



Factory-fit option

OW HASE DV4L / DVX XX1
OW HASE DV4 XX1

Torch hose package support arm

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.

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.

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2 Safety instructions

2.1 For your safety



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)!



WARNING



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!



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)!

CAUTION



Obligations of the operator!

The respective national directives and laws must be observed for operation of the machine!

- National implementation of the framework directive (89/391/EEG), as well as the associated individual directives.
- In particular, directive (89/655/EEG), on the minimum regulations for safety and health protection when staff members use equipment during work.
- The regulations regarding work safety and accident prevention for the respective country.
- Setting up and operating the machine according to IEC 60974-9.
- Check at regular intervals that users are working in a safety-conscious way.
- Regular checks of the machine according to IEC 60974-4.



Damage due to the use of non-genuine parts!

The manufacturer's warranty becomes void if non-genuine parts are used!

- Only use system components and options (power sources, welding torches, electrode holders, remote controls, spare parts and replacement parts, etc.) from our range of products!
- Only insert and lock accessory components into the relevant connection socket when the machine is switched off.

3 Overview

3.1 Proper 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!

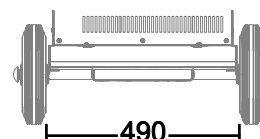
CAUTION



Unsuitable tread width of the power source!

Machines with an unsuitable tread width may not be equipped with this option as they could topple and cause injuries.

- The carriage of the power source must have a tread width of at least 490 mm!



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

- Welding machines alpha Q 351, 551 and Phoenix 351, 401, 451, 551 and Taurus 351, 401, 451, 551.
- drive 4 wire feeder series
- Wire feed unit drive 4L.
- Wire feed unit drive 4X / drive 4 Basic.

3.2 Short description of the working steps required

- Remove existing lifting eyes (crane suspension).
- Put on adapter plate and screw to lifting eyes.
- Put on swivelling support arm.
- When using the drive 4 wire feeder series, mount the adapter plates required for this.

3.3 System overview

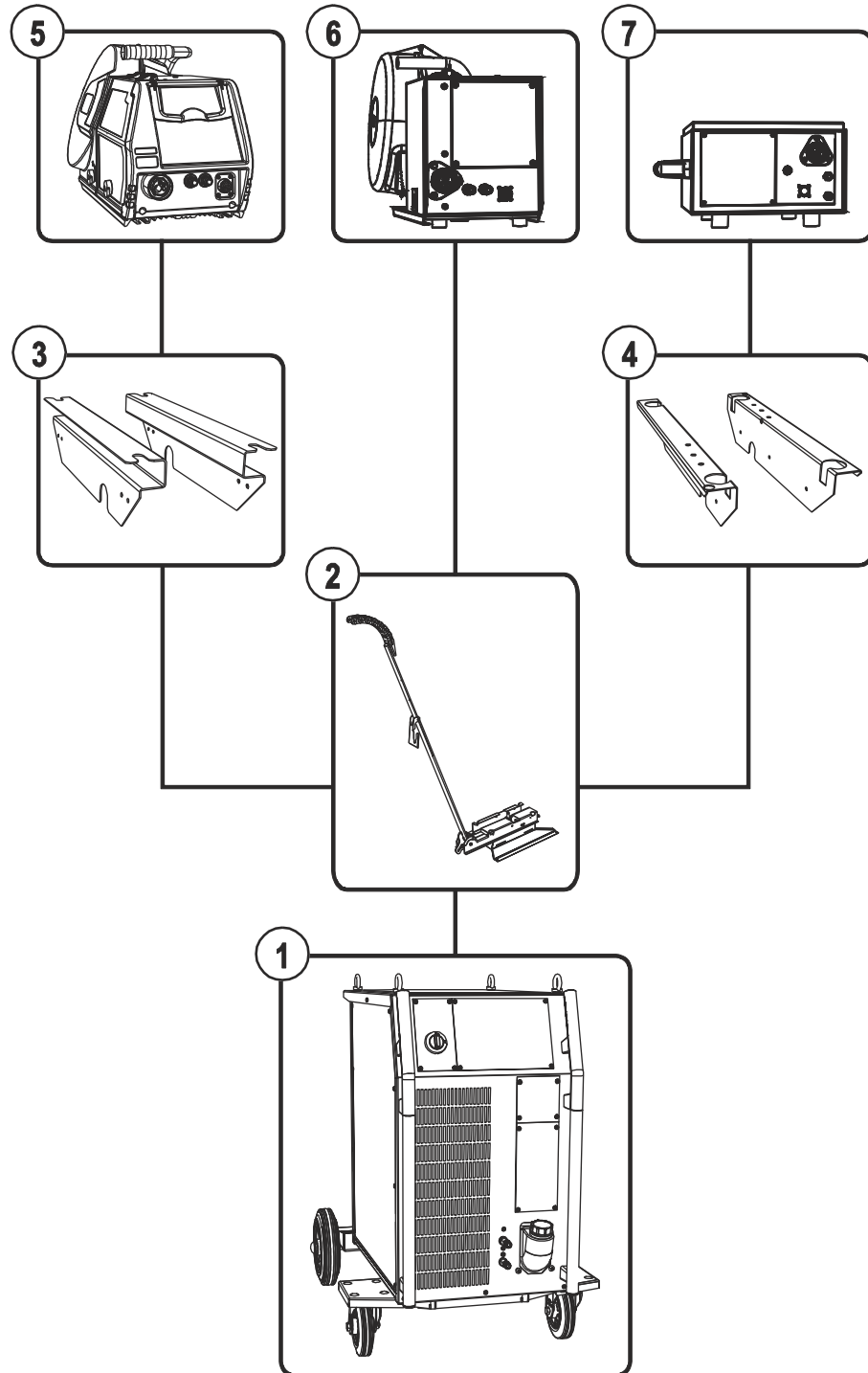


Figure 3-1

Item	Symbol	Description
1		Power source
2		Hose support arm
3		Adapter plate drive 4X
4		Adapter plate drive 4
5		Wire feed unit - drive 4X / drive 4 Basic
6		Wire feed unit - drive 4L
7		Wire feed unit - drive 4

3.4 Parts list

NOTE

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

3.4.1 OW HASE DV4L / DVX XX1

3.4.1.1 drive 4X / drive 4 Basic

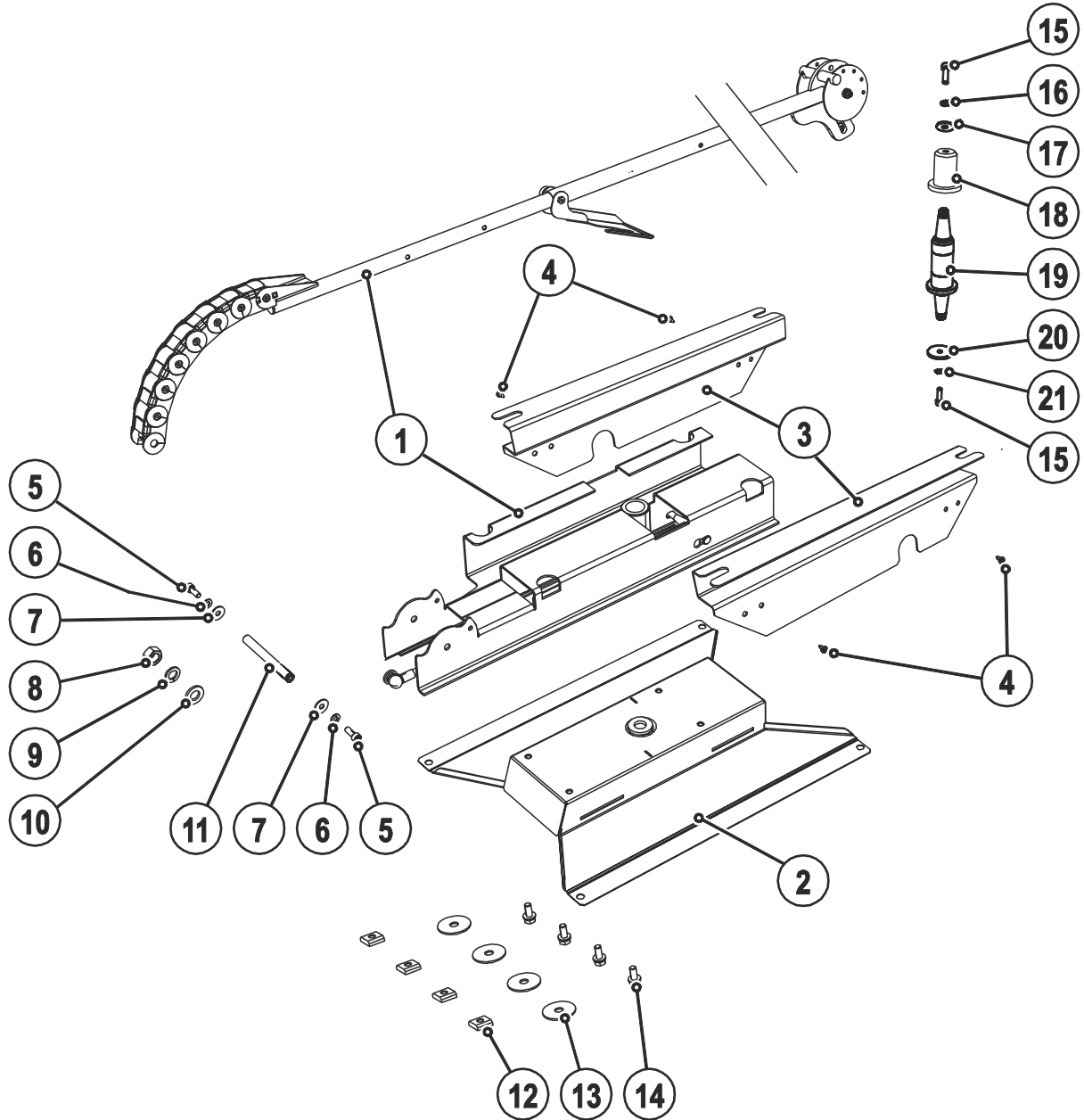


Figure 3-2

Item 0	Quantity	Description	Item number
1	1	Torch hose package support arm	094-015443-00000
2	1	Adapter plate	092-001376-00000
3	2	Adapter plate	094-020655-00000
4	4	Threaded grooved pin, M5 x 16	094-015135-00000
5	2	M6 x 16, Cylinder head screw	
6	2	M6 spring washer	
7	2	M6, Fender washer	
8	1	M12, hexagonal nut	
9	1	M12 spring washer	
10	1	M12 plain washer	
11	1	Axis	
12	4	M8, T-nut	094-008640-00000
13	4	M10, Fender washer	034-000044-00000
14	4	M8 x 20 mm Screw with washer assembly	064-000511-00000
15	2	M6 x 20, Cylinder head screw	
16	1	M6 spring washer	
17	1	M6 plain washer	
18	1	Press arbor guide bushing (socket is pressed into the metal sheet)	094-007371-00004
19	1	Turning mandrel	
20	1	Washer	
21	1	M6 Fan-type lock washer	

3.4.1.2 drive 4L

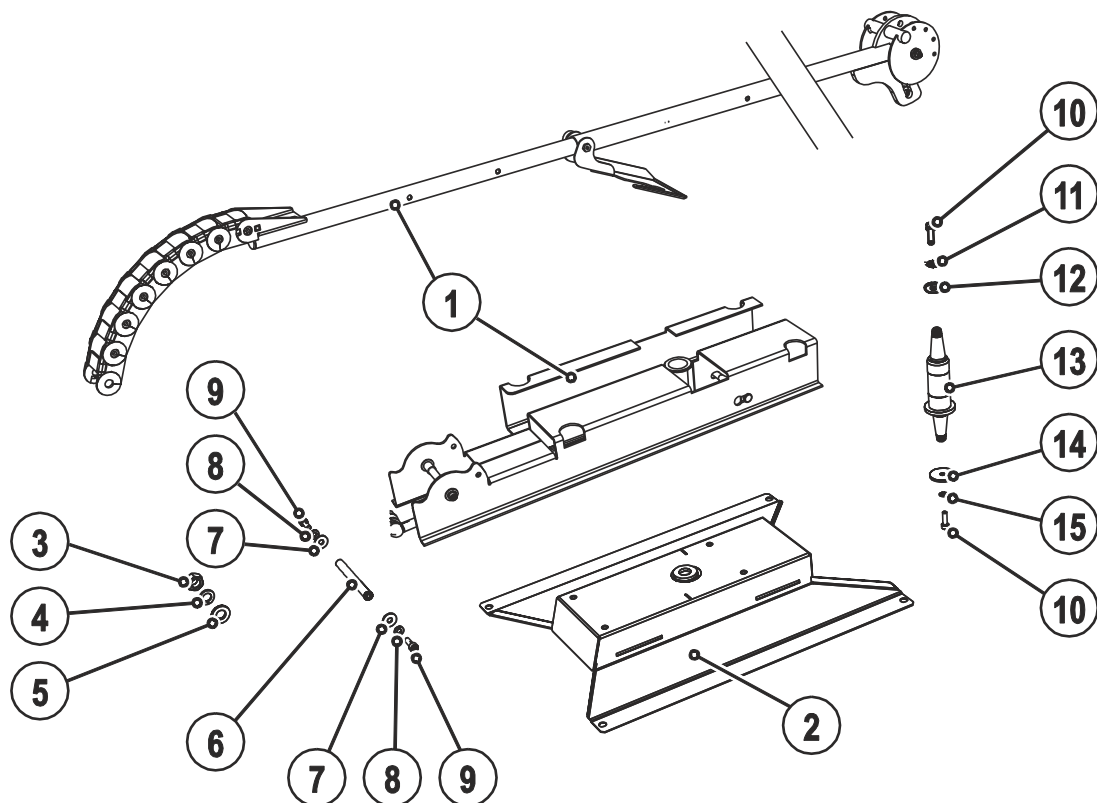


Figure 3-3

Item 0	Quantity	Description	Item number
1	1	Torch hose package support arm	094-015443-00000
2	1	Adapter plate	092-001376-00000
3	1	M12, hexagonal nut	
4	1	M12 spring washer	
5	1	M12 plain washer	
6	1	Axis	
7	2	M6, Fender washer	
8	2	M6 spring washer	
9	2	M6 x 16, Cylinder head screw	
10	2	M6 x 20, Cylinder head screw	
11	1	M6 spring washer	
12	1	M6 plain washer	
13	1	Turning mandrel	
14	1	Washer	
15	1	M6 Fan-type lock washer	

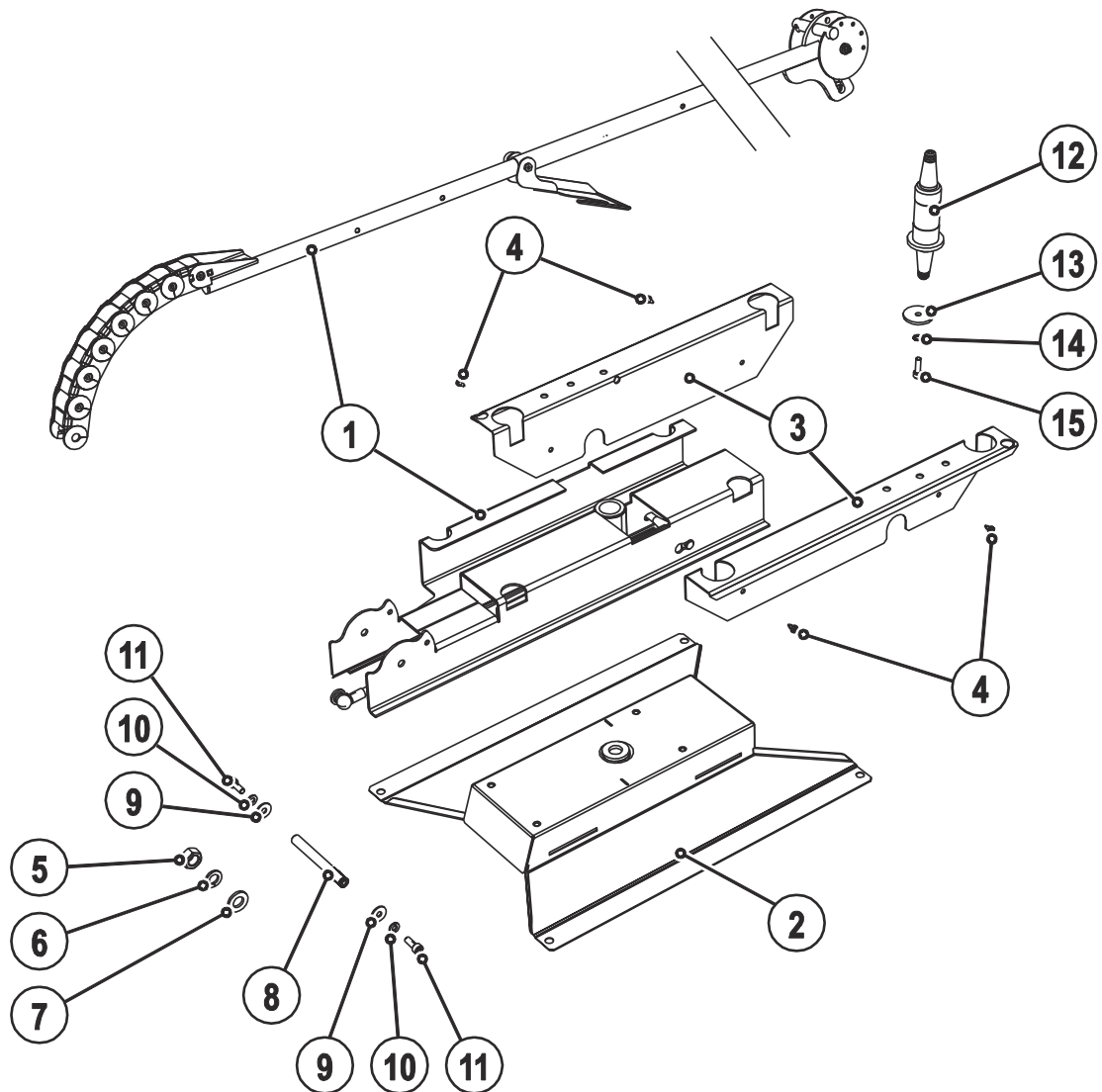
3.4.2 OW HASE DV4 XX1
3.4.2.1 drive 4


Figure 3-4

Item 0	Quantity	Description	Item number
1	1	Torch hose package support arm	094-015443-00000
2	1	Adapter plate	092-001376-00000
3	2	Adapter plate	094-018893-00000
4	4	Threaded grooved pin, M5 x 16	094-015135-00000
5	1	M12, hexagonal nut	
6	1	M12 spring washer	
7	1	M12 plain washer	
8	1	Axis	
9	2	M6, Fender washer	
10	2	M6 spring washer	
11	2	M6 x 16, Cylinder head screw	
12	1	Turning mandrel	
13	1	Washer	
14	1	M6 Fan-type lock washer	
15	1	M6 x 20 hexagonal socket screw	

4 Assembly

4.1 Preparations

4.1.1 Screwing the press arbor onto the cross arm

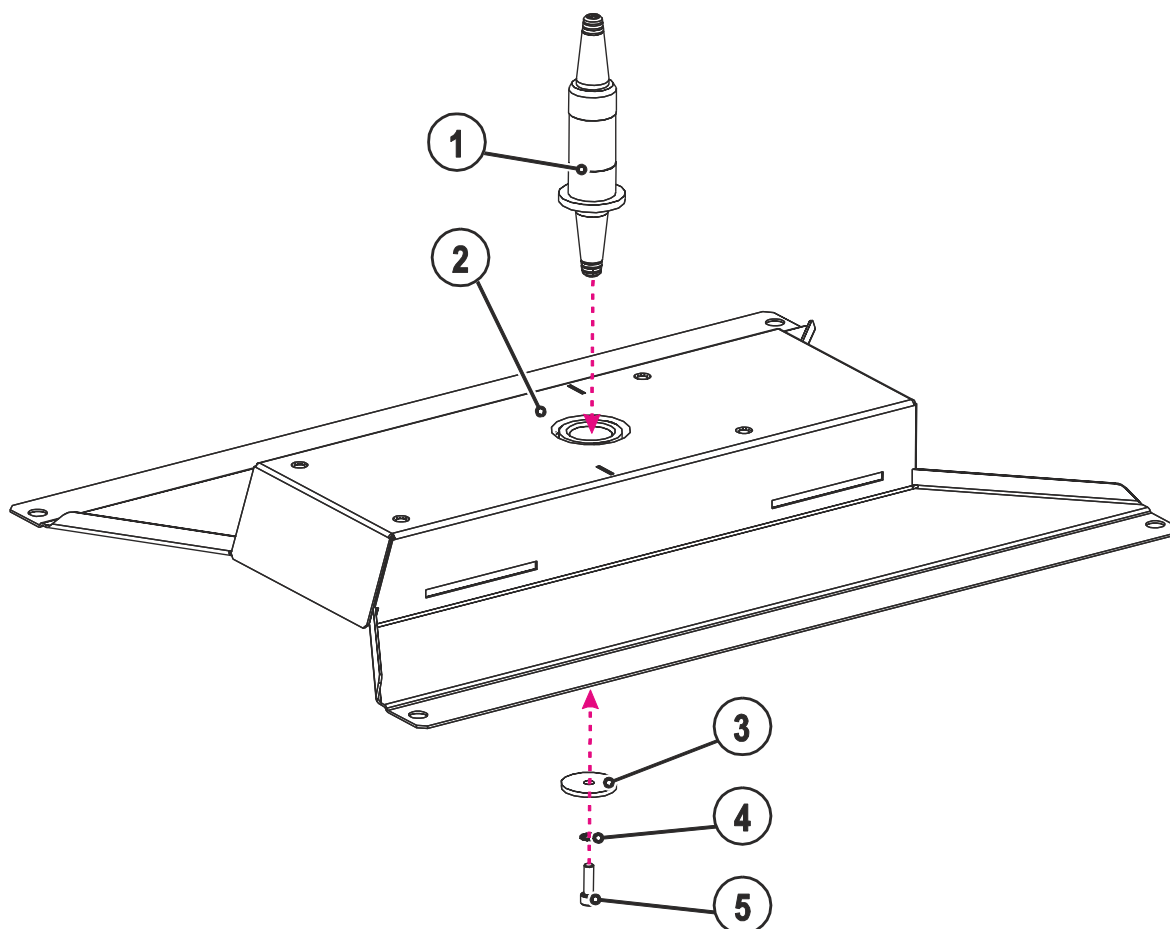


Figure 4-1

Item 0	Quantity	Description	Item number
1	1	Turning mandrel	
2	1	Adapter plate	092-001376-00000
3	1	Washer	
4	1	M6 Fan-type lock washer	
5	1	M6 x 20, Cylinder head screw	

- Plug turning mandrel into the adapter plate.
- Screw the turning mandrel on with plain washer, fan-type lock washer and screw.

4.1.2 Fitting the adapter plate

⚠ WARNING**Risk of injury due to unsuitable lifting eye!**

In case of improper use of lifting eyes or the use of unsuitable lifting eyes, persons can be seriously damaged by falling equipment or add-on components!

- The lifting eye must be completely screwed in!
- The lifting eye must be positioned flat onto and in full contact with the supporting surfaces!
- Check that the lifting eyes are securely fastened before use and check for any damage (corrosion, deformation)!
- Do not use or screw in damaged lifting eyes!
- Avoid lateral loading of the lifting eyes!

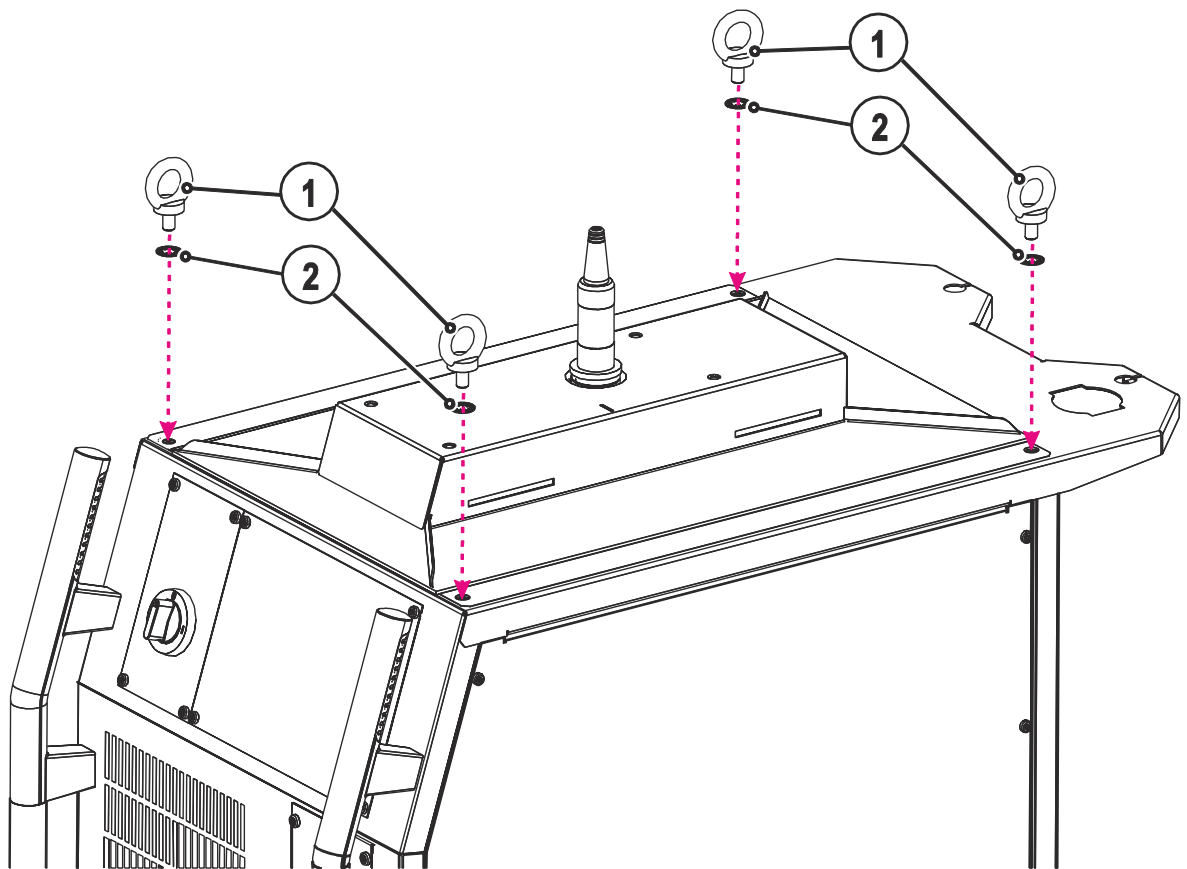


Figure 4-2

Item 0	Quantity	Description	Item number
1	4	M10 x 25 Lifting eye	094-000209-00001
2	4	Fan-type lock washer	064-000563-00000

- Unscrew lifting eye.
- Connect the adapter plate to the welding machine using the lifting eyes and the fan-type lock washers.

4.2 OW HASE DV4L / DVX XX1

4.2.1 drive 4X / drive 4 Basic

4.2.1.1 Fitting the adapter plate

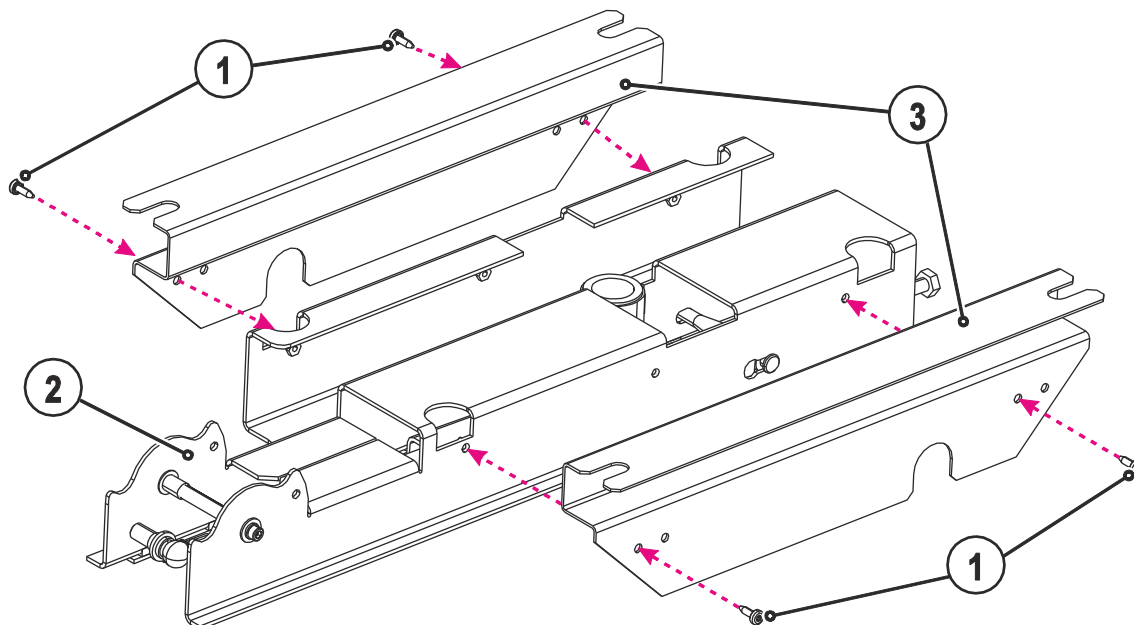


Figure 4-3

Item 0	Quantity	Description	Item number
1	4	Threaded grooved pin, M5 x 16	094-015135-00000
2	1	Wire feeder receiving plate	
3	2	Adapter plate	094-020655-00000

4.2.1.2 Mounting the support arm for the torch hose package

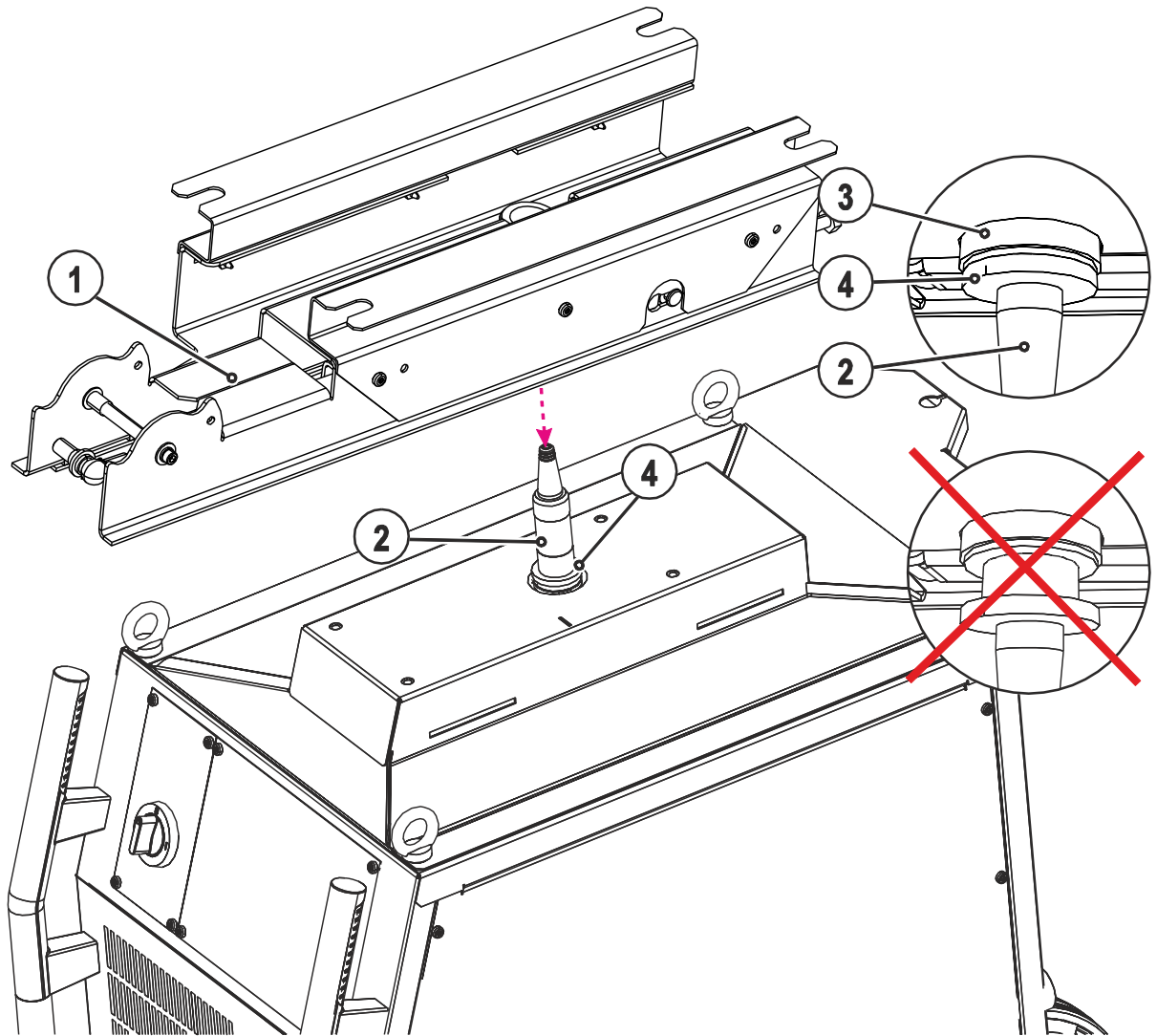


Figure 4-4

Item	Symbol	Description
1		Wire feeder receiving plate
2		Arbor
3		Collar, wire feeder receiving plate
4		Collar, turning mandrel

- Put wire feeder receiving plate onto the turning mandrel.
Collar of wire feeder receiving plate must lie flush on collar of the turning mandrel.

⚠ WARNING



Faulty assembly!

If system components are not carefully plugged in or not completely connected, they may detach during moving and cause severe injury.

- Always completely plug in, connect or engage system components.

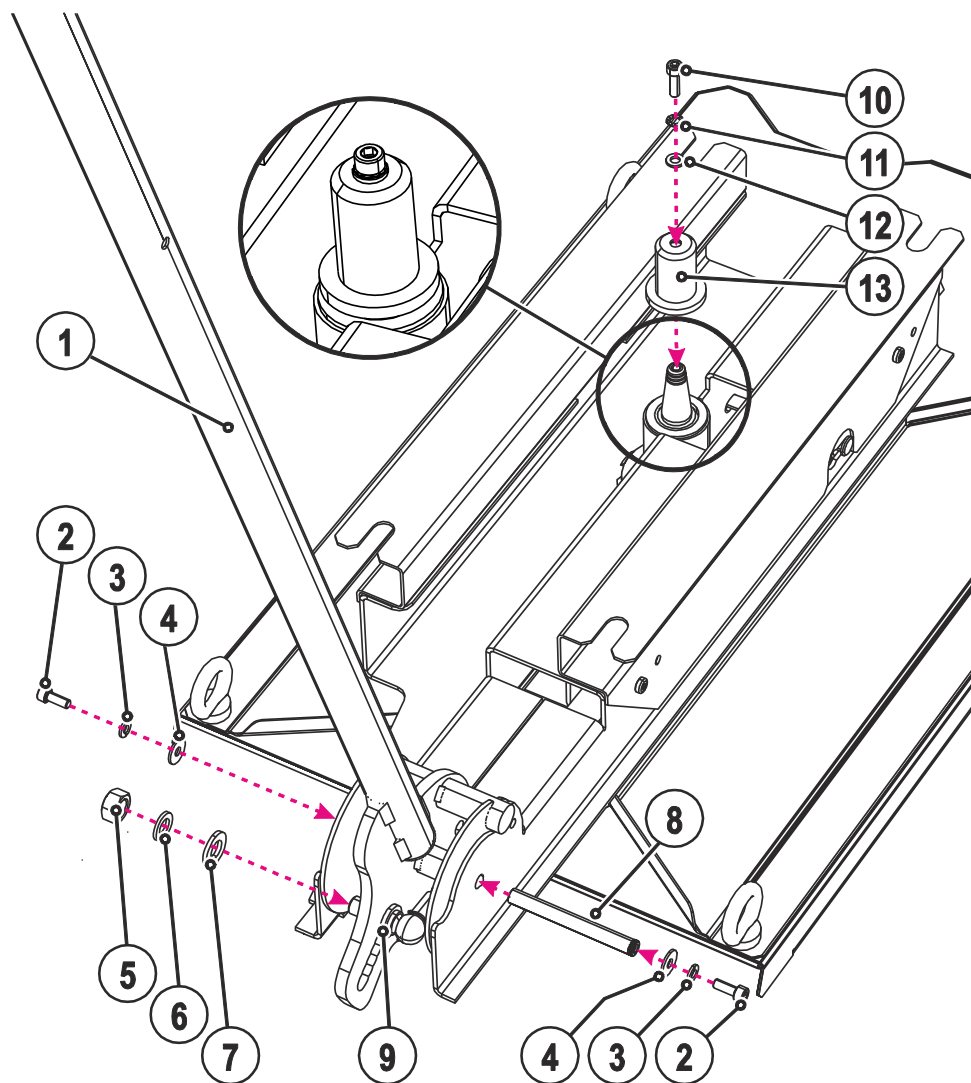


Figure 4-5

Item 0	Quantity	Description	Item number
1	1	Torch hose package support arm	094-015443-00000
2	2	M6 x 16, Cylinder head screw	
3	2	M6 spring washer	
4	2	M6, Fender washer	
5	1	M12, hexagonal nut	
6	1	M12 spring washer	
7	1	M12 plain washer	
8	1	Axis	
9	1	Gas spring	-
10	1	M6 x 20, Cylinder head screw	
11	1	M6 spring washer	
12	1	M6 plain washer	
13	1	Press arbor guide bushing (socket is pressed into the metal sheet)	094-007371-00004

- Mount support arm for torch hose package using two M6 x 16 screws together with plain washer, spring lock washer and axle.
- Mount gas spring together with M12 hexagonal nut, spring lock washer and plain washer.
- Screw the guide sleeve to the turning mandrel using plain washer, spring washer and screw.

4.2.2 drive 4L

4.2.2.1 Mounting the support arm for the torch hose package

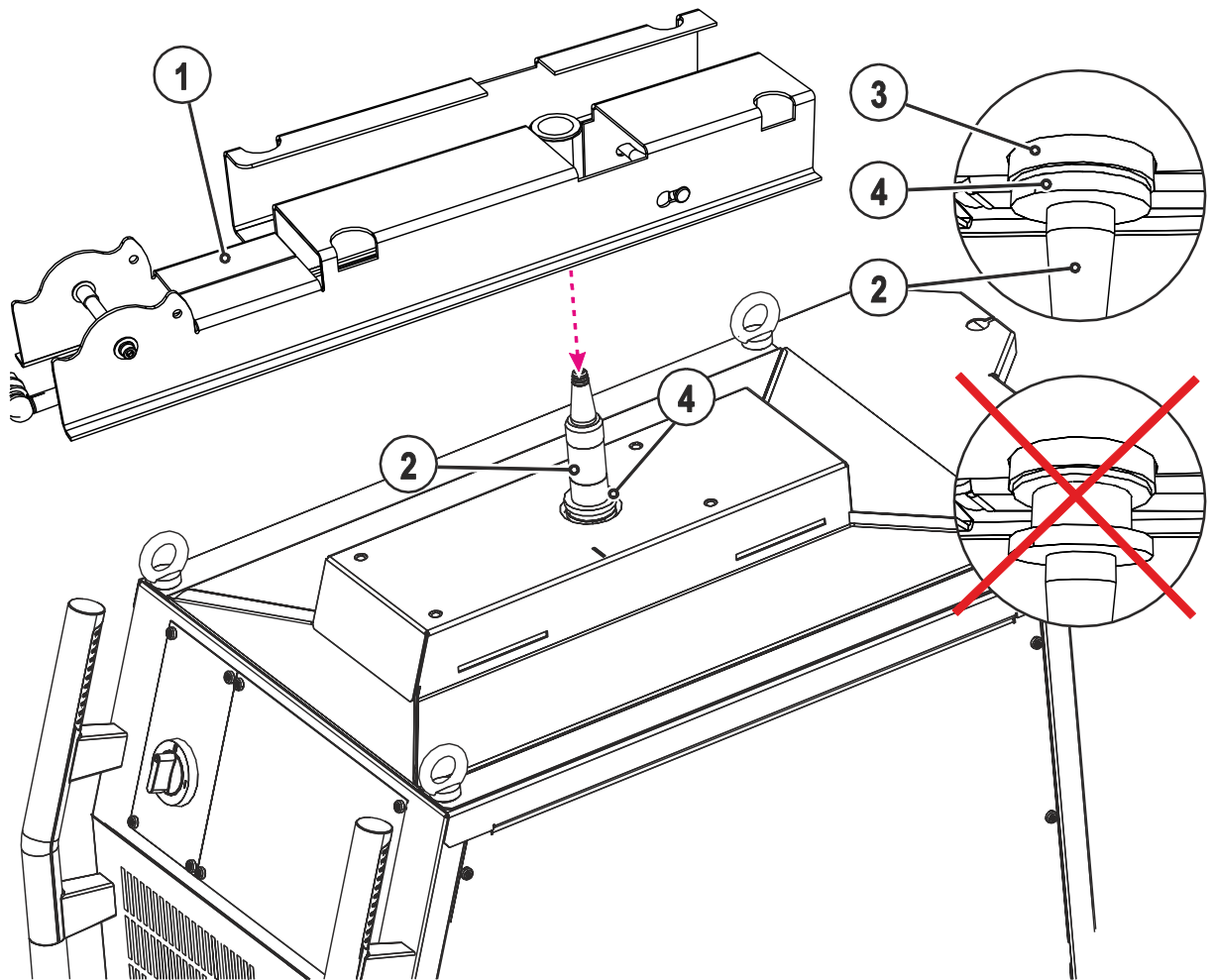


Figure 4-6

Item	Symbol	Description
1		Wire feeder receiving plate
2		Arbor
3		Collar, wire feeder receiving plate
4		Collar, turning mandrel

- Put wire feeder receiving plate onto the turning mandrel.
Collar of wire feeder receiving plate must lie flush on collar of the turning mandrel.

⚠ WARNING



Faulty assembly!

If system components are not carefully plugged in or not completely connected, they may detach during moving and cause severe injury.

- Always completely plug in, connect or engage system components.

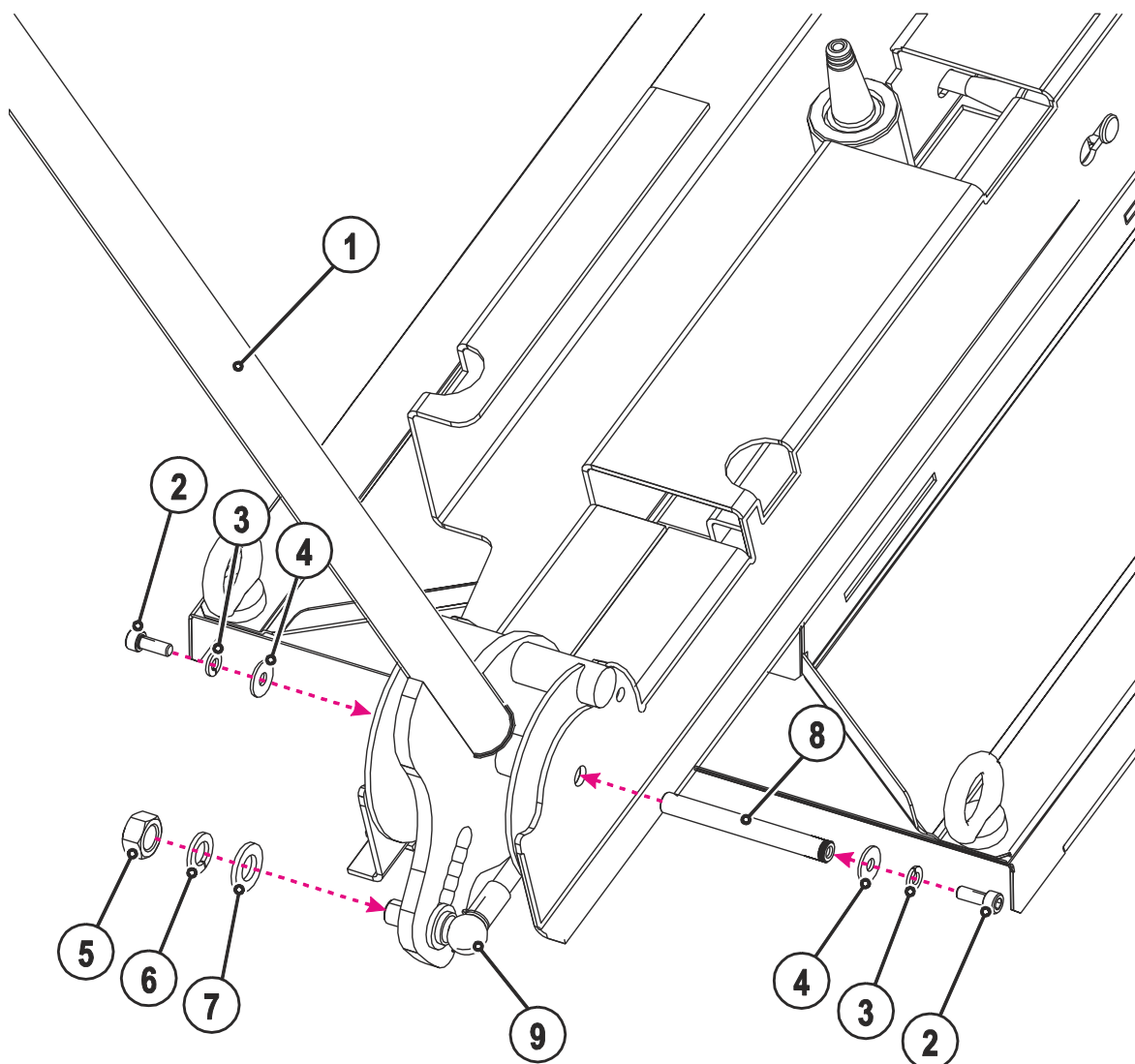


Figure 4-7

Item 0	Quantity	Description	Item number
1	1	Torch hose package support arm	094-015443-00000
2	2	M6 x 16, Cylinder head screw	
3	2	M6 spring washer	
4	2	M6, Fender washer	
5	1	M12, hexagonal nut	
6	1	M12 spring washer	
7	1	M12 plain washer	
8	1	Axis	
9	1	Gas spring	-

- Mount support arm for torch hose package using two M6 x 16 screws together with plain washer, spring lock washer and axle.
- Mount gas spring together with M12 hexagonal nut, spring lock washer and plain washer.

4.3 OW HASE DV4 XX1

4.3.1 Fitting the adapter plate

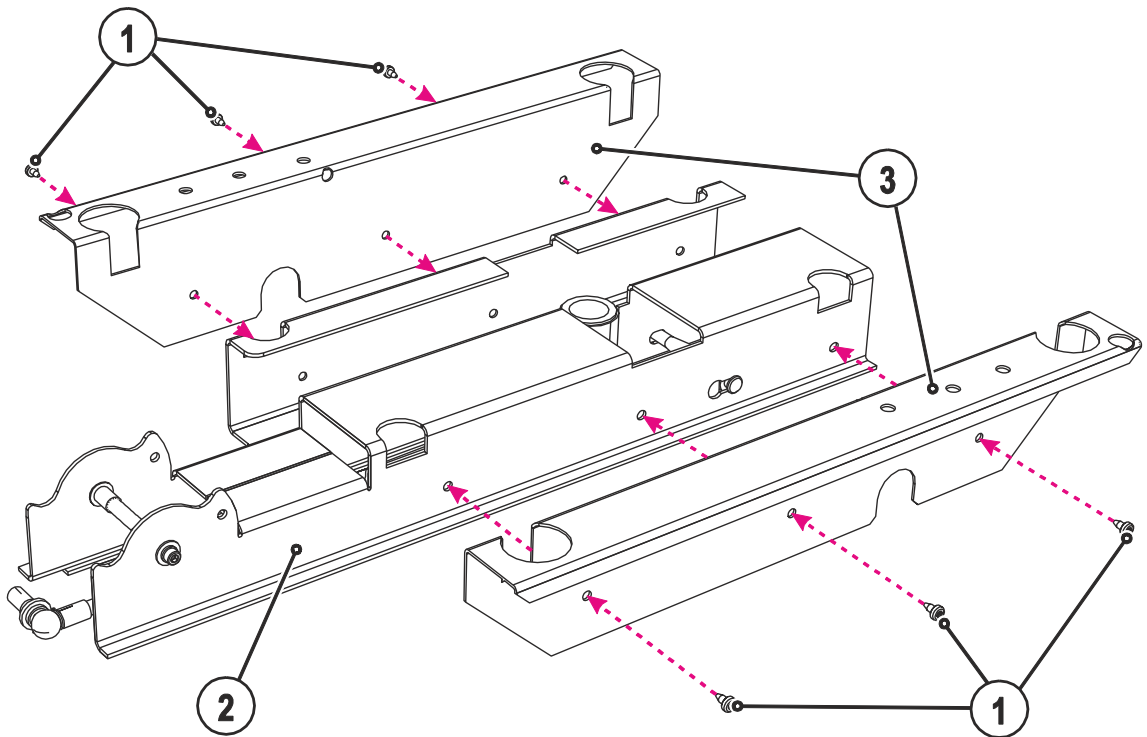


Figure 4-8

Item 0	Quantity	Description	Item number
1	6	Threaded grooved pin, M5 x 16	094-015135-00000
2	1	Wire feeder receiving plate	
3	2	Adapter plate	094-018893-00000

4.3.2 Mounting the support arm for the torch hose package

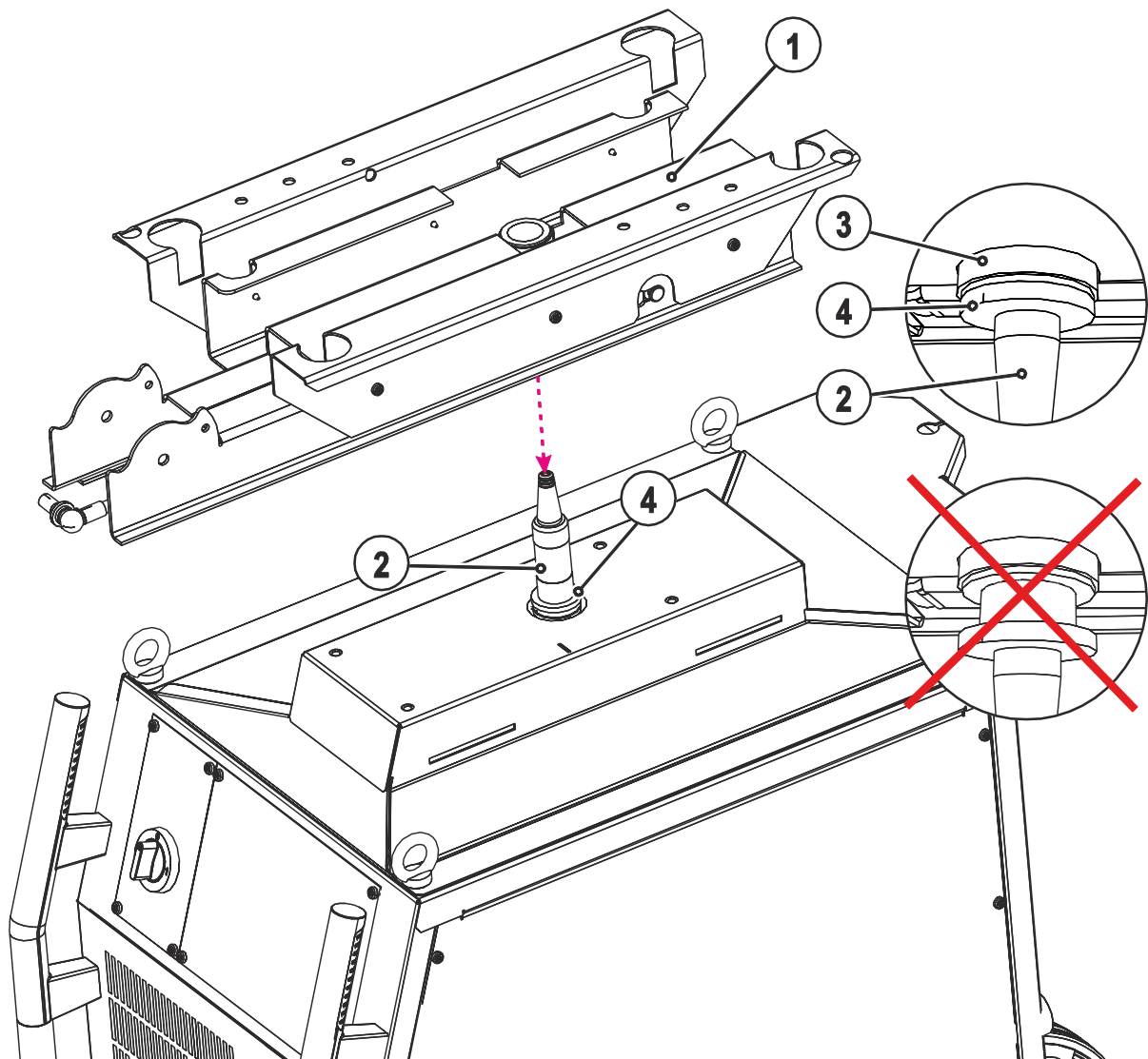


Figure 4-9

Item	Symbol	Description
1		Wire feeder receiving plate
2		Arbor
3		Collar, wire feeder receiving plate
4		Collar, turning mandrel

- Put wire feeder receiving plate onto the turning mandrel.
Collar of wire feeder receiving plate must lie flush on collar of the turning mandrel.

! WARNING



Faulty assembly!

If system components are not carefully plugged in or not completely connected, they may detach during moving and cause severe injury.

- Always completely plug in, connect or engage system components.

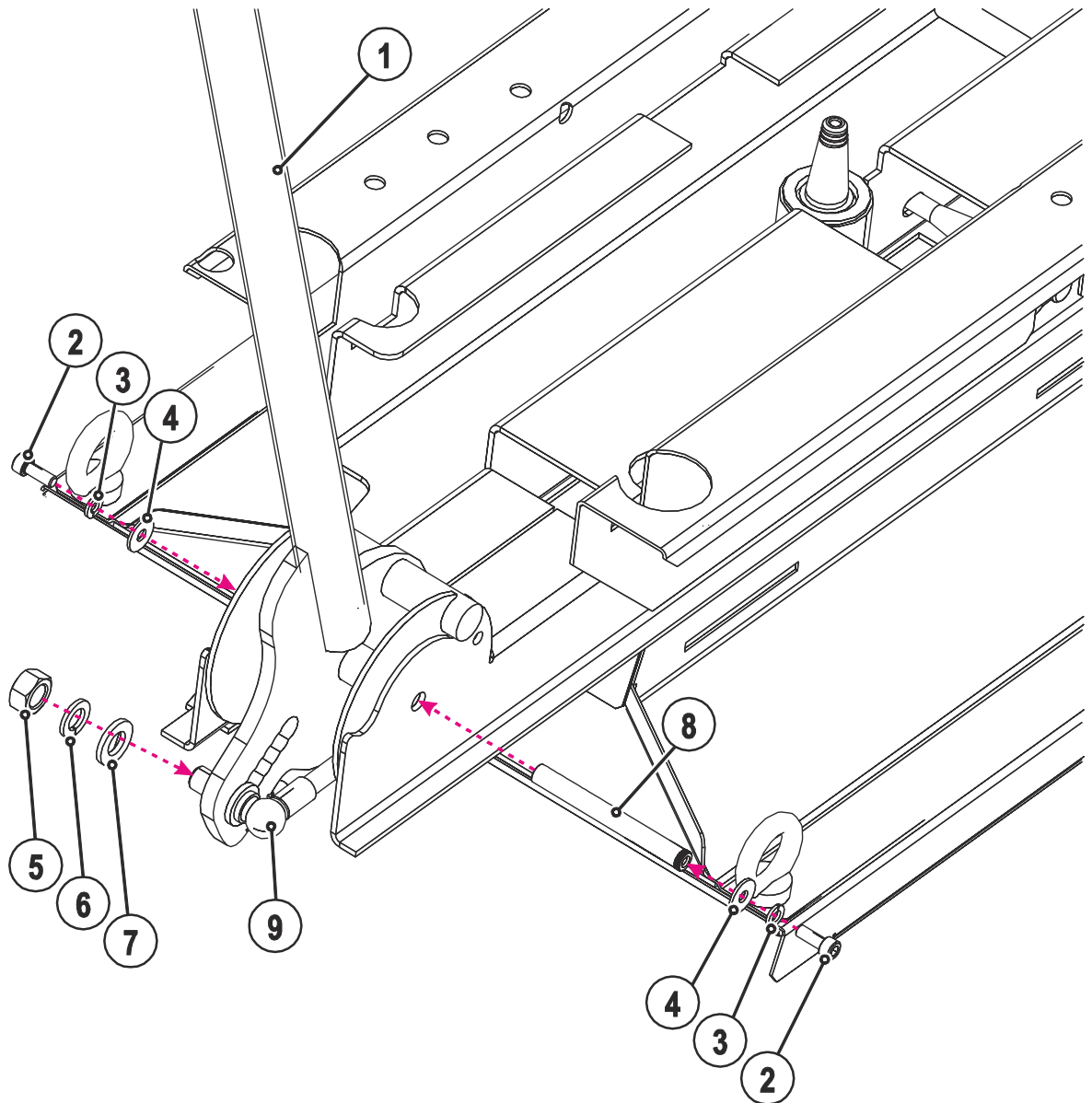


Figure 4-10

Item 0	Quantity	Description	Item number
1	1	Torch hose package support arm	094-015443-00000
2	2	M6 x 16, Cylinder head screw	
3	2	M6 spring washer	
4	2	M6, Fender washer	
5	1	M12, hexagonal nut	
6	1	M12 spring washer	
7	1	M12 plain washer	
8	1	Axis	
9	1	Gas spring	-

- Mount support arm for torch hose package using two M6 x 16 screws together with plain washer, spring lock washer and axle.
- Mount gas spring together with M12 hexagonal nut, spring lock washer and plain washer.

5 Functional characteristics

5.1 OW HASE DV4L / DVX XX1

5.1.1 drive 4X / drive 4 Basic assembly

5.1.1.1 Mounting wire feeders

CAUTION



Risk of falling!

If a machine is not properly positioned on the support, it may fall down, get damaged and subsequently injure persons.

- Prior to any transport and prior to any commissioning, check secure fit of the accessory components!
- Observe the safety instructions regarding transport, positioning and lifting by crane provided in the operating instructions for the power source or for the wire feeder!
- Do not apply tensile force to the torch hose package! If it can be foreseen that tensile forces cannot be avoided, the wire feeders must be removed from the support!

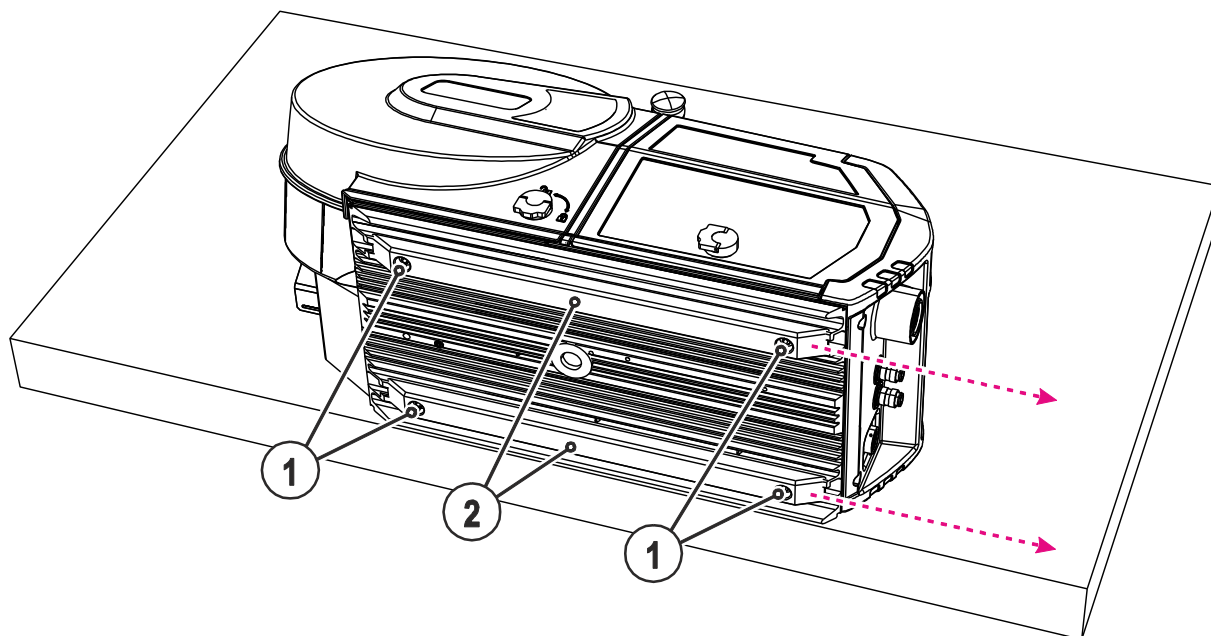


Figure 5-1

Item	Symbol	Description
1		Fixing screws (x 4)
2		Sliding rails

- Loosen the mounting screws and remove the sliding rails.

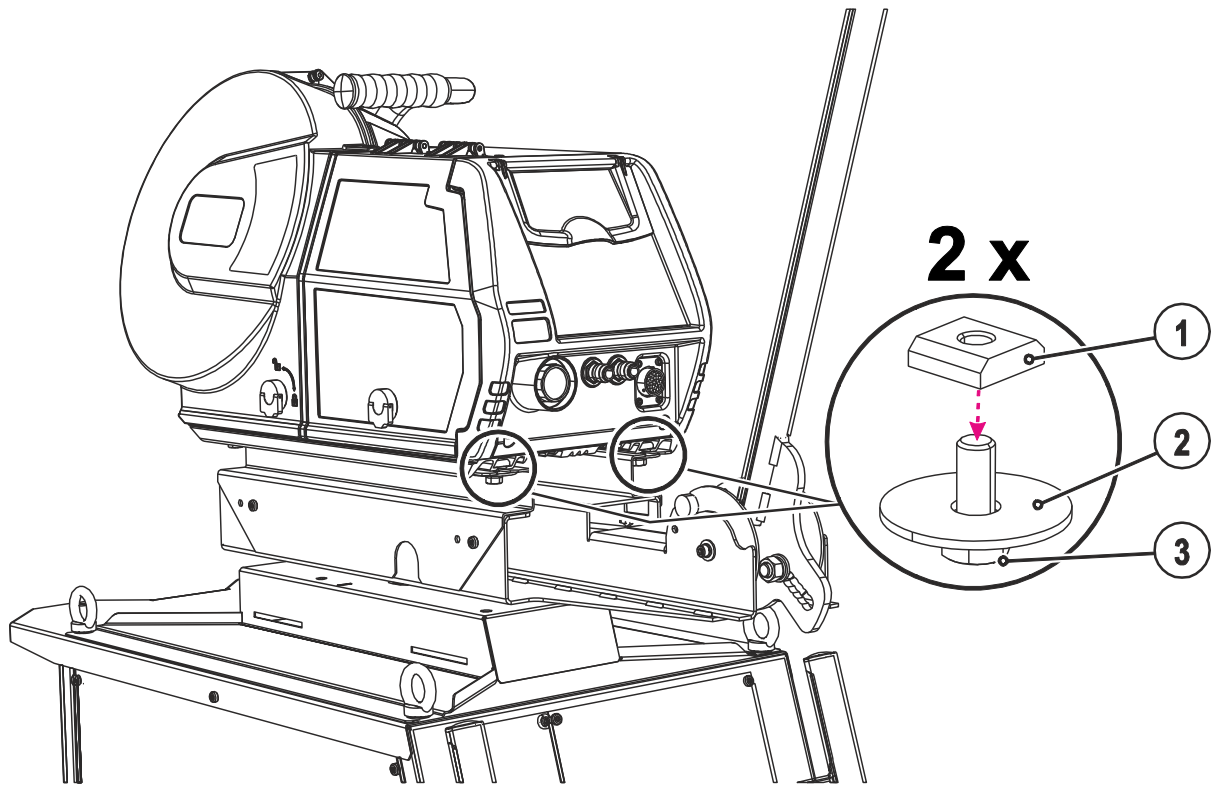


Figure 5-2

Item 0	Quantity	Description	Item number
1	2	M8, T-nut	094-008640-00000
2	2	M10, Fender washer	034-000044-00000
3	2	M8 x 20, Screw with washer assembly	064-000511-00000

- Secure the wire feeder using M8 screws with washer assembly, 2 fender washers and 2 T-nuts to the adapter plate.

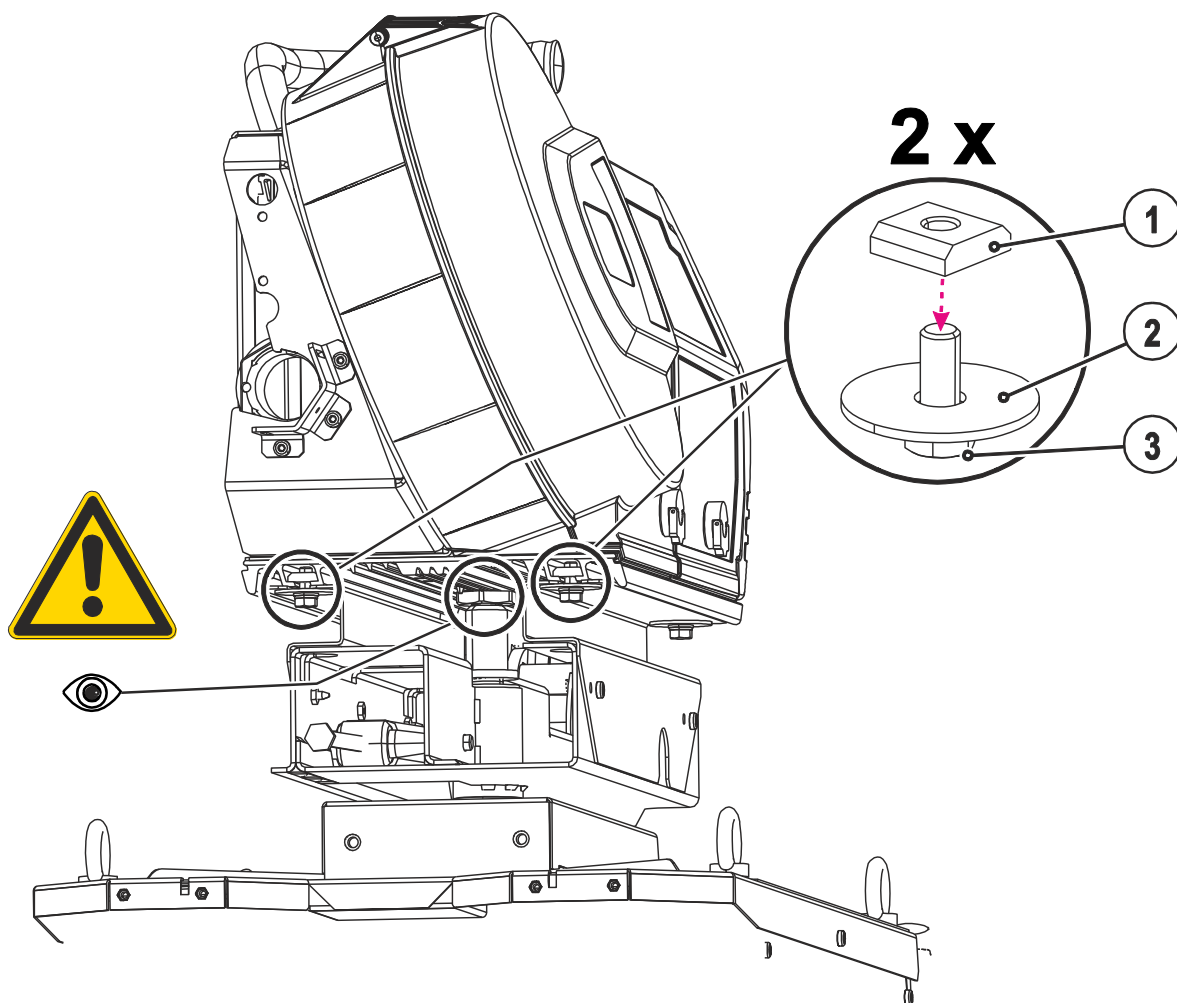


Figure 5-3

Item 0	Quantity	Description	Item number
1	2	M8, T-nut	094-008640-00000
2	2	M10, Fender washer	034-000044-00000
3	2	M8 x 20, Screw with washer assembly	064-000511-00000

- Secure the wire feeder using M8 screws with washer assembly, 2 fender washers and 2 T-nuts to the adapter plate.

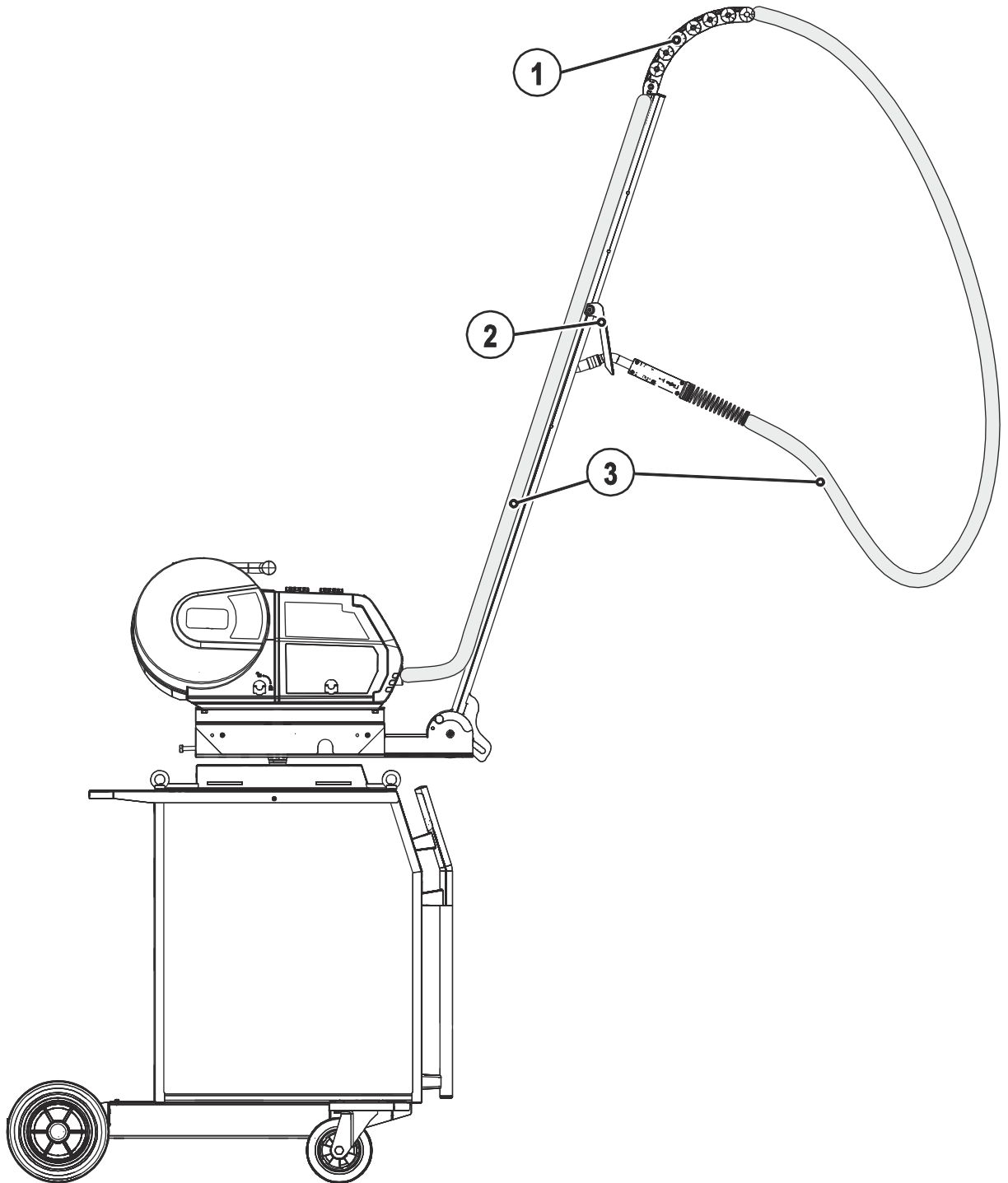
5.1.1.2 Installing the torch hose package


Figure 5-4

Item	Symbol	Description
1		Drag chain
2		Torch holder
3		Welding torch hose package

- Open all links of the drag chain.
- Install the torch hose package as shown in the figure.
- Close the links of the drag chain.
- Park welding torch in torch holder.

5.1.2 drive 4L assembly

5.1.2.1 Mounting wire feeders

CAUTION



Risk of falling!

If a machine is not properly positioned on the support, it may fall down, get damaged and subsequently injure persons.

- Prior to any transport and prior to any commissioning, check secure fit of the accessory components!
- Observe the safety instructions regarding transport, positioning and lifting by crane provided in the operating instructions for the power source or for the wire feeder!
- Do not apply tensile force to the torch hose package! If it can be foreseen that tensile forces cannot be avoided, the wire feeders must be removed from the support!

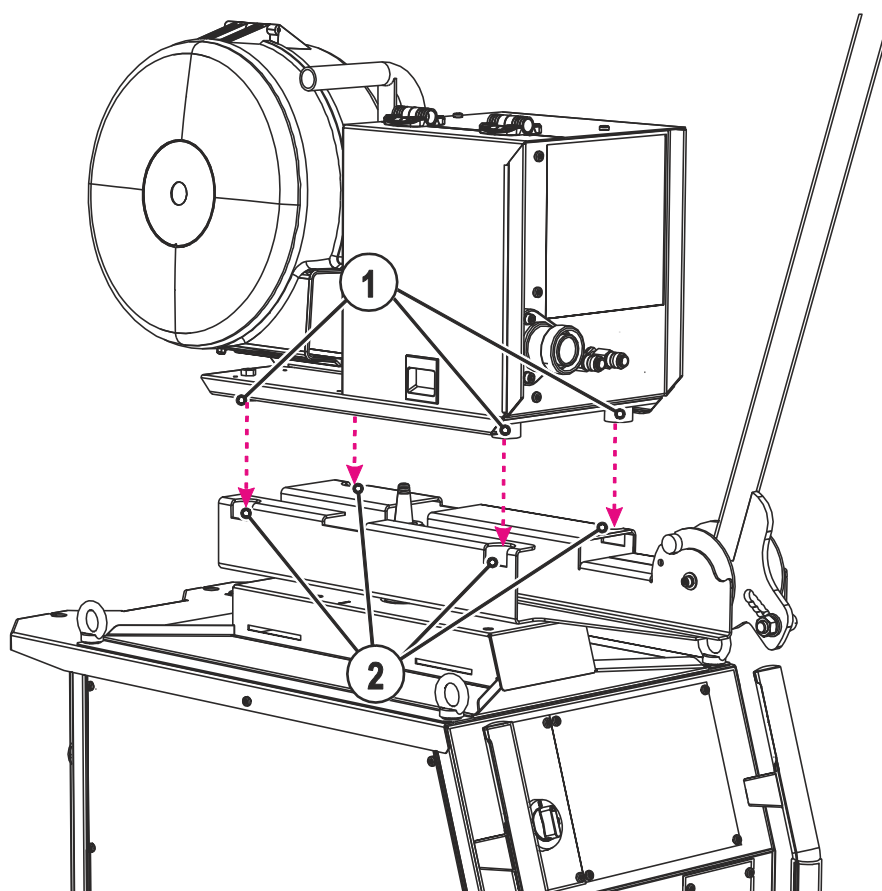


Figure 5-5

Item	Symbol	Description
1		Machine feet
2		Recesses for unit feet

- Position wire feeder on the receiving plate in such a way that all machine feet immerse completely into the recesses provided!

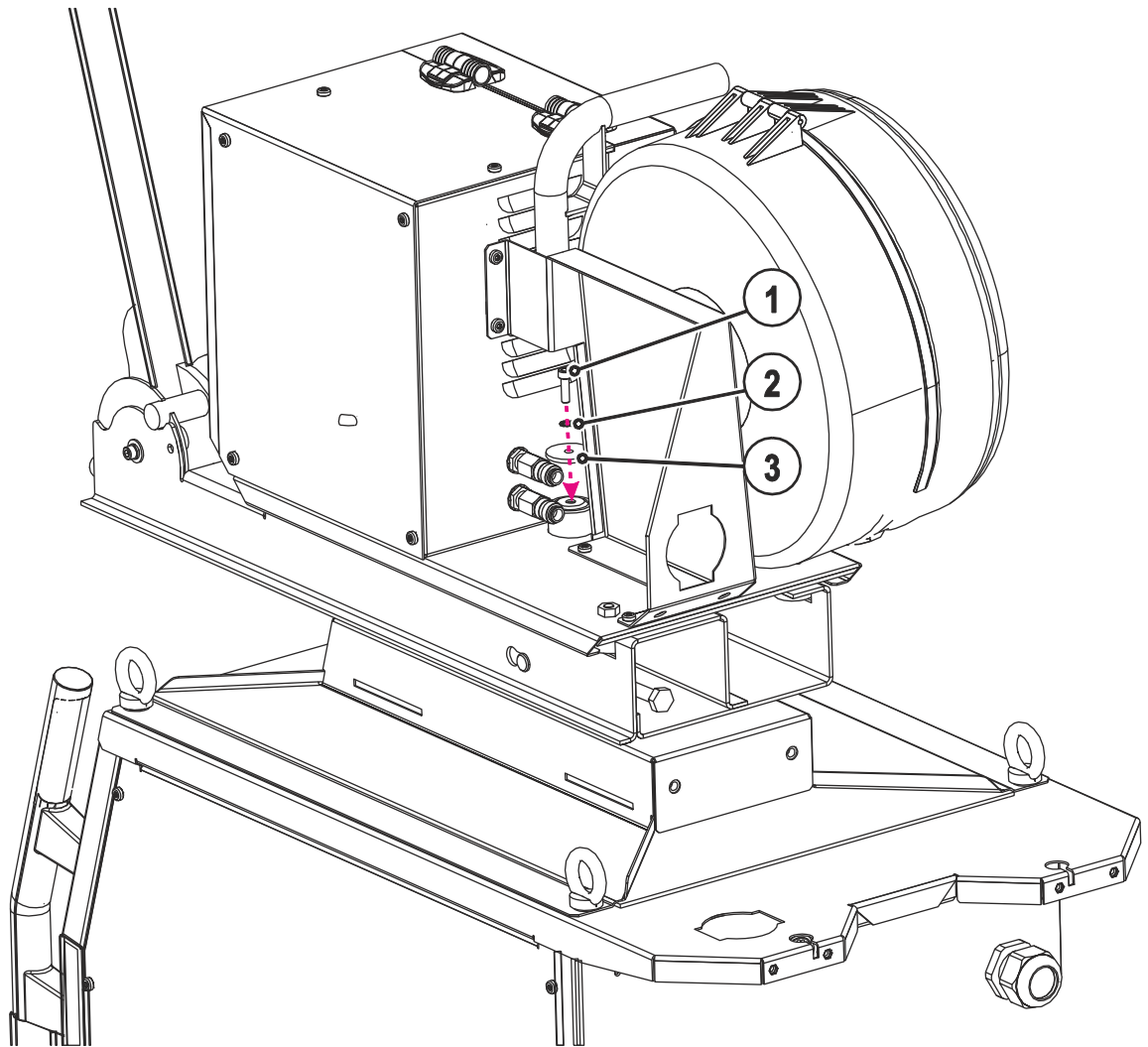


Figure 5-6

Item 0	Quantity	Description	Item number
1	1	M6 x 20, Cylinder head screw	
2	1	M6 spring washer	
3	1	M6 plain washer	

- Screw the wire feeder to the turning mandrel using plain washer, fan-type lock washer and screw.

5.1.2.2 Installing the torch hose package

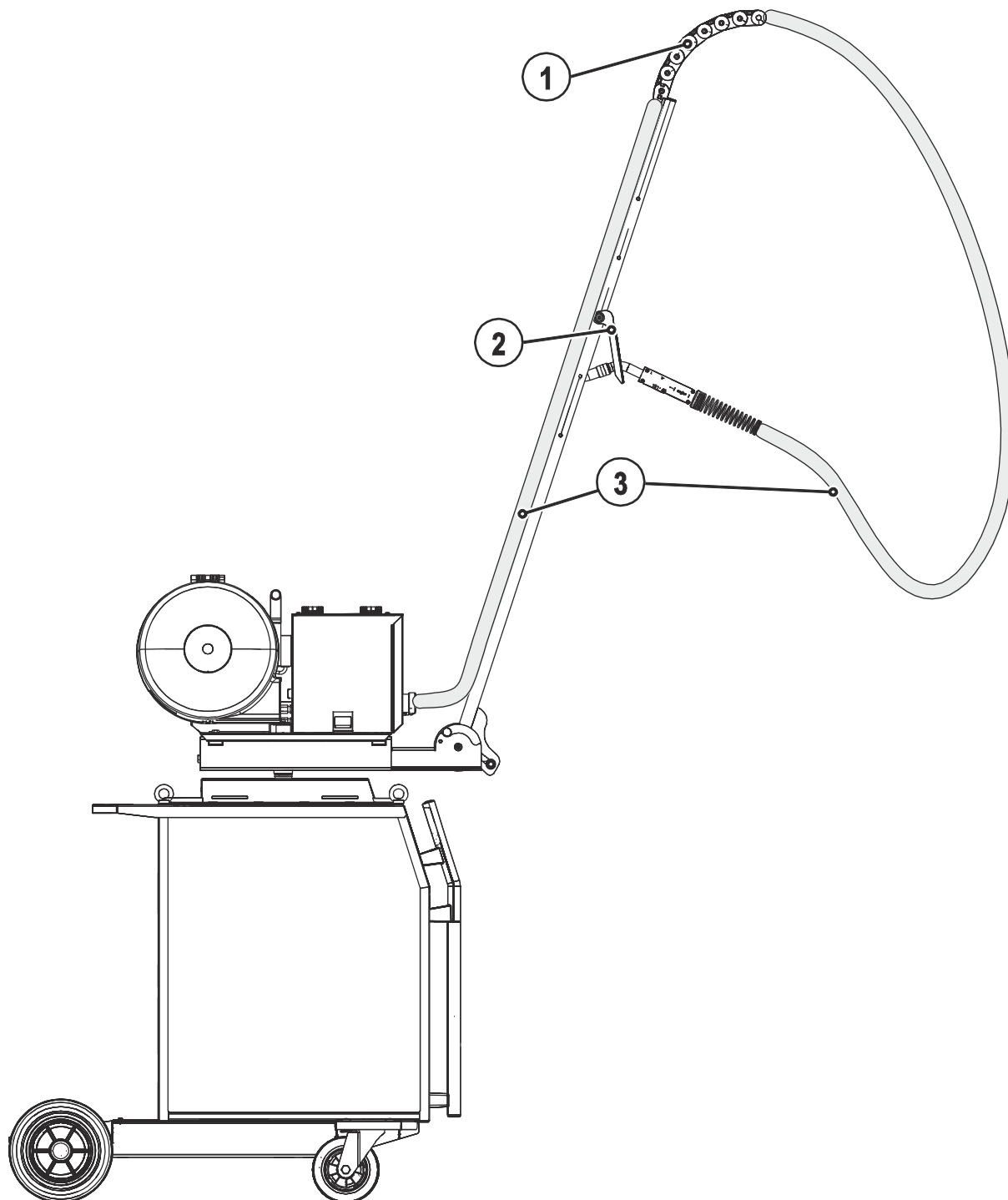


Figure 5-7

Item	Symbol	Description
1		Drag chain
2		Torch holder
3		Welding torch hose package

- Open all links of the drag chain.
- Install the torch hose package as shown in the figure.
- Close the links of the drag chain.
- Park welding torch in torch holder.

5.2 OW HASE DV4 XX1

5.2.1 drive 4 assembly

5.2.1.1 Mounting wire feeders

⚠ CAUTION



Risk of falling!

If a machine is not properly positioned on the support, it may fall down, get damaged and subsequently injure persons.

- Prior to any transport and prior to any commissioning, check secure fit of the accessory components!
- Observe the safety instructions regarding transport, positioning and lifting by crane provided in the operating instructions for the power source or for the wire feeder!
- Do not apply tensile force to the torch hose package! If it can be foreseen that tensile forces cannot be avoided, the wire feeders must be removed from the support!

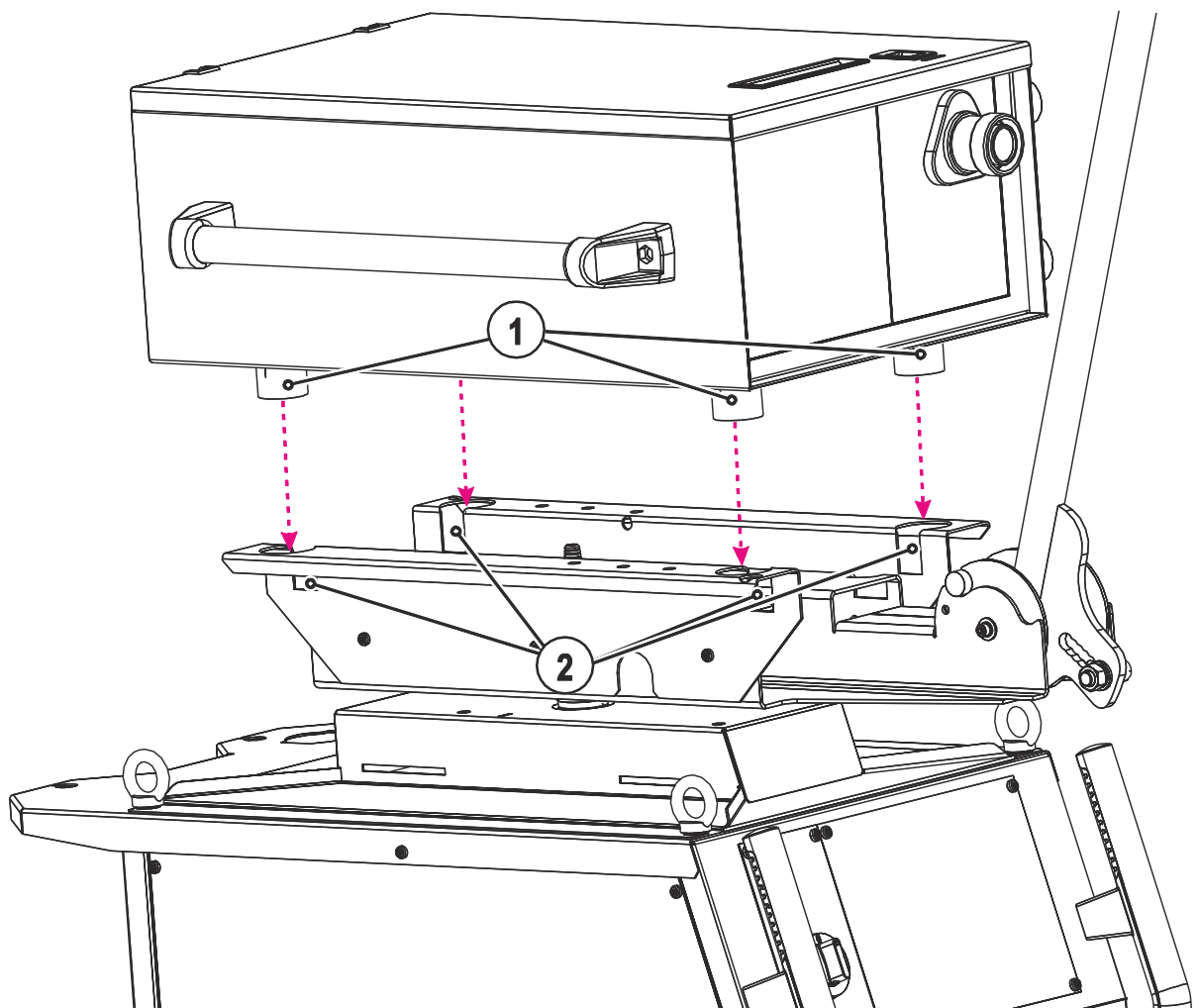


Figure 5-8

Item	Symbol	Description
1		Machine feet
2		Recesses for unit feet

- Position wire feeder on the receiving plate in such a way that all machine feet immerse completely into the recesses provided!

5.2.1.2 Installing the torch hose package

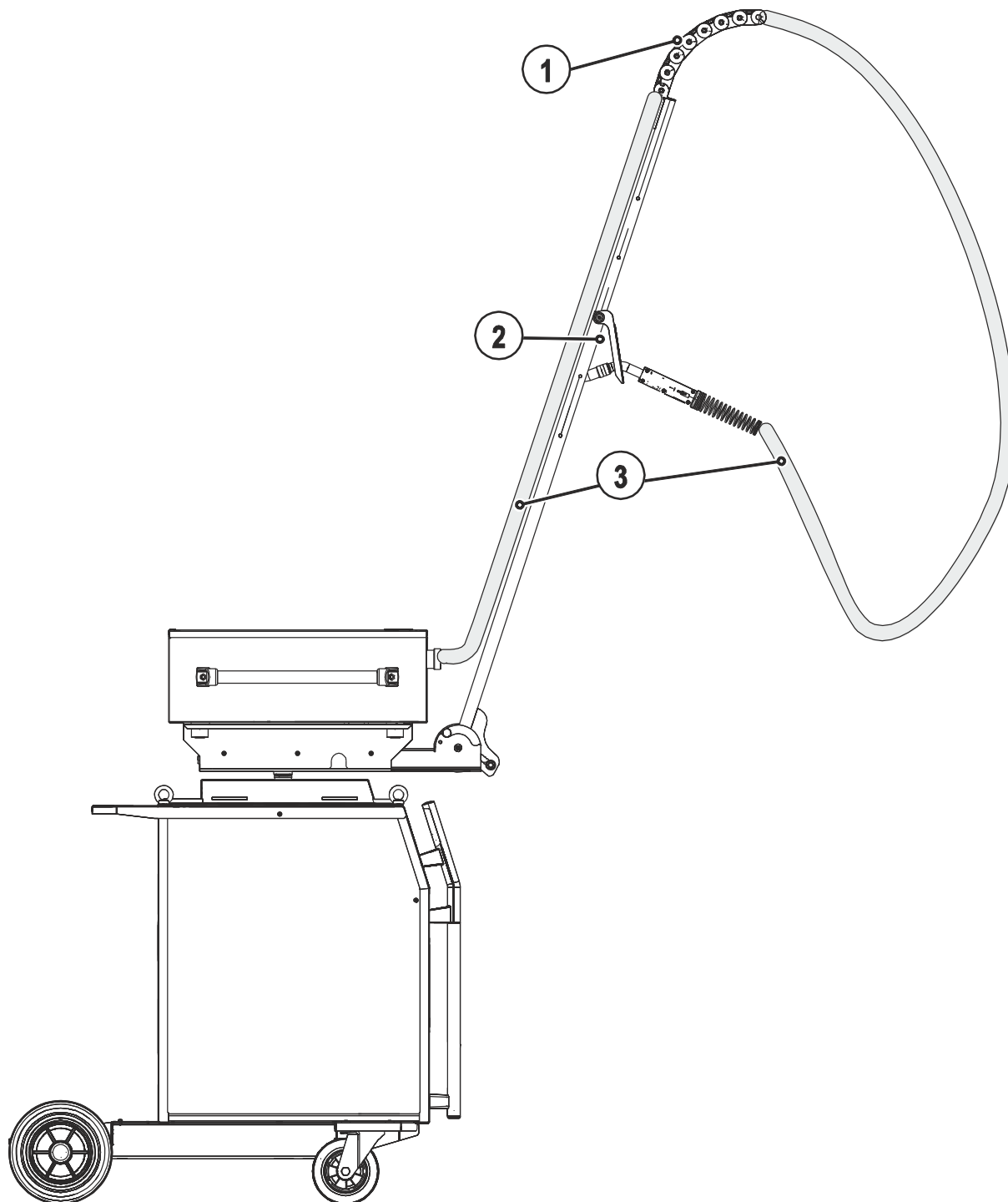


Figure 5-9

Item	Symbol	Description
1		Drag chain
2		Torch holder
3		Welding torch hose package

- Open all links of the drag chain.
- Install the torch hose package as shown in the figure.
- Close the links of the drag chain.
- Park welding torch in torch holder.

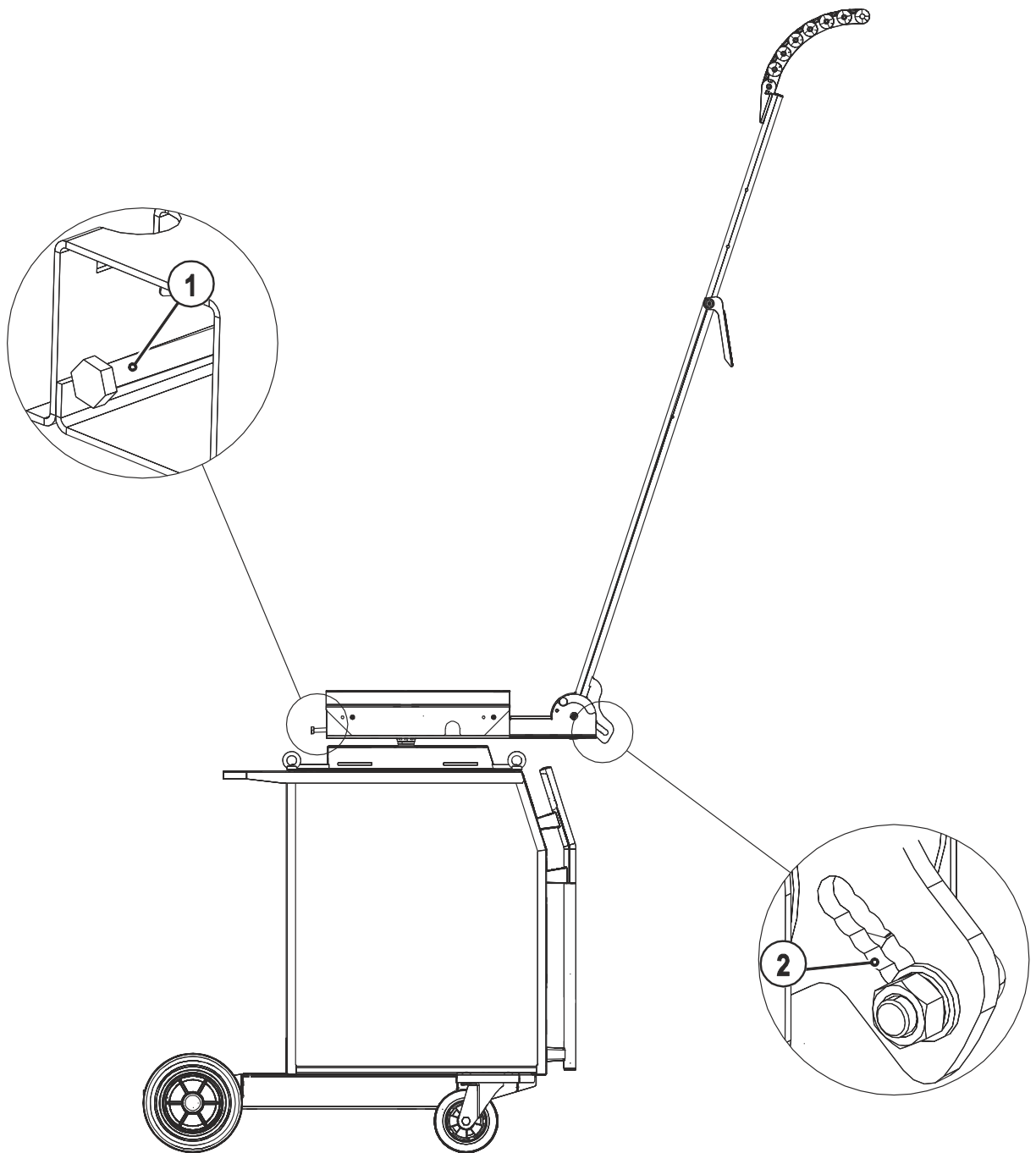
5.3 Settings


Figure 5-10

Item	Symbol	Description
1		Hexagon screw For adjusting the height of the support arm.
2		Oblong hole For fastening the gas spring and adjusting the compressive force.

5.4 Lifting by crane



DANGER



Risk of injury during lifting by crane!

The support arm has to be taken off the welding machine for lifting.

During lifting, persons may be severely injured by falling machines or mount-on components.

- Remove the support arm from the welding machine.
- For notes regarding lifting by crane see the standard operating instructions for the welding machine.

5.5 Final inspection

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!

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!

6 Technical data

NOTE



The technical data given here completes or replaces the respective values in the standard operating instructions.

6.1 OW HASE DV4L / DVX XX1

- Weight: +20 kg

6.2 OW HASE DV4 XX1

- Weight: +20 kg