VERSCHIEBEEINRICHTUNG
BAUREIHE EV HD-85

Installation and operating instructions
Instructions de montage et de d’utilisation
Istruzioni per il montaggio e l’uso
Instrucciones de montaje y funcionamiento
The EVHD85 type slider unit is a vehicle coupling part requiring component type approval that must meet stringent safety criteria. Modifications of any kind will render both the warranty and the design approval void and therefore also cancel the vehicle's operating licence. The structure may only be used with type-tested fifth wheel couplings which comply with Regulation ECE R55.

**Note**  
Technical modifications reserved. The latest information can be found at www.jost-world.com

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1 Safety information

The relevant safety regulations in your country (for example Health & Safety at Work in Germany) apply for working with slider units, fifth wheel couplings, tractor units and semitrailers. The appropriate safety instructions in the operating manual for the tractor unit and the semitrailer are applicable and must be followed.

The following safety instructions apply to operations, maintenance and assembly work. Safety instructions directly linked to the activity are listed again individually.

Safety instructions in the following sections are denoted by the hazard symbol shown. You must comply with the safety instructions without fail.

1.1 Operating safety instructions

- The slider unit may only be used by authorised persons.
- The slider unit should only be used if it is in good technical order and condition.
- The slider unit should only be actuated if nobody is in the danger zone. The relevant health & safety at work regulations must be complied with.
- Move the slider unit when coupled up.

1.2 Maintenance safety instructions

- Only use the specified lubricants for maintenance work.
- The maintenance/cleaning work must be carried out by suitably qualified personnel.

1.3 Assembly safety instructions

- Connect the slider unit to tractor unit as per “Assembly” section.
- JOST slider units must be installed by trained personnel in suitable workshops.
- If the slider unit is not installed correctly, all warranty claims against the manufacturer and the supplier of the slider unit will be rendered void.
- The slider must be attached to the vehicle in accordance with the requirements of Annex 7 of ECE Regulation R55. It may also be necessary to comply with the type approval regulations of the country in question.
2 Correct use

2.1 Use

The slider unit is used to slide the coupled fifth wheel coupling; it allows the fifth wheel coupling position to be adjusted. It may only be used as a coupling device between the vehicle chassis (or vehicle subframe) and the fifth wheel coupling. The slider unit is designed for operation on asphalted or paved roads and for the transport conditions generally found in Central Europe. The permissible load data of the slider unit are stated on the type plate or in the current product catalogue. They apply to intended use pursuant to ECE Directive R55. The JOST type EVHD85 slider unit is built in accordance with ECE Regulation R55 Class J and may only be used in conjunction with Class G50 of Class S fifth wheel couplings. The slider unit ensures easy assembly of fifth wheel couplings which correspond to DIN 74081, ISO 3842 and ECE regulation R55.

1 Carabiner hook
2 Handle
3 Toothed bar
4 Base frame
5 Sledge
6 Marking (direction of travel)
2 Correct use

2.2 Design

The slider unit is designed in conjunction with the vehicle under ECE Regulation R55. This means that the characteristic data of the coupling equipment must at least comply with the characteristic values in effect for the maximum gross vehicle weight of the tractor vehicle, the trailer and the combination.

The characteristic values of the slider unit are the imposed load and the D-value (tow-bar value).

The D-value is computed using the following formula:

\[ D = \text{D-value \ [kN]} \]
\[ g = 9.81 \text{ m/s}^2 \]
\[ R = \text{semitrailer gross vehicle weight rating \ [t]} \]
\[ T = \text{towing vehicle gross vehicle weight rating including U \ [t]} \]
\[ U = \text{maximum permissible imposed load \ [t]} \]

\[ D = g \times \frac{0.6 \times T \times R}{T + R - U} \text{[kN]} \]

Sample computation:
\[ T = 36.5 \text{ t} \]
\[ R = 100 \text{ t} \]
\[ U = 26 \text{ t} \]

\[ D = 9.81 \times \frac{0.6 \times 36.5 \times 100}{36.5 + 100 - 26} \text{ kN} = 194.4 \text{ kN} \]

The slider unit must be attached as a function of the chassis and sub-frame construction as well as the fifth wheel height, as per sections 5.1 or 5.2. The assembly area specified by the tractor unit manufacturer must not be changed. The instructions of the tractor unit/fifth wheel coupling manufacturer regarding the attachment type, fifth wheel lead, fifth wheel height, axle load and clearances must be observed.
Correct use

1  ECE test mark
2  EC test mark
3  ECE approval number
4  EC approval number
5  Class
6  Maximum D value in kN
7  Maximum imposed load U in t
8  Part No.
9  Type
10 Factory No.

Test mark and approval number | Type | Slider unit | Imposed load [t] | D-value [kN]
---|---|---|---|---
E1 55R-01 1902 | EVHD 85 | EVHD 85 | 36 | 260

Vor Benutzung Betriebsanleitung lesen.
Read operating manual before use.
Voir notice d'instruction avant utilisation.

Neu-Isenburg, Germany / R.F.A.

Customer
Part No.
Jost
Part No.

Imposed Load [t]
D-Value [kN]
Serial No.
Note
Perform the sliding action of the fifth wheel coupling in coupled state.

- Disengage the carabiner hook (3).
- Swivel the handle (1) forwards in the direction of travel.
- Pull the handle (1) outwards and attach it to the engaging edge (2).

Risk of crushing on reaching in with fingers between the slide and the sliding frame, or grasping the handle during the move.

- Secure the brake of the semitrailer.
- Move the tractor into the required direction of the fifth wheel position.

Always check the locking status before driving, i.e., the carabiner hook (3) must be attached in the locked position as shown.
4 Maintenance

4.1 Cleaning

The slider unit is cleaned during vehicle maintenance. No special cleaning is required. The slider unit must be cleaned before undergoing maintenance.

Note
Waste containing pollutants can occur during cleaning of the slider unit. Note that you must comply with the various national waste regulations for the disposal of this waste.

4.2 Maintenance work

Maintenance is required at short intervals, or every 50,000 km at the latest. The following work must be carried out to ensure correct maintenance:

- Clean the slider unit.
- Check the screw connections are tight.
- Check the slider unit for visible cracks, deformities or other damage.
- Lubricate moving parts.
- Check the function.

Note
Sufficient lubrication of the running surfaces and locking parts before and after each cleaning is essential for the reliable operation and life of the slider unit.

4.3 Lubricants

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

4.4 Disposal instructions

Lubricant
The lubricant manufacturer provides instructions for disposing of used lubricants (e.g., in accordance with material safety data sheet).

Slider unit
The components used here are made of recycling capable materials which can be recycled if appropriately sorted. Plastics and rubber are identified according to VDA recommendation 260. Before disposal, parts may need to be cleaned of any residual oil or grease.
5.1 Slider unit assembly

Bolt two fixing plates (2+5) on the left and right side of the vehicle onto the slider unit and the vehicle chassis using hexagon flange bolts EN 1665 M14x45 -10.9. Tightening torque 210 nm for a coefficient of friction of $\mu_{\text{tot}} = 0.14$. For each row and side install at least 17 screws evenly on the slider unit and vehicle chassis – total of at least 68 screws.

We recommend the use of JOST attachment sets (see JOST catalogue for order no.).

To achieve an adequate friction contact, the thickness of the paint in the clamping zone of the screw connection must be no more than 120 $\mu$m per support surface.
5.2 Fifth wheel coupling assembly

Assemble the fifth wheel coupling as per the manufacturer's instructions.

Use hexagon head bolts (1) as per the fifth wheel coupling manufacturer's specifications to fasten the fifth wheel coupling on the slider unit. When selecting the hexagon head bolts observe a maximum engagement length of 14 mm for the middle bolts (2) in each case. The engagement length for the outer bolts (3) must be min. 16 mm to 25 mm. The tightening torque is 225 Nm. Bolts 2 and must be additionally secured with a screw locking agent (e.g., Loctite).

- Check all screw connections again to ensure they are tight.
- Grease all moving parts (see section 4).
- Checking the function of the slider unit (see section 3).