



Wire feed unit

## ON AH DK DV-4

Observe additional system documents!

# General instructions

## CAUTION



### Read the operating instructions!

The operating instructions provide an introduction to the safe use of the products.

- Read the operating instructions for all system components!
- Observe accident prevention regulations!
- Observe all local regulations!
- Confirm with a signature where appropriate.

## NOTE



**In the event of queries on installation, commissioning, operation or special conditions at the installation site, or on usage, please contact your sales partner or our customer service department on +49 2680 181-0.**

**A list of authorised sales partners can be found at [www.ewm-group.com](http://www.ewm-group.com).**

Liability relating to the operation of this equipment is restricted solely to the function of the equipment. No other form of liability, regardless of type, shall be accepted. This exclusion of liability shall be deemed accepted by the user on commissioning the equipment.

The manufacturer is unable to monitor whether or not these instructions or the conditions and methods are observed during installation, operation, usage and maintenance of the equipment.

An incorrectly performed installation can result in material damage and injure persons as a result. For this reason, we do not accept any responsibility or liability for losses, damages or costs arising from incorrect installation, improper operation or incorrect usage and maintenance or any actions connected to this in any way.

© EWM HIGHTEC WELDING GmbH · Dr. Günter-Henle-Str. 8 · D-56271 Mündersbach, Germany

The copyright to this document remains the property of the manufacturer.

Reprinting, including extracts, only permitted with written approval.

Subject to technical amendments.

---

# 1 Contents

<b>1</b>	<b>Contents</b> .....	<b>3</b>
<b>2</b>	<b>Safety instructions</b> .....	<b>4</b>
2.1	Proper usage .....	5
2.2	Short description of the working steps required .....	5
<b>3</b>	<b>Design and function</b> .....	<b>6</b>
3.1	Parts list .....	6
3.2	Installing the carrier plate.....	7
3.3	Changing the wire spool holder .....	8
3.3.1	Removing the wire spool holder without locking device.....	8
3.3.2	Installing the wire spool holder with locking device.....	9
3.4	Wire spool holder function specification .....	10
3.4.1	Unlocking the wire spool holder .....	10
3.4.2	Inserting the wire spool .....	11
3.4.3	Securing the wire spool holder .....	11
3.4.4	Spool brake setting.....	12
3.5	Final inspection .....	13
<b>4</b>	<b>Safety rules while lifting</b> .....	<b>14</b>

## 2 Safety instructions

### **DANGER**



**Do not carry out any unauthorised repairs or modifications!**

**To avoid injury and equipment damage, the unit must only be repaired or modified by specialist, skilled persons!**

**The warranty becomes null and void in the event of unauthorised interference.**

- Appoint only skilled persons for repair work (trained service personnel)!



**Protective earth PE!**

**To protect persons and animals against dangerous live voltages and electric shocks in the event of a fault, the casing panels on the unit are connected to a green/yellow protective earth.**

- After conversion, re-connect the protective earth to the casing panels!

### **WARNING**



**Validity of this document!**

**This document is only valid in combination with the operating instructions for the power source being used (welding machine)!**

- Read the operating instructions, in particular the safety instructions for the power source (welding machine)!



**Risk of accidents if these safety instructions are not observed!**

**Non-observance of these safety instructions is potentially fatal!**

- Carefully read the safety information in this manual!
- Observe the accident prevention regulations in your country.
- Inform persons in the working area that they must observe the regulations!

### **CAUTION**



**These supplementary sheets are valid in addition to the standard document!**

**These supplementary sheets are only valid in combination with the relevant standard operating instructions and expand on or replace a section in the corresponding standard descriptions.**

### **NOTE**



**When ordering spare parts, ensure that the project number and serial number of the welding machine are quoted.**

## 2.1 Proper usage

This machine has been manufactured according to the latest developments in technology and current regulations and standards. It must only be operated in line with the instructions on correct usage.



### WARNING



#### **Hazards due to improper usage!**

**Hazards may arise for persons, animals and material objects if the equipment is not used correctly. No liability is accepted for any damages arising from improper usage!**

- The equipment must only be used in line with proper usage and by trained or expert staff!
- Do not modify or convert the equipment improperly!

These instructions apply only for the conversion of the following machines:

- alpha Q drive 4D
- Phoenix Progress drive 4D
- Phoenix Expert drive 4D

## 2.2 Short description of the working steps required

- Installing the carrier plate for wall-mounting
- Installing the wire spool holder with locking device

## 3 Design and function

### 3.1 Parts list

#### NOTE

Before conversion, check that the retrofit kit is complete (see parts list).

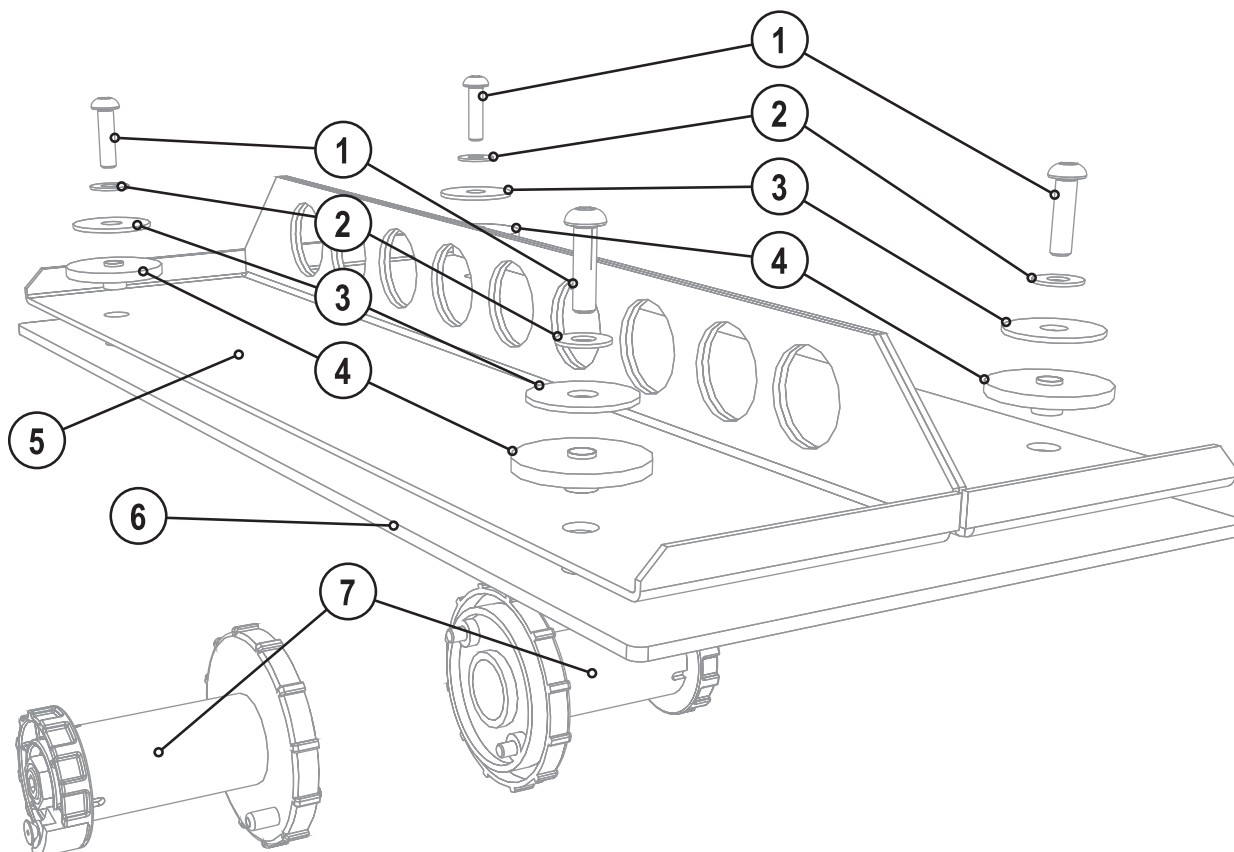


Figure 3-1

Item	Quantity	Description	Item number
1	4	Oval-head screw (M8 x 30)	094-008191-00000
2	4	Fender washer (M8)	064-000793-00000
3	4	Fender washer (M10)	034-000044-00000
4	4	Plastic disc (M8)	094-016874-00000
5	1	Carrier plate	094-016873-00000
6	1	Insulation plate	094-016873-00000
7	2	Wire spool holder with locking device	092-001222-00000

### 3.2 Installing the carrier plate

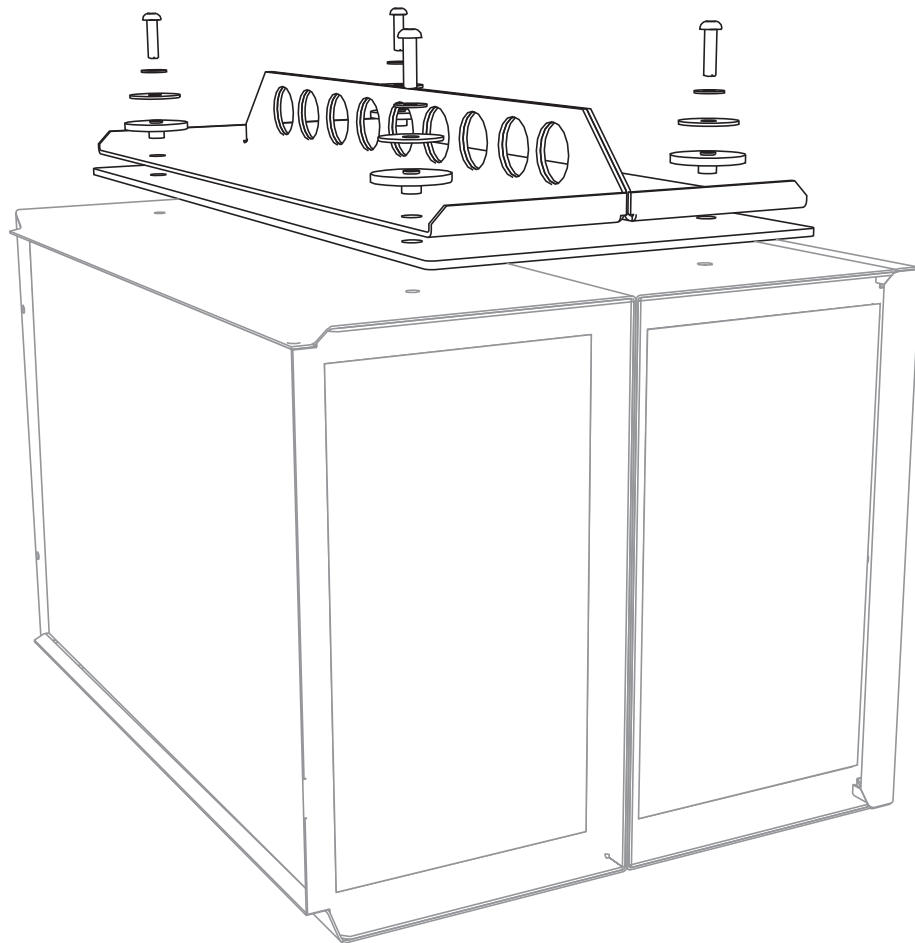


Figure 3-2

- Remove transport handles.
- Place the insulation plate onto the wire feed casing.
- Place the carrier plate onto the insulation plate.
- Insert the plastic discs (M8) in the carrier plate.
- Place the fender washers (M10) onto the plastic discs (M8).
- Place the fender washers (M8) onto the fender washers (M10).
- Secure the insulation plate, carrier plate and discs using the oval-head screws (M8 x 30).

## 3.3 Changing the wire spool holder

### 3.3.1 Removing the wire spool holder without locking device

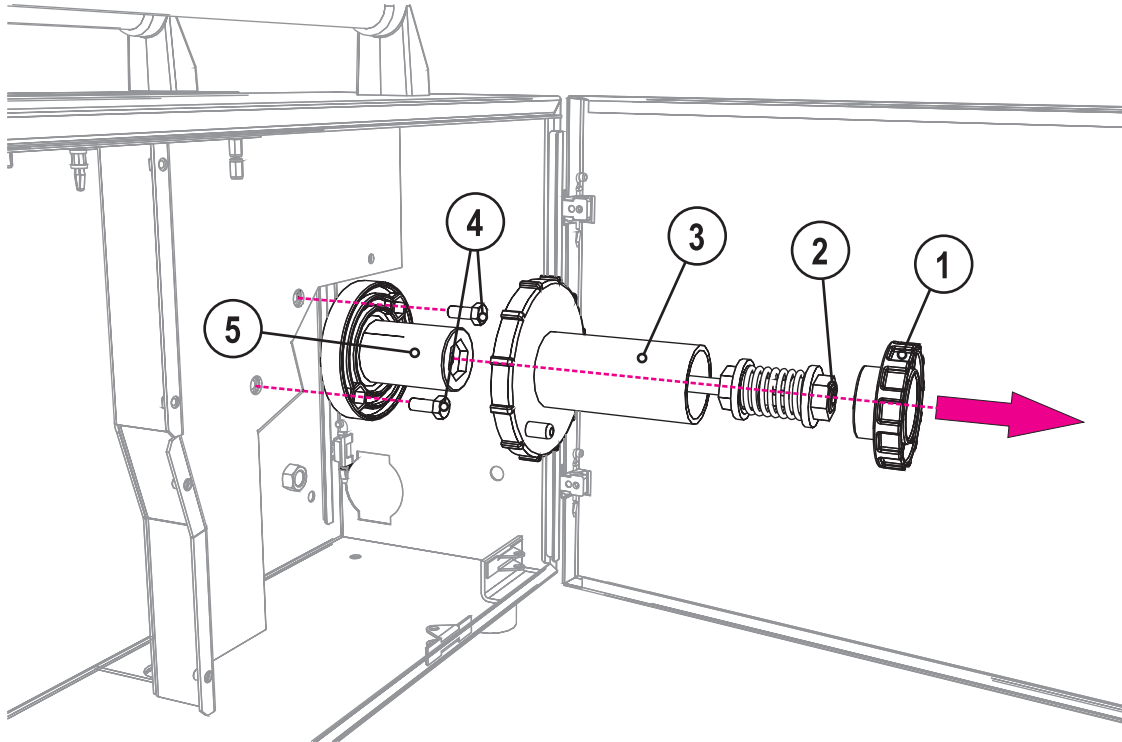


Figure 3-3

Item	Symbol	Description
1		<b>Knurled nut</b> For fixing the wire spool
2		<b>Allen screw</b> Securing the wire spool retainer and adjustment of the spool brake
3		<b>Wire spool retainer</b>
4		<b>Hexagon socket head screw (M8)</b> To secure the inner wire spool holder
5		<b>Inner wire spool holder</b>

- Open the wire feed unit.
- Unscrew the knurled nut.
- Remove the hexagon socket head screw (M10) of the mounting and brake unit and then remove the wire spool holder.
- Remove the hexagon socket head screws (M8) and then remove the inner wire spool holder.



### 3.3.2 Installing the wire spool holder with locking device

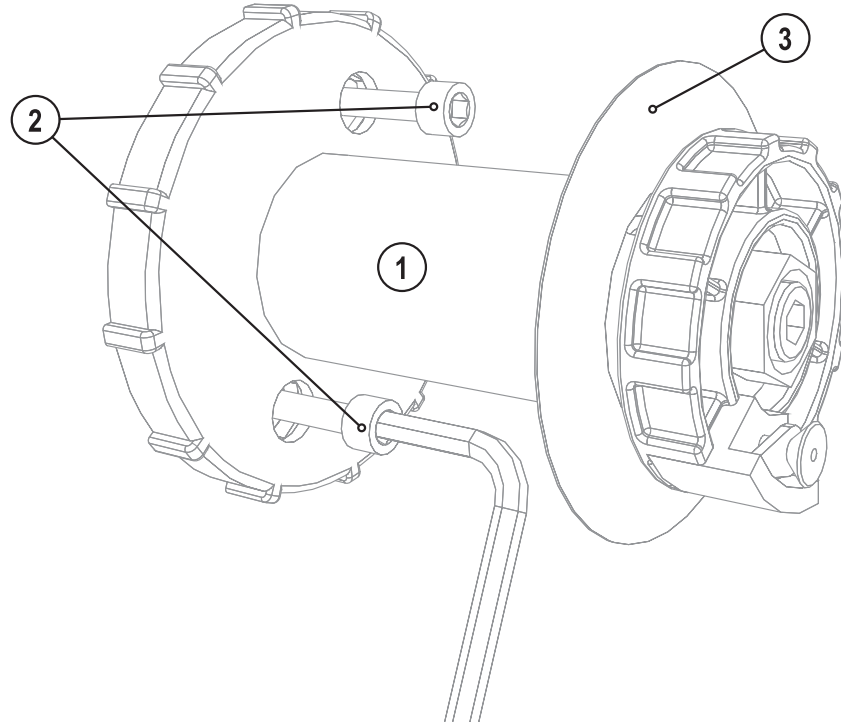


Figure 3-4

Item	Symbol	Description
1		Wire spool retainer
2		Hexagon socket head screw (M8) To secure the inner wire spool holder
3		Adhesive film

- Fasten the wire spool holder to the wire feed unit using 2 hexagon socket head screws (M8).
- Stick adhesive film over the bores.

## 3.4 Wire spool holder function specification

### 3.4.1 Unlocking the wire spool holder

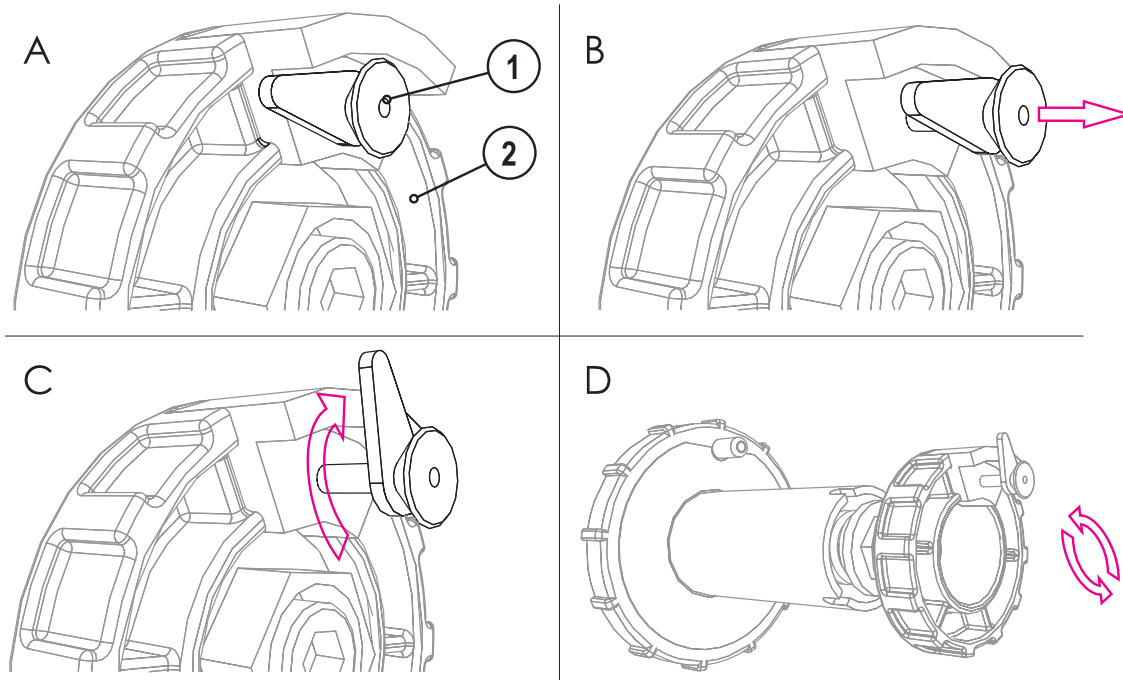


Figure 3-5

Item	Symbol	Description
1		<b>Locking pin</b> To prevent the knurled nut from coming loose
2		<b>Knurled nut</b> For fixing the wire spool

- Remove the locking pin and unlock the knurled nut with a twist.
- Remove knurled nut.

### 3.4.2 Inserting the wire spool

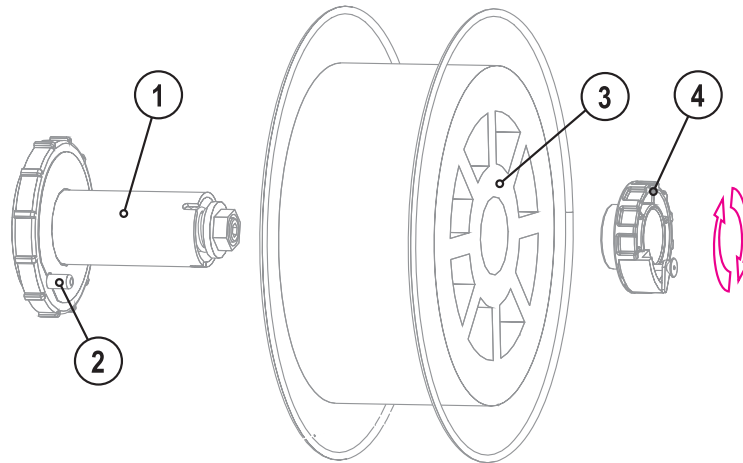


Figure 3-6

Item	Symbol	Description
1		<b>Wire spool retainer</b>
2		<b>Carrier pin</b> For fixing the wire spool
3		<b>Wire spool</b>
4		<b>Knurled nut</b> For fixing the wire spool

- Fasten the welding wire spool to the wire spool holder so that the driving pin locks into place in the spool bore.
- Reattach the wire spool and the knurled nut.

### 3.4.3 Securing the wire spool holder

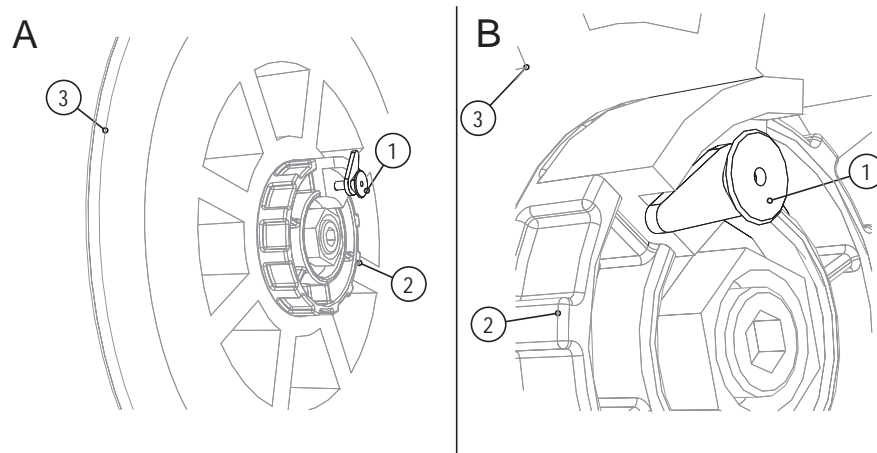


Figure 3-7

Item	Symbol	Description
1		<b>Locking pin</b> To prevent the knurled nut from coming loose
2		<b>Knurled nut</b> For fixing the wire spool
3		<b>Wire spool</b>

- Screw on the knurled nut as far as it goes.
- Secure the locking pin by turning it.
- Turn the knurled nut to the left until the locking pin locks into place.

## 3.4.4 Spool brake setting

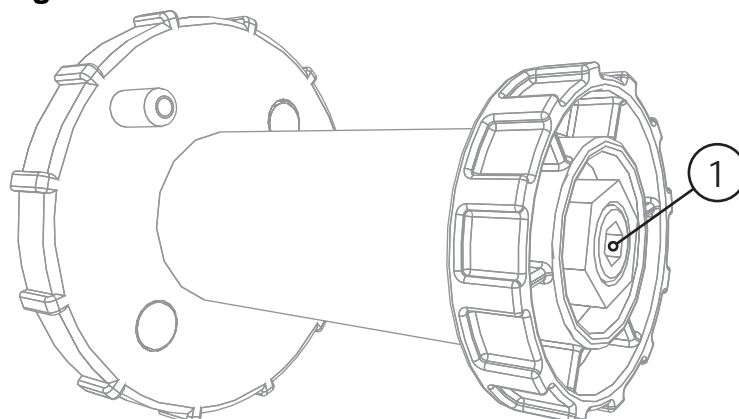


Figure 3-8

Item	Symbol	Description
1		<b>Allen screw</b> Securing the wire spool retainer and adjustment of the spool brake

- Tighten the Allen screw (8 mm) in the clockwise direction to increase the braking effect.

### NOTE



#### **Do not jam the wire spool!**

Tighten the spool brake until the wire spool no longer turns when the wire feed motor stops but without it jamming during operation!

**The fixing of the pin reel must be checked if the hexagonal socket screw is released.**

See chapter "Fixing of the pin reel (adjustment of the pre-tensioning)"

### 3.5 Final inspection

#### DANGER



##### Protective earth PE!

To protect persons and animals against dangerous live voltages and electric shocks in the event of a fault, the casing panels on the unit are connected to a green/yellow protective earth.

- After conversion, re-connect the protective earth to the casing panels!

#### WARNING



##### Danger due to failure to carry out the final inspection!

Parts that are incorrectly fitted or that become loose are a source of danger.

- Check all mechanical connections to ensure that they are fitted correctly!
- Carry out the final inspection!
- Carry out the functional test!

#### CAUTION



##### Test!

Before re-commissioning, it is essential that an "inspection and test during operation" is carried out conforming to IEC / DIN EN 60974-4 "Arc welding devices - inspection and testing during operation"!

- For detailed instructions, please see the standard operating instructions for the welding machine.

#### NOTE



- Keep the conversion instructions with the machine documentation!
- When ordering spare parts, ensure that the item number and serial number of the machine are quoted!

## 4 Safety rules while lifting

 **DANGER**



**Risk of injury during lifting by crane!**

**When lifting the unit by crane there is a risk of serious injuries due to the units or add-on modules falling down.**

- Suspend on the two outer lifting eyes simultaneously!
- Ensure that the load is distributed as evenly as possible!
- Avoid jerky movements when raising or lowering!
- Use adequately sized chains or suspension ropes as well as shackles and load hooks!

