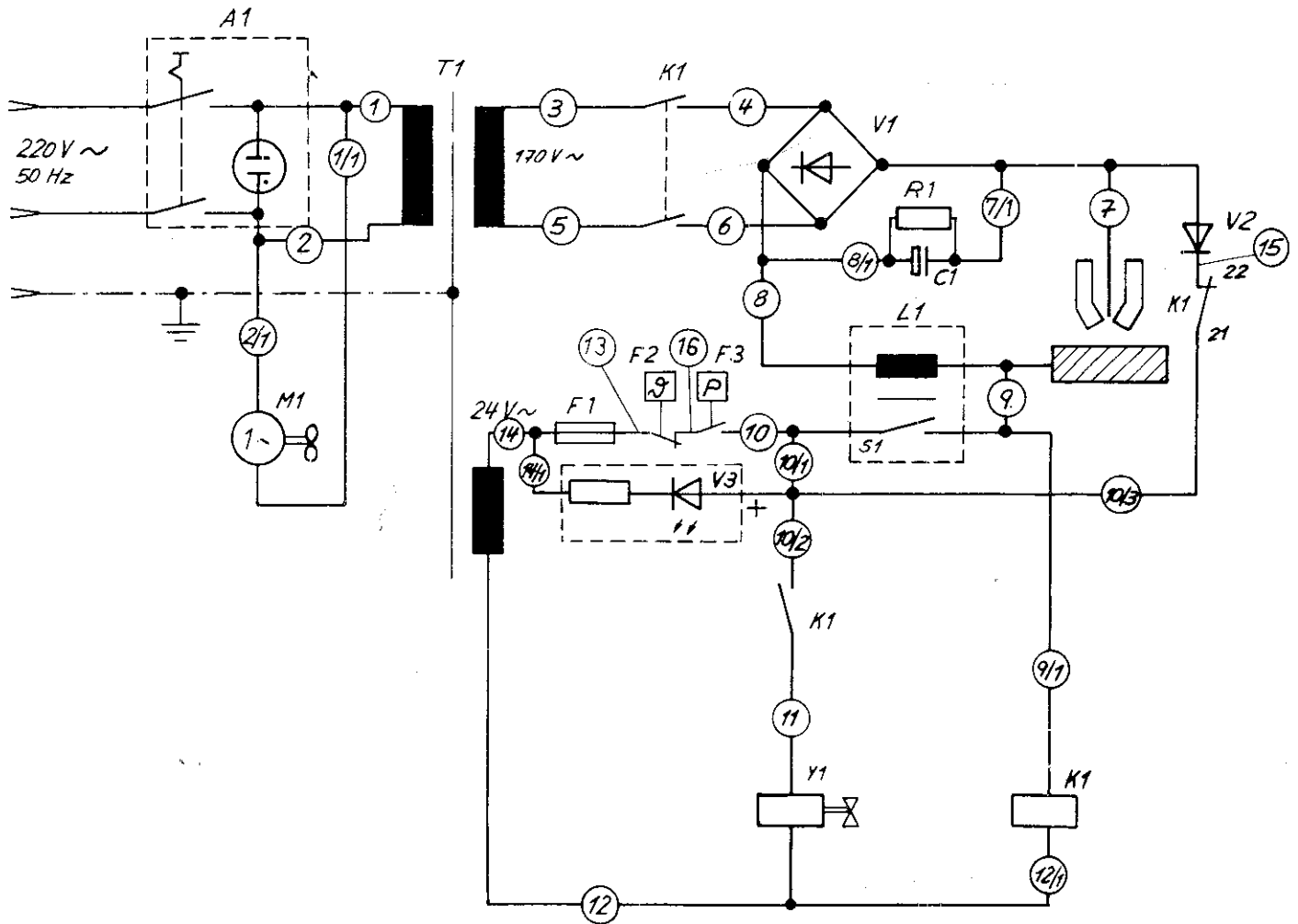
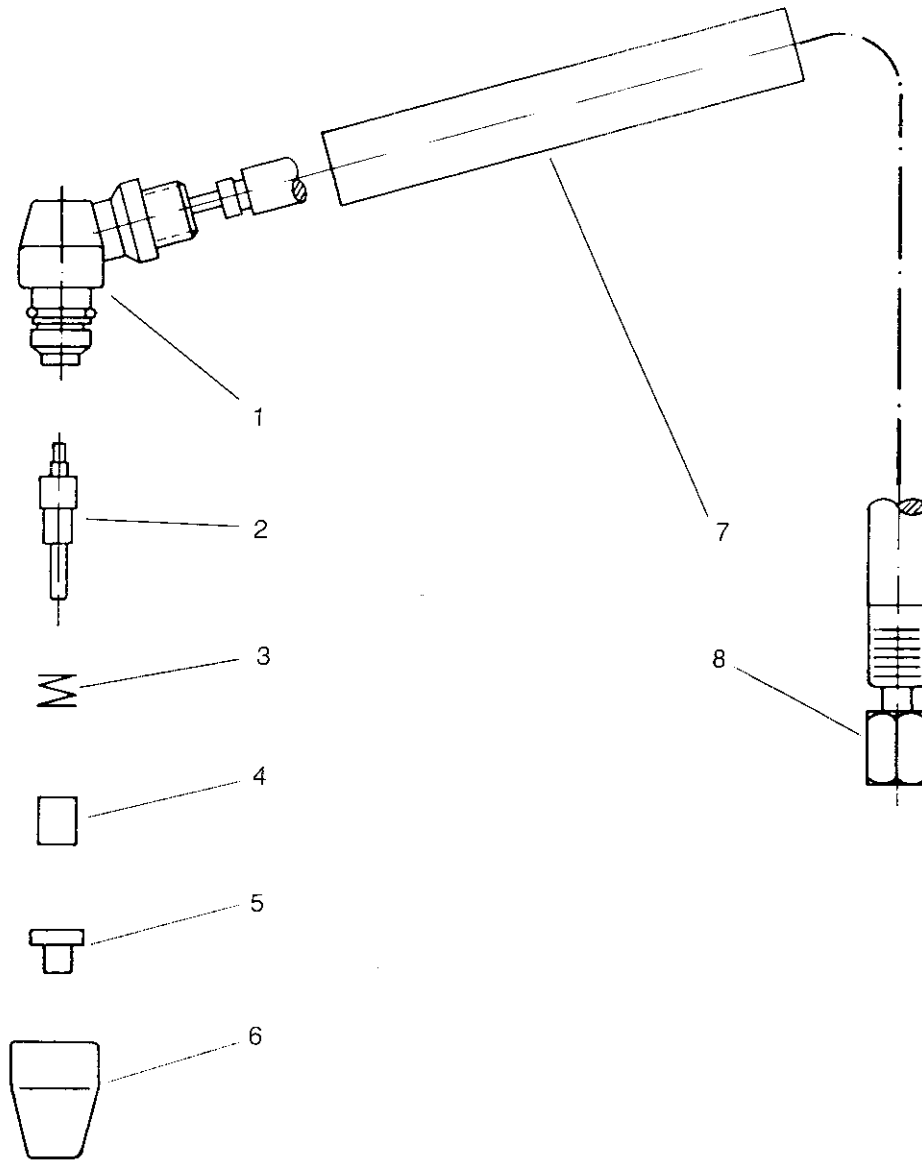


Kopplingschema
Wiring diagram
Schaltplan
Schéma de câblage



PT32



Reservdelsförteckning
Spare parts list
Ersatzteilverzeichnis
Liste de pièces détachées

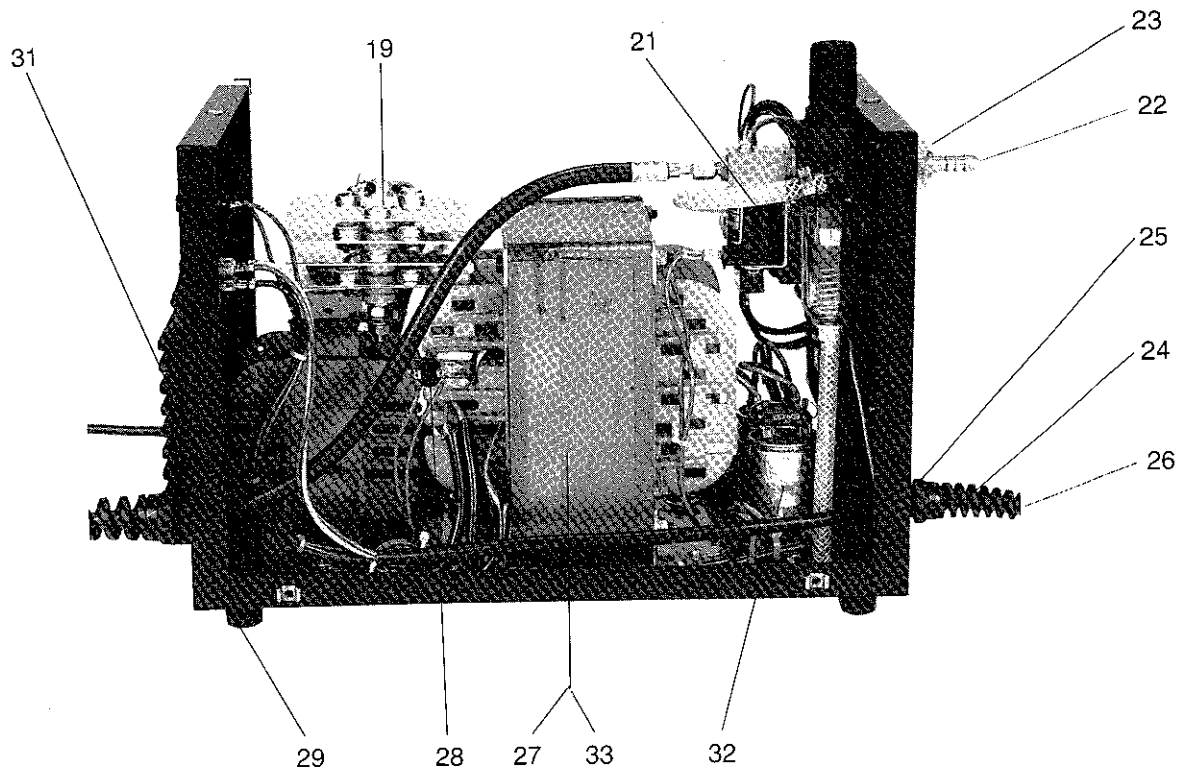
Reservdelar beställas genom närmaste ESAB-representant se sista sidan. Vid beställning v.v. uppge typ och tillverkningsnummer samt benämningar och beställningsnummer enligt reservdelsförteckningen

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 acc to the spare parts list

Die Ersatzteile können bei der nächsten ESAB-Vertretung bestellt werden siehe letzte Seite Bitte geben Sie Typenbezeichnung und Herstellnummer sowie Bezeichnungen und Bestellnummern lt Ersatzteilverzeichnis an.

Au dos de la brochure, vous trouverez l'adresse du représentant ESAB le plus proche. Prière de lui adresser votre commande, après avoir pris le soin de mentionner le type et le numéro de série de l'unité ainsi que le numéro de commande et la désignation conformément à la liste de pièces détachées

Pos nr Item no. Pos Nr. No. de réf.	Best nr Ordering no. Bestelnr. No. de commande	Benämning	Denomination	Bezeichnung	Désignation	Anm Remarks Anm. Remarque
1	368 219-001	Brännarkropp	Torch body	Brennerkopf	Corps de torche	
2	-002	Elektrod 2a	Electrode	Elektrode	Electrode	
3	-003	Fjäder	Spring	Druckfeder	Ressort	
4	-004	Isolator	Swirl baffle	Gasleitdüse	Douille isolante	
5	-005	Munstycke	Nozzle	Schneiddüse	Tuyère	
6	-006	Skyddskåpa	Heat shield	Hitzeschild	Protection thermique	
7	-007	Handtag	Handle	Handrohr	Poignée	
8	-008	Strömkabel	Power cable	Stromkabel	Câble de torche	



Reservdelsförteckning Spare parts list Ersatzteilverzeichnis Liste de pièces détachées

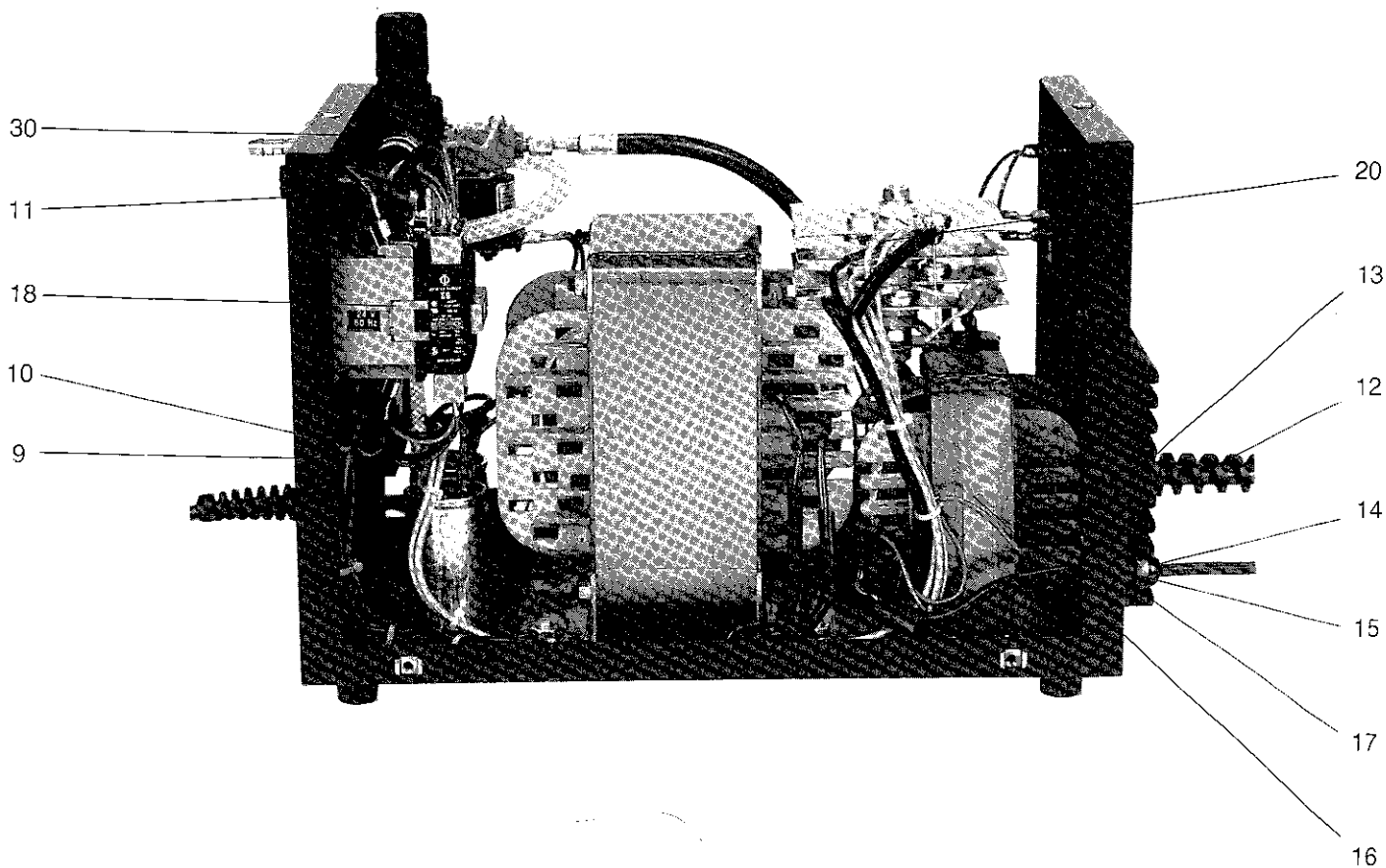
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19	368 220-019	Likriktare	Rectifier	Gleichrichter	Retresseur	V1
20	-020	Diod	Diod	Diode	Diode	V2
21	-021	Magnetventil	Solenoid valve	Magnetventil	Electroranne	Y1
22	-022	Gasanslutning	Gas connection	Gasanschluß	Raccord gaz	
23	-023	Sexkantmutter M16x1 5	Hex-Nut M16x1 5	6 kt.-Mutter M16x1 5	Ecrou M16x1 5	
24	-024	Kabelavlastning	Cable strain relief	Kabelverschraubung	Serre-câble	
25	-025	Låsmutter	Clamp nut	Gegenmutter	Ecrou Serre-câble	
26	-026	Nät-kabel med kontakt	Mains cable with plug	Netzkabel mit Stecker	Câble réseau au Fiche	
27	-027	Transformator 220 V	Transformer 220 V	Transformator 220 V	Transformateur 220 V	T1
28	-028	Termovakt	Thermal switch	Thermoschalter	Thermostat	F2
29	-029	Fot	Foot	Gehäusefuß	Pied	
30	-030	Tryckvakt	Pressure switch	Druckschalter	Régulateur de pression	F3
31	367 255-001	Ventilationsgaller	Plastic air inlet	Schutzgitter	Grille	
32	368 220-032	Kondensator 240 uF 450 V	Capacitor 240 uF 450 V	Kondensator 240 uF 450 V	Condensateur	C1
33	-033	Transformator 240 V	Transformer 240 V	Transformator 240 V	Transformateur 240 V	T1



Reservdelsförteckning Spare parts list Ersatzteilverzeichnis Liste de pièces détachées

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Pos. nr Item no. Pos Nr. No. de réf.	Best nr Ordering no. Bestelnr. No. de commande	Benämning	Denomination	Bezeichnung	Désignation	Anm Remarks Anm. Remarque
9	368 220-009	Fläkt	Fan	Lüfter	Ventilateur	M1
10	-010	Galler	Grid	Schutzgitter	Grille	
11	-011	Säkring 2 A 5x20	Fuse 2 A 5x20	Sicherung 2 A 5x20	Fusible verre 2 A 5x20	F1
12	-012	Kabelavlastning	Cable strain relief	Kabelverschraubung	Serre-câble	
13	-013	Låsmutter	Clamp nut	Gegenmutter	Ecrou Serre-câble	
14	-014	Kabelavlastning	Cable strain relief	Kabelverschraubung	Serre-câble	
15	-015	Låsmutter	Clamp nut	Gegenmutter	Ecrou Serre-câble	
16	-016	Drossel	Choke	Drossel	Inductance	L1
17	-017	Tungrelä	Reed Relay	Reed-Kontakt	Relaie courant	S1
18	-018	Kontaktor 20 Amp/24 V	Contacteur 20 Amp/24 V	Schütz 20 Amp/24 V	Contacteur 20 Amp/24 V	K1

Trouble Shooting

Fault	Cause	Remedy
Impossible to start plasma arc	Air pressure too high	Adjust at knob A to flow pressure 3,5 bar.
	Airpressure too low – LED B will light	Adjust at knob A to flow pressure 3,5 bar.
	Fuse F 1 is blown – LED B will light	Replace 2 Amp fuse
	Power source is overheated and has switched off – LED B will light when torch tip contacts workpiece and pushed down	Allow power source to cool down, running fan until LED B goes out.
	Ground clamp not properly fastened	Clean connecting place from rust and paint
	Electrode in torch is worn out	Replace electrode
	Spring in torch is slackened	Replace spring
Arc extinguishes after starting	Not enough material to cut	Increase cutting speed
Arc does not pierce even material thickness is below 4 mm	Orifice of nozzle is clogged	Clean with wire brush
Cut quality gets worse	Orifice of nozzle is worn out	Replace nozzle
	Orifices of heat shield are clogged	Clean or replace heat shield

6. Technical data

Mains	Voltage	220,240	(v) 1-ph.
	Permanent Load	4,5	(kVA)
	Max. Current	16	(A)
	Frequency	50	(Hz)
	Fuse	10	(A) slow-blow
Cutting	Cutting Current at 20% Duty Cycle	22	(A)
	Cutting Voltage	85	(V)
	Open Circuit Voltage	235	(V)
Construction	Dimensions L x W x H	445x210x320	(mm)
	Weight	25	(kg)
	Type of Protection	IP 21	
	Cooling	Fan	
	Insulation	F	

- Place the cutting tip of the torch on the cutting surface and push down the torch. An electrical contact to the workpiece is made via the electrode and the cutting tip. This will activate the contactor and release the power supply for the cutting process.

This momentary short circuit followed by a lift-off of the torch starts the plasma arc and the cut may be performed.

The cutting tip can be guided over the workpiece surface throughout the cut.

Adjust the cutting speed to the material thickness to achieve the least possible dross.

To finish the cutting operation simply lift the torch from the workpiece.

Maintenance

For servicing of the torch, the power source must always be turned off.

If the unit does not operate properly, stop work immediately and investigate the cause of the malfunction. Maintenance work must be performed by an experienced person, and electrical work by a trained electrician. Use only recommended ESAB replacement parts.

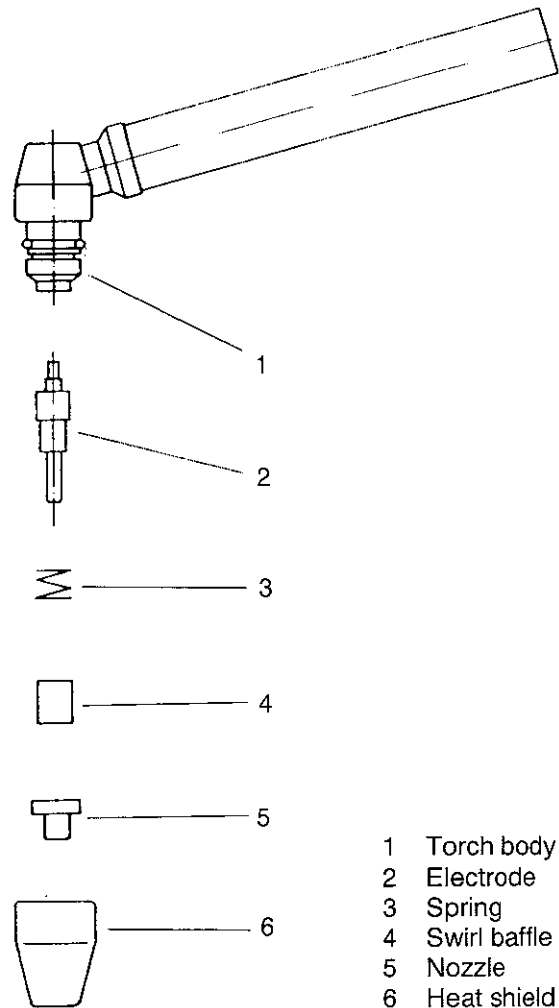
Frequent inspection and cleaning of the LPB 20 is recommended.

The material of the electrode gets worn by cutting, and the tip gets hollowed out. When the concavity reaches a depth of 5 mm the electrode needs to be replaced.

When the nozzle hole has been worn into an oval shape, the nozzle needs to be replaced. A worn nozzle gives an unstable cutting arc and a poorer quality of cut. Check at the same time that the swirl baffle is not burnt or damaged.

Reassemble the torch after this check has been made.

The built-in regulator is equipped with an automatic drain system. Shut the air supply to the power supply from time to time – this will empty the water trap of the regulator and water that may have accumulated will run out underneath the base plate.





1. Introduction

These instructions contain information for the use and maintenance of LPB 20. Should anything be unclear, the supplier will be glad to offer further information.

Expert knowledge is necessary for fault location and repair. It is a general rule that anything of a major nature should be carried out only by specially trained personnel.

In contacting ESAB or a distributor, please indicate type of unit and serial number.

2. Risks and precautions with regard to plasma cutting

Radiation

The enormous heat of the plasma arc causes various types of radiation with shifting wavelength, and this involves a number of risks for the operator.

The UV radiation causes "welding glitter" — it feels as if you have gravel in your eyes. It also causes erythema (sunburn).

The powerful, visible radiation can cause permanent damage to the retina.

Short-wave IR radiation causes turbidity of the lens of the eye, producing cataract within 10-30 years.

Long wave IR radiation disturbs the heat balance of the body.

Protect the body

For all work with a hand torch the operator must wear gloves and heat protection of heat-insulating material. The gloves must cover the wrists and must overlap the ends of the sleeves. The head protection must come down far enough to cover the neck all round. Tight clothing must be worn on the rest of the body. The unprotected surfaces of the body should also be covered when a mechanized torch is used.

Smoke

In the smoke that plasma cutting gives rise to there are a great number of air pollutants, in the form of solid particles and of gases.

The composition and quantity of the smoke depend on the material of the workpiece, on the cutting speed, on the type of plasma gas, etc. For instance the cutting of alloyed steel might give rise to smoke that consists of iron, chromium, nickel and manganese pollutants. If the plasma gas contains nitrogen, nitrous gases are formed. Whenever any sort of plasma cutting is done, the smoke must be conducted away.

Protect the eyes

Never under any circumstances use contact lenses. The weak thermal radiation that penetrates the eye protection can be enough to make the lens stick to the cornea. People who do not need to look straight into the plasma arc should use eye protection of density grade 7.

LPB 20

Handycut

**Utrustning för
plasmaskärning**

**Plasma Cutting
Equipment**

**Anlage für
Plasmaschneiden**

Machine de coupage

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DO NOT REMOVE FROM FILE				ISSUE No:			
AMENDMENT DATES				FILE DATE/...../.....			
				REPRINT ORDERED			

**Instruction manual and
spare parts list**

**Betriebsanleitung und
Ersatzteilverzeichnis**

**Manuel d'instructions et
liste des pièces détachées**