



# ***Origo™ EDW 510/610D***

Engine driven welder

Instruction manual and spare parts list

0700 161 100

Valid for *Origo™ EDW 510D* serial No. 730-xxx-xxxx

Valid for *Origo™ EDW 610D* serial No. 745-xxx-xxxx

<b>CONTENTS</b>	<b>Page</b>
1 SAFETY	2
2 INTRODUCTION	4
3 TECHNICAL DATA	6
4 INSTALLATION	8
5 OPERATION	9
6 MAINTENANCE	10
7 FAULT TRACING	13
8 CIRCUIT DIAGRAM	14
9 SPARE PARTS LIST	15

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## 1 SAFETY

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Users of ESAB welding equipment have the ultimate responsibility for ensuring that anyone who works on or near the equipment observes all the relevant safety precautions. Safety precautions must meet the requirements that apply to this type of welding equipment. The following recommendations should be observed in addition to the standard regulations that apply to the workplace.

All work must be carried out by trained personnel well-acquainted with the operation of the welding equipment. Incorrect operation of the equipment may lead hazardous situations which can result in injury to the operator and damage to the equipment.

1. Anyone who uses the welding equipment must be familiar with:
  - its operation
  - location of emergency stops
  - its function
  - relevant safety precautions
  - welding
2. The operator must ensure that:
  - no unauthorised person is stationed within the working area of the equipment when it is started up.
  - no-one is unprotected when the arc is struck
3. The workplace must:
  - be suitable for the purpose
  - be free from draughts
4. Personal safety equipment
  - Always wear recommended personal safety equipment, such as safety glasses, flame-proof clothing, safety gloves.
  - Do not wear loose-fitting items, such as scarves, bracelets, rings, etc., which could become trapped or cause burns.
5. General precautions
  - Make sure the return cable is connected securely.
  - Work on high voltage equipment **may only be carried out by a qualified electrician.**
  - Appropriate fire extinguishing equipment must be clearly marked and close at hand.
  - Lubrication and maintenance must **not** be carried out on the equipment during operation.
6. EMF information
 

To reduce your exposure to electromagnetic fields, use the following procedures:

  - Keep cables close together by twisting or taping them.
  - Arrange cables to one side and away from the operator.
  - Do not coil or drape cables around your body.
  - Connect work clamp to workpiece as close to the weld as possible.



**Do not dispose of electrical equipment together with normal waste!**

In observance of European Directive 2002/96/EC on Waste Electrical and Electronic Equipment and its implementation in accordance with national law, electrical equipment that has reached the end of its life must be collected separately and returned to an environmentally compatible recycling facility. As the owner of the equipment, you should get information on approved collection systems from our local representative.  
By applying this European Directive you will improve the environment and human health!



## WARNING



**ARC WELDING AND CUTTING CAN BE INJURIOUS TO YOURSELF AND OTHERS. TAKE PRECAUTIONS WHEN WELDING. ASK FOR YOUR EMPLOYER'S SAFETY PRACTICES WHICH SHOULD BE BASED ON MANUFACTURER'S HAZARD DATA.**

**ELECTRICAL SHOCK - Can kill**

- Install and earth the welding unit in accordance with applicable standards.
- Do not touch live electrical parts or electrode with bare skin, wet gloves or wet clothing.
- Insulate yourself from earth and the workpiece.
- Ensure your working stance is safe.

**FUMES AND GASES – Can be dangerous to health**

- Keep your head out of the fumes.
- Use ventilation, extraction at the arc, or both, to keep fumes and gases from your breathing zone and the general area.

**ARC RAYS – Can injure eyes and burn skin.**

- Protect your eyes and body. Use the correct welding screen and filter lens and wear protective clothing.
- Protect bystanders with suitable screens or curtains.

**FIRE HAZARD**

- Sparks (spatter) can cause fire. Make sure therefore that there are no inflammable materials nearby.

**NOISE – Excessive noise can damage hearing**

- Protect your ears. Use earmuffs or other hearing protection.
- Warn bystanders of the risk.

**MOVING PARTS – Can injure**

- Do not operate with guards or covers off.
- Stop engine before servicing.
- Keep away from moving parts.

**FUEL – Can cause fire or explosion**

- Stop engine and let it cool before checking or adding fuel.
- Do not add fuel while smoking or if unit is near any sparks or open flames.
- Do not spill fuel. If fuel is spilled, clean up before starting engine.

**BATTERY EXPLOSION – Can blind**

- Always wear a face shield, rubber gloves and protective clothing when working on a battery.
- Stop engine before disconnecting or connecting battery cables or servicing battery.
- Do not allow tools to cause sparks when working on a battery.
- Observe correct polarity (+ and -) on battery.
- Disconnect negative (-) cable first and connect it last.

**MALFUNCTION – Call for expert assistance in the event of malfunction.**

**PROTECT YOURSELF AND OTHERS!**



**WARNING!**

Read and understand the instruction manual before installing or operating.



**WARNING!** Do not use the power source for thawing frozen pipes.

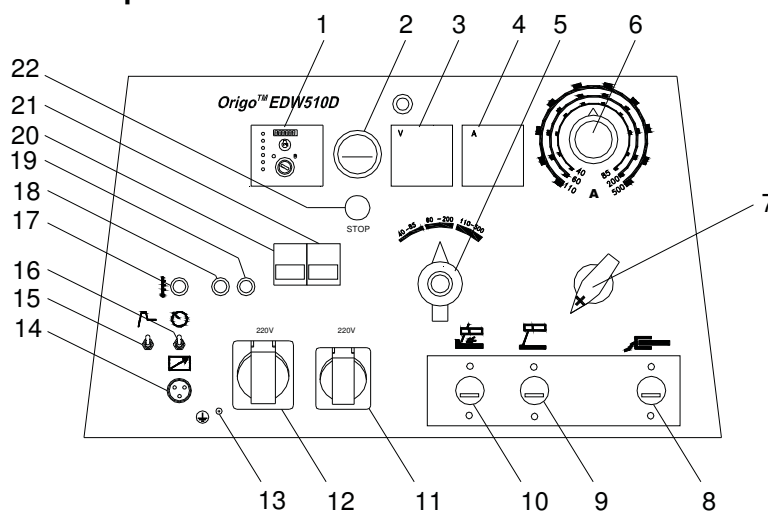
**Note! This product is solely intended for arc welding.**

## 2 INTRODUCTION

The Origo™EDW 510/610D is a combined engine driven welding and electric power unit. It is designed for working even under the toughest job requirements. It is suitable for MMA welding with all types of DC electrodes, especially cellulose; scratch start TIG welding or TIG with additional equipment for high frequency start and for arc air gouging. The auxiliary power generator provides alternating current for power tools, lighting etc. Continuous welding and auxiliary power can be used simultaneously.

The Origo™EDW 510/610D is ideal for quality welding in assembly work, service and repair in the field, e.g. pipelines, petrol-chemical plants, off-shore work etc. Stationary form is a standard design. On request, the welding unit can be provided with two or four wheel trailer.

### Front control panel



- 1 Engine control module
- 2 Fuel level gauge
- 3 Voltmeter (optional)
- 4 Ammeter (optional)
- 5 Current range switch
- 6 Welding current fine setting
- 7 Polarity switch (optional)
- 8 Workpiece connection
- 9 Welding terminal (MMA and TIG)
- 10 Gouging terminal
- 11 Socket 220V,16A (optional 110V)
- 12 Socket 220V,32A
- 13 Earth terminal
- 14 Remote control connection
- 15 Hot start off switch (optional)
- 16 Remote control switch
- 17 LED yellow - overheating
- 18 Circuit breaker - exciter circuit protection
- 19 Circuit breaker - fuel solenoid protection
- 20 Circuit breaker 220V
- 21 Circuit breaker 220V (optional 110V)
- 22 Emergency stop push button (optional)

The engine is the F3L912, made by Deutz, a well known manufacturer with a world wide service network.

The engine drives three-phase synchronous welding generator, single-phase auxiliary power generator and their exciter unit. The complete rotor assembly is statically and dynamically balanced to assure vibration-free operation and maximum bearing life. Bearing is fully sealed, so that no lubrication is required during the exploitation. There are no slip rings or brushes to maintain.

The welding unit canopy is designed for single side servicing and protects the machine. It ensures correct air flow around the engine and the generator.

The front panel is fitted with engine starting controls, welding controls and auxiliary power outputs. The engine control module (A2) is used to start and stop the engine and indicate fault conditions: low oil pressure, high cylinder head temperature and low battery charging. The module automatically shuts down the engine if the oil pressure is low or the temperature is too high.

The module has an integral tamperproof LDC hours run counter to indicate total engine run time.

Welding coarse settings are carried out by a three-phase inductor (L1) connected to the generator windings star (G). The range switch (SA3) is three-positioned. AC current from the generator (G) is rectified via the diode bridge (V1.1-V1.6), and the welding current stabilization is carried by stabilizer (L2).

Welding current fine setting is made by a rheostat (RP1), which allows adjustment of welding amperage from minimum to maximum of the coarse range.

OCV control circuit provides max open circuit voltage of 92V, regardless of the welding current setting. The rheostat (RP1) does not affect on OCV because it is shorted when the arc breaks. When the arc is struck, reed relay (KR1) is operated and allows adjustment of welding current with the rheostat (RP1).

Optional hot start switch (SA4) disables the max OCV. Switch breaks the max OCV control circuit and allows the arc striking with open circuit voltage of 65-92V depending on current setting.

Optional remote control is available for fine current setting.

Polarity of weld outputs is selected by an optional polarity switch.

Optional voltmeter displays voltage at the weld output terminals.

Optional ammeter displays amperage output of the unit.

The thermostat (ST2) is placed on the diode bridge's heat sink. It prevents the power source from overheating. The thermostat reset automatically. The yellow LED lights up in case of overheating.

The auxiliary power generator (G1) produces a maximum of 6,2 kVA. Two sockets (220V) are available on the front panel (one socket 110V optional). The circuit breakers QF1 and QF2 offer short-circuit protection, overload protection and earth fault protection.

### 3 TECHNICAL DATA

	<b>Origo™ EDW 510D</b>	<b>Origo™ EDW 610D</b>
<b>Welding generator</b>		
Output current range	40-500A	40-700A
Permitted load:		
at 25% duty cycle	-	650A/25V
at 40% duty cycle	450A/38V	575A/43V
at 60% duty cycle	400A/36V	530A/41,2V
at 100% duty cycle	300A/32V	500A/40V
Open circuit voltage	92 V	92V
Insulation class	H (180°C)	H (180°C)
<b>Auxiliary power generator</b>		
Max. output	6,2kVA, cosφ 0,8	6,2kVA, cosφ 0,8
Voltage	220V, 60Hz	220V, 60Hz
Earth fault protection	30mA	30mA
<b>Simultaneous welding and power loads</b>	300A/32V+6,2kVA	450A/38V+6,2kVA
<b>Diesel engine</b>	<b>Deutz F3L 912</b>	
Type	3-cylinder	
Fuel code	Diesel DIN 51601	
Prime power at 1800 rpm, ISO 3046-1	32,0 kW	
Reference conditions:		
Ambient temperature	+25°C	
Altitude	100m	
Relative humidity	30%	
Speed:		
no-load speed	1890 rpm	
load speed	1800 rpm	
Displacement	2,827 dm <sup>3</sup>	
Cooling	air	
Starting system, electrical	3kW/12V	
Fuel tank capacity	90 l	
Fuel consumption (at 100% duty cycle)	220 g/kWh (approx. 8,4 l/h)	
Oil consumption (0,5% of fuel consumption)	0,042 l/h	
Battery	12V/100Ah	
<b>Complete unit</b>		
Enclosure class	IP23	
Working ambient temperature	-10°C to +40°C	
Dimensions (LxWxH)	1610x850x990 mm	
Standard	EN 60974-1	
Weight (dry)	775kg	795kg

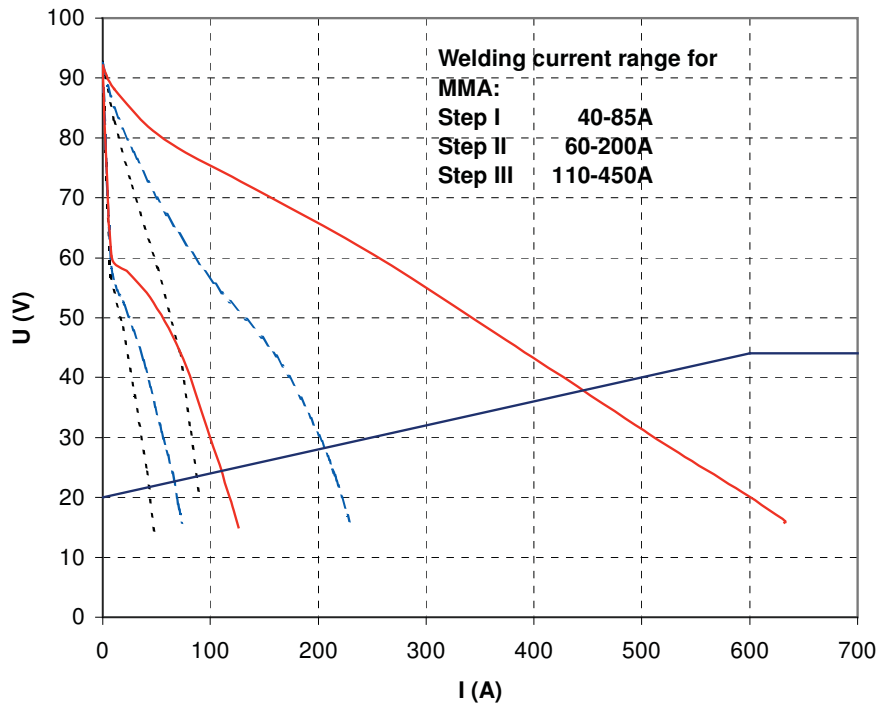
#### Duty cycle

The duty cycle refers to the time as a percentage of a ten-minute period that you can weld at a certain load without overloading.

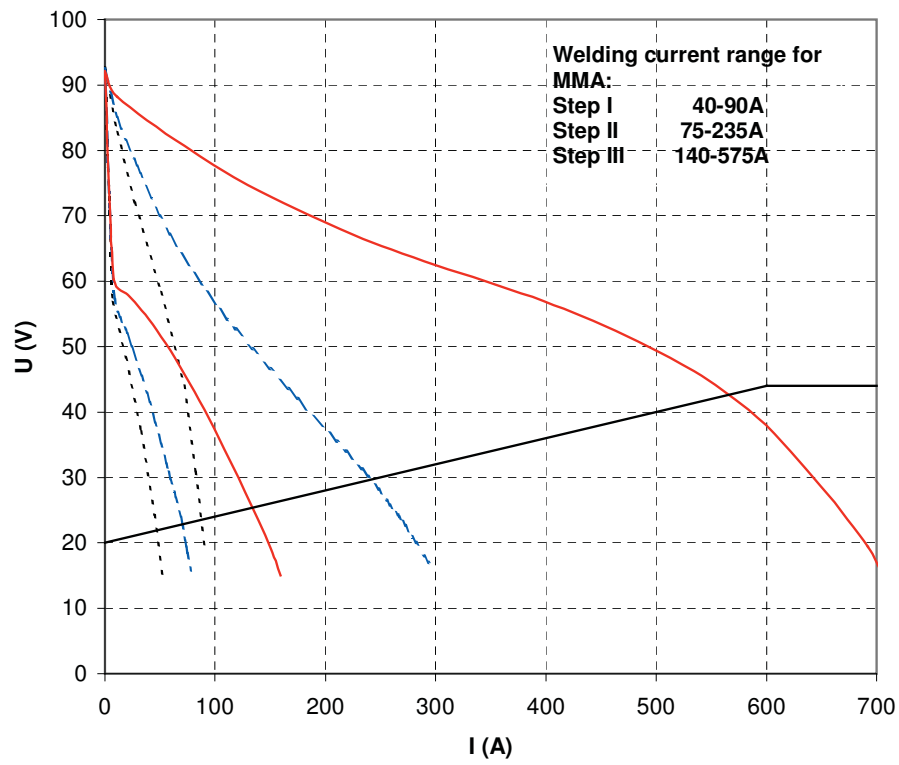
#### Enclosure class

The IP code indicates enclosure class, i.e. the degree of protection against penetration by solid objects and water. Equipment marked **IP23** is designed for indoor and outdoor use.

### Static characteristics Origo™ EDW 510D



### Static characteristics Origo™ EDW 610D



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## 4 INSTALLATION

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**The installation must be executed by a professional.**

- Read this instruction book before installing or operating the machine.

### 4.1 Unpacking the machine

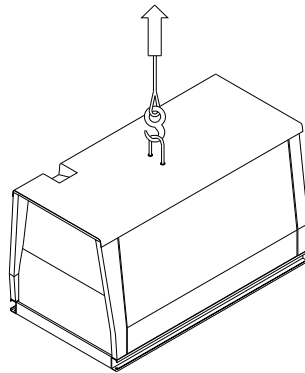
- Remove the plastic envelope from the machine.
- Lift the upper machine from the bottom machine if any.
- Remove the transport support from the bottom machine.
- Mount eye nut M30 to the bottom machine.
- Lift the bottom machine from the transport palette.
- Mount the muffler tube to the machine.

### 4.2 Lifting instructions

Use lifting eye to lift or move the machine.

**Do not lift the machine and road tow trailer together!**

Lifting eye is not designed to support added weight.



### 4.3 Positioning the machine

- Place the machine on a level surface at a distance of at least 1,5m from side walls.
- If the surface is not level be sure that the angle does not exceed 10°.
- Use the machine in open, well ventilated areas or vent the engine exhaust fumes outdoors.

### 4.4 Battery connection

- The diesel welding unit is shipped with the battery cables disconnected. Connect the positive cable, than the negative cable last.
- When installing a new battery disconnect negative cable from old battery first.
- Be sure to use the correct polarity when charging the battery.

### 4.5 Grounding

- Always ground machine frame to transport vehicle frame to prevent electric shock and static electricity hazards.
- Always ground machine frame to system earth ground if supplying power to a premises (home, shop...)

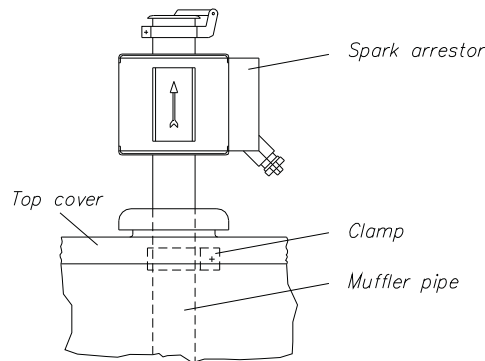
### 4.6 Spark arrestor (optional)

A suitable spark arrestor must be installed when the diesel welding unit is operated in certain locations where unarrested sparks may present a fire hazard.



### **Do not touch hot muffler or exhaust pipe!**

- Stop the engine and let cool.
- Remove the exhaust pipe.
- Install the spark arrester on the exhaust pipe.
- Tighten the clamp.



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## **5 OPERATION**

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### **5.1 Starting the engine**

- Disconnect all weld and power load from the generator.
- Turn the ignition key to the hand position.
- Press the pre-heat (yellow) button for required time (optional: cold starting aid  $-17^{\circ}\text{C}$ ).
- Press and hold the START (green) button for few seconds to crank the engine.
- The starter motor is disengaged automatically when the engine fires or when the START button is released.
- The control module indicates fault conditions by LED: low oil pressure, high cylinder head temperature and low battery charging.
- The module automatically shuts down the engine if any of following alarms are operated: low oil pressure and high cylinder head temperature.
- The alarm output and relevant LED will remain active until the unit is reset by turning the key to the "0" position.
- The module is provided with the LCD hours run counter which is incremented whenever the engine is running.
- Let the engine idle for a few minutes before applying load.

### **5.2 Stopping the engine**

- Disconnect all weld and power load from generator.
- Turn the ignition key to the off position.
- Press the emergency stop button (optional).
- When engine is not running ignition key must be in position 0 to protect battery from discharging.

### **5.3 Welding output**

- Select suitable welding and return cables and connect them to the welding terminals.
- Connect welding cable to the terminal marked for MMA/TIG welding or to the terminal marked for arc air gouging.
- Select either Electrode Positive or Electrode Negative by the polarity switch.
- Connect the return cable to the work piece.
- Set the welding current range using the range switch. Current fine setting is made by a rheostat, which allows adjustment of welding amperage from minimum to maximum of the current range.

- Remote control is available only for fine current setting. For remote control, place switch in Remote position and connect remote control to the remote control connector.
- **The current range switch and the polarity switch should not be switched over during welding operation!**
- **The FINE CURRENT control may be adjusted while welding!**
- **Check that the electrode holder has no electric connection with the return clamp!**
- **Do not weld anything on the welder machine!**
- The thermostat mounted on the diode bridge prevents the power source from overload. The thermostat reset automatically.

### 5.3.1 Selecting weld cable sizes

The following current load is recommended for the individual sectional areas, duty factors and cable length up to 30m. For cable distance longer than 30m, use next size larger cable.

Sectional copper cable area (mm <sup>2</sup> )	Maximum permissible current (A) for duty factor		
	100%	60%	35%
35	225	243	279
50	285	316	371
70	355	403	482
95	430	498	606

## 5.4 Auxiliary power output

The auxiliary power generator provides alternating current for power tools, lighting etc.

Two sockets 220V are available on the front panel.

The circuit breakers offer short-circuit protection, overload protection and earth fault protection.

If the generator is overloaded circuit breaker will automatically stop supplying electricity. If this happens disconnect your equipment, let the motor idle for a while, and then reconnect again.

The circuit breaker will cut off supply in case of an earth fault (residual current  $I_{\Delta N} \leq 30\text{mA}$ ). If this happens check for faulty tools and reset switch.

This protective device will not protect the operator unless there is a good ground. It is responsibility of person to use a good quality earth cable and connect it to the earth terminal of the machine.

All tools must be earthed to the machine frame using an earthed type plug or should be double insulated.

### 5.4.1 Testing the earth fault protection

Set the residual current circuit breaker to the position 1. Test by pressing the test button while the engine is running. The circuit breaker should cut out and the breaker return to position 0. Reset the breaker to position 1.

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## 6 MAINTENANCE

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### 6.1 Generator maintenance

The generator requires minimum of maintenance. Under normal operating conditions it is sufficient to blow dust with dry, low pressure air once a week.

### 6.2 Engine maintenance

The engine requires a certain amount of maintenance (see the engine instructions). Recommended service intervals must be observed and maintenance work carried out conscientiously. Special care should be taken under extra demanding operating conditions.

Recommended maintenance schedule:

	Operation hours <sup>1)</sup> every										check clean	change
	Once after <sup>2)</sup> 50-150	Every 10H or daily	125	250	500	1000	2000	3000	5000	Operation		
•	•										•	Oil level in engine/separate container
•											•	Engine leaks
	•										•	Oil bath and dry type air cleaners <sup>3)</sup> 4)
		•									•	Battery and cable connectors
		•	•								•	Cooling system <sup>3)</sup> 6)
•		•	•	•							•	Engine oil (depending of engine use) <sup>5)</sup>
•				•								Oil filter cartridge
•					•							Fuel filter cartridge
•				•	•						•	Valve clearance (adjust if necessary)
•					•						•	Engine mounts (retighten if necessary)
•			•								•	V-belts (retension if necessary)
			•								•	Warning system
•												Fuel precleaner
•						•					•	Mountings
						•					•	Flame glow plugs <sup>4)</sup>
				•								Partial –flow oil filter
								•			•	Sheathed element heater plugs
									•		•	Injection valve

The specified engine maintenance times are maximum values. Depending on the operating environment, shorter maintenance intervals may be required. Please observe the operating instructions of the engine manufacturer.

- 1) Recommended maximum
- 2) Commissioning new or reconditioned engines
- 3) Clean if needed
- 4) Change if necessary. If fitted, service after service indicator.
- 5) Oil change interval
- 6) Clean system /cooling fins

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## 7 FAULT TRACING

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*Try these recommended checks and inspections before sending for an authorised service technician.*

### 7.1 Welding generator G

Type of fault	Measure
No arc	<ul style="list-style-type: none"><li>• Check that the welding and return cables are properly connected</li><li>• Check if circuit breakers (FR1, FR2) are open</li><li>• Check position of remote switch (SA1)</li></ul>
The welding current is interrupted during welding	<ul style="list-style-type: none"><li>• Check if the thermal cut-out has tripped (The thermostat resets automatically)</li></ul>
The thermal cut-out trips frequently	<ul style="list-style-type: none"><li>• Check that the ratings of the welding power source have not been exceeded (overload of the power source)</li></ul>
Poor welding result	<ul style="list-style-type: none"><li>• Check that the welding and return cables are properly connected</li><li>• Make sure the welding current set is correct</li><li>• Check that the correct electrodes are being used</li></ul>
Excessive spatter from the arc	<ul style="list-style-type: none"><li>• Damp or defective electrode</li><li>• Incorrect electrode polarity</li><li>• Incorrect terminal connection: gauging instead of welding terminal</li></ul>

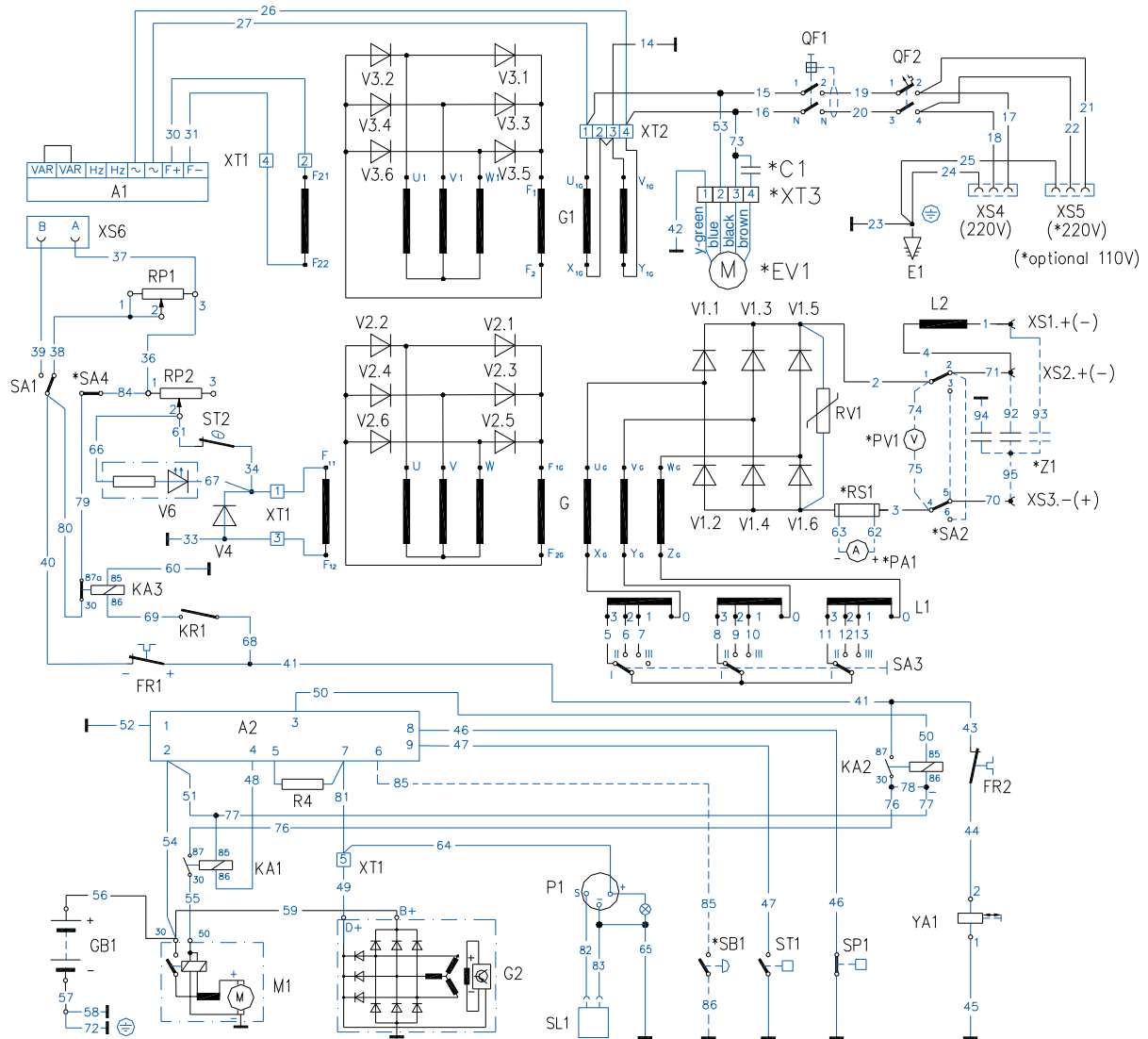
### 7.2 Auxiliary generator G1

Type of fault	Measure
No voltage build-up	<ul style="list-style-type: none"><li>• Check that the circuit breaker QF1 and QF2 are switched On</li></ul>

### 7.3 Engine

Type of fault	Measure
Engine will not crank	<ul style="list-style-type: none"><li>• Check battery</li><li>• Check battery connections</li></ul>
Engine cranks but does not start	<ul style="list-style-type: none"><li>• Check if circuit breaker (FR2) is open</li><li>• Check fuel level</li><li>• Check fuel filter</li><li>• Check oil level</li><li>• Check oil temperature</li></ul>
Engine shuts down shortly after starting	<ul style="list-style-type: none"><li>• Check oil temperature</li><li>• Check oil level</li></ul>
Engine runs rough and slowly stopped	<ul style="list-style-type: none"><li>• Dirty fuel or air filters</li><li>• Water in fuel</li></ul>

## 8 CIRCUIT DIAGRAM



\*EV1 - only for Origo EDW 610D  
 (\*PA1 + \*RS1) - optional

\*PV1 - optional

\*SA2 - optional

\*SA4 - optional

\*SB1 - optional

\*Z1 - optional

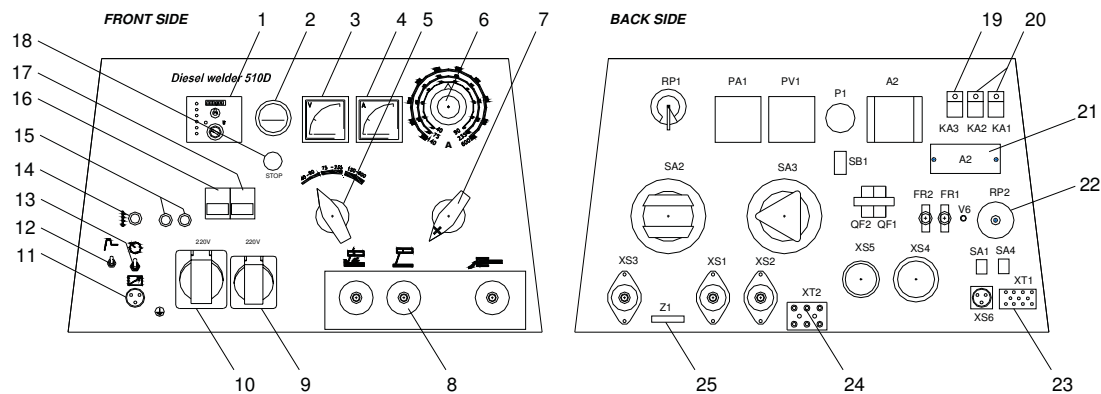
## 9 ORDERING OF SPARE PARTS

Spare parts may be ordered through your nearest ESAB dealer, see the last page of this publication. When ordering, please state product type, serial number, designation and spare part number in accordance with the spare parts list. This facilitates dispatch and ensures correct delivery.

Accessories	Ordering no.
Remote control, 15 m	0700161041
Spark arrestor	0700161043
Earth rod	0700161042
2-wheel trolley, off road	0700161045
2-wheel trolley, highway	0700161096
4-wheel trolley, off road	0700161046
4-wheel trolley, off road heavy duty with leaf springs	0700161084

Wear parts	Ordering no.
Engine maintenance set, 2000h operation	0700161087

### Control panel

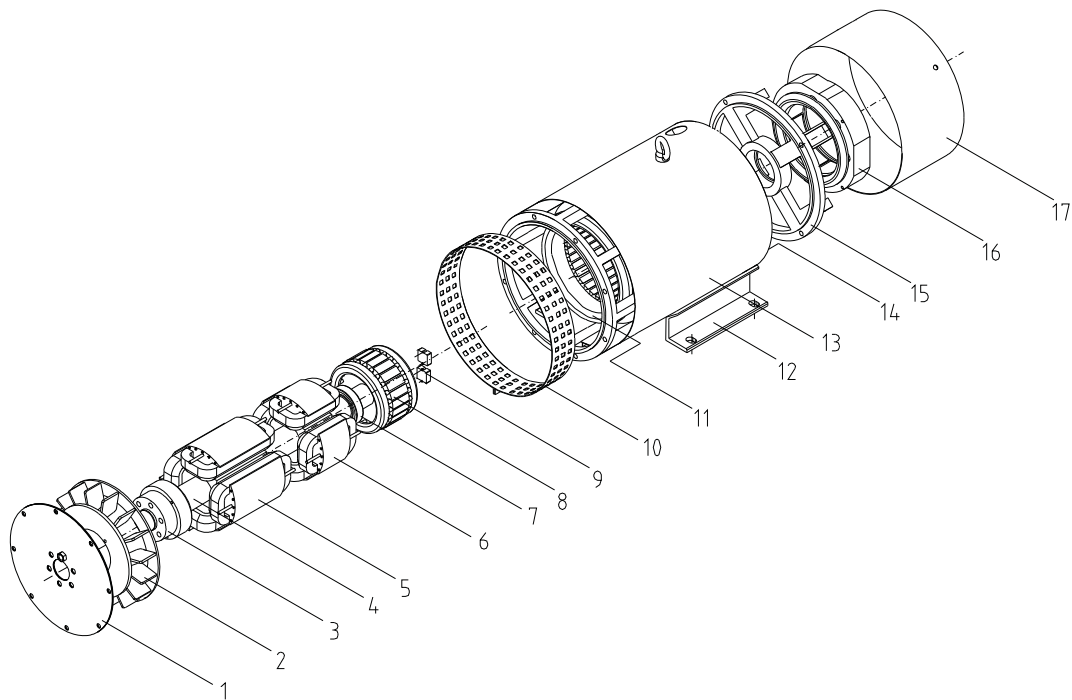


C=component designation in the circuit diagram

Item no.	Quantity		Ordering no.	Denomination	C
	Origo™ EDW510D	Origo™ EDW610D			
1	1	1	0700161064	Engine control module (DSE702)	A2
2	1	1	0700161116	Fuel level gauge	P1
3	1	1	0700161070	Voltmeter (optional)	PV1

4	1	1	0700161071	Ampere meter (optional)	PA1
	1	1	0700161097	Shunt (optional)	RS1
	1	1	0700161066	A/V meter kit (optional)	PA1,PV1, RS1
5	1	1	0700161009	Current range switch	SA3
	1	1	0700161062	Current range switch handle	
6	1	1	0700161050	Rheostat (8Ω, 200W)	RP1
	1	1	0700161063	Rheostat knob	
7	1	1	0700161072	Polarity switch (optional)	SA2
8	3	3	0700161010	Welding terminal	XS1-XS3
9	1	1	0700161012	Socket 220V, 16A	XS5
	1	1	0700161011	Socket 110V, 16A (optional)	XS5
	1	1	0700161118	110V socket/breaker kit (optional)	
10	1	1	0700161102	Socket 220V, 32A	XS4
11	1	1	0700161007	Remote control connector (3-pole)	XS6
12	1	1	0700161119	Hot start off switch (optional)	SA4
13	1	1	0700161006	Remote control switch	SA1
14	1	1		LED yellow	V6
15	2	2	0700161113	Thermal circuit breaker (16A)	FR1, FR2
16	1	1	0700161002	Circuit breaker (220V, 25A/0,03A)	QF1
17	1	1	0700161126	Circuit breaker (220V, 25A)	QF2
	1	1	0700161123	Circuit breaker (110V, 16A/0,03A) (optional)	
18	1	1	0700161120	Emergency stop button (optional)	SB1
19	1	1	0700161085	Relay	KA3
20	2	2	0700161065	Relay	KA1, KA2
21	1	1	0700161015	Voltage regulator	A1
22	1	1	0700161112	Resistor (0,6Ω, 30W)	RP2
23	1	1		Connection block	XT1
24	1	1		Connection block	XT2
25	1	1	0700161121	TIG-HF filter (optional)	Z1

## Generator

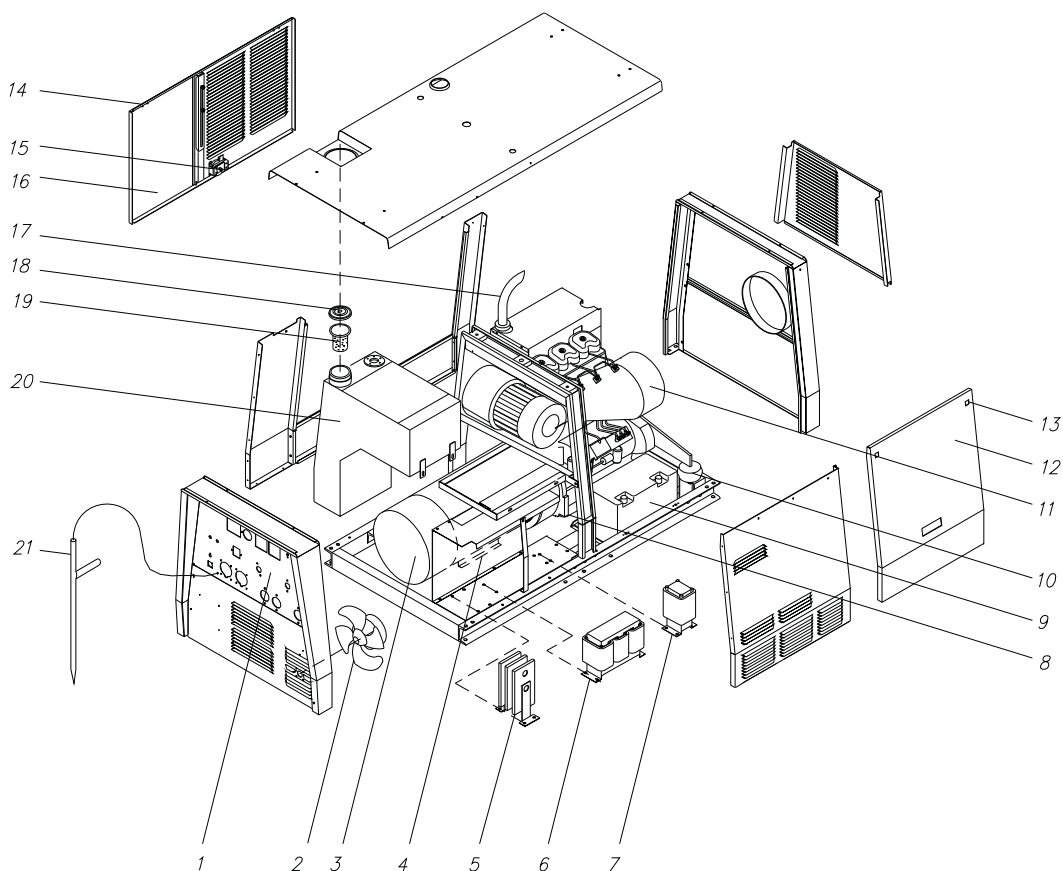


C=component designation in the circuit diagram

Item no.	Quantity		Ordering no.	Denomination	C
	Origo™ EDW510D	Origo™ EDW610D			
1	1	1		Coupling disc SAE 8	
2	1	1		Fan	
	1		0700161104	Rotor complete with fan	
		1	0700161114	Rotor complete with fan	
3	1	1		Fan support	
4				Axle	
5				Welding generator rotor	G
6	1	1		Auxiliary generator rotor	G1
7	1	1	0700161023	Bearing (6210-2RS C3)	
8	1	1	0700161024	Exciter rotor	
9	2	2	0700161025	Diode bridge (SKD30/08 A1)	V2, V3
10	1	1		Air outlet cover	
11				Welding generator stator	G
12	2	2		Foot	
13				Stator cover	
14	1	1	0700161124	Auxiliary generator stator	G1
15	1	1		Exciter stator support	
16	1	1	0700161029	Exciter stator	
17				Air inlet cover	



## Diesel welder

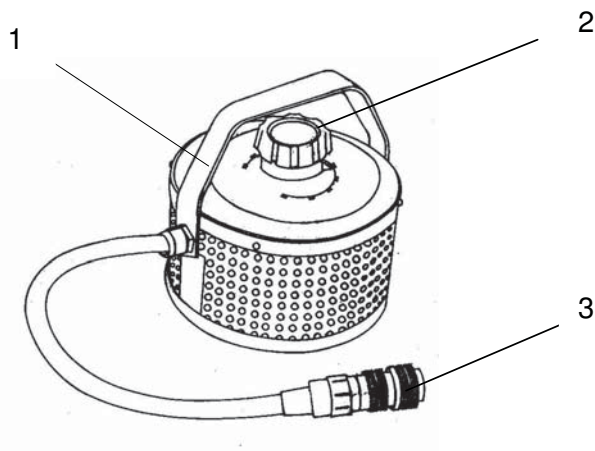


C=component designation in the circuit diagram

Item no.	Quantity		Ordering no.	Denomination	C
	Origo™ EDW510D	Origo™ EDW610D			
1				Control panel	
2		1	0700160051	Fan	EV1
3	1		0700161105	Generator	G, G1
		1	0700161115	Generator	G, G1
4	2	2	0700161036	Shock absorber	
5	1	1	0700161032	Diode bridge	V1.1-V1.6
	1	1	0700160048	Thermostat (100°C/80°C)	ST2
6	1		0700161051	Inductor	L1
		1	0700161074	Inductor	L1
7	1		0700161106	Welding stabilizer	L2
		1	0700161075	Welding stabilizer	L2
8	1	1	0700161111	Oil drainage valve (optional)	
9	1	1		Battery 100Ah,12V, DIN540A	GB1
10	2	2	0700161107	Shock absorber	
11	1	1		Deutz engine F3L912	
12	1	1		Service door	
13	1	1	0216704801	Key lock latch	

14	2	2	0700161098	Hinge	
15	1	1	0700161110	Latch	
16	1	1		Door	
17	1	1		Exhaust pipe	
18	1	1	0700161117	Fuel cap	
19	1	1	0700161122	Fuel filter	
20	1	1	0700161108	Fuel tank (90l)	
	1	1	0700161109	Fuel level indicator	SL1
21	1	1	0700161042	Earth rod (optional)	E1

### Remote control



C=component designation in the circuit diagram

Item no.	Quantity		Ordering no.	Denomination	C
	Origo™ EDW510D	Origo™ EDW610D			
1	1	1	0700161041	Remote control, 15 m	
2	1	1	0700161050	Potentiometer (8Ω, 200W)	
3	1	1	0700161047	Connector (3-pole, male)	



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