

# PRPOWER

***PR-ECO LED***

**6x160W LED**

**Lighting Tower**

**USE MANUAL**



Dear Customer,

We would like to thank you for your recent purchase of our lighting tower. With the correct operation and maintenance of the lighting tower, the unit will provide reliable long-term service use.

This manual is intended for users of the lighting tower and has been compiled from information available and current at time of approval for printing. We reserve the right to improve and modify this manual and the lighting tower without prior notice.

Please be aware that this manual may refer to controls and optional equipment that are not fitted on the version of the lighting tower you have purchased.

It is a requirement that you understand and are clear on the correct operation and maintenance of the lighting tower before operating, so **please read thoroughly and contact PR Power for further clarification.**

**Documentation delivered with the lighting tower:**

- User's manual;
- Engine manual;
- Alternator manual;

---

The logo for PR Power, featuring the letters 'PR' in a large, bold, green font, followed by the word 'POWER' in a smaller, bold, blue font.

---

# TABLE OF CONTENTS

<b>SAFETY RULES.....</b>	<b>4</b>
GENERAL.....	4
FIRE PRECAUTIONS.....	4
FLAMMABLE FLUID PRECAUTIONS .....	4
ELECTRICAL HAZARD .....	5
LUBRICATION AND SERVICING.....	5
TOWING SAFETY.....	5
SAFETY STICKERS GUIDE.....	6
<b>TECHNICAL SPECIFICATIONS .....</b>	<b>7</b>
LIGHTING TOWER IDENTIFICATION .....	7
TECHNICAL DATA.....	8
LIGHTING TOWER LAYOUT.....	9
LIGHTING TOWER COMPONENTS .....	10
CONTROL DEVICES.....	12
<b>HANDLING AND TRANSPORT.....</b>	<b>13</b>
TOWING & MOVING WITH TOWING VEHICLE .....	13
HANDLING AND TRANSPORT WITH CRANE .....	13
HANDLING AND TRANSPORT WITH FORKLIFT .....	13
<b>LIGHTING TOWER USE.....</b>	<b>14</b>
STABILIZING THE LIGHTING TOWER.....	14
DIRECTING THE FLOODLIGHTS .....	14
PRELIMINARY CHECK & STARTING.....	14
DSE 3110 MODULE: DESCRIPTION OF CONTROLS.....	15
DSE 3110 MODULE: PROTECTIONS .....	15
DSE 3110 MODULE: ICONS .....	16
DSE 3110 MODULE: VIEWING THE INSTRUMENTS .....	17
DSE 3110 MODULE: CONFIGURATION .....	17
MANUAL MODE .....	18
LIGHT SENSOR MODE .....	19
<b>ROUTINE MAINTENANCE.....</b>	<b>20</b>
<b>DISPOSAL AND DECOMMISSIONING.....</b>	<b>20</b>
<b>SPARE PARTS.....</b>	<b>22</b>
FLOODLIGHTS (WITH CONCENS ACTUATOR) .....	22
FLOODLIGHTS (WITH TIMOTION ACTUATOR).....	23
STEEL ROPES AND PULLEYS .....	24
MAST .....	25
MAST FASTENING STRAP .....	26
TOW BAR, AXLE AND WHEELS.....	27
OMC WHEELS AXLE.....	28
OMC BRAKE .....	29
ALKO BRAKE .....	30
BASE STRUCTURE .....	31
CANOPY.....	33
ENGINE .....	35
LINZ ALTERNATOR.....	37
MECC ALTE ALTERNATOR.....	38
HYDRAULIC UNIT (ASG).....	39
HYDRAULIC UNIT (HYDROVEN).....	40
CONTROL PANELS.....	41
<b>ELECTRICAL DIAGRAM .....</b>	<b>43</b>
<b>WARRANTY .....</b>	<b>48</b>

## SAFETY RULES

### GENERAL

Please carefully read the User Manual and understand the correct operating procedures for the lighting tower before starting. PR Power declines all liability for injury to persons and damage to components due to the incorrect operation of the lighting tower.

Report all issues to the authorised maintenance personnel. If there are any repairs to be done, do not operate the equipment until these have been completed. Normal service and maintenance, if performed as required, can prevent unexpected and unnecessary down time. This manual describes standard inspections, operation and servicing with the normal safety precautions required for normal servicing and operating conditions. Bear in mind that it does not cover anything other than normal conditions and situations.

Operators and maintenance personnel must be safety conscious and alert to recognizing any potential operating or service safety hazards at all times. They should immediately take the necessary precautions to ensure safe operation and servicing of the lighting tower.



- ☐ Be aware of operating risks that may be created by weather changes. Be clear on the correct procedures, in the event of severe rain or an electrical storm.
- ☐ Lower the mast when not in use, or if high winds or electrical storms are expected in the area.
- ☐ Use protective clothing and safety equipment at all times. Always wear approved safety equipment such as gloves, safety boots, safety hard hat, goggles, ear protection and dust masks when necessary.
- ☐ Be aware of all side clearances and overhead obstructions for the safe operation of the lighting tower.
- ☐ The tower extends up to 9m. ALWAYS ensure the area above the lighting tower is open and clear of any obstruction.
- ☐ Position and operate the lighting tower on a level surface.
- ☐ The lighting tower must be levelled and stabiliser legs extended before raising the mast.
- ☐ Stabiliser legs must remain extended at all times while the mast is extended.
- ☐ Keep the area around the lighting tower clear of people and any obstructions while raising and lowering the mast.
- ☐ ALWAYS handle fuels and lubricants with the utmost of care and clean up spills to avoid fire and slippery surfaces.
- ☐ NEVER start the lighting tower if it is requiring maintenance and repair.
- ☐ The area near the exhaust can become hot during operation, so be careful if you need to work in its vicinity.
- ☐ Check that winch cables are in good condition and are centered on each pulley.
- ☐ DO NOT use the lighting tower if the insulation on the electrical cable is damaged.
- ☐ DO NOT allow untrained/unauthorised personnel to operate the lighting tower.
- ☐ NEVER operate a lighting tower if you are tired, distracted, or under the influence of drugs or alcohol.
- ☐ Keep children and animals away from the lighting tower.

### FIRE PRECAUTIONS



- ☐ Clean all dirt, oil and other fluids from components to minimise any fire risks and aid in spotting loose or leaking components.
- ☐ Check the engine for oily rags or other debris that could cause a fire before starting the engine.
- ☐ Have a fire extinguisher nearby. Be sure the extinguisher is properly maintained and be familiar with its use.
- ☐ In the event of fire, use these fire prevention items: Carbon Dioxide, powder, foam, nebulised water. Avoid the use of water jets.
- ☐ In the event of fire wear the correct breathing apparatus.

### FLAMMABLE FLUID PRECAUTIONS



- ☐ Take care when working with fuel. Diesel fuel is a health hazard. Be aware that there is also a danger of fire and pollution.
- ☐ **DO NOT** clean the lighting tower or components using flammable fluids.
- ☐ Check and ensure that all-fluid systems caps, drain, valves, fittings, lines etc., are secure and leak free.
- ☐ Unscrew the fuel tank cap slowly to release the fuel vapours.
- ☐ **ALWAYS** switch off engine while refueling. Take care as the engine may still be hot.
- ☐ **NEVER** smoke while checking or adding fuel or handling fluid containers. Never refuel near an open flame.
- ☐ Do not fill the fuel tank completely and clean any spilled fuel before starting engine.
- ☐ **DO NOT** refuel in an enclosed area with poor ventilation.
- ☐ **DO NOT** run engine with the fuel tank cap loose or missing.
- ☐ **DO NOT** use the lighting tower in areas that have a risk of explosion or fire.

## SAFETY RULES

### ELECTRICAL HAZARD



- ☐ **DO NOT** smoke or allow open flames or sparks near the batteries.
- ☐ Before doing any repair works, **ALWAYS** disconnect batteries. Disconnect battery ground cable first and reconnect last.
- ☐ Before carrying out any welding on the lighting tower, **ALWAYS** make sure to disconnect batteries and alternator leads.
- ☐ **DO NOT** allow tools to touch battery terminals and create an arc.
- ☐ Use jumper cables only as recommended. Incorrect use can result in severe damage and safety risk.
- ☐ **NEVER** use the lighting tower if insulation on electrical cable is damaged.
- ☐ **ALWAYS** ensure the lighting tower is well grounded and securely fastened.
- ☐ **NEVER** operate lights without a protective lens cover in place or with a lens cover that is cracked or damaged.

### LUBRICATION AND SERVICING



- ☐ Allow only authorised and trained personnel to service and maintain the lighting tower.
- ☐ **HAZARDOUS VOLTAGE!** This equipment generates 240Vac. Always exercise extreme caution when trouble shooting or repairing any electrical circuit.
- ☐ Please read the User Manual and Service Manual before operating or servicing the unit.
- ☐ Only a qualified and licensed electrician should troubleshoot or repair electrical problems on the lighting tower.
- ☐ Before servicing the lighting tower, ensure that the engine start switch is turned to OFF.
- ☐ Disconnect electrical power and switch off the engine, before removing protective covers on high voltage electrical enclosures.
- ☐ **NEVER** perform any routine service (oil/filter changes, cleaning, etc.) if all electrical components have not been shut down.
- ☐ **NEVER** allow water to accumulate at the base of the lighting tower. If water is present, **DO NOT** service!
- ☐ **DO NOT** service electrical components if your clothing or skin is wet.
- ☐ If the unit is stored outside, check the engine and generator for any moisture. If the lighting tower is wet, ensure you thoroughly dry the unit before starting.
- ☐ Never wash the unit with a high pressure hose or with any kind of power washer.
- ☐ Open main circuit breaker before disconnecting battery cables.
- ☐ Ensure to always relieve pressure before servicing any pressurised system.
- ☐ Be aware of hot exhaust pipes and engine.
- ☐ **KEEP CLEAR** of moving parts on the generator and engine. Be aware of hazards due to loose clothing.
- ☐ Check and replace all missing and hard-to-read labels.
- ☐ Make sure slings, chains, hooks, ramps, jacks and other types of lifting devices are attached securely and have enough weight-bearing capacity to lift or hold the equipment safely.

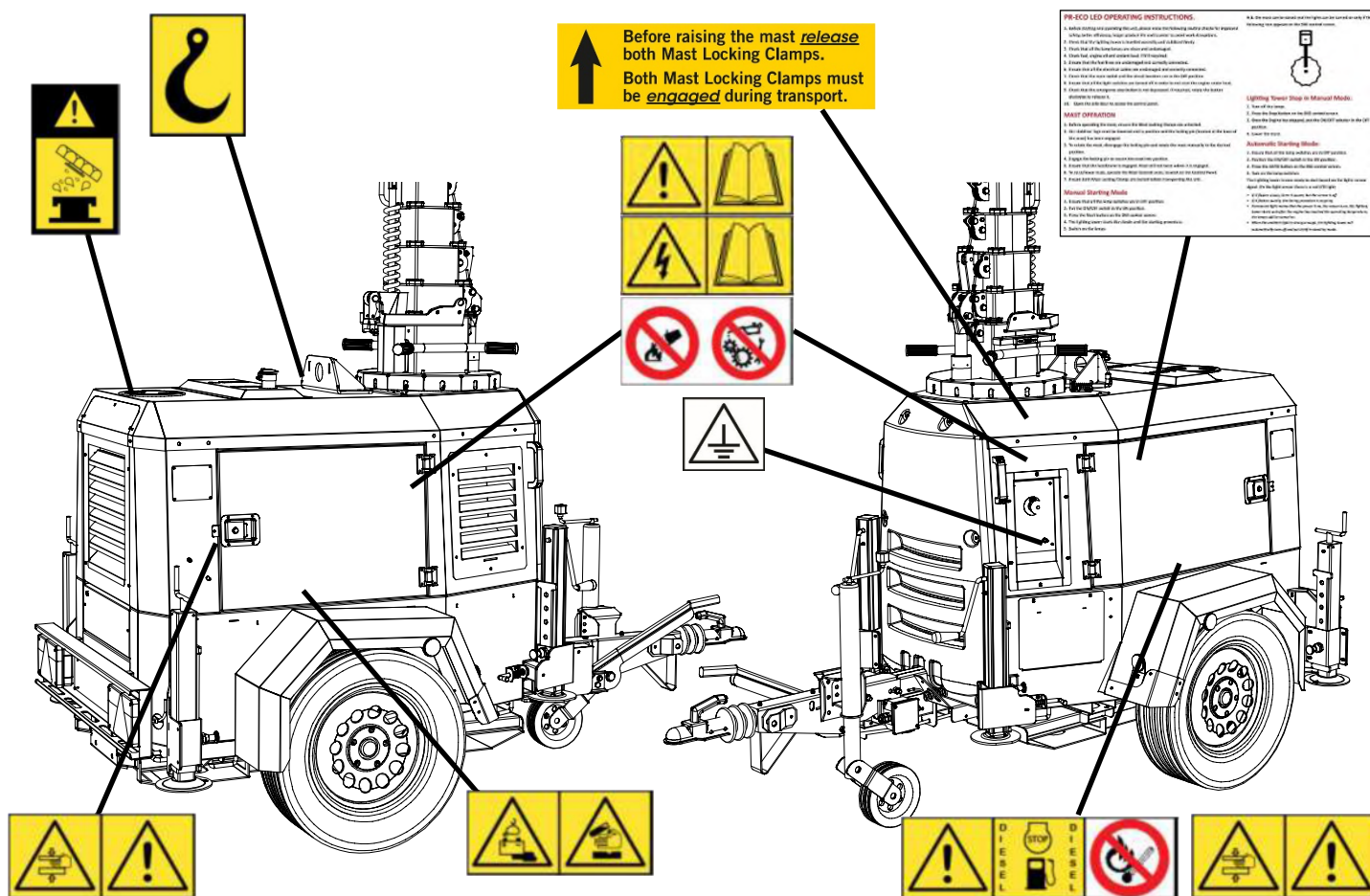
### TOWING SAFETY



- ☐ **Always ensure mast is fully retracted and the Mast Fastening Strap is fully engaged at all times during transport.**
- ☐ **Always be careful while towing a trailer!** Both the trailer and vehicle must be in good condition and securely fastened to each other.
- ☐ Check that the hitch and coupling on the towing vehicle are correctly connected and rated to the trailer's "gross vehicle weight rating" (GVWR).
- ☐ **DO NOT** tow trailer using defective coupling parts! Always ensure that the hitch and coupling do not have any wear or damage.
- ☐ Check tyres on trailer for tread wear, inflation, and condition.
- ☐ Connect breakaway safety line securely to the towing vehicle.
- ☐ If fitted, connect safety chains in a crossing pattern under the connecting beam.
- ☐ Check that wheel nuts are ALL in place and tightened.
- ☐ Check that the road running lights are connected and operating, if applicable.
- ☐ Maximum recommended speed for highway towing is 100km/h. Recommended maximum off-road towing speed is 15 km/h (less on uneven terrain).
- ☐ When towing, maintain extra space between vehicles and avoid soft shoulders, curbs and sudden lane changes. If you have not pulled a trailer before, practice turning, stopping, and backing up in an area away from heavy traffic.

## SAFETY RULES

### SAFETY STICKERS GUIDE



#### Safety stickers meanings



Attention! Read user's manual before operating the lighting tower.



Attention, high voltage! Read user's manual before operating the lighting tower.



Do not extinguish with water! Attention, don't touch the moving parts.



Attention! Danger of crushing.



Attention, battery on board. Contains corrosive liquids.



Attention! Hot liquid under pressure during lighting tower use and immediately after. Pay attention when opening.



Lifting point. Ensure lifting device has enough capacity to handle lighting tower weight.



Attention! Diesel fuel on board. Stop the engine while refueling. Keep anything that could cause sparks, flame or fire at a safety distance from the lighting tower.



Earthing point. The grounding of the lighting tower always needs to be done paying attention on the section of the cable to be used (never to be less than 10 mm²).

## TECHNICAL SPECIFICATIONS

### LIGHTING TOWER IDENTIFICATION

1					
2					
3			Type	4	
5	6		Engine	7	
			Alternator	8	
	V	10	Hz	12	
	KVA	11	COS $\phi$	13	
9	RPM		14	I.CL.	15
				IP	16
Dimensions L x W x H			17		
Weight			18		
SERIAL N°			19		

1. Manufacturer's logo
2. Manufacturer's address
3. Manufacture year
4. Lighting tower model
5. CE Logo
6. Generator symbol
7. Engine type
8. Alternator type
9. Single phase lighting tower
10. Rated voltage
11. Rated power
12. Frequency
13. Power factor
14. Engine speed
15. Insulation class
16. Degree of protection
17. Lighting tower dimensions
18. Dry weight
19. Lighting tower serial number

Information regarding the lighting tower model, code and year of production is on the lighting tower serial number Identification plate. Always quote the lighting tower model and serial number when contacting PR Power for any spare parts requests. All of our lighting towers have been manufactured to comply with CE requirements. They are conform to directives and fulfill all the relevant safety requirements.



## TECHNICAL SPECIFICATIONS

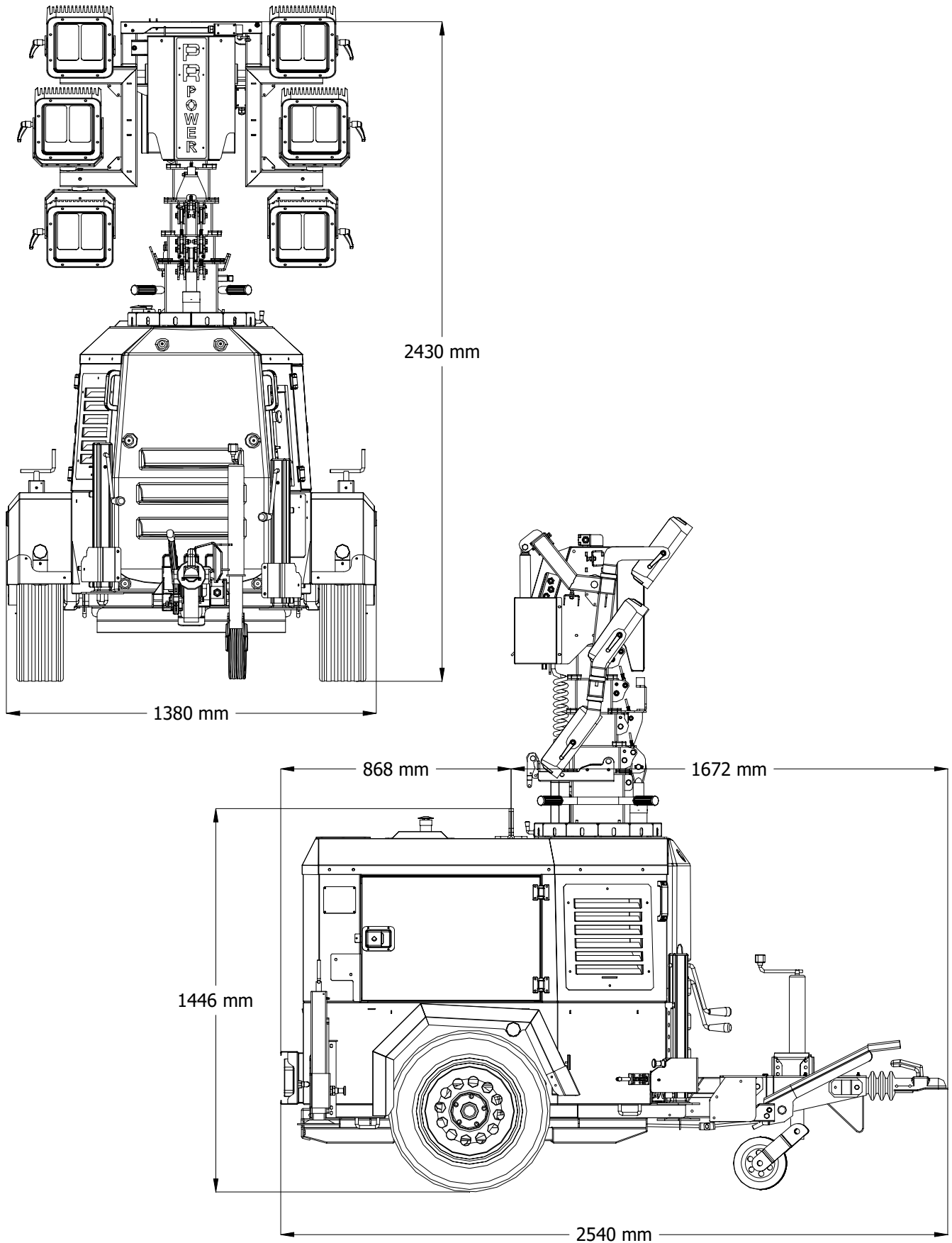
### TECHNICAL DATA

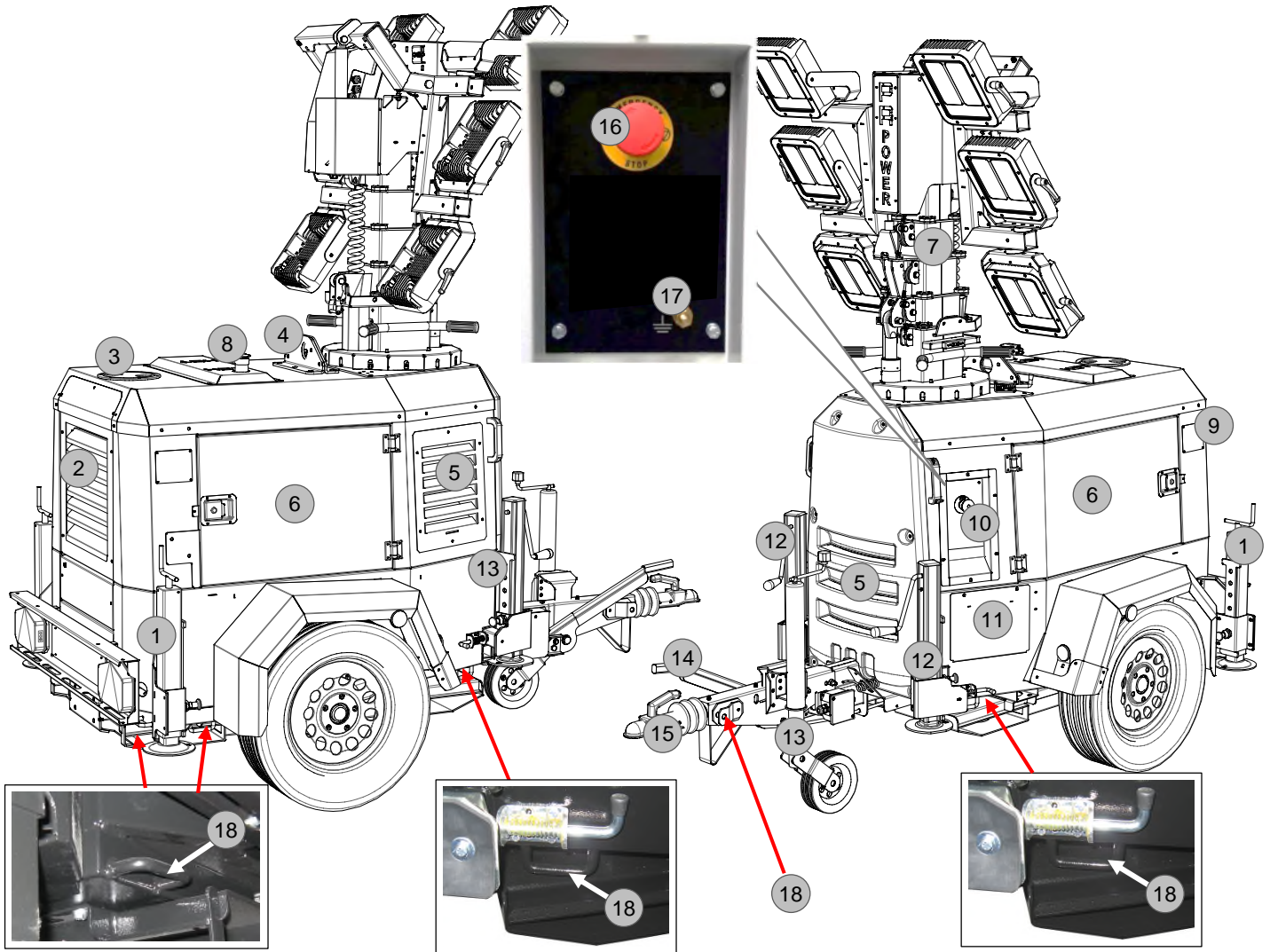
Floodlights	Type	Led
	Power	160W
	Floodlight installed	6
	Illuminated area (sqm)	3800
	IP Level	65
Mast	Lifting Method	Hydraulic
	Maximum Height	9 m
	Maximum Wind Speed (km/h)	110
	Rotation	350°
Engine	Model	Kubota Z482_Stage V
	Governor	Electronic
	Cylinders number	2
	Displacement	479 cm <sup>3</sup>
	Engine speed (rpm)	1500
	Fuel consumption (l/h)	0,55 l/h
	Average runtime before refueling (h)	200
	Cooling system	Liquid
Generator	Model	Linz Alumen SB
	Rated output	3,5 kVA – 230V
	Power available to auxiliary socket	1 kVA – 230V
	Rated frequency	50Hz
General informations	Noise level	65dBA 7m
	Battery	12 V – 62 Ah
	Fuel tank capacity	110 l
	Bunded tank capacity	130 l
	Dimensions in transport (L x W x H)	2540 x 1380 x 2430 mm
	Dimensions in operation (L x W x H)	2540 x 1550 x 9000 mm
	Dry weight	965 kg



## TECHNICAL SPECIFICATIONS

### LIGHTING TOWER LAYOUT





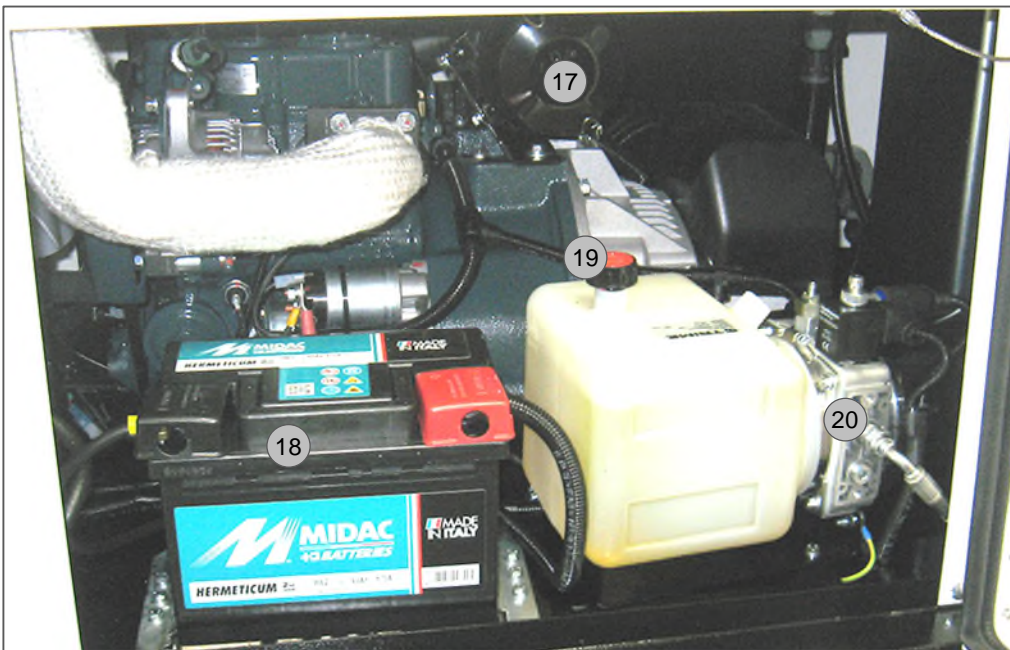
- |                            |                                  |
|----------------------------|----------------------------------|
| 1. Fixed stabilisers       | 11. Power supplies cover         |
| 2. Air output              | 12. Extended stabilisers         |
| 3. Radiator cap cover      | 13. Rudder stabiliser with wheel |
| 4. Lifting eye             | 14. Handbrake lever              |
| 5. Air inlet               | 15. Tow hook                     |
| 6. Inspection door         | 16. Emergency stop button        |
| 7. Telescopic mast         | 17. Earthing terminal            |
| 8. Exhaust vent            | 18. Tie down points              |
| 9. Data plate              |                                  |
| 10. External control panel |                                  |

## TECHNICAL SPECIFICATIONS

### LIGHTING TOWER COMPONENTS



- 1.DSE3110 controller
- 2.Fuel level gauge
- 3.Light tilter selector
- 4.Mast control buttons
- 5.Power supply switch
- 6.Light sensor
- 7.13A RCD
- 8.Lamps switch
- 9.12A circuit breaker
- 10.Fuses
- 11.Oil drain manual pump
- 12.Fuel filler cap
- 13.Oil filter
- 14.Fuel filter
- 15.Oil level dipstick
- 16.Oil filler cap
- 17.Air filter
- 18.Battery
- 19.Hydraulic unit cap
- 20.Hydraulic unit



### Automatic Mast Operating Safety System

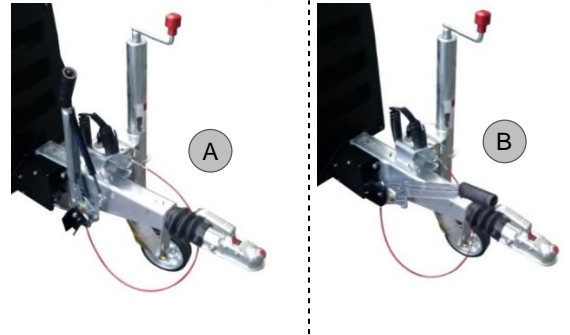
All the **STANDARD** units are fitted with the Automatic Mast Operating Safety System (**AMOSS**). This system will prevent potentially dangerous situations of the trailer being moved while the mast is still in its raised, operational position. The system will lower the mast.

Automatically when the trailer handbrake is released and it will also inhibit the mast from being raised if the handbrake is not applied.

To apply the handbrake, pull the lever upwards **(A)**.

To release the handbrake, press the button at the tip of the lever and lower it **(B)**.

**ATTENTION! ALWAYS ENSURE MAST FASTENING STRAP IS DISENGAGED.**



### DSE 3110 manual & auto start control module

The **DSE 3110** is a compact control module that provides a comprehensive range of features for single-set applications. The controller can be used in manual or auto start mode.



### Light sensor

The light sensor is a device that automatically activated the illumination when sunlight falls: at dusk, for precisely.



### Residual-current device (RCD)

The lighting tower is equipped with an residual-current device (RCD) capable of ensuring user protection in case of accidental contact with live parts or failure of the insulation system of connected users. Press the test button T every month: the earth leakage circuit breaker should trip and de-energise the system. If this would not be the case, then it is advisable not to use the lighting tower and immediately seek technical advice.



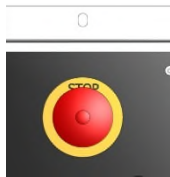
### Emergency stop button

The lighting tower is fitted with a emergency stop button as standard. It is located on the external panel.

**In case of need, push the emergency button and it will shut off the engine in a few seconds.**

The engine will remain off until the emergency stop button is released.

**To release the button, twist it in the direction of the arrows on the button (clockwise sense).**



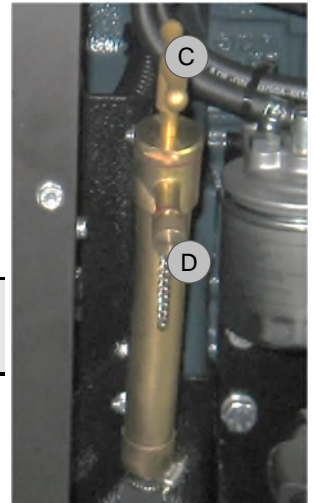
### Engine oil drain manual pump

The lighting tower is fitted with a manual pump as standard, to facilitate the operator in the engine oil drain. Proceed as follows:

- ☐ Put under the cap **(D)** a container.
- ☐ Remove the cap **(D)**.
- ☐ Operate the pump by acting to the handle **(C)**.
- ☐ Emptied all the oil replace the cap **(D)**.



**Dispose of the oil according to local regulations.**





## HANDLING AND TRANSPORT

### TOWING & MOVING WITH TOWING VEHICLE



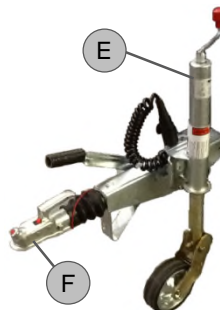
**Do not move the trailer with the tower raised!**

**NEVER** release the jokey wheel or the stabiliser (fixed to the rudder of the trailer) while are supporting the lighting tower! The lighting tower would tip forward and could cause damage or personal injury.

Before coupling the unit to a towing vehicle check the tyres and check that all the lights work properly.

Procedure:

- ☐ Turn off the lights and allow time for them to cool.
- ☐ **Ensure mast is fully retracted and Mast Fastening Strap is fully engaged.**
- ☐ Ensure that the jokey wheel (E) or the stabiliser (G) are down so the unit will not tip over when the other stabiliser are raised.
- ☐ Raise all the stabiliser and retract the retractable ones.
- ☐ Couple the unit to a towing vehicle between the rudder eye (F).
- ☐ The unit can be now be towed to the new location.



### HANDLING AND TRANSPORT WITH CRANE



**Handling by crane is allowed only if the lighting tower is connected to the crane through the lifting eye.**

- ☐ Ensure that the lifting capacity of the crane and lifting devices is suited to the weight of the lighting tower to move. The weight is specified in the provided documentation (user's manual) and on the data plate.
- ☐ Connect the cable/hook to the lifting eye (H) and tension the cable.
- ☐ Lift the lighting tower for about 10 cm (4 in.).
- ☐ Move slowly and position the lighting tower on the ground or on the vehicle.

### HANDLING AND TRANSPORT WITH FORKLIFT

- ☐ Ensure that the lifting capacity of the forklift is suited to the weight of the lighting tower to move. The weight is specified in the provided documentation (user's manual) and on the data plate.
- ☐ Insert the forks into the forklift pockets (transversal (I) or longitudinal (L), depending on lighting tower and your moving requirements).
- ☐ Lift the lighting tower for about 10 cm (4 in.).
- ☐ Move slowly and position the lighting tower where needed.



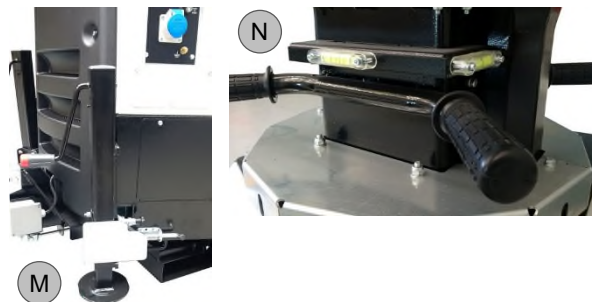
- ☐ All lifting operations must be carried out by qualified personnel, such as fork lift operators, crane operators and slingers. The operator should be deemed responsible for using the correct method of slinging and lifting the lighting tower.
- ☐ **Never** leave the load insecure.
- ☐ When moving and transporting the lighting tower, do not tilt it excessively.
- ☐ When lifting and moving the lighting tower, do not stay or walk within it's proximity.
- ☐ **Never** leave the lighting tower slung overhead.

## LIGHTING TOWER USE

### STABILIZING THE LIGHTING TOWER

Jack up the lighting tower as follows. Consider that the stabilisers are extendable (M).

- ☐ Hold the stabiliser with one hand and pull the locking pin to release it. Pull the stabiliser outwards until it's fully extended and ensure that the locking pin locked it in place securely in the extended position.
- ☐ Jack the lighting tower up by rotating the handle on the top of each stabiliser clockwise.
- ☐ Please refer to the bubble levels (N) installed on top of the lighting tower (near the mast) in order to have the lighting tower perfectly leveled and stable before rising the tower.
- ☐ The wheels of the lighting tower have to touch the ground at all times.



### DIRECTING THE FLOODLIGHTS

The tower can be rotated up to **350** degrees in order to direct the light as required.

- ☐ Release the rotation locking pin (O) and turn the tower using the rotation handles on the mast in order to direct the lights as needed. Don't forget to lock the rotation afterwards.
- ☐ Additionally to the mast rotation, each of the LEDs can be adjusted on two axes and tilted back and forth. This way the lights can be directed either vertically or horizontally. In order to adjust the light on the vertical axes, the encircled pin (P) needs to be unlocked by pulling it and then turning the floodlight. For any adjustments, the mast must be lowered to allow access.



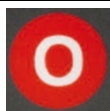
### PRELIMINARY CHECK & STARTING

**Before starting and operating the lighting tower, we suggest making the following routine checks for improved safety, better efficiency, longer product life and in order to avoid work disruptions.**

- ☐ Check that the lighting tower is leveled correctly and stabilised firmly.
- ☐ Check that all the lamp lenses are clean and undamaged.
- ☐ Check fuel, engine oil and coolant level. Top them if necessary.
- ☐ Ensure that the fuel lines are undamaged and correctly connected.
- ☐ Ensure that all the electrical cables are undamaged and correctly connected.
- ☐ Check that the main switch and the circuit breakers are in the OFF position.
- ☐ Ensure that all the light switches are turned off in order not to start the engine under load.
- ☐ Drive the earth picket into the ground (earth) following any risk assessment.
- ☐ Check that the grounding cable is securely attached to the lighting tower.
- ☐ Check that the emergency stop button is not pressed. If necessary, rotate the button clockwise to release it.
- ☐ Open the side door to access the control panel.
- ☐ Disengage Mast Fastening Strap.

For operators' safety, the grounding of the lighting tower always needs to be done paying attention on the section of the cable to be used (never to be less than 10 mm<sup>2</sup>). For the connection of the grounding cable, please always use the clip located on the control panel, on the right side of the lighting tower. Always perform grounding operations in compliance with local/international regulations.

DSE 3110 MODULE: DESCRIPTION OF CONTROLS



**STOP/RESET**

This button places the module into its **Stop/Reset** mode. This will clear any alarm conditions for which the triggering criteria have been removed. If the engine is running and the module is in Stop mode, the module will automatically instruct the changeover device to unload the generator (“**Close Generator**” becomes inactive (is used)). The fuel supply de-energises and the engine comes to a standstill. Should a **remote start signal** be present while operating in this mode, a remote start will not occur.



**AUTO**

This button places the module into its **Automatic** mode. This mode allows the module to control the function of the generator automatically. The module will monitor the remote start input and once a start request is made, the set will be automatically started and placed on load.

Upon removal of the starting signal, the module will automatically transfer the load from the generator and shut the set down observing the stop delay timer and cooling timer as necessary. The module will then await the next start event.



**START**

Pressing this button in auto mode will start the engine and run off load.

Pressing this button in Stop/Reset mode will turn on the CAN engine ECU (when correctly configured and fitted to a compatible engine ECU)



**PAGE**

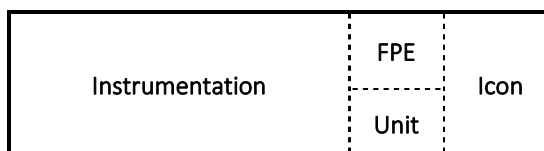
Pressing this button scroll the display to show the various instruments.



**DISPLAY**

A 32x132 pixel LCD is available for the display of generator instrumentation and alarm conditions. The display is segmented into areas for instrumentation, unit, alarm icons and for Front Panel Editor (FPE) use.

When not in the Front Panel Editor (FPE) mode the FPE area of the display is used to display the currently active configuration. The letter ‘M’ is displayed for main configuration active, the letter ‘A’ for alternative configuration active.



DSE 3110 MODULE: PROTECTIONS

When an alarm is present, the Common alarm LED if configured will illuminate. The LCD display will show an icon to indicate the failure.

**Warnings**

Warnings are non-critical alarm conditions and do not affect the operation of the generator system, they serve to draw the operators attention to an undesirable condition. Warning alarms are self-resetting when the fault condition is removed. The icon will appear steady in the display.

**Shutdowns**

Shutdowns are critical alarm conditions that stop the engine and draw the operator’s attention to an undesirable condition. Shutdown alarms are latching.




















The fault must be removed and the button 

pressed to reset the module. The icon will appear flashing in the display.



## LIGHTING TOWER USE


### DSE 3110 MODULE: ICONS

	Description	
	Timer Icon	When the module is controlling the engine (starting and stopping) an animated timer icon will be displayed in the icon area to indicate that a timer is active, for example cranking time, crank rest etc.
	Stop mode - Stopped Icon	When there are no alarms present, an icon will be displayed to indicate the engine is stopped and what mode the unit is in. The hand is only displayed when the 'arming options' is enabled, otherwise the engine starts when entering the manual mode.
	Auto mode - Stopped Icon	
	Manual mode - Stopped Icon	
	Running Icon	When there are no alarms present, this animated icon is displayed to indicate the engine is running
	Usb Icon	When a USB connection is made to the module this icon is displayed
	Memory Corruption	If either the config. file or engine file becomes corrupted the unit will display this icon.
	Fail to start	The engine has not fired after the preset number of start attempts
	Fail to stop	The module has detected a condition that indicates that the engine is running when it has been instructed to stop. <b>NOTE: 'Fail to Stop' could indicate a faulty oil pressure sensor - If engine is at rest check oil sensor wiring and configuration.</b>
	Low oil pressure	The module detects that the engine oil pressure has fallen below the low oil pressure pre-alarm setting level after the <i>Safety On</i> timer has expired.
	Engine high temperature	The module detects that the engine coolant temperature has exceeded the high engine temperature pre-alarm setting level after the <i>Safety On</i> timer has expired.
	Charge failure	The auxiliary charge alternator voltage is low as measured from the W/L terminal.
	Low fuel level	The level detected by the fuel level sensor is below the low fuel level setting.
	Generator under voltage	The generator output voltage has fallen below the pre-set pre-alarm setting after the <i>Safety On</i> timer has expired.
	Generator over voltage	The generator output voltage has risen above the pre-set pre-alarm setting.
	Generator under frequency	The generator output frequency has fallen below the pre-set pre-alarm setting after the <i>Safety On</i> timer has expired.
	Generator over frequency	The generator output frequency has risen above the pre-set pre-alarm setting.
	Emergency stop	Pressing the emergency stop button, the lighting tower automatically stops. <b>NOTE:- The Emergency Stop Positive signal must be present otherwise the unit will shutdown.</b>
	Internal memory error	Either the configuration file or engine file memory is corrupted. Contact your supplier for assistance.

## LIGHTING TOWER USE

### DSE 3110 MODULE: VIEWING THE INSTRUMENTS

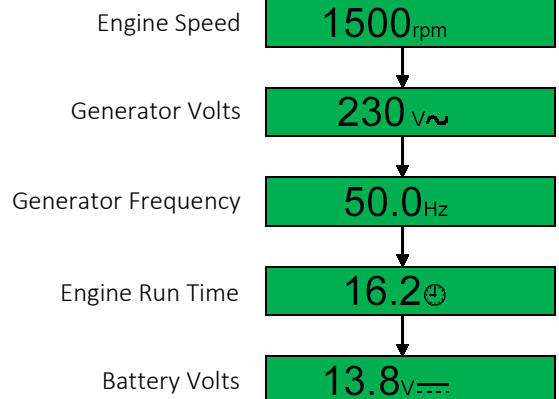
It is possible to scroll to display the different pages of

information by repeatedly operating the scroll button: 

Once selected, the page will remain on the LCD display until the user selects a different page or after an extended period of inactivity, the module will revert to the status display.

When scrolling manually, the display will automatically return to the Status page if no buttons are pressed for the duration of the configurable LCD Page Timer. If an alarm becomes active while viewing the status page, the display shows the Alarms page to draw the operator's attention to the alarm condition.


#### Page order




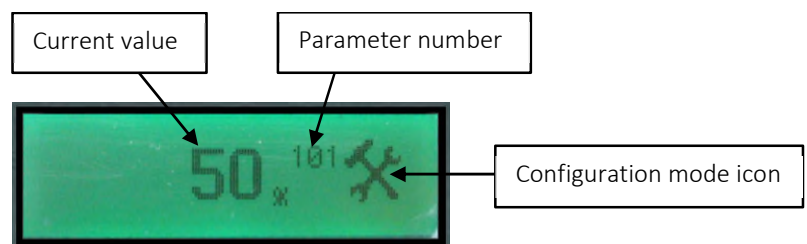
### DSE 3110 MODULE: CONFIGURATION

This configuration mode allows the operator limited customizing of the way the module operates. Use the module's navigation buttons to traverse the menu and make value changes to the parameters.

#### Accessing The Front Panel Editor (FPE)


Press  and  buttons simultaneously.



The display shows the configuration icon:   
The first parameter is also displayed.






#### Editing a parameter


Enter the editor as described before.



Press  to select the required 'page' as detailed below:

Press  (+) to select the next parameter or  (-) to select the previous parameter within the current page.

When viewing the parameter to be changed, press the  button. The value begins to flash.

Press  (+) or  (-) to adjust the value to the required setting.

Press  to save the current value, the value ceases flashing.

Press  and hold the button to exit the editor, the configuration icon  is removed from the display.

**NOTE:** Values representing pressure will be displayed in Bar. Values representing temperature are displayed in degrees Celsius.










**NOTE:** When adjusting values in the FPE a press and hold of the increment button will cover the full range of the item being adjusted (min to max) in under 20 seconds.

**NOTE:** When the editor is visible, it is exited after 5 minutes of inactivity to ensure security.

## LIGHTING TOWER USE

### MANUAL MODE

1. Ensure that all the lamp switches are in OFF position.
2. Put the ON/OFF selector in ON position.
3. Manual mode allows the operator to start and stop the set manually, and if required change the state of the load switching devices. Module mode is active when the STOP button is pressed.
4. To begin the starting sequence, press the START button. If 'protected start' is disabled, the start sequence begins immediately.
5. If the display shows the manual mode icon and the corresponding LED flashes, It means that "protected start" is enabled.
6. The START button must be pressed once more to begin the start sequence.
7. Adjust the mast height using the UP/DOWN buttons.
8. Switch on the floodlights.
9. **Note: the mast can be raised and the lights can be turned on only if the running icon appears on the display.**


1	2	3	4	5	6	7	8	9
								

**NOTE: There is no start delay in this mode of operation.**

The fuel relay is energized and the engine is cranked.

**NOTE: If the unit has been configured for CAN, compatible ECU's will receive the start command via CAN.**

If the engine fails to fire during this cranking attempt then the starter motor is disengaged for the crank rest duration after which the next start attempt is made. Should this sequence continue beyond the set number of attempts, the start sequence will be terminated and the display shows

 **Fail to Start.**

When the engine fires, the starter motor is disengaged. Speed detection is factory configured to be derived from the main alternator output frequency but can additionally be measured from a Magnetic Pickup mounted on the flywheel. Additionally, rising oil pressure can be used to disconnect the starter motor (but cannot detect underspeed or overspeed).

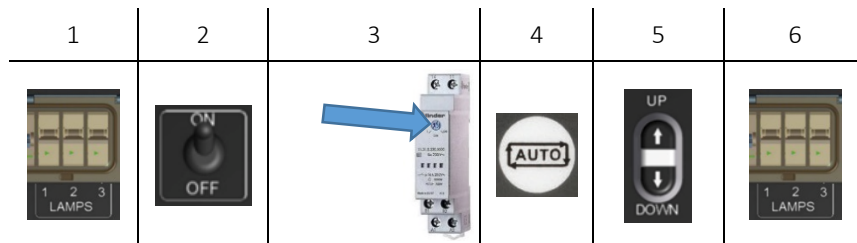
**NOTE: If the unit has been configured for CAN, speed sensing is via CAN.**

After the starter motor has disengaged, the Safety On timer activates, allowing Oil Pressure, High Engine Temperature, Under-speed, Charge Fail and any delayed Auxiliary fault inputs to stabilize without triggering the fault.

## LIGHTING TOWER USE

### LIGHT SENSOR MODE

1. Ensure that all the lamp switches are in OFF position.
2. Put the ON/OFF selector in ON position.
3. If needed, set the light sensor sensitivity through the trimmer on the light sensor.
4. Press the AUTO button.
5. Adjust the mast height using the UP/DOWN buttons.
6. Switch on the floodlights.



The lighting tower is now ready to start based on the lights sensor signal.

On the light sensor there is a red LED light:

- ☐ if it flashes slowly, there is power, but the sensor is off
- ☐ if it flashes quickly, the timing procedure is ongoing
- ☐ permanent light means that the power is on, the sensor is on, the lighting tower starts and, after the engine has reached the operational temperature, the lamps will be turned on.

When the ambient light is strong enough, the lighting tower will automatically turn off and put itself in stand-by.

## ROUTINE MAINTENANCE

Poorly maintained equipment can become a safety hazard. In order, for the equipment, to operate safely and properly over a long period of time, periodic maintenance and occasional repairs are necessary.

Any kind of **maintenance work** on the lighting tower **must be carried out by Authorised and trained personnel**. It should be done in a safe working environment and with the lighting tower well stabilised. The engine must be turned off and allowed to cool down sufficiently before attempting to work on it.

- ☐ While performing maintenance work, please use suitable tools and clothes.
- ☐ **If you need to work while the engine is running, pay attention to all moving parts, hot parts and electrical parts which may be unprotected while the lighting tower is open.**
- ☐ **DO NOT** modify any component if not authorised.

The repairs cannot be considered as routine maintenance activities. E.g. the replacement of parts that are subject to occasional damage and the replacement of electric and mechanic components that wear with use. This kind of work is **not** covered by warranty.

### Check Mast Cables & Pulleys

It is recommended to inspect the cables and rollers on the mast prior to every operation after the lighting tower has been repositioned in order to verify their condition and correct alignment inside the pulley. The steel cables are 6mm in diameter composed of Carbon wires with Class B Galvanized protection and a Polymer core with a minimum breaking load of 3295 kgs. They enable the raising and lowering of the telescopic mast. It is recommended to inspect the cables every 250 hours service to verify their condition and ensure their correct position inside the pulleys. It is the Manufacturer's recommendation that all cables and pulleys are replaced as required. If the steel cable shows unusual signs of wear or damage, do not use the lighting tower and contact PR Power.

The periodic maintenance should be performed according to the documentation provided by the engine and alternator manufacturers. Please refer to the relevant manual supplied with the lighting tower and to the hour meter on the lighting tower in order to determine when service is needed.

## DISPOSAL AND DECOMMISSIONING

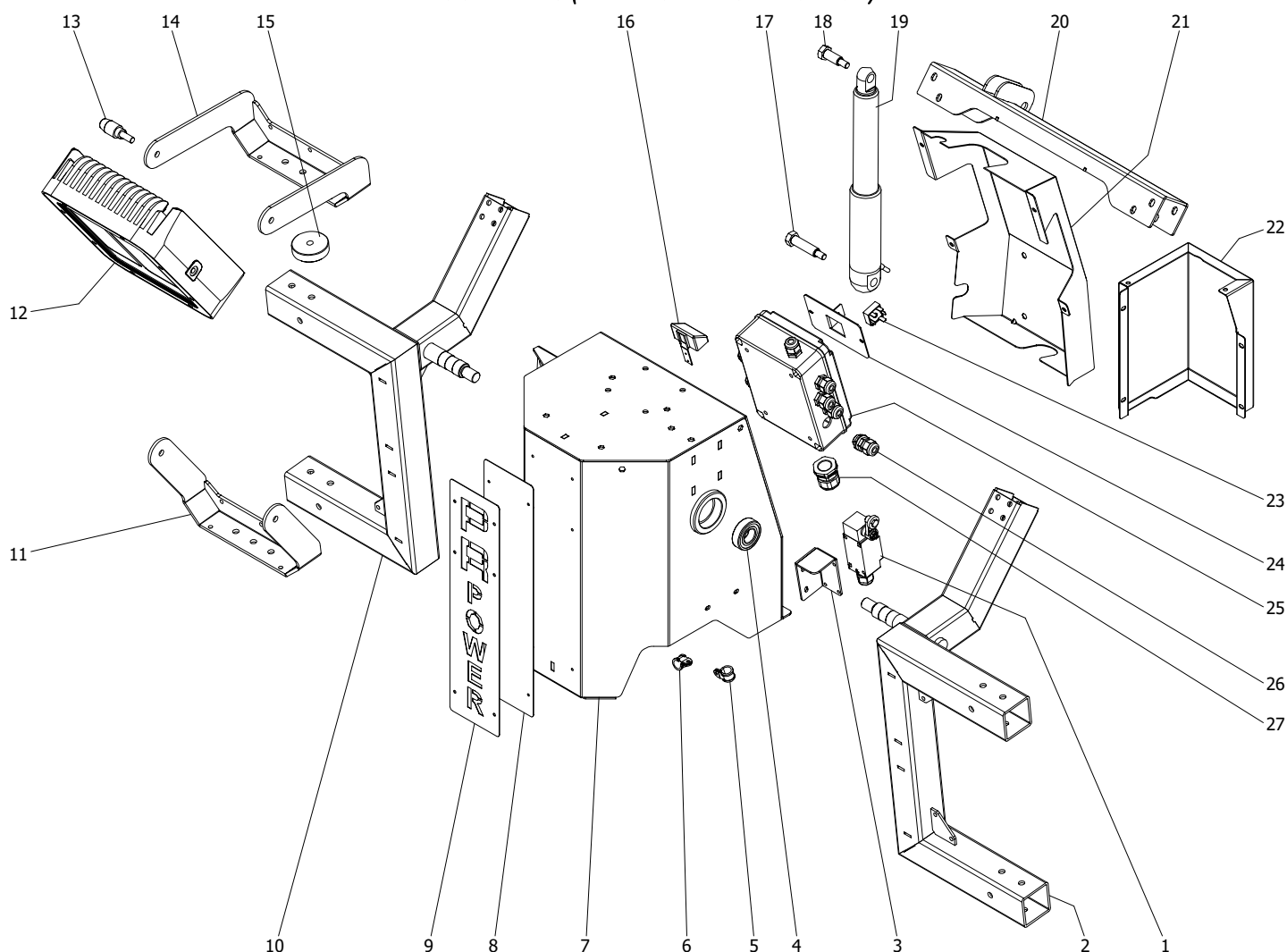
This lighting tower is made of parts that, if not disposed of correctly, can damage the environment and create ecological hazards. The following parts and materials need to be brought to authorized waste treatment sites:

- Metallic structure;
- Batteries;
- Engine and hydraulic oils;
- Cooling liquid;
- Filters;
- Cables.

**These components have to be disposed of accordingly to local laws and dispositions.** Have qualified personnel disassemble the lighting tower and dispose of parts.

The lighting tower owner is responsible for dismantling and disposal of the lighting tower and its components at the end of its working life.



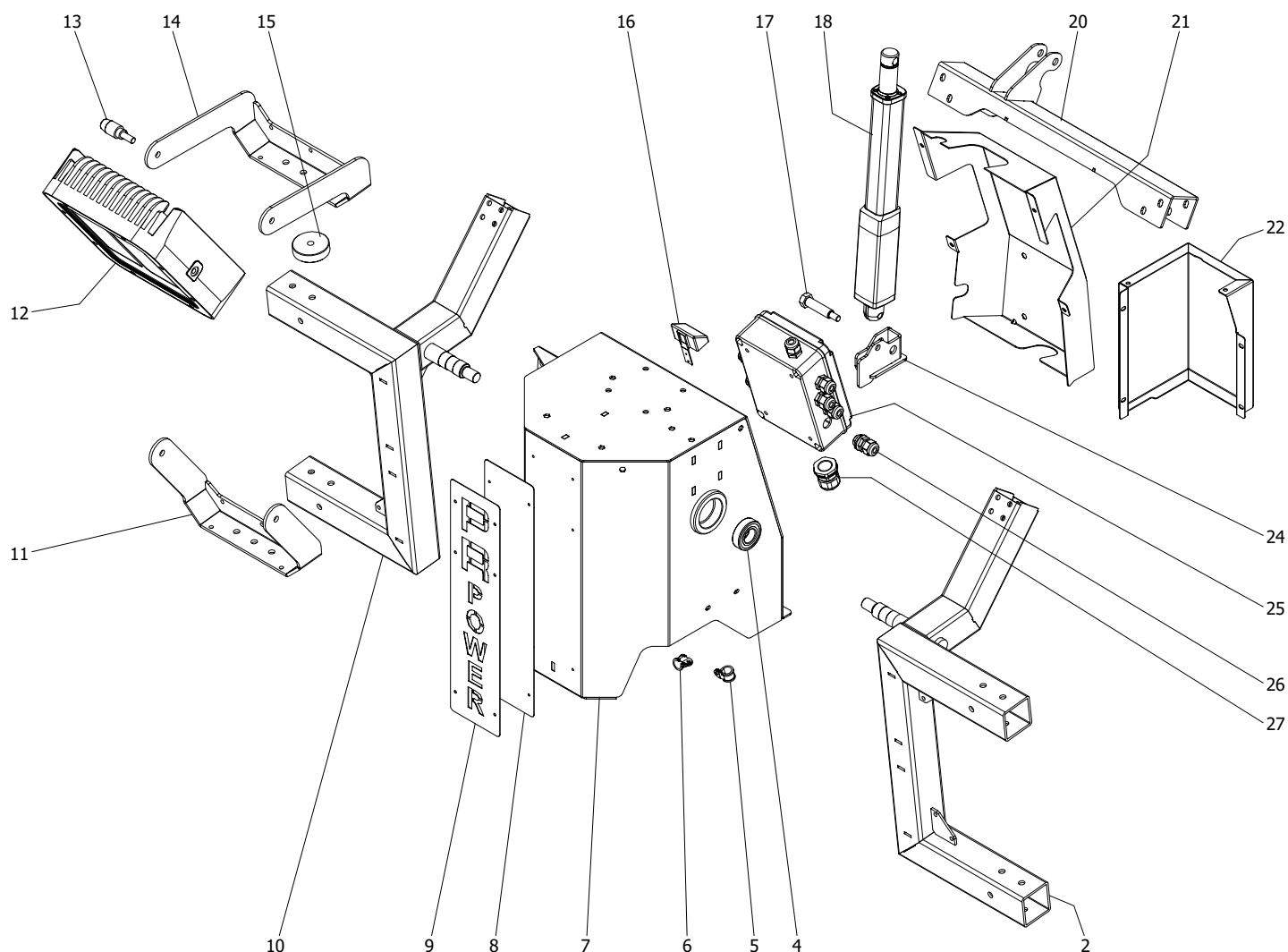
**FLOODLIGHTS (WITH CONCENS ACTUATOR)**

N.	CODE	DESCRIPTION
1	AC000_E016_003	LIMIT SWITCH
2	LED06T_C006_521	RIGHT FRAME FOR LED FLOODLIGHT
3	LED12T_C006_005	LIMIT SWITCH SUPPORT
4	AC000_M021_023	BEARING
5	AC000_M038_007	RUBBERED CLAMP
6	AC000_E018_018	RUBBERED CLAMP
7	LED12T_C006_001	CENTRAL STRUCTURE
8	LED 06_C000_05_03	WHITE PLATE
9	LED8T_C000_008	LOGO PLATE
10	LED06T_C006_522	LEFT FRAME FOR LED FLOODLIGHT
11	LED04_C000_101ZN	FLOODLIGHT CENTRAL / LOWER BRACKET
12	AC000_E026_087	FLOODLIGHT
13	AC000_M000_076	HANDLE
14	LED06_C000_081	FLOODLIGHT UPPER BRACKET

N.	CODE	DESCRIPTION
15	AS000_M023_001	SPACER
16	AC000_E016_005	LIGHT SENSOR ELEMENT
17	AS000_M000_071	ACTUATOR LOWER PIN
18	AS000_M000_072	ACTUATOR UPPER PIN
19	AC000_E006_078	ACTUATOR
20	LED12T_C006_523	ACTUATOR CROSSBEAM
21	LED12T_C006_006	JUNCTION BOX COVER
22	LED12T_C006_008	ACTUATOR COVER
23	AC000_E006_080	DIODES BRIDGE
24	LED12T_C006_009	DIODES BRIDGE BRACKET
25	AS000_E006_042	JUNCTION BOX
26	AC000_E018_008	PG11 WIRE HOLDER
27	AC000_E018_002	PG21 WIRE HOLDER



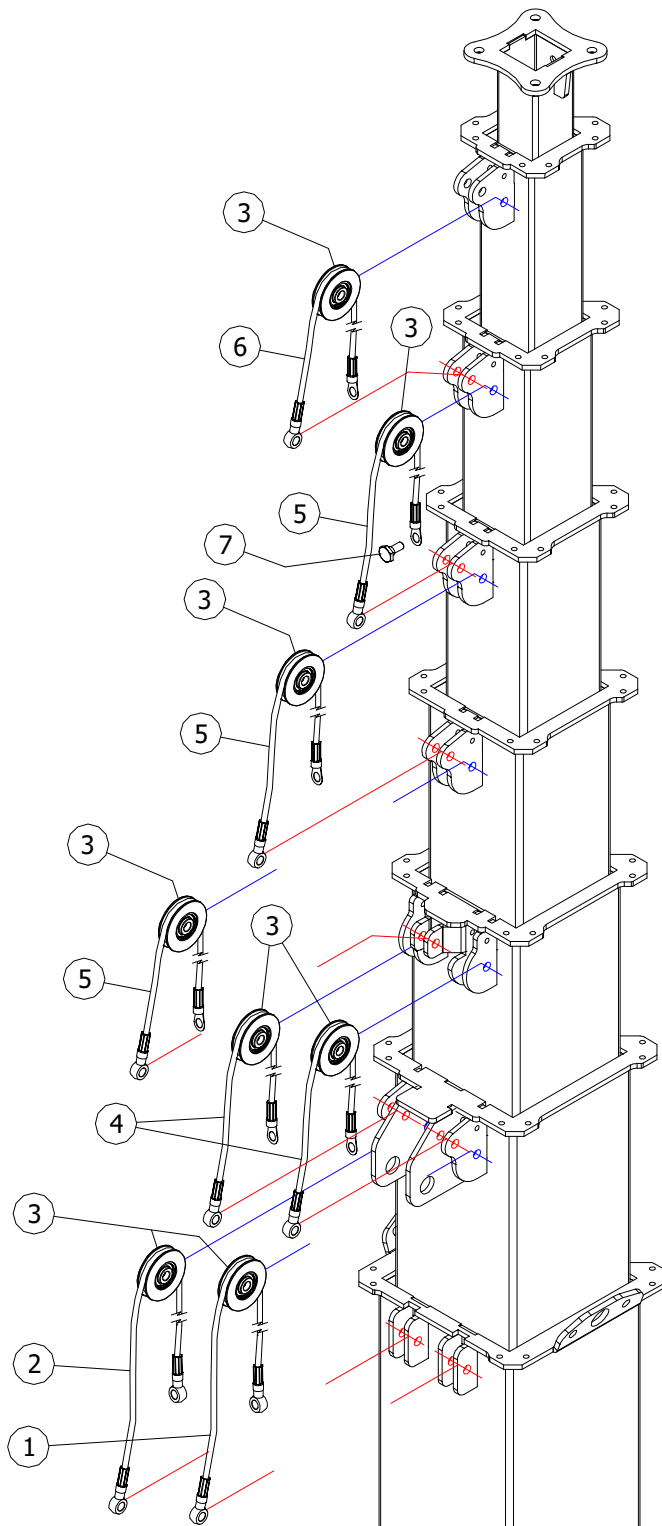
## FLOODLIGHTS (WITH TIMOTION ACTUATOR)



N.	CODE	DESCRIPTION
2	LED06T_C006_521	RIGHT FRAME FOR LED FLOODLIGHT
4	AC000_M021_023	BEARING
5	AC000_M038_007	RUBBERED CLAMP
6	AC000_E018_018	RUBBERED CLAMP
7	LED12T_C006_001	CENTRAL STRUCTURE
8	LED 06_C000_05_03	WHITE PLATE
9	LED8T_C000_008	LOGO PLATE
10	LED06T_C006_522	LEFT FRAME FOR LED FLOODLIGHT
11	LED04_C000_101ZN	FLOODLIGHT CENTRAL / LOWER BRACKET
12	AC000_E026_087	FLOODLIGHT
13	AC000_M000_076	HANDLE
14	LED06_C000_081ZN	FLOODLIGHT UPPER BRACKET

N.	CODE	DESCRIPTION
15	AS000_M023_001	SPACER
16	AC000_E016_005	LIGHT SENSOR ELEMENT
17	AS000_M000_071	ACTUATOR LOWER PIN
18	AC000_E006_237	ACTUATOR
20	LED06T_C006_016	ACTUATOR CROSSBEAM
21	LED12T_C006_006	JUNCTION BOX COVER
22	LED12T_C006_008	ACTUATOR COVER
24	LED06T_C006_017	ACTUATOR BRACKET
25	AS000_E006_042	JUNCTION BOX
26	AC000_E018_008	PG11 WIRE HOLDER
27	AC000_E018_002	PG21 WIRE HOLDER

STEEL ROPES AND PULLEYS

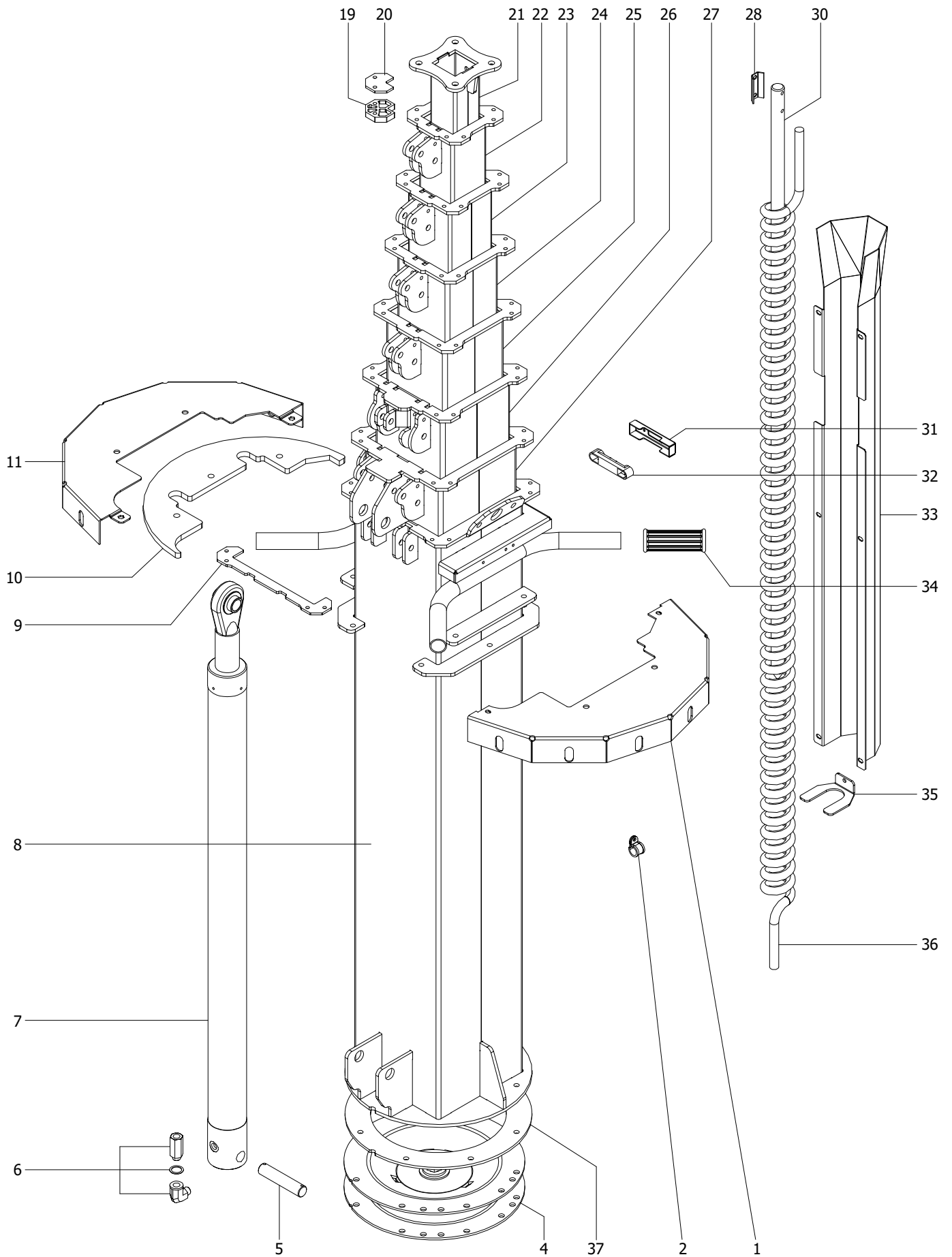


N.	CODE	DESCRIPTION
1	AC000_M021_012	STEEL ROPE L.1440 mm
2	AC000_M021_005	STEEL ROPE L.1460 mm
3 (*)	AC000_M021_002	PULLEY D.60
	AC000_M021_003	PULLEY D.62
	AC000_M021_008	PULLEY D.63
4	AC000_M021_007	STEEL ROPE L.1385 mm
5	AC000_M021_006	STEEL ROPE L.1415 mm
6	AC000_M021_004	STEEL ROPE L.1440 mm
7	AS000_M000_029	SCREW

(*)	PLEASE AT THE TIME OF THE ORDER MEASURE THE DIAMETER
-----	--

# SPARE PARTS

## MAST

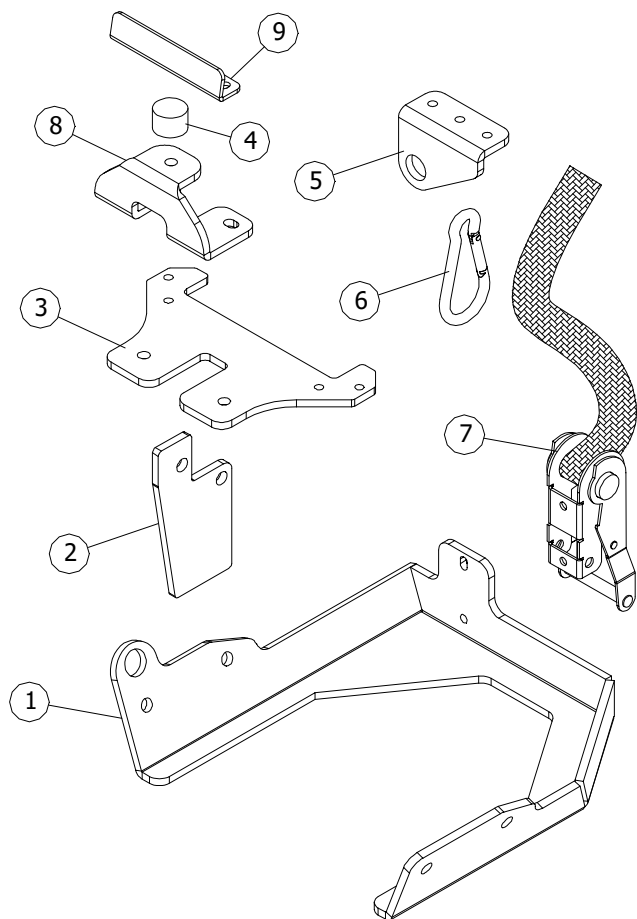


## SPARE PARTS

N.	CODE	DESCRIPTION
1	PFI08_C031_019ZN	MAST POSITIONING PLATE, LEFT
2	AC000_M038_007	RUBBERED CLAMP
4	PFM07_C031_070	MAST ROTATING SUPPORT
5	AS000_M023_026	HYDRAULIC PIPE PIN
6	AC000_G025_001	HYDRAULIC PIPE KIT
7	AS000_I025_001	HYDRAULIC PIPE
8	PFI08_C031_001ZN	1° SECTION MAST
9	PFI08_C031_024ZN	SPACER
10	PFI08_C031_015	DRAG FLANGE
11	PFI08_C031_018ZN	MAST POSITIONING PLATE, RIGHT
19	AS000_M000_005	MAST ANGLE GUIDE
20	PFI08_C031_012ZN	MAST ANGLE GUIDE REINFORCEMENT
21	PFI08_C031_008ZN	8° SECTION MAST
22	PFI08_C031_007ZN	7° SECTION MAST

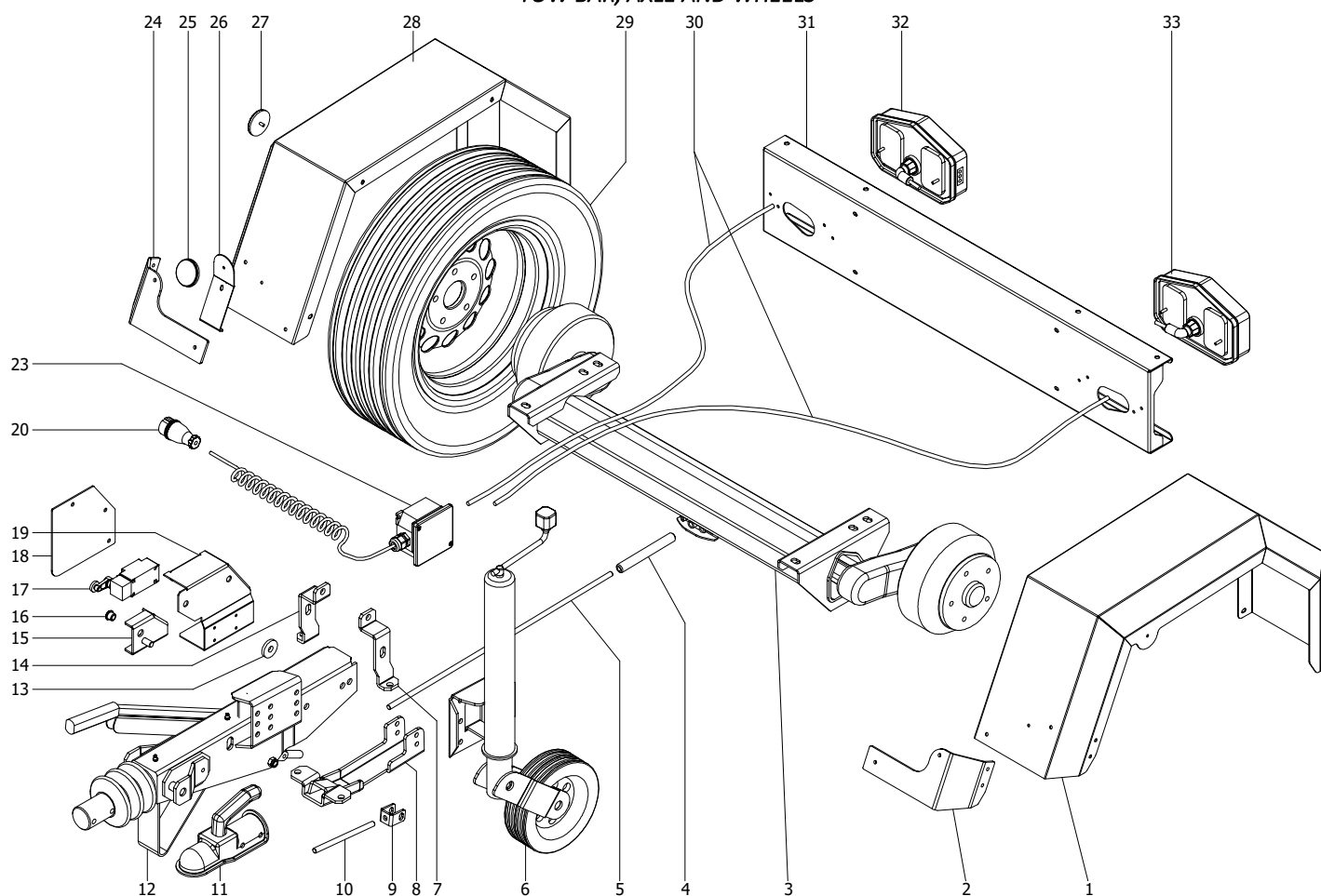
N.	CODE	DESCRIPTION
23	PFI08_C031_006ZN	6° SECTION MAST
24	PFI08_C031_005ZN	5° SECTION MAST
25	PFI08_C031_004ZN	4° SECTION MAST
26	PFI08_C031_003ZN	3° SECTION MAST
27	PFI08_C031_002ZN	2° SECTION MAST
28	PFM07_C000_019	CENTERING PIN CLAMP(OPTION)
30	PFM07_C000_014	CENTERING PIN (OPTION)
31	PFI08_C031_029ZN	AIR BUBBLE LEVEL PROTECTION (OPTION)
32	AC000_M016_002	AIR BUBBLE LEVEL
33	PFI08_C031_009	COILED CABLE PROTECTION
34	AC000_P037_001	POMELLO
35	PFM08_C000_047	COILED CABLE LOCK
36	AC000_E006_016	COILED CABLE
37	XRENT_C031_087	MAST ROTATING SUPPORT FRAME

## MAST FASTENING STRAP



N.	CODE	DESCRIPTION
1	XE48_C000_098ZN	HOOKING SUPPORT
2	XECOK2_C000_502ZN	MAST SHOCK ABSORBER SUPPORT
3	XECOK2_C000_501ZN	MAST SHOCK ABSORBER SUPPORT
4	AC000_M024_096	SHOCK ABSORBER
5	XECOK2_C000_434ZN	CARABINER SUPPORT
6	AC000_M000_143	CARABINER
7	AC000_M000_142	RATCHET WRENCH WITH BAND
8	XHY_C000_417ZN	SHOCK ABSORBER SUPPORT
9	XHY_C000_419	SHOCK ABSORBER CONTRAST PLATE

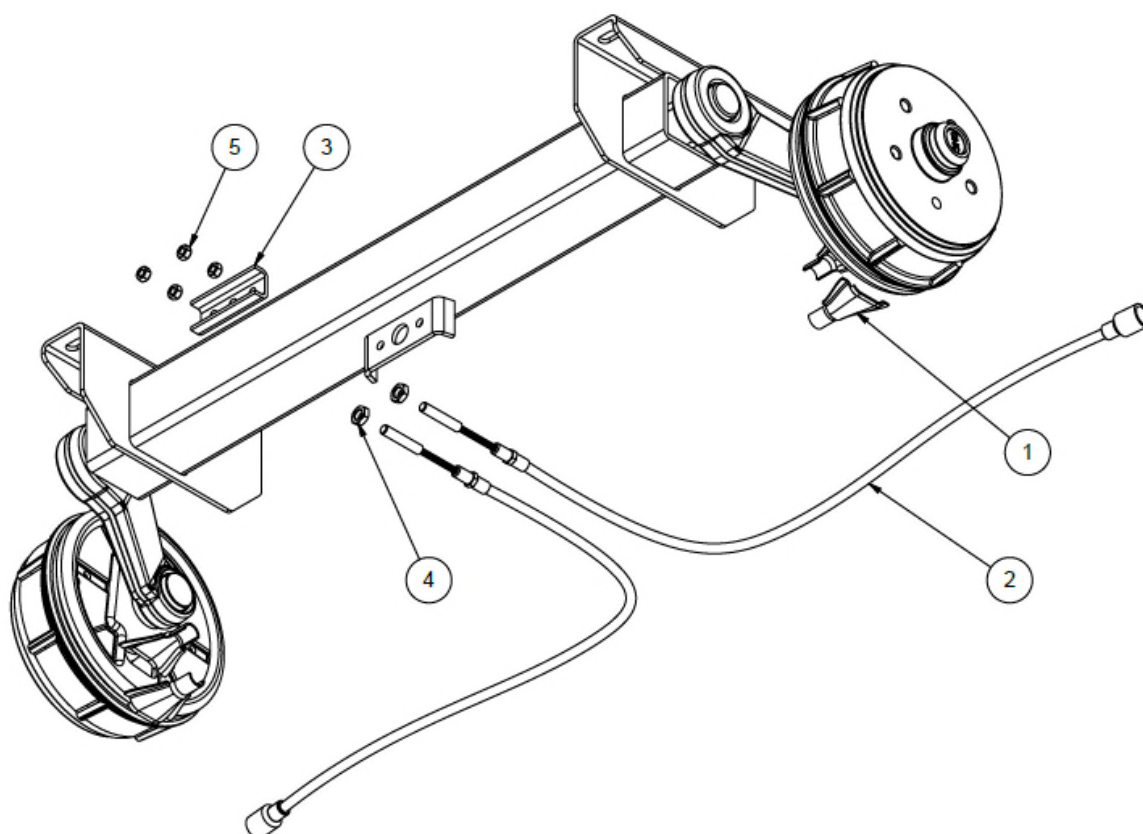
TOW BAR, AXLE AND WHEELS



N.	CODE	DESCRIPTION
1	XECOK2_C004_069	MUDGUARD
2	XECOK2_R008_188	RIGHT MUDGUARD RUBBER
3	AC000_T003_002	AXLE (ALKO)
	AC000_T003_045	AXLE (OMC)
4	AS000_M000_073	SLIDE PIN
5	XECOK2_C005_055ZN	REAR TIE ROD
6	AC000_T003_003	JOCKEY WHEEL
7	XHY_C000_580ZN	REINFORCEMENT BRACKET
8	XHY_C000_579ZN	TOW BAR REINFORCEMENT
9	XECOK2_C005_186ZN	TIE ROD JUNCTION
10	XECOK2_C005_059_03ZN	FRONT TIE ROD
11	AC000_T003_007	HOOKE BALL
12	XECOK2_C003_416	TOW BAR
13	XHY_C000_582ZN	WASHER
14	XHY_C000_581ZN	REINFORCEMENT BRACKET
15	XECOK2_C000_098	LIMIT SWITCHES PLATE
16	XECOK2_C001_101ZN	ADAPTATION BUSHING
17	SI000_G006_009	LIMIT SWITCHES
18	XECOK2_C000_100	COVER PLATE

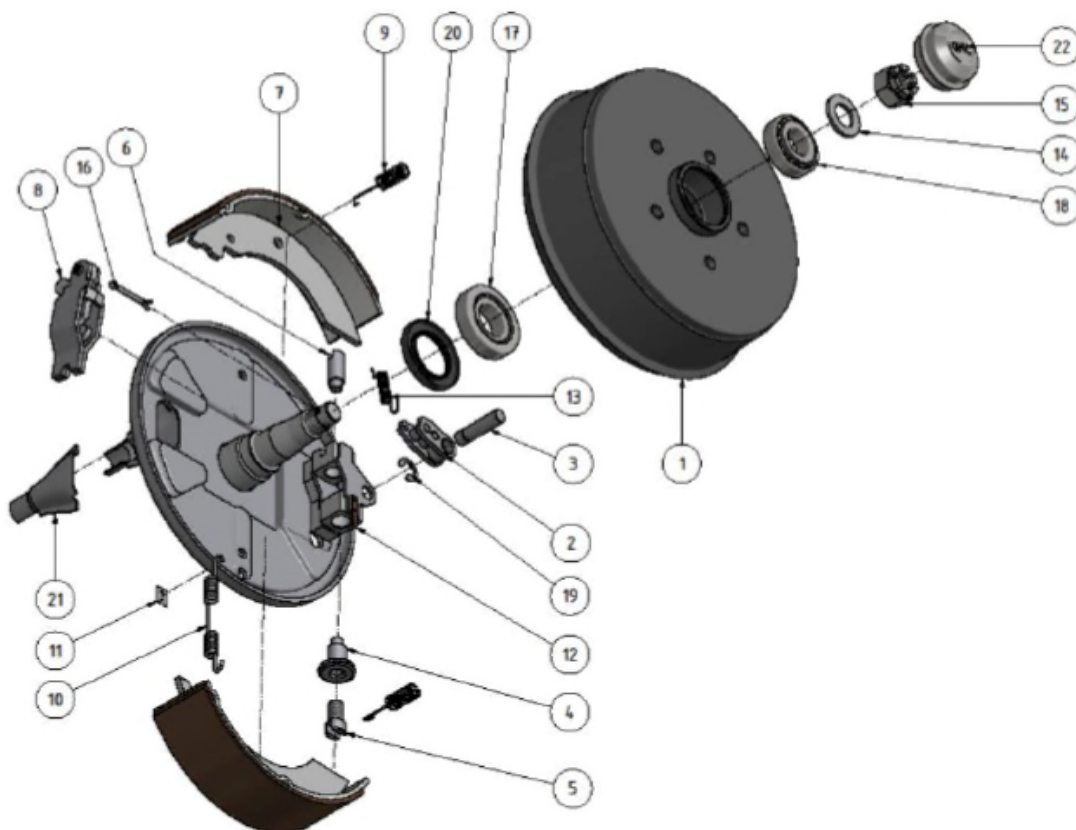
N.	CODE	DESCRIPTION
19	XECOK2_C000_099	LIMIT SWITCHES SUPPORT
20	AC000_E011_023	PLUG
23	AC000_E050_099	LIGHTS WIRING WITHOUT PLUG + JUNCTION BOX
24	XECOK2_R008_189	LEFT MUDGUARD RUBBER
25	AC000_T013_001	WHITE REFLECTOR
26	XECOK2_C004_312	REFLECTOR SUPPORT
27	AC000_T013_002	ORANGE REFLECTOR
28	XECOK2_C004_070	MUDGUARD
29	AC000_T003_001	WHEEL 175 R13
	AC000_T003_046	WHEEL 185-70 R13
30	AC000_E050_253	LIGHTS WIRING
31	XECOK2_C000_238	LIGHTS HOLDER BAR
32	AC000_E013_026	RIGHT LED LIGHT
33	AC000_E013_027	LEFT LED LIGHT

## OMC WHEELS AXLE



N.	QUANTITY	CODE	DESCRIPTION
1	2	OMC-10.031	HALF-SHELL
2	2	OMC-12.082	BRAKE ROPE
3	1	OMC-12.058	BRAKE CABLE BARRIER
4	2	OMC-PAC 16.047	ISO – 8675 M12 x 1.5
5	4	OMC-PAC 16.024	UNI 5588 M8 x 1

## OMC BRAKE

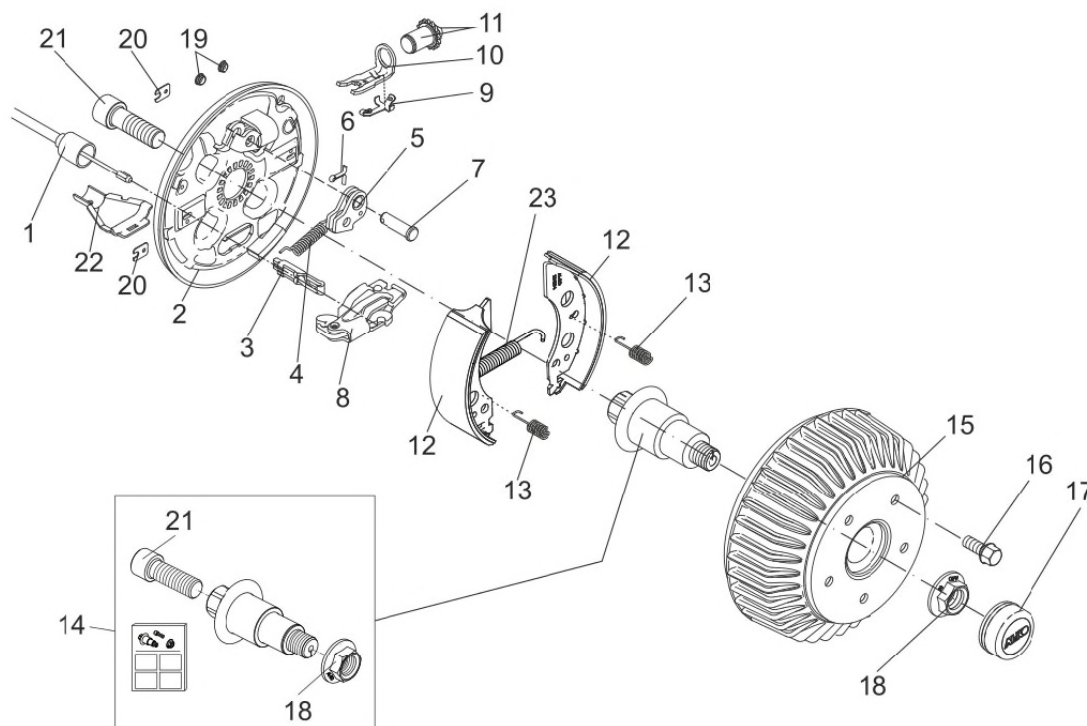


N.	QUANTITY	CODE	DESCRIPTION
1	1	OMC-34.269	BRAKE DRUM
2	1	OMC-30.059	BLOCK ROTATION PIN
3	1	OMC-30.079	ROTATION PIN
4	1	OMC-30.048	ADJUSTER NUT
5	1	OMC-30.053	ADJUSTER SCREW
6	1	OMC-30.056	CAP FOR ADJUSTER SET
7	2	OMC-11.080	BRAKE SHOES
8	1	OMC-30.344	EXPANDER LEVER
9	2	OMC-13.007	BRAKE SHOE PRESSURE SPRING
10	1	OMC-13.015	BRAKE SHOE RETURN SPRING
11	2	OMC-30.018	ANCHOR PLATE
12	1	OMC-30.020	SAFETY STRIP
13	1	OMC-13.014	TENSION SPRING
14	1	OMC-30.008	WASHER D.18.5
15	1	OMC-30.048	CROWN NUT
16	1	OMC-PAC.20.011	SPLIT PIN
17	1	OMC-PAC.10.014	INNER BEARING
18	1	OMC-PAC.10.012	OUTER BEARING
19	1	OMC-PAC.12.419	CIRCLIP
20	1	OMC-PAC.11.008	SEAL
21	1	OMC-10.031	SHELL
22	1	OMC-34.502	HUB CAP



## SPARE PARTS

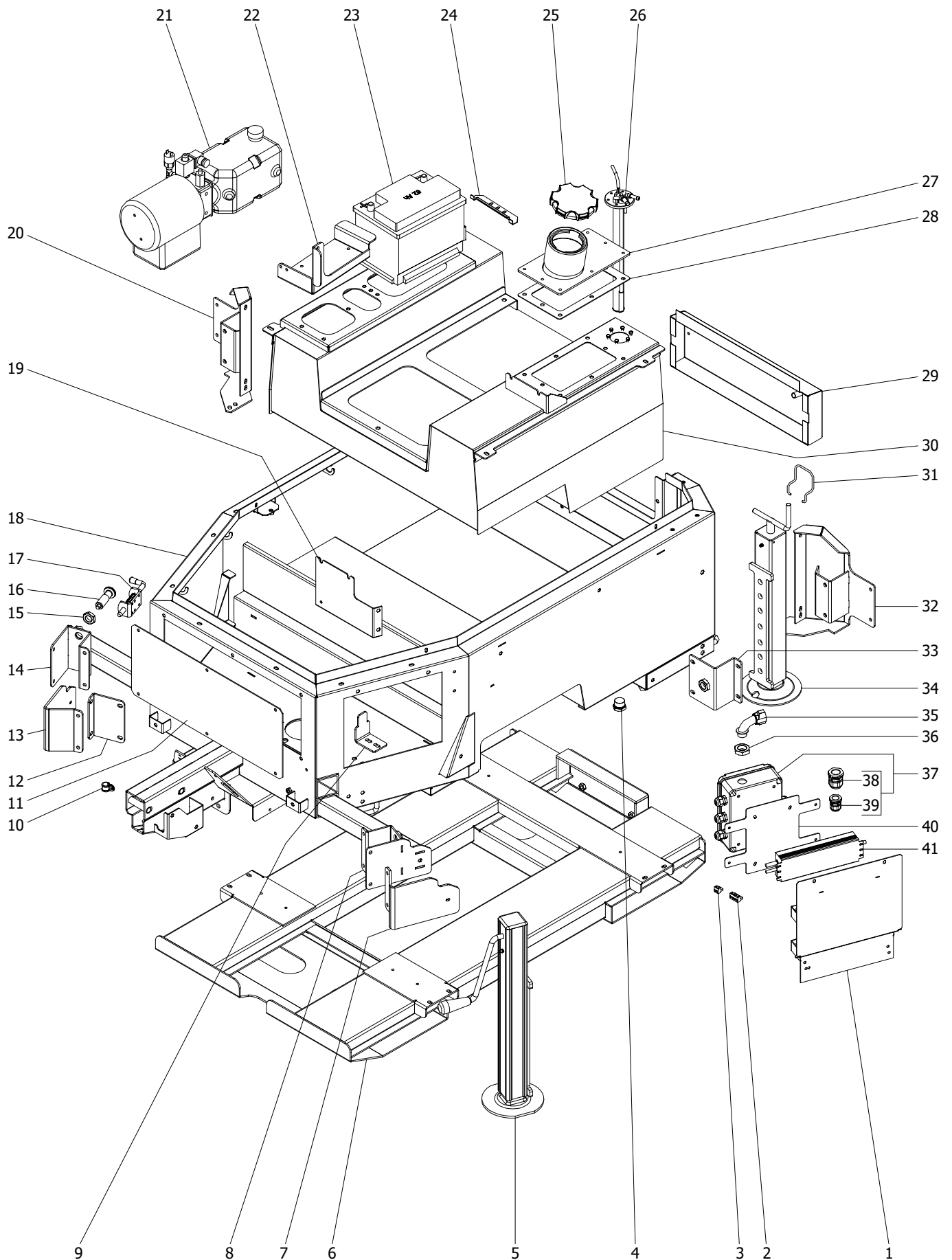
### ALKO BRAKE



N.	QUANTITY	CODE	DESCRIPTION
1	1	AL-247282	BOWDEN CABLE PROFI LONG LIFE 530/726
2	1	AL-571376	BRAKING PLATE WELDED LEFT 2051
	1	AL-571377	BRAKING PLATE WELDED RIGHT 2051
3	1	AL-604262	CONNECTION EYE WHEEL BRAKE 1637/2051/2361
4	1	AL-2187370003	TENSION SPRING
5	1	AL-571386	AUTO RESERVE LEVER CPL. LEFT
	1	AL-571387	AUTO RESERVE LEVER CPL. RIGHT
6	1	AL-700192	SPLIT PIN 4X20 DIN 94 (AT DRAWING)
7	1	AL-368651	BEARING BOLT
8	1	AL-571510	EXPANDING JOINT LOCK COMPL. 2051/2361
9	1	AL-368405	COMPOUND SPRING
10	1	AL-368361	BOW PRESSURE
11	1	AL-21873708	REGULATION UNIT WHEEL BRAKE
12	1	AL-1213889	SPARE PARTS SET BRAKE SHOE 2050/2051
13	2	AL-2088800003	COMPRESSION SPRING
14	1	AL-1732707	SPARE PARTS SET STUB AXLE UNBRAKED BEARING Ø34 M20
15	1	AL-1932113	SPARE PARTS SET BRAKE DRUM 2051 CPL. WITH BEARING; 112X5 - M12X1,5
16	1	AL-2081670020	WHEEL BOLT SPERICAL M12X1,5 X25
17	1	AL-581197	SEALING CAP Ø57
18	1	AL-581200	FLANGE NUT M24X1.5
19	2	AL-373245	PLUG RAL6002
20	2	AL-2382610002	COVER PLATE
21	1	AL-704096	CYLINDER SCREW M20X60 DIN 912 AT DRAWING
22	1	AL-371387	BRAKE CABLE SHELL 1637-2361
23	1	AL-2082000007	TENSION SPRING
24	1	AL-371389	PROTECTIVE CAP

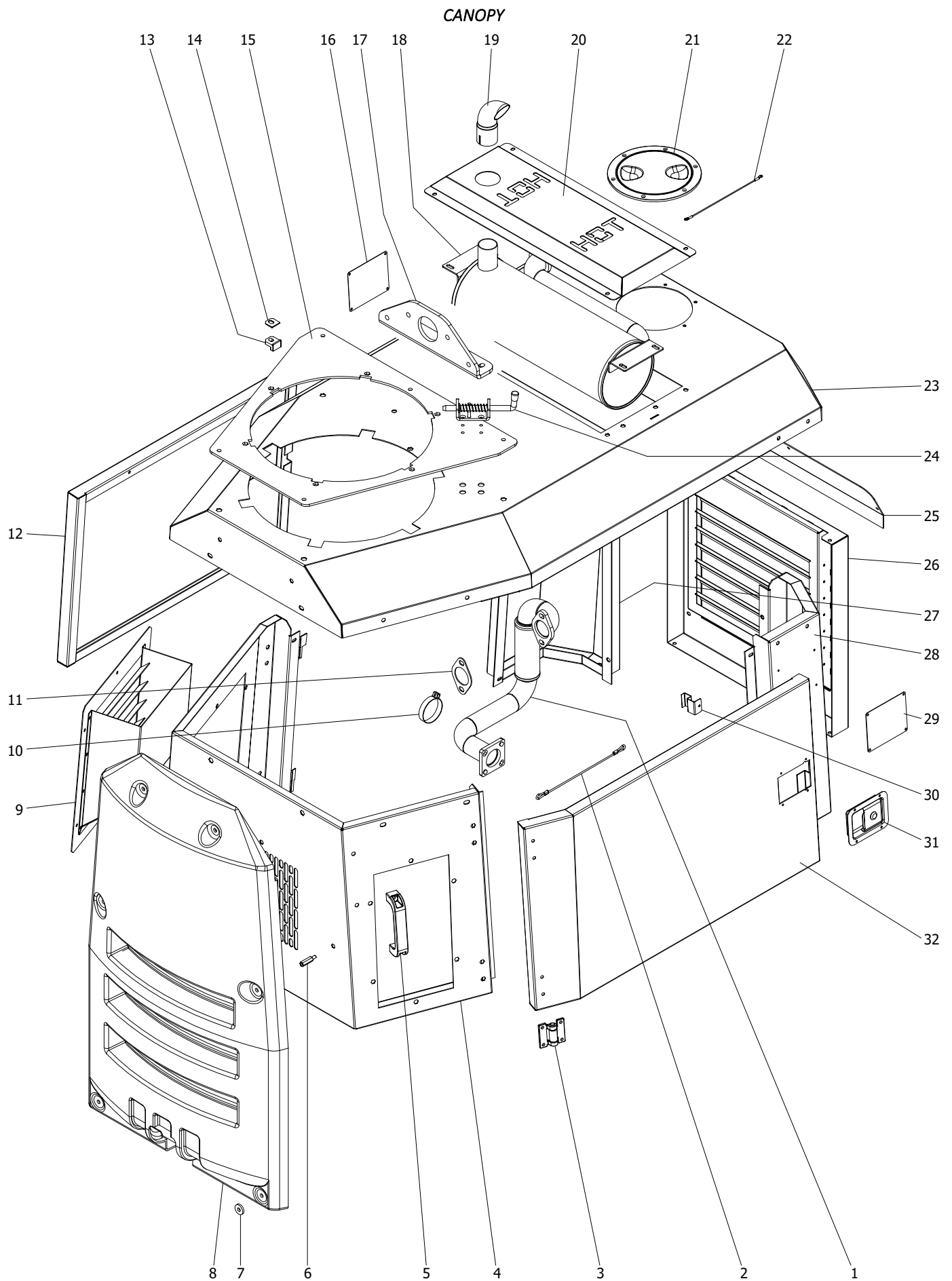
# SPARE PARTS

## BASE STRUCTURE



**SPARE PARTS**

N.	CODE	DESCRIPTION
1	XECOK2_C006_049	POWER SUPPLIES SUPPORT
2	AC000_E006_004	4 POLES CLAMP
3	AC000_E006_002	2 POLES CLAMP
4	AC000_M000_081	DRAIN CAP
5	XECOK2_C003_200	STABILISER
6	XECOK2_C000_226	FRAME FOR FORKLIFT
7	XECOK2_R008_190	RUBBER PROTECTION
8	XECOK2_C000_119ZN	RIGHT STABILISER BEAM
9	XRENT_C000_037	ANTIROTATION PLATE
10	AC000_M038_007	RUBBERED CLAMP
11	XECOK2_C008_036	MAIN BASE STRUCTURE FRONT COVER
12	XECOK2_C000_117ZN	STABILISER LOCK
13	XECOK2_R008_191	RUBBER PROTECTION
14	XECOK2_C000_120ZN	LEFT STABILISER BEAM
15	AC000_M038_026	NUT
16	AC000_M000_077	PIN LOCK WITH SPRING
17	AC000_M000_086	CLOSING LOCK PIN
18	XECOK2_C004_128	MAIN BASE STRUCTURE
19	XECOK2_C006_111	CONTROL PANEL SUPPORT
20	XECOK2_C000_097	LEFT STABILISER SUPPORT
21	AS000_I000_011	HYDRAULIC UNIT (ASG)
	AS000_I000_017	HYDRAULIC UNIT (HYDROVEN)
22	XECOK2_C000_084	HYDRAULIC UNIT SUPPORT
23	AC000_E000_027	BATTERY
24	TF8K1_C000_0014	BATTERY LOCK
25	AC000_M000_028	FUEL TANK CAP
26	AC000_E006_025	FUEL LEVEL TRANSMITTER
27	XECOK2_C005_149	FUEL TANK PLATE
28	XECOK_AS05_009	GASKET
29	XECOK2_C004_034	MAIN BASE STRUCTURE REAR COVER
30	XECOK2_C005_235	FUEL TANK
31	AC000_M000_062	STABILISER SPRING
32	XECOK2_C000_095	RIGHT STABILISER SUPPORT
33	XECOK2_C000_096	STABILISER LOCK
34	XECOK2_C003_093	STABILISER
35	AC000_E018_017	CURVED CONNECTOR
36	AC000_E018_014	CURVED CONNECTOR NUT
37	AS000_E006_003	JUNCTION BOX
38	AC000_E018_002	CABLE GLAND PG21
39	AC000_E018_009	CABLE GLAND PG16
40	XECOK2_C006_068	JUNCTION BOX SUPPORT
41	AC000_E026_088	POWER SUPPLY

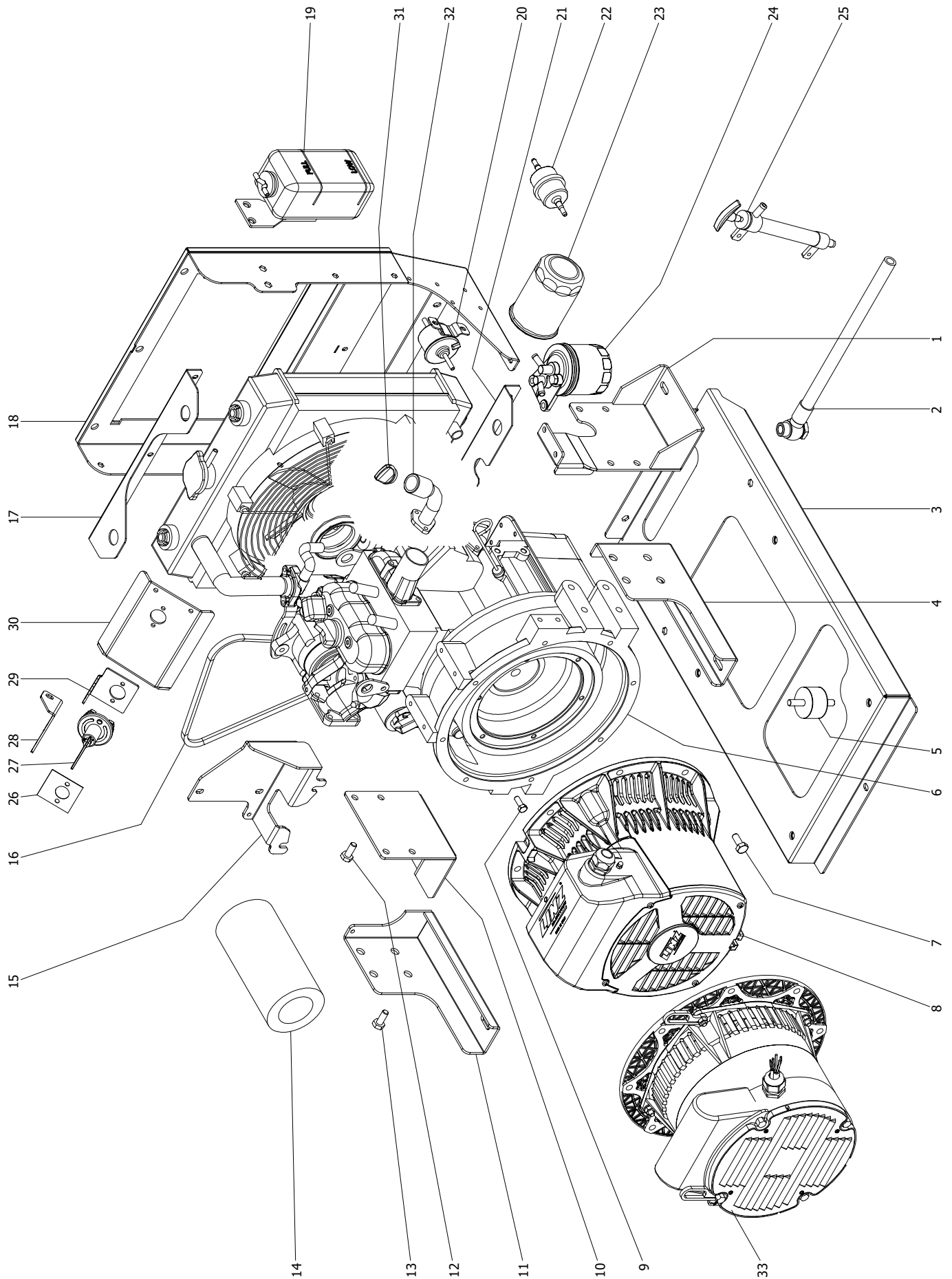


## SPARE PARTS

N.	CODE	DESCRIPTION
1	AC000_M035_077	MUFFLER EXTENSION
2	XECOK2_M009_161	DOOR RETENTION ROPE
3	AC000_M000_009	DOOR HINGE
4	XECOK2_C007_046	FRONT PANEL
5	AC000_M000_005	HANDLE
6	AC000_M038_041	SPACER
7	AC000_P037_007	PLASTIC WASHER
8	XECO_AS009_058	PLASTIC COVER
9	XRENT_C008_044	AIR INLET GRID
10	AC000_M038_009	CLAMP
11	AC000_M001_007	MUFFLER EXTENSION GASKET
12	XECOK2_C008_132	LEFT DOOR
13	PFI08_C031_013	ROTATIONAL SLIDING PLATE
14	PFI08_C031_014ZN	ROTATIONAL SLIDING PLATE REINFORCEMENT
15	XECOK2_C000_050	MAST ROTATION GUIDE PLATE
16	XECOK2_S010_186B	APPROBATION PLATE
17	XECOK2_C036_386ZN	LIFTING EYE
18	XECOK_C035_045	MUFFLER
19	AC000_M000_105	RAIN COVER
20	XECOK_C007_032	MUFFLER COVER
21	AC000_M001_035	RADIATOR CAP COVER
22	AS000_M036_083	RADIATOR CAP COVER RETENTION ROPE
23	XECOK2_C007_129	TOP CANOPY
24	AC000_M000_003	CLOSING LOCK PIN
25	XECOK2_C007_113	REAR PLATE
26	XECOK2_C008_225	AIR OUTLET GRID
27	XECOK2_C007_435	REAR LEFT PANEL
28	XECOK2_C007_134	REAR RIGHT PANEL
29	XECOK2_S010_277B	DATA PLATE
30	XRENT_C000_040	LOCK CONTRAST
31	AC000_M000_017	DOOR LOCK
32	XECOK2_C008_131	RIGHT DOOR

# SPARE PARTS

## ENGINE

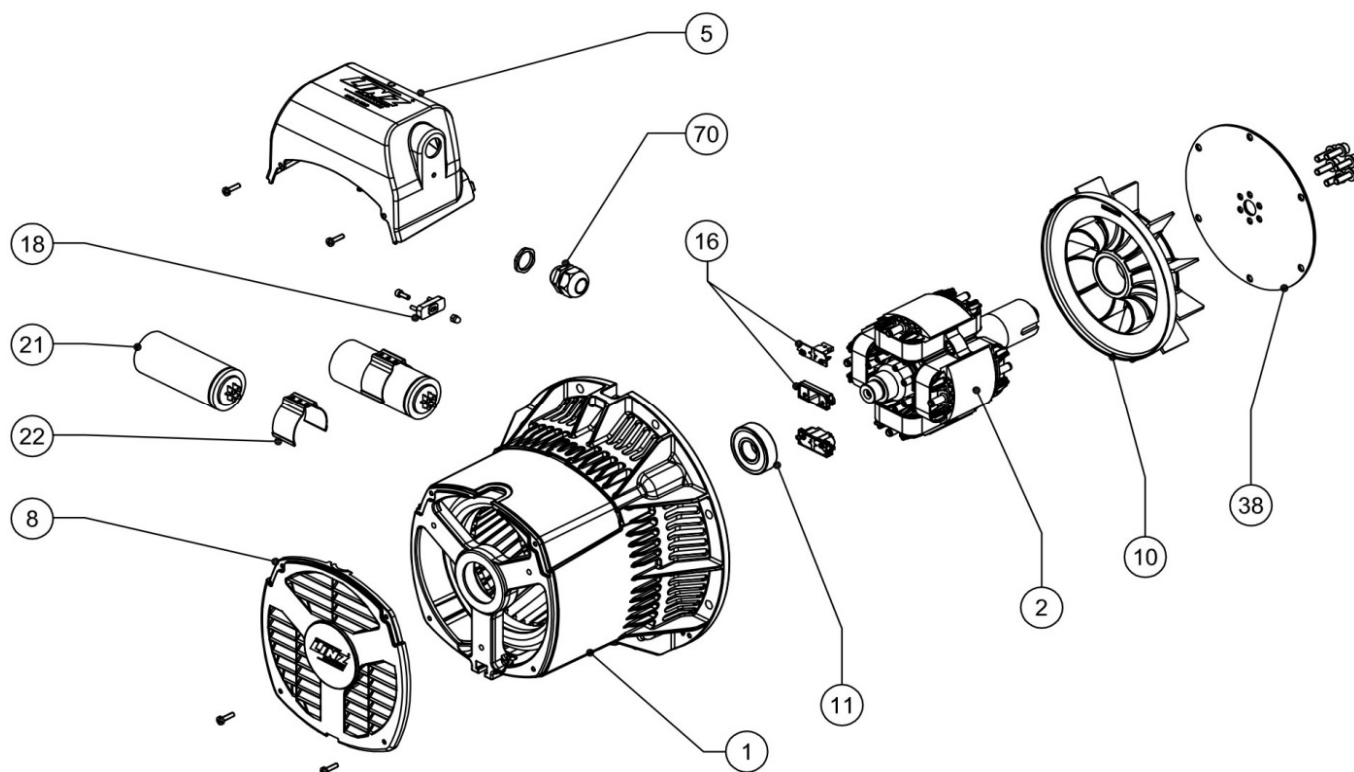


**SPARE PARTS**

N.	CODE	DESCRIPTION
1	XECOK2_C001_006	ENGINE REAR RIGHT SUPPORT
2	AC000_G001_001	OIL DRAIN PIPE
3	XECOK2_C001_126	ENGINE / ALTERNATOR PLATFORM
4	XECOK2_C001_008	ENGINE FRONT RIGHT SUPPORT
5	AC000_M024_054	SCHOCK ABSORBER
6	AC000_M033_007	ENGINE Z482
	AC000_M033_024	ENGINE Z482_STAGE V
7	AC000_M038_014	ALTERNATOR FIXING SCREW
8	AC000_E034_007	ALTERNATOR
9	AC000_M038_013	ENGINE FIXING SCREW
10	XECOK2_C001_005	ENGINE REAR LEFT SUPPORT
11	XECOK2_C001_007	ENGINE FRONT LEFT SUPPORT
12	AC000_M038_015	ENGINE REAR SUPPORTS SCREW
13	AC000_M038_047	ENGINE FRONT SUPPORTS SCREW
14	K-1921511220	AIR FILTER
	K-K121182320	AIR FILTER (STAGE V)
15	XECOK2_C001_458	AIR FILTER SUPPORT
16	K-1980572530	ENGINE BELT
17	XE48_C001_005	RADIATOR TOP SUPPORT
18	XECOK2_C001_224	RADIATOR FRAME
19	K-1553172402	RADIATOR TANK
20	K-R140151352	ELECTRIC PUMP
21	XECOK2_C001_236	RADIATOR INFERIOR SUPPORT
22	AC000_M001_008	FUEL PRE-FILTER
23	K-1542632430	OIL FILTER
24	K-1522143170	FUEL FILTER
25	AS000_M000_060	OIL DRAIN MANUAL PUMP
26	XECOK2_S010_293B	BATTERY SWITCH RATING PLATE
27	AC000_E000_066	BATTERY SWITCH
28	XECOK2_C000_438	BATTERY SWITCH LOCKABLE PLATE
29	XECOK2_C000_437	BATTERY SWITCH LOCKABLE PLATE
30	XECOK2_C000_439	BATTERY SWITCH SUPPORT
31	AC000_M000_195	OIL FILLER CAP
32	XECOK2_C001_497	OIL FILLER
33	AC000_E034_001	MECC ALTE ALTERNATOR

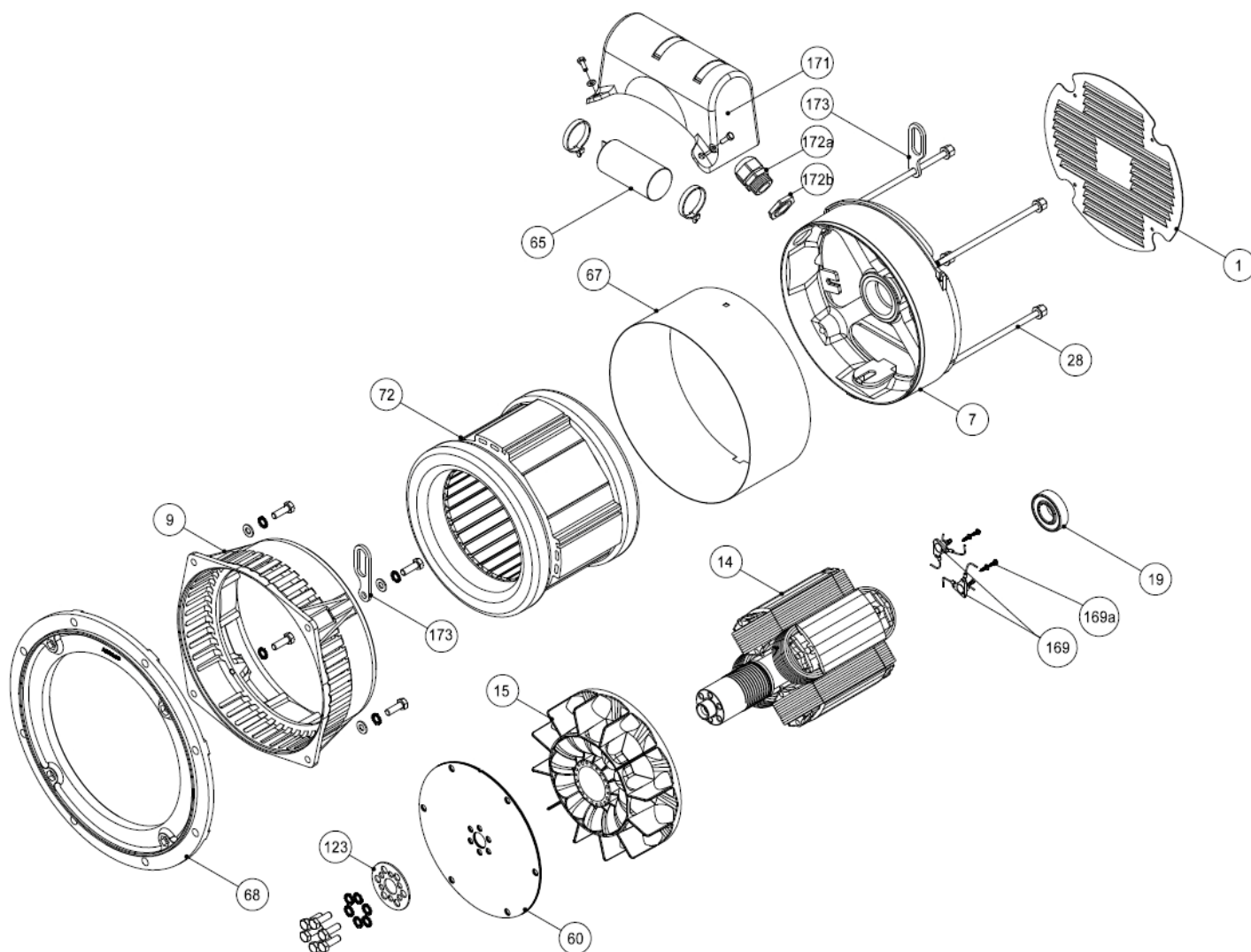


LINZ ALTERNATOR

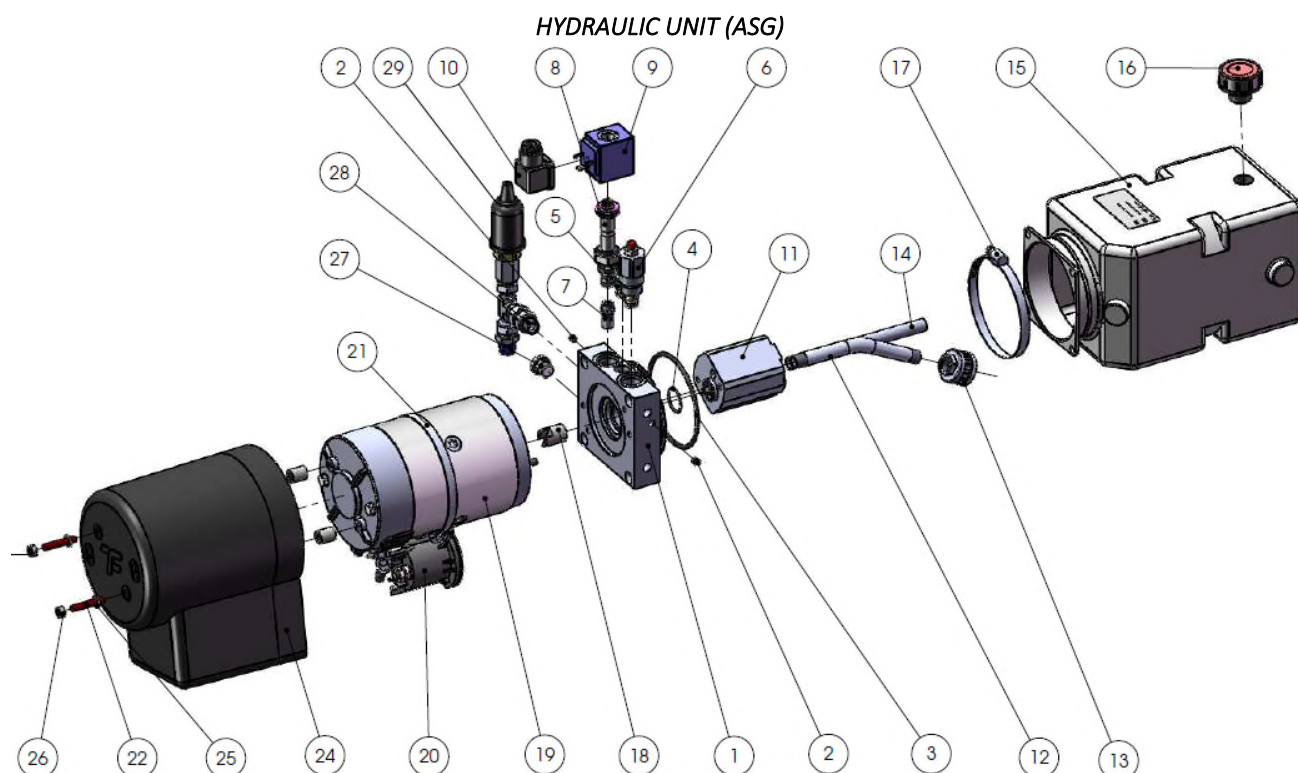


N.	CODE	DESCRIPTION
1	L-E13CA114AA1	FRAME WITH STATOR
2	L-E13RA491B	ROTATING INDUCTOR
5	L-E13QU068B00-002	TOP COVER
8	L-13KA089D	FRONT COVER
10	L-E13VE000C	FAN
11	L-EX411465325	BEARING
16	L-E13KA045A	WIRED DIODE
18	----	----
21	L-EX541511025	25uF 550V CAPACITOR
22A	L-E10KA109A	CAPACITOR CLAMP D. 40 SP10
22B	----	----
38	L-E13GE211A	SAE DISCS 6 ½
70	----	----

MECC ALTE ALTERNATOR

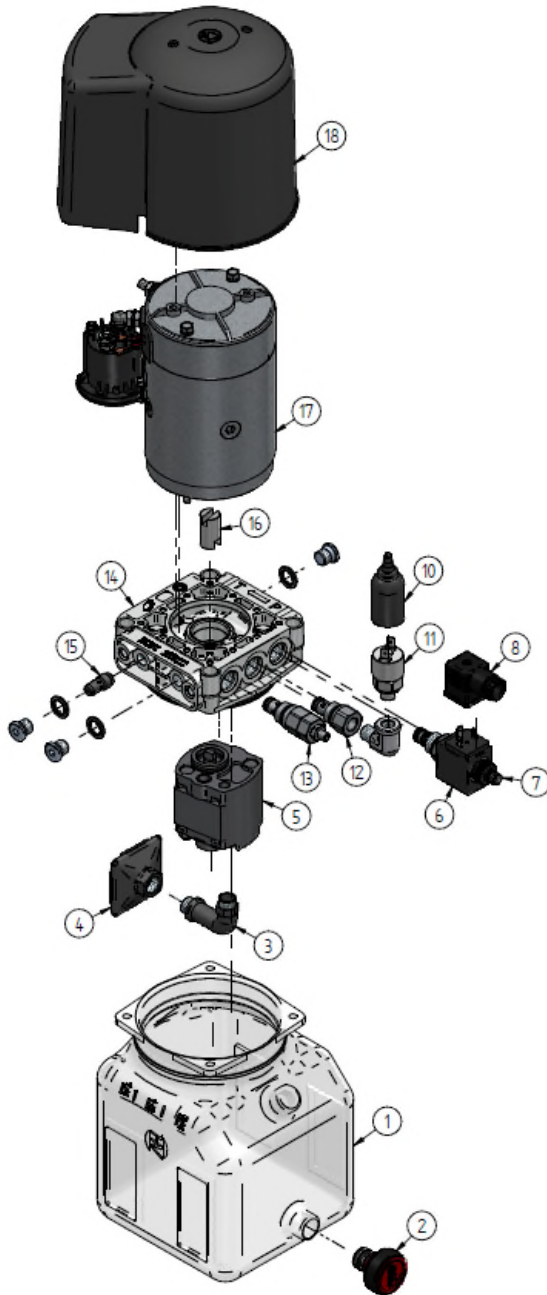


N.	CODE	DESCRIPTION
1	M-9903905068	REAR SEAL
7	M-6102204176	NON DRIVE END BRACKET
9	M-6102208197	DRIVE END BACKET
14	M-2001018401	ROTOR ASSAY
15	M-9909514076	FAN
19	M-9900905055	REAR BEARING 6205-2RS
28	M-9911190278	COVER STAY BOLT
60	M-6110611150	DISC PLATES
65	M-9910303094	CAPACITOR
67	M-8500616074	ENCLOSING BAND
68	M-6102208193	INTERCHANGEABLE FLANGE
72	M-4500315000	WOUND STATOR
123	M-6110611508	DISC LOCKING RING-SPACER
169	M-6101001205	SUPPORT FOR ROTATING DIODE BRIDGE
169a	M-9910708050	SCREW FOR DIODE MOUNTING
171	M-9909511100	CAPACITOR PLASTIC BOX
172a	M-9909510155	PG21 CABLE GLAND
172b	M-9909510195	PG21 NUT
173	M-9903905069	LIFTING HOOK



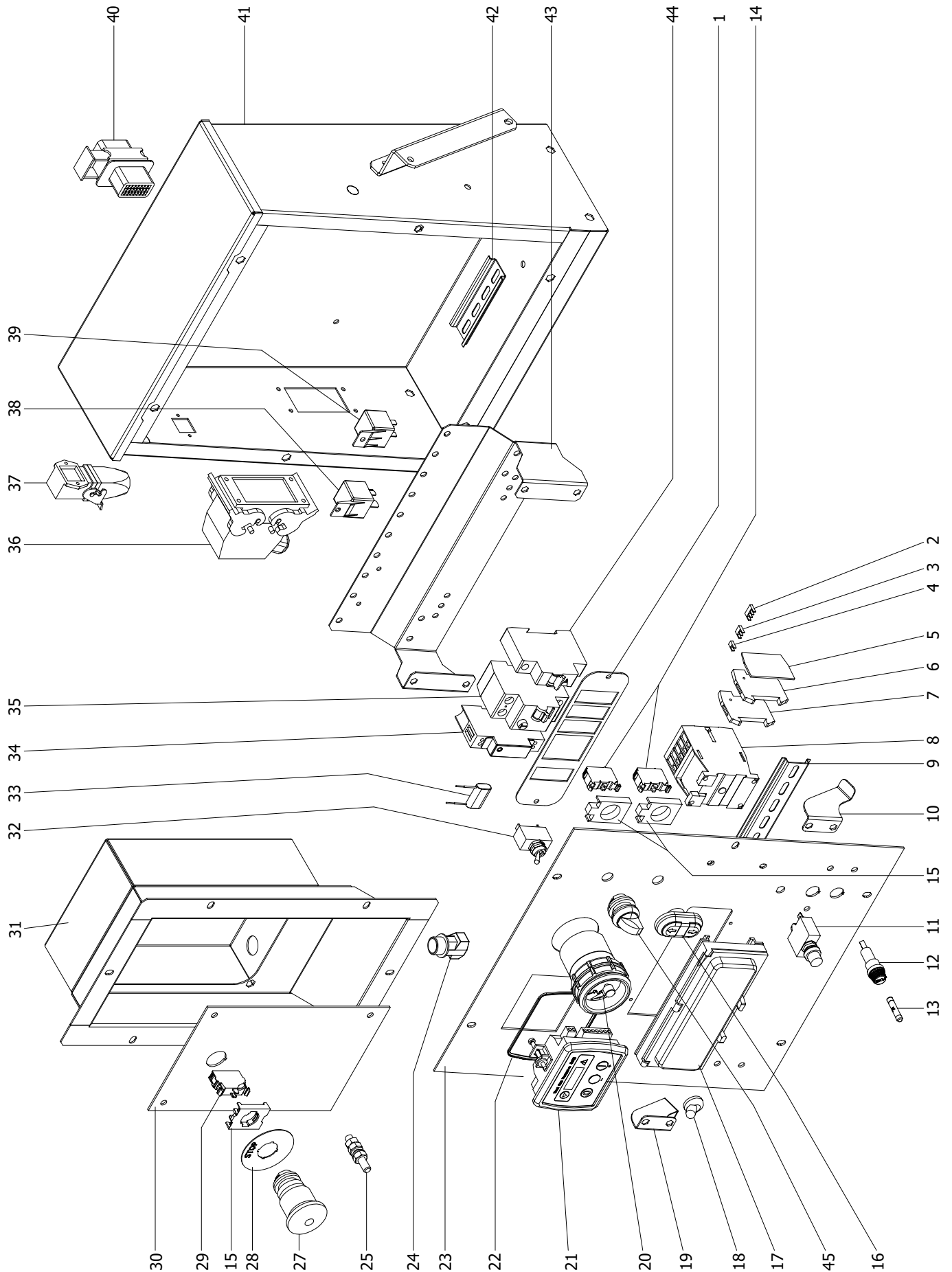
N.	CODE	DESCRIPTION
1	AS-ES516007	CONNECTOR M2A
2	AS-EC035M06	EXPANSION CAP
3	AS-EC114261	O-RING
4	AS-EC114024	O-RING
5	AS-F73200114	VALVE VR14
6	AS-F733006250	VALVE VMC1 250 BAR
7	AS-F7370212	VRF12 E-STROZ 5LT
8	AS-F720002B1	VALVE VE6-NC-EM 12.7 DC
9	AS-C1500010A	COIL
10	AS-EC167002	CONNECTOR DIN43650
11	AS-EC10901.50001	PUMP 00A1.50X047
12	AS-ES524FE009	PIPE ¼"
13	AS-ES506FR5.01759	FILTER
14	AS-ES52301105	EXHAUST HOSE PIPE
15	AS-ES512AA25B	TANK 2.5LT
16	AS-EC1270112	CAP + FILTER TMDF ½"
17	AS-C05609090110	CLAMP
18	AS-ES5085320020	JOINT
19	AS-EC106115	ENGINE CC 12V – 1600W
20	AS-EC108011	TELERUPTOR 12V-150A
21	AS-K180A01F	ELECTRIC KIT ENGINE-RELAY 0114-125
22	AS-EC008AB0635	GRAIN
23	AS-ES427002	THICKNESS RING
24	AS-ES513033	COVER FOR CC ENGINE
25	AS-EC010002	RING
26	AS-EC000BBB06	BOLT
27	AS-EC031001	CAP
28	AS-CL000008	FITTINGS KIT
29	AS-K4TAF1/P1	PRESSURE SWITCH

HYDRAULIC UNIT (HYDROVEN)



N°	CODE	DESCRIPTION
1	HY-56220301B00E	PLASTIC TANK
2	HY-39G57B000C0C	CAP
3	HY-562311X5040P	3/8 "MM CURVE
4	HY-56233D14D0MP	SUCTION FILTER
5	HY-13B1W2D2CBBX	INPUT PUMP
6	HY-56263610F02I	COIL
7	HY-562611L40A09	VALVE
8	HY-78C00051320A	CONNECTOR
10	-----	CAP
11	HY-38070K4TAF1F	PRESSURE SWITCH
12	HY-562571L3005D	UNIDIRECTIONAL VALVE
13	HY-56203P31900V	MAX. PRESSURE VALVE
14	HY-5620121031BR	BODY
15	HY-3392509A1402	DOWNHILL CONTROL VALVE
16	HY-563422B20EET	JOINT
17	HY-56250A160LOG	MOTOR
18	HY-5625301000HR	COVER KIT

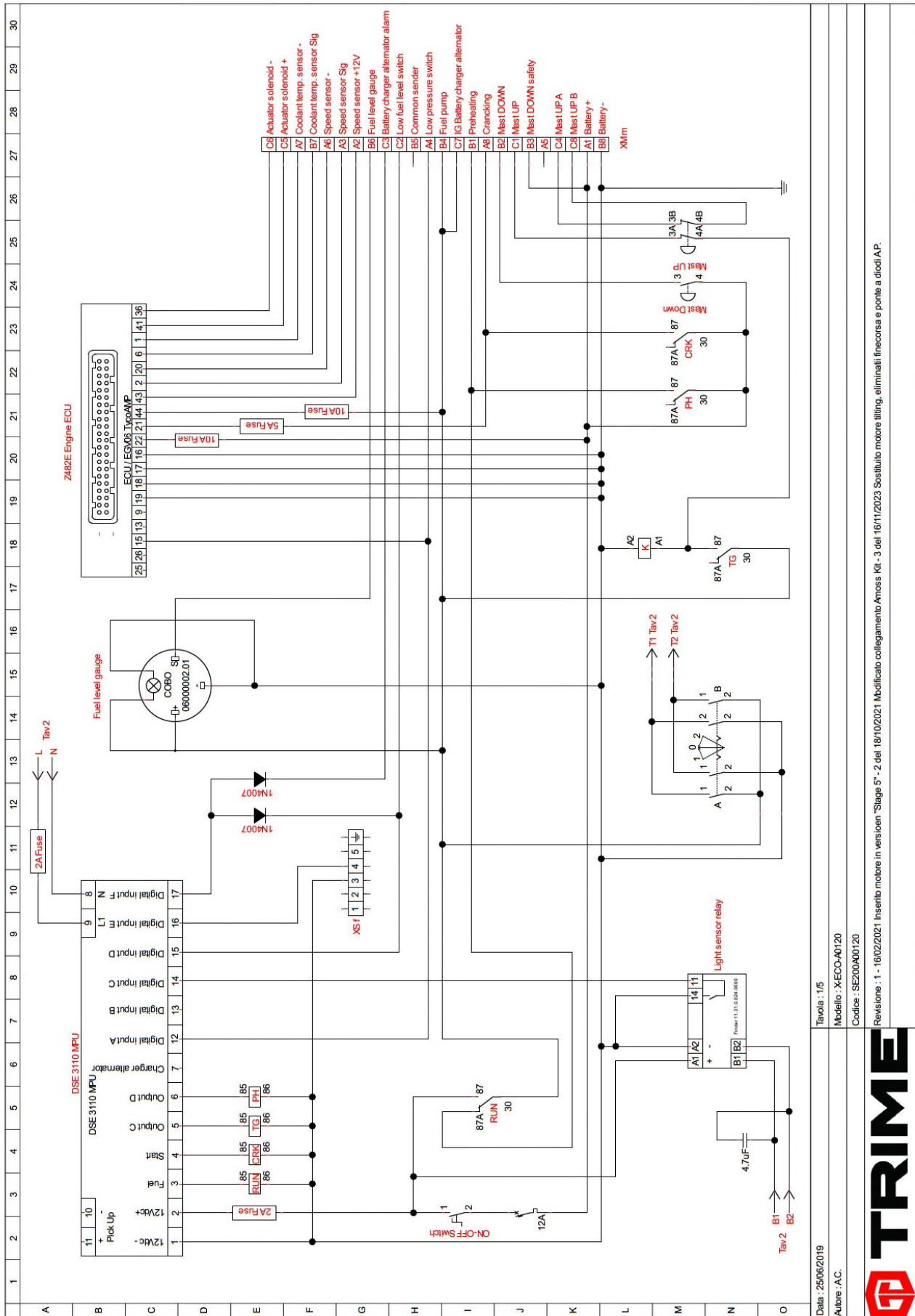
CONTROL PANELS



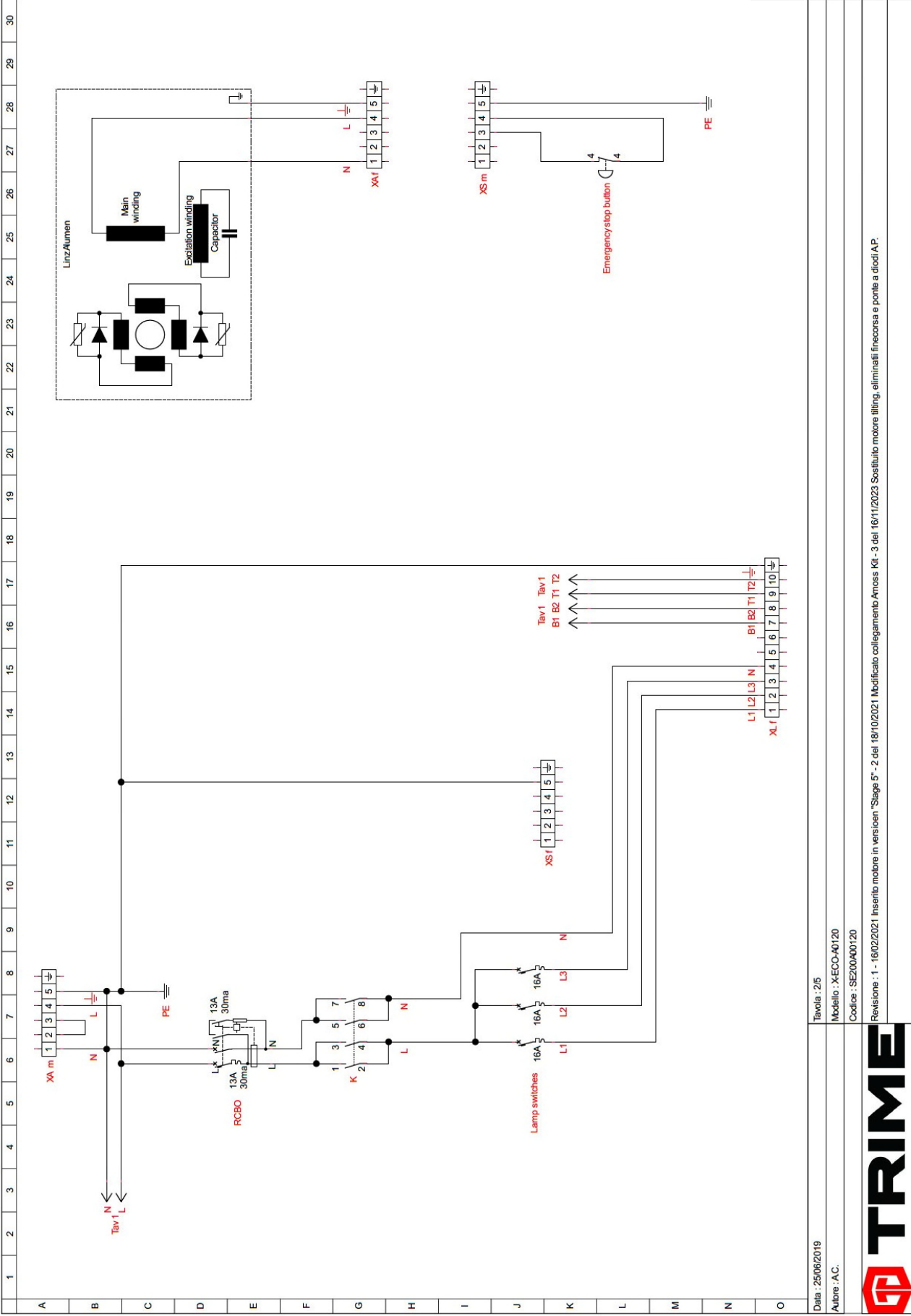
**SPARE PARTS**

N.	CODE	DESCRIPTION
1	XRENT_C006_229	CIRCUIT BREAKERS FRAME
2	AC000_E006_063	4 PIN BRIDGE
3	AC000_E006_062	3 PIN BRIDGE
4	AC000_E006_023	2 PIN BRIDGE
5	AC000_E006_024	TERMINAL BOARD ELEMENT PLATE
6	AC000_E006_022	TERMINAL BOARD ELEMENT COVER
7	AC000_E006_021	TERMINAL BOARD ELEMENT
8	AC000_E006_054	CONTACTOR SWITCH
9	AC000_M038_037	BAR L.200
10	XECOK2_C019_232	RIGHT STOP PLATE
11	AC000_E012_013	12A CIRCUIT BREAKER
12	AC000_E012_030	FUSE HOLDER
13	AC000_E012_014	2A FUSE
14	AC000_E006_042	MAST BUTTONS CONTACT
15	AC000_E006_043	MAST BUTTONS / STOP BUTTON SUPPORT
16	AC000_E006_044	MAST BUTTONS
17	AC000_E000_008	CIRCUIT BREAKERS COVER
18	AC000_E000_019	SWITCH COVER
19	XECOK2_C019_233	LEFT STOP PLATE
20	AC000_E015_005	FUEL LEVEL GAUGE
21	AC000_E014_001	CONTROLLER
22	AC000_E006_001	CONTROLLER GASKET
23	XECOK2_S010_291B	CONTROL PANEL INSTRUMENTS PLATE
24	AC000_E018_019	CONNECTOR
25	AC000_M038_035	EARTHING TERMINAL
27	AC000_E006_051	STOP BUTTON
28	AC000_E006_053	STOP BUTTON RATING PLATE
29	AC000_E006_052	STOP BUTTON CONTACT
30	XECOK2_S010_276B	EXTERNAL PANEL INSTRUMENTS PLATE
31	XECOK2_C006_105	EXTERNAL CONTROL PANEL BOX
32	AC000_E000_016	SWITCH
33	AC000_E000_070	CAPACITOR
34	AC000_E016_005	LIGHT SENSOR RELAY
35	AC000_E012_028	RCD 13A
36	AC000_G006_004	10 POLES CONNECTOR
37	AC000_E000_071	5 POLES CONNECTOR
38	AC000_E000_040	12V 40A RELAY
39	AC000_E000_041	12V 70A RELAY
40	AC000_G006_003	24 POLES CONNECTOR
41	XECOK2_C019_229	CONTROL PANEL BOX
42	AC000_M038_049	BAR L.100
43	XECOK2_C006_110	CIRCUIT BREAKERS SUPPORT
44	AC000_E012_027	LAMP SWITCH
45	AC000_E006_068	LIGHT TILTING SELECTOR

# ELECTRICAL DIAGRAM

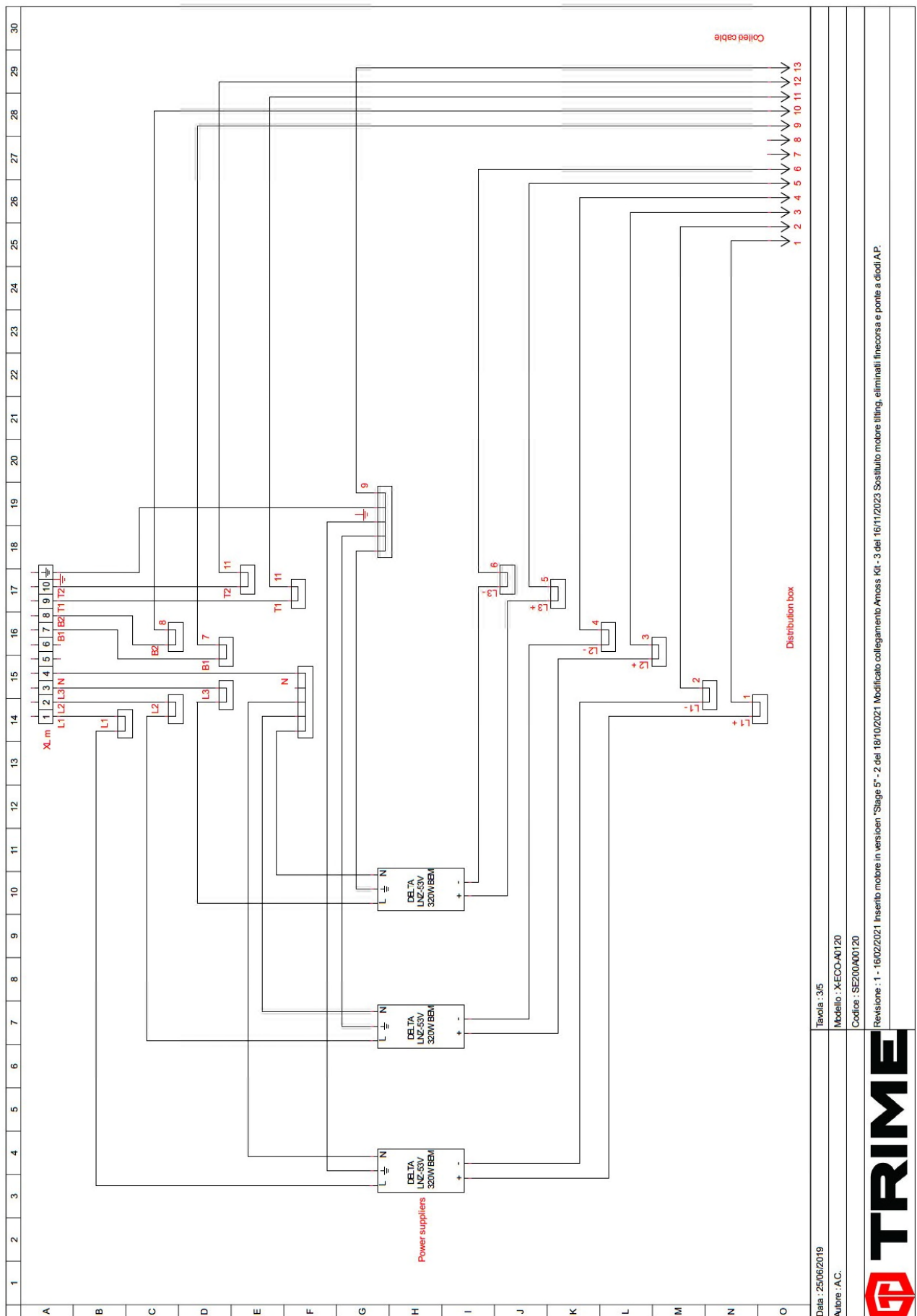








# ELECTRICAL DIAGRAM



Data : 25/06/2019

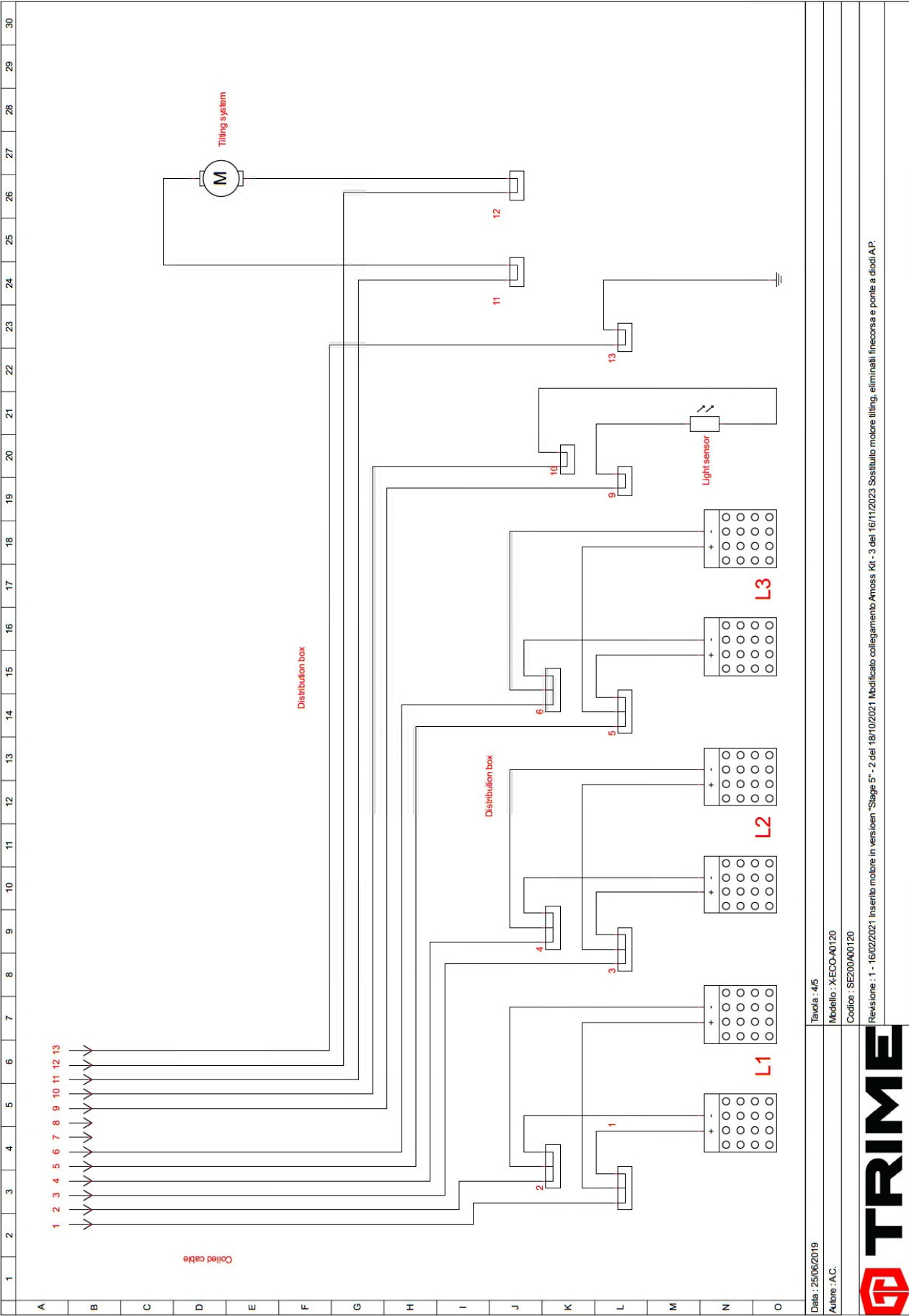
Autore : A.C.

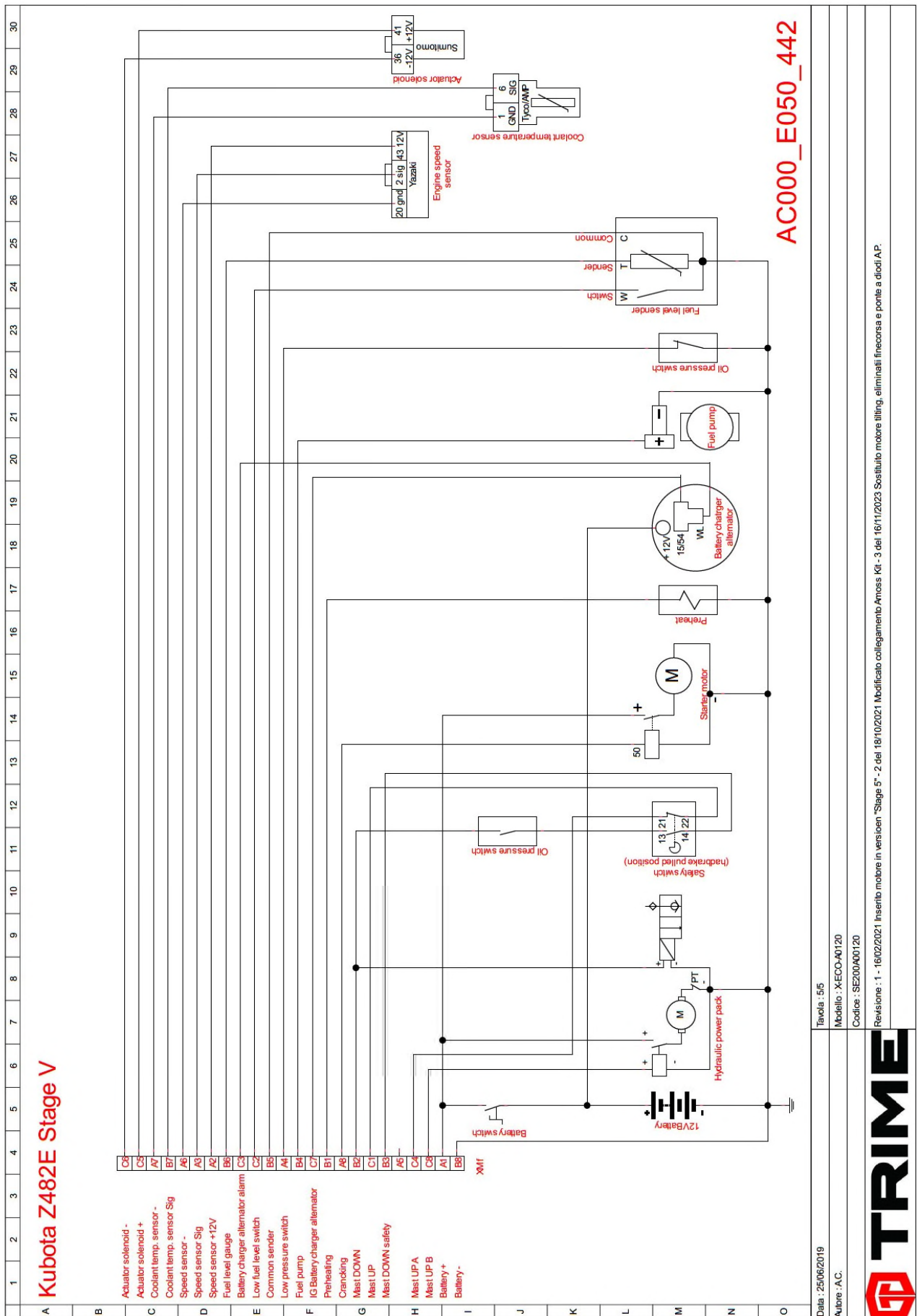
Tavola : 3/5

Modello : XECO-A0120

Codice : SE200A00120

Revisione : 1 - 16/02/2021 Inserito motore in versione "Stage 5" - 2 del 16/10/2021 Modificato collegamento Amoss Kit - 3 del 16/11/2023 Sostituito motore lifting, eliminati fincorsa e ponte a diodi AP.





## WARRANTY

The warranty period, **which starts on the delivery date to the first purchaser**, is divided as follows:

- ☐ LED LIGHTS - 3 YEARS
- ☐ LIGHTING TOWER (all the rest) - 1 YEAR

**Only genuine parts should be used to carry out repairs.** Failure to use only genuine parts may void the manufacturer's warranty. We reserve the right to request the warranty replaced parts back be sent back to PR Power for analysis.

**All engine warranty issues must be directed to the engine manufacturer, or the manufacturer's approved engine dealer.**

PR Power will not be liable for the following:

- The lighting tower has been used to perform tasks that it has not been designed for;
- The lighting tower has undergone modifications not approved by PR Power;
- The lighting tower has not been used in a reasonable operating environment;
- Normal maintenance, compliant to requirements as set out by the manufacturer has not been correctly adhered to.

No payment or expenses refund will be provided by PR Power for normal maintenance or servicing nor any materials used to carry out routine servicing. The warranty covers diagnosis, repair or replacement of the defective part, and the repair, should a problem arise during the warranty period. These items will be performed free of charge.

We offer service and warranty training for service and maintenance personnel, if required. Training can be carried out at PR Power or at a venue of your choice. Don't hesitate to contact us for any further information.