



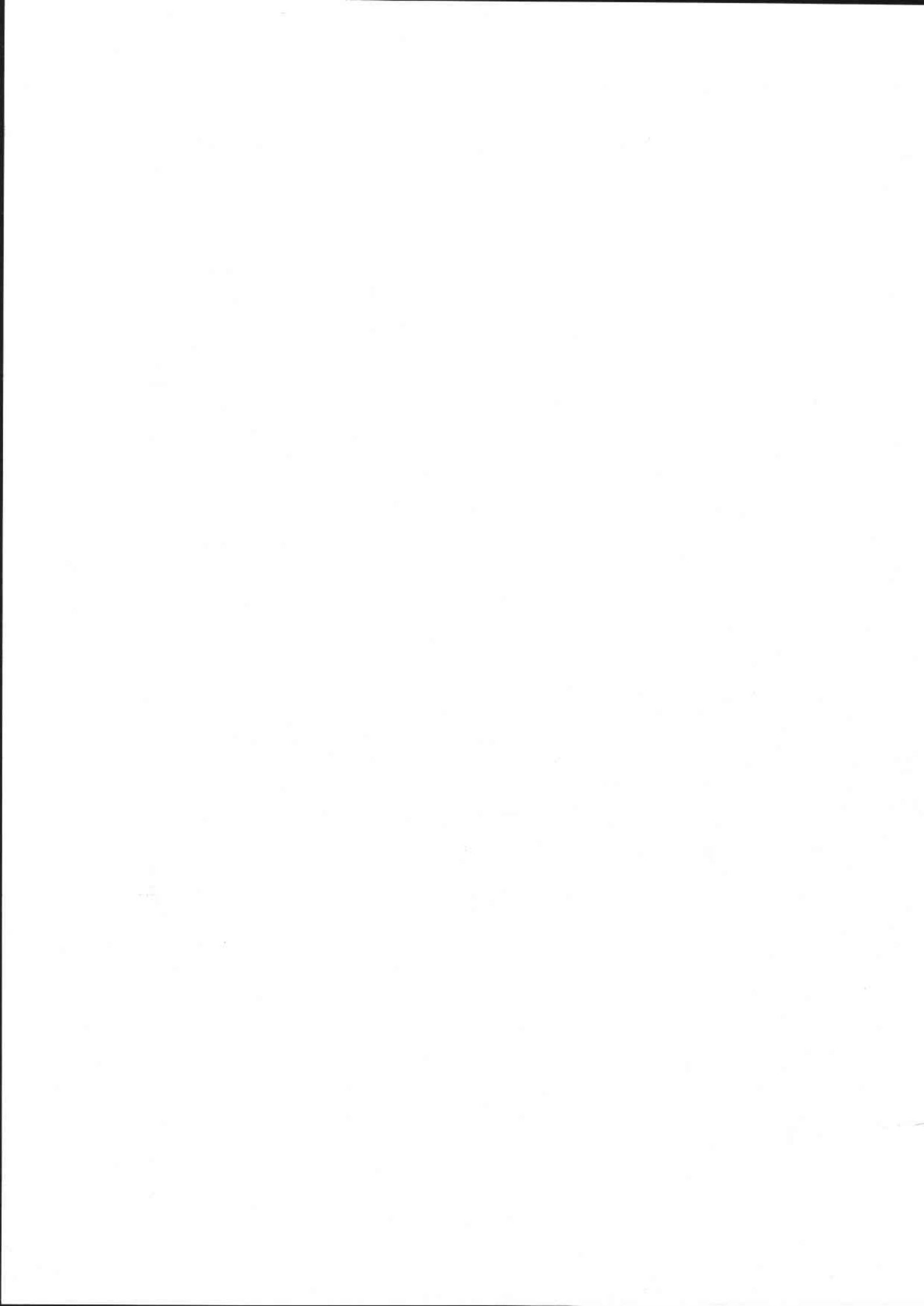
Transtig DC 160i/200i

SERVICE MANUAL

Note:

For information on DC 160i refer to LTN 160

For information on DC 200i refer to LTN 200



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INTRODUCTION

This service manual is intended for use by technicians with electrical training for fault-tracing and repair.

To help you understand how the machine is intended to be used, a brief guide to the machine is included at the end of the manual.

The manual contains details of all design modifications up to and including February 1994.

Trace faults with the help of the diagrams in the manual. The machine components are listed and described in alphanumerical order in conjunction with the connection diagrams. The components shown and numbered in the block diagram are described on the pages after the block diagram.

The Aristotig 160 and 200 are designed and tested in accordance with international standard EN 60 974-1 (IEC 974-1).
On completion of service or repair work, it is the responsibility of the person(s) etc. performing the work to ensure that the product does not depart from the requirements of the above standard.

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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.

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 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 flammable materials nearby.

MALFUNCTION

- Call for expert assistance in the event of malfunction.

**READ AND UNDERSTAND THE INSTRUCTION MANUAL
BEFORE INSTALLING OR OPERATING THE EQUIPMENT**

PROTECT YOURSELF AND OTHERS!

RATING PLATE

The rating plate is secured to the back of the machine. The example shown below is the rating plate for an Aristotig 200 with an explanation of how the plate should be read and interpreted.

Esab Welding Equipment AB S-69581 Laxå Sweden Made In Sweden					
1	LTN 200	XXX YYY ZZZ			
2		IEC 974-1			
3		4 A/20 V - 200 A/28 V			
		--- X	35 %	60 %	100 %
	U ₀ =70 V	I ₂	200 A	150 A	115 A
		U ₂	28 V	26 V	25 V
4		3 A/10 V - 200 A/18 V			
		--- X	35 %	60 %	100 %
	U ₀ =70 V	I ₂	200 A	150 A	115 A
		U ₂	18 V	16 V	15 V
5		U ₁ 400V 50/60HZ	I ₁	17 A	12 A
6	COOLING AF	IP 23			

cltn0p01

- 1 LTN 200 is the type designation for the Aristotig 200. The first letter, L, indicates that Aristotig is a rectifier, while T indicates TIG welding and N indicates the design generation.
The 200 indicates the maximum welding current.
- 2 These symbols indicate that Aristotig incorporates an inverter transformer and rectifier.
- 3 This section indicates the voltage/current characteristic for MMA welding and a current range of 4 - 200 A.
The voltage values of 20 and 28 V in the heading indicates that we comply with the international arc characteristic as defined in IEC 974-1.

4 This section indicates the voltage/current characteristic for TIG welding and a current range of 3 - 200 A.
The voltage values of 10 and 18 V in the heading indicates that we comply with the international arc characteristic as defined in IEC 974-1.

X = The duty cycle, which indicates for how long a time welding can be carried out at the specified welding data, expressed as a percentage of a 10-minute period.

I_2 = The current at the respective duty cycle.

U_2 = The arc line characteristic voltage.

U_0 = The open-circuit voltage.

5 Indicates that the unit is intended for connection to a 400 V three-phase supply at 50 or 60 Hz.

I_1 = primary currents at the various load points.

6 AF indicates that the rectifier is fan-cooled.

IP23 indicates the enclosure class in respect of protection against penetrating objects and water.

The \square symbol indicates that the rectifier is designed for use in areas of elevated electrical risk.

7 The machine's serial number, in the form of three groups of figures (xxx yyy zzz).

The first group (xxx) indicates the version. The figures represent the year and week of approval of the version.

The second group (yyy) shows the year and week of final testing of the machine. For example, 344 indicates Week 44, 1993.

The final group (zzz) consists of three or four figures, and is a serial number in the range 0001 to 9999.

8 Shows that ESAB complies with the international standard, IEC 974-1.