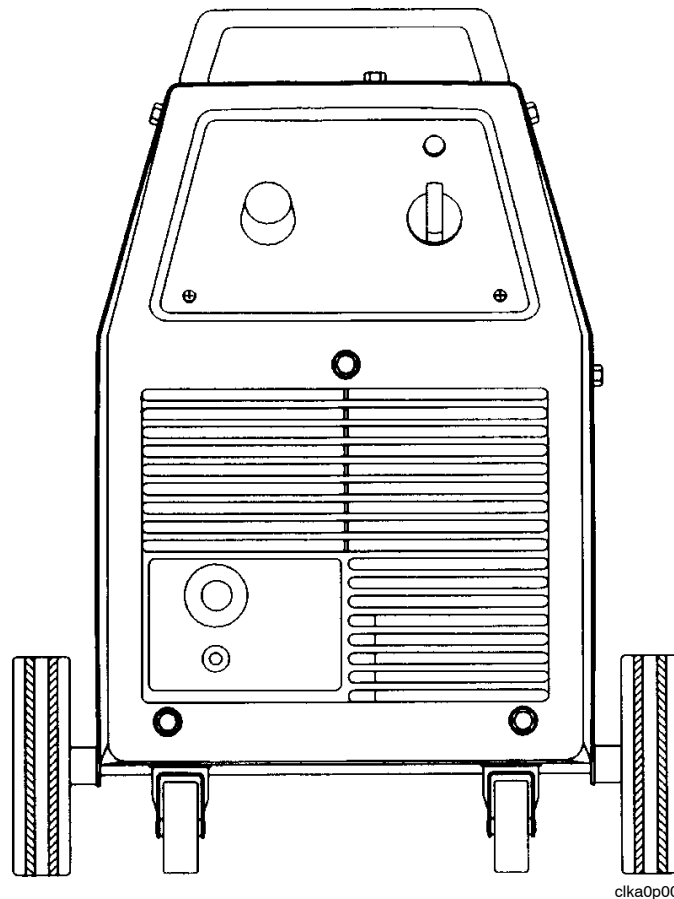


LKA 150



clka0p00

Instruction manual

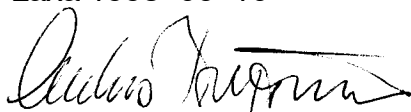
1 DIRECTIVE	3
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1 DIRECTIVE

DECLARATION OF CONFORMITY

Esab Welding Equipment AB, S-695 81 Laxå, Sweden, gives its unreserved guarantee that welding power source LKA 150 from serial number 923 complies with standard EN 60974-1, in accordance with the requirements of directive (73/23/EEC) and addendum (93/68/EEC) and with standard EN 50199 in accordance with the requirements of directive (89/336/EEC) and addendum (93/68/EEC).

Laxå 1998-06-10



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2 SAFETY



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 MANUFACTURERS' HAZARD DATA.

ELECTRIC SHOCK – Can kill

- Install and earth the welding unit in accordance with applicable standards.
- Do not touch live electrical parts or electrodes 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 take fumes and gases away 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.

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

READ AND UNDERSTAND THE INSTRUCTION MANUAL BEFORE INSTALLING OR OPERATING.

PROTECT YOURSELF AND OTHERS!

3 INTRODUCTION

LKA 150 is a compact, step-switched Welding power source intended for welding with solid wire with shielding gas and tube electrode without gas.

The complete package comprises a power source with integral wire feed unit, PSF 150V welding torch, mains lead, return cable with clamp, feed rollers for 0.6 and 0.8 mm wire and a gas hose. The assembly kit includes a handle, rear axle, 2 rear wheels and 2 castors.

Two control knobs provide adjustment of voltage and wire feed speed. You can switch between solid wire with shielding gas and tube electrode without gas by simply switching + and – connections on the terminal above the wire feed unit.

A thermal cut-out prevents the power source from overheating. The cut-out is reset automatically.

4 TECHNICAL DATA

Mains supply	230 V, 1-fas 50 Hz
Fuse, slow	10 A
Mains lead	3x1,5 mm ²
Wire feed speed	2,5–15 m/min.
Wire sizes	
Unalloyed	0,6–0,8 mm
Stainless	0,6–0,8mm
Al.	1,0 mm *)
Cored wire	0,8–0,9 mm
Voltage steps	7
Maximum load	100A/20%,55A/60%,40A/100%
Open circuit voltage	16–28 V
Wire reel capacity	1–5 kg.(max reel diam.,200 mm)
Weight	34 kg
Dimensions lxbxh	670x280x380
Enclosure class	IP 21
Application class	S

*) Feed roller for \varnothing 1.0, plastic wire liner, contact tip \varnothing 1.0, not included.

These welding rectifiers conform to the requirements of IEC 974-1.

Enclosure class

The **IP** code indicates the enclosure class, i.e. the degree of protection against penetration by solid objects or water. Equipment marked **IP 21** is intended for indoor use.

Application class

The symbol **S** indicates that the power source is designed for use in areas with increased electrical hazard.

5 INSTALLATION

The installation must be executed by a professional.



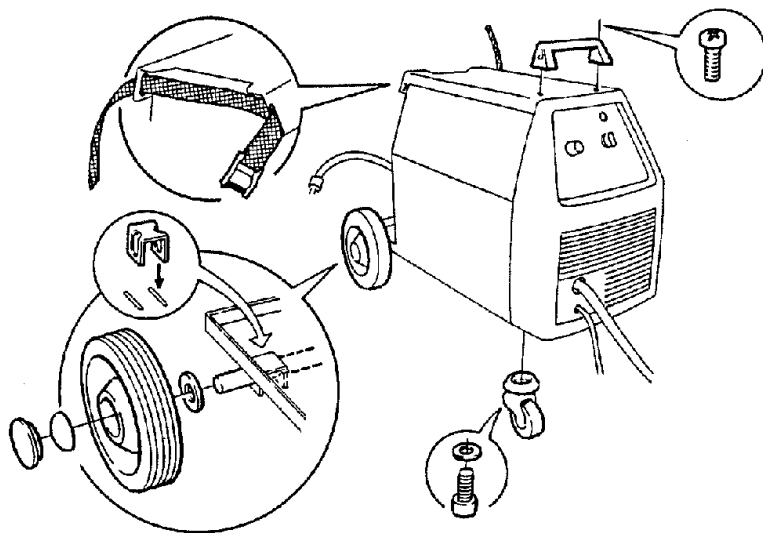
WARNING!

This product is intended for industrial use. In a domestic environment this product may cause radio interference. It is the user's responsibility to take adequate precautions.

Connect the power supply lead using the appropriate fuse in conformance with local regulations.

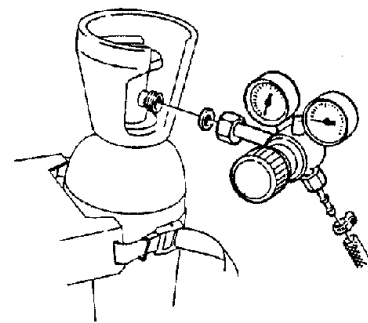
Cable areas acc. to Swedish regulations.

Make sure the welding rectifier is not covered or positioned so that cooling is obstructed.



Assembly of components

GAS CONNECTION

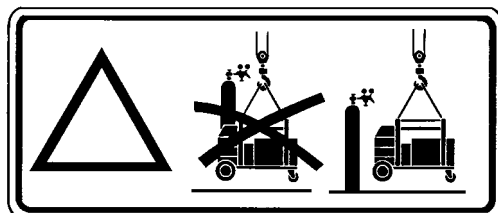


Does not apply to
tube electrode

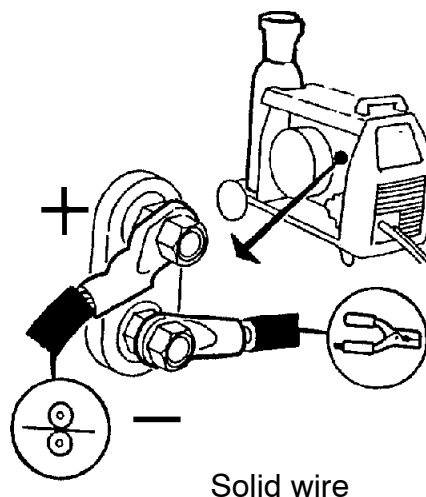
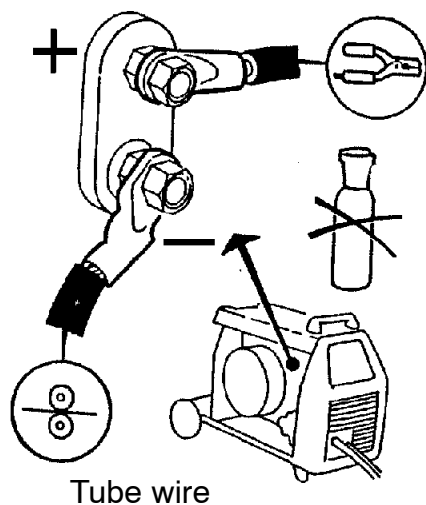
bc04d001

Lifting instructions

The power supply should be lifted by means of its lifting eye. The handle is only intended for pulling it along the ground.

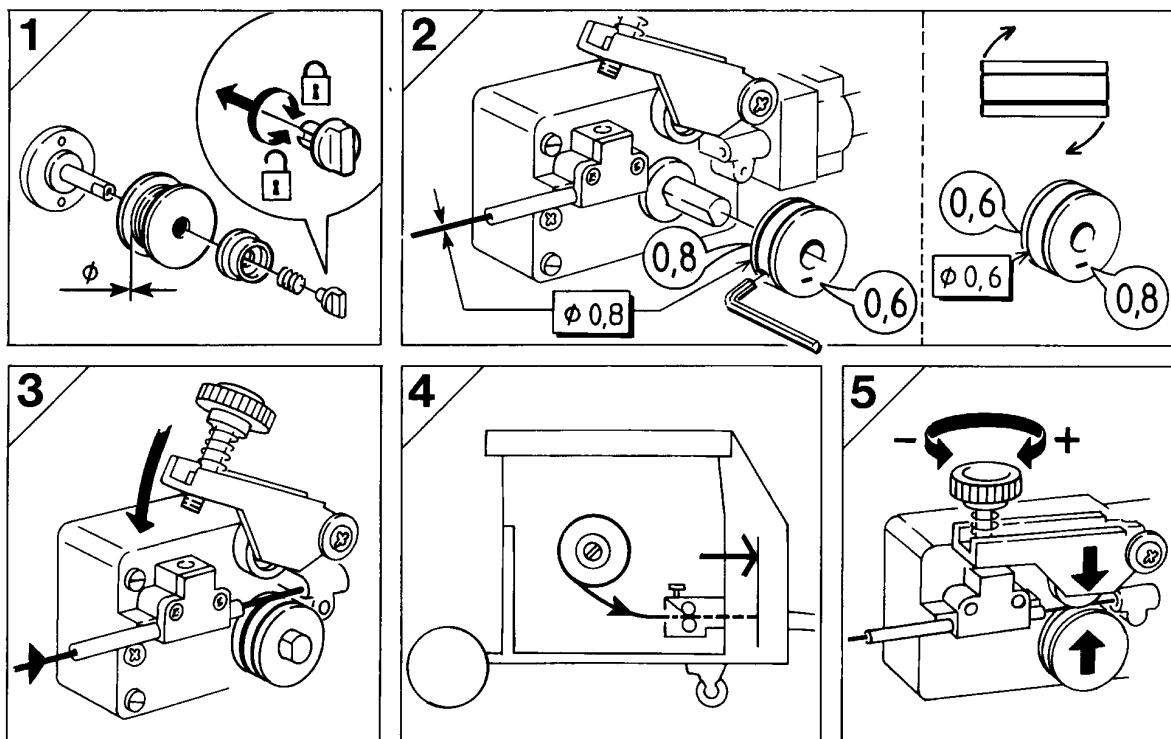


5.1 Wire




bc05d004

When welding with tube wire the return cable must be connected to the + terminal above wire feed unit.



NOTE! If the rollers slip or wire feed is unsatisfactory in any other way it may be necessary to adjust the tension. This can be done using the tensioning screw on the pressure arm.

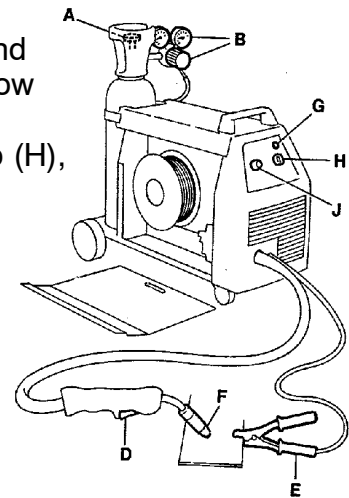


WARNING!
Rotating parts can cause injury, take great care.

6 OPERATION

General safety regulations for the handling of the equipment can be found on page 3. Read through before you start using the equipment!

- Connect the return cable (E) to the work piece.
- When welding with solid wire, open the gas valve (A) and adjust the gas flow with the reduction valve (B). The flow should be between 8–12 l/min.
- Switch on the power supply using voltage selector knob (H), for different steps.
- Press the trigger (D) on the welding torch until wire is fed out of the contact tip (F).
- Select suitable welding settings using the voltage selector knob (H) and the wire feed knob (J) as indicated by the table.
- Start welding and adjust the settings if necessary.
- Indication lamp (G) light up if the Power source becomes to hot.



bc04d003

LKA 150		T mm	TRÅD WIRE DRAHT FIL	MIX		CO ₂		Ar	
				4 5 6 7 8 9 10	7 1 2 3 4 5 6	4 5 6 7 8 9 10	7 1 2 3 4 5 6	4 5 6 7 8 9 10	7 1 2 3 4 5 6
Fe		0,6	Fe 0,6	5,5	3				
			Fe 0,8	3,5	3				
			GI 0,8					5	1
		0,8	Fe 0,6	5,5	4	6	6		
			Fe 0,8	4,5	3			5	1
			GI 0,8						
		1,0	Fe 0,6	6,5	5	6,5	6		
			Fe 0,8	5	4	4,5	6		
			GI 0,8					5,5	2
		1,5	Fe 0,6	7	6	7,5	7		
			Fe 0,8	6	5	5	6		
			GI 0,8					6	4
	2,0	Fe 0,6	8	6					
		Fe 0,8	7	6	6,5	6			
		GI 0,8					6	5	
	3,0	Fe 0,8	8	7	7,5	7			
							8	7	
		GI 0,8							
Al		Ar							
		1,0	Al 1,0	7,5	2				
		1,5	Al 1,0	8	4				
		2,0	Al 1,0	8	6				
		3,0	Al 1,0	8	7				
Ss		Ar + O₂							
		1,0	Ss 0,6	6,5	4				
			Ss 0,8	6	4				
		1,5	Ss 0,6	8	5				
			Ss 0,8	6,5	5				
		2,0	Ss 0,6	8,5	6				
			Ss 0,8	7	6				
		3,0	Ss 0,6	10	7				
			Ss 0,8	8	7				

469 387-001

7 MAINTENANCE

Note:

All warranty undertakings given by the supplier cease to apply if the customer attempts to rectify any faults on the machine during the warranty period.

This welding equipment has been designed, tested and manufactured to give long, trouble-free service.

Regular maintenance is essential for safe and reliable operation.

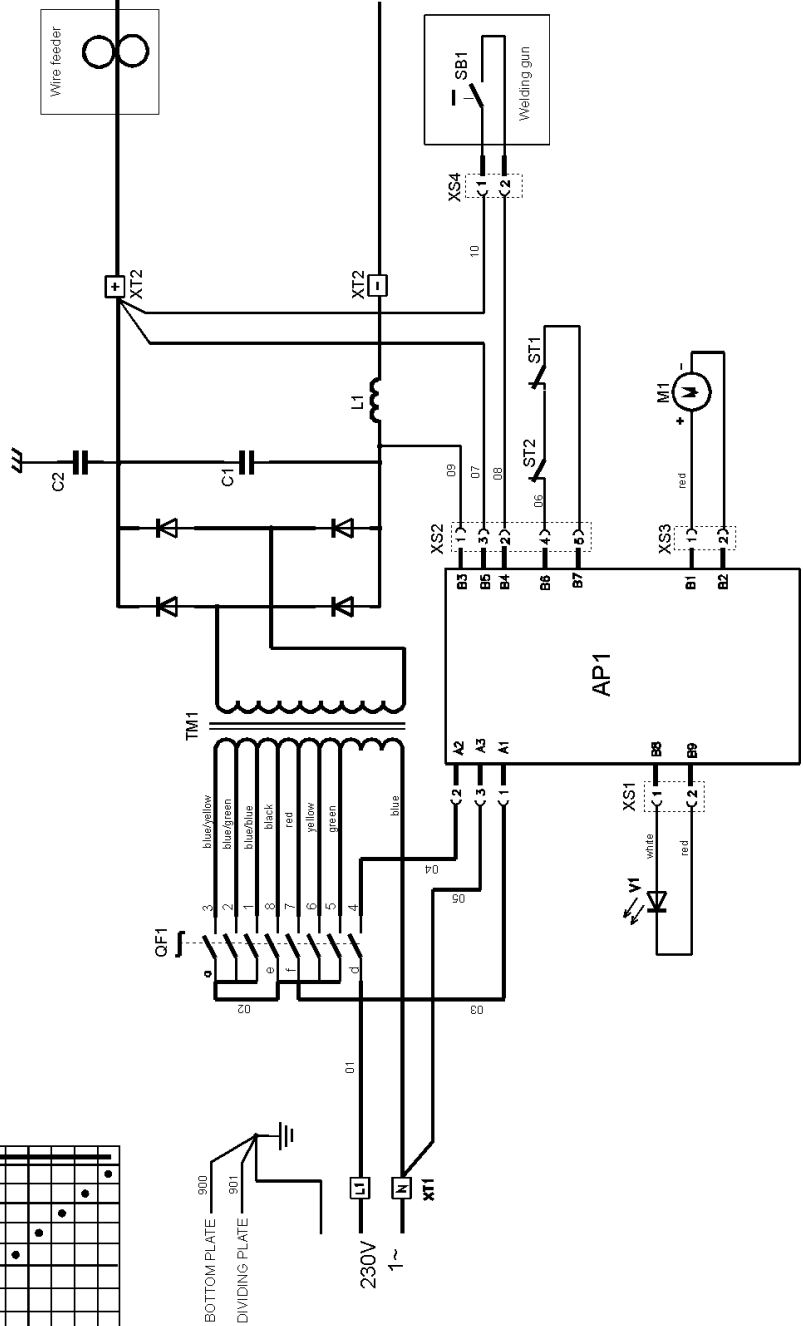
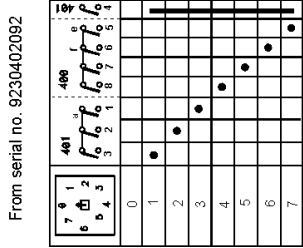
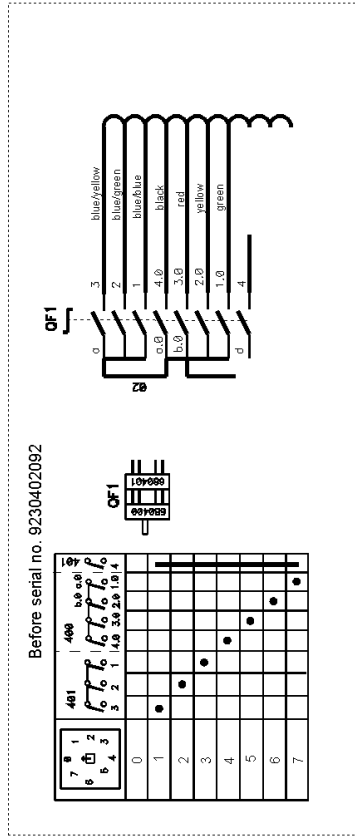
- **Removal of dust**
Blow away dust that has gathered in the power source using dry compressed air at low pressure.
- **Wire feed unit**
Components that are subject to wear must be regularly cleaned and replaced to ensure reliable wire feed. Note that if the tension is too high it may cause excessive wear on the pressure roller, feed roller and wire liner.
- **Torch**
Regularly blow the wire liner clean and clean the gas shroud.

8 ORDERING OF SPARE PARTS

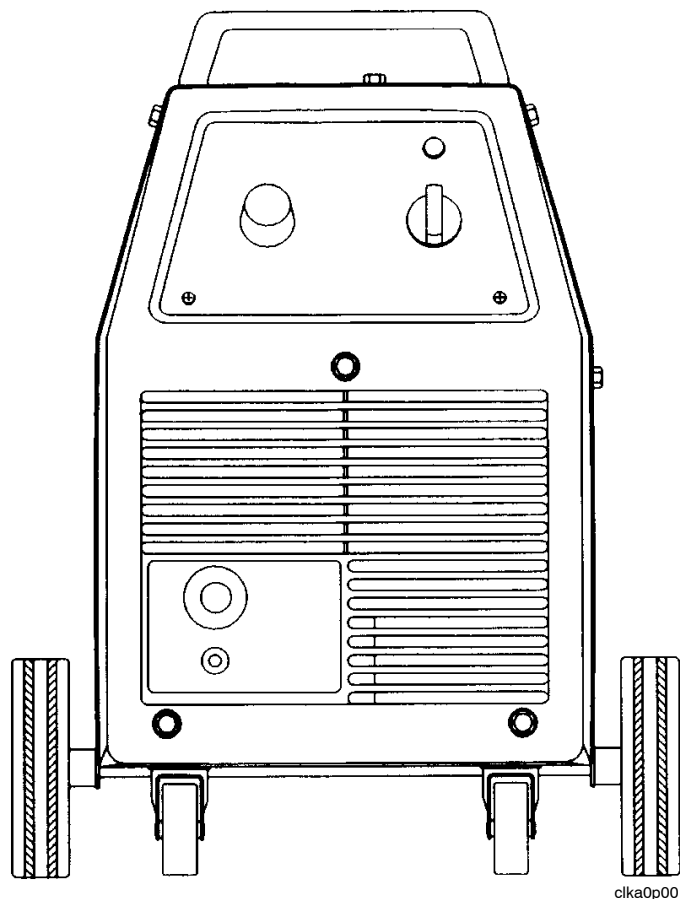
Spare parts are ordered through your nearest ESAB representative, see back cover. When ordering spare parts, please state machine type and number as well as designation and spare part number as shown in the spare parts list.

This will simplify dispatch and ensure you get the right part.

Diagram



Spare parts list



Valid for serial no. 923-xxx-xxxx

Ordering numbers for LKA 150

Ordering no.	Denomination	Notes
469 375-880	LKA 150	
469 375-881	LKA 150	Only for the Danish market Position 205 deviates from version -880
469 375-882	LKA 150	Only for the Australian market Position 102, 201 and 205 deviates from version -880
469 375-883	LKA 150	Only for the British market Position 205 deviates from version -880

Spare parts are to be ordered through the nearest ESAB agency as per the list on the back of the cover. Kindly indicate type of unit, serial number, denominations and ordering numbers according to the spare parts list.

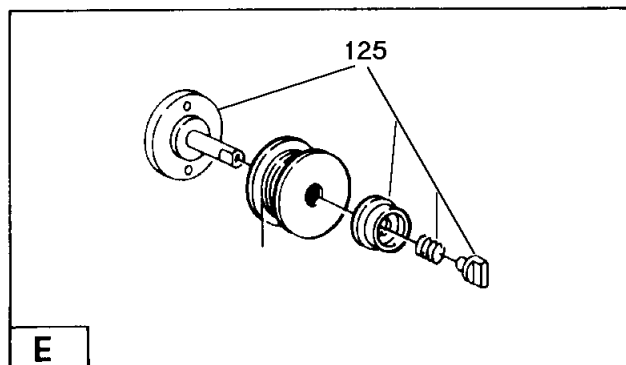
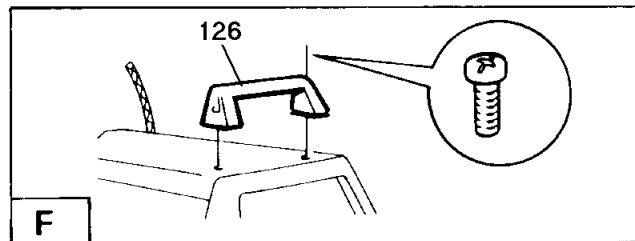
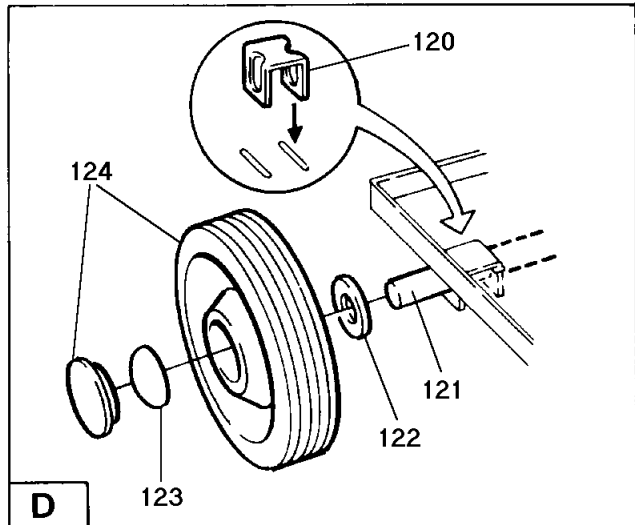
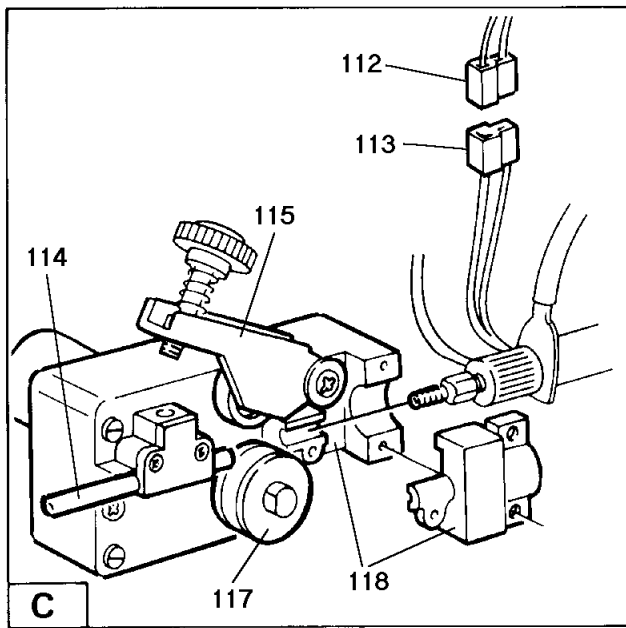
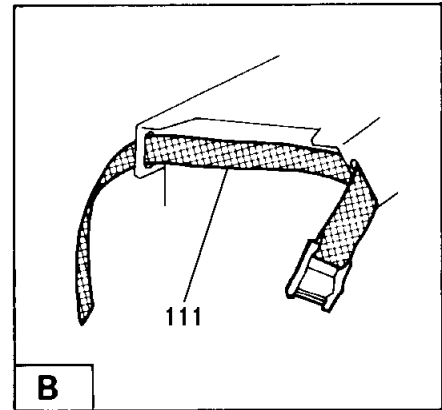
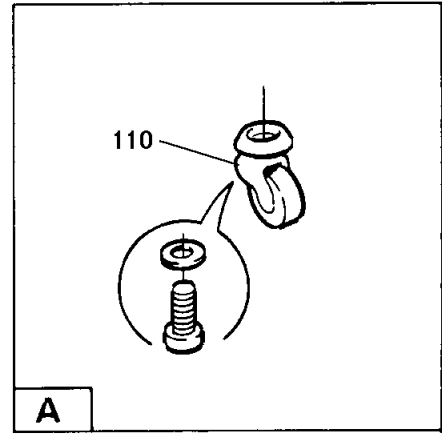
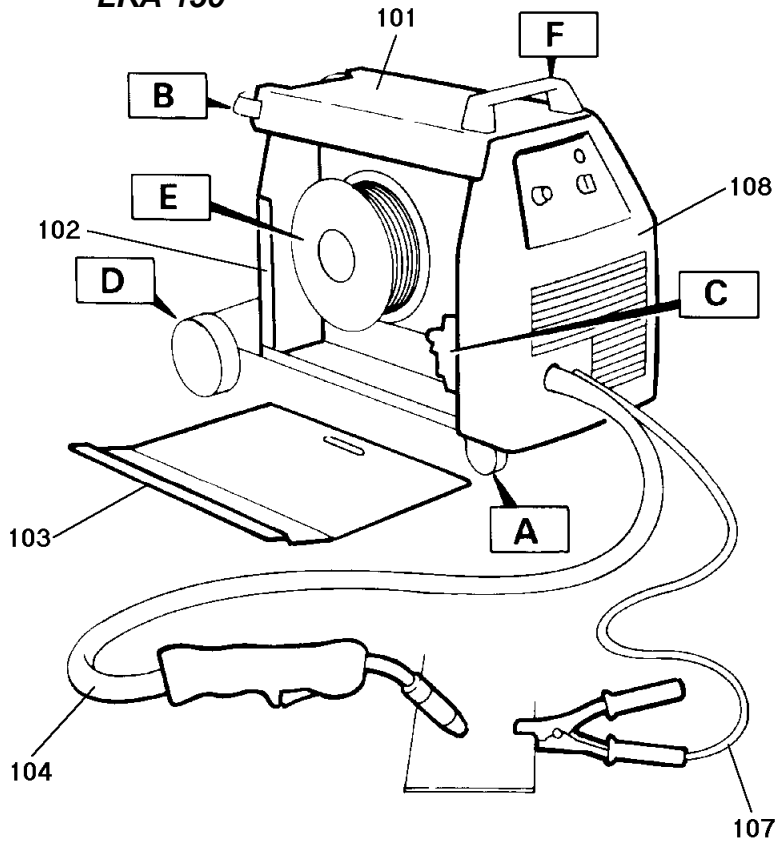
Maintenance and repair work should be performed by an experienced person, and electrical work only by a trained electrician. Use only recommended spare parts.

C = component designation in the circuit diagram

Item no	Qty	Ordering no.	Denomination	Notes	C
101	1	469 358-001	Cover plate		
102	1	469 356-001	Rear panel		
	1	469 821-001	Rear panel	Only for the Australian market	
103	1	469 386-001	Side panel	With text	
104	1	0700 200 001	Welding gun MXL 150v	Complete	
107	1	469 571-880	Return cable	Complete	
108	1	469 360-001	Front panel		
110	2	469 478-001	Link wheel		
	2		Screw	M6 x 16 mm	
	2		Washer	D 6,5/16,5	
111	1	368 265-001	Securing strap		
112	1	193 498-104	Connector		XS4
113	1	193 498-107	Connector		
114	1		Inlet nozzle	See item 150	
115	1		Pressure arm	With pressure roller, See item 150	
117	1		Feed roller	See item 150 and 151	
118	1	469 475-880	Wire feed unit	Complete	
120	2	469 391-001	Attachment		
121	1	469 390-001	Shaft		
122	2		Washer	D 10.5/22	
123	2	192 859-115	Locking washer		
124	2	469 467-001	Wheel		
125	1	469 310-880	Brake hub	Complete (1 – 5 kg)	
126	1	469 437-001	Handle		
	2		Screw	M6 x 16 mm	

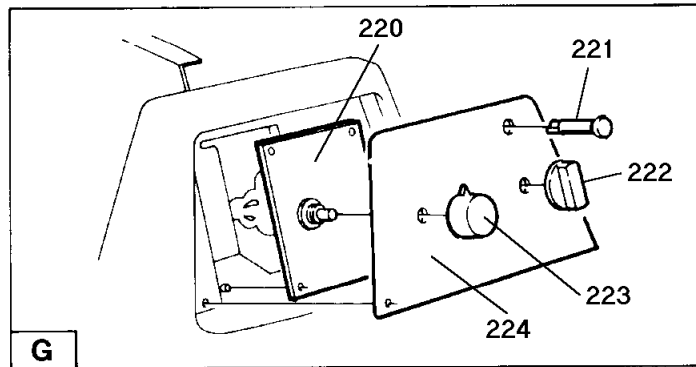
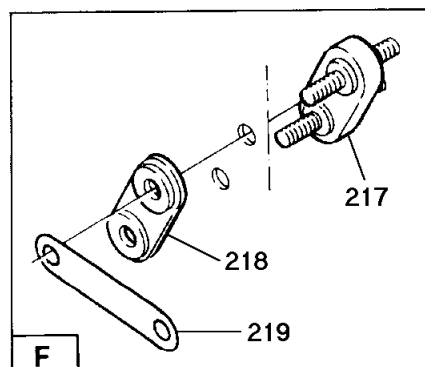
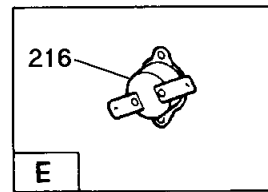
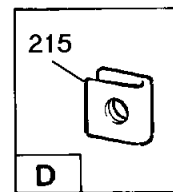
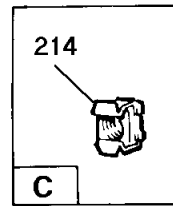
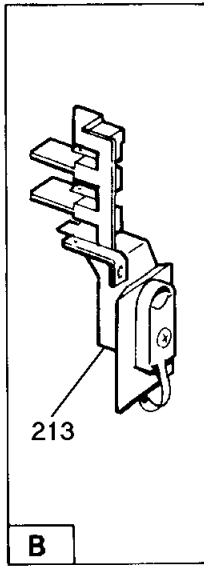
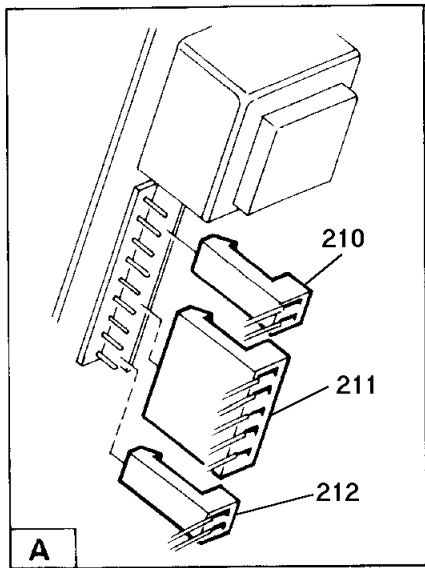
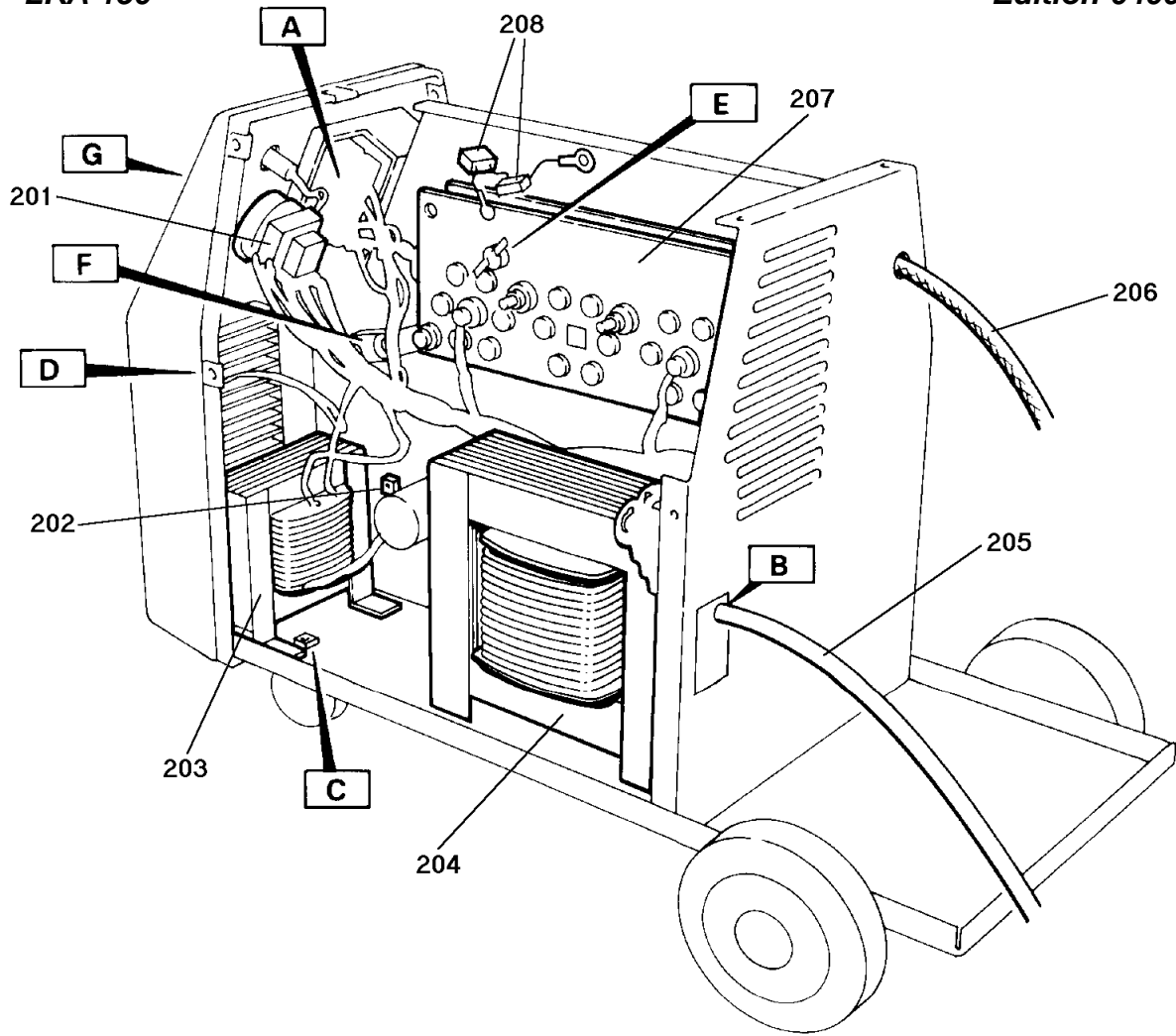
SPARE PARTS SETS

Item	Ordering no.	Denomination	Notes
150	469 517-880	Spare parts set	Contains items 114, 115, 117 feed roller 0.6/0.8 and a tool for the feed roller
151	469 517 880 469 517-881	Feed roller	0.6/0.8 1.0/1.2
152	155 716-880	Gas flow gauge	For protection gas



C = component designation in the circuit diagram

Item no	Qty	Ordering no.	Denomination	Notes	C
201	1	469 471-001	Switch		QF1
	1	469 668-001	Switch	Only for the Australian market	QF1
202	4	192 562-801	Cage nut	M4	
203	1	469 300-880	Inductor		L1
204	1	469 280-880	Transformer	Complete with thermal cutout ST1	TM1
205	1	369 724-002	Mains cable	3 x 1.5 mm ² with mains plug	
	1	369 724-003	Mains cable	3 x 1.5 mm ² with mains plug Only for the Danish market	
	1	369 724-004	Mains cable	3 x 1.5 mm ² with mains plug Only for the Australian market	
	1	369 724-005	Mains cable	3 x 1.5 mm ² with mains plug Only for the British market	
206	1	190 315-102	Gas hose	To be ordered per meter 1.3 meter as delivered	
207	1	469 662-880	Diode bridge		VC1
208	1	469 380-880	Capacitor	Set of 2 capacitors, PME 0.1 µF 400 V, with cable lugs	C1 + C2
210	1	193 260-001	Connector	2-pole	XS1
211	1	193 260-153	Connector	5-pole	XS2
212	1	193 260-150	Connector	2-pole	XS3
213	1	469 477-001	Cable inlet		
214	4	192 562-105	Cage nut	M6	
215	3	469 381-001	Speednut		
216	1	321 229-003	Thermal cutout	Opens at 110 °C	ST2
217	1	469 377-001	Connection block		XT2
218	1	469 378-001	Insulation		
219	1	469 379-001	Bus bar		
220	1	486 155-880	Circuit board		AP1
221	1	193 759-002	Light-emitting diode	Yellow	V1
222	1	366 296-003	Knob		
223	1	191 510-104	Knob		
224	1	469 364-001	Panel	With text	



AH 0216

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