MANLIFT

Tower Light

X-ECO 6x150W LED

EN

Lighting tower user's manual

CE

Model: X-ECO –A0031
User's manual: MI200A00031 Rev.02
Date: 08/10/2018

manliftgroup.com

Dear customer,

We wish to thank you very much for having purchased our lighting tower. With proper handling and maintenance, this product will provide dependable, long-term service. Our customer service is always available, might you need it.
This manual is intended for users of the equipment. This manual is compiled from information available and current at time of approval for printing. We reserve the right to improve its products without giving prior notice or incurring any obligation.

Please consider that this manual may refer to controls and optional equipment that are not present on your particular machine.

It is important that you know your machine and its equipment and how to operate it properly, so **please read the operating instructions carefully and understand them before operating the lighting tower.**

Table of Contents

WARRANTY

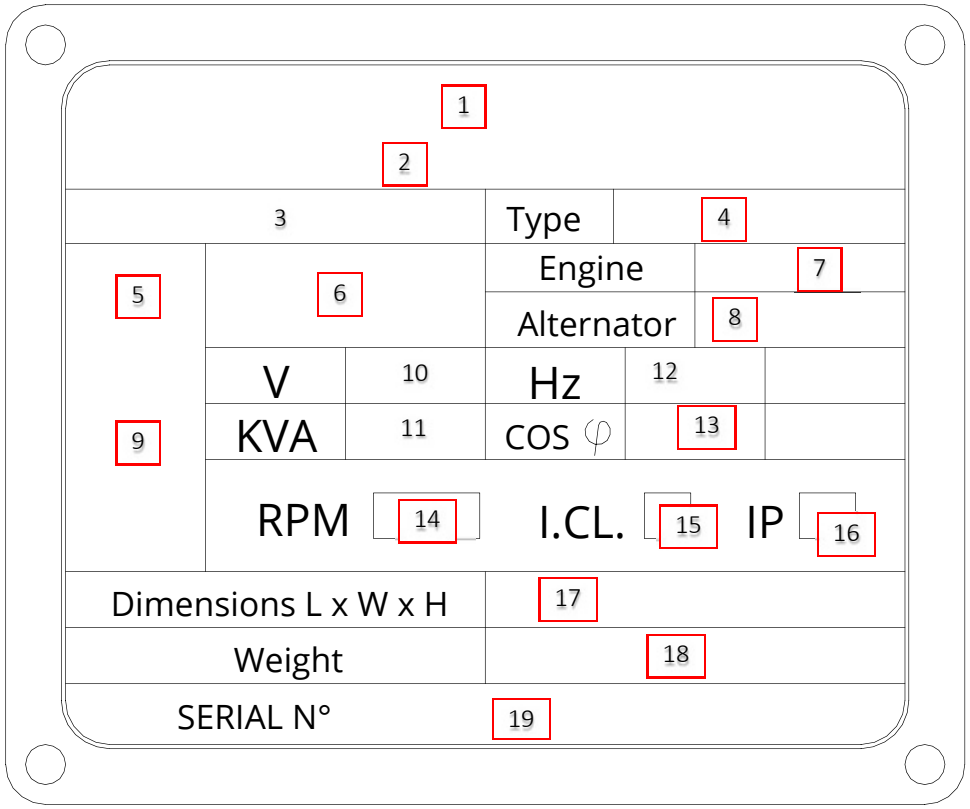
The warranty period starts on the delivery date to the first purchaser. The machine is covered by warranty for one year from the above mentioned date. Only genuine parts should be used to carry out repairs. Failure to use only genuine parts may invalidate the manufacturer's warranty. We reserve the right to request the warranty replaced parts back for analysis. All engine warranty issues must be directed to the engine manufacturer, or the manufacturer's approved engine dealer. We will not be held responsible if:

- the machine has been used to perform tasks that it has not been designed for;
- the machine has undergone modifications not approved by us;
- conditions of use have been abnormal; normal maintenance, compliant to requirements as set out by the manufacturer, have not been adhered to.

No payment or expenses refund should be pretended from us for normal maintenance or servicing nor any materials used to carry out routine servicing.

The warranty is intended to cover diagnosis, repair or replacement of the defective part, and actuating the repair, should a problem arise during the warranty period. These operations 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 a our depot or at a venue of your choice. Don't hesitate to contact us for any further information.

Machine Identification



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

Information regarding the machine model, code and year of production is on the unit rating plate. Always quote the machine model and serial number when contacting your dealer, the factory and for any spare parts requests. All of our products comply with CE requirements. They are conform to directives and fulfill all the relevant safety requirements

Technical Specifications

Floodlights

Type	Led
Power	150W
Floodlight installed	6
illuminated area (5 lux min.) (sqm)	3800
IP Level	65

Mast

Lifting Method	Hydraulic
Maximum Height	8.5 m
Maximum Wind Speed (km/h)	110
Rotation	340°

Engine

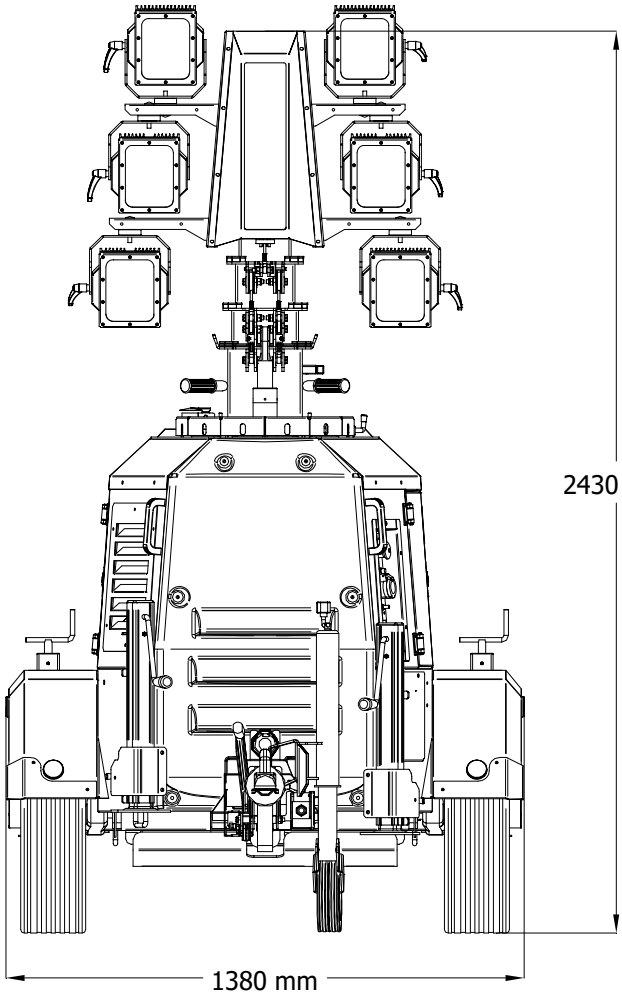
Model	Kubota Z482
Cylinders number	2
Displacement	479 cm3
Engine speed (rpm)	1500
Fuel consumption (l/h)	0.55 l/h
Average runtime before refueling (h)	200
Cooling system	Liquid

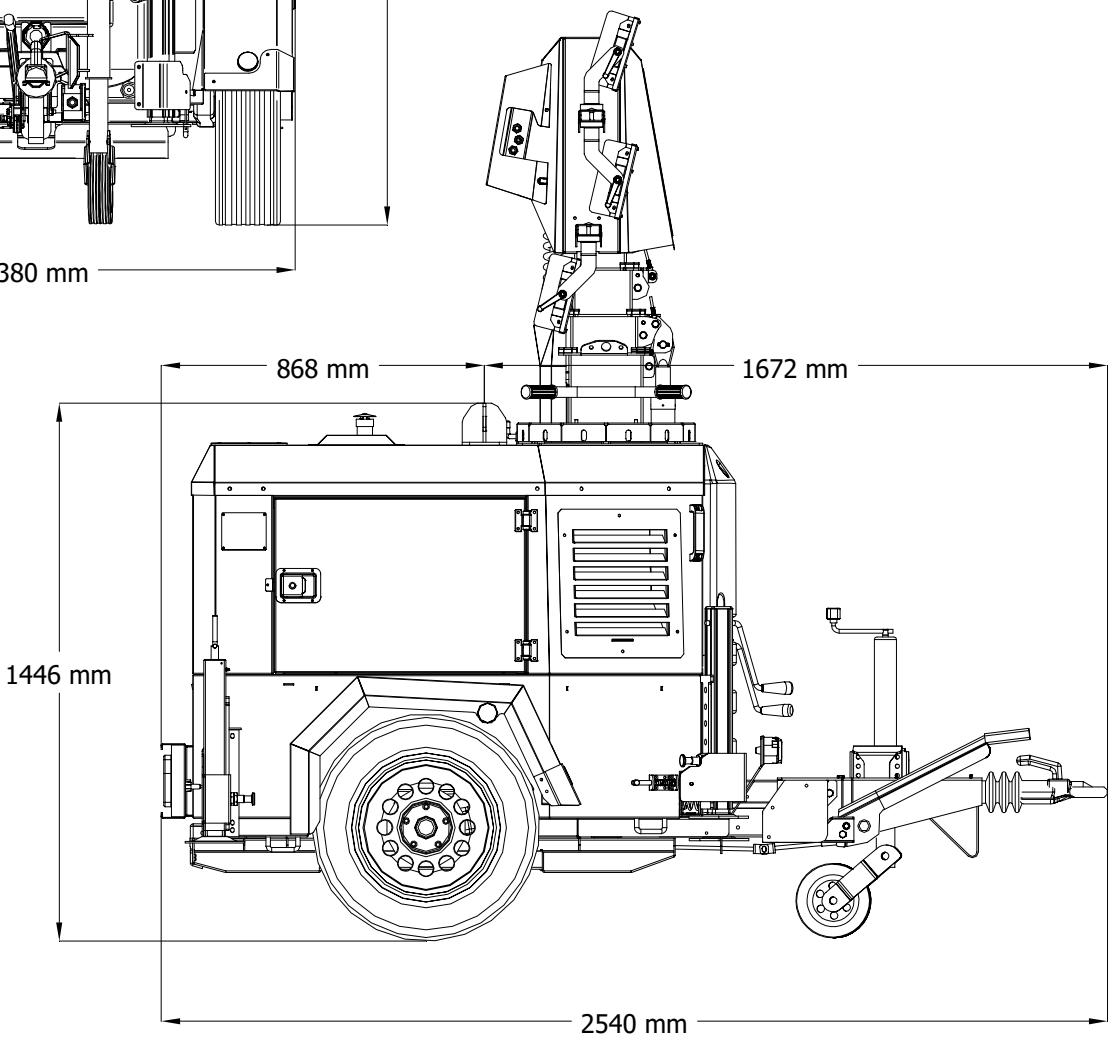
Generator

Model	Linz Alumen SB
Rated output	3.5 kVA – 230V
Power available to auxiliary socket	1 kVA – 230V
Rated frequency	50Hz

General informations

Noise leve	65dBA 7m
Battery	12 V – 62 Ah
Fuel tank capacity	110 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 8500 mm
Dry weight	936 kg


2430 mm
1380 mm


868 mm
1672 mm
1446 mm
2540 mm

Safety Rules

Please carefully read the user's manual and learn the operating characteristics and limitations of the machine before operating it. The manufacturer declines all liability for injury to persons and damage to components due to not respecting the safety rules. Report all malfunctions to a maintenance responsible person. If there are any repairs to be done, do not operate the equipment until it is fixed. Normal service and maintenance, if performed as required, can prevent unexpected and unnecessary down time. This handbook 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 other than normal conditions and situations. Operators and maintenance personnel must be safety conscious and alert to recognize potential operating or servicing safety hazards at all times. They should immediately take the necessary precautions to ensure safe operation and servicing of the machine.

General indications

- Be aware of operating risks that may be created by weather changes. Know proper procedures to follow in case of severe rain or electrical storm.
- Lower tower when not in use, or if high winds or electrical storms are expected in the area.
- Use protective clothing and safety equipment. Always wear approved safety equipment such as gloves, safety boots, safety hard hat, goggles, ear protection, and dust masks when necessary.
- Know all side clearances and overhead obstructions for safe operation of the machine.
- The tower extends up to 8,5 m. ALWAYS make sure area above the tower is open and clear of any kind of obstruction.
- Position and operate the lighting tower on a firm surface.
- The machine must be levelled before raising tower.
- Keep area around the machine clear of people while raising and lowering the mast.
- ALWAYS handle fuels and lubricants very carefully and clean up spills to avoid fire and slipping risks.
- NEVER start a unit that is in need of repair.
- The area near the exhaust pipe become hot in use. Be careful if you need to work there.
- Check that cables are in good condition and are centered on each pulley.
- DO NOT use the unit if insulation on the electrical cord is cut or worn through.
- DO NOT permit to untrained personnel to use the machine.
- NEVER operate a unit while tired, distracted, or under the influence of drugs or alcohol.
- Keep children and animals away from the machine.

Fire precautions

- Clean all dirt, oil and other fluids from components to minimize fire risks and aid in spotting loose or leaking components.
- Check the engine for oily rags or other debris that could be potential cause of 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, the following extinction means are appropriated: carbonate anhydride (or carbon dioxide), powder, foam, nebulized water. Avoid to use water jets.
- In the event of fire, wear a breathing apparatus if there is heavy smoke.

Flammable fluid precautions

- Take due care when working with fuel. Diesel fuel is a health hazard. Be aware that there is also danger of fire and pollution.
- DO NOT clean machine or components using flammable fluids.
- Check and ensure that all-fluid systems caps, drains, valves, fittings, lines etc., are secure and leak free.
- Unscrew the fuel tank cap slowly to let out the fuel vapours.
- ALWAYS shut off engine while refueling and be very cautious if engine is still hot.
- NEVER smoke while checking or adding fuel or handling fluid containers and never refuel near an open flame.
- Do not fill the tank completely and wipe up 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 machine in areas with risk of explosion or fire.

Electrical hazard

- DO NOT smoke or allow open flames or sparks near the batteries.
- Before doing repair works, ALWAYS disconnect batteries. Disconnect battery ground cable first and reconnect last.
- Before carrying out any welding on the machine, 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. Improper use can result in severe damage and safety risk.
- NEVER use the machine if insulation on electrical cord is cut or worn through.
- ALWAYS ensure lighting tower is well grounded and securely fastened.
- NEVER operate lights without protective lens cover in place or with a lens cover that is cracked or damaged!

Machine grounding

For operators' safety, the grounding of the machine always needs to be done paying attention on the section of the cable to be used (never to be less than 10 mm2). For the connection of the grounding cable, please always use the clip located on the control panel. Always perform grounding operations in compliance with local/international regulations.

Pre-starting

- Do not start the engine or operate any control if there is a 'DO NOT OPERATE' or similar warning sign attached to any control.
- Use jumper cables only as recommended. Improper use can result in battery explosion.
- If engine needs to be started and run indoors, ensure proper ventilation to remove deadly exhaust gases.

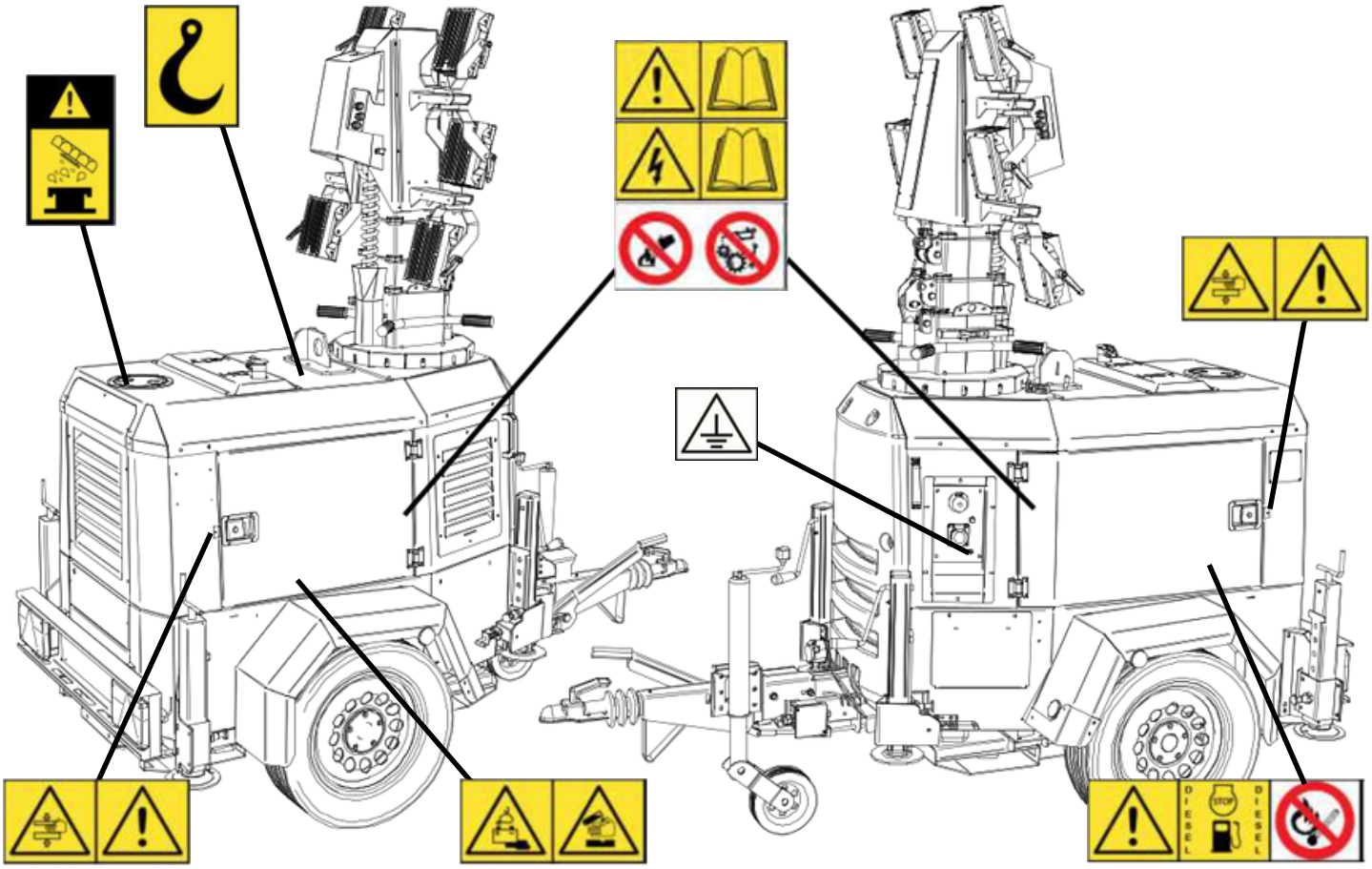
Lubrication And Servicing

- Allow only authorized and trained personnel to service and maintain the machine. Please read the operator's handbook and service manual before operating or servicing the machine.
- HIGH VOLTAGE! This equipment utilizes high voltage circuits. Always exercise extreme caution when trouble shooting or repairing any electrical circuit.
- Only a qualified electrician should troubleshoot or repair electrical problems occurring on the machine.
- Before servicing the lighting tower, ensure that the engine start switch is turned to OFF.
- Disconnect electrical power and turn off engine before removing protective covers on high voltage electrical closures.
- NEVER perform even routine service (oil/filter changes, cleaning, etc.) if all electrical components aren't shut down.
- NEVER allow water to accumulate at the base of the machine. 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 wet, dry the unit thoroughly 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 pressurized system.
- Be aware of hot exhaust pipes and engine.
- KEEP AWAY from moving parts on generator and engine. Be aware of the hazard if you wear 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.

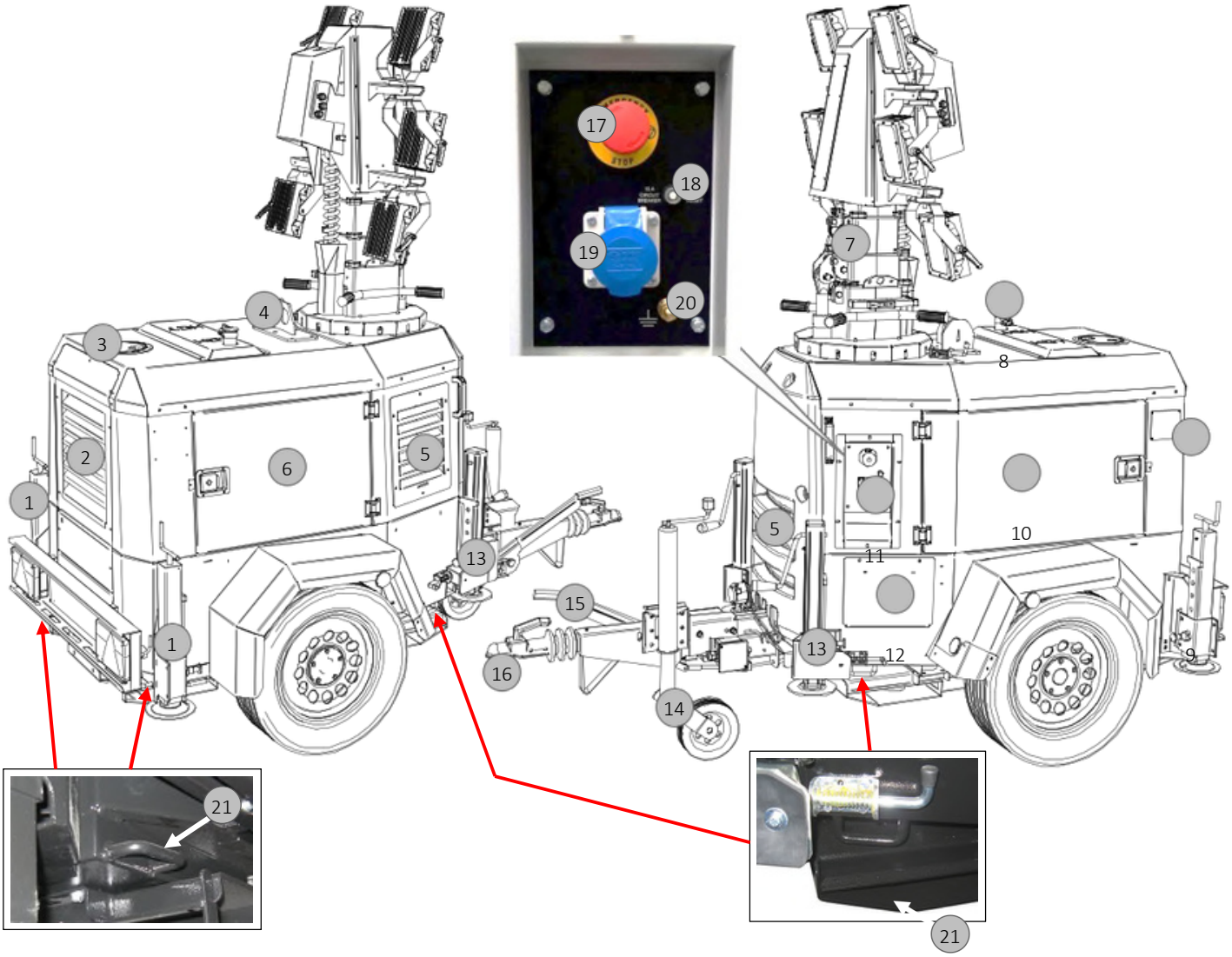
Safety stickers guide

	MEANING
	Attention! Read user's manual before operating the machine.
	Attention, high voltage! Read user's manual before operating the machine.
	Do not extinguish with water! Attention, don't touch the moving parts.
	Attention! Danger of crushing.
	Attention, battery on board. Contains corrosive liquids.
	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 machine.
	Attention! Hot liquid under pressure during machine use and immediately after. Pay attention when opening.
	Lifting point. Ensure lifting device has enough capacity to handle machine weight.
	Earthing point. The grounding of the machine always needs to be done paying attention on the section of the cable to be used (never to be less than 10 mm2).

Safety stickers guide

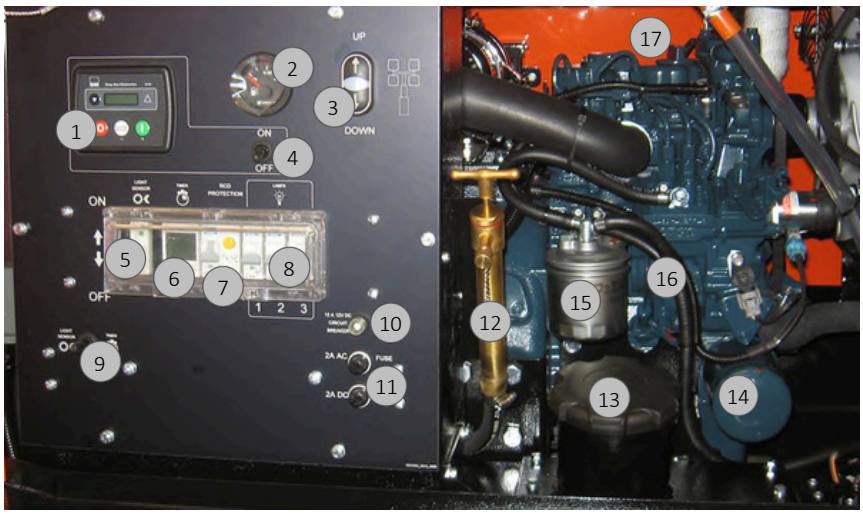


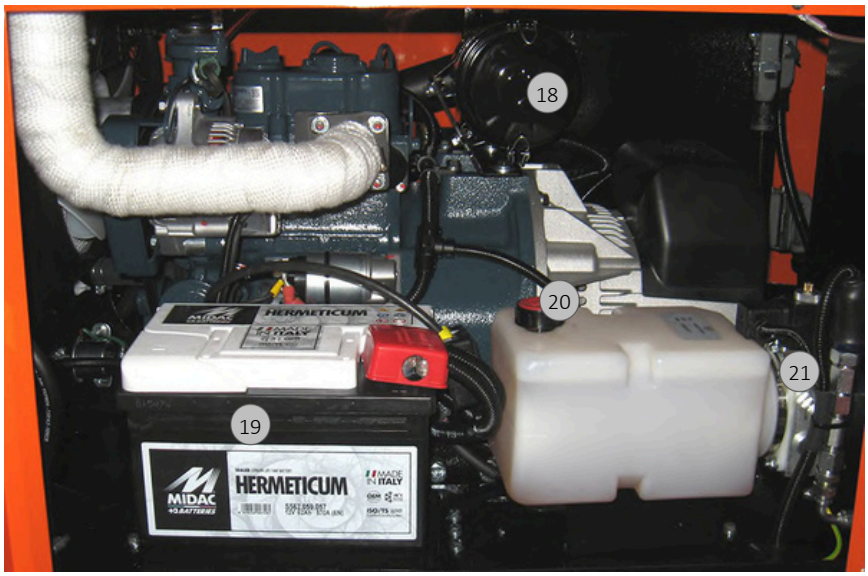
Components



1. Fixed stabilizers
2. Air output
3. Radiator cap cover
4. Lifting eye
5. Air inlet
6. Inspection door
7. Telescopic mast
8. Exhaust vent
9. Data plate
10. Inspection door
11. External control panel
12. Power supplies cover
13. Extended stabilizers
14. Rudder stabilizer with wheel
15. Handbrake lever
16. Tow hook
17. Emergency stop button
18. 12V circuit breaker
19. 230V 16A power outlet
20. Grounding terminal
21. Tie down points

Components





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1.DSE3110 controller
2.Fuel level gauge
3.Mast control buttons
4.Power supply switch
5.Light sensor
6.Timer
7.16A ELCB
8.Lamps switch
9.Light sensor / Timer selector
10.12V circuit breaker
11.Fuses
12.Oil drain manual pump
13.Fuel filler cap
14.Oil filter
15.Fuel filter
16.Oil level dipstick
17.Oil filler cap
18.Air filter
19.Battery
20.Hydraulic unit cap
21.Hydraulic unit

Preliminary Check & Starting

Before starting and operating the unit, 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 machine is leveled correctly and stabilized 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 unit.
- 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.

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.

DSE 3110 MODULE: ICONS

Decriptions

	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 Auto mode - Stopped Icon Manual 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.
	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. NOTE: 'Fail to Stop' could indicat a faulty oil pressure sensor - If engine is at rest check oil sensor wiring and configuration.
	Low oil pressure The module detects that the engine oil pressure has fallen below the pre-alarm setting level of low oil pressure after the active safety timer is exhausted

DSE 3110 MODULE: ICONS

Decriptions

	**Engine high temperature** The module detects that the engine coolant temperature has exceeded the high engine temperature pre-alarm setting level after the Safety On timer has expired.
	**Charge failure** The auxiliary charge alternator voltage is low as measured from the W/L terminal.
	**Low fuel level** The auxiliary charge alternator voltage is low as measured from the W/L terminal.
	**Generator under voltage** The generator output voltage has fallen below the pre-set pre-alarm setting.
	**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.
	**Generator over frequency** The generator output frequency has fallen below the pre set pre-alarm setting.
	**Emergency stop** Pressing the emergency stop button, the machine automatically stops.
	**Internal memory error** Either the configuration file or engine file memory is corrupted. Contact your supplier for assistance.

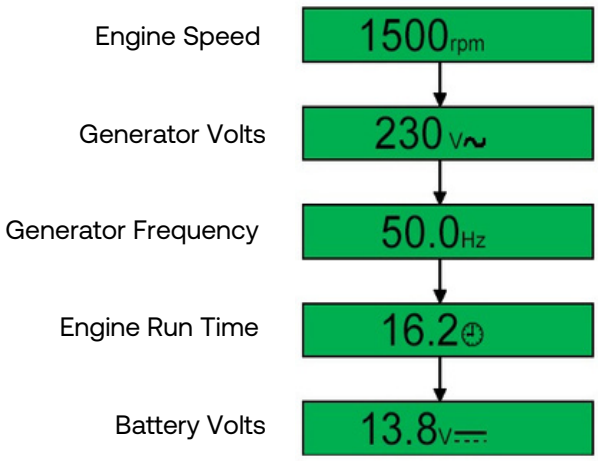
DSE 3110 MODULE: PROTECTIONS

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.

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

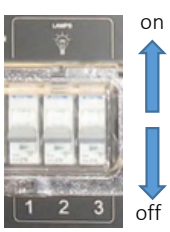


Operations in Manual Mode

Manual starting mode

1. Ensure that all the lamp switches are in OFF position. (1)
2. Put the ON/OFF selector in ON position. (2)
3. Press the Start button on the DSE control screen. (3)
4. The machine starts the checks and the starting procedure.
5. When this icon appears on the display
6. Switch on the lamp. (1)
7. Raise the telescopic mast. (4)

1



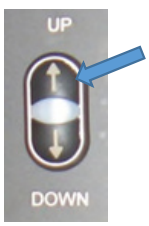
2

3

Manual stopping mode

1. Turn off the lamps. (1)
2. Press the Stop button on the DSE control screen. (5)
3. Once the engine has stopped, put the ON/OFF selector in OFF position. (2)
4. Lower the telescopic mast. (6)

4



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6

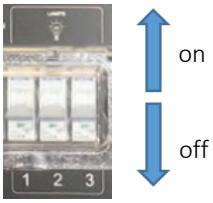
Operations in Auto Mode

1. Ensure that all the lamp switches are in OFF position. (1)
2. Position the ON/OFF selector in ON position. (2)
3. Press the AUTO button on the DSE control screen. (4)
4. Turn on the lamp switches. (1)
5. Raise the telescopic mast. (5) (*) Timer: see attached, separate manual. (**) Light Sensor: set the light sensor sensitivity through the trimmer on the light sensor. (3). The machine is now ready to start based on the lights sensor signal.

On the light sensor there is a red LED light:

1. If it flashes slowly, there is power, but the sensor is off
2. If it flashes quickly, the timing procedure is ongoing
3. Permanent light means that the power is on, the sensor is on, the machine starts and, after the engine has reached the operational temperature, the lamps will be turned on. When the ambient light is strong enough, the machine will automatically turn off and put itself in stand-by.

1 2 3 4 5



Automatic Mast Operating Safety System

All the units are fitted with the Automatic Mast Operating Safety System (AMOSS) system as standard. 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. The trailer handbrake is applied when its lever is facing up. 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)

Positioning & Uncoupling

When choosing a location for the lighting tower, bear in mind the following:

- Assess site conditions carefully before positioning and operating the machine.
- The working area should be relatively level and solid. This will ensure smooth, trouble-free telescoping of the mast. (which may not telescope properly if the unit is not level.)
- Do not position the tower in the vicinity of overhead cables or power lines!
- Never raise the mast or operate the tower without properly jacking the unit!
- For maximum light coverage and illumination efficiency, locate the unit at ground level or in a spot higher than the area being illuminated by the lamps.
- Do not move the tower with the mast raised!

NEVER release the jokey wheel while the stabilizer is supporting the unit! The machine would tip forward and could cause damage or personal injury.

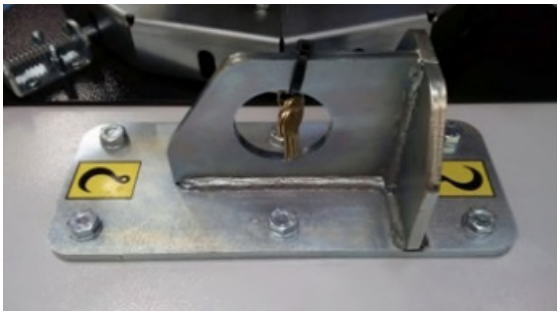
Uncouple the lighting tower from the towing vehicle, if necessary, as follows:

- Detach the breakaway cable from the towing vehicle.
- Release the jokey wheel and lower the stabilizer until it firmly touches to the ground.
- Put wheel chocks or other restricting items behind and in front of the wheels in order to make sure the unit won't move once uncoupled from the vehicle.
- Release and remove the pin from the towing eye on the towing vehicle. Coupling the unit to a towing vehicle is the reverse of this procedure. Before moving off, check the tyres and check that all the lights on the trailer work properly.

Transport And Handling With Crane

Handling by crane is allowed only if the machine 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 machine 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 and tension the cable.
- Lift the machine for about 10 cm (4 in.).
- Move slowly and position the machine on the ground or on the vehicle, paying particular attention that all the personnel is at safety distance from the moving load



Transport And Handling With Forklift

- Ensure that the lifting capacity of the forklift is suited to the weight of the machine 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 or longitudinal, depending on machine and your moving requirements).
- Lift the machine for about 10 cm (4 in.).
- Move slowly and position the machine where needed, paying particular attention that all the personnel is at safety distance from the moving load

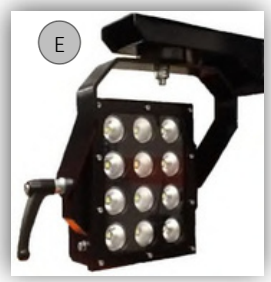
Stabilizing The Unit

- Jack up the unit as follows. Consider that the front legs are extendable (A), while the rear ones are not (B).
- As for the front ones, hold the jack leg with one hand and pull the locking pin to release the leg. Pull the leg outwards until it's fully extended and ensure that the locking pin locked the leg in place securely in the extended position.
- Proceed to do the same with the opposite side one.
- Jack the unit up by rotating the handle on the top of each leg clockwise.
- Please refer to the bubble levels (C) installed on top of the machine (near the mast) in order to have the machine perfectly leveled and stable before rising the tower.
- The wheels of the machine have to touch the ground at all times.

Directing & Using The Lights

The tower can be rotated up to 340 degrees in order to direct the light as required.

- Release the rotation locking pin (D) 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 horizontal axes, the encircled pin (E) needs to be unlocked by pulling it and then turning the floodlight. For any adjustments, the mast must be lowered to allow access.



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 Authorized and trained personnel. It should be done in a safe working environment and with the machine well stabilized. The engine must be turned off and let cool down sufficiently before starting 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 machine is open.
- DO NOT modify any component if not authorized.

The repairs cannot be considered among the 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 –in fact- covered by warranty. 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 machine and to the hour meter on the machine in order to determine when service is needed

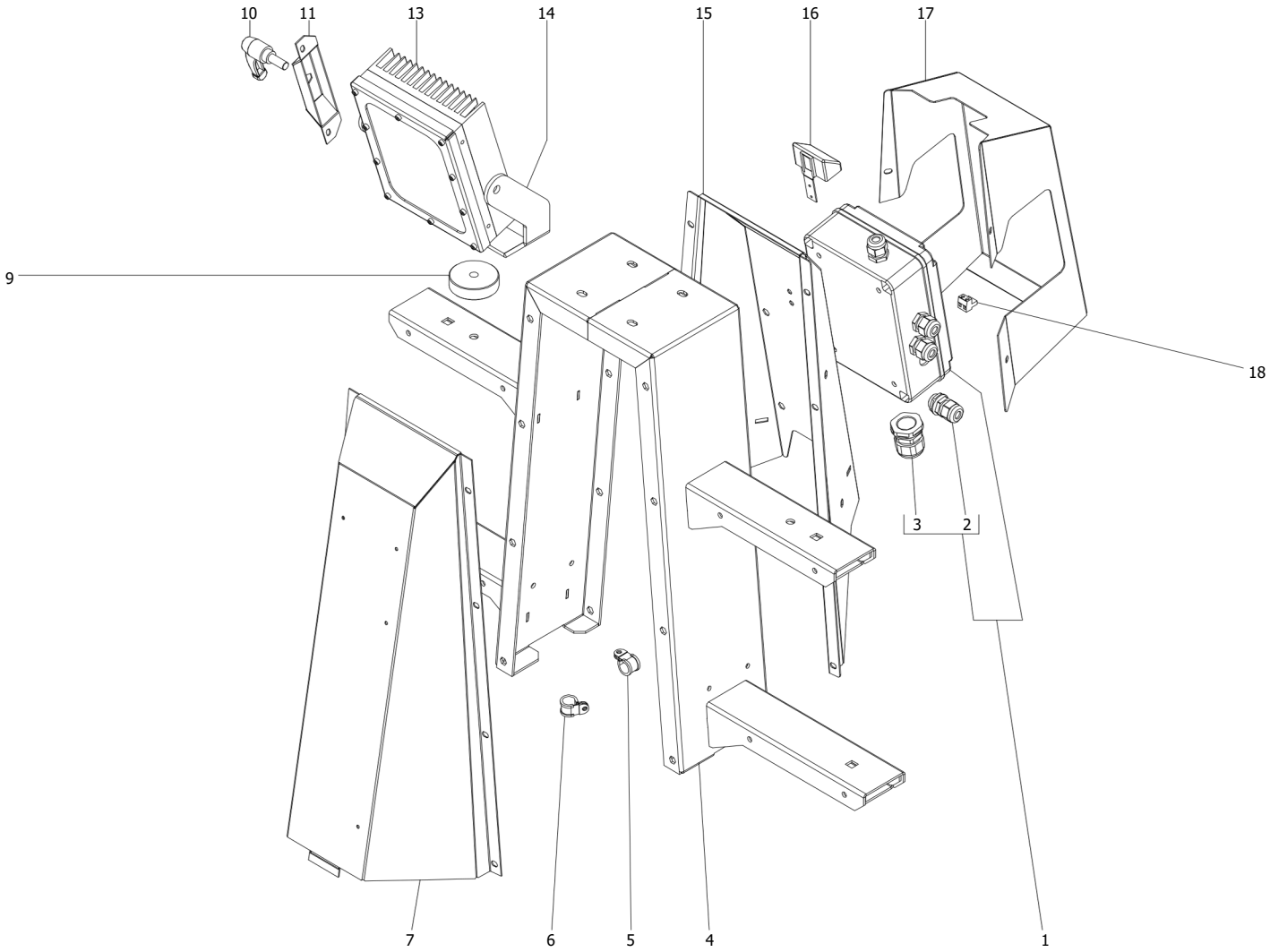
DISPOSAL AND DECOMMISSIONING

This machine 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:

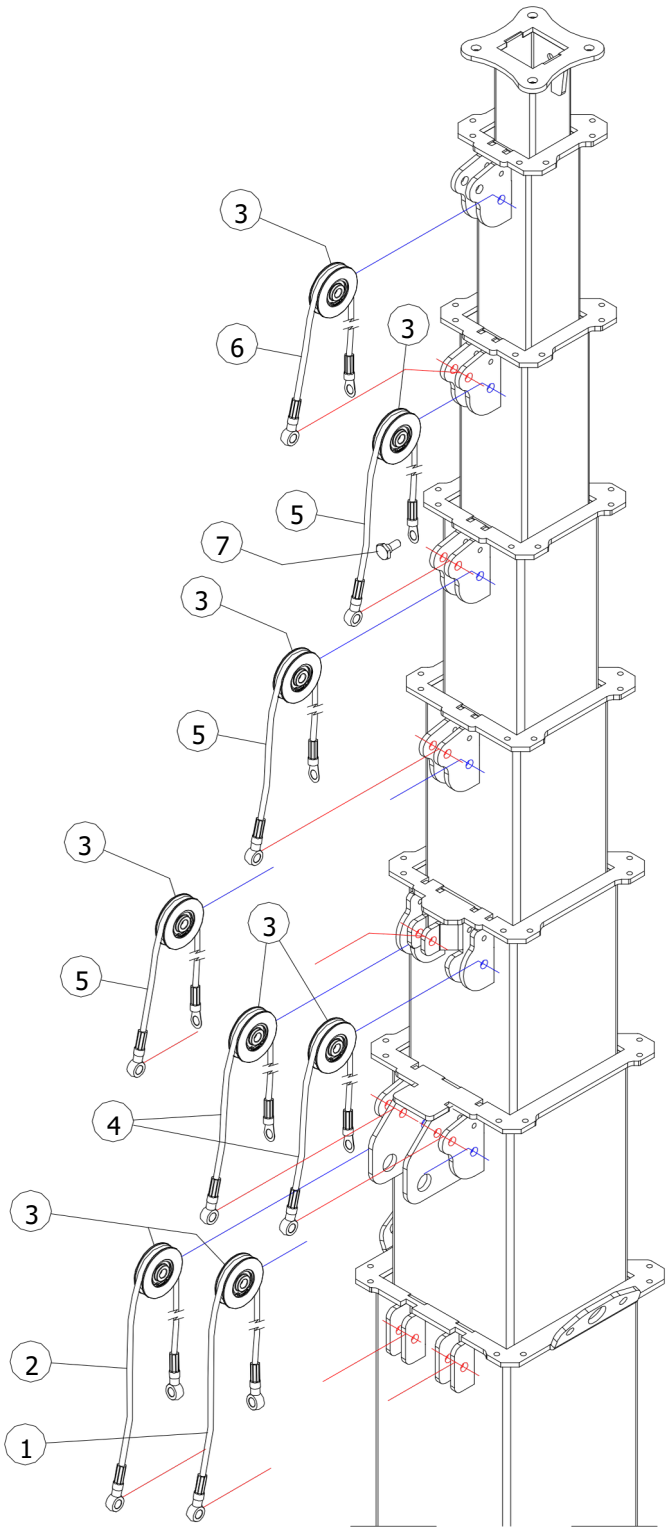
- Metallic structure;
- Batteries;
- Engine and hydraulic oils;
- Cooling liquid;
- Filters;
- Cables.

These components have to be disposed of accordingly to local laws and dispositions. Have qualified personnel disassemble the machine and dispose of parts.The machine owner is responsible for dismantling and disposal of the machine and its components at the end of its working life

Spare Parts List

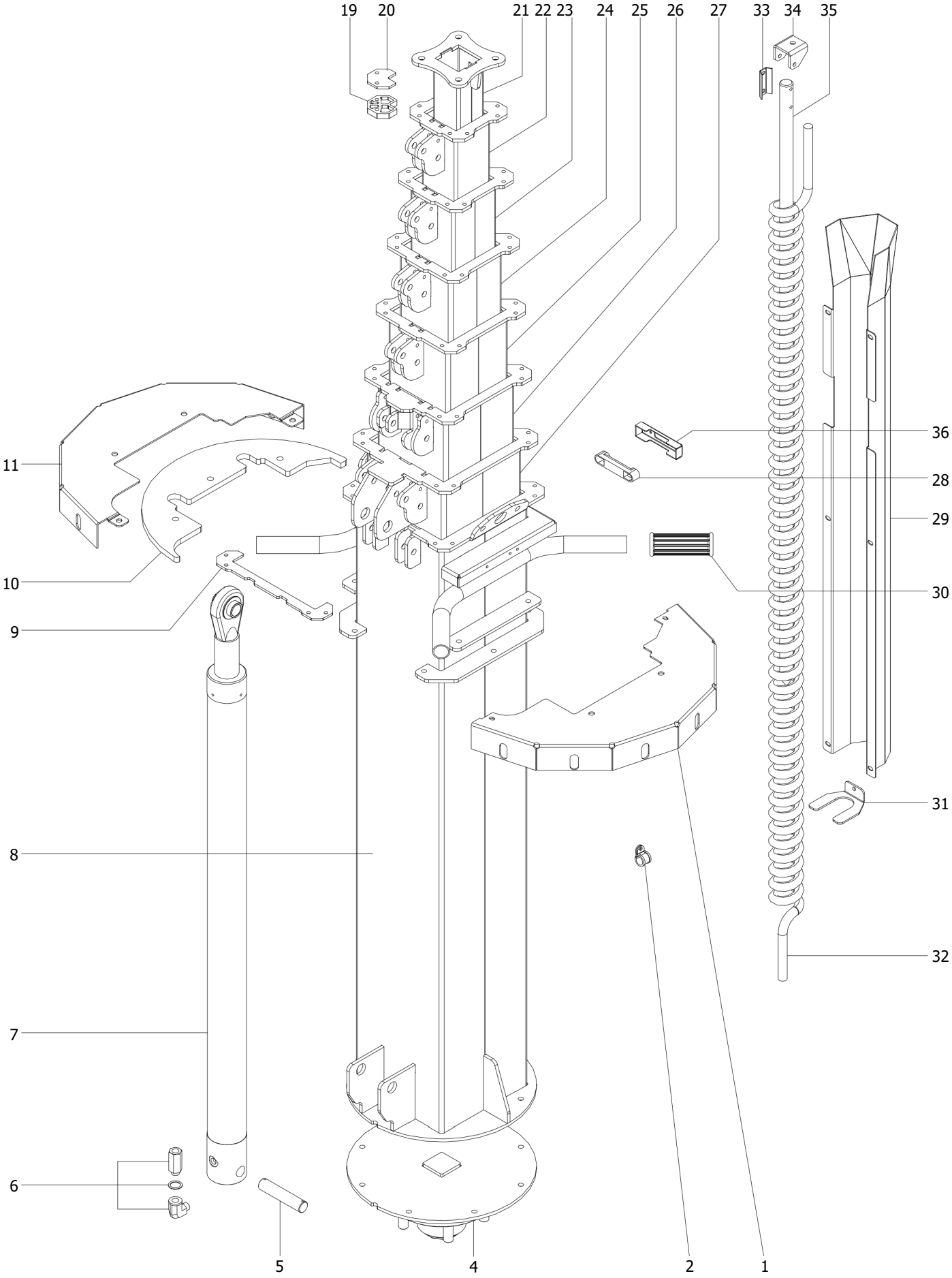


N.	CODE	DESCRIPTION
1	AS000_E006_001	junction box
2	AC000_E018_008	pg11 wire holder
3	AC000_E018_002	pg21 wire holder
4	LED06_C000_01	central support
5	AC000_E018_018	rubbered clamp
6	AC000_M038_007	rubbered clamp
7	LED06_C000_012	front cover
9	AS000_M023_001	spacer
10	1AC000_M000_007	handle
11	LED06_C000_07	handle support
13	AC000_E026_005	floodlight
14	LED06_C000_09ZN	floodlight support
15	LED06_C000_04	rear cover
16	AC000_E016_005	light sensor
17	LED06_C000_08	junction box cover
18	AC000_E006_002	electrical clamp

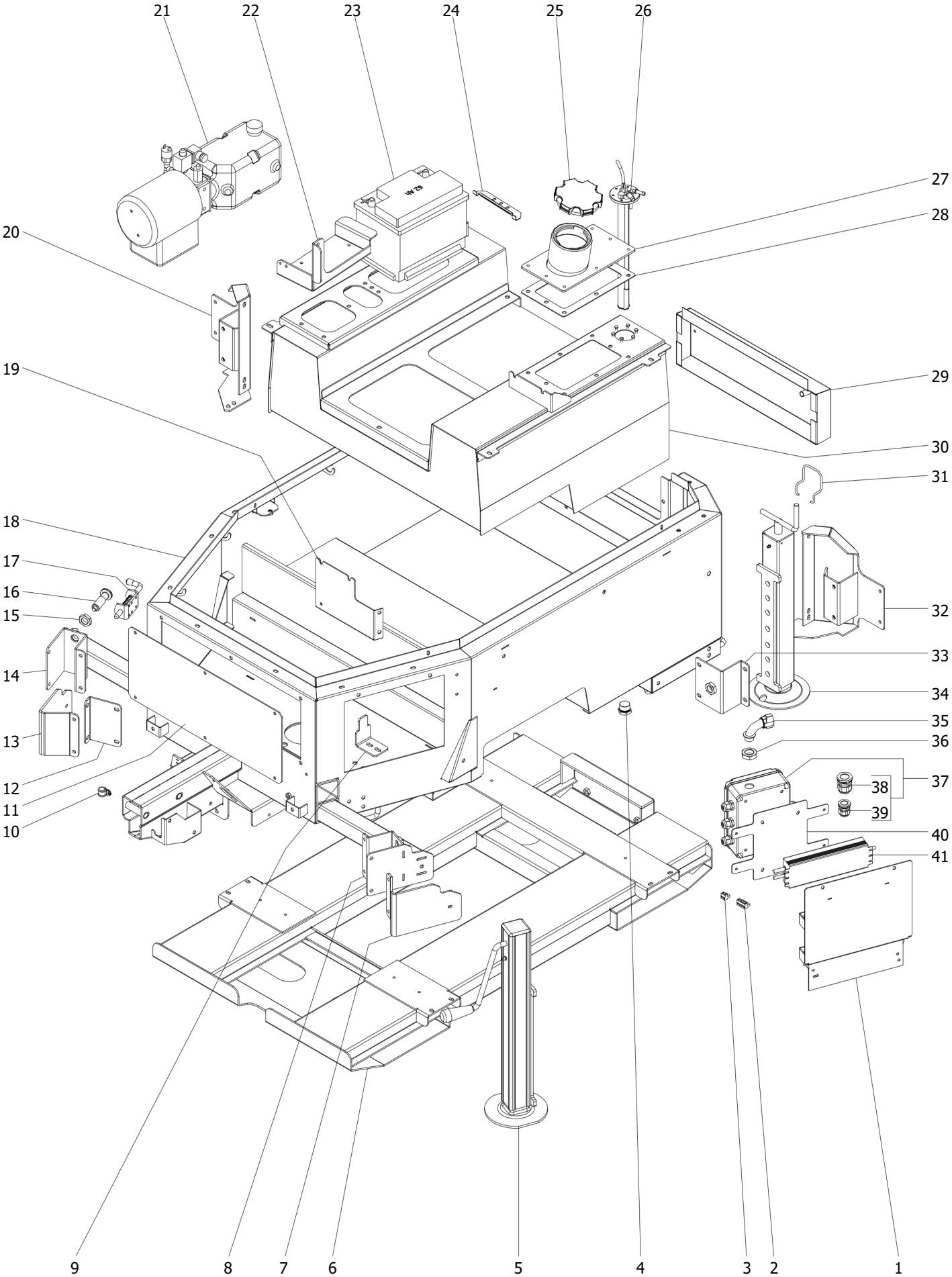


N.	CODE	DESCRIPTION
1	AC000_M021_012	STEEL ROPE L.1440 mm
2	AC000_M021_005	STEEL ROPE L.1460 mm
3 (*)	AC000_M021_002	ROLLE / PULLEY D.60
	AC000_M021_003	ROLLE / PULLEY D.62
	AC000_M021_008	ROLLE / PULLEY D.63
4	AC000_M021_007	STEEL ROPE L.1385 mm
5	AC000_M021_006	STEEL ROPE L.1415 mm
6	AC000_M021_004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

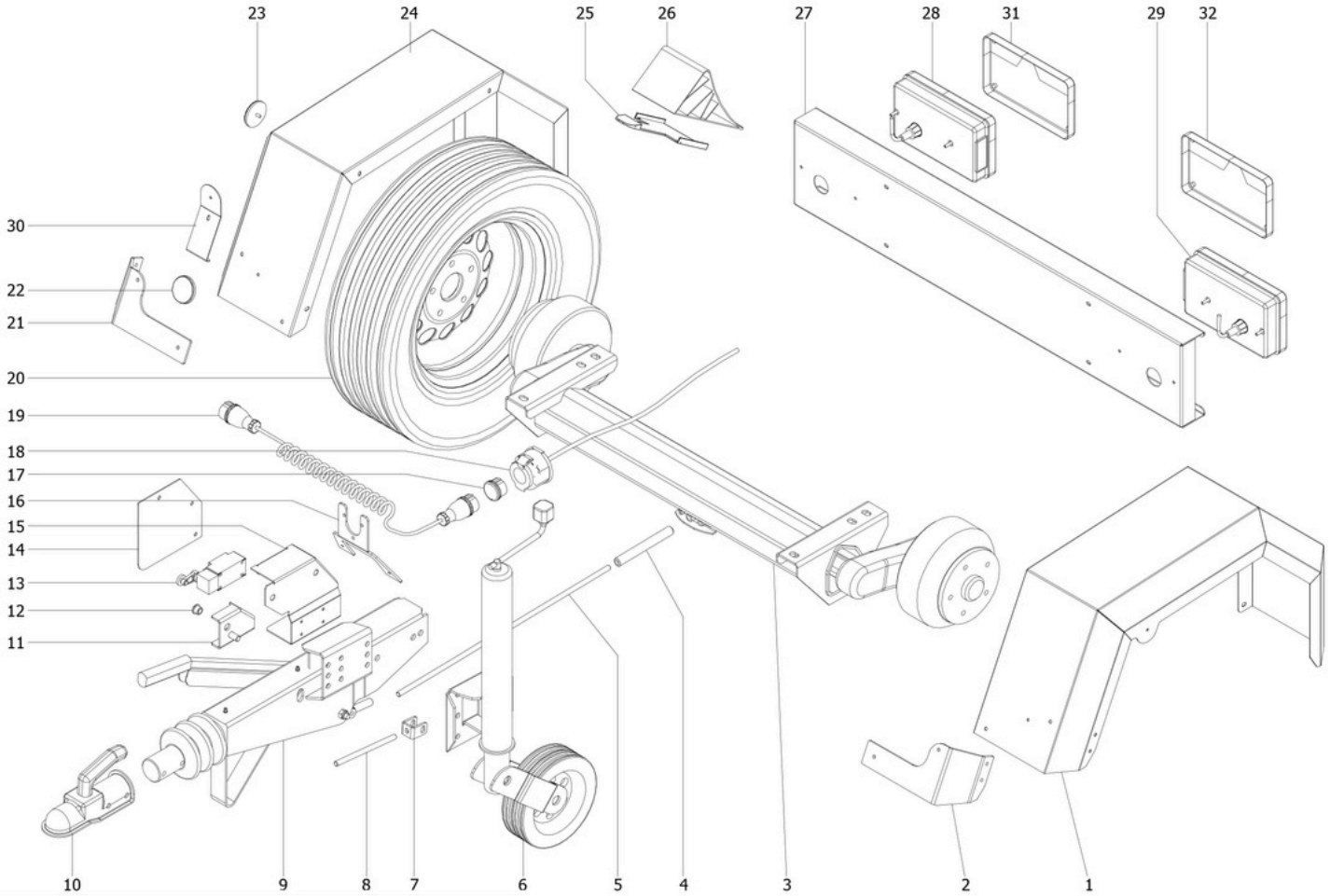
(*) PLEASE AT THE TIME OF THE ORDER MEASURE THE DIAMETER



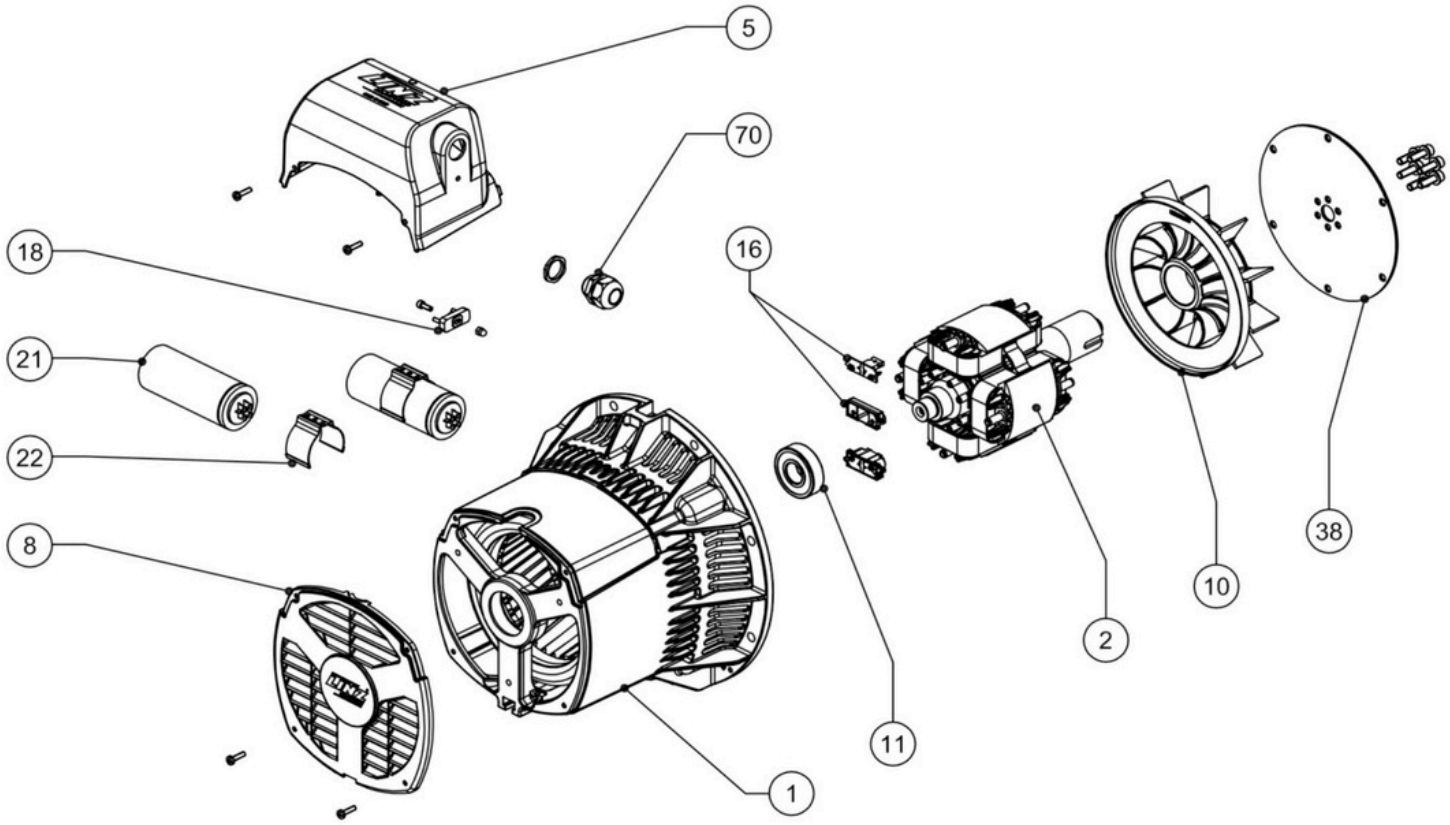
N.	CODE	DESCRIPTION
1	PFI08_C031_019ZN	mast positioning plate, left
2	AC000_M038_007	rubbered clamp
3	PFI08_C031_011	mast support
4	AS000_M023_026	hydraulic pipe pin
5	AC000_G025_001	hydraulic pipe kit
6	AS000_I025_001	hydraulic pipe
7	PFI08_C031_001ZN	1° section mast
9	PFI08_C031_024ZN	spacer
10	PFI08_C031_015	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
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	AC000_M016_002	air bubble level
29	PFI08_C031_009	coiled cable protection
30	AC000_P037_001	knob
31	PFM08_C000_047	coiled cable lock
32	AC000_E006_016	coiled cable
33	PFM07_C000_019	centering pin clamp
34	PFI08_C031_017	centering pin support
35	PFM07_C000_014	centering pin
36	PFI08_C031_029ZN	air bubble level



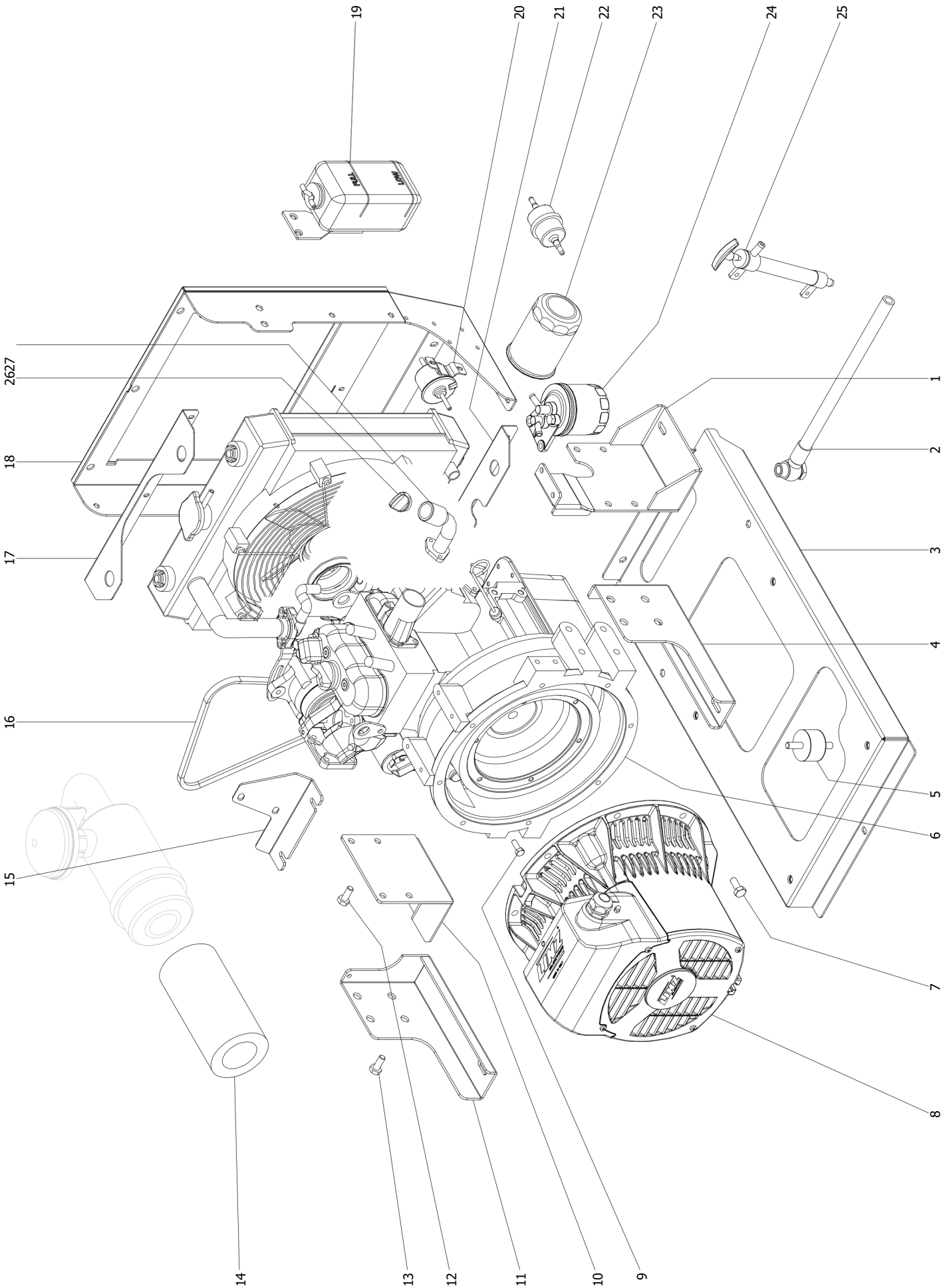
N.	CODE / CODICE	DESCRIPTION
1	XECOK2_C006_049	power supplies support
2	AC000_E006_004	4 poles clamp
3	AC000_E006_002	2 poles clamp
4	AC000_M000_081	drain cap
5	XECOK2_C003_200	stabilizer
6	XECOK2_C000_226	frame for forklift
7	XECOK2_R008_190	rubber protection
8	XECOK2_C000_119ZN	right stabilizer beam
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	stabilizer lock
13	XECOK2_R008_191	rubber protection
14	XECOK2_C000_120ZN	left stabilizer 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 stabilizer support
21	AS000_I000_011	hydraulic unit
22	XECOK2_C000_084	hydraulic unit support
23	AC000_E000_027	battery
24	TF8K1_C000_0014ZN	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	stabilizer spring
32	XECOK2_C000_095	right stabilizer support
33	XECOK2_C000_096	stabilizer lock
34	XECOK2_C003_093	stabilizer
35	AC000_E018_017	curved connector
36	AC000_E018_014	curved connector nut
37	AC000_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_006	power supply



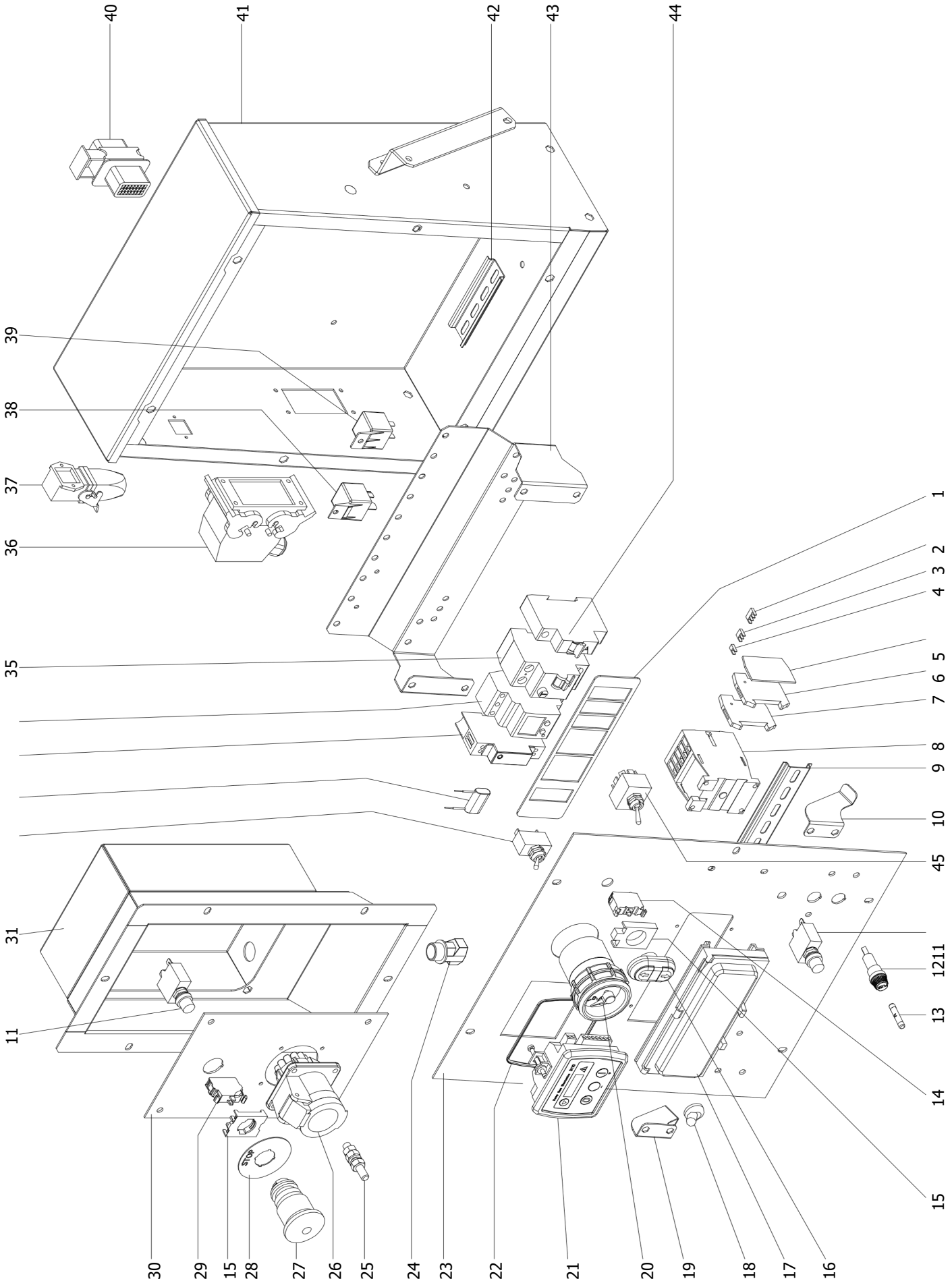
N.	CODE / CODICE	DESCRIPTION
1	XECOK2_C004_069	right mudguard
2	XECOK2_R008_188	mudguard rubber
3	AC000_T003_002	axle
4	AC000_M000_073	slide pin
5	XECOK2_C005_055ZN	rear tie rod
6	AC000_T003_003	jockey wheel
7	XECOK2_C005_186ZN	tie rods junction
8	XECOK2_C005_059_03ZN	front tie rod
9	AC000_T003_004	rudder
10	AC000_T003_007	hook ball
11	XECOK2_C000_098	limit switches plate
12	XECOK2_C001_101ZN	adaptation bushing
13	SI000_G006_009	limit switches
14	XECOK2_C000_100	cover plate
15	XECOK2_C000_099	limit switches support
16	XECOK2_C006_197	connector support
17	AC000_E000_062	adapter
18	AC000_E050_016	cable with connector
19	AC000_E050_017	cable with plug
20	AC000_T003_001	wheel
21	XECOK2_R008_189	mudguard rubber
22	AC000_T013_001	white reflecter
23	AC000_T013_002	orange reflecter
24	XECOK2_C004_070	left mudguard
25	AC000_T000_002	wedge support (option)
26	AC000_T000_001	wedge (option)
27	XECOK2_C000_238	lights holder bar
28	AC000_E013_005	right side light
29	AC000_E013_006	left side light
30	XECOK2_C004_312	reflecter support
31	AC000_E013_009	lens for right light
32	AC000_E013_010	lens for left light



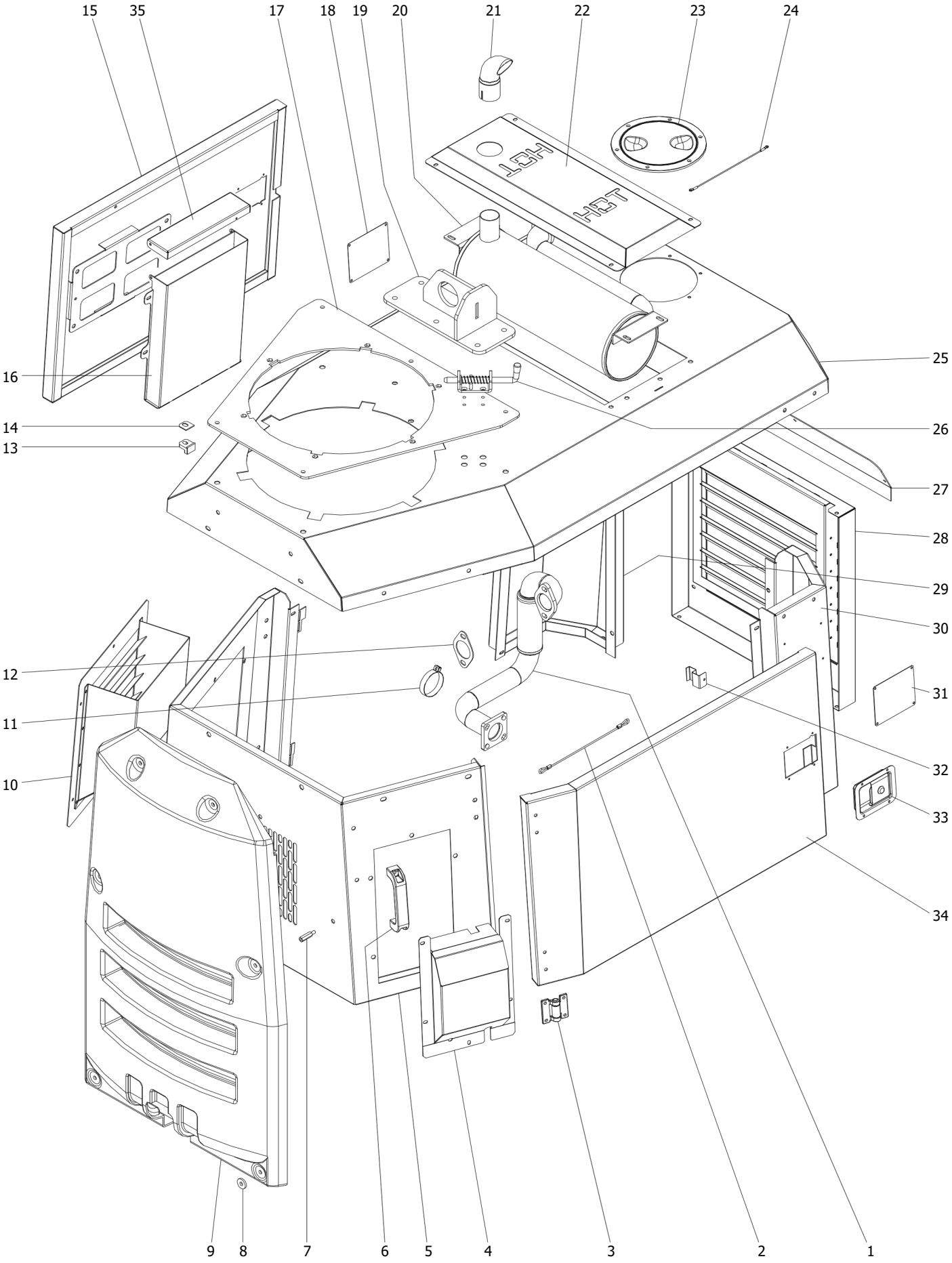
N.	CODE / CODICE	DESCRIPTION
1	L-E13CA114AA1	frame with stator
2	L-E13RA491B	rotating inductor
3	L-E13QU068B00-002	top cover
4	L-13KA089D	front cover
5	L-E13VE000C	fan
6	L-EX411465325	bearing
7	L-E13KA045A	wired diode
8	-----	-----
9	L-EX541511025	25uf 550V capacitor
10	L-E10KA109A	clamp d.40 sp10
11	-----	-----
12	L-E13GE211A	sae discs 6 ½
13	-----	-----



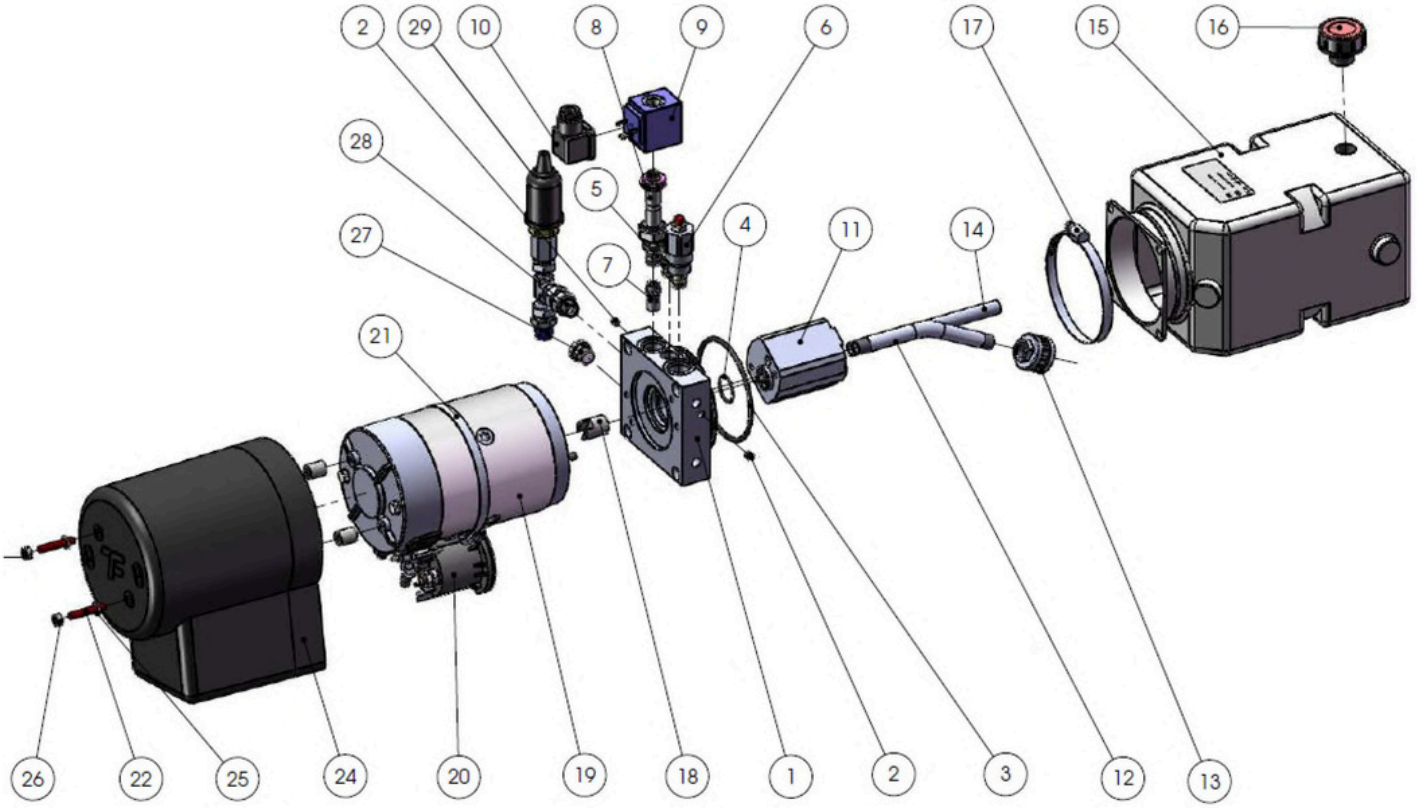
N.	CODE / CODICE	DESCRIPTION
1	XECOK2_C001_006	engine rear right support
2	AC000_G001_001	oil drain pipe
3	XECOK2_C001_126	engine / alternator support
4	XECOK2_C001_123	engine front right support
5	AC000_M024_054	schock absorber
6	AC000_M033_007	engine z482
7	AC000_M038_014	alternator fixing screw
8	AC000_E034_007	alternator
9	AC000_M038_013	engine fixing screw
10	XECOK2_C001_005	engine rear left support
11	XECOK2_C001_124	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
15	XE48_C001_002	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	AC000_M000_195	oil filler cap
27	XECOK2_C001_497	oil filler



N.	CODE / CODICE	DESCRIPTION
1	XECOK2_C006_376	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	clamp plate
6	AC000_E006_022	terminal block
7	AC000_E006_021	terminal board element
8	AC000_E006_054	contactor switch
9	AC000_M038_037	l200 din bar
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 6.3x32 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_020	circuit breakers cover
18	AC000_E000_019	swithc cover
19	XECOK2_C019_233	left stop plate
20	AC000_E015_005	fule level gauge
21	AC000_E014_001	dse 3110
22	AC000_E006_001	dse3110 gasket
23	XECOK2_S010_288B	aluminum front plate
24	AC000_E018_019	cable gland
25	AC000_M038_035	grounding cable clip
26	AC000_E011_007	outlet socket
27	AC000_E006_051	emergency stop button
28	AC000_E006_053	stop button rating plate
29	AC000_E006_052	stop button contact
30	XECOK2_S010_164B	plate
31	XECOK2_C006_105	external box
32	AC000_E000_009	1 pole switch
33	AC000_E000_070	capacitor
34	AC000_E016_005	light sensor
35	AC000_E012_042	elcb 16a
36	AC000_G006_004	10 poles connector
37	AC000_E000_071	5 poles connector
38	AC000_E000_040	40a 12vdc realay
39	AC000_E000_041	70a 12vdc realay
40	AC000_G006_003	24 poles connector
41	XECOK2_C019_229	main control box
42	AC000_M038_049	l 100 din bar
43	XECOK2_C006_110	circuit breakers support
44	AC000_E012_027	lamp switch
45	AC000_E000_017	3 poles switch
46	AC000_E000_053	timer



N.	CODE / CODICE	DESCRIPTION
1	AC000_M035_077	exhaust pipe
2	XECOK2_M009_161	door retention rope
3	AC000_M000_009	hinge
4	XECOK2_C000_155	cover
5	XECOK2_C007_046	front side canopy
6	AC000_M000_005	plastic handle
7	AC000_M038_041	spacer
8	AC000_P037_007	plastic washer
9	XECO_AS009_058	plastic front cover
10	XRENT_C008_044	air intake box
11	AC000_M038_009	clamp
12	AC000_M001_007	muffler extension gasket
13	PFI08_C031_013	rotational and drag runner
14	PFI08_C031_014ZN	rotational and drag plate
15	XECOK2_C008_294	left side door
16	XECOK2_C000_219	documents holder
17	XECOK2_C000_050	mast rotation guide plate
18	XECOK2_S010_185B	omologation data plate
19	XECOK2_C036_088ZN	lifting eye
20	XECOK_C035_045	muffler
21	AC000_M000_105	rain cover
22	XECOK_C007_032	muffler cover
23	AC000_M001_035	radiator cap cover
24	AS000_M036_083	radiator cap cover retention rope
25	XECOK2_C007_129	top cover
26	AC000_M000_003	colsing lock pin
27	XECOK2_C007_113	rear top closing plate
28	XECOK2_C008_225	radiator grille
29	XECOK2_C007_133	rear left pillar
30	XECOK2_C007_134	rear right pillar
31	XECOK2_S010_277B	data plate
32	XRENT_C000_040	locking pin contrast plate
33	AC000_M000_017	handle
34	XECOK2_C008_131	right side door
35	XECOK2_C000_221	documents holder cover



N.	CODE / CODICE	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-C150001OA	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

Electrical Diagram