Foreword

The EV HD-800 slider is a connecting part that must comply with very high safety requirements and must also undergo design approval tests. Modifications of any kind will render both the warranty and the design approval void.
It must not be used until it has been established that the tractor unit on which the slider has been mounted complies with the national regulations for road traffic.

The safety information is compiled in one section. Where the user of the slider is in danger, the safety information is repeated in the various sections and marked with the danger symbol shown here on the left.

Contents

English

The relevant safety regulations in your country (for example Health & Safety at Work) apply for working with sliders, fifth wheel couplings, tractor units and semi-trailers. The appropriate safety information in the owner's handbook for the tractor unit and the semi-trailer is valid and must be followed.
The following safety information applies to the installation, servicing and mounting work. Safety information that is directly linked to the activity is listed again individually.

Safety information in the following sections is shown with this danger symbol. You must comply with this safety information.

1.1 Safety information for operation

- The slider may only be used by authorised persons.
- Only use the slider if it is perfect technical condition.
- Only use the slider if there is nobody in the danger area. Comply with the relevant Health & Safety regulations.
- Slide the slider when a semi-trailer is attached.

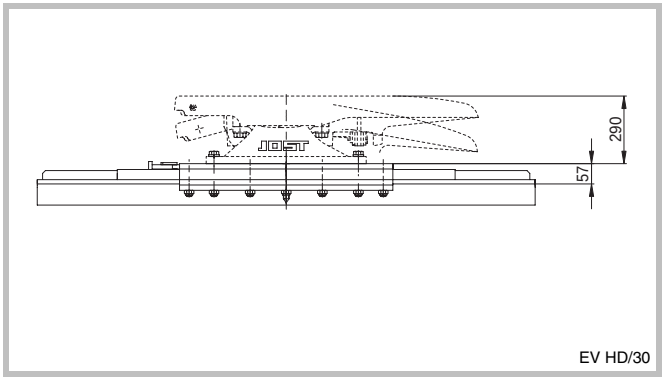
1.2 Safety information for servicing

- Only use the specific lubricants for the servicing work.
- The servicing and cleaning work must be completed by trained personnel.

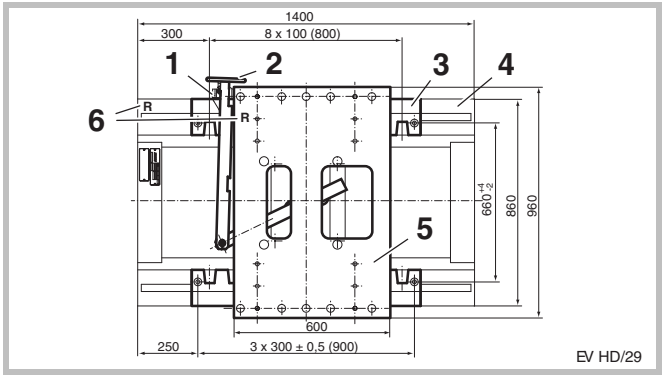
1.3 Safety information for installation

- Mount the slider on the tractor unit as described in the section headed "Installation".
- JOST sliders must be installed by trained personnel in suitable workshops.
- If the slider is not installed correctly, all warranty claims against the manufacturer and the supplier of the slider will be rendered void.

The slider is designed to slide the mounted fifth wheel coupling and allows the fifth wheel to be adjusted.
It may only be used as a connecting element between the vehicle chassis (or flitch) and the fifth wheel coupling.
The slider is designed for use on metalled roads and for normal transport conditions found in Central Europe.
The maximum load data for the slider are set out on the type plate and the latest product catalogue. They are applicable for proper usage pursuant to Directive 94/20 EC.
The JOST EV HD-800 slider is designed to comply with Directive 94/20 EC Class J and may only be used together with fifth wheel couplings of class G50 or class S. The slider allows the easy installation of fifth wheel couplings that comply with DIN 74081 and ISO 3842 and Directive 94/20 EC.



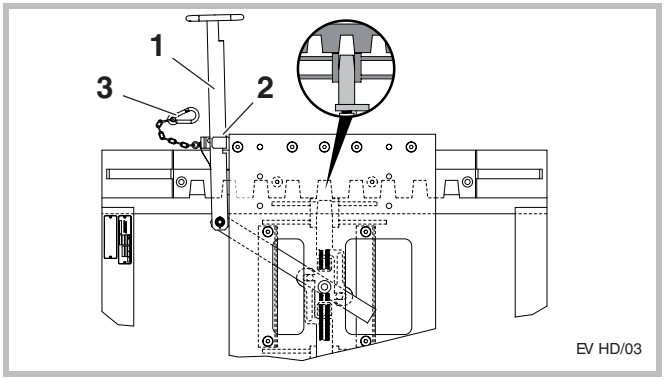
EV HD/30



EV HD/29

1 Spring hook
2 Handle
3 Tooth strip
4 Chassis
5 Carriage
6 Identifier (front)

English



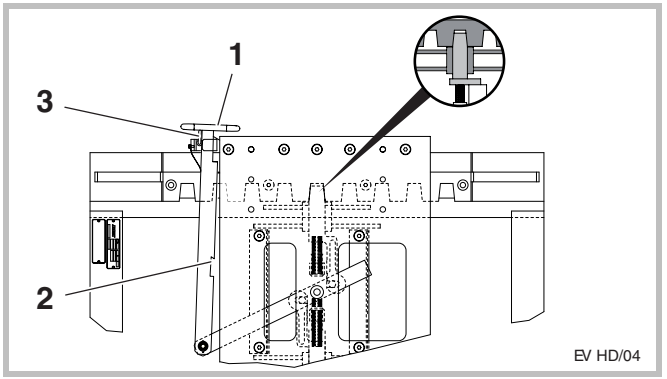
1 Handle
2 Engagement edge
3 Spring hook

Note
Only slide the fifth wheel coupling when a semi-trailer has been attached to it.

- Release the spring hook (3).
- Swing the handle (1) forwards towards the front of the vehicle
- Pull the handle (1) outwards and engage it on the engagement edge (2).

There is a risk of crush injuries during the sliding procedure if your fingers become caught between the carriage and the slider frame and/or the handle.

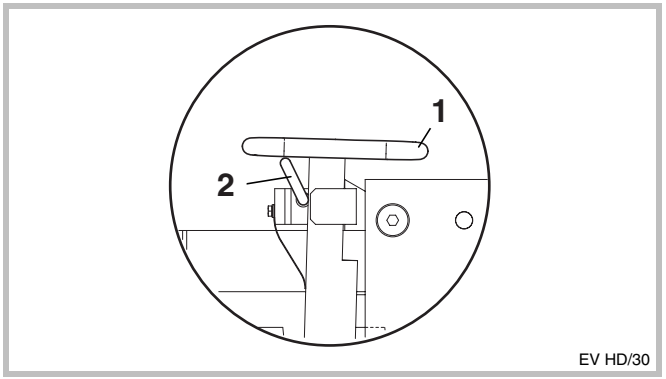
- Engage the brake on the semi-trailer.
- Move the tractor unit in the required direction of the fifth wheel adjustment.



1 Handle
2 Engagement edge
3 Spring hook

- Release the handle (1) from the engagement edge (2) after which the lock will be automatically closed by spring force.
- Move the tractor unit forwards or backwards until the teeth of the interlock are closed.
- Secure the handle (1) by engaging the spring hook (3).

3 Operation



1 Handle
2 Spring hook

The status of the lock must be checked before every journey, in other words, the spring hook (2) must be engaged when it is locked as shown in the figure.

4 Servicing

4.1 Cleaning

The slider is to be cleaned with the remainder of the vehicle. No special cleaning is required.
The slider is to be cleaned before every service. If high pressure cleaners are used, it is essential to re-lubrificate the moving parts.

Note
When you clean the slider you may produce waste that contains pollutant substances. We would like to point out that you must comply with the various national waste regulations for the disposal of this waste.

4.2 Servicing work

The servicing work is to be completed at short intervals, at the latest every 50,000 km.
The following work is required for a complete service:

- Clean the slider.
- Check that the bolt connections are secure.
- Check the slider for visible cracks, deformations or other signs of damage.
- Grease the moving parts.
- Check the function.

Note
Adequate lubrication of the slideway and locking parts before commissioning and after cleaning plays a major role in ensuring the safe function and long service life of the slider.

4.3 Lubricants

JOST high-performance lubricant (Art. No. SKE 005 670 000) should be used to lubricate moving parts.

English

4.4 Disposal instructions

Lubricant
The manufacturer of the lubricant will supply the disposal instructions for the lubricants used.

Slider
The components are made of recyclable materials and can be re-used after being sorted appropriately.
The plastics and rubber materials are identified pursuant to VDA Recom-mendation 260. All oil and grease is to be cleaned off the parts before their disposal.

Depending on the structure of the main chassis or flitch and the required fifth wheel height, install the slider as described in sections 5.3.1 or 5.3.2.
Do not change the installation area defined by the manufacturer of the tractor unit. Follow the instructions of tractor unit / fifth wheel coupling manufacturer relating to the type of fastening, fifth wheel adjustment, fifth wheel height, axle loads and cavities.
The slider must be mounted on the tractor unit in compliance with the requirements of Appendix VII of EC Directive 94/20 (see Appendix No. I, No. 5.10 of this Directive). If applicable, the relevant national licensing regulations must also be complied with.
§§ 19, 20 and 21 of the Road Traffic Act apply in Germany. In addition, your attention is drawn to the requirements of § 27 of the Road Traffic Act relating to the data in the vehicle documents in terms of the maxi-mum trailer load.

5.1 Slider design

The permitted types and classes for connection devices and the max-imum values for the imposed load “U” and drawbar load “D” are defined by the manufacturer of the tractor unit (designed pursuant to Directive 94/20 EC, Appendix VII).

The D value is calculated as follows:

D = Drawbar value [kN]

g = 9.81 m/s^2

R = Maximum gross weight of the semi-trailer [t]

T = Maximum gross weight of the tractor unit including U [t]

U = Maximum imposed load [t]

$$D = g \times \frac{0{,}6 \times T \times R}{T+R-U} \ [kN]$$

Specimen calculation:

T = 36.5 t

R = 100 t

U = 26 t

$$D = 9{,}81 \times \frac{0{,}6 \times 36{,}5 \times 100}{36{,}5+100-26} = 194{,}4 \text{ kN}$$

The maximum load data for the slider are set out on the model plate and the catalogue sheet.

5.2 Possible welding methods

The following welding methods are permitted:

Welding method E II
Additive:

E 4320 B9 DIN 1913

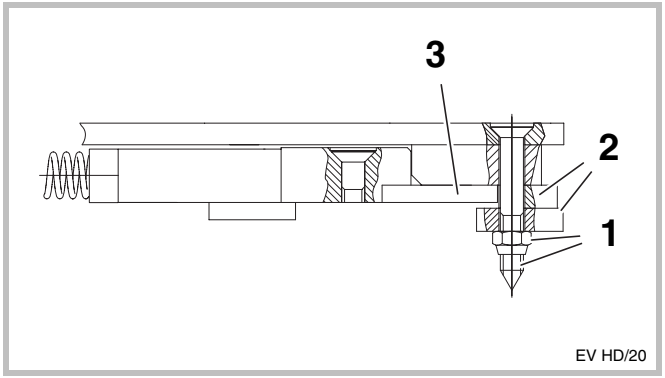
Welding method MAG C or MAG M
Additive:

Messer Griesheim	Thyssen Draht AG	Böhler
Girduct S-V5 green	Union K52	E MK 6
Girduct S-V4 red	Union K56	E MK 7

Note
Other welding methods and additives can also be used for the material being welded as long as they are approved by the MoT organisation.

5.3 Installation of the chassis

- Position the slider with its underside facing upwards.
- Release the interlock on the slider (see section 3) and lock the handle.

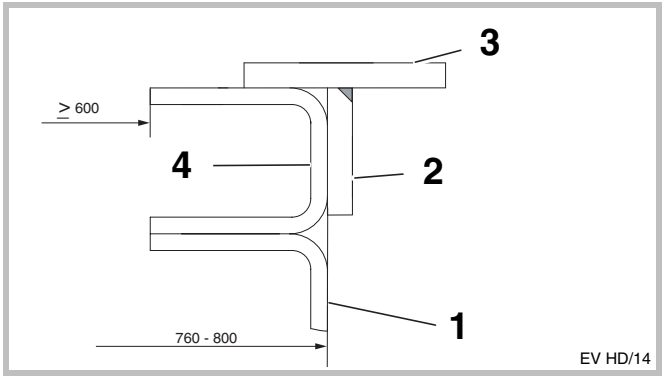


1 Bolt connection
2 Retaining strips
3 Chassis

- Undo the bolt connection (1) and remove the retaining strips (2).
- Raise the chassis (3) and turn it over.

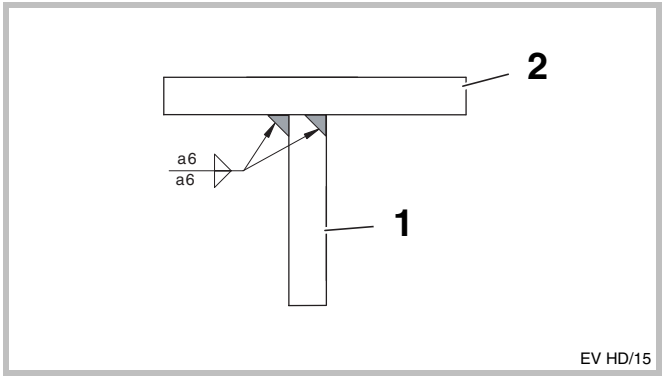
English

5.3.1 Installation with a mounting strip



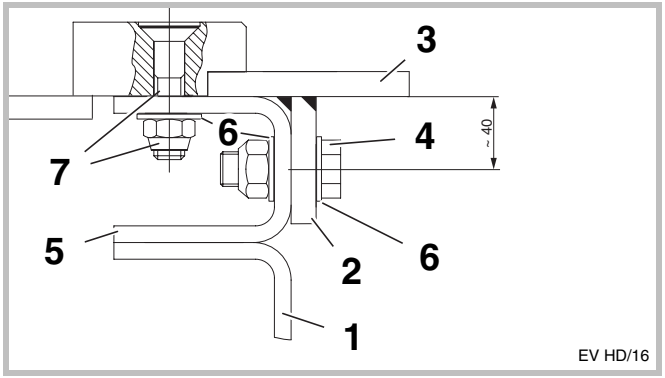
1 Main chassis
2 Mounting strip
3 Chassis
4 Flitch

- Position the chassis (3) on the flitch (4) with the marking **R** facing towards the front.
- Align the chassis (3) centrally on the flitch (4) with the required fifth wheel adjustment. Mark the position of the chassis (3) on the flitch (4).
- Pin the mounting strip (2) to the chassis to suit the frame width and take the assembly off the vehicle.



1 Mounting strip
2 Chassis

- Weld the mounting strip (1) to the chassis (2) with as little warpage as possible (see section 5.2 for permitted welding methods).



1 Main chassis
2 Mounting strip
3 Chassis
4 Hexagonal bolt
5 Flitch
6 Washer ISO 7089 (200 HV) or spring washer
7 Bolt connection

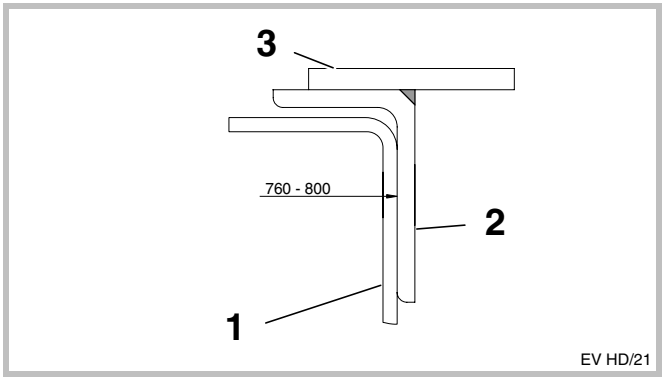
- Position the chassis (3) on the positions you marked earlier on the flitch (5).
- Mark the drill holes over the entire length of the mounting strip (2) and drill them (see note for the number of drill holes and their spacing).

To achieve an adequate positive connection, the paint thickness in the securing area of the bolt connection must be no greater than 170 µm per support area.

- Install the mounting strip (2) on the flitch (5) using at least 10 hexagonal bolts M14 x 1.5 - 8.8 (DIN EN 28676) (4) on each side and a torque of 145 Nm.
- The toothed strips each have four countersunk holes with a diameter of 17 mm. Drill the appropriate holes flush with these in the top section of the flitch (5) and insert Countersunk bolts (7) M16 x 1.5 - 8.8 (DIN 7991) into them, using a tightening torque of 195 Nm. Any large gaps between the flitch (5) and the chassis (3) are to be filled with padding plates.

Note
Other connections with at least the same strength are also possible.

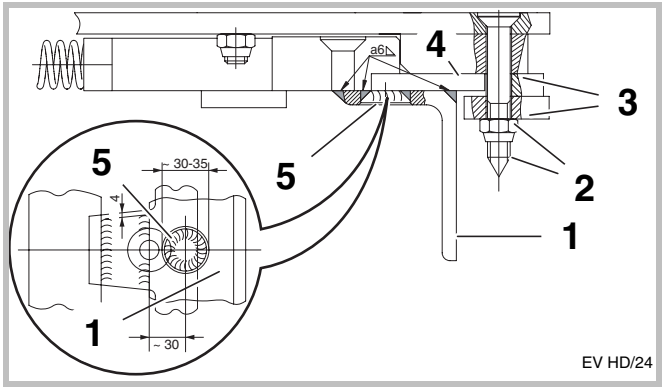
5.3.2 Installation with a mounting bracket



1 Main chassis
2 Mounting bracket
3 Chassis

English

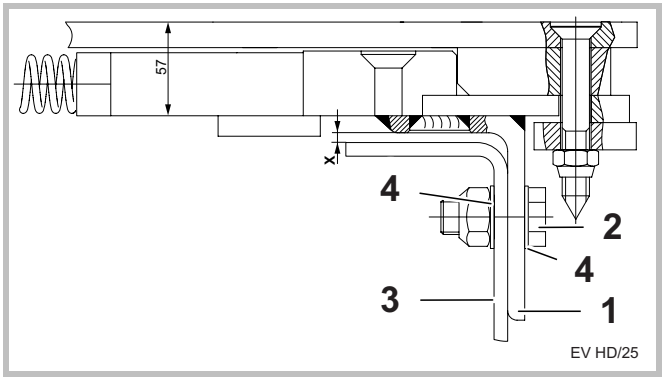
- Position the chassis (3) with the marking **R** facing towards the front and the mounting bracket (2) on the main chassis (1).
- Align the chassis (3) and mounting bracket (2) centrally on the main chassis (1) with the required fifth wheel adjustment. Mark the positions of the chassis (3) and the mounting bracket (2).
- Pin the mounting bracket (2) to the chassis to suit the frame width and take the assembly off the vehicle.



1 Retaining bracket
2 Bolt connection
3 Retaining strips
4 Chassis
5 Drill hole

- Weld the mounting bracket (1) to the chassis (4) with as little warpage as possible (see section 5.2 for possible welding methods).

Four plug welds (5) must be completed on each side around the holes.



1 Retaining bracket
2 Bolt connection
3 Main chassis
4 Washer ISO 7089 (200 HV) or spring washer

- Lift the chassis on to the main chassis of the vehicle and align the mounting bracket (1) for the slider to the positions on the main chassis (3) you marked earlier.
- Adjust the drill holes to the hole pattern in the main chassis, mark them over the full length of the mounting bracket (1) and drill them.

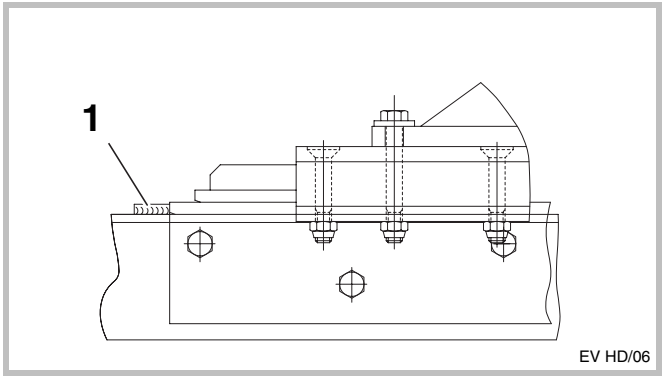
To achieve an adequate positive connection, the paint thickness in the securing area of the bolt connection must be no greater than 170 µm per component.

For dimension x = 0 mm
Install the mounting bracket (1) using at least 12 hexagonal bolts (DIN EN 28676) M14 x 1.5 – 10.9 (2) and washers (ISO 7089 at least 300 HV) (4) evenly distributed on each side of the main chassis and a tightening torque of 210 Nm.

Note
Other connections with at least the same strength are also possible.

For dimension x > 0 mm
Depending on the mounting instructions supplied by the vehicle manufacturer, a gap of x > 0 mm must be provided in certain circumstances. In this case you must ensure that there is adequate load-bearing support in the sliding area. If necessary, lateral reinforcements must be fitted if the vehicle manufacturer agrees.

5.4 To install the carriage and fifth wheel coupling



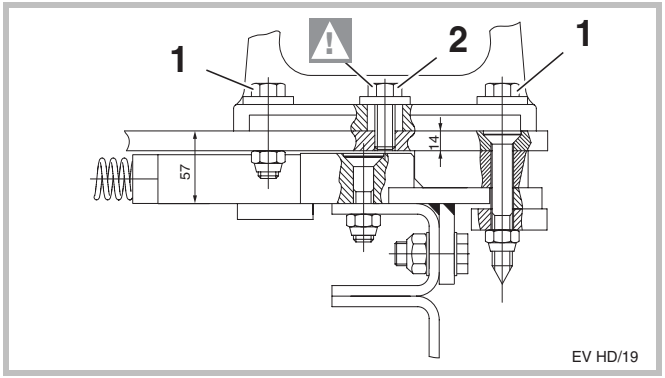
1 Thrust plate

- Lift the slider carriage on to the chassis.

Note
When mounting the assembly, ensure that the handle on the slider is on the right-hand side. There is a long bolt with a tip under the bolt connections. This bolt must be fitted in the centre on the right-hand side of the slider at the fifth wheel adjustment determined later.

- Bolt the slider to the chassis using bolt connections and retaining strips with a tightening torque of 195 Nm.
- Weld thrust plates (1) in front of and behind the slider on both sides of the flitch.

Note
Make the thrust plates (1) from conventional steel Fe 360 B (St37-2) or Fe 510 B (St52-3). Complete the welds as instructed by the vehicle manufacturer.



1 Bolt connection
2 Bolt

- Install the fifth wheel coupling as instructed by the manufacturer.

Use the hexagonal bolts (1) recommended by the manufacturer of the fifth wheel coupling to secure the fifth wheel coupling on the slider.
Hexagonal bolts with a fine thread M16 x 1.5 - 8.8 must be used for the centre hexagonal bolts (2). In addition, when selecting the hexagonal bolts (2) ensure that they have a maximum bolt-in depth of 14 mm. The tightening torque is 225 Nm. The hexagonal bolts (2) are also to be secured with a bolt locking agent (for example Loctite).

- Check again that all the bolt connections are secure.
- Grease all the moving parts (see section 4).
- Check the function of the slider (see section 3).