E003

1 - You will need



- Standard tool kit
- Protective goggles
- Gloves



- Place barriers around the perimeter of the work area

2 - Preliminary procedure

1. Place the machine in maintenance configuration.  3.3.1-Placing the machine in maintenance configuration

3 - Replacement

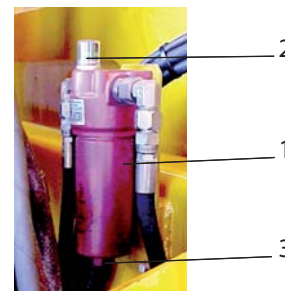
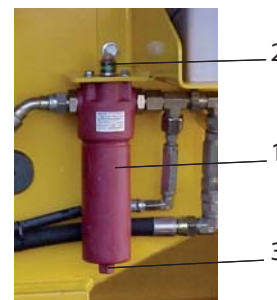


Clogging must be checked when hot. When cold, oil viscosity may simulate filter clogging.



Do not touch the hot parts of the hydraulic power source (engine, filters, etc.).

1. When the clogging indicator (2) comes on, replace the cartridge (1).
2. Loosen and remove the base nut (3).
3. Loosen and remove the cartridge (1).
4. Screw in a new cartridge.
5. Refit and tighten the base nut (3).
6. Reset the clogging indicator (2) by pressing it until it becomes green again.



4 - Additional operation

1. Place the machine in its operating configuration.  3.3.2-Placing in operating configuration

Replacement

Hydraulic filter cartridge



15 min



E003



15 mn



E004

1 - You will need



- Standard tool kit
- Protective goggles
- Gloves



- Place barriers around the perimeter of the work area

2 - Preliminary procedure

1. Place the machine in maintenance configuration.  3.3.1-Placing the machine in maintenance configuration

3 - Filling-up



Touch the exterior of the filling hole with the pump spout before starting pouring to avoid any risk of static electricity causing sparks.

Make sure you are standing up-wind to avoid being splashed by the fuel.



Do not smoke.

1. Loosen and remove the tank cap .
2. Fill up the tank.
3. Refit and tighten the tank cap .
4. Clean up any fuel that may have escaped from the tank.



4 - Additional operation

1. Place the machine in its operating configuration.  3.3.2-Placing in operating configuration

Filling-up-Oil change

Fuel tank



15 mn



E004

Slew ring

**15 mn****E005**

1 - You will need



- Standard tool kit
- Steel shims
- Protective goggles
- Gloves



- Place barriers around the perimeter of the work area

2 - Preliminary procedure

1. Place the machine in maintenance configuration.  3.3.1-Placing the machine in maintenance configuration

3 - Lubrication



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

The maintenance of the slew ring is essential for the safety of the machine and to guarantee its service life. Whatever the type of system installed on the machine, interior or external teeth, follow the recommendations of greasing as indicated in the program.

1. Check for the presence of all the locating bolts.
2. Check that the accessible screws are not loosened. If necessary, tighten the screws (Refer to the "tightening torque" table).
3. Visually check the presence of the teeth and gear (if possible).
4. Check the appearance of the teeth.
5. Oil the (internal and external) crown gear teeth.
6. Oil the raceways (access to greasers via the holes situated on the turntable, until the oil escapes from the crown lip seal).



Slew ring


15 mn

E005

4 - Tightening

Machine type	Metric	Imperial
HA16PE	21,5 daN.m	(158 lbf.ft)
HA12IP (HA33JE)	9 daN.m	(66 lbf.ft)
HA15IP (HA43JE)	9 daN.m	(66 lbf.ft)
HA12CJ (HA32CJ)	9 daN.m	(66 lbf.ft)
HA12CJ+ (HA32CJ+)	9 daN.m	(66 lbf.ft)
HA120PX (N/A)	9 daN.m	(66 lbf.ft)
HA16X (N/A)	21,5 daN.m	(158 lbf.ft)
HA16SPX (HA46SJRT)	21,5 daN.m	(158 lbf.ft)
HA16PX (HA46JRT)	21,5 daN.m	(158 lbf.ft)
HA18SPX (HA51SJRT)	21,5 daN.m	(158 lbf.ft)
HA18PX (HA51JRT)	21,5 daN.m	(158 lbf.ft)
HA20PX (HA61JRT)	21,5 daN.m	(158 lbf.ft)
HA260PX (HA80JRT)	21,5 daN.m	(158 lbf.ft)
HA32PX (HA100JRT)	21,5 daN.m	(158 lbf.ft)
HA41PX-NT (HA130JRT-NT)	21,5 daN.m	(158 lbf.ft)
H14TX (HB40)	8,7 daN.m	(64 lbf.ft)
H16TPX (HB44J)	8,7 daN.m	(64 lbf.ft)
H21TX (HB62)	21,5 daN.m	(158 lbf.ft)
H23TPX (HB68J)	32 daN.m	(236 lbf.ft)
H25TPX (HB76J)	21,5 daN.m	(158 lbf.ft)
H28TJ+ (HB86TJ+)	21,5 daN.m	(158 lbf.ft)
H43TPX (HB135JRT)	21,5 daN.m	(158 lbf.ft)
STAR 8 (STAR 22J) - Ring on plate	13.5 daN.m	(100 lbf.ft)
STAR 8 (STAR 22J) - Plate on mast foot	19.5 daN.m	(144 lbf.ft)
STAR 8 (STAR 22J) - Ring on chassis	13.5 daN.m	(100 lbf.ft)
STAR 10 (STAR 26J) - Ring on plate	13.5 daN.m	(100 lbf.ft)
STAR 10 (STAR 26J) - Plate on mast foot	19.5 daN.m	(144 lbf.ft)
STAR 10 (STAR 26J) - Ring on chassis	13.5 daN.m	(100 lbf.ft)



5 - Criteria of replacement

Check the slewing system every 500 h or each major intervention done on the machine.

Step 1 : Visual and sound check :

Replace slew ring in the following cases :

- Abnormal noise during the turntable rotation.
- Movement jolts during the rotation of the turret.
- Gear teeth missing or damaged.
- Presence of metal particles in the grease.
- Wear on gear teeth.

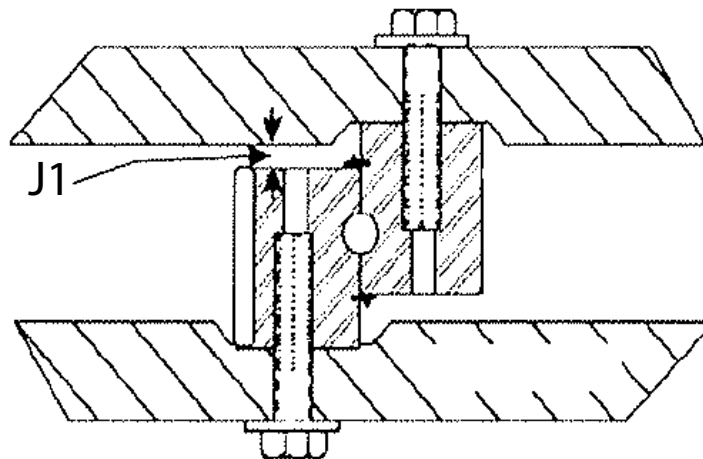
Step 2 : Measurement of the clearance :

Place the machine in the following conditions :

- On flat ground, Set up barriers to define the test area.
- No load in the platform.
- From the ground control box, align the turret at 90 ° to the chassis.
- Lift the boom approximatively 30 ° from the ground.
- Completely retract the telescope.
- Jib in horizontal position(if fitted).

From the magnetic comparator, note the clearance (J1) between chassis (or turret) and the slew ring.

Clearance between chassis (or turret) and slew ring



Slew ring**15 mn****E005**

After having carried out the measurement :

- Lower the boom at horizontal position.
- Lift the arm (if exists) as its maximum position. Don't extend the telescopic boom.
- The telescopic boom should be fully extended and in the horizontal position..
- Jib in horizontal position(if fitted).

In its new configuration, note the clearance (J1) between chassis (or turret) and the slew ring as previously.

- If the difference between two measurements does not exceed 2 mm : the test validates correct operation.
- Otherwise, contact HAULOTTE Services® to repair the system.

6 - Clearance check



Consult the After-Sales Service HAULOTTE Services®.

7 - Additional operation

1. Place the machine in its operating configuration.  3.3.2-Placing in operating configuration
2. Rotate the slew ring by one complete turn.



A tight spot or grinding sound during rotation or the presence of metal particles escaping from the lip seal are signs of abnormal wear in the raceway (Contact HAULOTTE Services®).



1 - You will need



- Standard tool kit
- Protective goggles
- Gloves
- Jack
- Hoist
- Torque spanner



- Place barriers around the perimeter of the work area

2 - Preliminary procedure

1. Place the machine in maintenance configuration.  3.3.1-Placing the machine in maintenance configuration

3 - Criteria of replacement

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

- Presence of cracks, damage, deformations or other faults on the hub
- Damage on the tire :

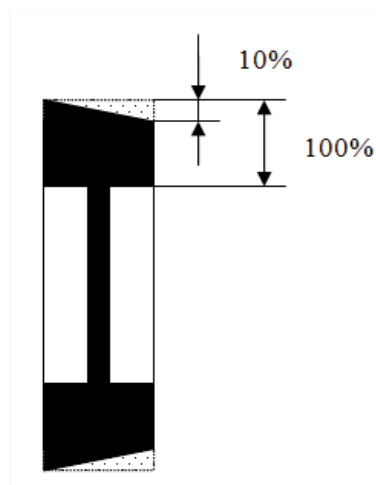
Cut or hole >at 3 cm (2 in) in the rubber side wall on the whole tire thickness.

Blister or pronounce lump on the external and lateral membrane.

Damaged wheel stud.

Damage or wear on the side wall to the extent that the reinforcing wire become visible.

- Nonlinear wear of the ground contact surface greater than 10 %.



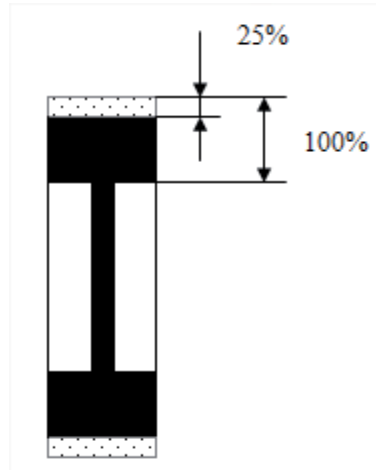


15 min



E006

- Consistent wear of the ground contact surface greater than 25 %.



For safety reasons, always use original HAULOTTE® spare parts that are specific to this machine. Refer to the spare parts catalogue.

4 - Replacement

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





5 - Torque

Machine type	Wheel type	Torque in N.m - lbf.ft
HA12CJ (HA32CJ)	Drive wheel	210-155
	Steer wheel	210-155
HA12CJ+ (HA32CJ+)	Drive wheel	210-155
	Steer wheel	210-155
HA120PX (N/A)	Drive wheel	320-236
	Steer wheel	320-236
HA16X	Drive wheel	320-236
	Steer wheel	320-236
HA16SPX (HA46SJRT)	Drive wheel	320-236
	Steer wheel	320-236
HA16PX (HA46JRT)	Drive wheel	320-236
	Steer wheel	320-236
HA18SPX (HA51SJRT)	Drive wheel	320-236
	Steer wheel	320-236
HA18PX (HA51JRT)	Drive wheel	320-236
	Steer wheel	320-236
HA20PX (HA61JRT)	Drive wheel	320-236
	Steer wheel	320-236
HA260PX (HA80JRT)	Drive wheel	320-236
	Steer wheel	320-236
HA32PX (HA100JRT)	Drive wheel	650-479
	Steer wheel	650-479
HA41PX-NT (HA130JRT-NT)	Drive wheel	570-420
	Steer wheel	570-420
H14TX (HB40)	Drive wheel	320-236
	Steer wheel	320-236
H16TPX (HB44J)	Drive wheel	320-236
	Steer wheel	320-236
H21TX (HB62)	Drive wheel	320-236
	Steer wheel	320-236
H23TPX (HB68J)	Drive wheel	320-236
	Steer wheel	320-236
H25TPX (HB76J)	Drive wheel	320-236
	Steer wheel	320-236
H28TJ+ (HB86TJ+)	Drive wheel	650-479
	Steer wheel	650-479
H43TPX (HB135JRT)	Drive wheel	570-420
	Steer wheel	570-420
STAR 6 (STAR 13) - STAR 6 P	Drive wheel	127-94
	Steer wheel	127-94
STAR 8 (STAR 22J)	Drive wheel	80-59
	Steer wheel	115-85
STAR 10 (STAR 26J)	Drive wheel	80-59
	Steer wheel	115-85
Compact 10/12DX (Compact 2668/3368RT)	Drive wheel	190-140
	Steer wheel	190-140

6 - Additional operation

- Place the machine in its operating configuration. 3.3.2-Placing in operating configuration

Replacement-Tightening

Wheel



15 min



E006



1 - Torque (coarse thread)

Nominal diameter	Torque in N.m - lbf.ft		
	Class 8.8	Class 10.9	Class 12.9
M6x1	9 - 11-6,64 - 8,11	13 - 14-9,59 - 10,33	15 - 17-11,06 - 12,54
M7x1	15 - 19-11,06 - 14,01	21 - 24-15,49 - 17,7	26 - 28-19,18 - 20,65
M8x1.25	22 - 27-16,23 - 19,91	31 - 34-22,86 - 25,08	37 - 41-27,29 - 30,24
M10x1.5	43 - 45-31,72 - 33,19	61 - 67-44,99 - 49,42	73 - 81-53,84 - 59,74
M12x1.75	75 - 94-55,32 - 69,33	110 - 120-81,13 - 88,51	130 - 140-95,88 - 103,26
M14x2	120 - 150-88,51 - 110,63	170 - 190-125,39 - 140,14	200 - 220-147,51 - 162,26
M16x2	190 - 230-140,14 - 169,64	260 - 290-191,77 - 213,89	320 - 350-236,02 - 258,15
M18x2.5	260 - 320-191,77 - 236,02	360 - 400-265,52 - 295,02	440 - 480-324,53 - 354,03
M20x2.5	370 - 450-272,9 - 331,9	520 - 570-383,53 - 420,41	620 - 680-457,29 - 501,54
M22x2.5	500 - 620-368,78 - 457,29	700 - 770-516,29 - 567,92	840 - 930-619,55 - 685,93
M24.3x3	630 - 790-464,66 - 582,67	890 - 990-656,43 - 730,19	1070 - 1180-789,19 - 870,32
M27x3	930 - 1150-685,93 - 848,2	1300 - 1400-958,83 - 1032,59	1560 - 1730-1150,6 - 1275,98
M30x3.5	1260 - 1570-929,33 - 1157,97	1770 - 1960-1305,49 - 1445,62	2200 - 2350-1622,64 - 1733,27

2 - Torque (fine thread)

Nominal diameter	Torque in N.m - lbf.ft		
	Class 8.8	Class 10.9	Class 12.9
M8x1	24 - 29-17,7 - 21,39	33 - 37-24,34 - 27,29	40 - 44-29,5 - 32,45
M10x1.25	46 - 57-33,93 - 42,04	64 - 71-47,2 - 52,37	77 - 85-56,79 - 62,69
M12x1.25	83 - 100-61,22 - 73,76	120 - 130-88,51 - 95,88	140 - 150-103,26 - 110,63
M14x1.5	130 - 160-95,88 - 118,01	180 - 200-132,76 - 147,51	220 - 240-162,26 - 177,01
M16x1.5	200 - 250-147,51 - 184,39	280 - 310-206,52 - 228,64	340 - 370-250,77 - 272,9
M18x1.5	290 - 360-213,89 - 265,52	410 - 450-302,4 - 331,9	490 - 540-361,41 - 398,28
M20x1.5	410 - 510-302,4 - 376,16	570 - 630-420,41 - 464,66	690 - 760-508,92 - 560,55
M22x1.5	550 - 680-405,66 - 501,54	780 - 870-575,3 - 641,68	920 - 1000-678,56 - 737,56
M24x1.5	690 - 860-508,92 - 634,3	970 - 1070-715,44 - 789,19	1160 - 1290-855,57 - 951,46
M27x2	1000 - 1300-737,56 - 958,83	1400 - 1560-1032,59 - 1150,6	1690 - 1880-1246,48 - 1386,62
M30x2	1400 - 1700-737,56 - 958,83	1960 - 2180-1032,59 - 1150,6	2350 - 2610-1246,48 - 1386,62

Tightening

Screws, bolts and nuts



15 min



E007



15 mn



E008

1 - You will need



- Standard tool kit
- Protective goggles
- Gloves
- Oil collection pan



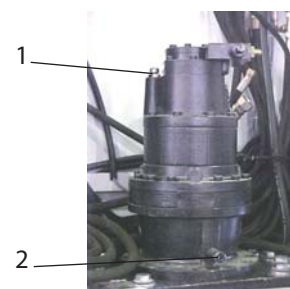
- Place barriers around the perimeter of the work area

2 - Preliminary procedure

1. Place the machine in maintenance configuration.  3.3.1-Placing the machine in maintenance configuration

3 - Control

1. Loosen and remove the filling cap (1).
2. Check that the oil level is between the indicated minimum and maximum levels.
3. Top up the oil level, if necessary.
4. Refit the filling cap (1).



4 - Oil change

1. Remove the filling cap (1).
2. Loosen the drain plug (2).
3. Let the oil drain out.
4. Refit and tighten the drain out (2).
5. Top up the oil level as indicated above.
6. Refit the filling cap (1).



Use an oil collection pan to avoid polluting the environment.

5 - Additional operation

1. Place the machine in its operating configuration.  3.3.2-Placing in operating configuration

Control-Oil change

Turntable rotation gearbox



15 mn



E008

Pulleys and wear pads



15 mn



E013

1 - You will need



- Standard tool kit
- Protective goggles
- Gloves



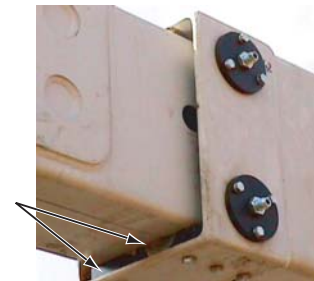
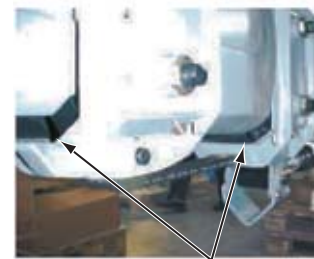
- Place barriers around the perimeter of the work area

2 - Preliminary procedure

1. Place the machine in maintenance configuration.  3.3.1-Placing the machine in maintenance configuration

3 - Control

Check the telescoping friction pad wear indicators. Change the pad if the indicator is not visible.



N.B.-:-Packers of different thicknesses can be used for adjustment

4 - Lubrication

Lubricate the pad surface greasing box



5 - Replacement

Replace the friction pads.

6 - Additional operation

1. Place the machine in its operating configuration.  3.3.2-Placing in operating configuration



15 mn



E013



1 - You will need



- Standard tool kit
- Protective goggles
- Gloves



- Place barriers around the perimeter of the work area

Use only adapted tools and auxiliary resources.

Always wear the required protective clothing.



This procedure must be performed after the first 50 hours and then every 250 hours or every 6 months.

2 - Preliminary procedure

All disassembly operations, if possible, must only be performed on equipment that has been completely deactivated and only by personnel with the necessary technical knowledge.

In addition to the safety precautions indicated in these instructions, follow all regulations concerning safety and accident prevention that are generally applicable.

Every precaution must be taken before working on or near the machine.

After work has been completed, all casings and safety devices must be restored completely and operational.

3 - Lubrication

Lubricant must be applied with a brush to the external chains at least every 250 hours or every 6 months. The frequency of application depends on surrounding conditions and conditions of use. The frequency of application must ensure that a sufficient quantity of fluid oil is present in the chain links.

If the chain has been exposed to corrosive fluids, clean the chain immediately and apply lubricant.

N.B.:-Telescoping operations may be necessary to access elements.

Before applying new lubricant, remove any foreign particles from the chain. Use recommended lubricants  Section B 1 Recommendations-Lubrication diagram.

When cleaning chains, follow regulations concerning the environment.



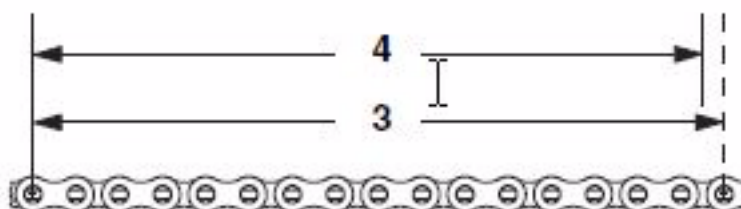
4 - Check the condition of the chains

To carry out the following operations, perform a complete telescoping.

- Check that the lifting chains and safety chains are clean.
- Check that there are no foreign particles on the chains and guide.
- Check that there are no signs of corrosion on chain elements.

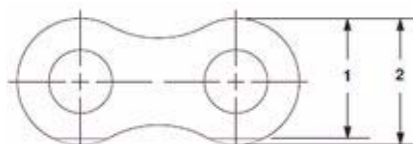
Chains with any of the defects described below must be replaced.

- Check for elongation wear :
 - Elongation of up to 2 %, over 12 segments, of the original chain length is permitted.
 - Measure the value of (3) using an appropriate method. Compare with the value of (4) indicated in the table below.



Machine	Link width (2)	Length of 12 links (4)
Star 6 - 8 - 10 HA32/41PX-NT H28TJ+/H43TPX	11.5 mm	152.40 mm
Star 8 - 10	14.50 mm	190.50 mm
HTL 4014/17 - HTL 3614/17	24 mm	304.80 mm

- Check for external wear on rollers and links :
 - External wear must not measure more than 2 % from the section of the original link (2), see table above.
 - Measure the value of (1) using an appropriate method.

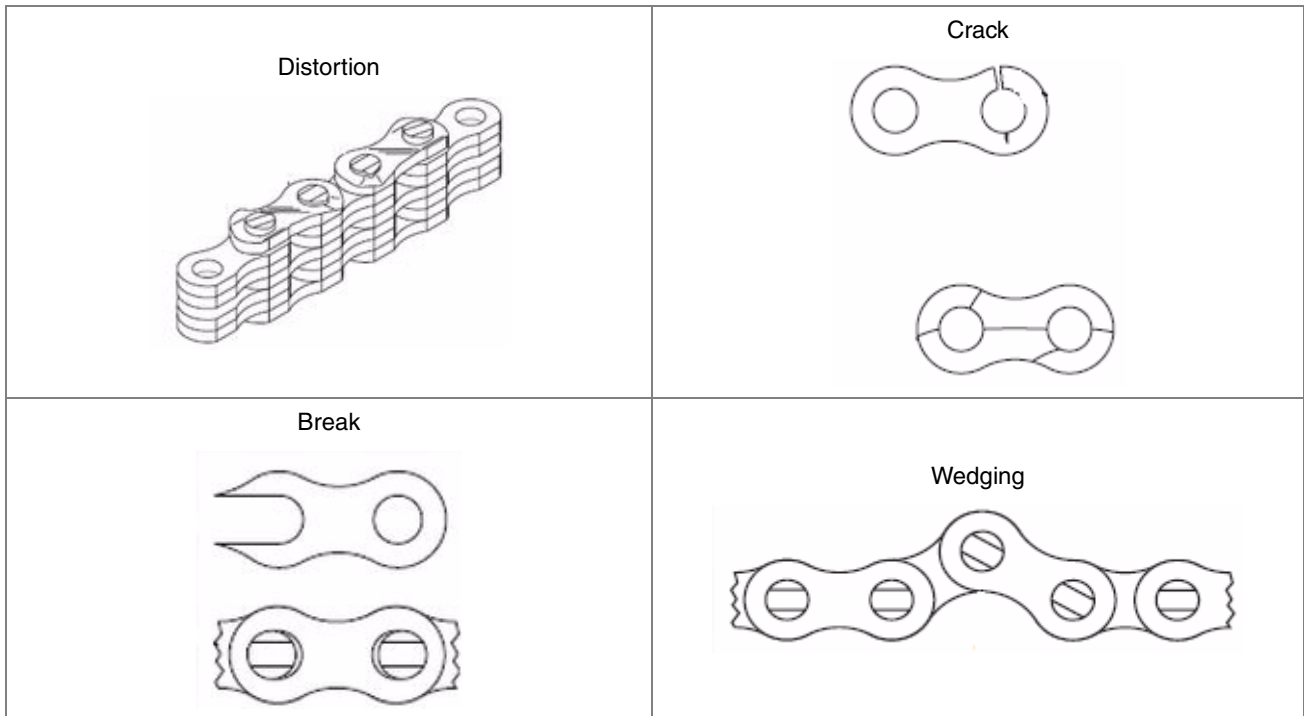


- Check that no line or element is damaged or missing.

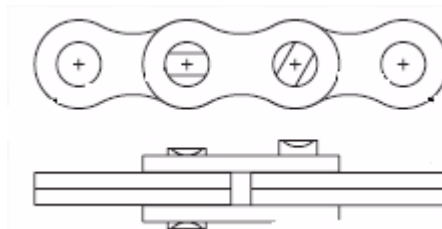
Chains

**E016**

- Check that links are not distorted, deformed or broken.



- Check the connection points of links (the lines must be parallel).



5 - Check the tension of the chains

Refer to the technical data sheet for your product following this sheet. To make any other adjustments not detailed in this maintenance logbook : Contact Haulotte Services for further advice.

6 - Replacing the chains

The chains must imperatively be changed every 10 years.

Contact Haulotte Services for further advice.

Les chains and chain elements are made from case hardened steel in a high-quality process. Deliver any scrap chains or chain elements to a dealer specialised in metal recycling in compliance with regulations.





1 - You will need



- Standard tool kit
- Protective goggles
- Gloves



- Place barriers around the perimeter of the work area

Use only adapted tools and auxiliary resources.

Always wear the required protective clothing.

2 - Preliminary procedure

All disassembly operations, if possible, must only be performed on equipment that has been completely deactivated and only by personnel with the necessary technical knowledge.

In addition to the safety precautions indicated in these instructions, follow all regulations concerning safety and accident prevention that are generally applicable.

Every precaution must be taken before working on or near the machine.

After work has been completed, all casings and safety devices must be restored completely and operational.

3 - Checking the cable transmission system

In order to ensure safe use of machinery, Haulotte Group recommends that you perform the following inspections :

Daily inspection

- Position the machine on a flat and firm surface.
- Power up the machine and select the console located on the turntable.
- Raise the boom to horizontal (For machines fitted with).
- Execute a complete extension/retraction cycle of the telescope assembly over approximately 2 m(6 ft7 in) or a complete lifting/lowering cycle for mast-type machines.
- Check that the movement is synchronized and symmetrical, and that there are no abnormal sounds. If you encounter a problem or suspect there may be a problem, carry out a more detailed inspection as described below.

Regular inspection

This operation must be performed after the first 50 hours, then :

- STAR : Every 250 hours or 3 months.
- other machines : Every 250 hours or 6 months.

Cables

**E016**

To access parts :

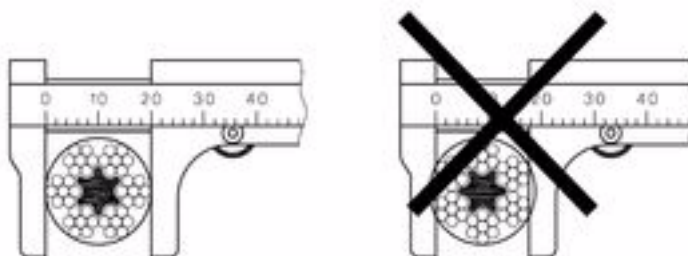
- Position the machine on a flat and firm surface.
- Remove the protection covers and/or inspection flaps.
- Power up the machine and select the console located on the turntable.
- Raise the boom to horizontal (For machines fitted with)
- Check that the attachment device for the cables is in place and tight at all visible attachment points.
- Extend the structure to gain access to the cables :
 - Extend the boom at least 3 m (9 ft 10 in) for telescopic machines.
 - Raise the mast assembly up to the inspection flaps.

Using a flash light, perform a visual inspection of the following items :

- Check that cables are properly aligned with one another.
- Check that the cables under are equal tension.
- Check that the pulleys are properly aligned with the cables.
- Check that the cable is properly seated in the pulley.



- Check that nothing blocks the chain guides.
- Check the condition of the cables. If any of the following defects are observed, replace the pair of cables.
 - The maximum reduction in diameter from the original diameter must not exceed 1 mm.



Machine	Original diameter
STAR 6 - 8 - 10	3 mm
H21TX - H23TPX - H25TPX	9 mm
H43TPX	19 mm

Cables**E016**

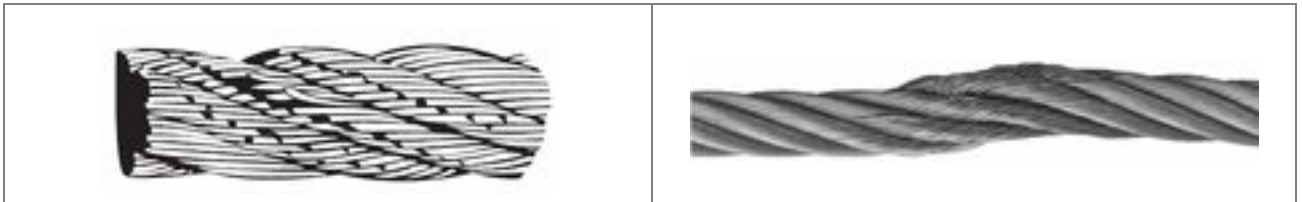
No broken strands must be observed, in particular at the ends.

Replacement is compulsory when 3 strands or more are broken along the length of the cable.

Replacement is compulsory when 1 strand is broken near the ends.



No deformed folds or frayed strands must be observed.



No signs of corrosion must be observed.

**4 - Check the tension of the cables**

Refer to the technical data sheet for your product following this sheet. To make any other adjustments not detailed in this maintenance logbook : Contact Haulotte Services for further advice.



5 - Replacing the cables

Cables with a diameter measuring less than 6 mm (STAR) must be replaced every 5 years.

All other cables must imperatively be replaced every 7 years.

Replacement may be required more frequently for the following reasons :

- Machine operates in a particularly hostile environment.
- Abnormal noises are produced during movement of structure.
- Machine has been in storage for more than 6 months.
- Machine has been submitted to an abusive load or serious collision.
- Machine has been exposed to an electrical arc.

Contact Haulotte Services for further advice.

Cables and cable elements are made from case hardened steel in a high-quality process. Deliver any scrap cables or cable elements to a dealer specialised in metal recycling in compliance with regulations.



1 - You will need



- Standard tool kit
- Protective goggles
- Gloves



- Place barriers around the perimeter of the work area

2 - Preliminary procedure



This procedure must be performed every 250 h imperatively.

Every precaution must be taken before working on or near the machine. Comply with the recommendations in the maintenance book for your machine.

For all tightening actions quoted in this document, ensure the symmetry of the cable tension is complied with by tightening the threaded rods one by one in quarter turns.

1. Place the machine in maintenance configuration.  3.3.1-Placing the machine in maintenance configuration

3 - Cable and chain tension

- Fully stow the machine on flat ground with the boom fully retracted.
- Lift the cover at the rear of the turntable.

Remove the cable nut stops and unscrew the nuts from the cables and chains until they can be lifted from the contact surface :

- either by pulling the threaded rod by hand.
- Or by sliding a screwdriver under the nut.

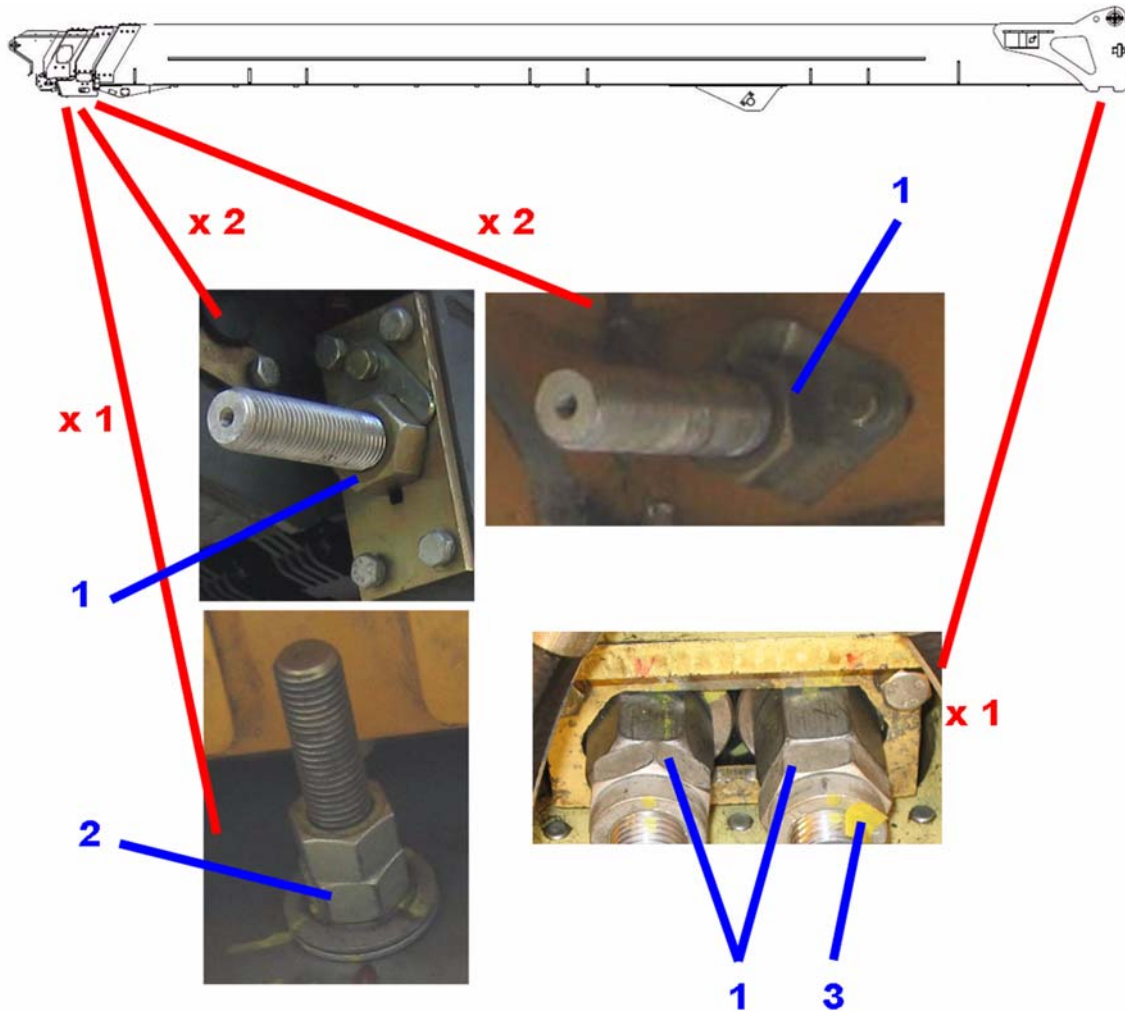


Specific adjustment procedure H43TPX (HB135JRT)



E053

Location of the cable nuts and chains



1. Wrench No. 46
2. Wrench No. 30
3. Flat bar 19

Start the thermal engine :

- Lift the boom to the highest position (without telescoping) to ensure that the sections are fully retracted.
- Come back to horizontal position.
- Stop the engine.
- Tighten the extension cables at the rear of the boom until element N° 3 moves, complying with the measurement of 301 +/- 15 mm.



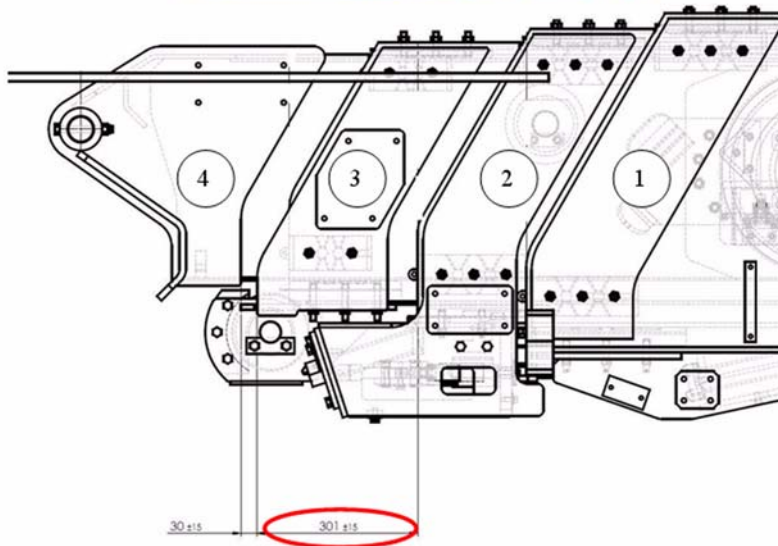
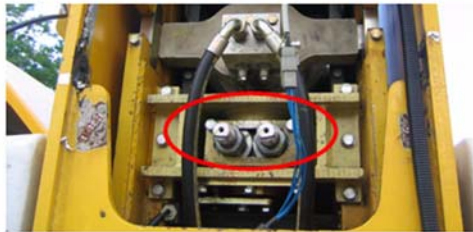
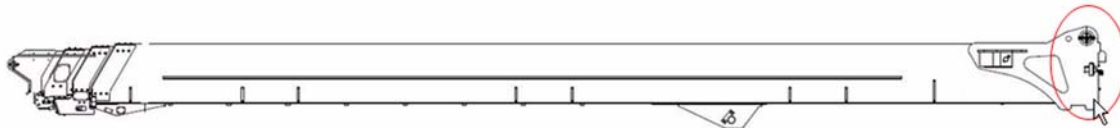
Do not turn the cables *1 during the tightening operation. Prevent them from turning using a 19 wrench on the flat bars or if there are no flat bars, jam them using a pin wrench, protecting the threads.

Specific adjustment procedure H43TPX (HB135JRT)



E053

Element No. 3



N.B.:- In this position, the threaded rod must extend beyond the nut by at least 50 mm.



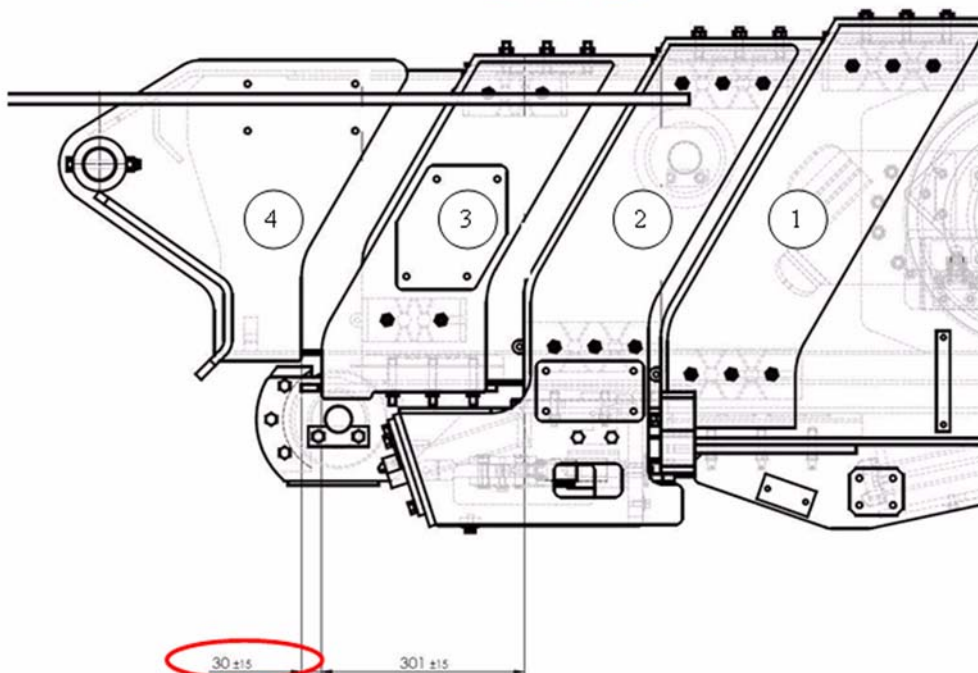
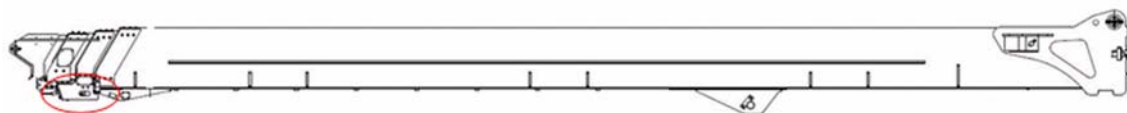
- Tighten the extension chains from the end of element No. 2 to element No. 4 complying with the measurement of 30 +/- 15 mm.

Specific adjustment procedure H43TPX (HB135JRT)



E053

Element No. 4

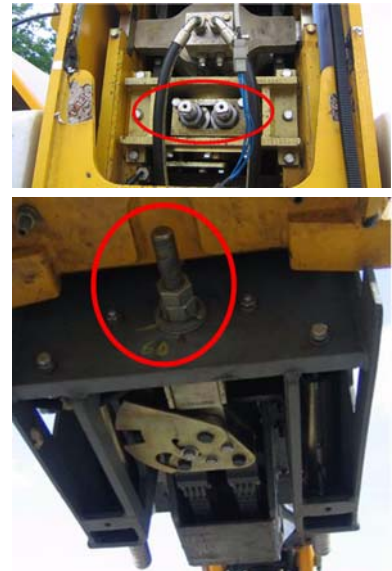


Specific adjustment procedure H43TPX (HB135JRT)



E053

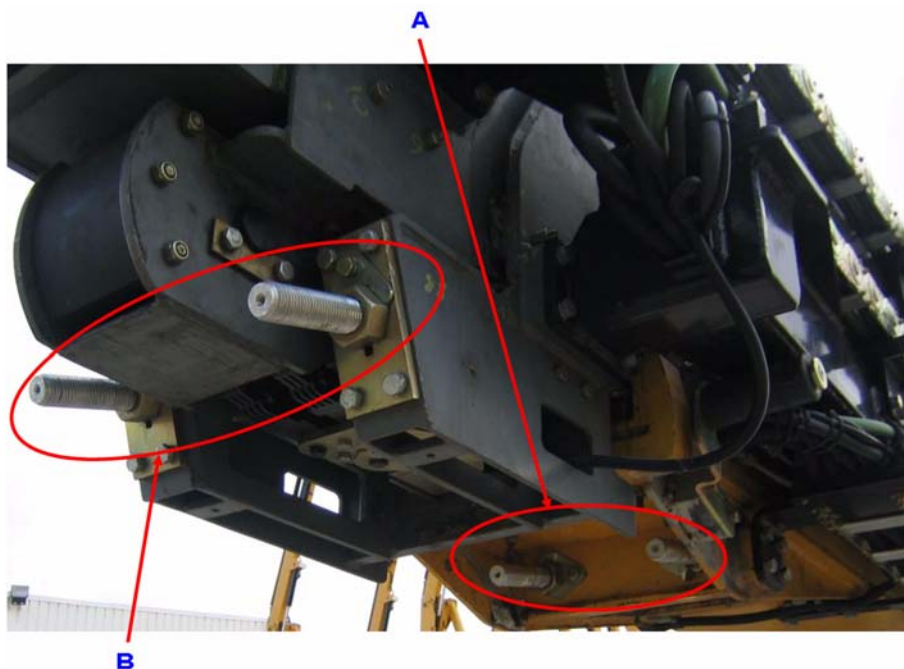
- Unscrew the extension chain and cable nuts by exactly 3. Make a mark on the nut to count the number of turns.



- Tighten the retraction cables at the end of element No. 1 until element No. 3 moves.



Do not turn the cables A during the tightening operation. Prevent the cables from rotating.



- Tighten retraction cables B at the ends of elements No. 1 and 2.

Specific adjustment procedure H43TPX (HB135JRT)

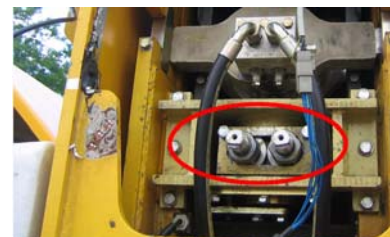


E053

- Refit the retraction cable nut stops at the ends of elements No. 1 and 2.



- Tighten the extension cables and chains by 2,5 turns.



- remount the fastening locknut at the end of element No. 2.



Specific adjustment procedure H43TPX (HB135JRT)**E053**

- Refit the stop plate for the extension cable nuts at the rear of the boom and the locknuts for each cable.
- Move each telescope forwards and backwards 3 times by approximately 1 metre, ensuring that the movements are synchronised.
- Check that the measurements of 301 +/- 15 mm and 30 +/- 15mm are complied with.
- If these dimensions are not compliant, repeat the adjustment procedure above starting at the paragraph concerning removal of the cable nut stops.



4 - Additional operation

1. Place the machine in its operating configuration.  3.3.2-Placing in operating configuration



Battery

**10 min****E018**

1 - You will need



- Standard tool kit
- Protective goggles
- Gloves



- Place barriers around the perimeter of the work area

2 - Preliminary procedure



The battery manufacturer's safety instructions must be followed.

1. Place the machine in maintenance configuration.  3.3.1-Placing the machine in maintenance configuration

3 - Control

Loosen the caps located on the top of the battery.

The level of electrolyte in the battery must be approx. 0,01 m(0 ft39 in) above the plates.

4 - Filling-up

Loosen the caps located on the top of the battery.

If the level of electrolyte is below the level of the plates :

1. Top up with distilled water.
2. Refit and tighten the battery caps.





5 - Battery charge

Battery discharged :

- Never discharge the batteries to more than 80 % of their capacity in 5 h (hours).
- Never leave the batteries discharged.
- Do not put off recharging the batteries in cold weather as the electrolyte may freeze.

Battery to be charged :

- When should the batteries be charged ? :
 - When the batteries are discharged to between 35 % and 80 % of their nominal capacity.
 - After a long period of non-use.
- How to charge the batteries ? :
 - Ensure that the mains supply is compatible to the charger's consumption.
 - Top up the batteries with distilled water to the minimum electrolyte level if any of the elements are below this minimum level.
 - Work in a clean and well-ventilated area away from naked flames.
 - Open the bay.
 - Use the machine's on-board charger. The charger has a charge rate compatible to the battery capacity.
- During charging :
 - The machine's electric system is automatically deactivated while the external power supply is connected to the machine.
 - Ensure that the battery are at a temperature not exceeding 45 °C(113 °F) (be careful in summer or in places with a high ambient temperature).
 - Do not remove or open the caps on the elements.
- After charging :
 - Top up the electrolyte level, if necessary.
 - Avoid overflowing.
 - Wash the top of the batteries without removing the caps.
 - Dry with compressed air or clean cloths.
 - Oil the terminals.

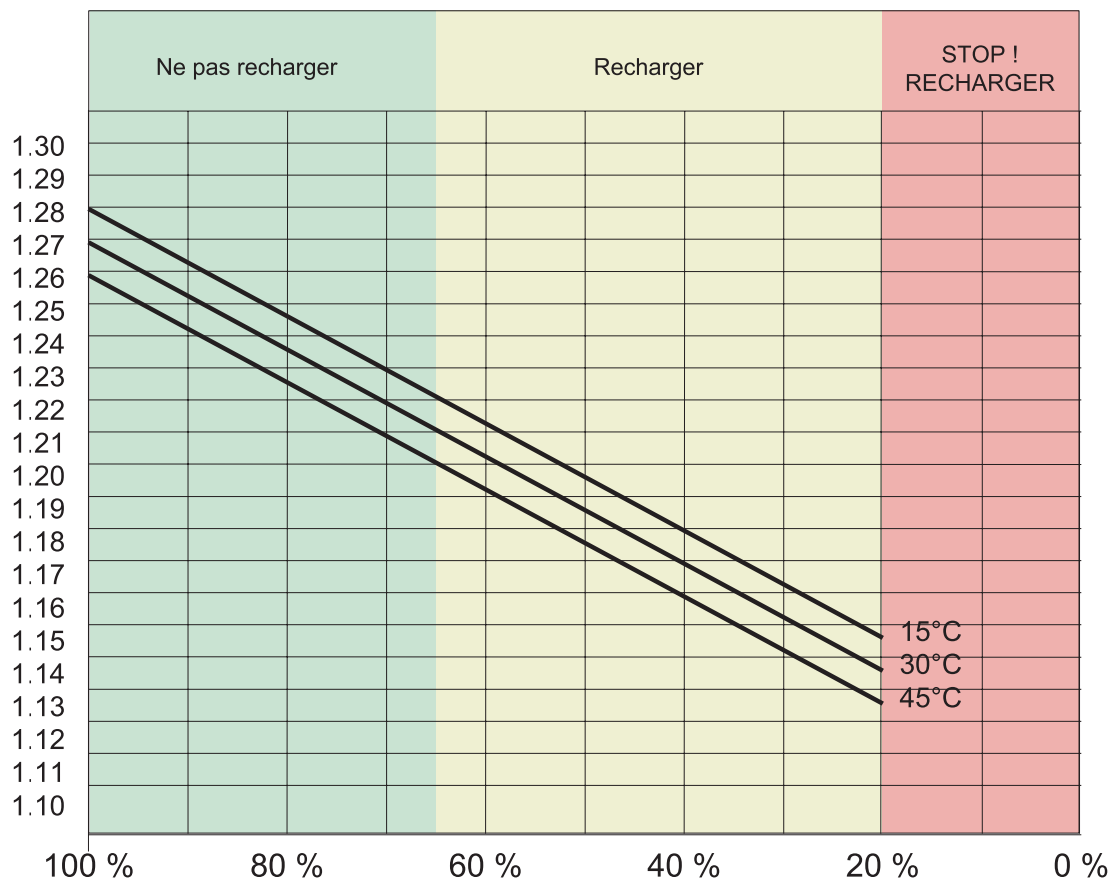
**10 min****E018**

6 - Additional operation

Place the machine in its operating configuration.  3.3.2-Placing in operating configuration

To keep your batteries in good condition, test the density of each element once a month using a battery hydrometer, according to the temperature indicated in the curves below :

Battery charge status according to density and temperature



Control-Filling-up-Battery charge

Battery



10 min



E018



15 mn



E022

1 - You will need



- Standard tool kit
- Protective goggles
- Gloves



- Place barriers around the perimeter of the work area

2 - Preliminary procedure

1. Place the machine in maintenance configuration.  3.3.1-Placing the machine in maintenance configuration

3 - Lubrication

Oil the parts of the telescope subject to friction (with a spatula).

Oil the telescoping cable.

4 - Additional operation

1. Place the machine in its operating configuration.  3.3.2-Placing in operating configuration

Lubrication

Telescope



15 mn



E022



15 mn



E041

1 - You will need



- Standard tool kit
- Multimeter
- Protective goggles
- Gloves



- Place barriers around the perimeter of the work area

2 - Preliminary procedure

1. Place the machine in maintenance configuration.  3.3.1-Placing the machine in maintenance configuration

N.B.:- The generator's performances are linked to the hydraulic oil temperature. Ensure that the hydraulic oil temperature is between 30 °C(86 °F) and 70 °C(158 °F) during the operations.

3 - Power supply voltage control

1. Disconnect all equipment connected to the generator (welder, hand equipment, ...).
2. Start up the machine.
3. Start the generator.
4. Wait for the generator to stabilize.
5. Measure the voltage at the welder outlet using a multimeter.

N.B.:- The voltage between each phase must be between 210 V AC and 240 V AC.

6. Measure the voltage at the 110 V outlet.

N.B.:- The voltage at each outlet must be between 110 V AC and 135 V AC.



If a malfunction occurs, contact HAULOTTE Services®.

Generator option (For HB135JRT only)



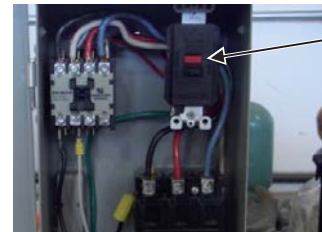
15 mn



E041

4 - Differential protection control

1. Disconnect all equipment connected to the generator (welder, hand equipment, ...).
2. Start up the machine.
3. Start the generator.
4. Wait for the generator to stabilize.
5. Press the TEST button on the 60 A cabinet.
6. Check that there is no voltage at the welder outlet.
7. Reset the contactor by pressing the RESET button.



8. Press the TEST button on the plug situated in the cage.
9. Check that there is no voltage at the outlet.
10. Reset the outlet by pressing the RESET button.



If a malfunction occurs, contact HAULOTTE Services®.

5 - Additional operation

1. Place the machine in its operating configuration.  3.3.2-Placing in operating configuration

Cable carrier cat track



30 min



E048

1 - You will need



- Standard tool kit
- Protective goggles
- Gloves



- Place barriers around the perimeter of the work area

2 - Preliminary procedure

1. Place the machine in maintenance configuration.  3.3.1-Placing the machine in maintenance configuration

3 - Control

Control carefully the cable carrier chain :

1. Check the appearance of the mechanical parts of the the cable carrier chain : Premature wear, excessive friction
2. Ensure that cables slide inside the cable carrier chain.
3. Ensure that cables don't leave their socket. Locate them back in the socket if necessary.
4. Check the electric wires and cables : Premature wear, excessive friction, non-insulated cable ... Replace cables if necessary.

4 - Additional operation

1. Place the machine in its operating configuration.  3.3.2-Placing in operating configuration

Control

Cable carrier cat track



30 min



E048

D - Diagnosis assistance

1 - Recommendations

If a malfunction occurs, check the following points :

- There is sufficient fuel.
- Sufficient engine oil.
- Sufficient hydraulic oil in the tank.
- Batteries are charging.
- Control box emergency stop push-buttons are pulled out.
- The control box selector key is set to platform or ground control box.
- Control box relays are engaged.
- Fuse status.
- Ground control box solenoid valve status.

If the malfunction persists, consult the troubleshooting table to identify the problem.

IF you cannot identify the problem, contact HAULOTTE Services®.

2 - Troubleshooting

Diagnosis H43TPX (HB135JRT)

Incident	Probable cause	Solution
Engine cannot be started or stopped	Empty fuel tank	Fill the tank
	Leak or air in the fuel circuit	Contact HAULOTTE Services®
	Clogged fuel filter	Replace the filter
	Electric battery low	Recharge the battery or batteries
	Faulty printed circuit fuses (ground control box)	Replace the fuse(s)
	Emergency stop push-buttons are pushed in	Pull the emergency stop buttons
	Engine in restricted mode (oil pressure indicators, overheating indicator, alternator charging indicator and clogged air filter indicator on)	See engine manufacturer's manual or contact HAULOTTE Services®
	Charge indicator bulb burnt out	Replace the bulb
	Clogged air filter indicator on	Replace the air filter cartridge
	Faulty engine safety relay KP1	Replace the relay(s)
	Poor cable/battery terminal contact	Loosen and clean the terminals
	Boom telescope chain or cable breakage	Contact HAULOTTE Services®
	Internal machine fault	
	Internal machine defect (radius limit)	Stow the machine using the emergency power unit Contact HAULOTTE Services®
	Connection failure between the platform and ground control boxes (CAN)	Stow the machine using the ground control box Contact HAULOTTE Services®

D - Diagnosis assistance

Incident	Probable cause	Solution
Low hydraulic pump pressure or power	Clogged air filter	Replace the filter
	Leak or air in the fuel circuit	Contact HAULOTTE Services®
	Engine speed too low	
	Oil leak on couplings, hoses or components	
	Clogged oil filter	Replace the oil filter cartridge See maintenance sheet E003
	Clogged fuel filter	Replace the filter
	Faulty accelerator coil YA2	Replace the coil
	Faulty accelerator fuse or relay KM6-FU14	Replace the accelerator relay or fuse
Platform controls do not respond	Ground control box selector key is set to ground control box position	Turn the ground control box selector key to platform control box position
	Platform overload indicator	Remove some weight Do not exceed the authorised limit  Section G 1-Main characteristics
	'Enable Switch' control validation device is not enabled	Enable the device and keep pressed down during movement
	Faulty joystick	Replace the joystick Contact HAULOTTE Services®
	Faulty solenoid valve for the selected movement	Replace the solenoid valve or the solenoid valve coil Contact HAULOTTE Services®
	Not enough hydraulic oil	Top up the oil level
	Tilt or slope exceeding the authorised limit	Do not exceed the authorised limit  Section G 1-Main characteristics
	Faulty fuse(s) FU6	Replace the fuse(s)
	No power supply in the platform	Stow the machine using the ground control box. Check the connectors on the connecting cable (top and bottom)
	Machine not calibrated	Contact HAULOTTE Services®
No high speed	Platform extended	Stow the machine completely
No telescoping	Faulty joystick	Replace the joystick
No boom lifting	Faulty joystick	Replace the joystick
No driving	Failure following microspeed failure	Stow the machine Switch off the power and then switch it back on again
No steering	Not enough hydraulic oil	Top up the oil level
	'Enable Switch' control validation device is not enabled	Enable the device and keep pressed down during movement
No horizontal drive, telescoping, lifting or buzzer in operation	Tilt or slope exceeding the authorised limit	Do not exceed the authorised limit  Section G 1-Main characteristics
No turntable rotation	Turntable rotation locking pin is inserted in the chassis	Remove the pin
Hydraulic pump is making an abnormal noise	Not enough hydraulic oil	Top up the oil level
	Pump suction valves closed or not fully open	Fully open the suction valves
A drive wheel does not hold the road	Insufficient load on one wheel	Press the differential locking selector

D - Diagnosis assistance

Incident	Probable cause	Solution
Buzzer in operation	Tilt or slope exceeding the authorised limit	Do not exceed the authorised limit  Section G 1-Main characteristics
	Platform overload indicator	Remove some weight Do not exceed the authorised limit  Section G 1-Main characteristics
	Hydraulic oil temperature too high	Allow to cool down
	Axle not fully extended or retracted	Fully extend or retract the axles
	Outrigger cylinder is not fully retracted	Fully retract the outrigger cylinder
	Axle retraction/extension forbidden with axle control box activated	Stow the machine Align the turret with the machine

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D - Diagnosis assistance

E - Electric circuit

1 - Wiring diagram-Main components

N.B.:  See end of manual.

Nomenclature : H28TJ+ (HB86TJ+)

Marking	Description
B2	Engine overheating pressure switch
B3	Engine oil pressure switch
B4	Hydraulic oil overheating pressure switch
B7	Hydraulic oil overheating temperature switch for cooler option
B8	Hydraulic high-speed drive pressure switch
B7	Hydraulic oil overheating temperature switch for cooler option
BZB01	Platform buzzer
EV	Engine, cooler option
FU1	10 A Engine power supply circuit fuse
FU3	80 A Pre-heating control circuit fuse
FU4	30 A Low power control circuit main fuse and calculator
FU5	3 A Turntable movement control circuit fuse
FU6	3 A Platform movement control circuit fuse
FU7	20 A Solenoid valve power supply circuit fuse
FU8	5 A Permanent power supply circuit fuse
FU9	20 A Accessory power supply circuit fuse
FU10	3 A LS valve circuit fuse
FU11	25 A Cooler circuit fuse (Option)
FU13	250 A Emergency pump circuit fuse
FU14	15 A Accelerator circuit fuse
FU15	20 A Injection pump circuit fuse
FU16	7,5 A Node B power supply circuit fuse
FU17	1 A Weighing system power supply circuit fuse
G2	Alternator
GB1	Battery 12 V
HA1	Buzzer
HA4	Turntable buzzer
HL1	Battery charge indicator
HL3	Engine overheating indicator
HL4	Engine oil pressure light
HL5	Beacon light option
HL6	Work light option
HL11	Electric pre-heating indicator
HL16	Overload indicator
HL17	Radius limitation indicator

E

- Electric circuit

Marking	Description
JYB01	Platform front steering switch
JYB01	Drive joystick
JYB02	Telescoping joystick
JYB03	Turntable rotation and lifting joystick
KA1	Horn relay
KA2	Engine start-up relay
KM4	Electric pump relay
KM5	Pre-heating relay
KM6	Accelerator relay
KMG	General power supply relay
KP1	Engine power supply relay
LTB01	'Enable Switch' pedal indicator
LTB02	Power ON indicator
LTB03	Fuel reserve indicator
LTB04	Platform fault indicator
LTB05	Tilt indicator light
LTB06	Platform overload indicator
LTB07	Platform radius limitation indicator
LTB08	Compensation fault indicator
LTB09	load selection indicator
LTB18	Compensation fault indicator
LTB20	Flashing light option
M3	Starter
M4	Emergency pump
P1	Hour meter
R1-R2-R3-R4	Glow plugs
SA0	Power-up selector
SA1	Control box selection key selector
SA2	Accelerator switch
SA6	Turret jib switch
SA8	Turret boom telescoping switch
SA13	Turret boom lifting switch
SA15	Turret orientation switch
SA16	Beacon option switch
SA19	Turret emergency pump switch
SA30	Jib lifting switch (Turntable)
SB0	Emergency stop button (chassis)
SB1	Emergency stop button (turntable)
SB3	Start-up switch (lower control box)
SB6	'Enable Switch' pedal
SL1 / SL2	Rotary angle sensors Upper boom / Turntable ^{((1.))}
SL3 / SL4	Boom telescope length sensors ^{((1.))}
SL9	Rotary angle sensor Turntable / Chassis ^{((1.))}
SL60 / SL61	Weighing sensors ^{((1.))}
SL70	Absolute angle sensor Platform ^{((1.))}
SL71	Absolute angle sensor Platform + 10 ° ^{((1.))}
SL72	Absolute angle sensor Platform - 10 ° ^{((1.))}
SL73	Relative angle sensor Platform / Jib ^{((1.))}
SL80	Relative angle sensor Upper boom / Jib link piece ^{((1.))}
SQ1	tilt sensor
SQ4	Sensor Boom telescope detection ILS
SQ9	Retracted boom telescope position limit switch
SQ11	Boom on turntable ILS proximity sensor
SQ12	Chain breakage position limit switch 1
SQ13	Chain breakage position limit switch 2
SQ28	Retracted jib telescope position sensor
SQ41	Fuel reserve sensor

E - Electric circuit

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Marking	Description
SQ42	ILS proximity sensor for turntable alignment
SQ44	Turntable rotation detection induction sensor
SWB01	Emergency stop button (cage)
SWB02	Generator start-up, option
SWB03	Platform compensation switch
SWB05	High-speed driving selection switch
SWB07	Differential locking switch
SWB08	Horn switch
SWB12	Boom/Jib selection switch
SWB13	Platform rotation switch
SWB15	Platform rotation switch
SWB16	Platform rotation switch
SWB17	Platform rotation switch
SWB19	Platform rotation switch
U1	HEAD calculator, node A ⁽¹⁾
U2	HEAD calculator, node B
YA1	Fuel pump
YA2	Accelerator
YA3	Injection pump
YV1	Solenoid valve LOAD SENSING
YV4	Boom lifting control solenoid valve Lifting / Lowering
YV5	Turntable rotation control solenoid valve Left / Right
YV7	Boom telescoping control solenoid valve Retraction / Extension
YV9	Differential locking control solenoid valve
YV10	High-speed drive control solenoid valve
YV12	Brake release control solenoid valve Front axle
YV15a	Jib compensation control solenoid valve Lowering
YV15b	Jib compensation control solenoid valve Lifting
YV18a	Jib lifting control solenoid valve Lifting
YV18b	Jib lifting control solenoid valve Lowering
YV19a	Platform rotation control solenoid valve Right
YV19b	Platform rotation control solenoid valve Left
YV21a	Left steering control solenoid valve
YV21b	Right steering control solenoid valve
YV27	Brake release control solenoid valve Rear axle
YV28	Hydraulic pump steering control solenoid valve
YV29	Jib telescoping control solenoid valve Retraction / Extension
YV30a	Forward drive solenoid valve
YV30b	Reverse drive solenoid valve
YV33	Oscillating axle unlocking control solenoid valve
YV34	Turntable unlocking control solenoid valve
YV36	Boom lifting control solenoid valve Lifting / Lowering
YV38	Jib lifting/lowering control solenoid valve Lifting / Lowering
YV41	Jib telescoping control solenoid valve Extension
YV42	Jib telescoping control solenoid valve Retraction
YV50a	Platform compensation control solenoid valve Lowering
YV50b	Platform compensation control solenoid valve Lifting
YV51	Platform compensation control solenoid valve Lifting / Lowering

(1.) If a component in the platform or ground control box is replaced, a HAULOTTE Services® technician will calibrate the radius limit system or initiate the weighing system

E - Electric circuit

Nomenclature : H43TPX (HB135JRT)

Marking	Description
A1	Weighing relative angle measurement ^{((1.))}
A2	Weighing absolute angle measurement ^{((1.))}
B2	Engine overheating pressure switch
B3	Engine oil pressure switch
B4	Hydraulic oil overheating pressure switch
B7	Hydraulic oil overheating temperature switch for cooler option
B8	Hydraulic high-speed drive pressure switch
BZB01	Platform buzzer
EV	Engine, cooler option
FU1	10 A Engine power supply circuit fuse
FU3	80 A Pre-heating control circuit fuse
FU4	30 A Low power control circuit main fuse and calculator
FU5	3 A Turntable movement control circuit fuse
FU6	3 A Platform movement control circuit fuse
FU7	20 A Solenoid valve power supply circuit fuse
FU8	5 A Permanent power supply circuit fuse
FU9	20 A Accessory power supply circuit fuse
FU10	3 A LS valve circuit fuse
FU11	25 A Cooler circuit fuse (Option)
FU13	250 A Emergency pump circuit fuse
FU14	15 A Accelerator circuit fuse
FU15	20 A Injection pump circuit fuse
FU16	7,5 A Node B power supply circuit fuse
G1	Small chamber pressure measurement for overload ^{((1.))}
G2	Large chamber pressure measurement for overload ^{((1.))}
GB1	Battery 12 V
HA1	Buzzer
HA4	Turntable buzzer
HL1	Battery charge indicator
HL3	Engine overheating indicator
HL4	Engine oil pressure light
HL5	Beacon light option
HL6	Work light option
HL11	Pre-heating indicator
HL16	Platform overload indicator
HL17	Turntable radius limitation indicator
JYB01	Platform front steering switch
JYB01	Drive joystick
JYB02	Telescoping joystick
JYB03	Turntable rotation and lifting joystick

E - Electric circuit

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Marking	Description
KA2	Engine start-up relay
KA43	Back-up unit cut-off relay
KM4	Electric pump relay
KM5	Pre-heating relay
KM6	Accelerator relay
KMG	General power supply relay
KP1	Engine power supply relay
LTB01	'Enable Switch' pedal indicator
LTB02	Power ON indicator
LTB03	Fuel reserve indicator
LTB04	Platform fault indicator
LTB05	Tilt indicator light
LTB06	Platform overload indicator
LTB07	Platform radius limitation indicator
LTB08	Undirected turntable indicator
LTB09	load selection indicator
M3	Starter
M4	Emergency pump
P1	Hour meter
R1	Glow plugs
SA0	Power-up selector
SA1	Control box selection key selector
SA2	Accelerator switch
SA6	Turret jib switch
SA8	Turret boom telescoping switch
SA13	Turret boom lifting switch
SA15	Turret orientation switch
SA16	Beacon option switch
SA17	Turntable jib orientation switch
SA18	Turntable platform orientation switch
SA19	Turret emergency pump switch
SA21	Turret compensation switch
SB0	Emergency stop button (chassis)
SB1	Emergency stop button (turntable)
SB3	Start-up switch (lower control box)
SB6	'Enable Switch' pedal
SB7	Pre-heating switch
SL1-2	Boom angle measurement ^{((1..))}
SL3-4	Boom length measurement ^{((1..))}
SL5	Turntable angle sensor
SL6	Front-axle angle sensor
SL7	Rear-axle angle sensor
SQ1	Dumping
SQ3	Boom position limit switch, stowed area
SQ4	Boom telescope detection ILS
SQ7	Jib position limit switch +5° / - 5°
SQ8	Jib position limit switch +180° / - 90°
SQ9	Retracted boom telescope position limit switch
SQ12	Chain breakage position limit switch 1
SQ13	Cable breakage position limit switch
SQ30-31	Extended front axle position limit switch
SQ32-33	Extended rear axle position limit switch
SQ34	Retracted front outrigger ILS sensor
SQ35	Retracted rear outrigger ILS sensor

E - Electric circuit

Marking	Description
SQ36-37	Extended axle ILS sensors
SQ38-39	Retracted axle ILS sensors
SQ41	Fuel reserve indicator
SQ42	"Aligned turntable" redundancy position sensor
SWB01	Emergency stop button (cage)
SWB02	Generator start-up, option
SWB03	Platform compensation switch
SWB05	High-speed driving selection switch
SWB06	Platform rear steering switch
SWB07	Differential locking switch
SWB08	Horn switch
SWB09	High platform speed selection switch
SWB11	Platform jib lifting switch
SWB13	Platform rotation switch
SWB14	Platform rotation switch
SWB15	Platform rotation switch
SWB16	Platform rotation switch
SWB17	Platform rotation switch
SWB19	Platform rotation switch
U1	HEAD calculator, node A ⁽¹⁾
U2	HEAD calculator, node B ^(1..)
YA1	Fuel pump
YA2	Accelerator
YA3	Injection pump
YV1	Solenoid valve LOAD SENSING
YV2	Jib, axle extension, outrigger and steering PVG solenoid valve
YV4	Boom lifting control solenoid valve
YV5	Turntable rotation control solenoid valve
YV7	Boom telescoping control solenoid valve
YV8-31	Axle extension, outrigger, steering control solenoid valves
YV9	Differential locking control solenoid valve
YV10	High-speed drive control solenoid valve
YV12	Brake release control solenoid valve
YV15a-b	Compensation control solenoid valve
YV16a-b	Jib rotation solenoid valve
YV18a-b	Jib lifting/lowering control solenoid valve
YV19a-b	Platform rotation control solenoid valve
YV21a-b	Front steering control solenoid valve
YV22a-b	Rear steering control solenoid valve
YV24	Generator control solenoid valve (Option)
YV30a	Pump, horizontal drive, generator control solenoid valve A
YV30b	Pump, horizontal drive, generator control solenoid valve B
YV33	Oscillating axle unlocking control solenoid valve
YV34	Turntable unlocking control solenoid valve
YV35	Telescope safety solenoid valve
YV36	Boom safety solenoid valve
YV37	Emergency valve for boom and telescopic boom combined movements

(1.) If a component in the platform or ground control box is replaced, a HAULOTTE Services® technician will calibrate the radius limit system or initiate the weighing system

E - Electric circuit

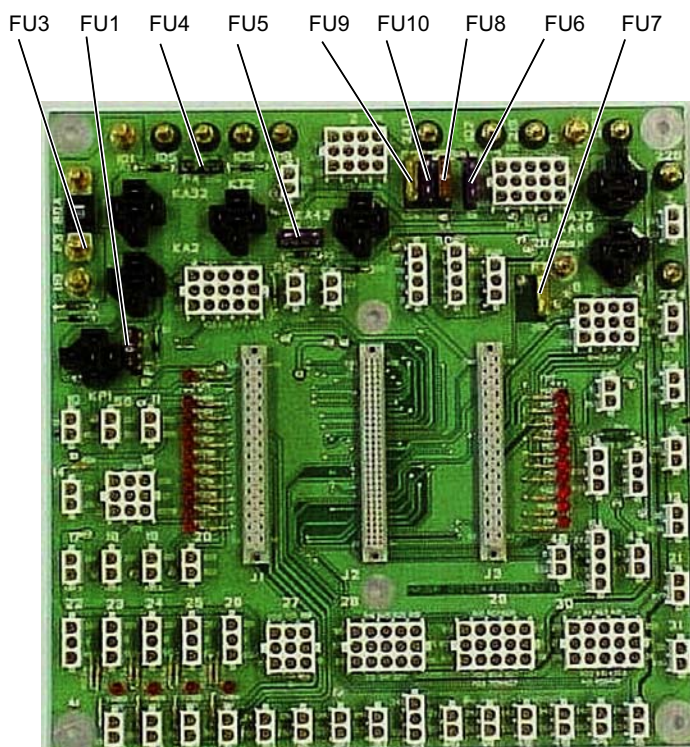
2 - Fuses

Description of the components H28TJ+ (HB86TJ+)

Marking	Description
FU1	10 A Engine power supply circuit fuse
FU3	80 A Pre-heating control circuit fuse
FU4	30 A Low power control circuit main fuse and calculator
FU5	3 A Turntable movement control circuit fuse
FU6	3 A Platform movement control circuit fuse
FU7	20 A Solenoid valve power supply circuit fuse
FU8	5 A Permanent power supply circuit fuse
FU9	20 A Accessory power supply circuit fuse
FU10	3 A LS valve circuit fuse
FU11	25 A Cooler circuit fuse (Option)
FU13	250 A Emergency pump circuit fuse
FU14	15 A Accelerator circuit fuse
FU15	20 A Injection pump circuit fuse
FU16	7,5 A Node B power supply circuit fuse
FU17	1 A Weighing system power supply circuit fuse

E - Electric circuit

Locations



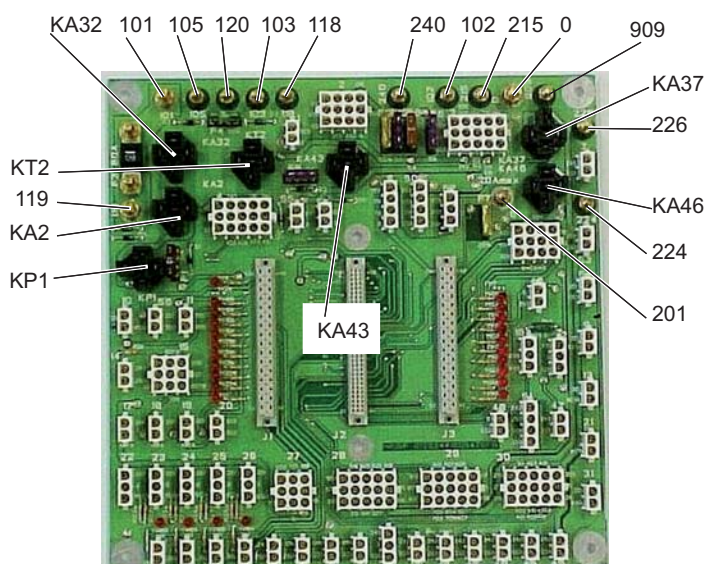
Description of the components H43TPX (HB135JRT)

Marking	Description
FU1	10 A Engine power supply circuit fuse
FU3	80 A Pre-heating control circuit fuse
FU4	30 A Low power control circuit main fuse and calculator
FU5	3 A Turntable movement control circuit fuse
FU6	3 A Platform movement control circuit fuse
FU7	20 A Solenoid valve power supply circuit fuse
FU8	5 A Permanent power supply circuit fuse
FU9	20 A Accessory power supply circuit fuse
FU10	3 A LS valve circuit fuse
FU11	25 A Cooler circuit fuse (Option)
FU13	250 A Emergency pump circuit fuse
FU14	15 A Accelerator circuit fuse
FU15	20 A Injection pump circuit fuse
FU16	7,5 A Node B power supply circuit fuse

E - Electric circuit

3 - Relays and terminals

Locations



Description of the components H28TJ+ (HB86TJ+)

Marking	Description
KA1	Horn relay
KA2	Engine start-up relay
KM4	Electric pump relay
KM5	Pre-heating relay
KM6	Accelerator relay
KMG	General power supply relay
KP1	Engine power supply relay
0	-Battery
101	+Battery
102	Emergency stop circuit
103	Starter
104	+Engine pre-heating
120	+General
215	Emergency stop circuit
240	General power supply after contactor

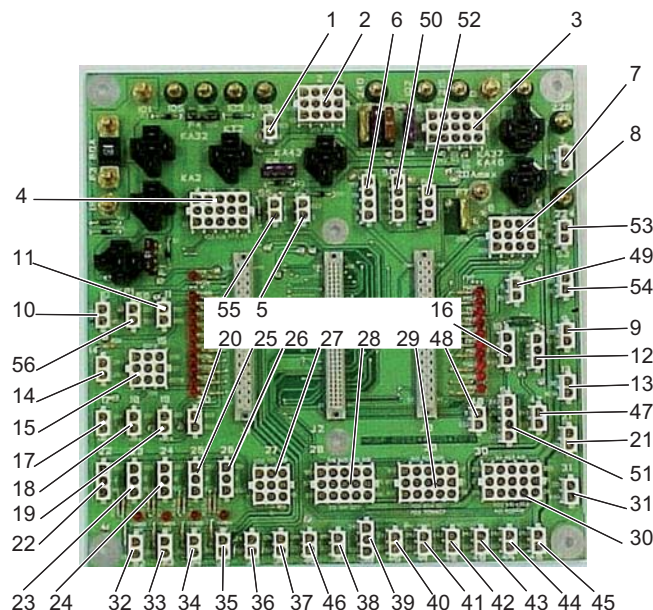
E - Electric circuit

Description of the components H43TPX (HB135JRT)

Marking	Description
KA2	Engine start-up relay
KA37	Injection pump control relay
KA43	Back-up unit cut-off relay
KM4	Electric pump relay
KM5	Pre-heating relay
KM6	Accelerator relay
KMG	General power supply relay
KP1	Engine power supply relay
0	-Battery
101	+Battery
102	Emergency stop circuit
103	Starter
119	+Engine pre-heating
120	+General
215	Emergency stop circuit
240	General power supply after contactor

4 - Connectors

Locations



E - Electric circuit

Description of the components H28TJ+ (HB86TJ+)

Marking	Description
1	Beacon light HL5
4 / 28	Lower cabin door
10	Steering control solenoid valve / Platform movements YV28
12	• Accelerator relay control KM6 • Pre-heating relay control XXX
14	Buzzer HA4
15	Chassis solenoid valves : YV9 (Differential lock)- YV10 (High drive speed)- YV12 (Brake release Front axle)- YV27 (Brake release Rear axle)- YV33 (Swing axle brake release)
16	• Lower cabin door (Compensation fault indicator) • Boom on turntable sensor SQ11
18	Boom lifting safety solenoid valve YV36
20	LS control solenoid valve YV1
21	Turntable unlocking control solenoid valve YV34
23	Boom lifting PVG YV4
24	Direction PVG YV5
25	Boom telescoping PVG YV7
27	Engine looms
29	• Boom angle sensors : SL1- SL2 • Boom telescope length sensors : SL3- SL4 • Orientation angle sensor SL9
31	Forward drive proportional solenoid valve YV30A
32	Generator option
33	Flashing light option
34	Right-hand steering solenoid valve YV21b
35	Left-hand steering solenoid valve YV21a
36	Chain n° *1 breakage sensor SQ12
37	Retracted boom telescope sensor SQ9
38	Orientation impulsion sensor SQ44
39	4 ° tilt sensor SQ1
40	Hydraulic tank temperature probe B4
42	Telescope impulsion sensor SQ4
45	High-speed driving detection sensor B8
46	"Aligned turntable" sensor SQ42
47	Cable breakage sensor SQ13
48	Fuel reserve sensor SQ41
49	Emergency pump relay KM4
50	Emergency stop line monitoring-Connection with ground control box door SB21
52	Horn relay control KA1
54	Reverse drive proportional solenoid valve YV30B
56	Lower cabin door (Overload indicator)

E - Electric circuit

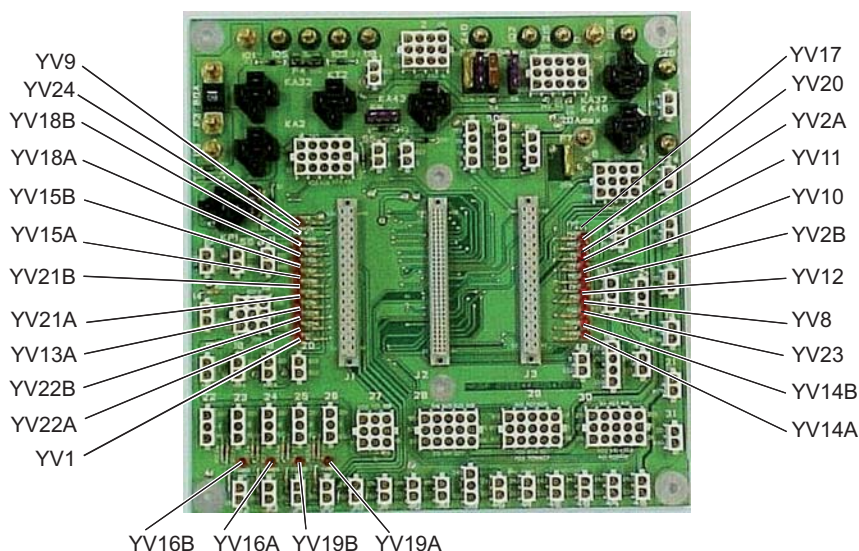
Description of the components H43TPX (HB135JRT)

Marking	Description
1	Beacon light HL5
2 / 4 / 28	Lower cabin door
8	Chassis solenoid valves : YV12 (Axle brake release)- YV21A (Forward right-hand steering)- YV21B (Forward left-hand steering)- YV33 (Swing axle brake release)
12	• Accelerator relay control KM6 • Pre-heating relay control KM5
14	Buzzer HA4
15	Chassis solenoid valves : YV8 (Outrigger or steering selection)- YV9 (Differential lock)- YV10 (High drive speed)- YV22A (Reverse right-hand steering)- YV22B (Reverse left-hand steering)- YV31 (Steering locking)
17	Telescope safety solenoid valve YV35
18	Boom lifting safety solenoid valve YV36
19	Emergency valve for boom and telescopic boom combined movements YV37
20	LS control solenoid valve YV1
21	Turntable unlocking control solenoid valve YV34
22	Jib, compensation, platform rotation, outrigger extension and steering PVG YV2
23	Boom lifting PVG YV4
24	Direction PVG YV5
25	Boom telescoping PVG YV7
27	Engine looms
29	• Boom telescope length sensors : SL3- SL4 • Connection with ground control box door SA6 • Rear-axle angle sensor SL7
30	• Chassis sensors : SQ30 (Extended front left axles)- SQ31 (Extended front right axles)- SQ32 (Extended rear right axles)- SQ33 (Extended rear left axles)- SQ34 (Retracted front axle adjustment)- SQ35 (Retracted rear axle adjustment)- SQ36 (Extended front axles)- SQ37 (Extended rear axles)- SQ38 (Retracted front axles)- SQ39, (Retracted rear axles)- SL5 (Turntable angle sensor) • Boom angle sensors : SL1- SL2
31	Forward drive proportional solenoid valve YV30A
32	Generator option
36	Chain n° *1 breakage sensor SQ12
37	Retracted boom telescope sensor SQ9
38	11 ° tilt sensor SQ1
39	3 ° tilt sensor SQ1
40	Hydraulic tank temperature probe B4
41	Lower boom sensor SQ3
42	Telescope impulsion sensor SQ4
45	High-speed driving detection sensor B8
46	"Aligned turntable" sensor SQ42
47	Cable breakage sensor SQ13
48	Fuel reserve sensor SQ41
49	Emergency pump relay KA43
50	Emergency stop line monitoring-Connection with ground control box door SA21
51	Front-axle angle sensor SL6
52	Horn HA1
54	Reverse drive proportional solenoid valve YV30B

E - Electric circuit

5 - Diagnosis assistance indicators

Locations



Description of the components : H28TJ+ (HB86TJ+)

Marking	Description
YV1	Solenoid valve LOAD SENSING
YV4	Boom lifting control solenoid valve Lifting / Lowering
YV5	Turntable rotation control solenoid valve Left / Right
YV7	Boom telescoping control solenoid valve Retraction / Extension

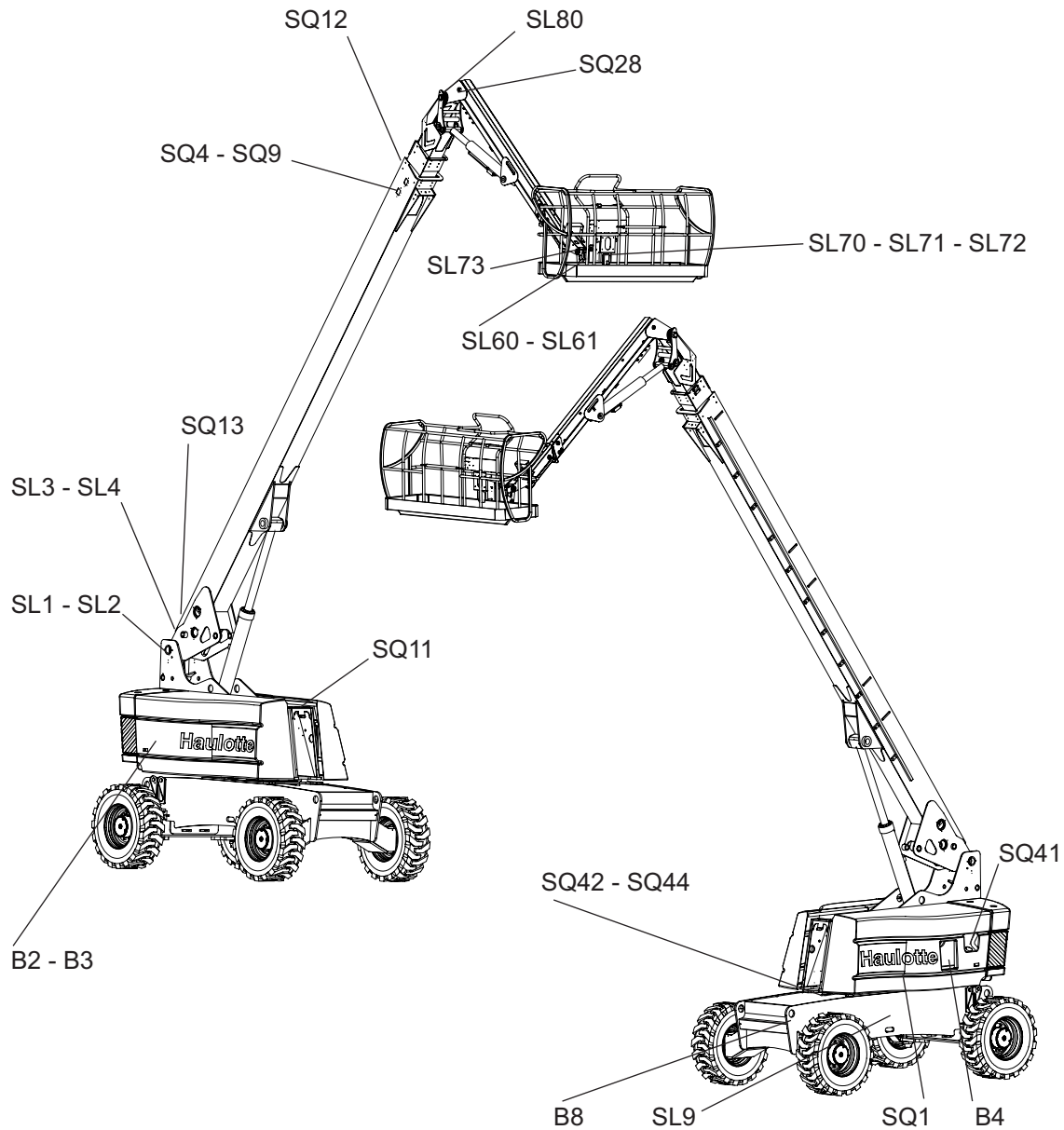
Description of the components : H43TPX (HB135JRT)

Marking	Description
YV1	LS control solenoid valve
YV8	Steering or outrigger selection solenoid valve
YV9	Differential locking control solenoid valve
YV10	High-speed drive control solenoid valve
YV12	Brake release control solenoid valve
YV15A	Compensation lowering control solenoid valve
YV15B	Compensation elevation control solenoid valve
YV16A	Not applicable
YV16B	Not applicable
YV18A	Not applicable
YV18B	Not applicable
YV19A	Not applicable
YV19B	Not applicable
YV21A	Front right-hand steering control solenoid valve
YV21B	Front left-hand steering control solenoid valve
YV22A	Reverse right-hand steering control solenoid valve
YV22B	Reverse left-hand steering control solenoid valve

E - Electric circuit

6 - Locations and functions of the main safety features

Locations : H28TJ+ (HB86TJ+)



E - Electric circuit

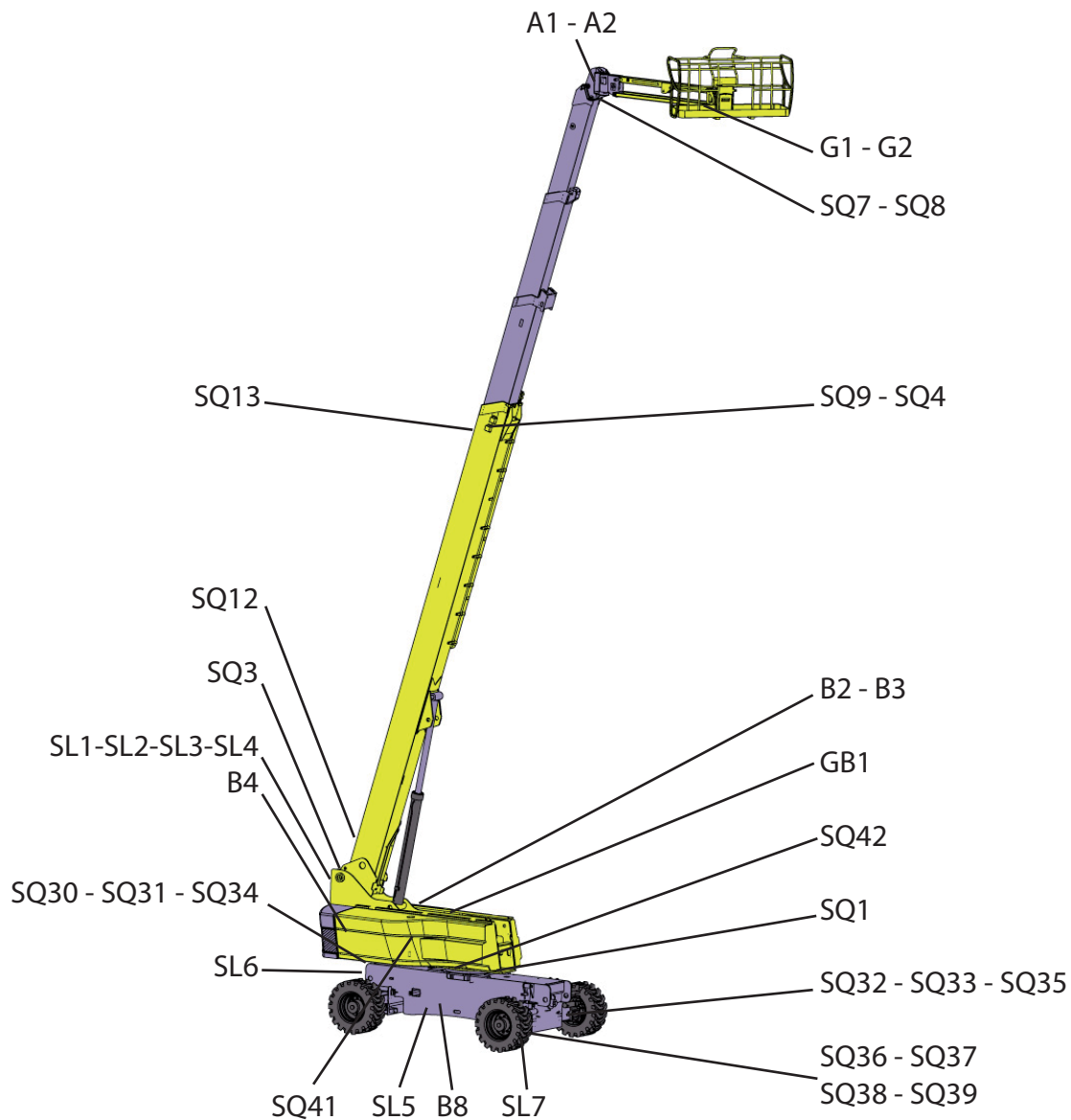
Description of the components H28TJ+ (HB86TJ+)

Marking	Description	Function
B2	Engine overheating pressure switch	Engine cut-off
B3	Engine oil pressure switch	Engine cut-off
B4	Hydraulic oil overheating pressure switch	Buzzer
B8	Hydraulic high-speed drive pressure switch	Safety high speed cut out if machine unfolded (YV10 locked)
SL1 / SL2	Rotary angle sensors Upper boom / Turntable	Limits the radius
SL3 / SL4	Boom telescope length sensors	Limits the radius
SL9	Rotary angle sensor Turntable / Chassis	Limits the radius
SL60 / SL61	Weighing sensors	Controls overload in cage
SL70	Absolute angle sensor Platform	Measure cage angle compared to the ground (Controls cage compensation)
SL71	Absolute angle sensor Platform + 10 °	Limit cage angle in positive
SL72	Absolute angle sensor Platform - 10 °	Limit cage angle in negative
SL73	Relative angle sensor Platform / Jib	Optimize cage compensation
SL80	Relative angle sensor Upper boom / Jib link piece	Measure the distance of the link part between jib and boom
SQ1	tilt sensor	Cuts all movements
SQ4	Sensor Boom telescope detection ILS (reed-type switch)	Telescope length detection
SQ9	Retracted boom telescope position limit switch	Boom lowering cut-off
SQ11	Boom on turntable ILS proximity sensor	Detection of boom in stowed position
SQ12	Chain breakage position limit switch 1	Main engine cut-out
SQ13	Chain breakage position limit switch 2	Main engine cut-out
SQ28	Retracted jib telescope position sensor	Detection of the telescopic jib retracted
SQ41	Fuel reserve sensor	Effect switch Reed (Detection lack of gasoil in tank)
SQ42	ILS proximity sensor for turntable alignment	Detection of turntable alignment (0 ° or 180 °)
SQ44	Turntable rotation detection induction sensor	Detection counting teeth

E - Electric circuit

6.1 - LOCATION OF THE LIMIT SWITCH AND SENSORS

Locations : H43TPX (HB135JRT)



E - Electric circuit

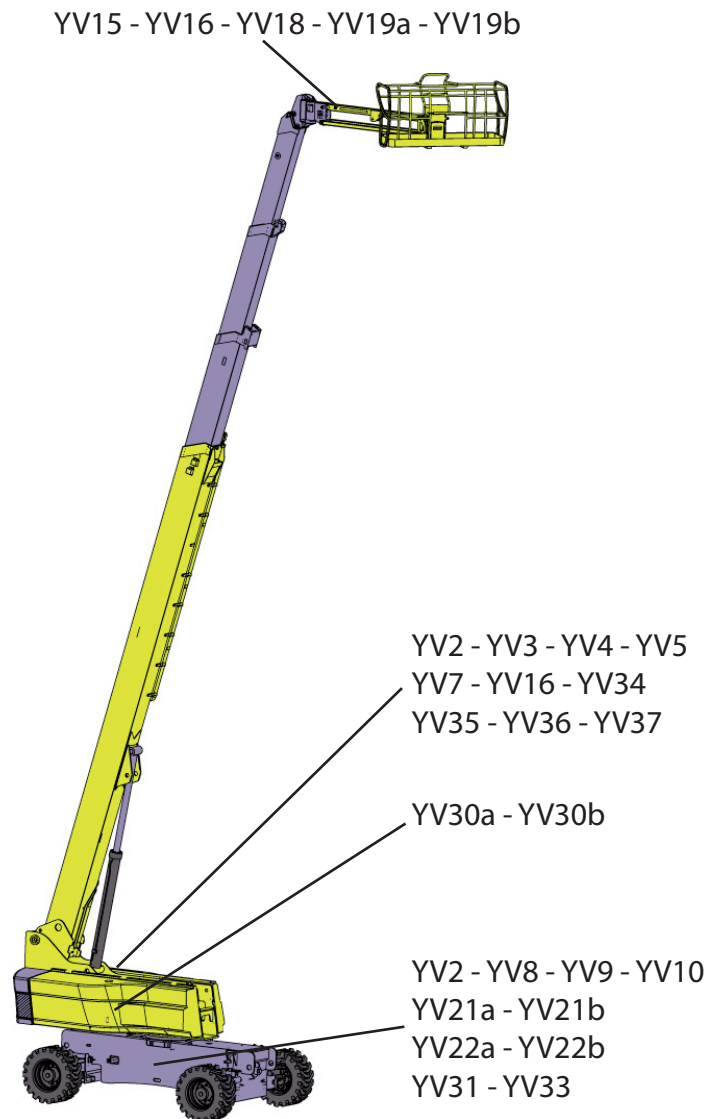
Description of the components H43TPX (HB135JRT)

Marking	Description	Function
A1	Weighing relative angle measurement	Controls overload
A2	Weighing absolute angle measurement	Controls overload
B2	Engine overheating pressure switch	Engine cut-off
B3	Engine oil pressure switch	Engine cut-off
B4	Hydraulic oil overheating pressure switch	Buzzer
B8	Hydraulic high-speed drive pressure switch	Safety high speed cut out if machine unfolded
G1	Small chamber pressure measurement for overload	Controls overload
G2	Large chamber pressure measurement for overload	Controls overload
GB1	Battery	
SL1 / SL2	Boom angle sensors	Limits the radius
SL3 / SL4	Boom length	Limits the radius
SL5	Turntable angle	Cuts axle extension extension
SL6	Front-axle angle sensor	Reduces the driving speed during steering
SL7	Rear-axle angle sensor	Reduces the driving speed during steering
SQ1	tilt sensor	Cuts all movements
SQ3	Upper boom position limit switch	High-speed cut-off + To telescope out
SQ4	Sensor Boom telescope detection ILS	Telescope length detection
SQ7	Jib position limit switch +5° / -5°	Jib rotation detection in work position (+5° / -5°)
SQ8	Jib position limit switch -90° / +180°	Jib rotation detection in transport position (-90° / +180°)
SQ9	Retracted boom telescope position limit switch	Cuts boom lowering
SQ12	Chain breakage position limit switch 1	Cuts all movements
SQ13	Chain breakage position limit switch 2	Cuts all movements
SQ30-31	Extended front axle position limit switch	Cuts all movements except boom lifting and turntable rotation
SQ32-33	Extended rear axle position limit switch	Cuts all movements except boom lifting and turntable rotation
SQ34	Retracted front outrigger sensor	Cuts all movements except boom lifting and turntable rotation
SQ35	Retracted rear outrigger sensor	Cuts all movements except boom lifting and turntable rotation
SQ36-37	Extended axle sensors	Cuts all movements except boom lifting and turntable rotation
SQ38-39	Retracted axle sensors	Cuts all movements except boom lifting and turntable rotation
SQ41	Fuel reserve sensor	Effect switch REED
SQ42	"Aligned turntable" redundancy position sensor	Cuts axle extension extension

E - Electric circuit

6.2 - LOCATIONS OF THE SOLENOID VALVES

Locations : H43TPX (HB135JRT)



E - Electric circuit

7 - Buzzers

Description of the components : H28TJ+ (HB86TJ+) - H43TPX (HB135JRT)

Marking	Description
HA1	Buzzer
HA4	Buzzer : • Dumping • Overload • Temperature
BZB01	Buzzer Platform control box : • Overload • Radius limitation • Axles not extended or retracted, outrigger extension in progress • Driving buzzer option • Movement buzzer option

8 - Indicators

Description of the components H28TJ+ (HB86TJ+)

Marking	Description
HL1	Battery charge indicator
HL3	Engine overheating indicator
HL4	Engine oil pressure light
HL5	Beacon light option
HL6	Work light option
HL11	Electric pre-heating indicator
HL16	Overload indicator
HL17	Radius limitation indicator
HL18	Compensation fault indicator
HL20	Flashing light option
LTB01	'Enable Switch' pedal indicator
LTB02	Power ON indicator
LTB03	Fuel reserve indicator
LTB04	Platform fault indicator
LTB05	Tilt indicator light
LTB06	Platform overload indicator
LTB07	Platform radius limitation indicator
LTB08	Compensation fault indicator
LTB09	load selection indicator

E

- Electric circuit

Description of the components H43TPX (HB135JRT)

Marking	Description
HL1	Battery charge indicator
HL3	Engine overheating indicator
HL4	Engine oil pressure light
HL5	Beacon light option
HL6	Work light option
HL11	Electric pre-heating indicator
HL16	Overload indicator
HL17	Radius limitation indicator
LTB01	'Enable Switch' pedal indicator
LTB02	Power ON indicator
LTB03	Fuel reserve indicator
LTB04	Platform fault indicator
LTB05	Tilt indicator light
LTB06	Platform overload indicator
LTB07	Platform radius limitation indicator
LTB08	Undirected turntable indicator
LTB09	load selection indicator

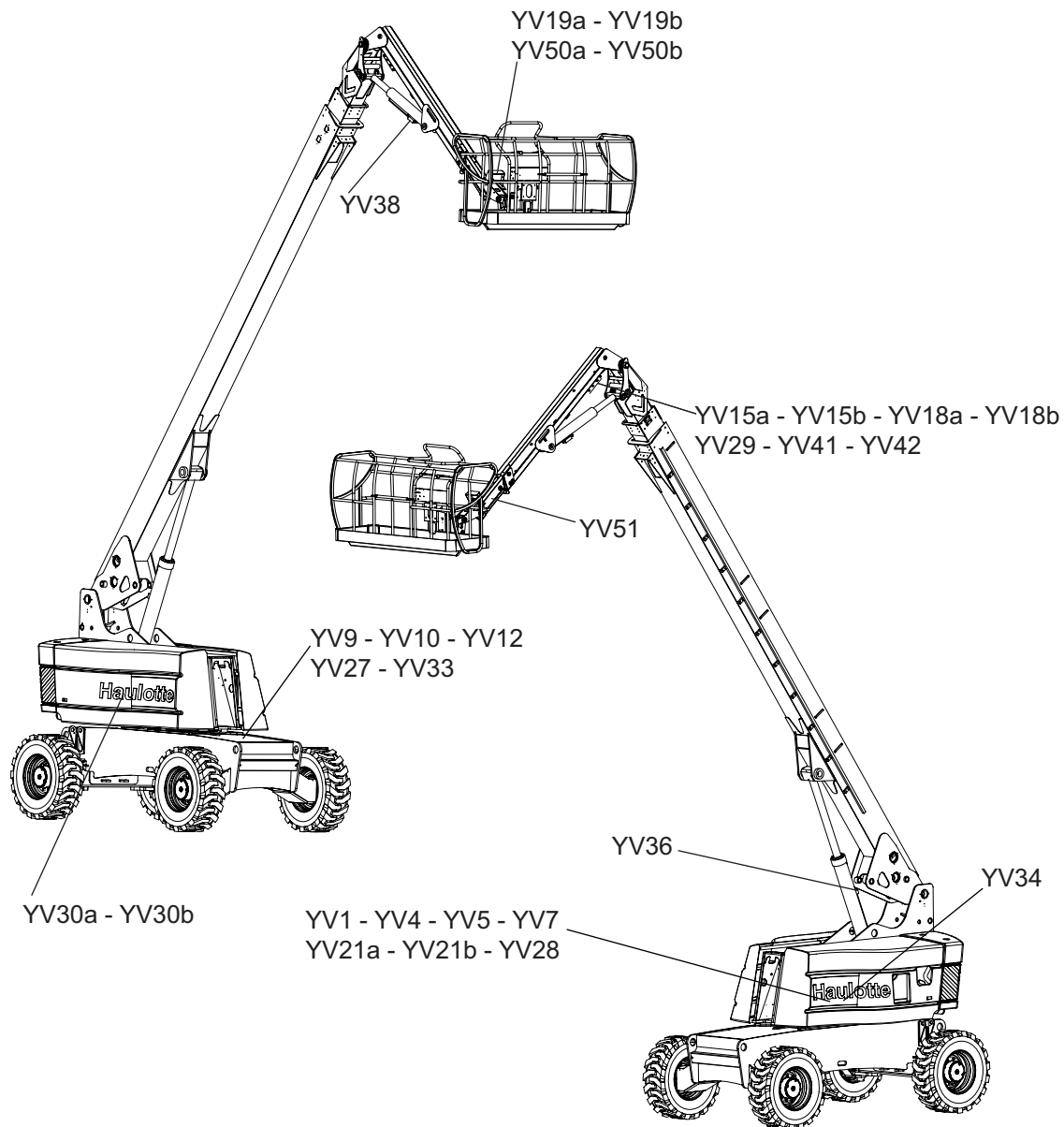
F - Hydraulic circuit

1 - Hydraulic diagram-Main components

N.B.:  See end of manual.

2 - Solenoid valves

Locations : H28TJ+ (HB86TJ+)



F

- Hydraulic circuit

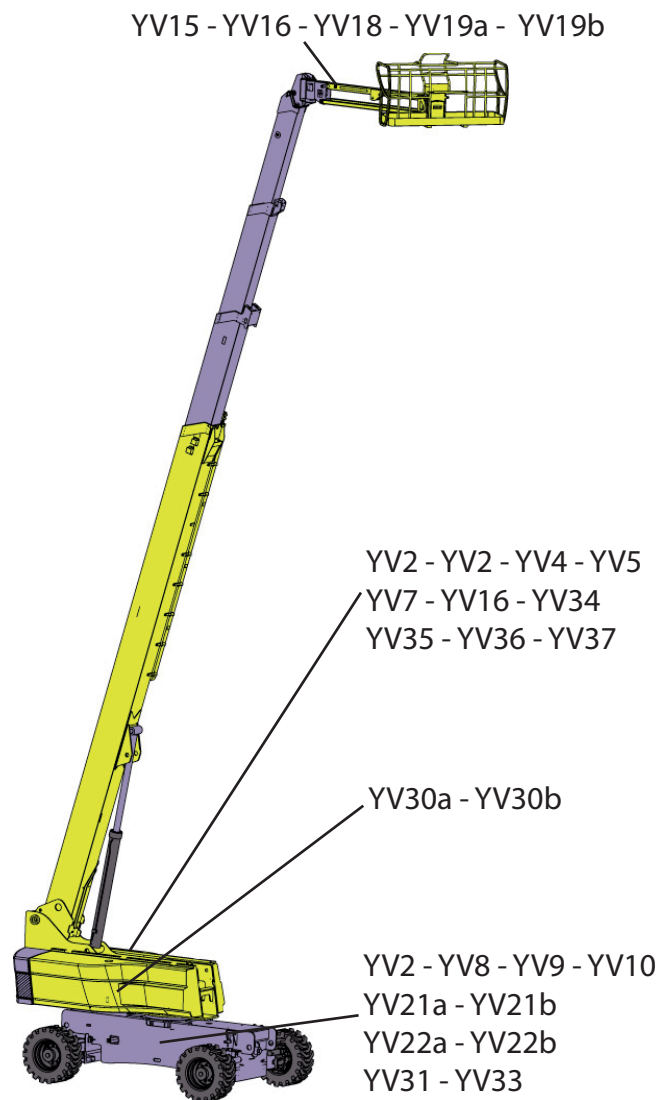
Description of the components H28TJ+ (HB86TJ+)

Marking	Description
YV1	Solenoid valve LOAD SENSING
YV4	Boom lifting control solenoid valve Lifting / Lowering
YV5	Turntable rotation control solenoid valve Left / Right
YV7	Boom telescoping control solenoid valve Retraction / Extension
YV9	Differential locking control solenoid valve
YV10	High-speed drive control solenoid valve
YV12	Brake release control solenoid valve Front axle
YV15a	Jib compensation control solenoid valve Lowering
YV15b	Jib compensation control solenoid valve Lifting
YV18a	Jib lifting control solenoid valve Lifting
YV18b	Jib lifting control solenoid valve Lowering
YV19a	Platform rotation control solenoid valve Right
YV19b	Platform rotation control solenoid valve Left
YV21a	Left steering control solenoid valve
YV21b	Right steering control solenoid valve
YV27	Brake release control solenoid valve Rear axle
YV28	Hydraulic pump steering control solenoid valve
YV29	Jib telescoping control solenoid valve Retraction / Extension
YV30a	Forward drive solenoid valve
YV30b	Reverse drive solenoid valve
YV33	Oscillating axle unlocking control solenoid valve
YV34	Turntable unlocking control solenoid valve
YV36	Boom lifting control solenoid valve Lifting / Lowering
YV38	Jib lifting/lowering control solenoid valve Lifting / Lowering
YV41	Jib telescoping control solenoid valve Extension
YV42	Jib telescoping control solenoid valve Retraction
YV50a	Platform compensation control solenoid valve Lowering
YV50b	Platform compensation control solenoid valve Lifting
YV51	Platform compensation control solenoid valve Lifting / Lowering

F

- Hydraulic circuit

Locations : H43TPX (HB135JRT)



F

- Hydraulic circuit

Description of the components H43TPX (HB135JRT)

Marking	Description
YV1	Solenoid valve LOAD SENSING
YV2	Jib, axle extension, outrigger and steering PVG solenoid valve
YV4	Boom lifting control solenoid valve
YV5	Turntable rotation control solenoid valve
YV7	Boom telescoping control solenoid valve
YV8-31	Axle extension, outrigger, steering control solenoid valves
YV9	Differential locking control solenoid valve
YV10	High-speed drive control solenoid valve
YV12	Brake release control solenoid valve
YV15a-b	Compensation control solenoid valve
YV16a-b	Jib rotation solenoid valve
YV18a-b	Jib lifting/lowering control solenoid valve
YV19a-b	Platform rotation control solenoid valve
YV21a-b	Front steering control solenoid valve
YV22a-b	Rear steering control solenoid valve
YV30a	Pump, horizontal drive, generator control solenoid valve A
YV30b	Pump, horizontal drive, generator control solenoid valve B
YV33	Oscillating axle unlocking control solenoid valve
YV34	Turntable unlocking control solenoid valve
YV35	Telescope safety solenoid valve
YV36	Boom safety solenoid valve
YV37	Emergency valve for boom and telescopic boom combined movements

G - 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

G

 - Intervention register

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

G

- Intervention register

A

B

C

D

E

F

G

H

I

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

G

 - Intervention register

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

G

- Intervention register

A

B

C

D

E

F

G

H

I

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

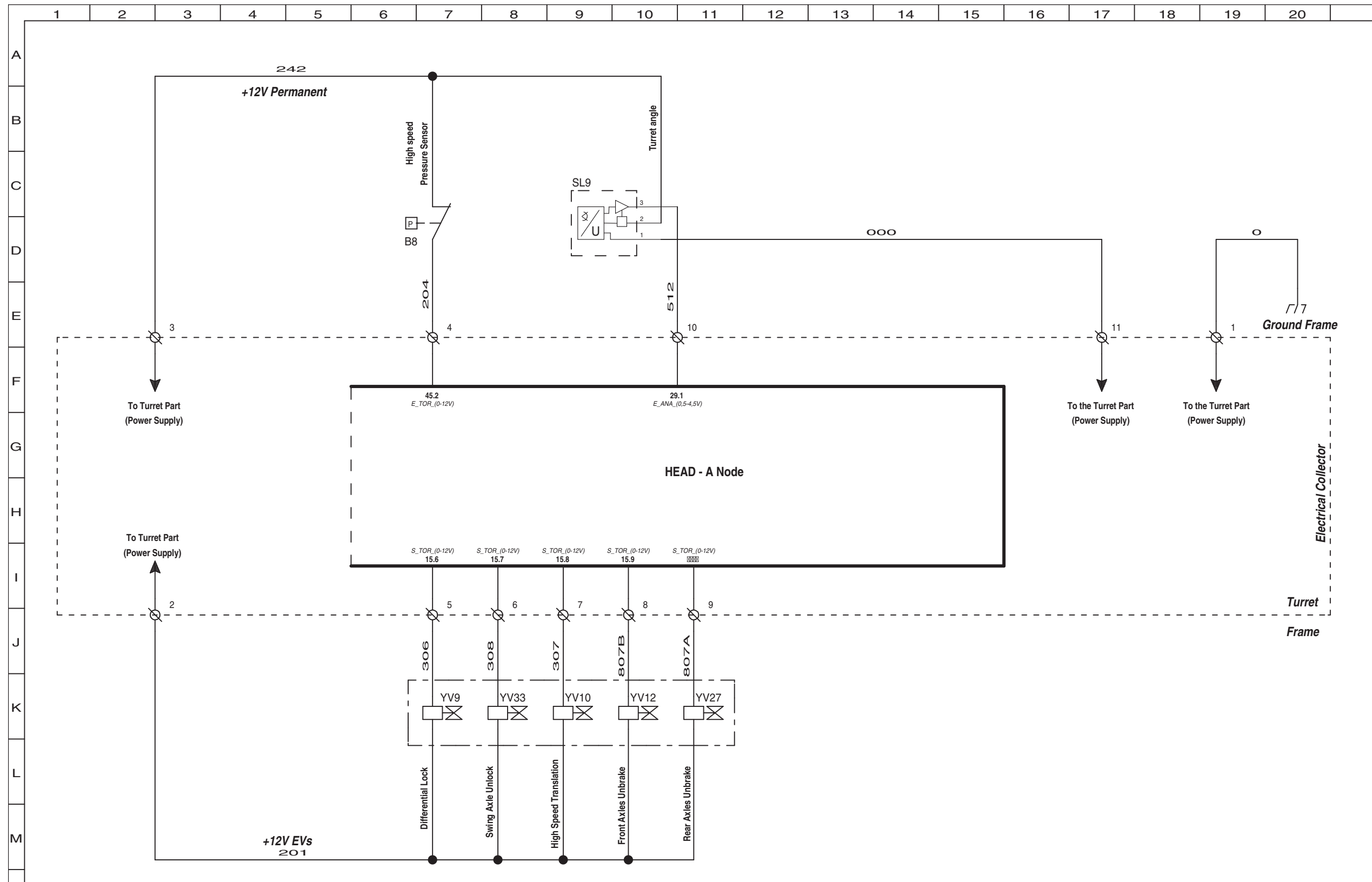
G

 - Intervention register

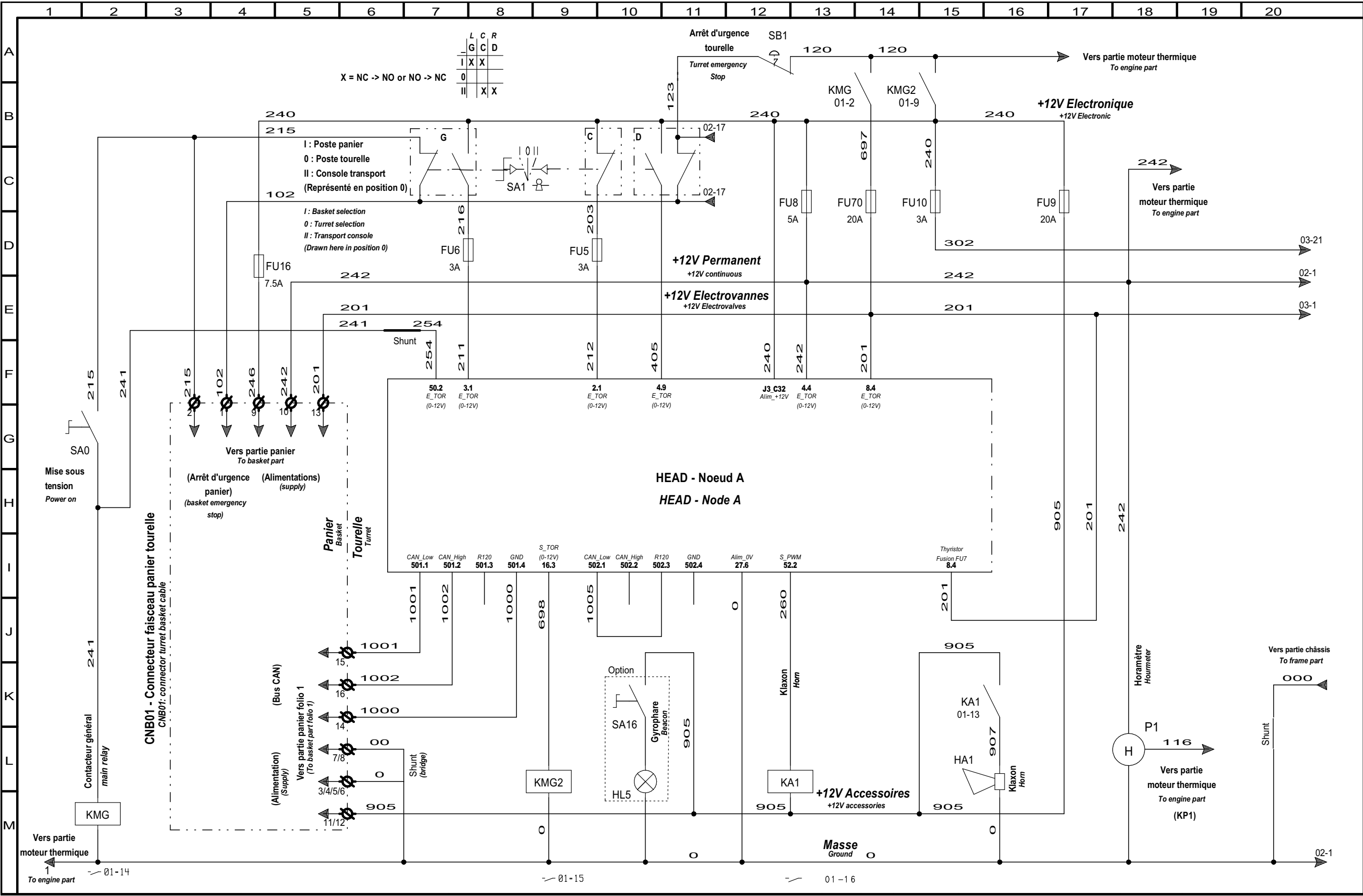
Date	Type of intervention	Number of hours	Intervenor	HAULOTTE Services® intervention number

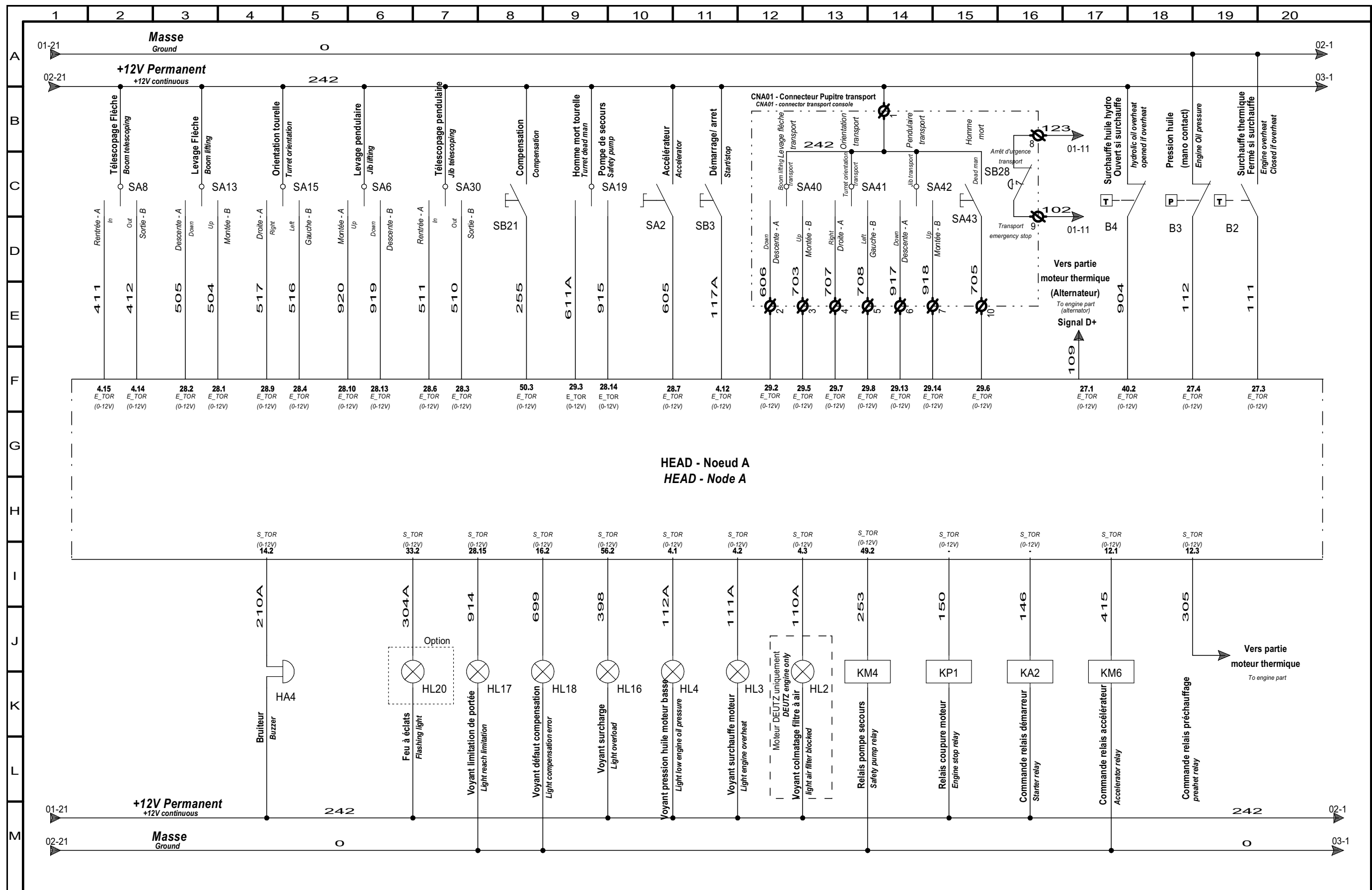
1 - H28TJ+ (HB86TJ+)

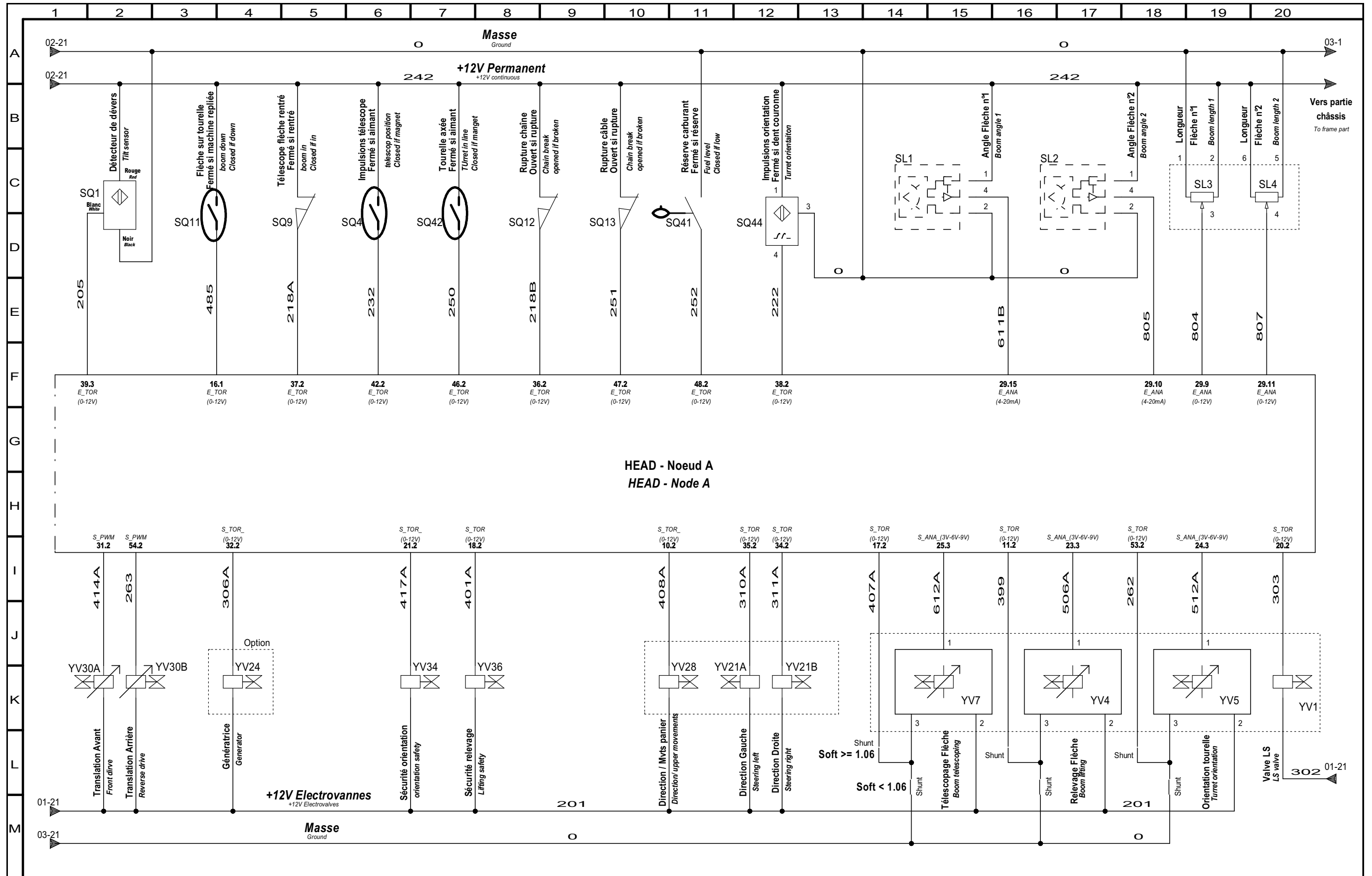
1.1 - CHASSIS



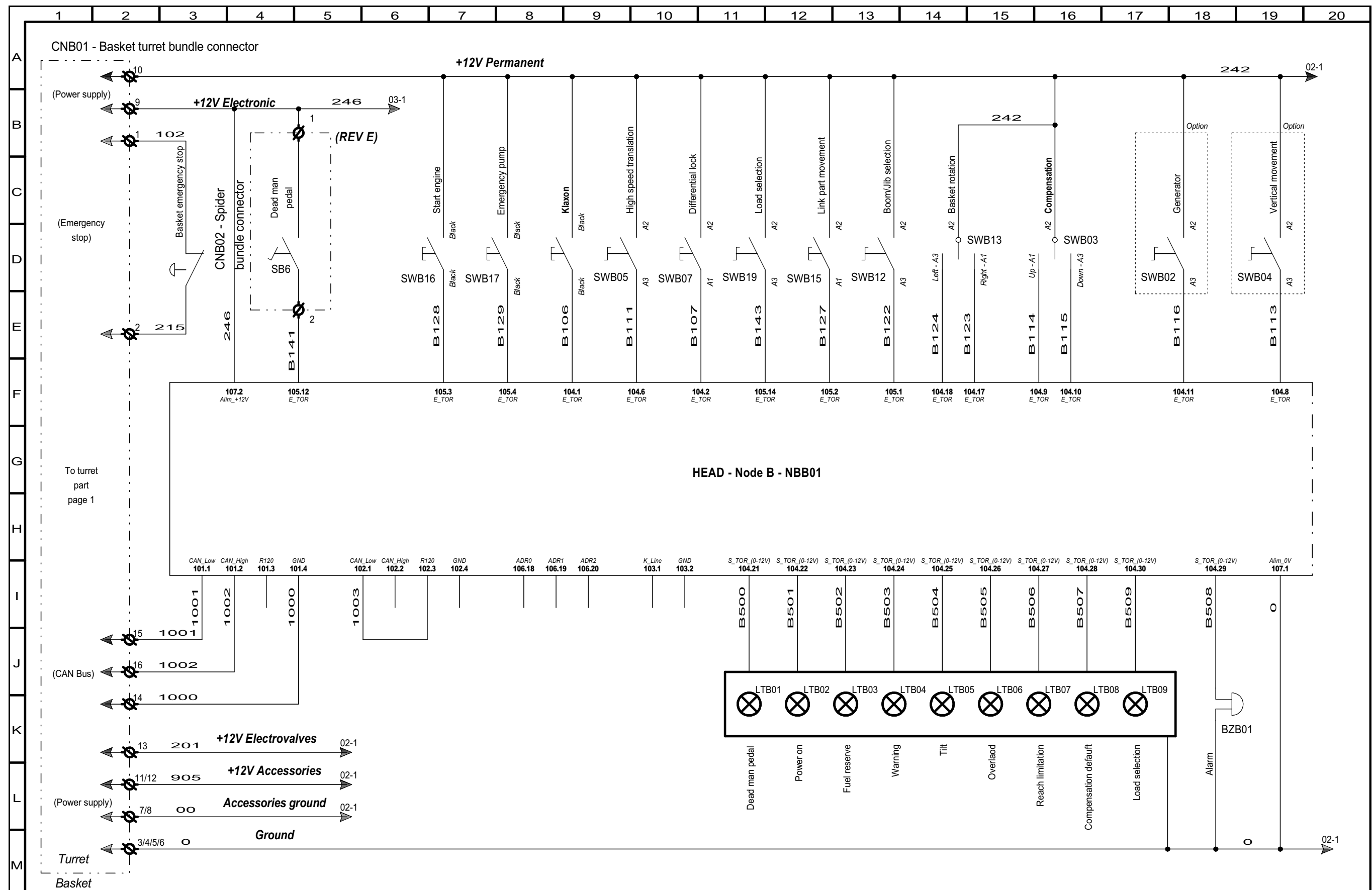
1.2 - TURNTABLE

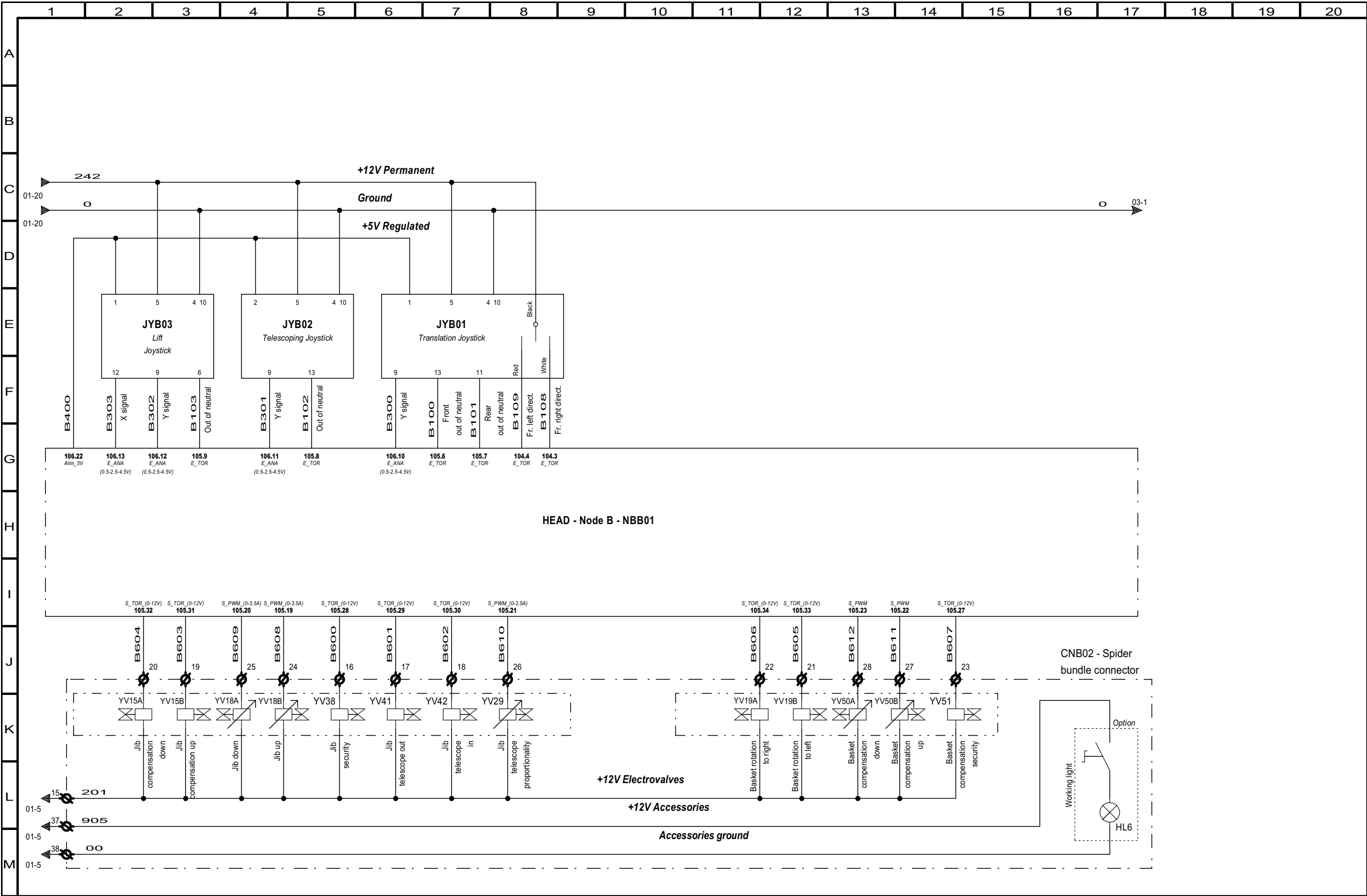


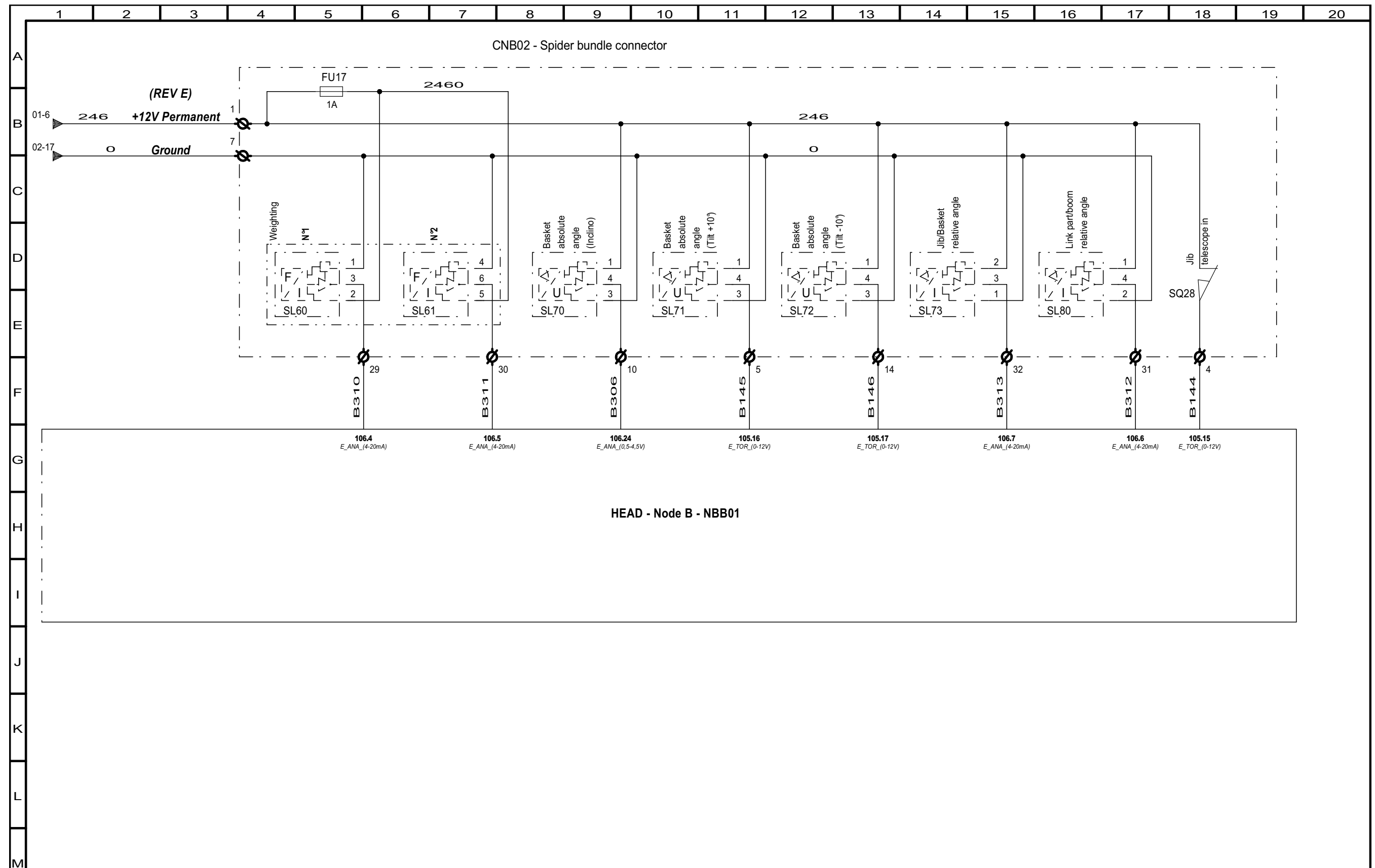




1.3 - BASKET

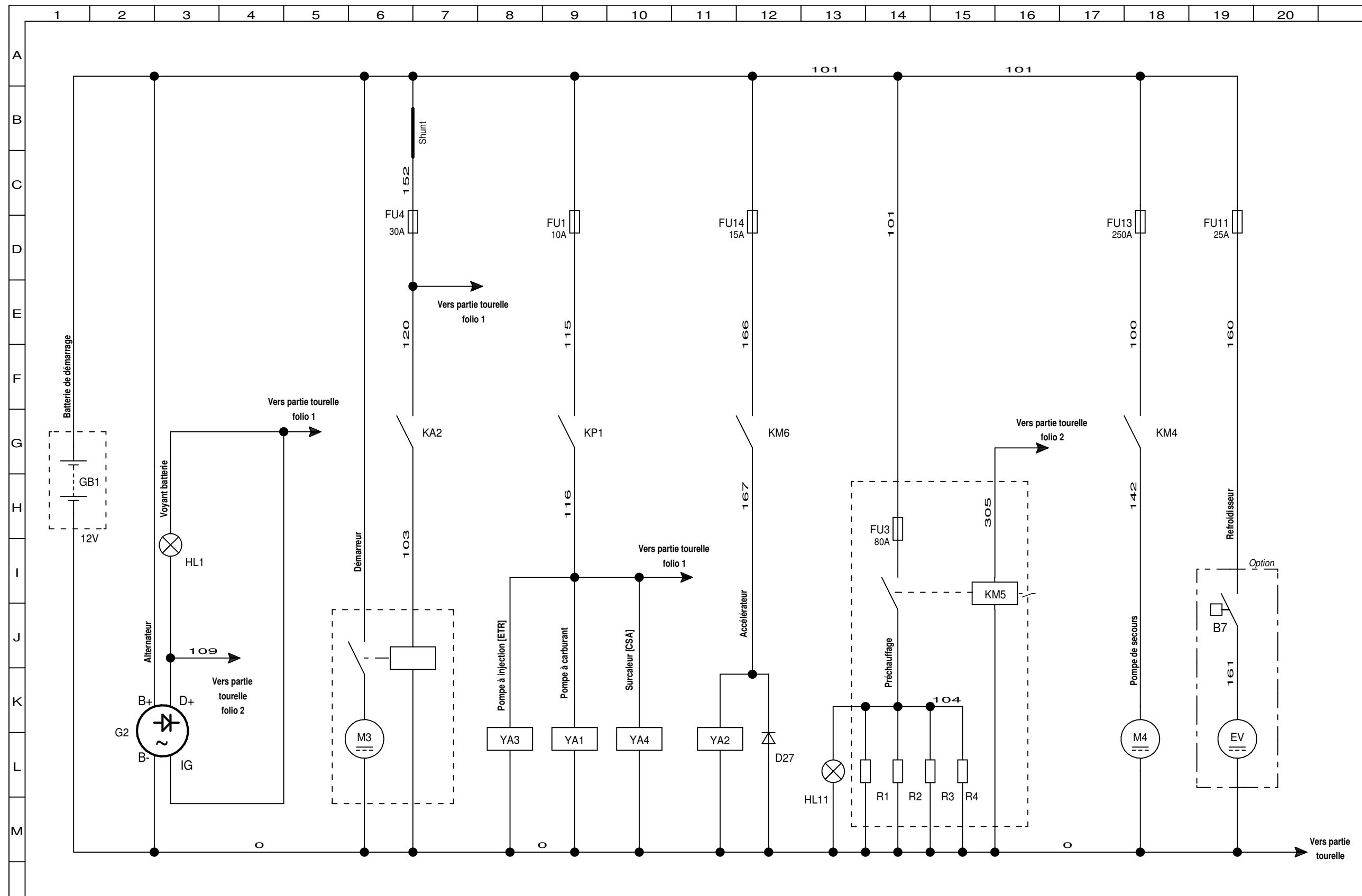






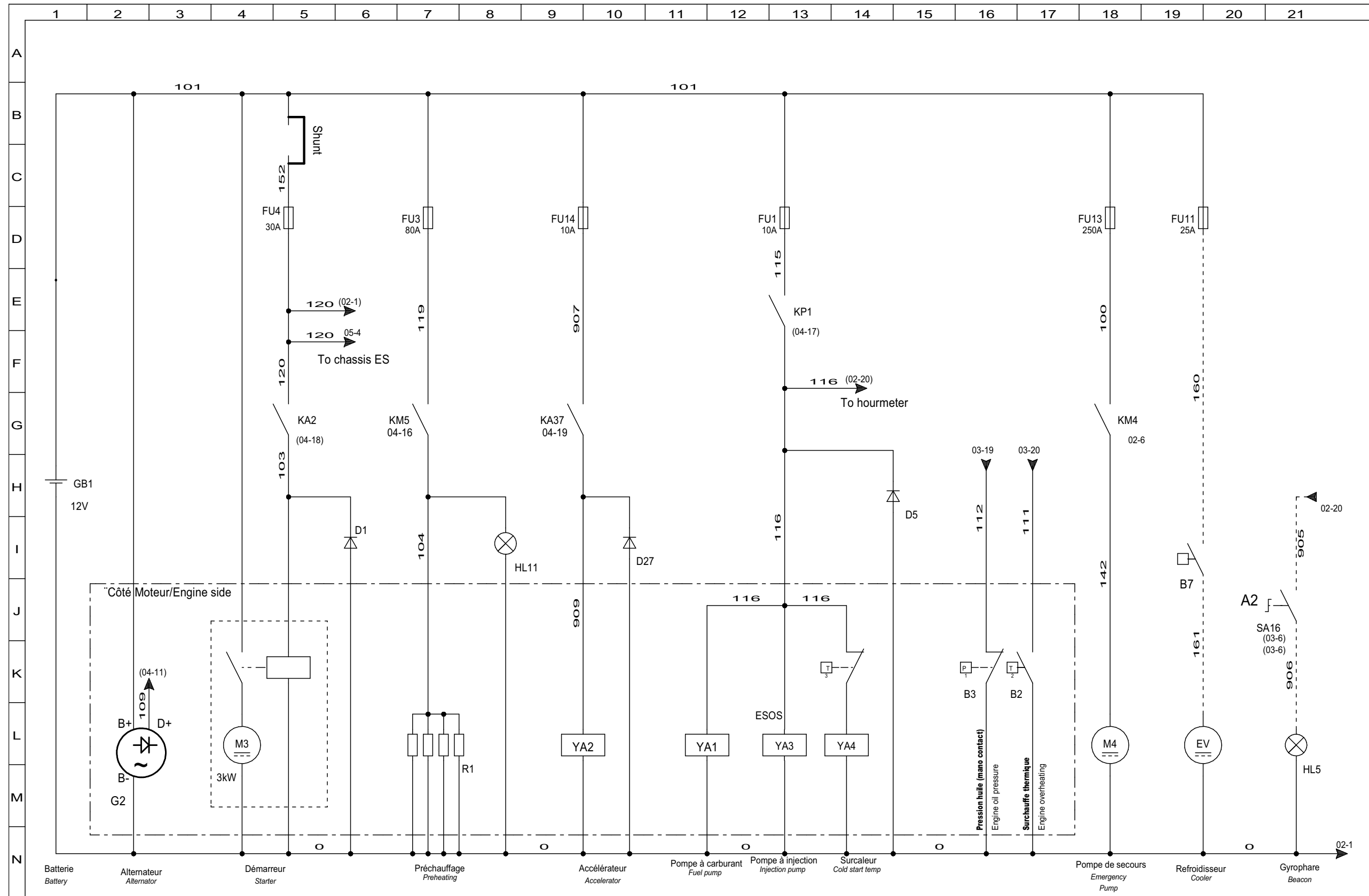
Telescopic 28 to 43 m

1.4 - ENGINE

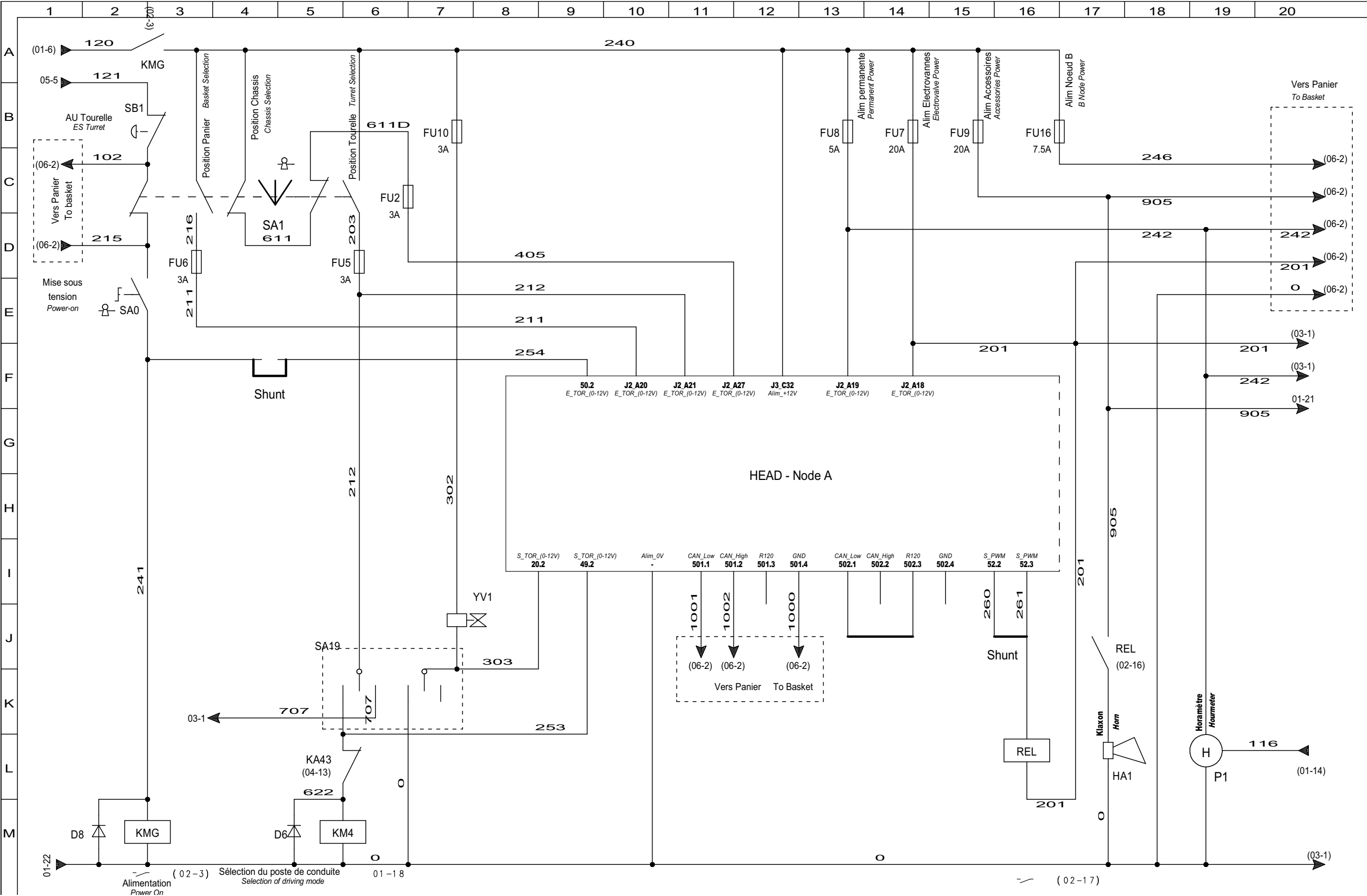


2 - H43TPX (HB135JRT)

2.1 - SCHÉMA 1/7

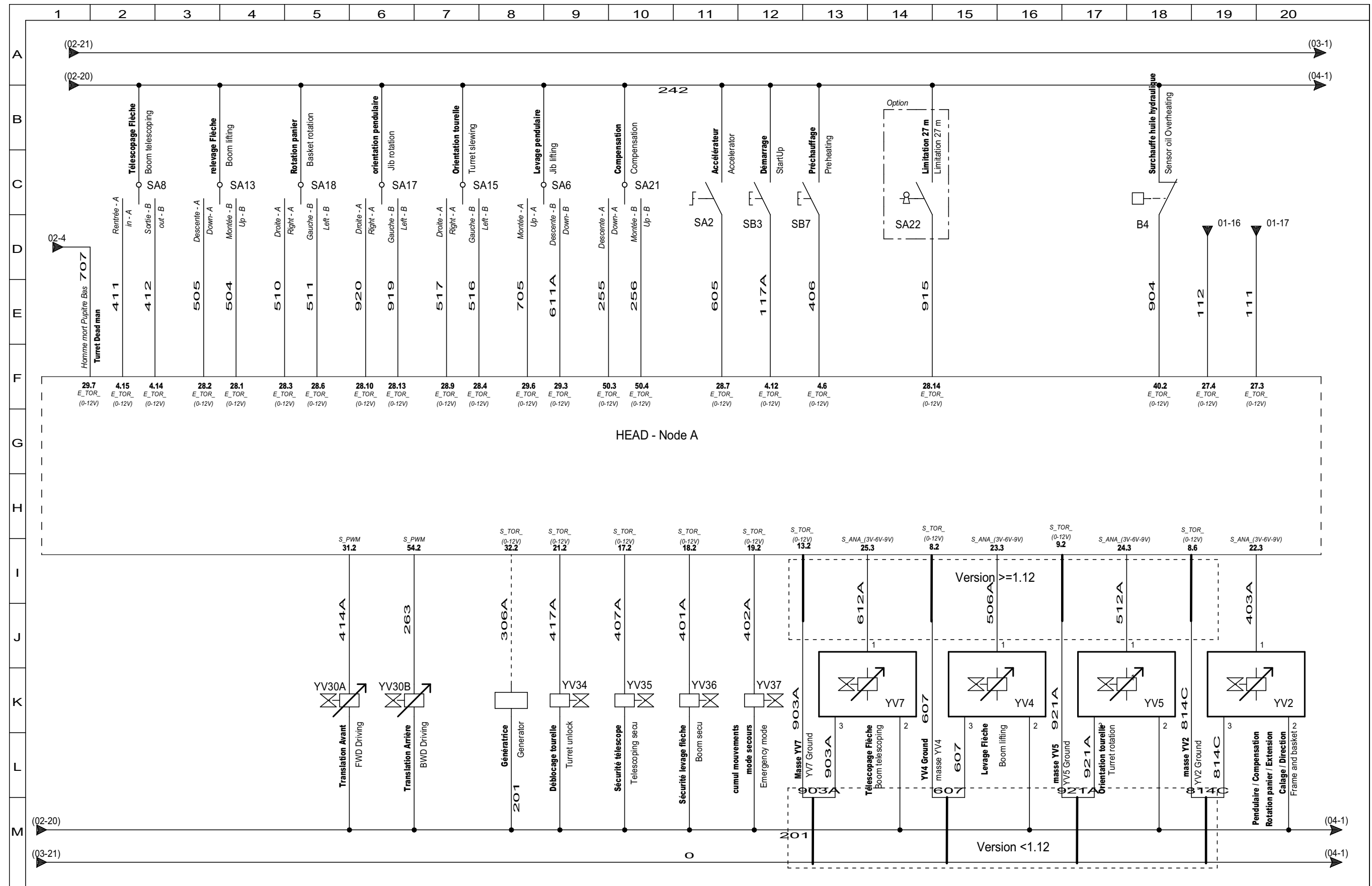


2.2 - SCHÉMA 2/7



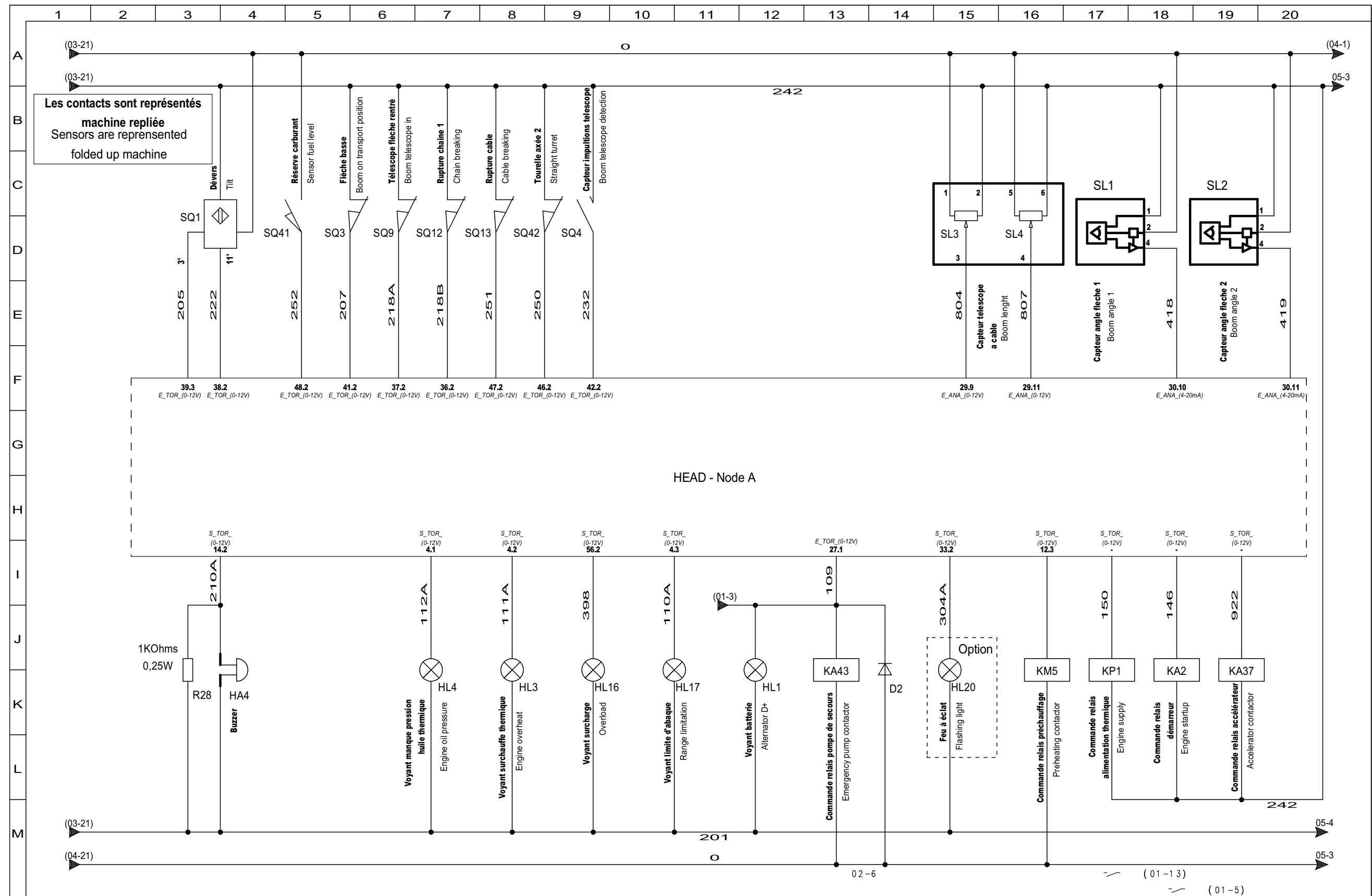
Telescopes 28 to 43 m

2.3 - SCHÉMA 3/7



Telescopic 28 to 43 m

2.4 - SCHÉMA 4/7



The diagram illustrates the electrical architecture for a machine's turret and chassis. It is organized into three main sections: the Turret (top), the Chassis (bottom), and a central Node A (middle). The Turret section includes components like the Chassis emergency stop (SB0), High speed sensor (B8), and various angle sensors (SL5, SL6, SL7). The Chassis section features directional controls (YV21A, YV21B, YV22A, YV22B), a differential lock (YV9), and other actuators (YV33, YV8, YV31, YV10, YV12). Node A acts as a central hub, connecting the two sections via a series of lines labeled with codes like 45.2, 30.12, 30.13, etc. Power is supplied to the system via +12V Permanent and +12V Electrovalves lines. A dashed line separates the Turret and Chassis sections, with labels 'Collecteur électrique / Electrical manifold' and 'Tourelle / Turret' and 'Châssis / Chassis'.

Legend:

- Sensors:** Represented by a rectangle with a diagonal line.
- Actuators:** Represented by a rectangle with an 'X' inside.
- Emergency stop:** Represented by a rectangle with a circle inside.
- High speed sensor:** Represented by a rectangle with a 'P' inside.
- Angle sensors:** Represented by a rectangle with a circle inside.

Wiring Details:

- Power Lines:** +12V Permanent, +12V Electrovalves, Masse / Ground, Masse châssis / Chassis Ground.
- Signal Lines:** 242, 455, 242, 0, 214, 259, 901, 454, 456, 242, 611C, 307, 308, 307, 307, 807B, 813.
- Component Labels:** Arrêt d'urgence châssis / Chassis emergency stop, Circuit de GV (OFF si HS) / High speed sensor (OFF if HS), Calage AV (ON si rentré) / Front blocking (ON if in), Calage AR (ON si rentré) / Rear blocking (ON if in), Essieu AV rentré / Front axle in, Essieu AR rentré / Rear axle in, Essieu AV étendu / Front Axle extended, Essieu AR étendu / Rear Axle extended, Essieu AV G étendu / Front L Axle extended, Essieu AR G étendu / Rear R Axle extended, Capteur d'angle tourelle / Turret angle sensor, Capteur d'angle essieu avant / Front axle angle sensor, Capteur d'angle essieu arrière / Rear axle angle sensor, Direction avant droite / Front Steering right, Direction avant gauche / Front steering left, Direction arrière droite / Rear steering right, Direction arrière gauche / Rear direction left, Blocage différentiel / Differential lock, Déblocage essieu oscillant / Swing Axle Unlock, Sélection calage / direction / Axle extension / steering, Blocage direction / Steering block, Grande vitesse translation / High speed (driving), Défreinage essieux / Unbrake.

Notes:

- Sensor are represented folded up machine

The diagram illustrates the electrical architecture of a crane system, divided into two main sections: **Liaison Tourelle-Panier** (Jib-Tower Connection) and **HEAD - Node B**.

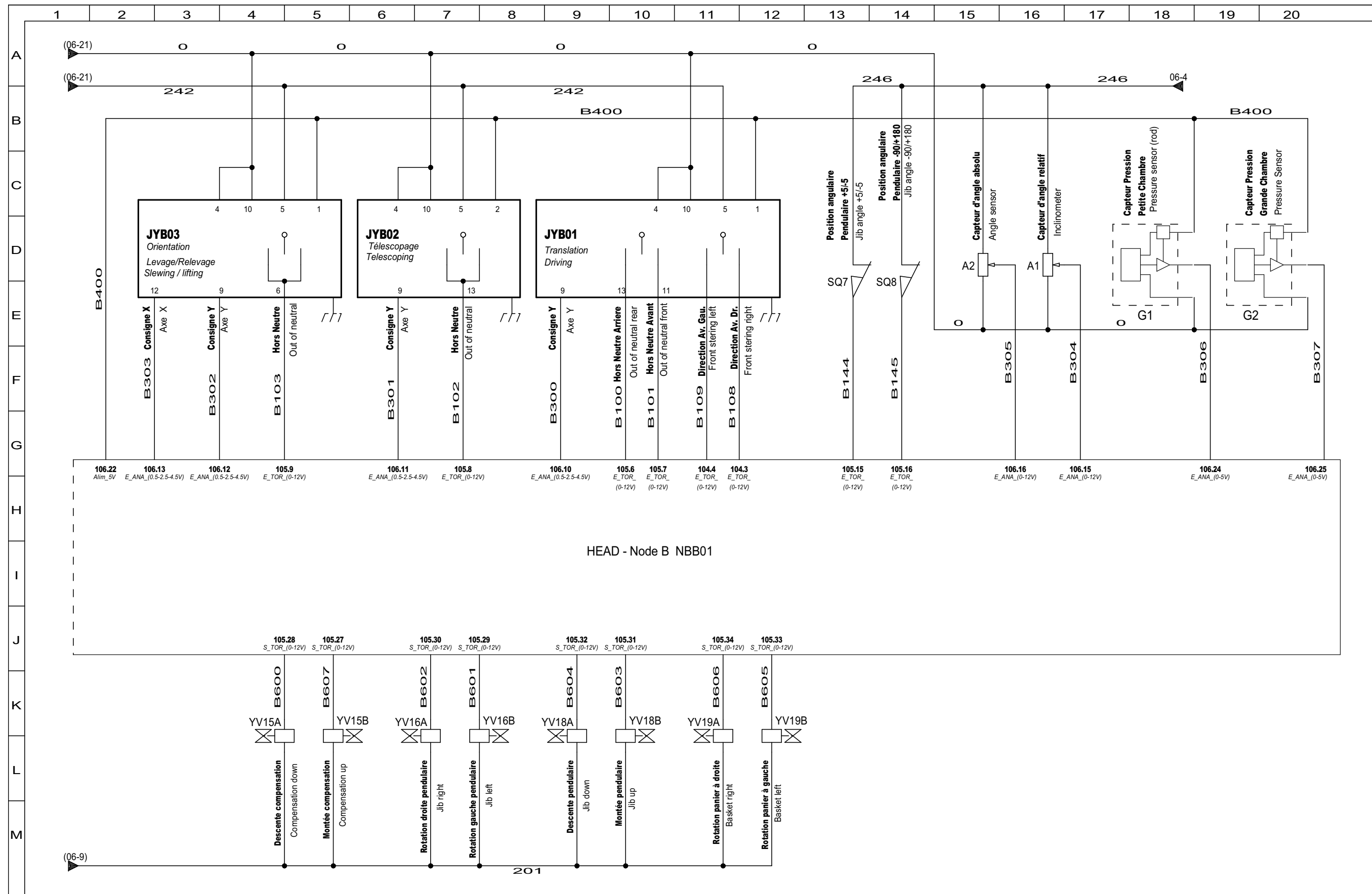
Top Section (Liaison Tourelle-Panier): This section shows the connection between the control unit and the jib/tower components. It includes a 242V power line and various control lines. Key components and their connections are as follows:

- Power and Ground:** 107.2 Alim. +12V, 105.12 E_TOR, 105.3 E_TOR, 104.12 E_TOR, 105.4 E_TOR, 104.1 E_TOR, 104.6 E_TOR, 104.2 E_TOR, 105.14 E_TOR, 104.8 E_TOR, 104.11 E_TOR, 105.36 E_TOR, 105.35 E_TOR, 104.9 E_TOR, 104.10 E_TOR, 104.15 E_TOR, 104.16 E_TOR, 105.11 E_TOR, 105.10 E_TOR, 104.20 E_TOR, 104.19 E_TOR.
- Control Lines:** 02-21, 02-1, 07-18, 07-1, 02-11, 02-12, 02-13, 07-1.
- Components:** SWB01, SWB16, SWB09, SWB17, SWB08, SWB05, SWB07, SWB19, SWB04, SWB02, SWB13, SWB03, SWB11, SWB06, SWB14, SB6, B1128, B1117, B1129, B106, B111, B107, B143, B113, B116, B124, B123, B114, B115, B120, B121, B105, B104, B126, B125.
- Functions:** Arrêt d'urgence Panier (Basket emergency stop), Pédale d'Homme mort (Dead man's pedal), Startup (Démarrage), Grande vitesse Mouvement (High speed movements), Pompe de secours (Emergency pump), Klaxon (Horn), Grande vitesse Translation (High speed driving), Blocage différentiel (Differential lock), Sélection charge panier (Load selection), Suivi mur (Wall Follow-up), Génératrice (Generator), Rotation panier (Basket rotation), Compensation, Pendulaire (Jib), Direction arrière (Rear steering), Rotation pendulaire (Jib rotation).

Bottom Section (HEAD - Node B): This section shows the connection between the control unit and the head components. It includes a 242V power line and various control lines. Key components and their connections are as follows:

- Power and Ground:** 101.1 CAN_Low, 101.2 CAN_High, 101.3 R120, 101.4 GND, 102.1 CAN_Low, 102.2 CAN_High, 102.3 R120, 102.4 GND, 103.1 K_Line, 103.2 GND, 104.21 S_TOR_0-12V, 104.22 S_TOR_0-12V, 104.23 S_TOR_0-12V, 104.24 S_TOR_0-12V, 104.25 S_TOR_0-12V, 104.26 S_TOR_0-12V, 104.27 S_TOR_0-12V, 104.28 S_TOR_0-12V, 104.29 S_TOR_0-12V, 104.30 S_TOR_0-12V, 107.1 Alim_0V.
- Control Lines:** 02-11, 02-12, 02-13, 07-1, 07-1.
- Components:** 1001, 1002, 1000, 1003, 905, HL6, LTB01, LTB02, LTB03, LTB04, LTB05, LTB06, LTB07, LTB08, LTB09, BZ01, B500, B501, B502, B503, B504, B505, B506, B507, B508, B509.
- Functions:** Pédale d'Homme mort (Dead man), Mise sous tension (Power-on), Réserve carburant (Fuel level), Danger, Dévers (Tilt), Surcharge (Overload), Limite d'abaque (Range limitation), Tourelle non orientée (Turnet not straight), Buzzer, Sélection charge (Load selection), Phare de travail (Work light).

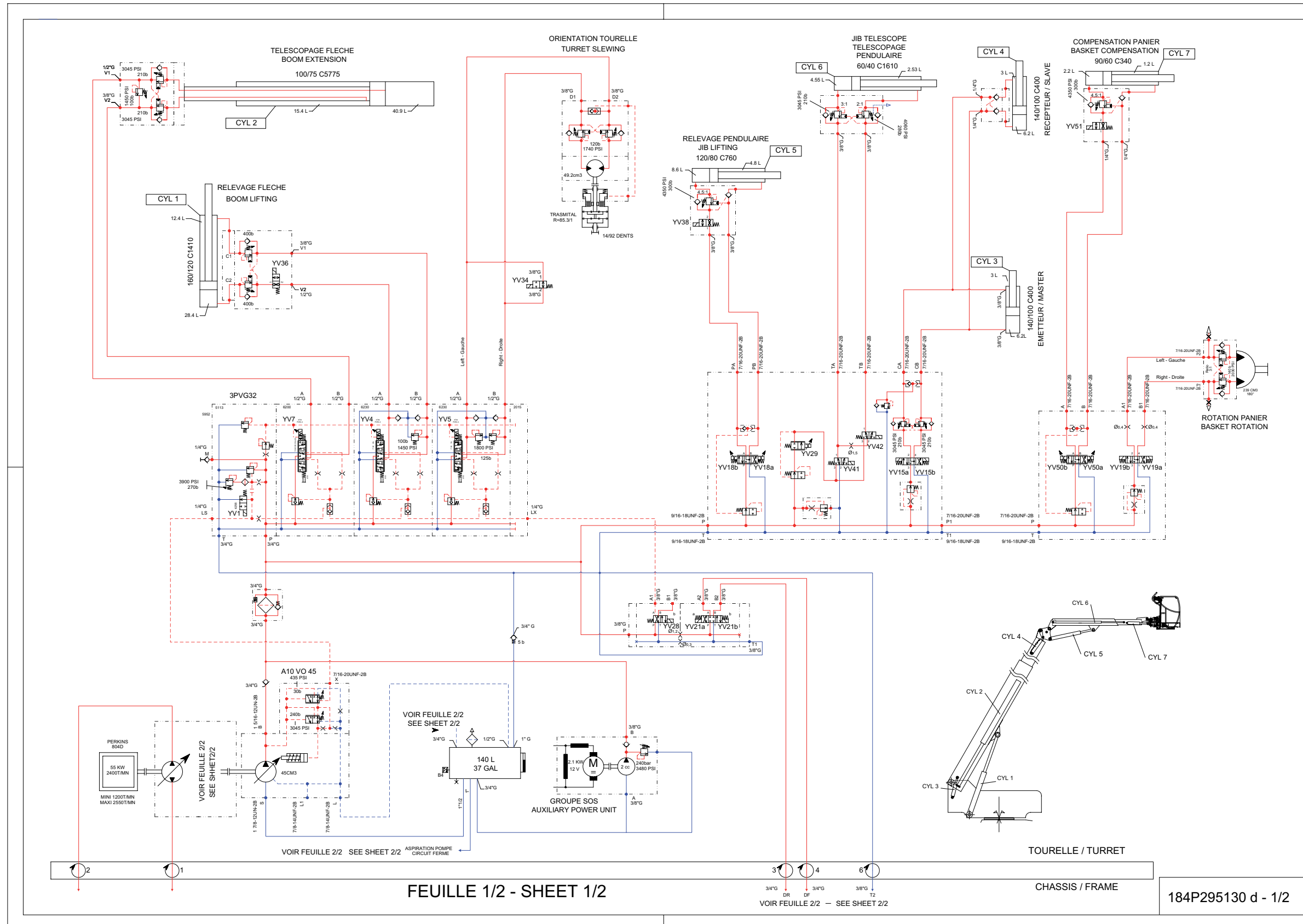
2.7 - SCHÉMA 7/7



Telescopes 28 to 43 m

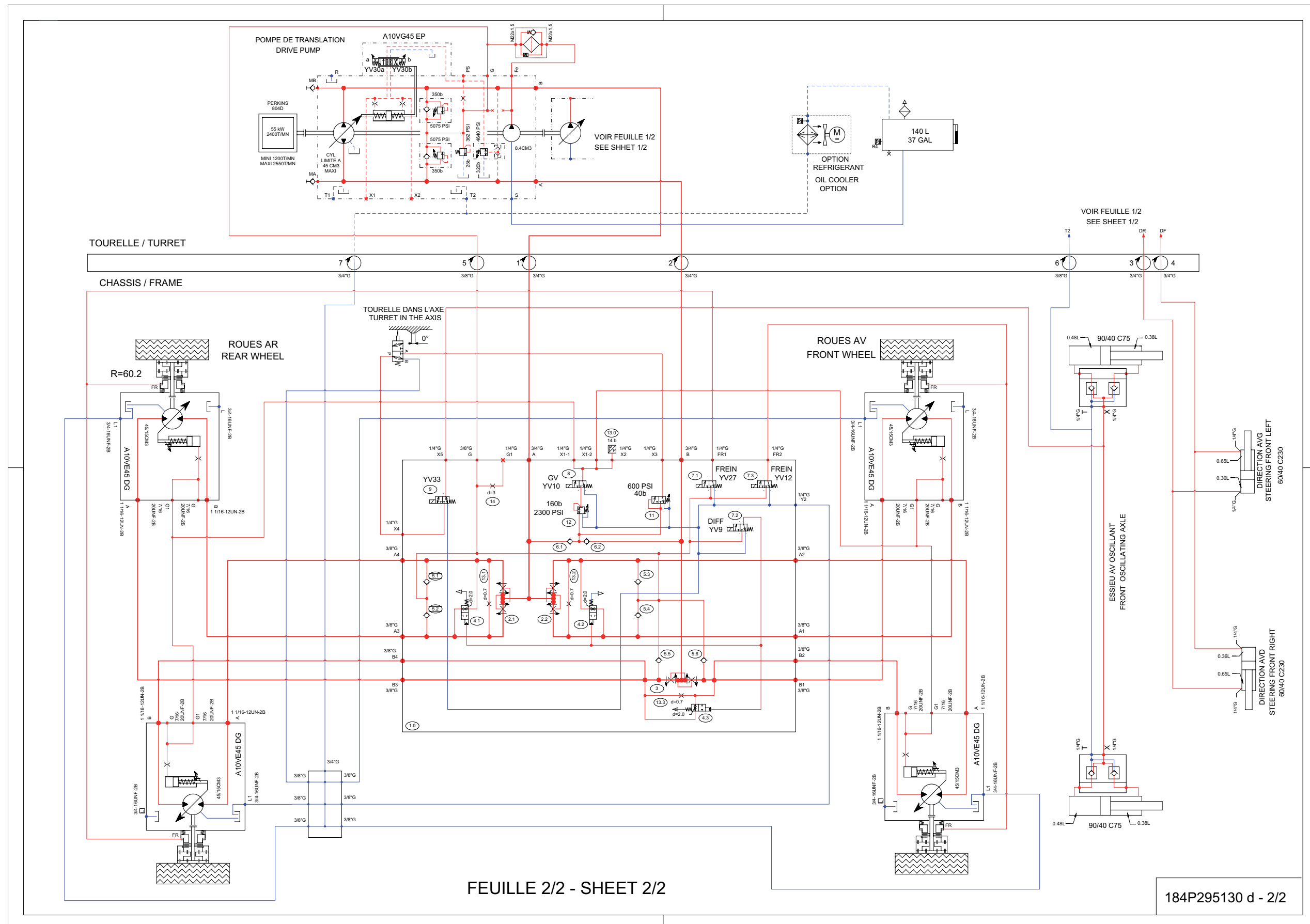
1 - H28TJ+ (HB86TJ+)

1.1 - FOLIO 1/2



Telescopic 28 to 43 m

1.2 - FOLIO 2/2



Telescopes 28 to 43 m

2 - H43TPX (HB135JRT)

2.1 - FOLIO 1/1

