Repair manual for
JSK 26 D fifth wheel coupling
Foreword

Fifth wheel couplings are vehicle-connecting parts that must comply with very high safety requirements and must also undergo design approval tests.

This repair manual is designed to act as a guide to completing repair work on our fifth wheel couplings.

Installation of spare parts that are not genuine JOST spare parts, and modifications of any kind will render both the warranty and the design approval void and therefore also cancel the vehicle’s insurance protection.

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1 Safety instructions

The relevant safety regulations in your country (for example Health & Safety at Work) apply for working with 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 are valid and must be followed.

The permitted load data and safety information must be complied with during operation and installation.

Safety information which is directly linked to the specific activity is listed in the following sections for servicing and repair work. It is essential that you follow this safety information.

⚠️ Technical modifications reserved. You will find the latest information at: www.jost-world.com
### Fault | Cause | Remedy
--- | --- | ---
Fifth wheel coupling will not close. | 1. The king pin is too high.  
2. The skid plate is uneven, thus causing the king pin to be in the wrong position.  
3. Lock jaw deformed.  
4. Poor servicing.  
5. Double spring defective.  
6. Lever and/or handle buckled. | 1. The skid plate should be at the same height or max. 50 mm lower than the fifth wheel coupling.  
2. Replace the skid plate. Permissible flatness deviation max. 2 mm.  
3. Replace lock jaw SK 2605-060.  
4. Ease the mechanism and grease it.  
5. Replace double spring SK 3105-152.  
6. Renew/straighten lever SK 2605-59 and handle SKE004790000 |
The fifth wheel coupling cannot be opened. | 1. Tractor unit not level or pulling.  
2. Poor servicing, damage to the lock jaw or locking bar, or incorrect locking mechanism adjustment. | 1. Relieve the pressure on the tractor unit’s locking mechanism.  
2. The fifth wheel coupling can be opened by force as follows: Open the lock. Swivel the handle forwards and hold it extended as far as possible. With the aid of a second person, use a rod to hit the lever, e.g. SK 2605-59, in the area of the bent section on the opposite side of the fifth wheel coupling to release the bar. The clamp can also be released by screwing in the adjusting screw. Then rectify the poor servicing, check the locking mechanism parts for signs of damage and repair or reset the locking mechanism as necessary (see section 4.8) |
Fifth wheel coupling does not stay in the ready position. | 1. Lock jaw deformed.  
2. Spring defective.  
3. Poor servicing. | 1. Replace lock jaw SK 2605-060.  
2. Replace spring SK 847.  
3. Clean and grease the area of the locking mechanism. |
Movement between fifth wheel coupling and semi-trailer (knocking). | 1. Bearing has excessive play.  
2. Locking mechanism has excessive play. | 1. Replace bearing bush SK 2604-04 if it is worn (see section 4.2).  
2. Check king pin, replace it if it is worn.  
If the king pin is in good condition but there is still play, adjust the locking mechanism (see section 4.8).  
If this is unsuccessful, renew lock jaw SK 2605-060.
3 Standard / special tools and auxiliary materials

3.1 Standard tools

3.2 Special tools

3.3 Auxiliary materials

JOST high-performance lubricant (art. no.: SKE 005 670 000)
Repair work must be carried out by trained personnel.

- Repair work is to be carried out using suitable tools and processes.
- The item numbers in the illustrations refer to the spare parts lists in section 5.
- Instructions for assembly are marked with a diamond ◊.
- If it is not described separately, assembly work must be carried out in reverse order.
- The torque values shown in the illustrations are required for the subsequent assembly process.
- Clean all parts thoroughly before assembly.
- After completing the repair work, the fifth wheel coupling locking mechanism must be greased and its function tested.

⚠️ The torque values shown in the illustrations must be used at all times. Worn, damaged and cracked parts must always be replaced. Repair welds must not be used.

Take the fifth wheel coupling off the tractor unit, place it on workbench SK 2702-10 and couple it up.

⚠️ The fifth wheel coupling may only be raised using suitable lifting gear.
4.1 To remove and attach the pedestal

- Drive out the split pin.

- Unscrew the castle nut.
  ◊ Tighten the castle nut until the bolt head, nut and washer are in contact without play, then turn the castle nut further until a split pin hole is free. Drive in and secure the split pin.

- Unscrew the castle nut.

- Pull the pivot pin (15) out of the pedestal (16).
- Remove the pedestal (16).
**4.2  To remove and install the bearing**

16 Pedestal  
17 Bearing bush

- Drive out the bearing bush (17) with a pin.

16 Pedestal  
17 Bearing bush

◇ Grease the bearing bush (17) slightly and use a pin to drive it carefully into the pedestal (16).
4.3 Overview of locking mechanism

01 Double spring
02 Hexagon bolt
03 Handle
08 Locking bolt
09 Locking bar
10 Lever with bolts and nuts
11 Castle nut
13 Lock jaw
14 Spring
4.4 To remove and install the locking mechanism

Risk of injury!
The installation and removal of the lock jaw (13) must only be carried out with the double spring (01) released.

01 Double spring

- Unhook the double spring (01).

02 Hexagon bolt

03 Handle

08 Locking bolt

10 Lever with bolts and nuts

11 Castle nut

- Drive out the split pin
- Unscrew the castle nuts (11)
  ◇ First tighten the castle nuts (11) and then loosen again by one half turn.
  Secure the castle nuts (11) with a split pin.

02 Hexagon bolt

03 Handle

08 Locking bolt

10 Lever with bolts and nuts

11 Castle nut
12 Pin
14 Spring
20 Split pin

- Unhook the spring (14) from the split pin (20).
- Remove the split pin from the pin (12).

09 Locking bar
12 Pin
13 Lock jaw

- Push the pin (12) upwards out of the lock jaw (13) (towards the contact surface).
- Pull the locking bar (09) out of the interlock.

09 Locking bar
13 Lock jaw
14 Spring

- Remove the lock jaw (13) with spring (14) from the coupling plate.
- Hold the locking bar (09) in the open position.

08 Locking bolt

- Push the locking bolt (08) upwards out of the locking bar.
4 Repair work

4.5 To remove and install the catch

- Remove the locking bar (09) from the coupling plate.

- Unscrew the nut from the hexagon bolt (05).
- Pull the spring loop (06) and catch (07) off the hexagon bolt.
4.6 Checking for wear / wear limits

13 Lock jaw
14 Spring

- Measure the wear limit at the narrowest point.
- Replace the lock jaw (13) when the wear limit is reached.

- Replace the king pin when the wear limit is reached.

- The bearing should exhibit a play of no more than 2 mm. To check, lift the coupling plate with an assembly lever.
03 Handle
10 Lever with bolts and nuts

**Locking mechanism when new**

If the fifth wheel coupling has been closed correctly, the distance of the locking edge to the inner edge of the plate must be at least 3 mm. If the distance is less than 3 mm, the handle (03) and the lever (10) must be checked for deformation.

03 Handle
10 Lever with bolts and nuts

**Locking mechanism lever wear limit**

The locking mechanism lever is worn when the dimension between the lever (10) and the abutment rib is 0 mm. The locking mechanism cannot be adjusted any further at this point.
4.7 Function test

During the uncoupling process the engaging edge must be raised by at least 4 mm. The test is made when the king pin A (new condition) presses on the bar tip B and the handle is held in the direction indicated by the arrow.

If the gap is less than 4 mm, the lever (10), handle (03) and locking bar (09) must be checked for signs of deformation and wear.

Note
The function test can be performed using the JOST setting king pin SKE 008 630 000.
4.8 To adjust the locking mechanism

03 Handle
07 Catch
09 Locking bar
10 Lever
13 Lock jaw

The locking mechanism must be set as follows using a semi-trailer without forced steering with a new king pin or with the JOST setting king pin SKE 008 630 000.

- Uncouple the tractor unit on a flat, firm piece of ground.
- Undo the lock nut (I).
- Unscrew the adjusting screw (II) approx. 5 turns until it is no longer in contact with the stop (III) of the coupling plate.
- Hitch up the semi-trailer, if necessary lightly tapping the handle (03) in the closing direction A to bring the locking bar (09) into its limit position.
- Unlock the handle (03) (raise the catch (07)), swing the handle (03) into position B and hold it there (get an assistant to hold it).
- Tighten the adjusting screw (II) again until the handle (03) starts to move (have an assistant check this).
- To set the recommended basic play of 0.3 mm, tighten the adjusting screw (II) by a further 2 turns and secure the adjusting screw (II) with the lock nut (I).
- Apply the semi-trailer brake.
- Move off with the tractor and check the maximum play in the locking mechanism.

Note
If there is still excessive play, the lock jaw (13) must be replaced as described in the repair manual.
<table>
<thead>
<tr>
<th>Item</th>
<th>Name</th>
<th>Serial no./note</th>
<th>Article number</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Double spring</td>
<td></td>
<td>SK 3105-152</td>
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<tr>
<td>02</td>
<td>Hexagon screw</td>
<td></td>
<td>SK 2621-54</td>
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<tr>
<td>03</td>
<td>Handle</td>
<td></td>
<td>SKE 004790000</td>
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<tr>
<td>04</td>
<td>Clamping pin</td>
<td>000.003.027</td>
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<td>05</td>
<td>Hexagon screw</td>
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<td>SK 3521-03</td>
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<tr>
<td>06</td>
<td>Spring loop</td>
<td></td>
<td>SK 2921-30</td>
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<tr>
<td>07</td>
<td>Catch</td>
<td></td>
<td>SK 3121-52</td>
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<tr>
<td>08</td>
<td>Locking bolt</td>
<td></td>
<td>SK 2621-53</td>
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<tr>
<td>09</td>
<td>Locking bar</td>
<td></td>
<td>SK 2605-061</td>
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<tr>
<td>10</td>
<td>Lever with bolts and nuts</td>
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<td>SK 2605-59</td>
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<tr>
<td>11</td>
<td>Castle nut</td>
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<td>SK 2621-56</td>
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<td>12</td>
<td>Bolt</td>
<td></td>
<td>SK 2621-51</td>
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<tr>
<td>13</td>
<td>Lock jaw</td>
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<tr>
<td>14</td>
<td>Spring</td>
<td></td>
<td>SK 847</td>
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<tr>
<td>15</td>
<td>Pivot pin</td>
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<td>SK 2621-02</td>
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<td>16</td>
<td>Pedestal</td>
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<td>SKE 0055000000</td>
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<td>17</td>
<td>Bearing bush</td>
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<td>SK 2604-04</td>
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<td>18</td>
<td>Cable, complete</td>
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<td>19</td>
<td>Split pin</td>
<td></td>
<td>SKE 352100600</td>
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<tr>
<td>20</td>
<td>Split pin</td>
<td></td>
<td>NTE 000001600</td>
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The mounted parts are valuable raw materials that can be recycled. They can be split into plastics, rubber and metallic materials. Plastic/rubber are labelled in accordance with VDA recommendation 260. Before disposal, parts may need to be cleaned of any residual oil or grease.