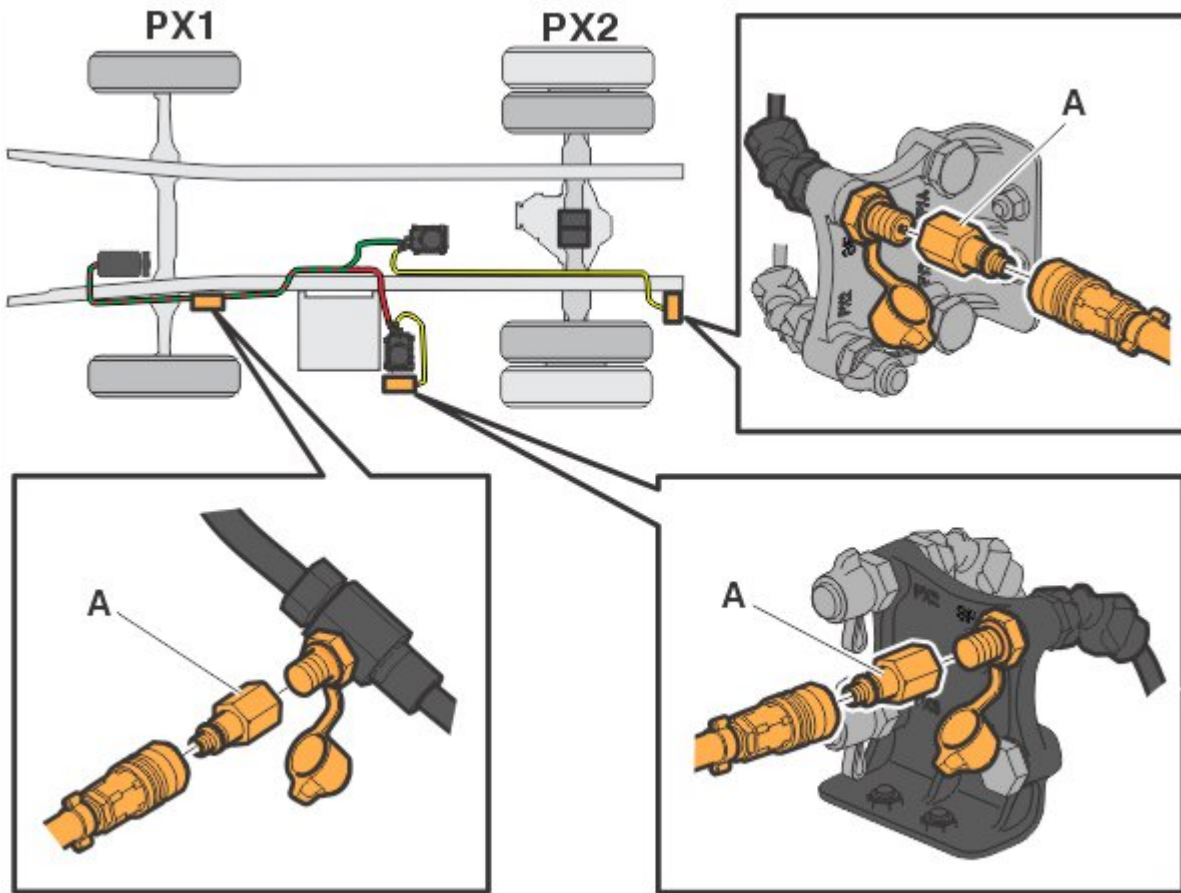


| | | | |
|----------|----------------------------|-----------|-------------------------|
| 2 | Connect the nipple (A). | | |
| | Required material | | |
| | A | CONNECTOR | 9992976 |
| 3 | Fill the pneumatic system. | | |

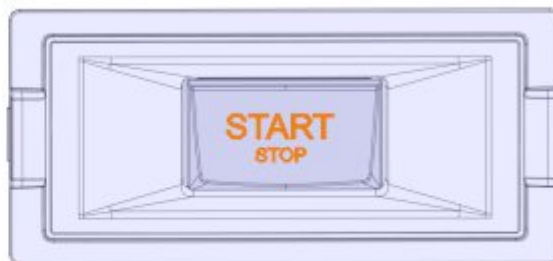


4 Set the key in position (II) or set the start/stop button in Contact Mode.

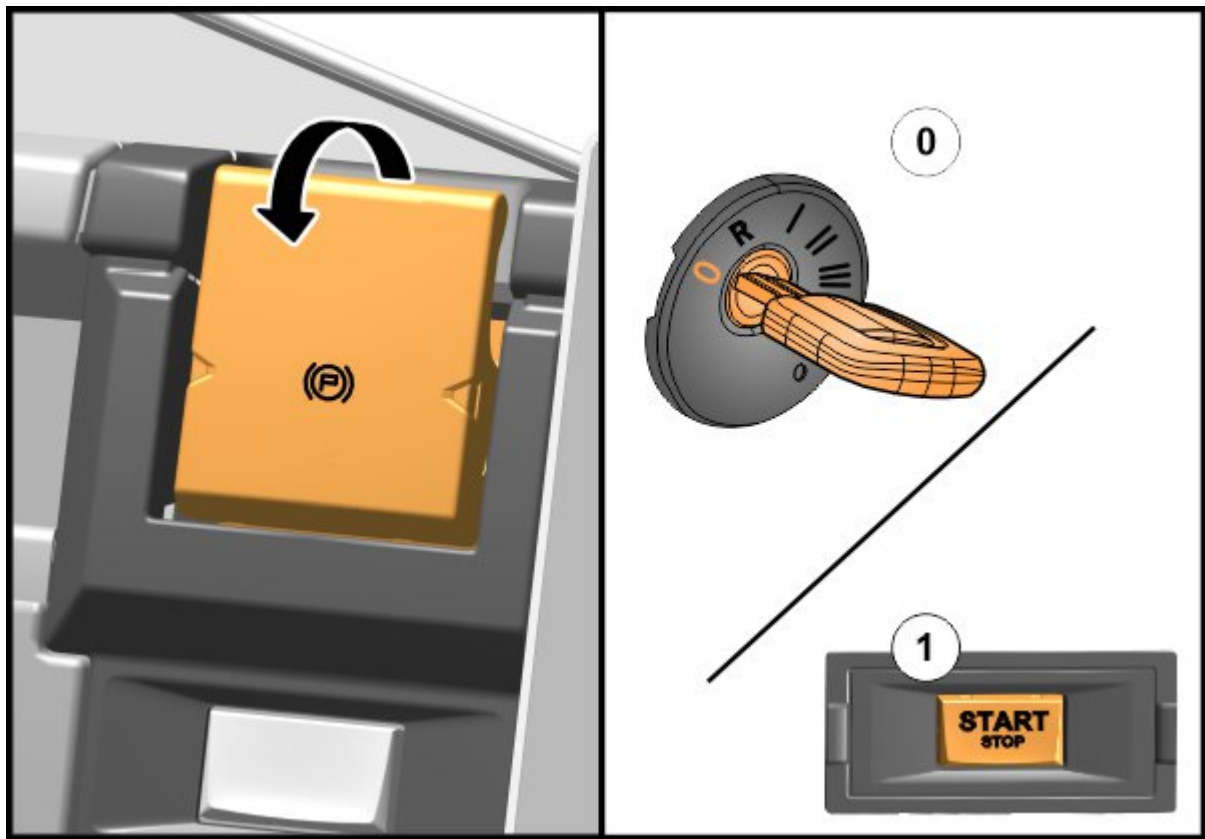


Note

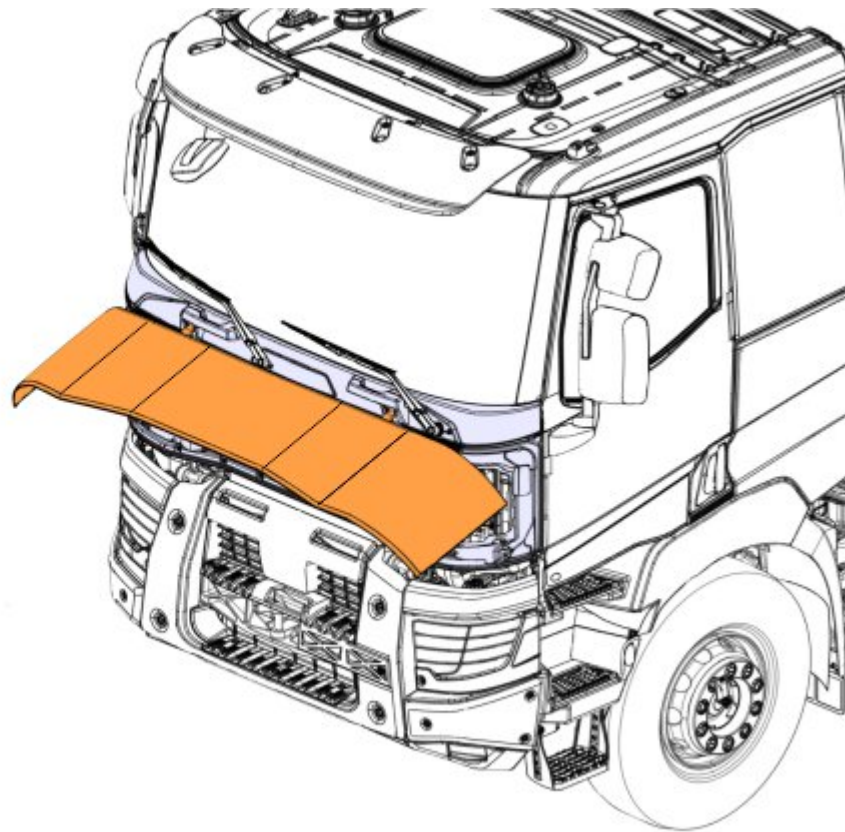
Ensure that the parking brake is released before carrying out the next step.



| | |
|--|---|
| 5 | <p>Set the parking brake in workshop mode by pressing and holding in the parking brake switch. Then turn the key to (0) position or set the start/stop button in Off Mode (1) to activate the function.</p> |
| Tech data | |
| Pneumatic system, minimum pressure | 7.5 bar |
| <p>i Note To release the parking brake, the pneumatic pressure must exceed the given level.</p> | |
| <p>i Note The parking brake will stay released until it is applied manually via the parking brake control or the pressure drops in the pneumatic system.</p> | |



| | |
|----------|-----------------------|
| 6 | Open the front panel. |
|----------|-----------------------|



 **DANGER**

Risk of serious injury or death.
 A cab that is not tilted to the end position constitutes a safety risk.

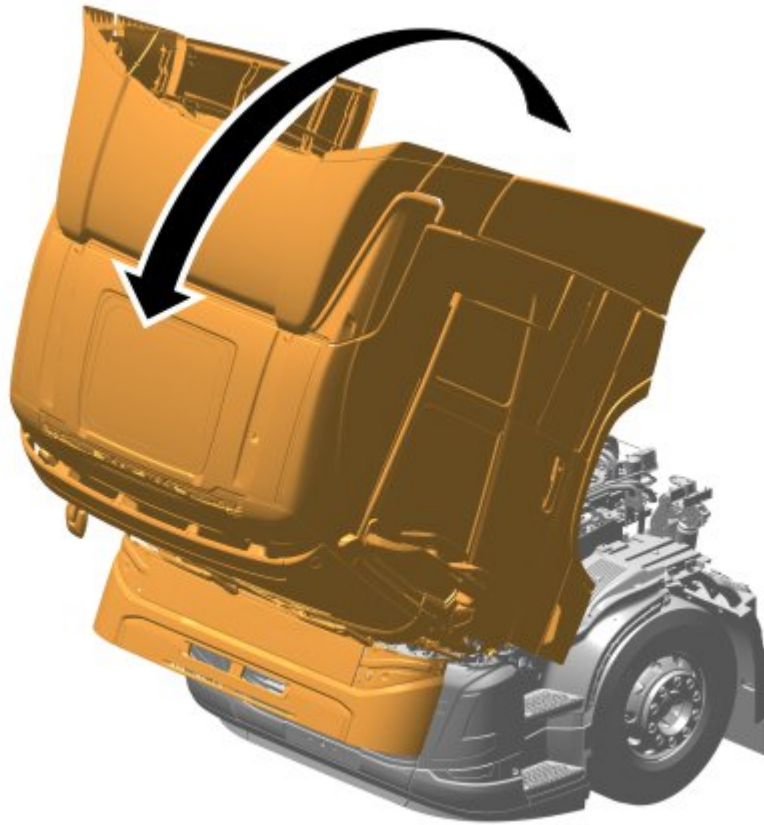
- ▶ It is forbidden to work in, under or in front of a cab that is not fully tilted.
- ▶ No persons are to remain in, under or in front of the cab while tilting is in progress.
- ▶ Always tilt the cab to the end position.


 **CAUTION**


Risk of material damage.
 Failure to secure loose material in the cab, close all the doors and have adequate space in front of the vehicle, before tilting the cab may result in material damage.

- ▶ Secure all loose material within the cab before tilting.
- ▶ Ensure that all the doors are closed.
- ▶ Make sure that there is adequate space in front of the vehicle before tilting the cab.

7 Tilt the cab forward.

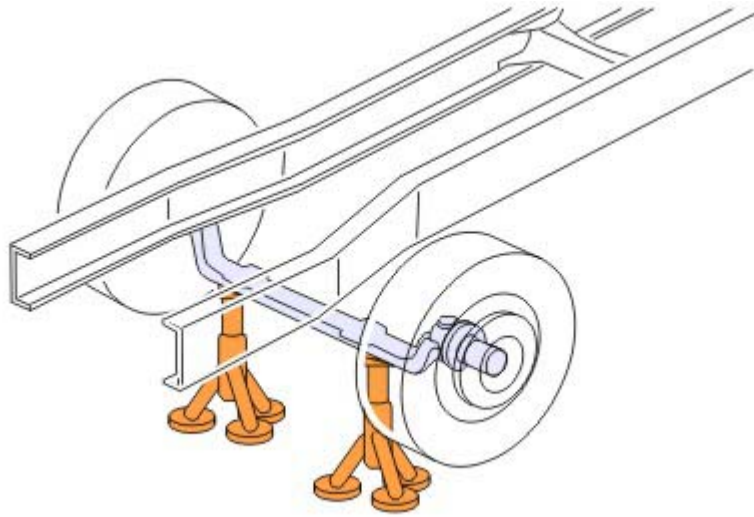


| | |
|---|---|
|  DANGER | |
| Risk of severe personal injury or death. | |
| A raised vehicle that has not been properly secured can cause serious damage. | |
| ▶ | Only use jack stands with an adequate rating. |
| ▶ | Use jack stands suitable for the application. |
| ▶ | Verify that jacks and jack stands are fault-free. |
| ▶ | Do not work under or around a vehicle until it is supported on jack stands. |

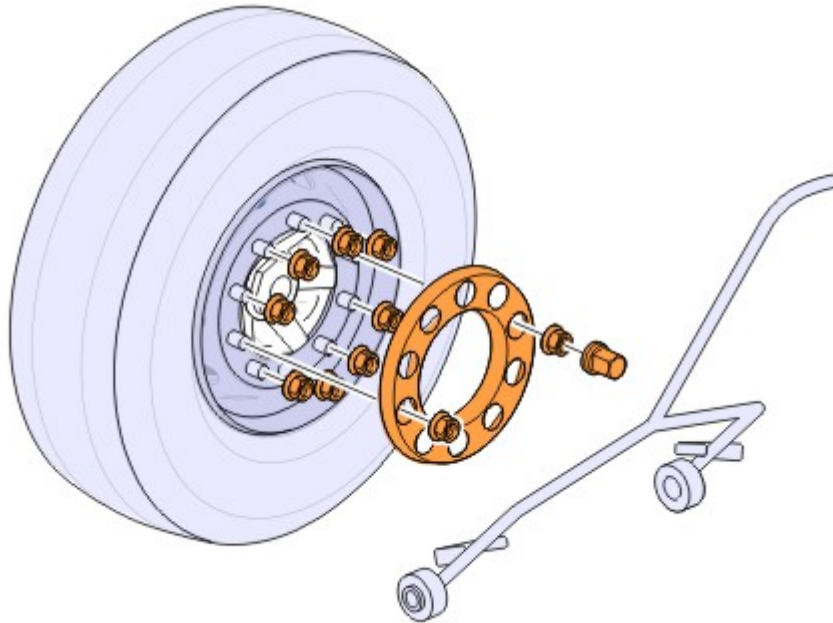
| | |
|--|---|
|  DANGER | |
| Risk of personal injury or death. | |
| Failure to properly depressurise the air suspension can cause the axle to rotate and push the vehicle off the jack stands. | |
| ▶ | Depressurise the air suspension before raising the vehicle for service. |

| | |
|----------|--------------------|
| 8 | Raise the vehicle. |
|----------|--------------------|

| | |
|----------|---------------------------|
| 9 | Position the jack stands. |
|----------|---------------------------|



| | |
|--------------------------|--------------------------|
| 10 | Remove the nuts. |
| 11 | Remove the locking ring. |
| 12 | Remove the wheel. |
| Required material | |
| WHEEL EQUIPMENT | 9999676 |



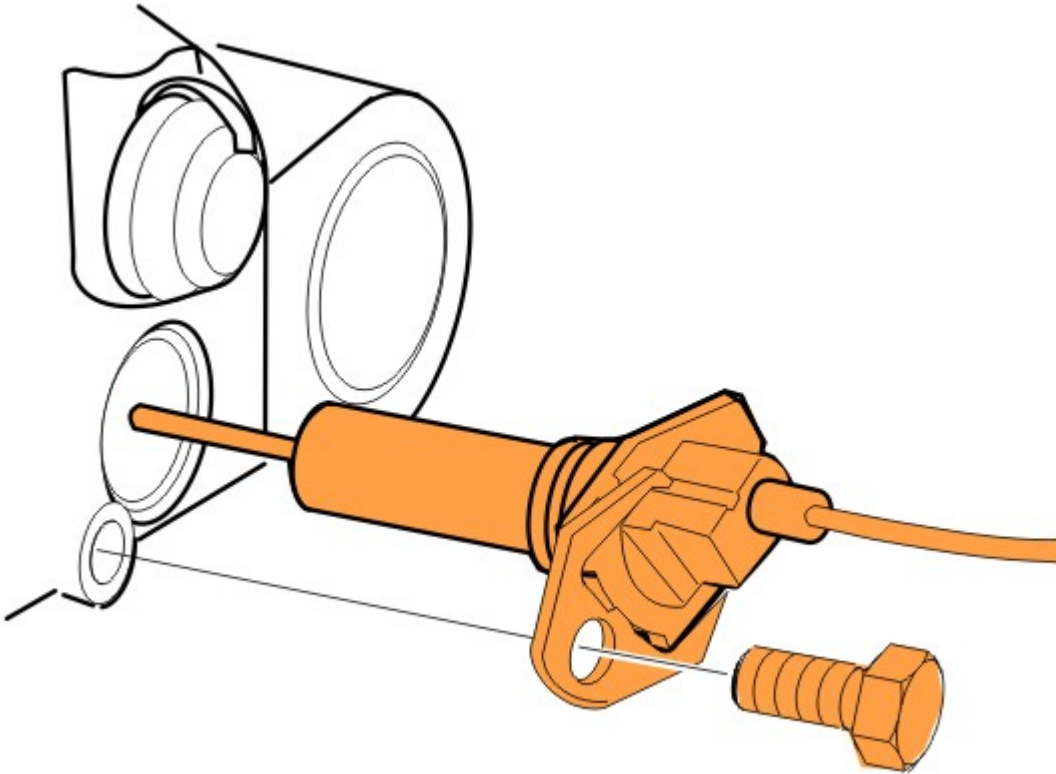
| | |
|----|--|
| 13 | Clean the brake caliper and the brake pads. <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> i Note Wipe them clean or use a vacuum cleaner. </div> |
|----|--|

| | |
|----|-------------------|
| 14 | Remove the screw. |
|----|-------------------|

| | |
|----|---|
| 15 | Remove the cable ties. <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> i Note </div> |
|----|---|

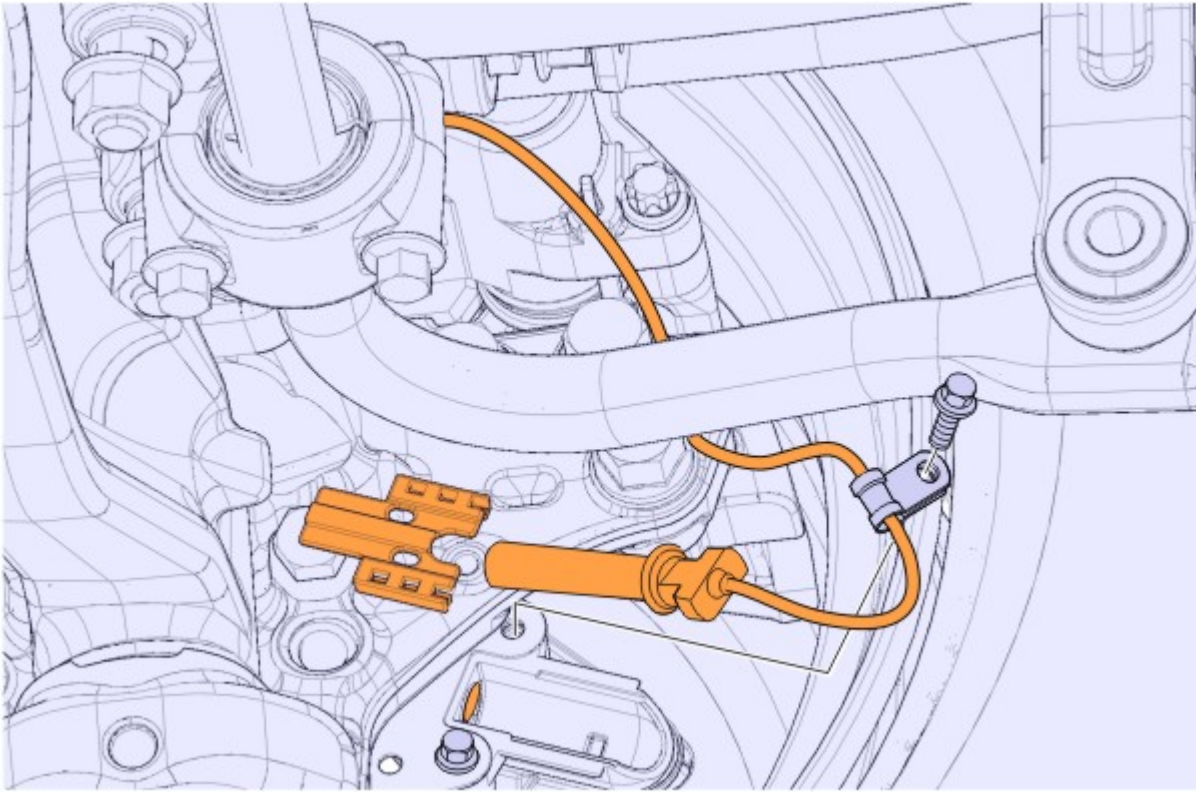
| | |
|----------|---------------------|
| i | Note the positions. |
|----------|---------------------|

| | |
|-----------|---|
| 16 | Remove the sensor. |
| i | Note Ensure that the wiring harness is not damaged. |

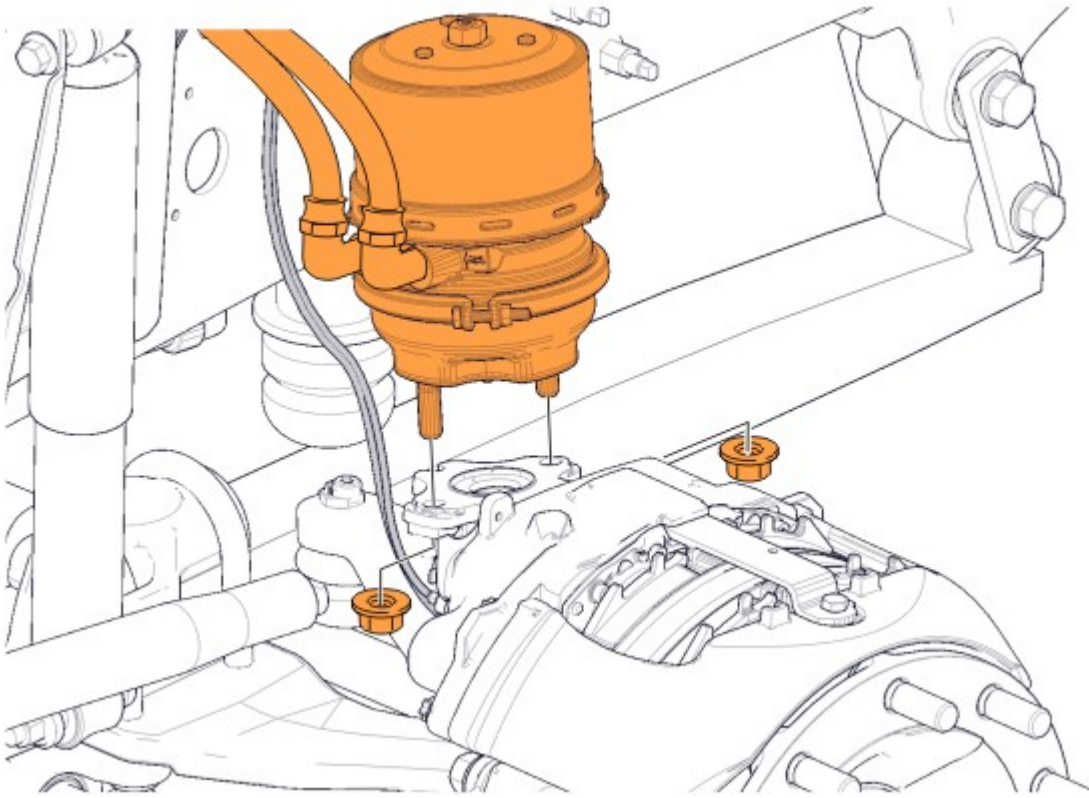


| | |
|-----------|--------------------------------------|
| 17 | Remove the cable ties. |
| i | Note Note the positioning. |

| | |
|---|---|
| 18 | Remove the sensor. |
| Required material | |
| EXTRACTOR 88800326 | |
| i | Note Do not pull on the cable during removal, this can damage the sensor. |



| | |
|-----------|---|
| 19 | Remove the nuts. |
| 20 | Remove the brake chamber. |
| 21 | <p>Move aside the brake chamber.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Note Take care not to damage the hoses and pipes. Ensure that no dirt or water enters the brake caliper.</p> </div> |



22 Remove the protective cap.

 **CAUTION**

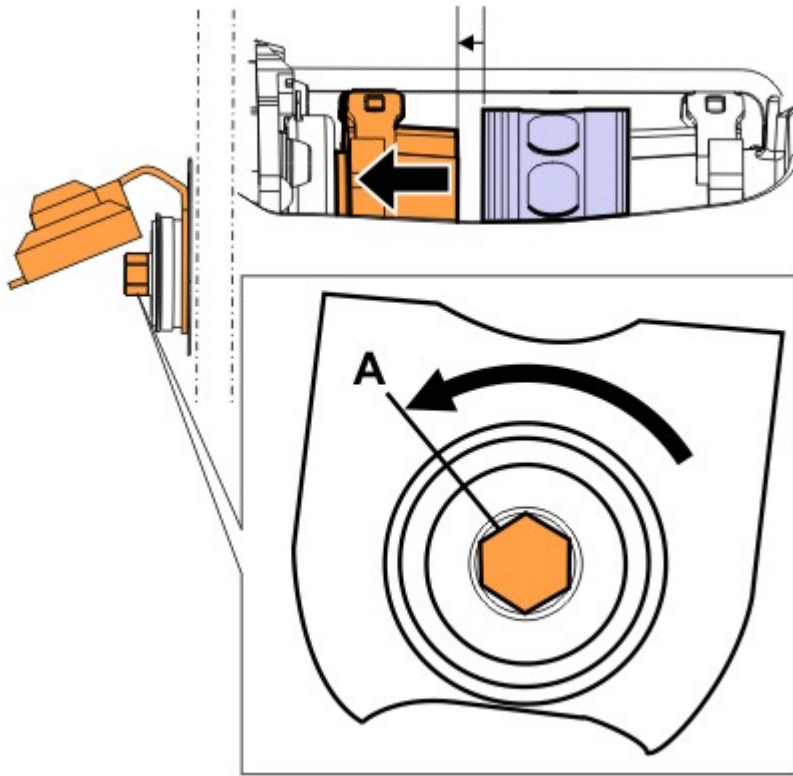
Risk of material damage.
 The mechanism can be easily damaged if the adjusting screw is over-tightened.

▶ Do not exceed the maximum specified torque. Use a ratchet spanner, do NOT use a nut runner.

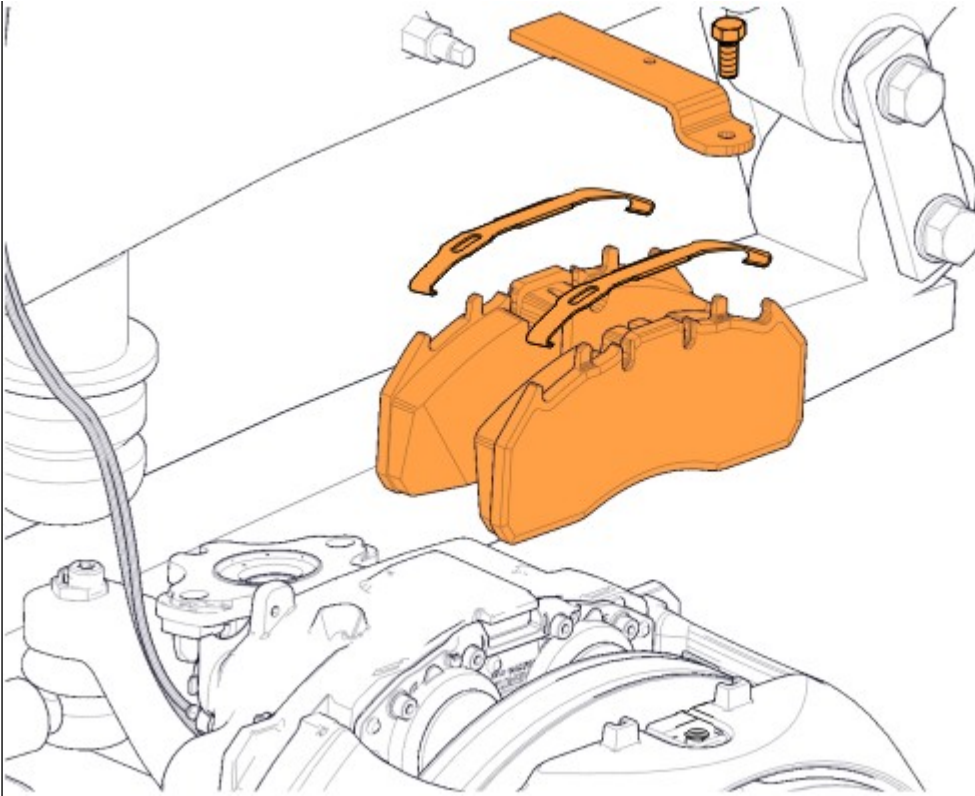
Tech data

| | |
|---|-------|
| Brake, adjusting screw, maximum torque (FBRA-D43) | 40 Nm |
| Brake, adjusting screw, maximum torque (FBRA-D37) | 15 Nm |

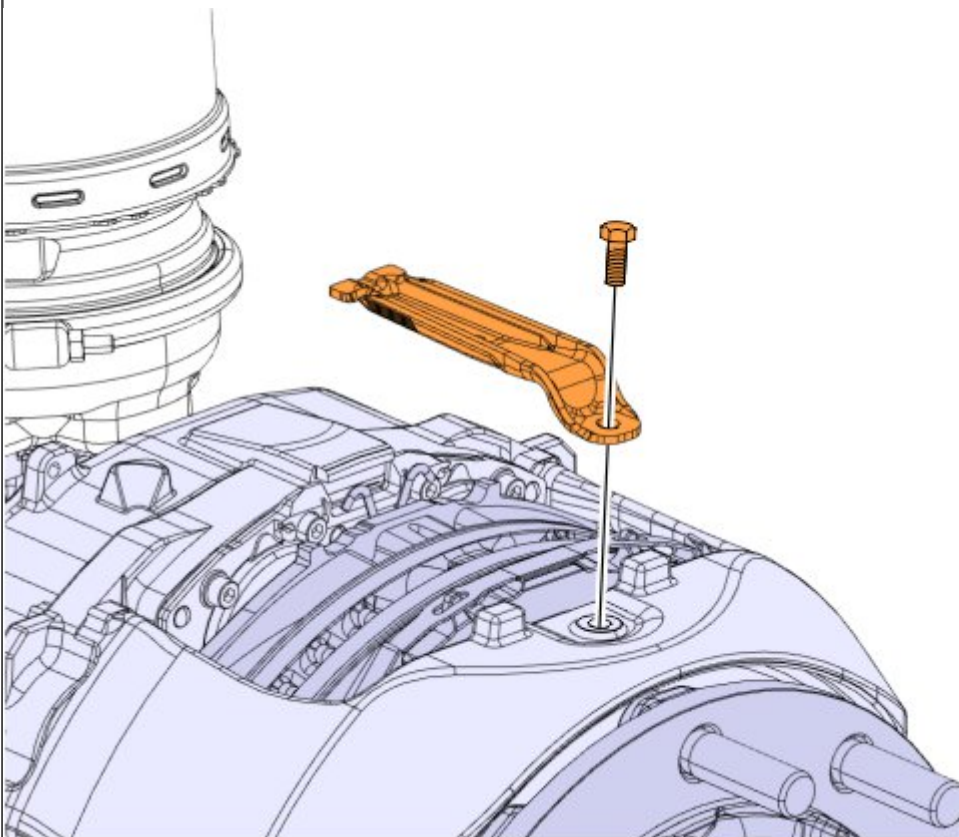
23 Turn the adjustment screw anticlockwise **(A)** to increase the play.



| | |
|-----------|--|
| 24 | <p>This step contains 2 alternatives.</p> <p>Select one of the valid alternatives below.</p> <p>Alternative 1 / 2</p> <ul style="list-style-type: none"> ▶ Remove the screw. ▶ Remove the retaining plate. ▶ Remove the springs. ▶ Remove the brake pads. |
|-----------|--|

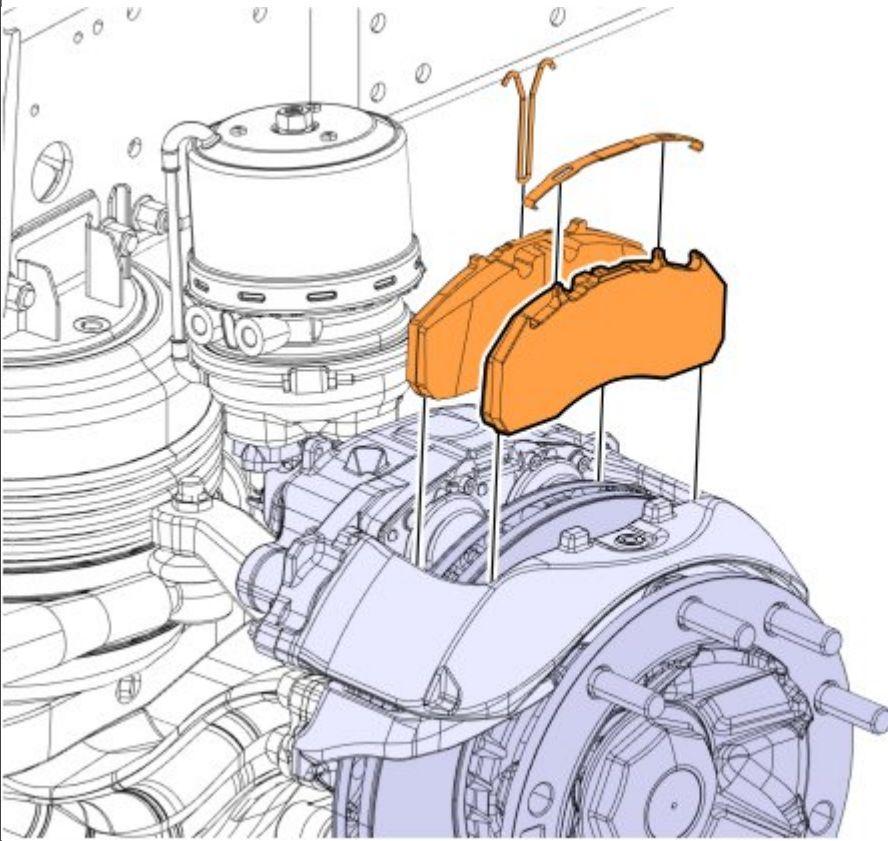
**Alternative 2 / 2**

- ▶ Remove the screw.
- ▶ Remove the retaining plate.



- ▶ Remove the springs.

▶ Remove the brake pads.

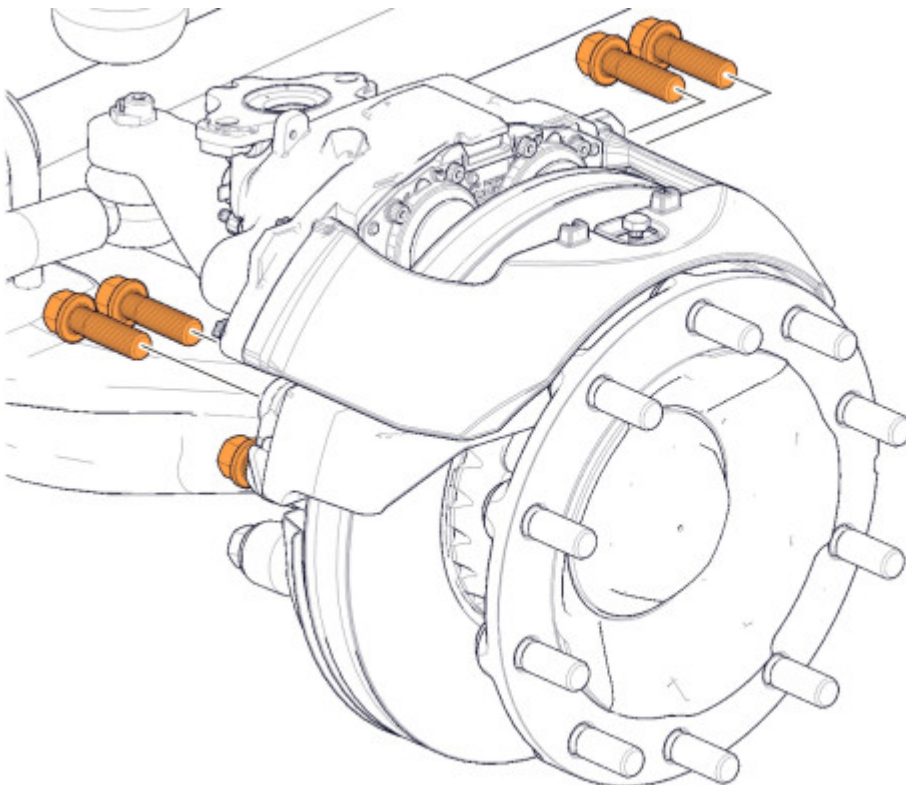


25 Remove the screws.



Note

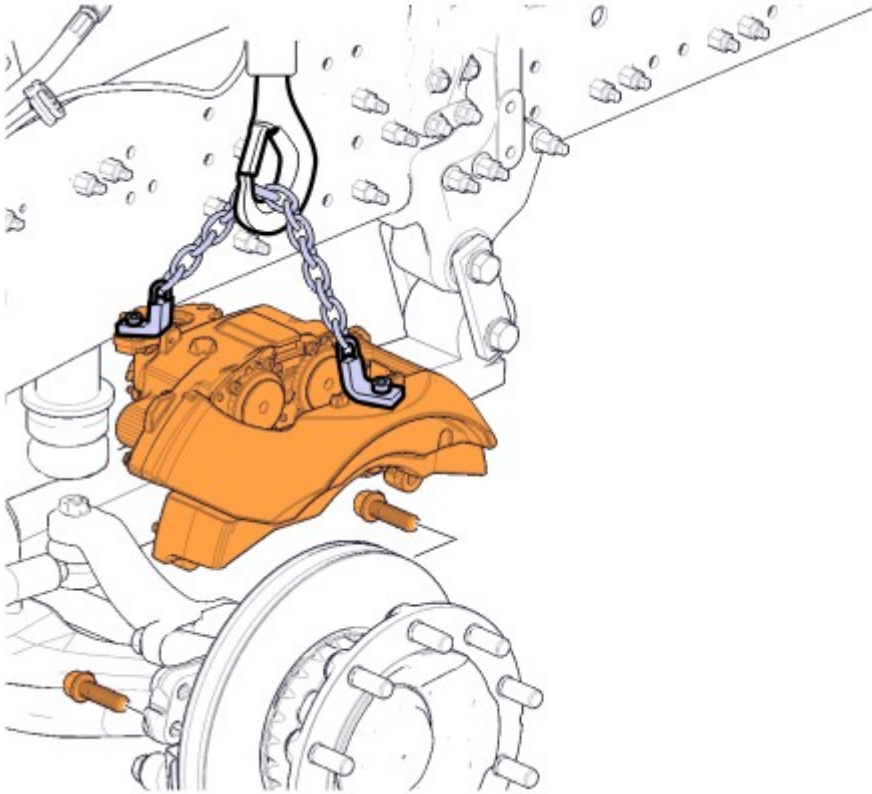
Leave two screws in place as a precaution.



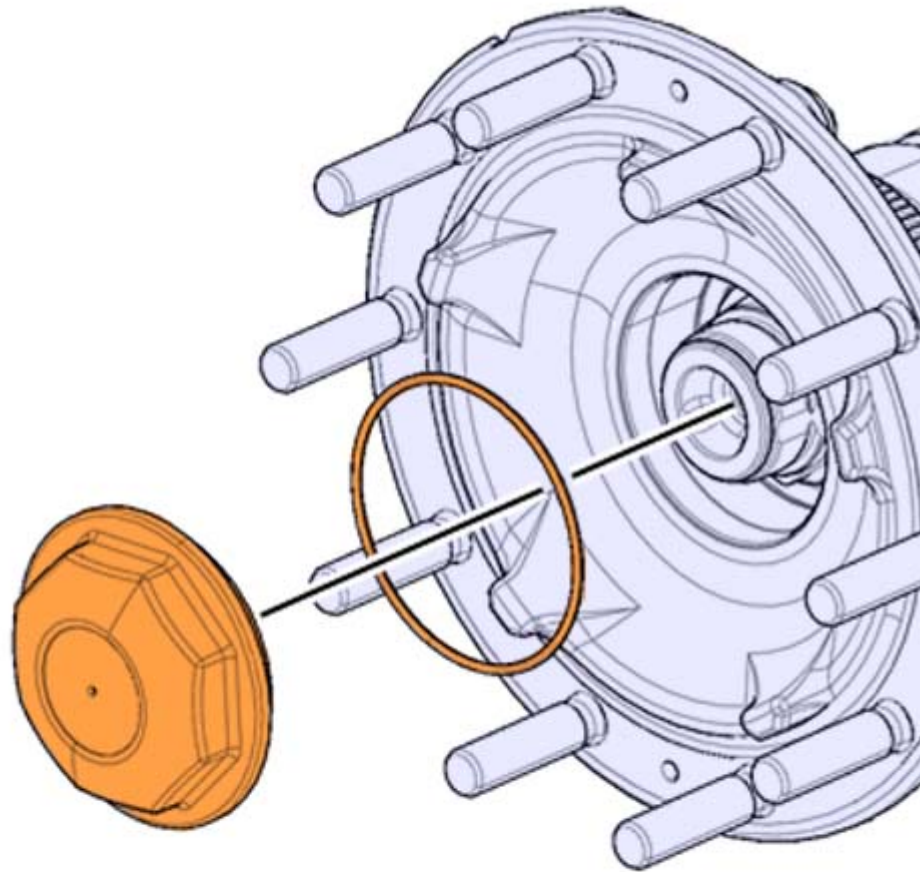
| | | |
|-----------|--------------------------|-------------------------|
| 26 | Install the tool. | |
| | Required material | |
| | LIFTING CHAIN | 9996239 |

| | |
|-----------|--------------------|
| 27 | Remove the screws. |
|-----------|--------------------|

| | |
|-----------|---------------------------|
| 28 | Remove the brake caliper. |
|-----------|---------------------------|

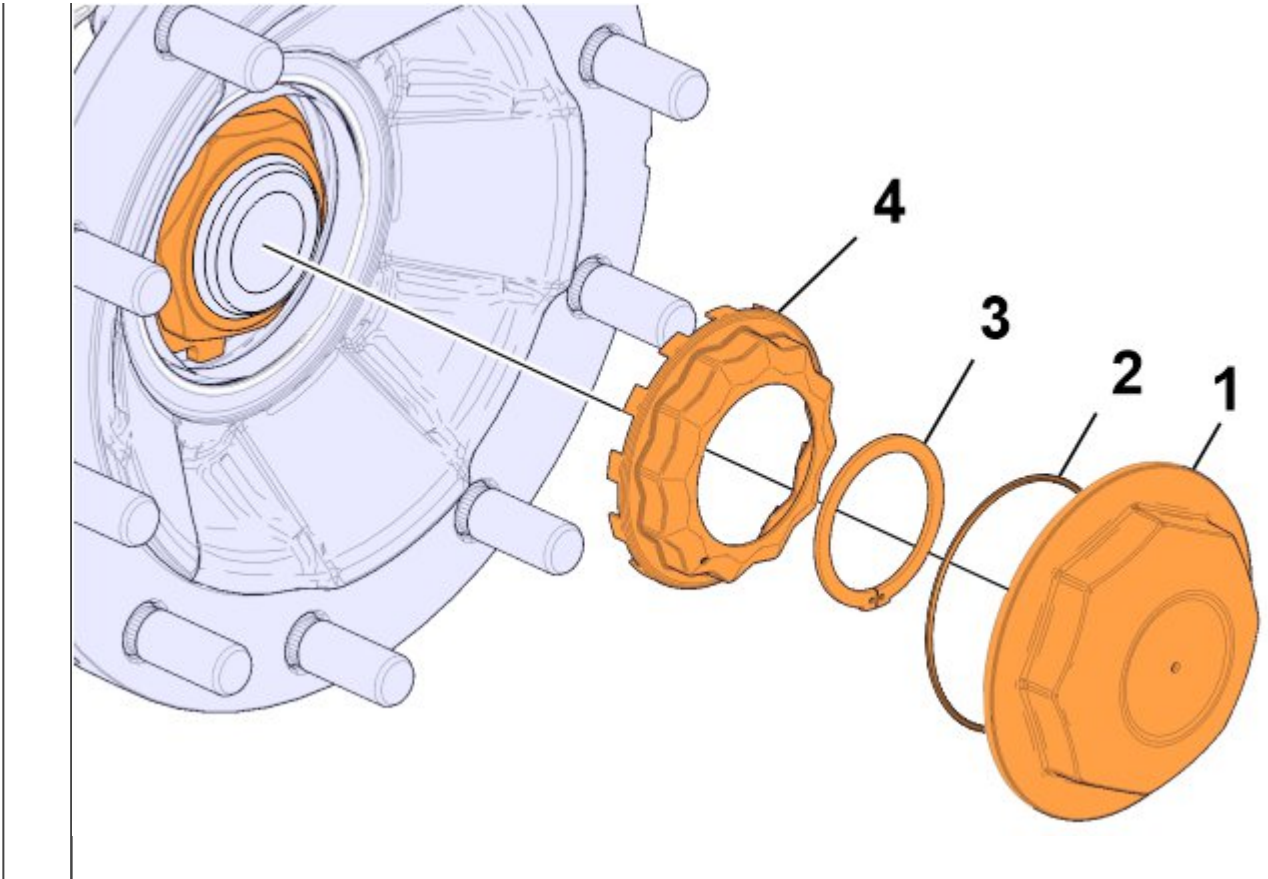


| | | |
|-----------|---|----------------------------|
| 29 | This step contains 2 alternatives. Select one of the valid alternatives below. | |
| | Alternative 1 / 2 – Hub with self-locking nut. | |
| | ▶ | Remove the hub cap. |
| | ▶ | Remove the hub cap gasket. |



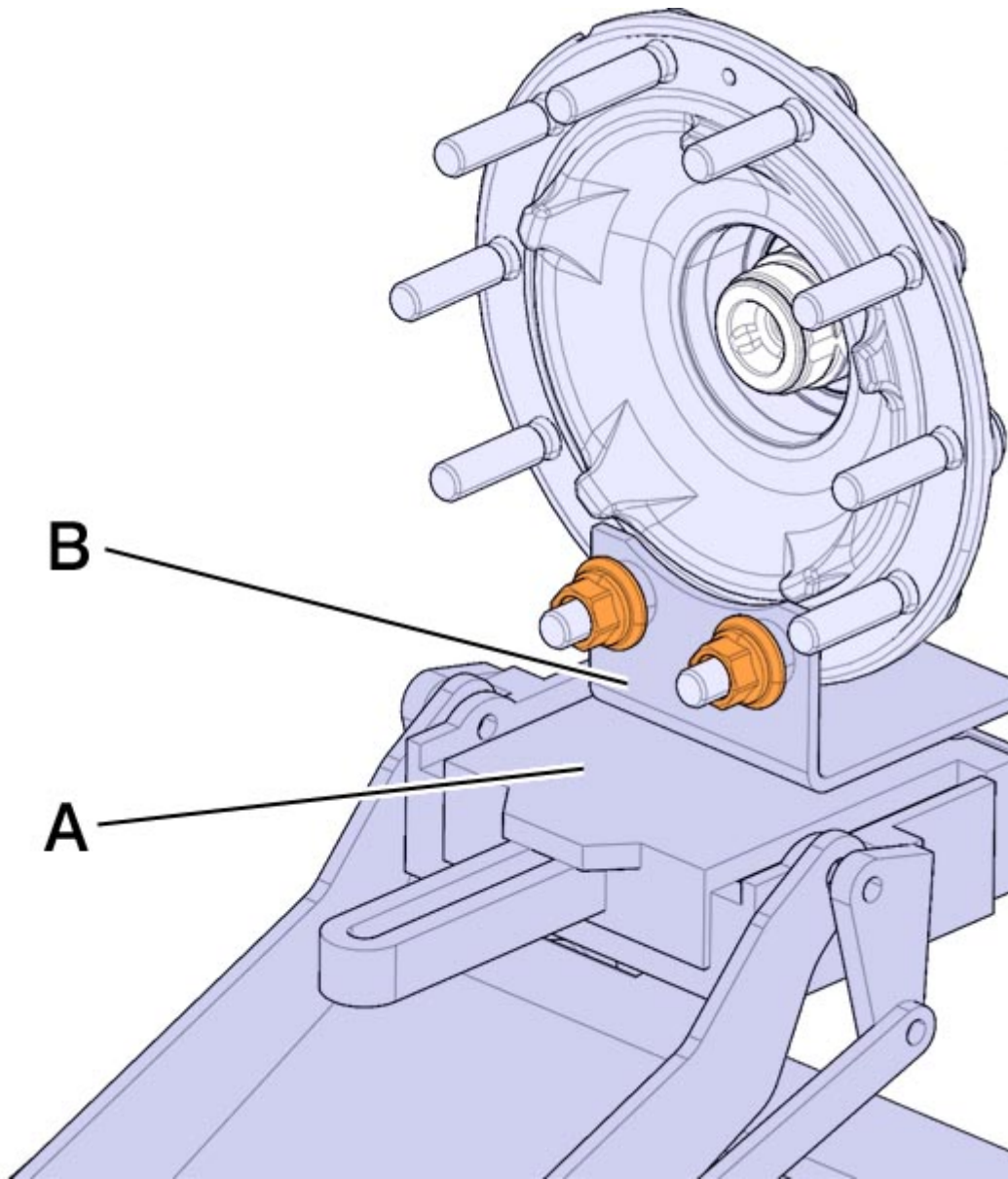
Alternative 2 / 2 – Hub with hexagon nut.

- ▶ Remove the hub cap (1).
- ▶ Remove the hub cap gasket (2).
- ▶ Remove the retaining ring (3).
- ▶ Remove the lock washer (4).

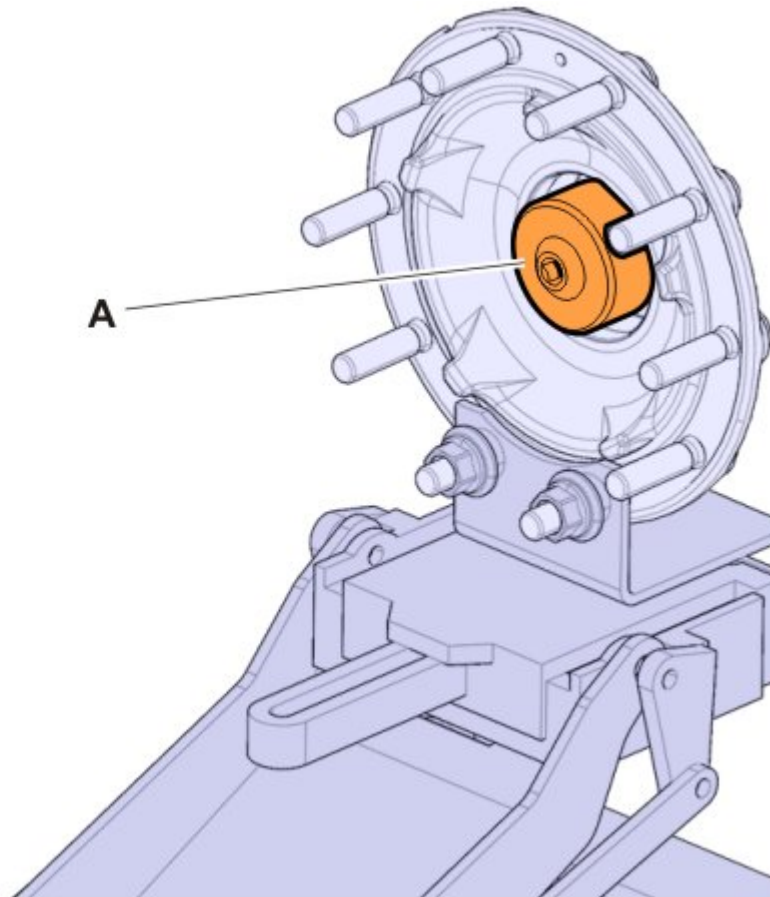


| | | | |
|-----------|--|--------------|-------------------------|
| 30 | Position tools (A) and (B) . | | |
| | Required material | | |
| | A | TROLLEY JACK | 9999954 |
| | B | FIXTURE | 9998821 |

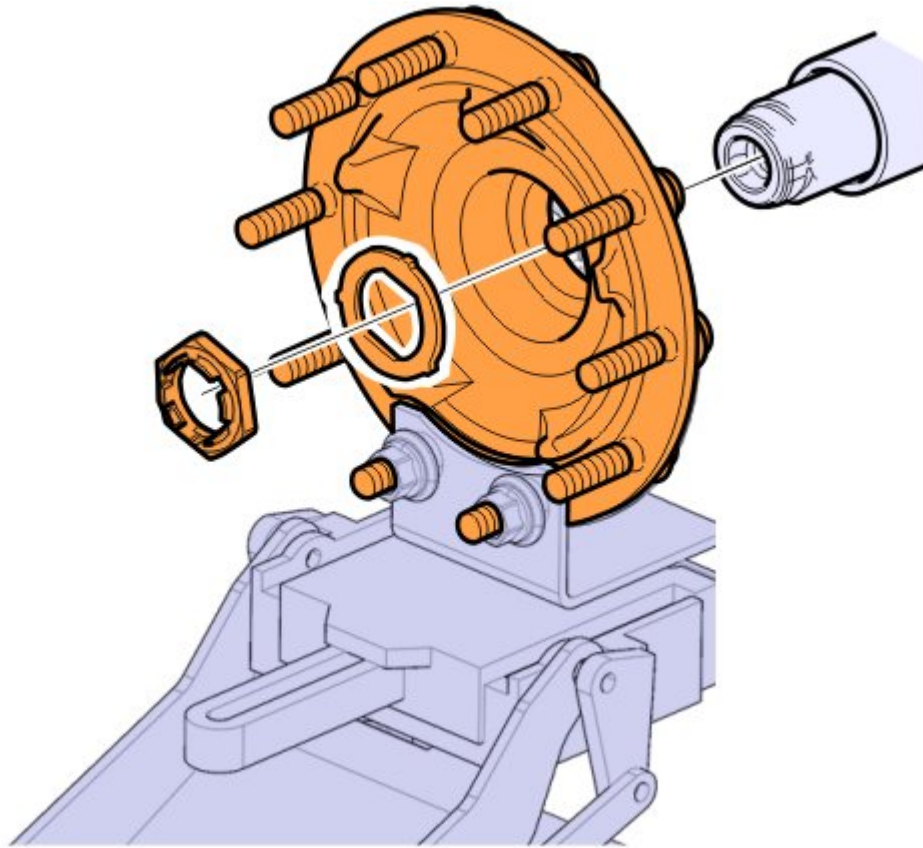
| | | |
|-----------|---|------------------------------------|
| 31 | Install the nuts. | |
| |  | Note Use the wheel nuts. |



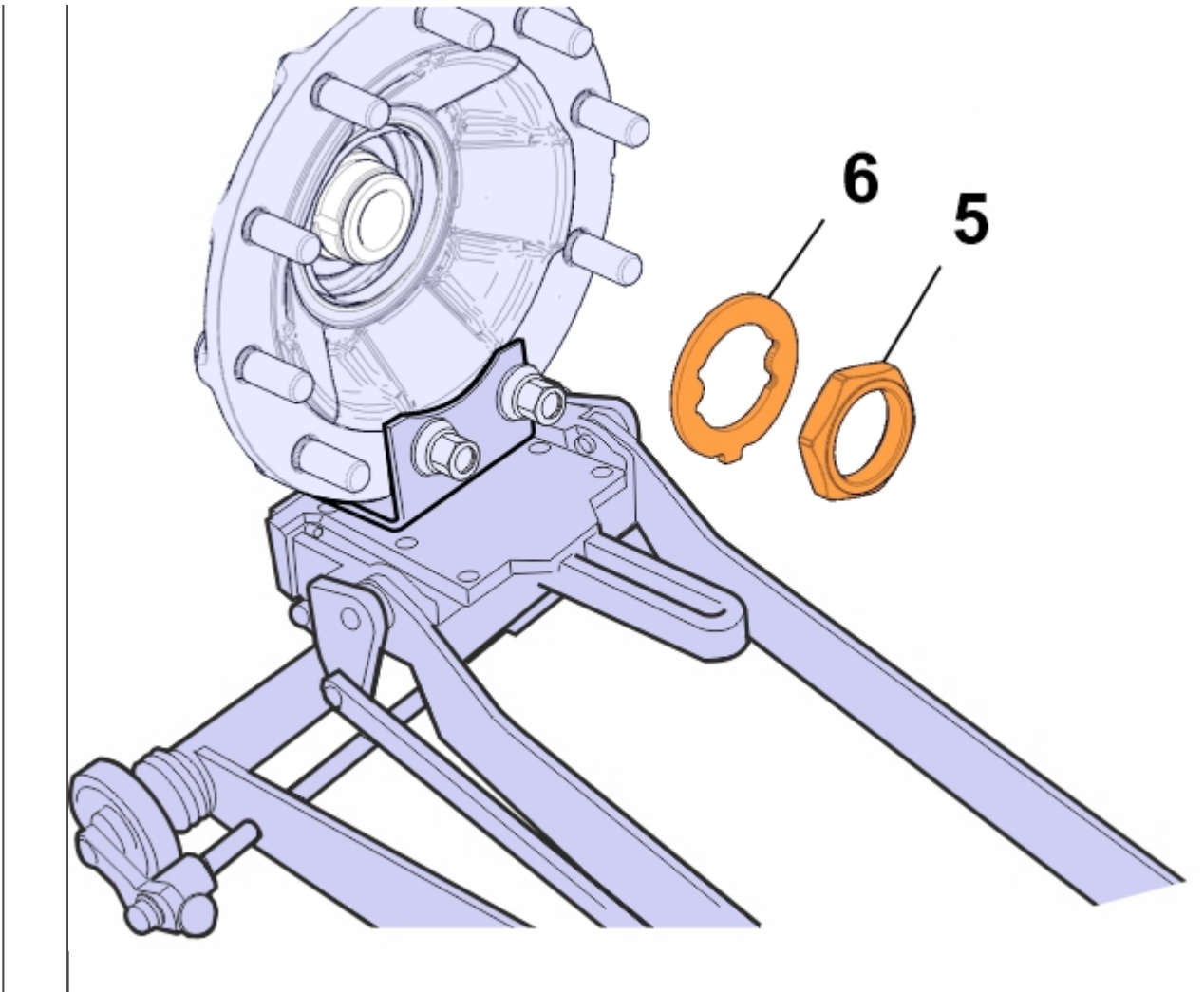
| | |
|-----------|--|
| 32 | Install the socket (A). |
| | Required material |
| | Conditions: Bearing. spindle, D58 (M52 nut) |
| | IMPACT HEXAGON SOCKET 1158142 |
| | Conditions: Bearing. spindle, D68 (M60 nut) |
| | SOCKET WRENCH 9996940 |
| | Conditions: Bearing. spindle, D78 (M70 nut) |
| | SOCKET WRENCH 9996945 |
| | |



| | |
|-----------|---|
| 33 | This step contains 2 alternatives. Select one of the valid alternatives below. |
| | Alternative 1 / 2 – Hub with self-locking nut |
| | ▶ Remove the nut. |
| | ▶ Remove the washer. |

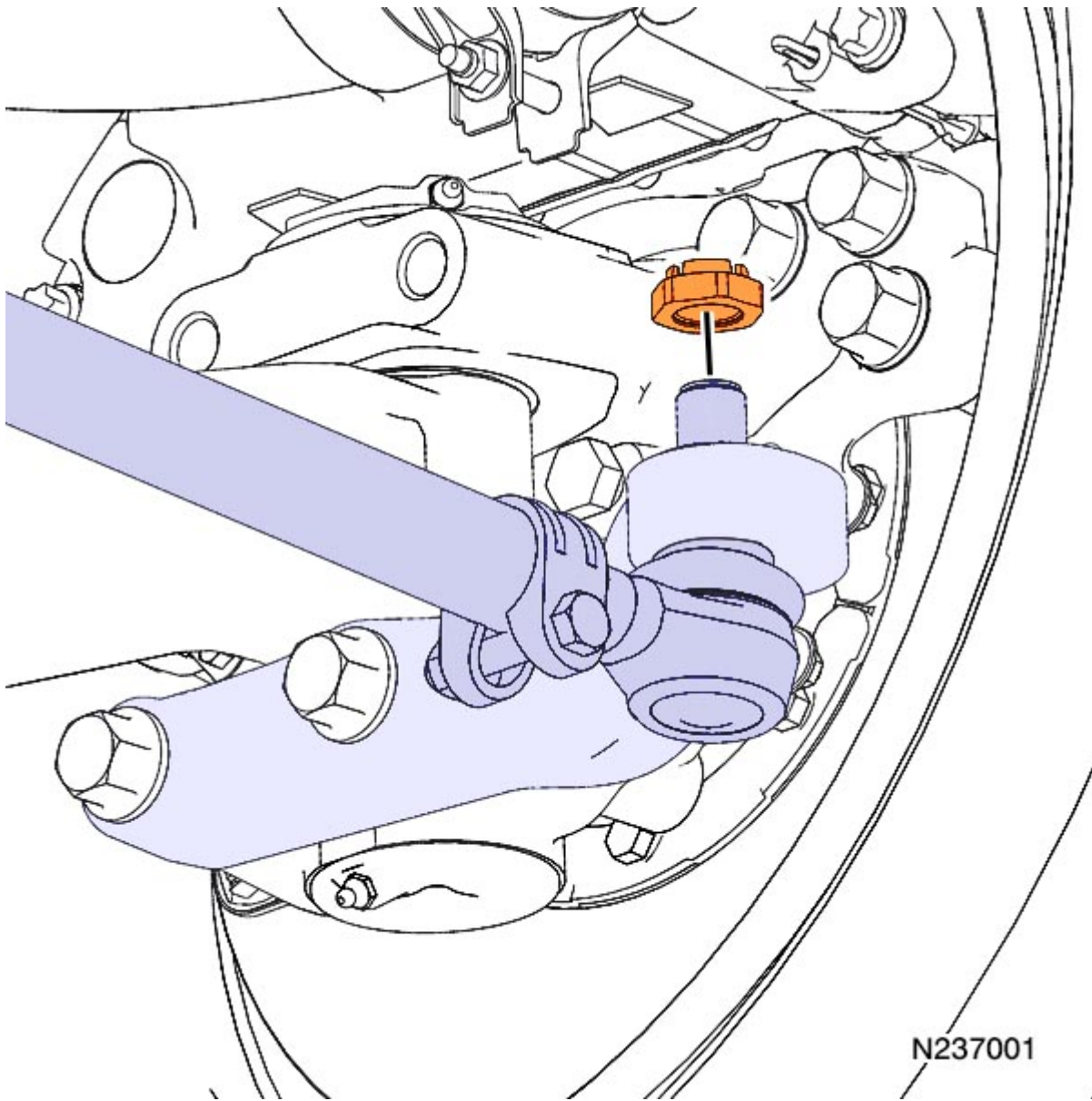
**Alternative 2 / 2 – Hub with hexagon nut**

- ▶ Remove the nut (5).
- ▶ Remove the washer (6).

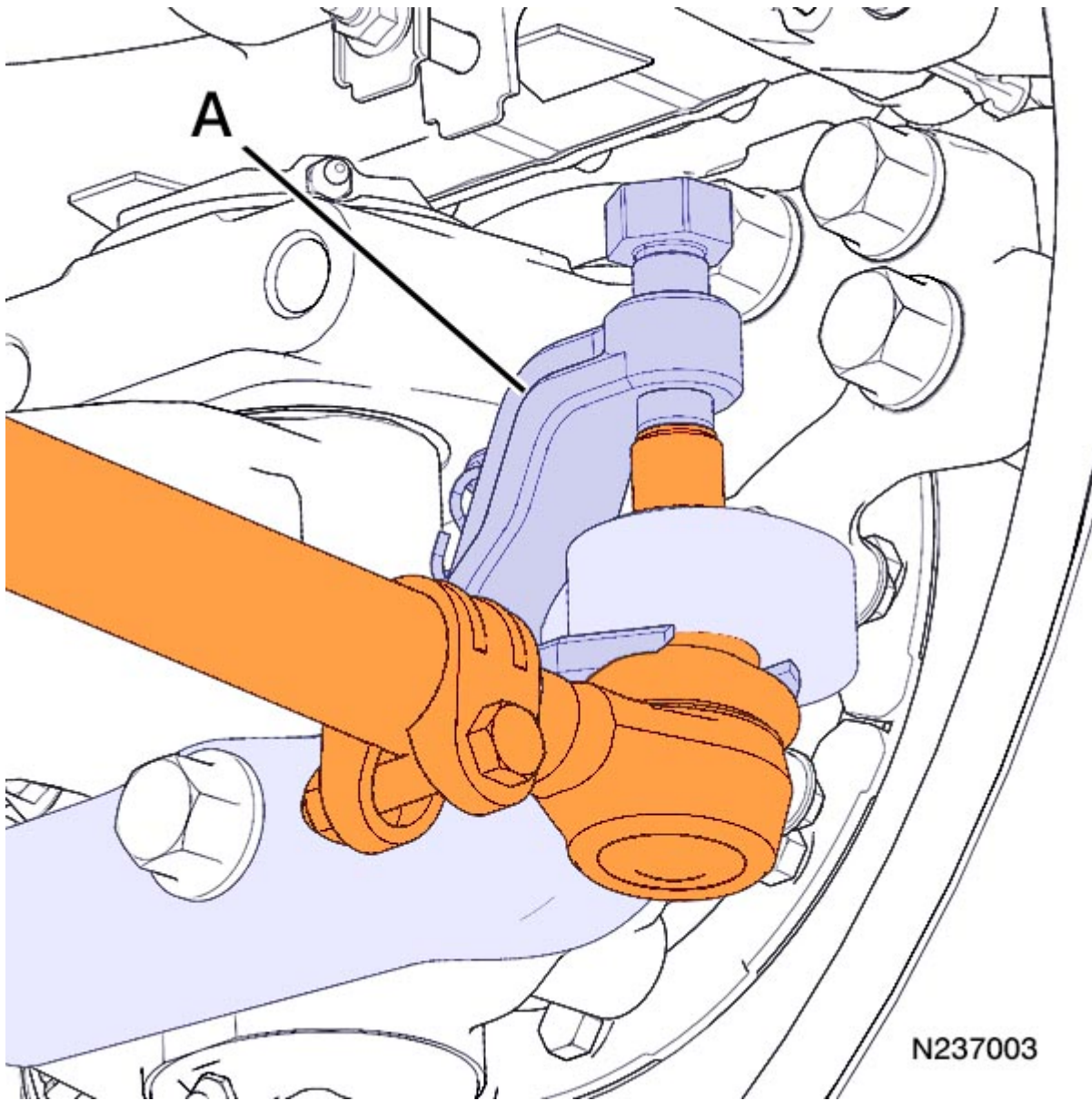


| | |
|-----------|-----------------|
| 34 | Remove the hub. |
|-----------|-----------------|

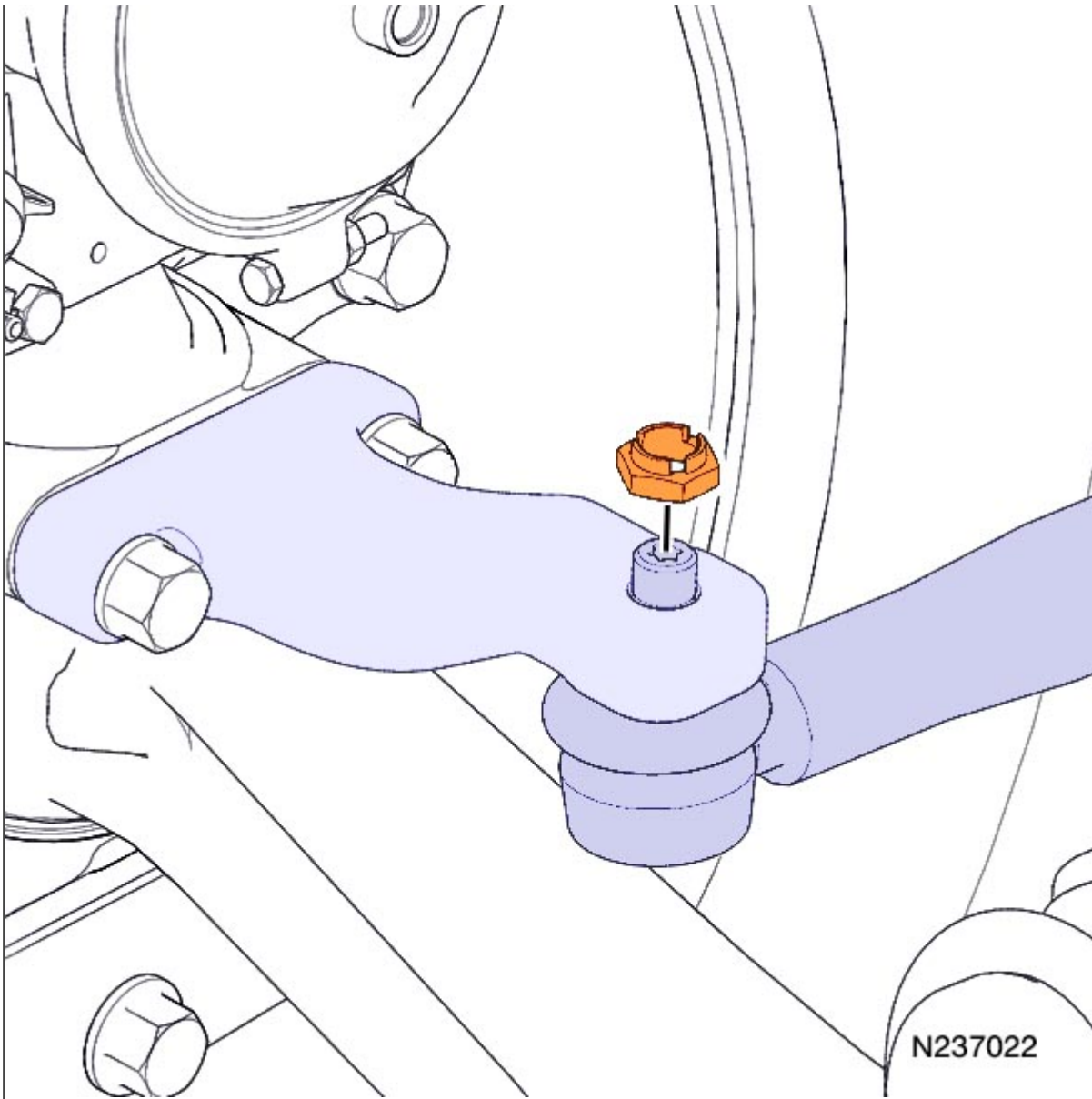
| | |
|-----------|-----------------|
| 35 | Remove the nut. |
|-----------|-----------------|



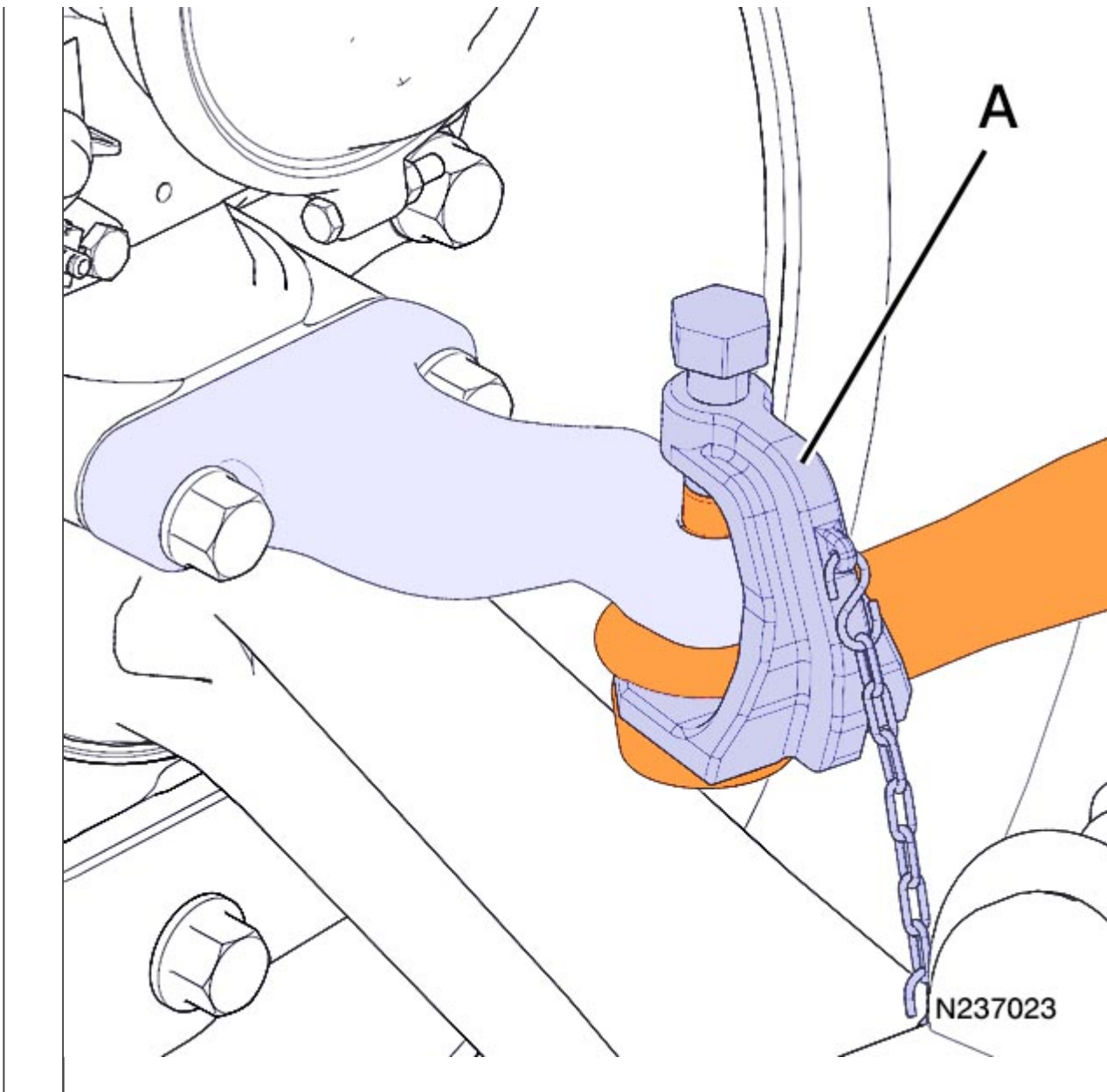
| | | | |
|-----------|---|--------------------------------|----------|
| 36 | Release the ball joint. | | |
| | Required material | | |
| | A | PULLER 9990814 | |
| | <table border="1" style="border-collapse: collapse;"> <tr> <td style="text-align: center; width: 20px;">i</td> <td style="padding: 2px 5px;">Note Use the tool (A).</td> </tr> </table> | | i |
| i | Note Use the tool (A). | | |



| | |
|-----------|---|
| 37 | Perform this procedure when the condition below is met. |
| | Conditions |
| | <ul style="list-style-type: none"> • If a link rod is attached |
| | <ul style="list-style-type: none"> ▶ Remove the nut. |

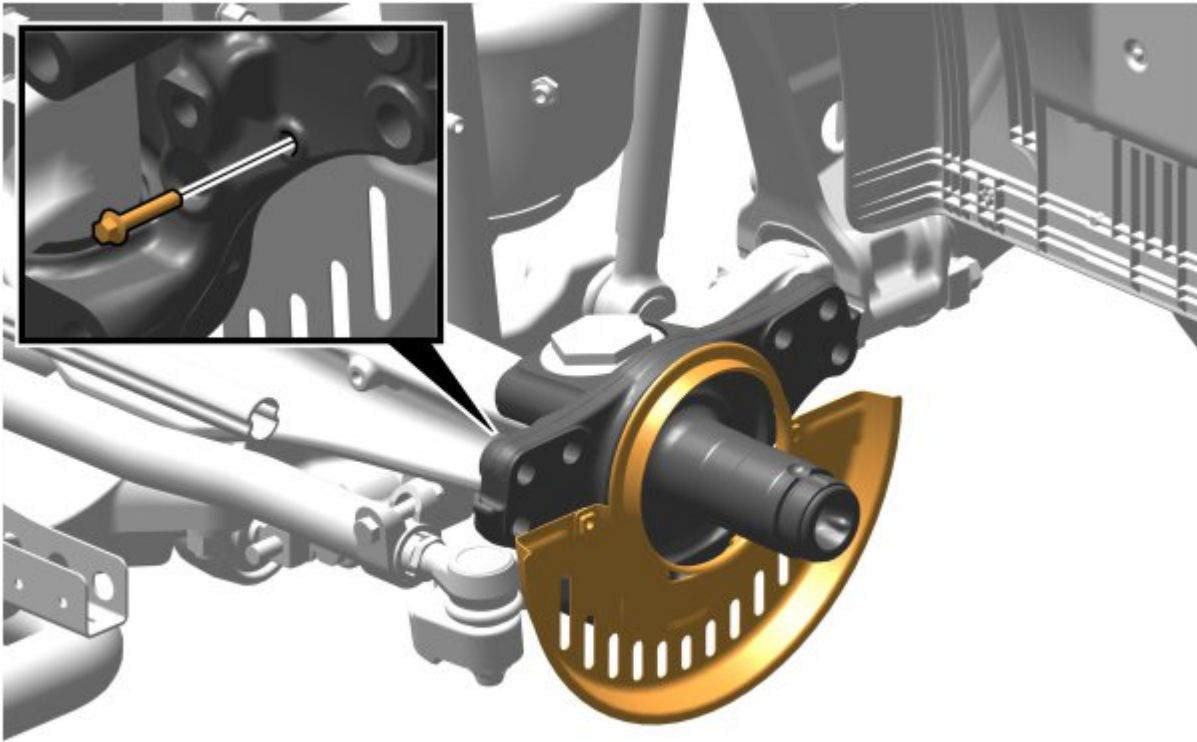



| | |
|---------------------------|----------------------------------|
| ▶ Release the ball joint. | |
| Required material | |
| PULLER | 9998657 |
| i | Note Use the tool (A). |

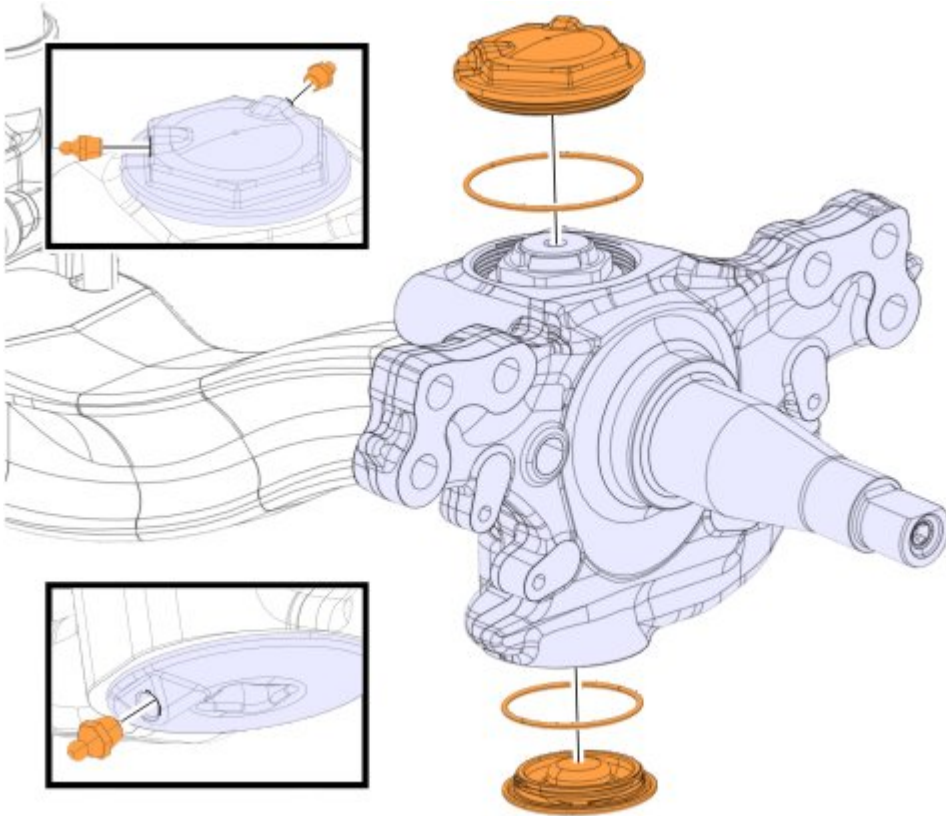


| | |
|-----------|--------------------|
| 38 | Remove the screws. |
|-----------|--------------------|

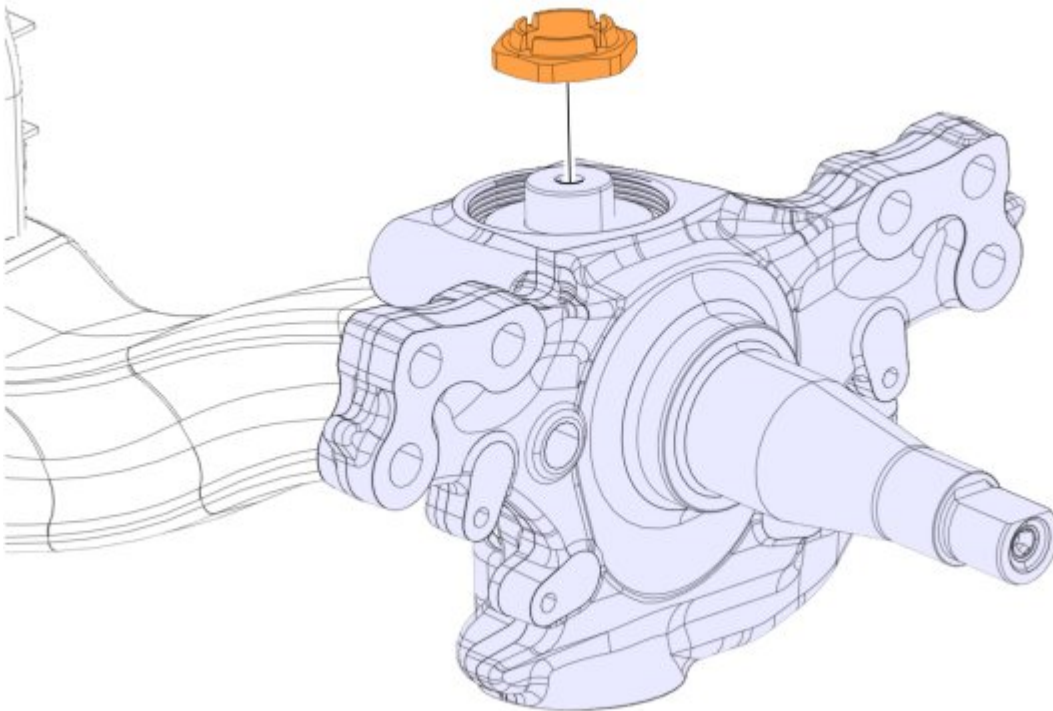
| | |
|-----------|--------------------------|
| 39 | Remove the brake shield. |
|-----------|--------------------------|



| | |
|----|--|
| 40 | Remove the grease nipples. |
| 41 | Remove the covers. <div style="border: 1px solid black; padding: 2px; display: inline-block;">  Note Mark the position. </div> |
| 42 | Remove the O-rings. |



43 Remove the nut.



CAUTION

Risk of serious injury.

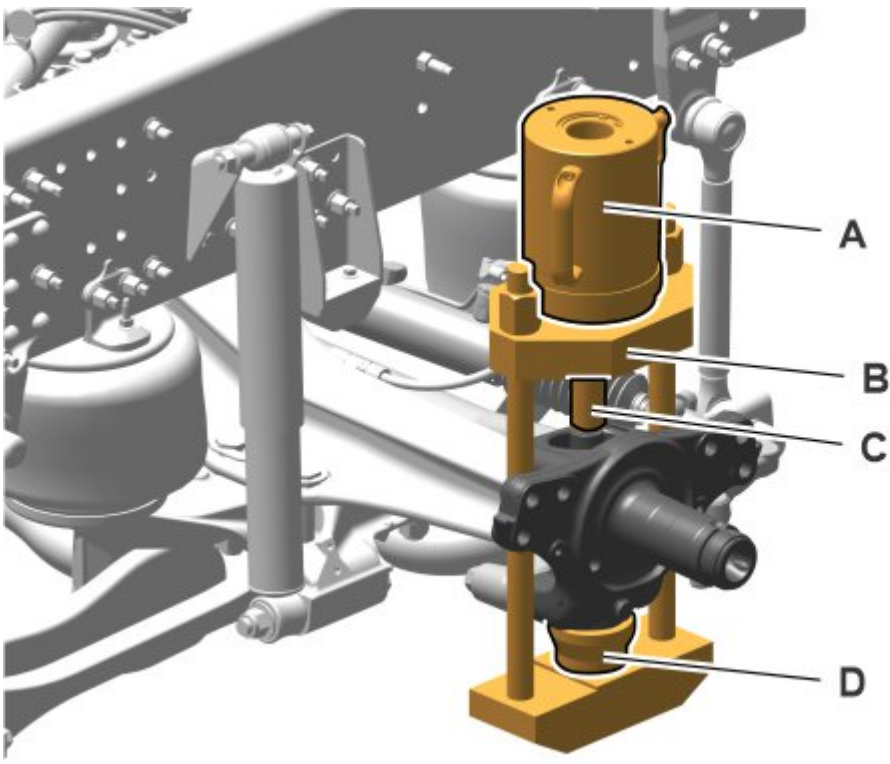
Heavy tool.

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▶ Exercise caution while handling the tools. Ask for assistance.

| | | | |
|----|--------------------------|--------------------|--------------------------|
| 44 | Install the tools. | | |
| | Required material | | |
| | A | HYDRAULIC CYLINDER | 88800778 |
| | B | PRESS TOOL | 9990198 |
| | C | MANDREL | 88800849 |
| | D | MANDREL | 88800847 |
| | | HYDRAULIC PUMP | 9809726 |




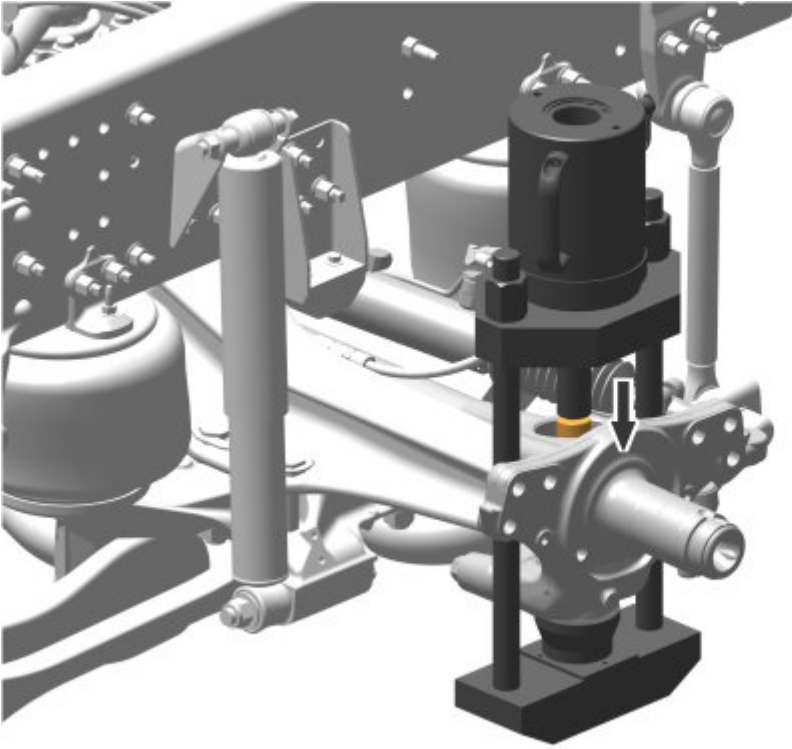
 **WARNING**




Risk of serious injury.
 Carelessness during pressing can cause crushing injuries. There is also a risk that the components being pressed slip away and cause injury to individuals in the surrounding area.

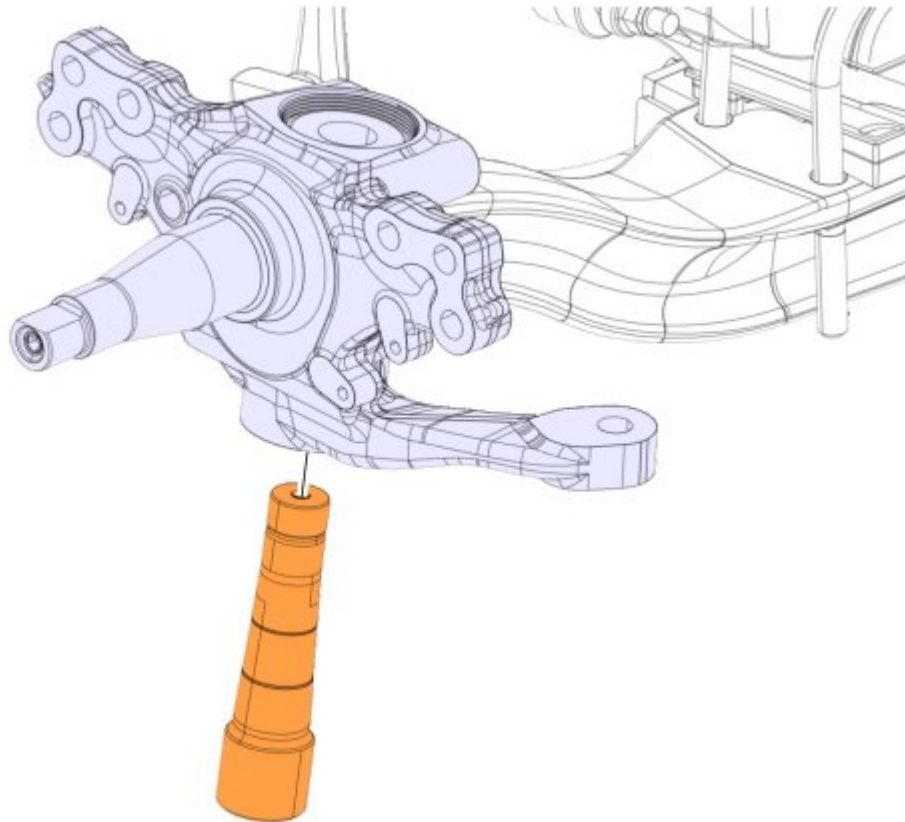
▶ Exercise caution during pressing. Use safety goggles.

45 Press on the king pin until the tension is released.

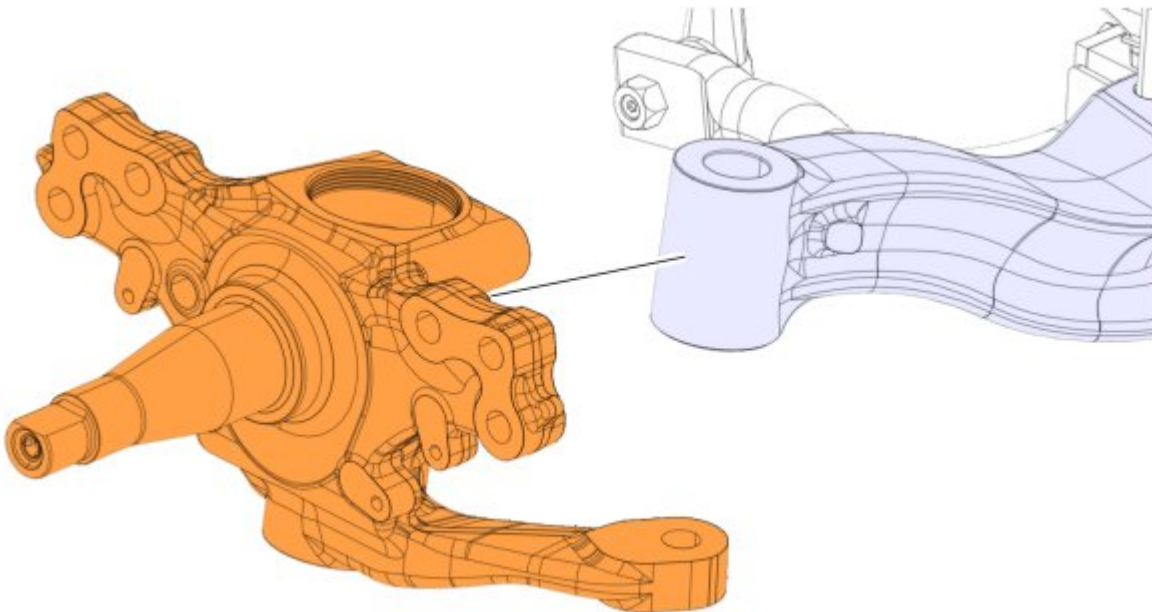
 **Note**
 Ensure that the turned shoulder in the mandrel sits in the bearing and the centre of the bearing sleeve.



| | |
|---|---|
| 46 | Remove the tools. |
| 47 | Tap on the king pin until it releases from the lower bearing. |
|  | Note Use a plastic mallet and mandrel. |
| 48 | Remove the king pin. |
|  | Note Tap the king pin until it releases from the upper bearing. |
|  | Note Use a plastic mallet and mandrel. |

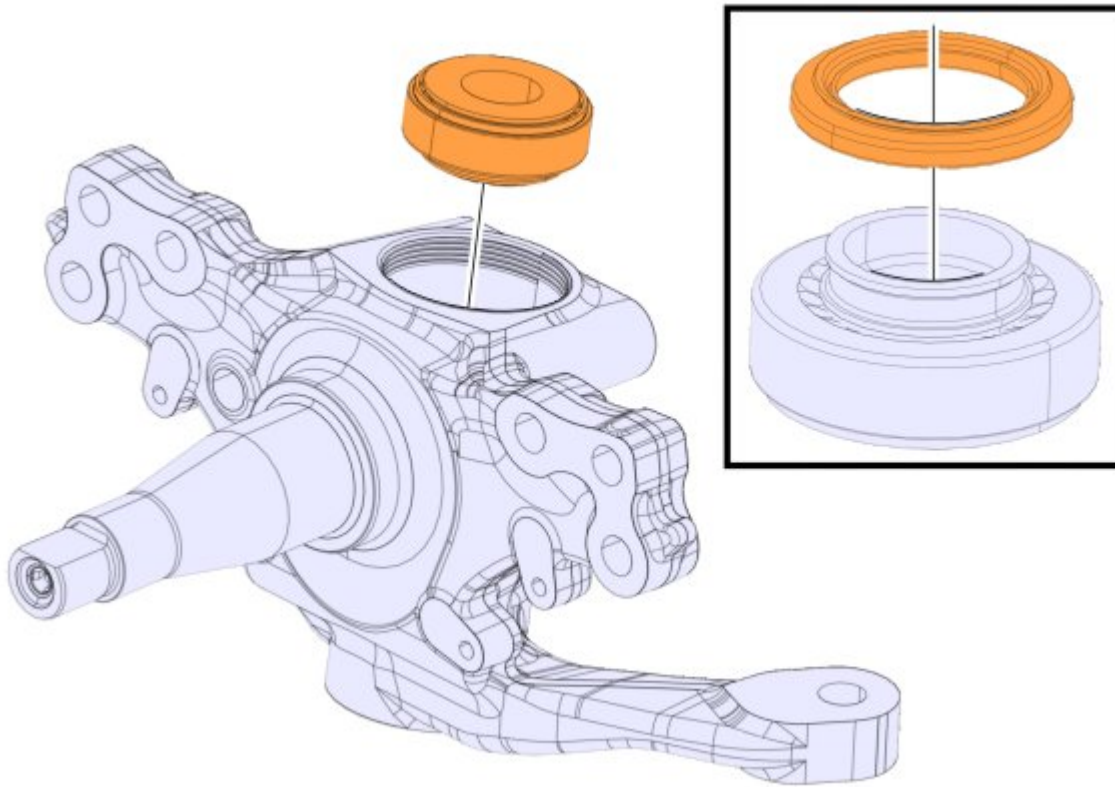


| | |
|-----------|------------------------------|
| 49 | Remove the steering knuckle. |
|-----------|------------------------------|



| | |
|-----------|---------------------------------|
| 50 | Remove the bearing. |
| | Required material |
| | PULLER 88840305 |

| | |
|-----------|--------------------------|
| 51 | Remove the sealing ring. |
|-----------|--------------------------|

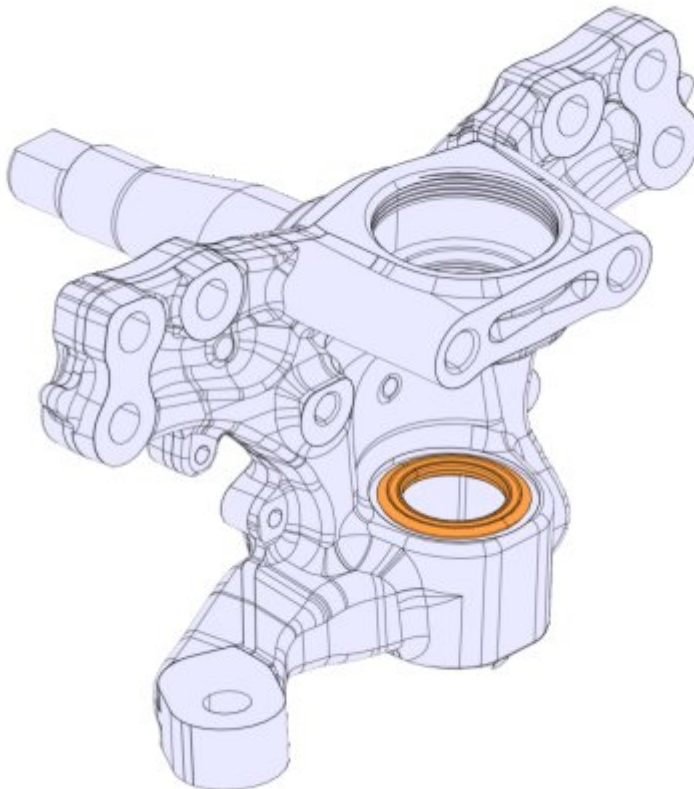


52 Remove the seal.



Note

Use a screw driver.



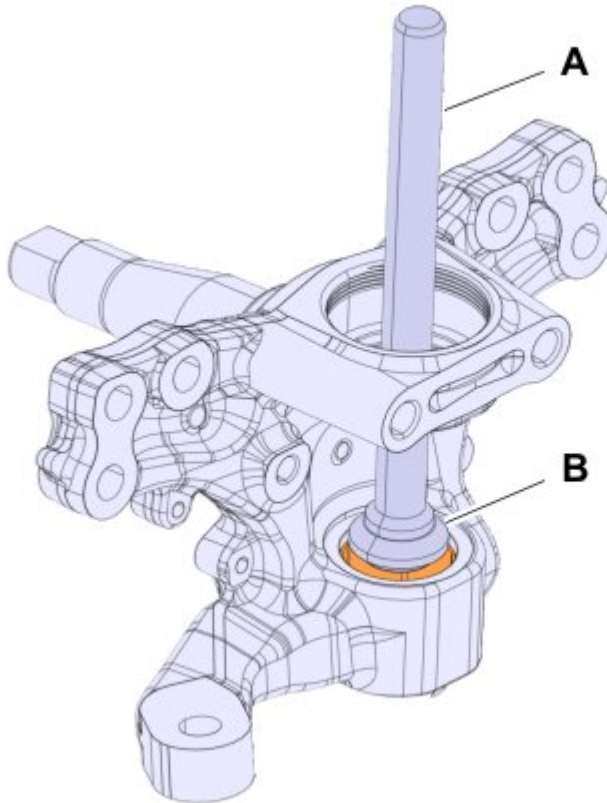
53 Remove the bushing.

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| Required material | | |
|-------------------|---------|-------------------------|
| A | HANDLE | 9992613 |
| B | MANDREL | 9992021 |

| | |
|----------|--------------------------------------|
| i | Note Use a plastic mallet. |
|----------|--------------------------------------|

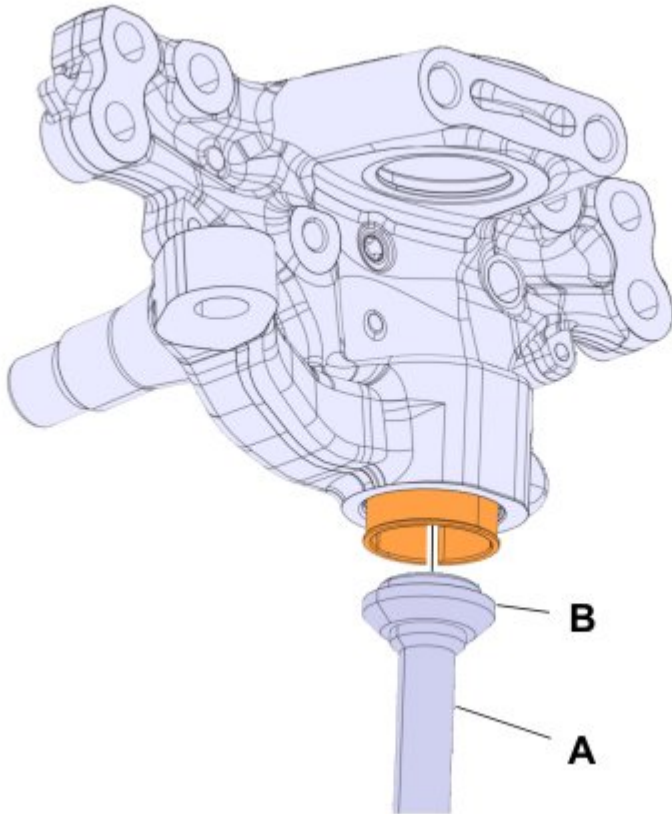


| | |
|--------------------------|------------------|
| 54 | Clean all parts. |
| Required material | |
| Cleaner | |

| | | |
|--------------------------|----------------------|-------------------------|
| 55 | Install the bushing. | |
| Required material | | |
| A | HANDLE | 9992613 |
| B | MANDREL | 9992021 |

| | |
|----------|------------------------------------|
| i | Note Use plastic mallet. |
|----------|------------------------------------|

| | |
|----------|--------------------------------|
| i | Note Use a new part. |
|----------|--------------------------------|



56 Install the seal.



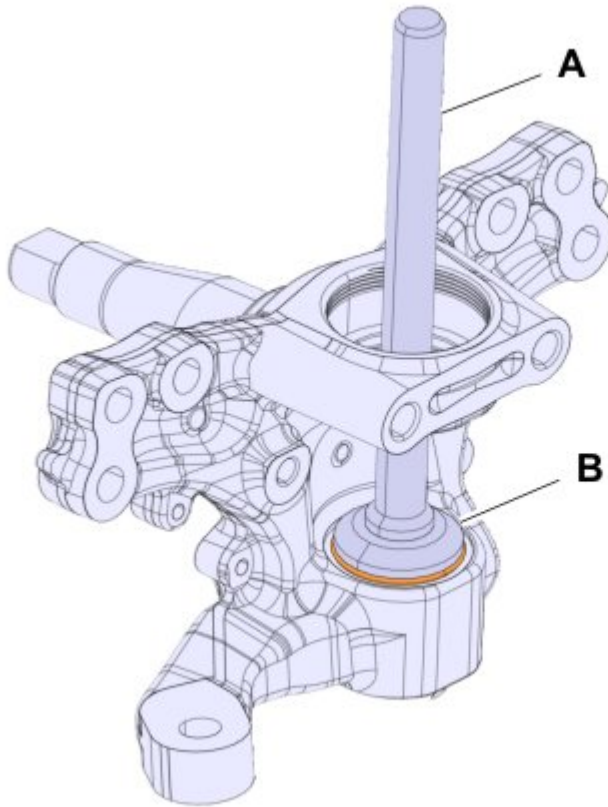
Note

Use a new part.



Note

Tap the mandrel until it contacts the steering knuckle.

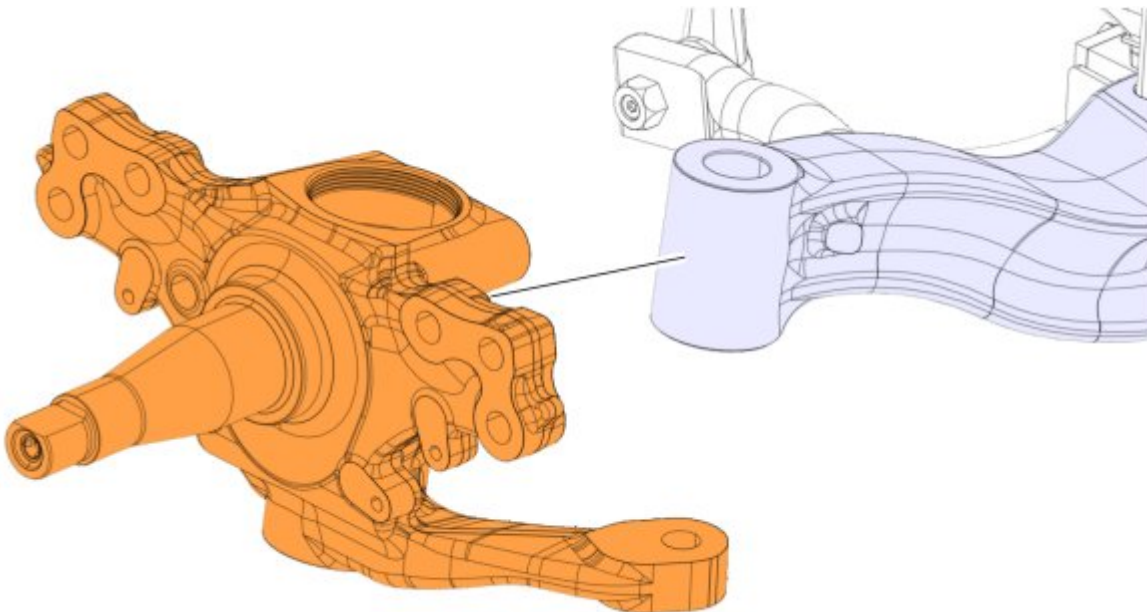


57 Install the steering knuckle.



Note

If needed, grease the upper machined part of the axle.

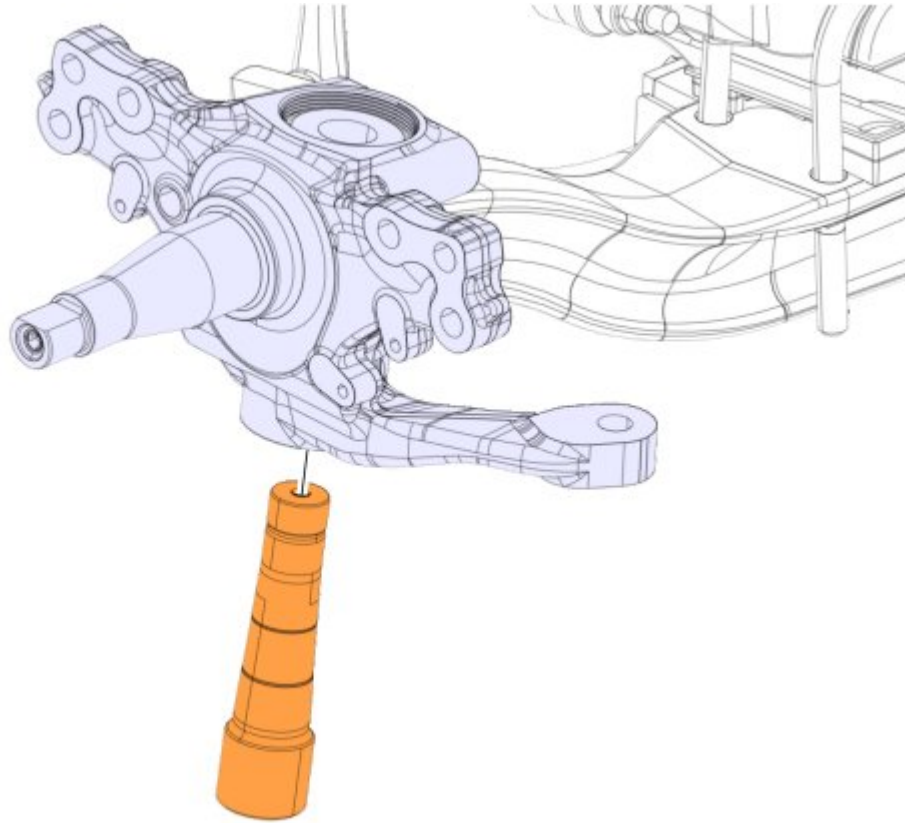


58 Install the king pin.

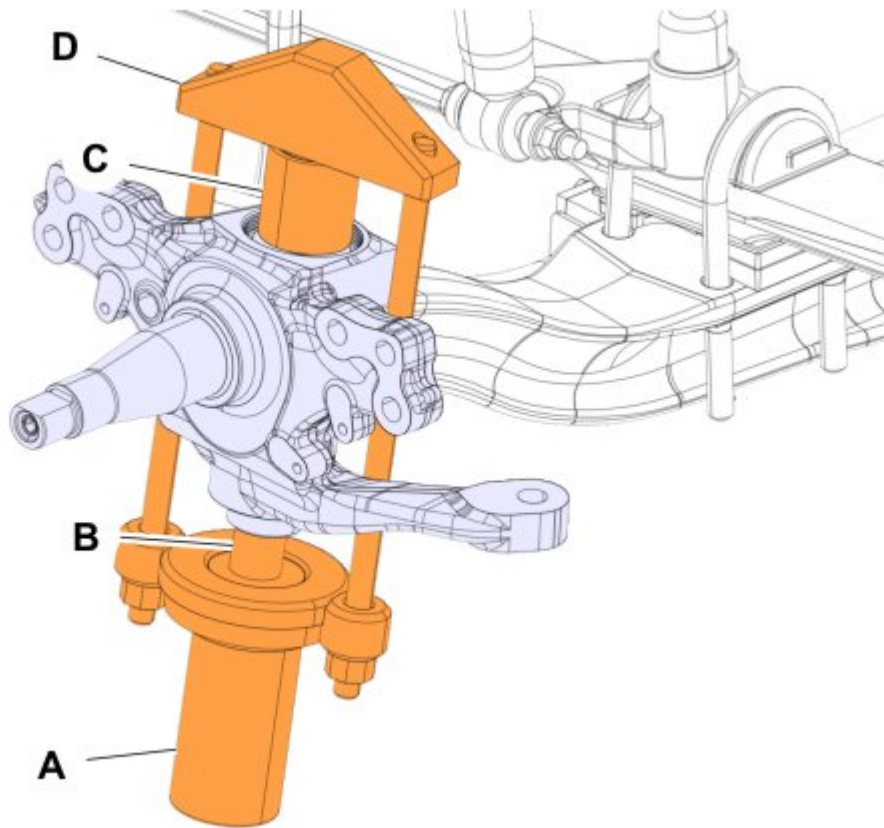


Note

Use a plastic mallet.



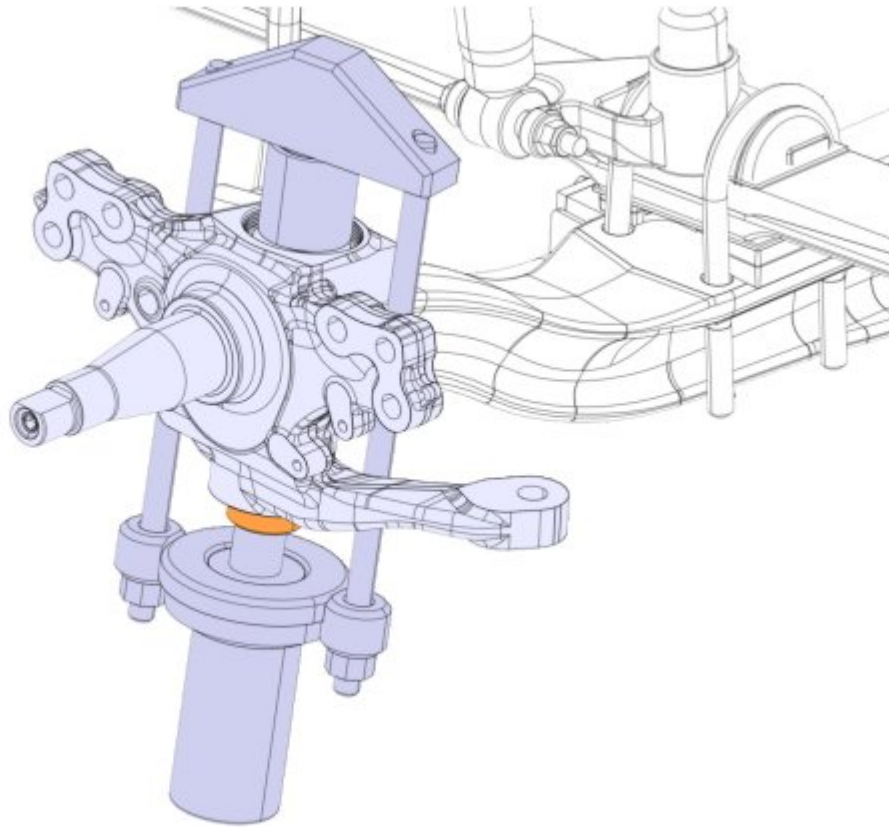
| | | | |
|-----------|--------------------------|-------------------------|--------------------------|
| 59 | Install the tools. | | |
| | Required material | | |
| | A | Hydraulic cylinder | 9992671 |
| | B | SPINDLE | 9992619 |
| | C | MANDREL | 88800019 |
| D | PRESS TOOL | 9992855 | |
| | | | |

**WARNING****Risk of serious injury.**

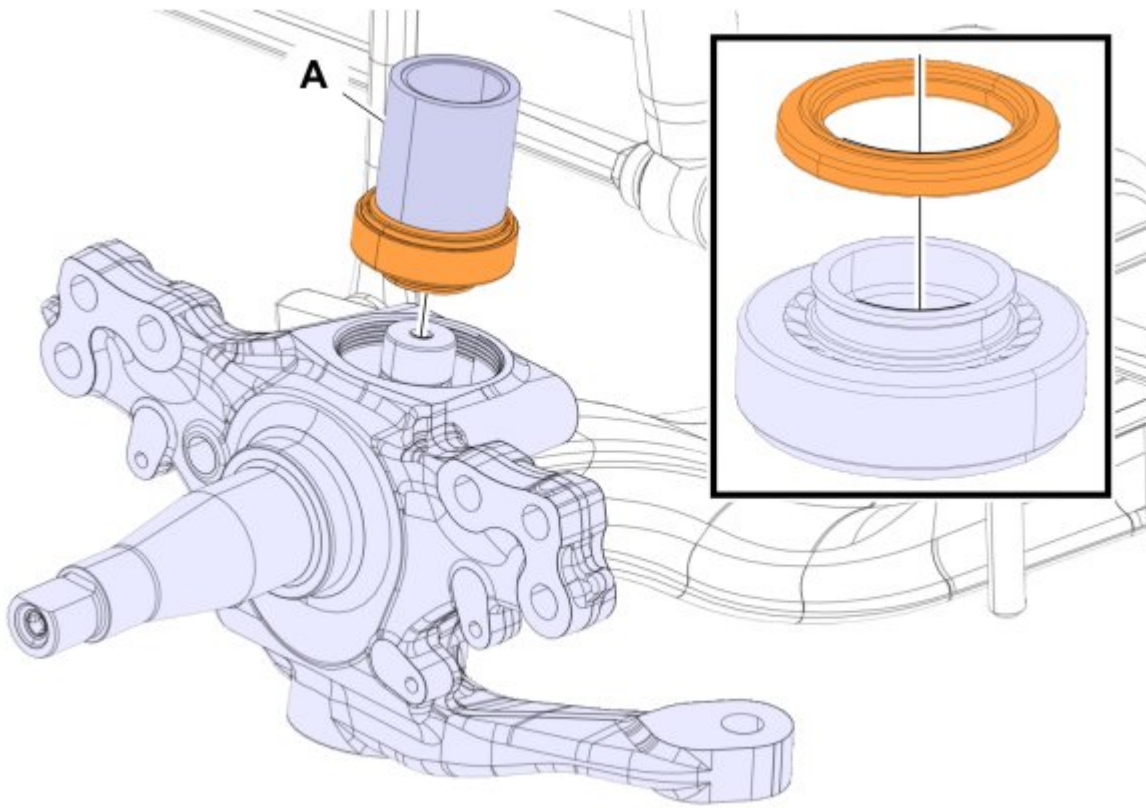
Carelessness during pressing can cause crushing injuries. There is also a risk that the components being pressed slip away and cause injury to individuals in the surrounding area.

- ▶ Exercise caution during pressing. Use safety goggles.

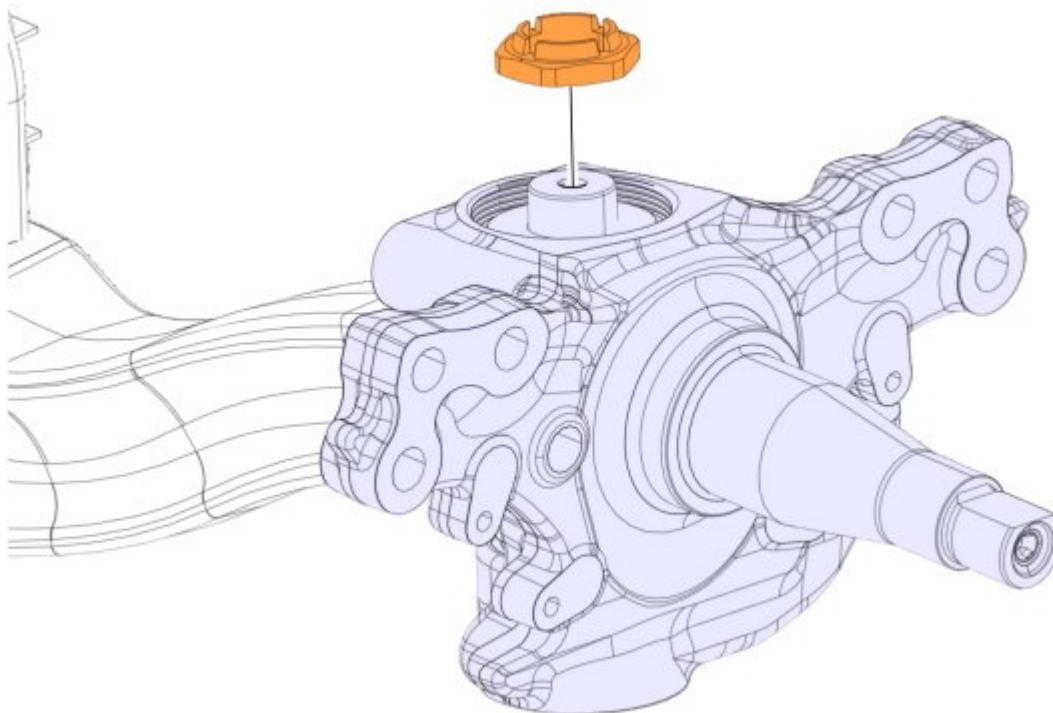
60 Press in the king pin.






| | | | | | | | |
|--------------------------------------|--|--------------------------|--------------------------------|--------------------------------------|--------------------------|----------|----------------------------------|
| 61 | Remove the tools. | | | | | | |
| 62 | Install the sealing ring. <table border="1" style="margin-top: 10px;"> <tr> <td style="width: 20px; text-align: center;">i</td> <td>Note Use a new part.</td> </tr> </table> | i | Note Use a new part. | | | | |
| i | Note Use a new part. | | | | | | |
| 63 | Grease the bearing. <table border="1" style="margin-top: 10px;"> <tr> <td colspan="2">Required material</td> </tr> <tr> <td colspan="2">Other bearing grease</td> </tr> </table> | Required material | | Other bearing grease | | | |
| Required material | | | | | | | |
| Other bearing grease | | | | | | | |
| 64 | Install the bearing. <table border="1" style="margin-top: 10px;"> <tr> <td colspan="2">Required material</td> </tr> <tr> <td>MANDREL</td> <td>88800019</td> </tr> </table> <table border="1" style="margin-top: 10px;"> <tr> <td style="width: 20px; text-align: center;">i</td> <td>Note Use the tool (A).</td> </tr> </table> | Required material | | MANDREL | 88800019 | i | Note Use the tool (A). |
| Required material | | | | | | | |
| MANDREL | 88800019 | | | | | | |
| i | Note Use the tool (A). | | | | | | |

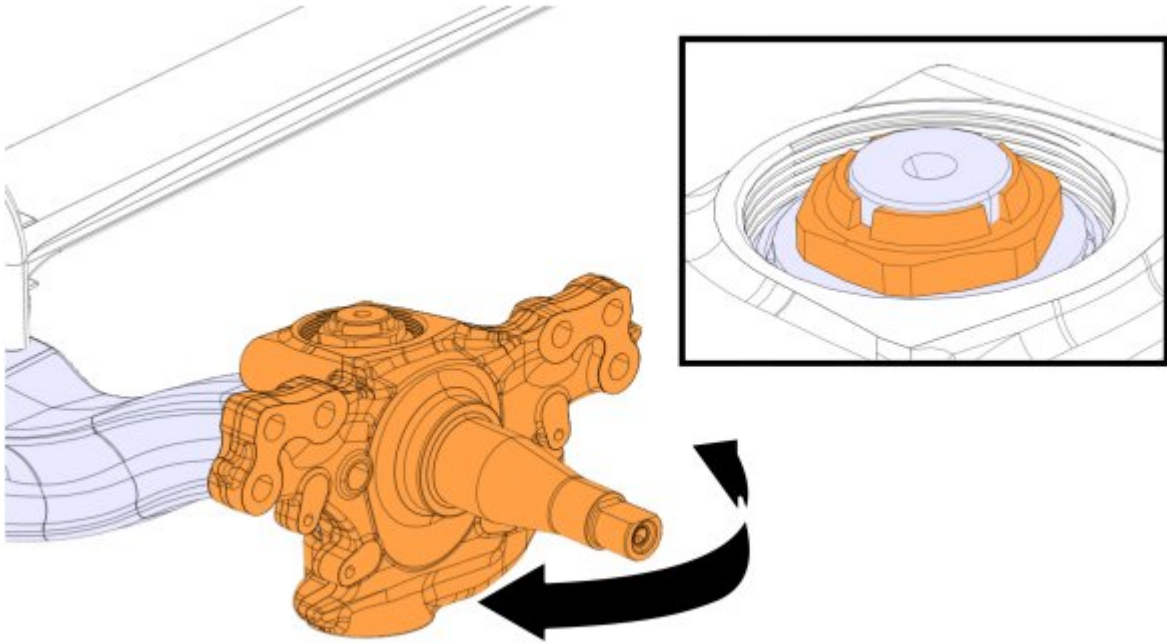


| | | | |
|---------------------|--|---------------------|------------|
| 65 | Install the nut. | | |
| 66 | <p>Torque tighten the nut.</p> <p>Tightening torque</p> <table border="1" data-bbox="156 1153 1286 1205"> <tr> <td data-bbox="156 1153 837 1205">King pin, upper nut</td> <td data-bbox="837 1153 1286 1205">250 ±50 Nm</td> </tr> </table> | King pin, upper nut | 250 ±50 Nm |
| King pin, upper nut | 250 ±50 Nm | | |

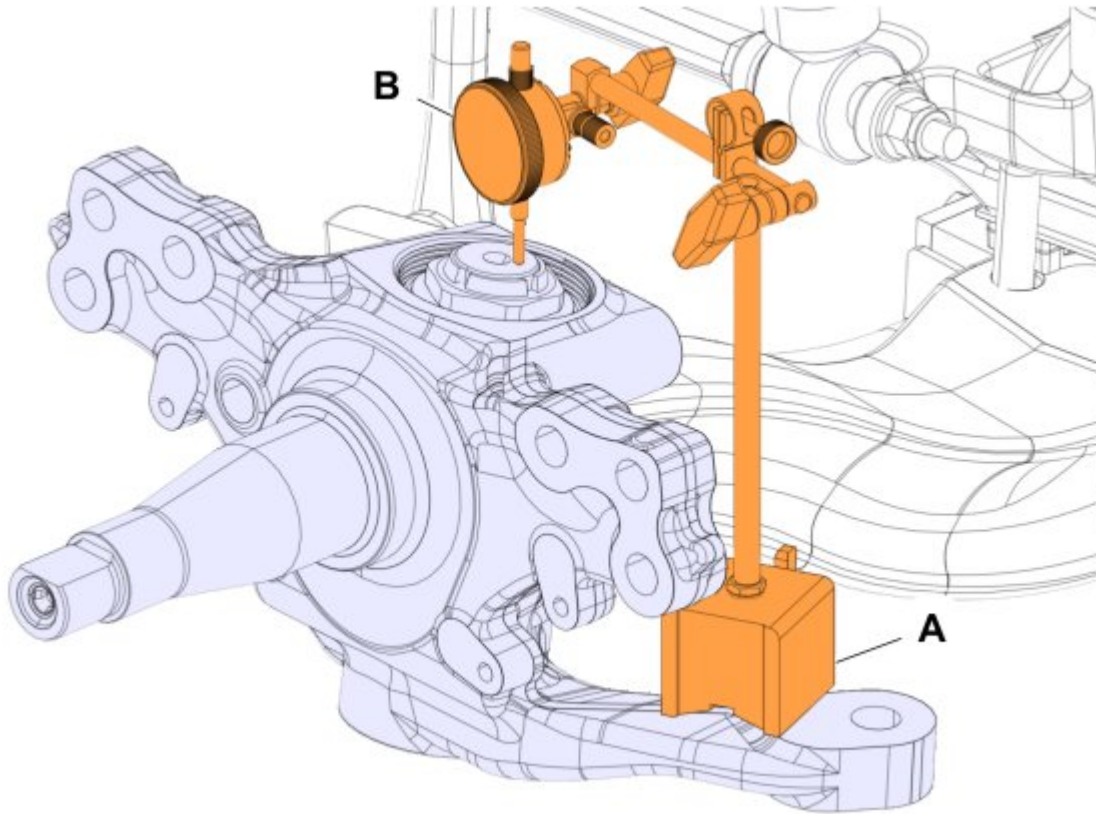


| | | | |
|---|---|---|--|
| 67 | Turn the steering knuckle from end stop to end stop. | | |
| | <table border="1" style="width: 100%;"> <tr> <td style="width: 10%; text-align: center;"></td> <td>Note Repeat the operation for a few times.</td> </tr> </table> |  | Note Repeat the operation for a few times. |
|  | Note Repeat the operation for a few times. | | |

| | | |
|-----------|--------------------------|------------|
| 68 | Torque tighten the nut. | |
| | Tightening torque | |
| | King pin, upper nut | 850 ±85 Nm |



| | | | |
|-----------|--------------------------|----------------|-------------------------|
| 69 | Install the tools. | | |
| | Required material | | |
| | A | MAGNETIC STAND | 9999696 |
| | B | DIAL INDICATOR | 9989876 |

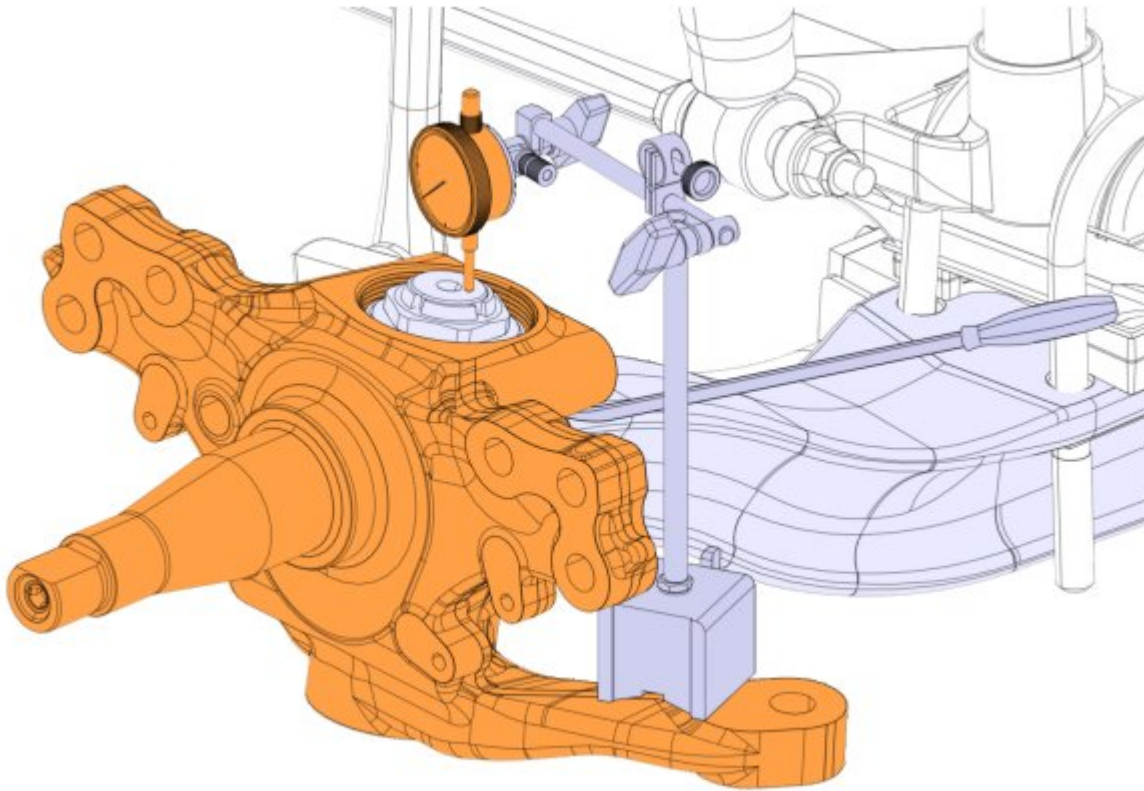


| | |
|-----------|--|
| 70 | Raise the steering knuckle. <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> i Note Use a pry bar. </div> |
|-----------|--|

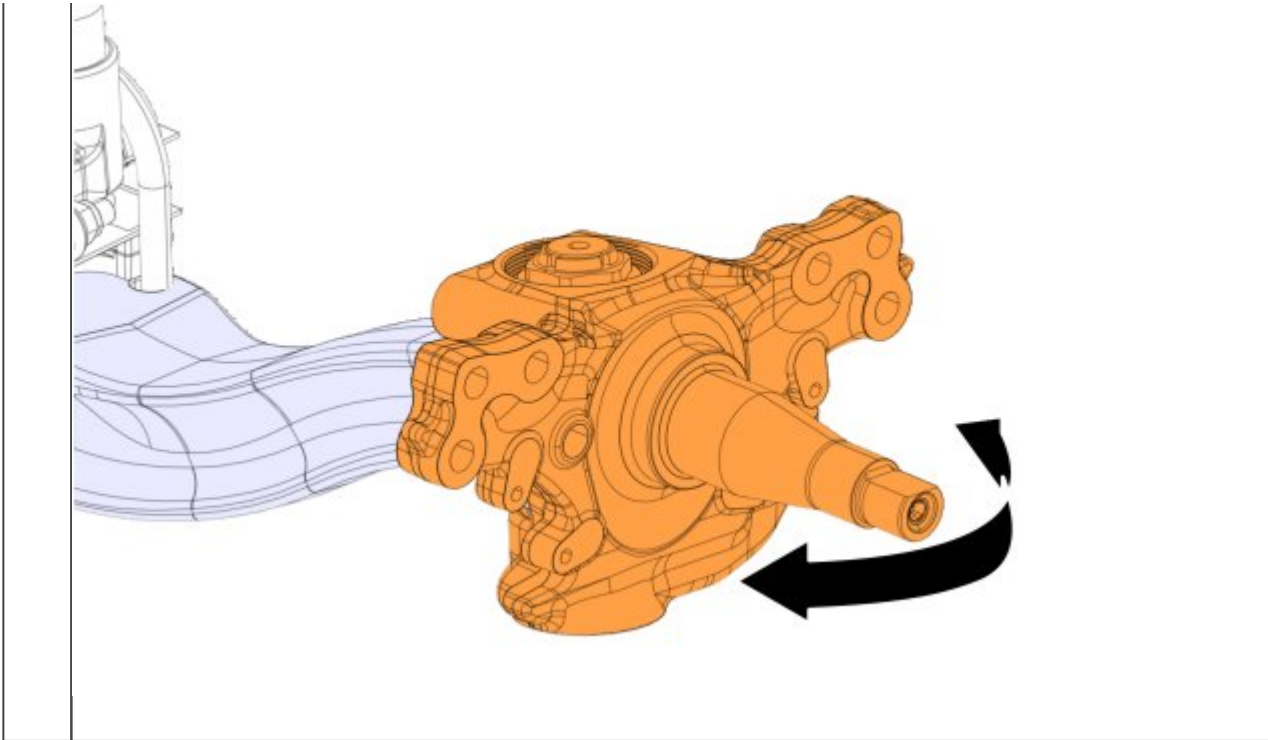
| | |
|-----------|---------------------------|
| 71 | Reset the dial indicator. |
|-----------|---------------------------|

| | |
|-----------|-----------------------------|
| 72 | Lower the steering knuckle. |
|-----------|-----------------------------|

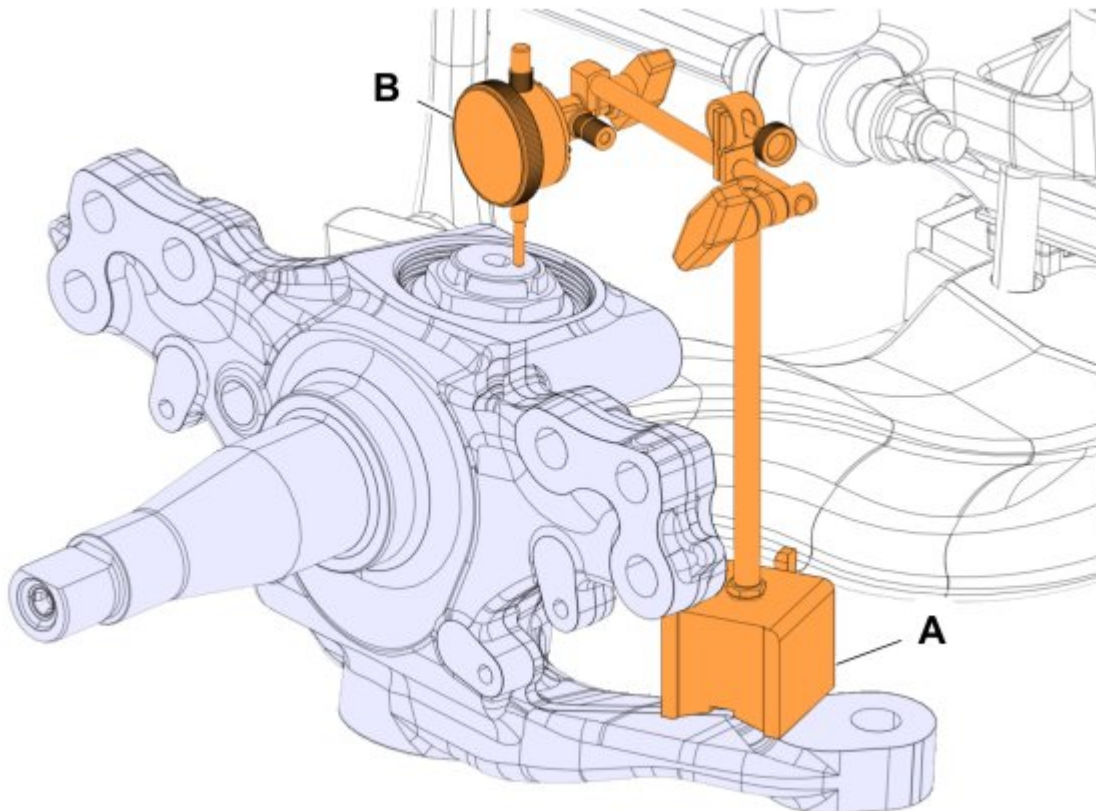
| | |
|---------------------------|----------------------------|
| 73 | Check the axial clearance. |
| Tech data | |
| Permitted axial clearance | 0.05 – 0.15 mm |



| | |
|-----------|--|
| 74 | <p>Perform this procedure when the condition below is met.</p> <p>Conditions</p> <ul style="list-style-type: none"> • If the clearance is not according to the specification <ul style="list-style-type: none"> ▶ Remove the nut. ▶ Remove the bearing. ▶ Install the shims under the bearing to attain correct clearance. ▶ Install the bearing. ▶ Install the nut. ▶ Turn the steering knuckle from end stop to end stop. <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>i Note Repeat the operation for a few times.</p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>i Note If the force to turn the steering knuckle from end stop to end stop is higher than 20 Nm replace one of the shims with one of the next size up.</p> </div> |
|-----------|--|



| | | | |
|--------------------------|-------------------|-------------------------|--|
| 75 | Remove the tools. | | |
| Required material | | | |
| A | MAGNETIC STAND | 9999696 | |
| B | DIAL INDICATOR | 9989876 | |
| | | | |



| | | | |
|-----------|---------------------|--|--|
| 76 | Grease the bearing. | | |
| | | | |

| | |
|--------------------------------------|--|
| Required material | |
| Other bearing grease | |

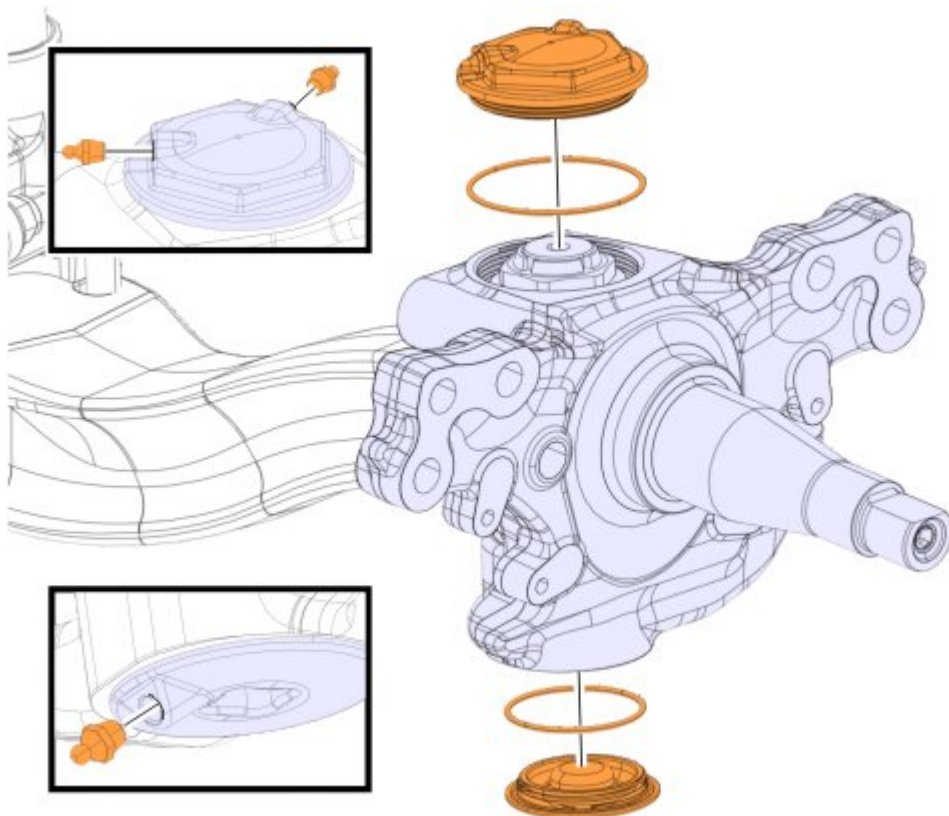
| | |
|----|--------------------------------------|
| 77 | Grease the O-rings. |
| | Required material |
| | Other bearing grease |

| | | |
|---|---|---|
| 78 | Install the O-rings. | |
| | <table border="1"> <tr> <td></td> <td>Note Use new parts.</td> </tr> </table> |  |
|  | Note Use new parts. | |

| | | |
|---|---|---|
| 79 | Install the covers. | |
| | <table border="1"> <tr> <td></td> <td>Note Install as marked.</td> </tr> </table> |  |
|  | Note Install as marked. | |

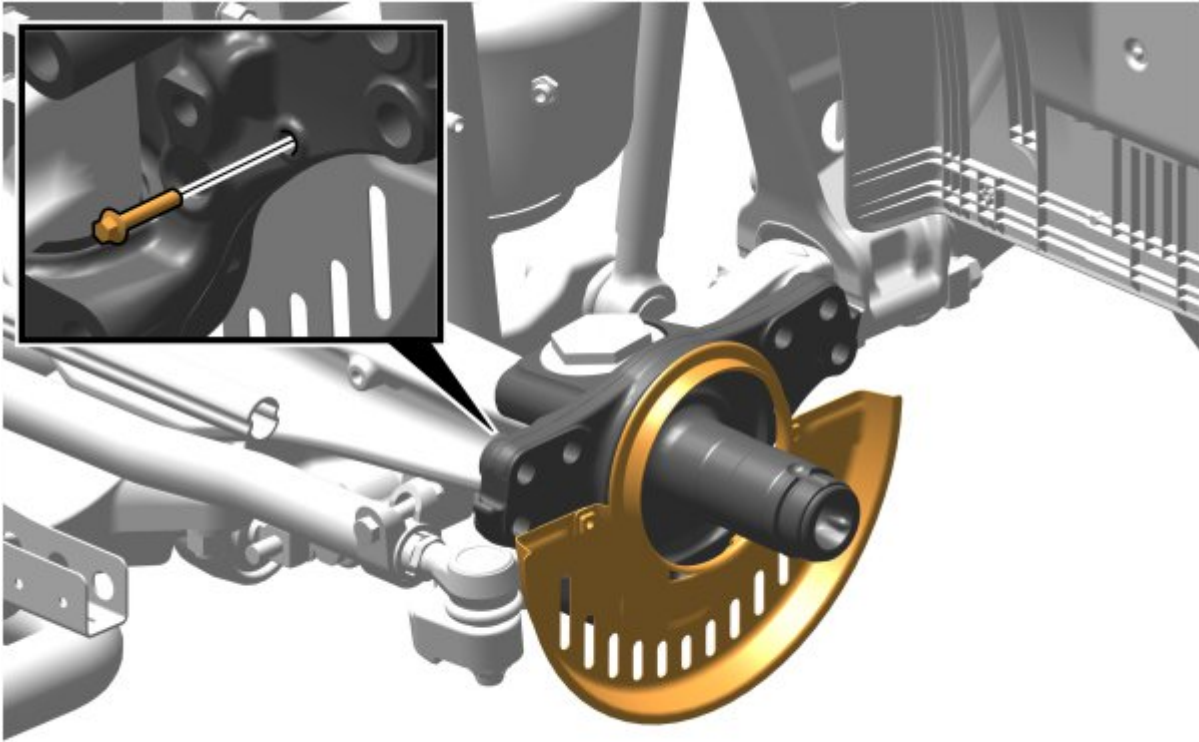
| | | |
|----|----------------------------|------------|
| 80 | Torque tighten the covers. | |
| | Tightening torque | |
| | King pin, cover | 150 ±20 Nm |



| | |
|----|-----------------------------|
| 81 | Install the grease nipples. |
|----|-----------------------------|

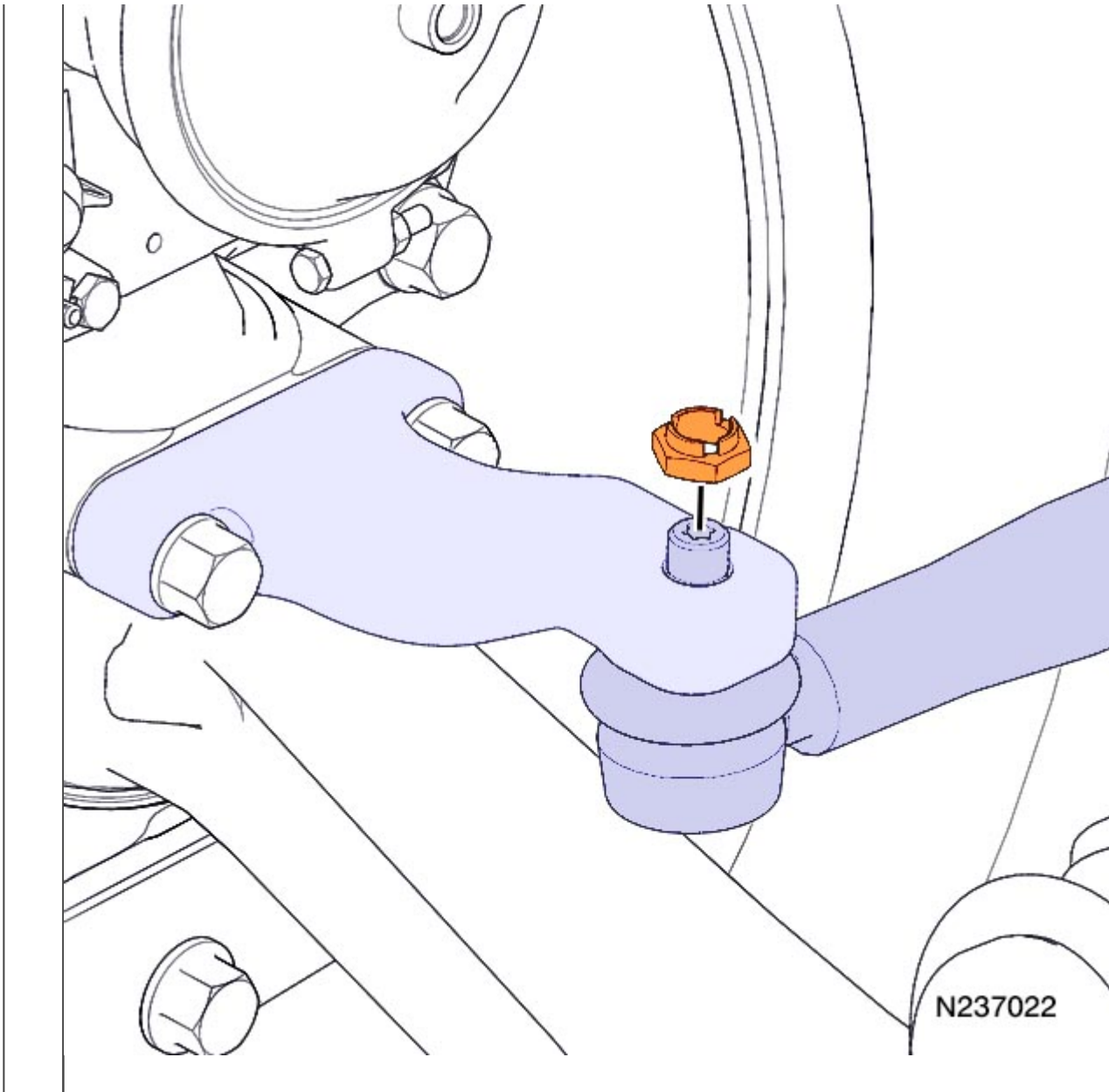


| | |
|----|---------------------------|
| 82 | Install the brake shield. |
|----|---------------------------|

83 Install the screws.



| | | |
|----|---|--|
| 84 | Perform this procedure when the condition below is met. | |
| | Conditions | |
| | • | If a link rod is attached |
| | ▶ Install the nut. | |
| |  | Note Use a new part. |
| | ▶ Torque tighten. | |
| | Tightening torque | |
| | Link rod, nut | 275 ±35 Nm |
| |  | Note Ball pin must never be allowed to rotate against mating surface. Hold the ball pin with an appropriate tool to ensure the ball pin does not rotate when tightening. |
| | | |



85 Install the ball joint.

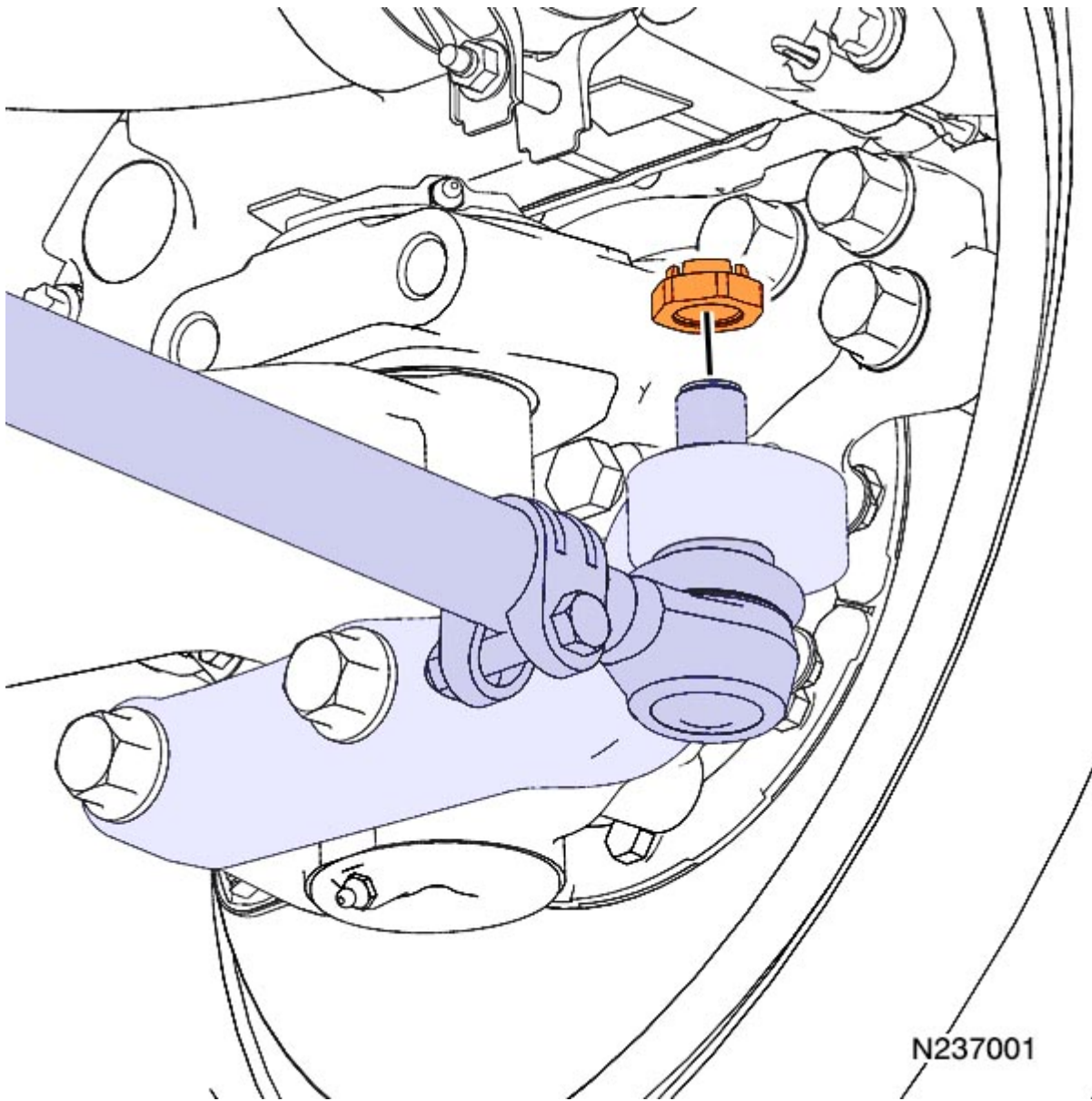
86 Install the nut.

| | |
|----------|--------------------------------|
| i | Note Use a new part. |
|----------|--------------------------------|

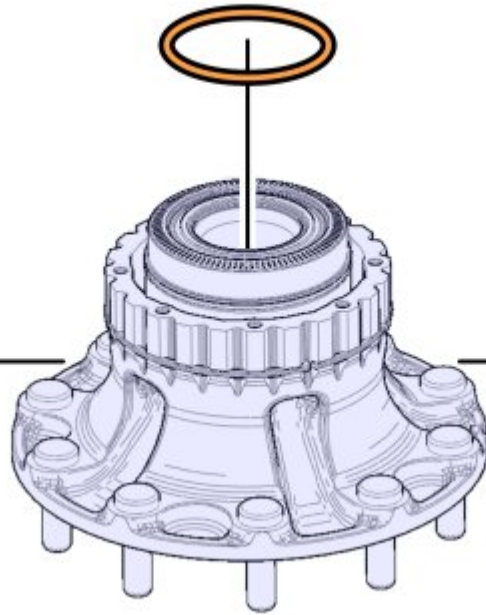
87 Torque tighten the nut.

| Tightening torque | |
|-----------------------------------|------------|
| Connecting rod, steering arm, nut | 270 ±35 Nm |

| | |
|----------|---|
| i | Note While tightening the nut, hold the ball pin with an appropriate tool to prevent the ball pin rotation. |
|----------|---|



| | | | |
|----|--|--|--|
| 88 | Check the sensor wheel. | | |
| 89 | Replace the axial bearing seal. | | |
| | <table border="1"> <tr> <td data-bbox="159 1451 231 1534"> </td> <td data-bbox="231 1451 1292 1534"> <p>Note Use a new part.</p> </td> </tr> </table> | | <p>Note Use a new part.</p> |
| | <p>Note Use a new part.</p> | | |



90 Clean the axle/spindle carefully.

91 Lubricate the axle/spindle and hub cap gasket.

Required material

[High load paste](#)



Note

Do not apply grease or lubrication to any threaded areas.

92 Insert the hub to the axle/spindle with the help of the lifting equipment.

Required material

| | | |
|---|--------------|-------------------------|
| A | TROLLEY JACK | 9999954 |
| B | FIXTURE | 9998821 |



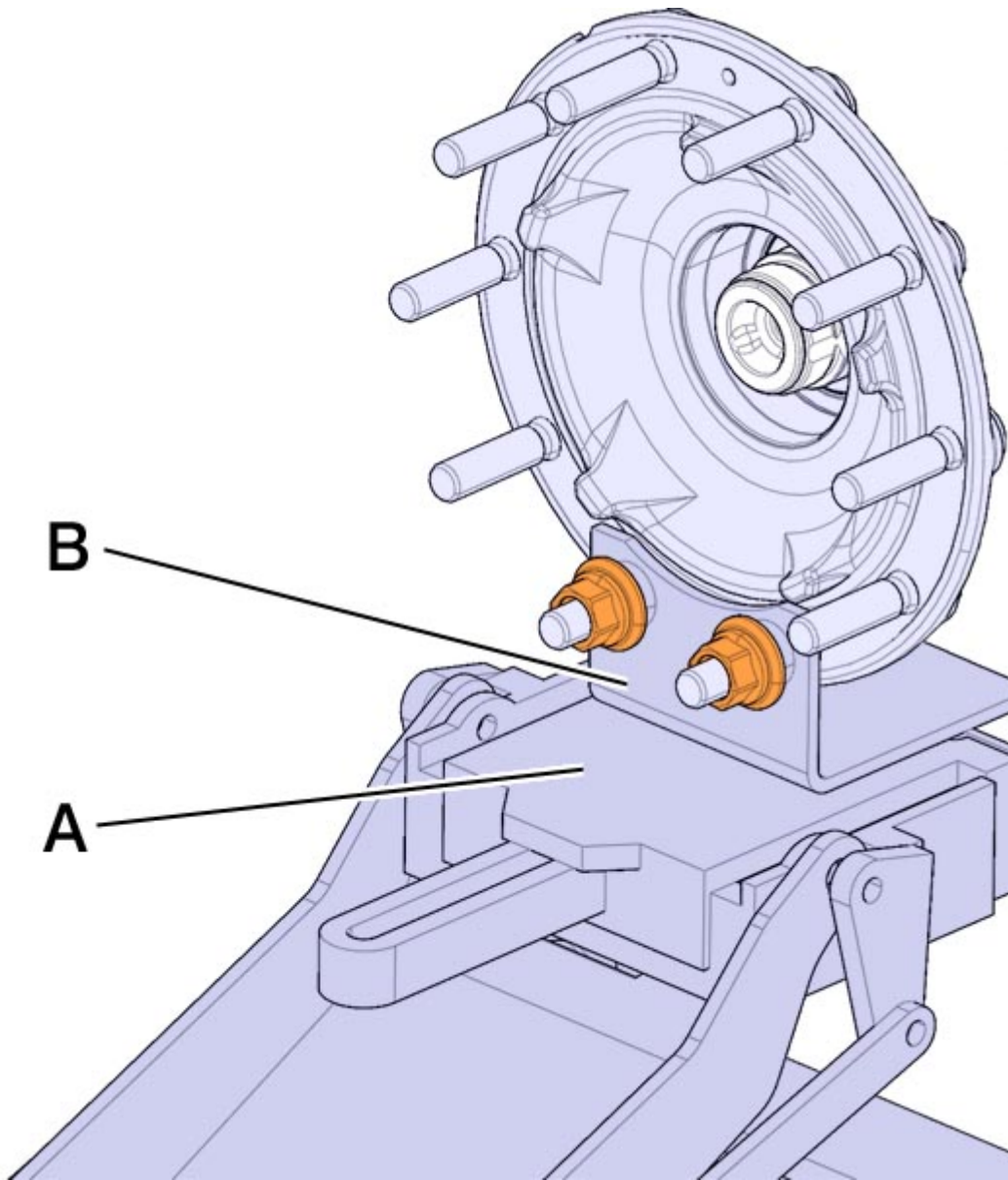
Note



Use wheel nuts to secure hub to fixture.

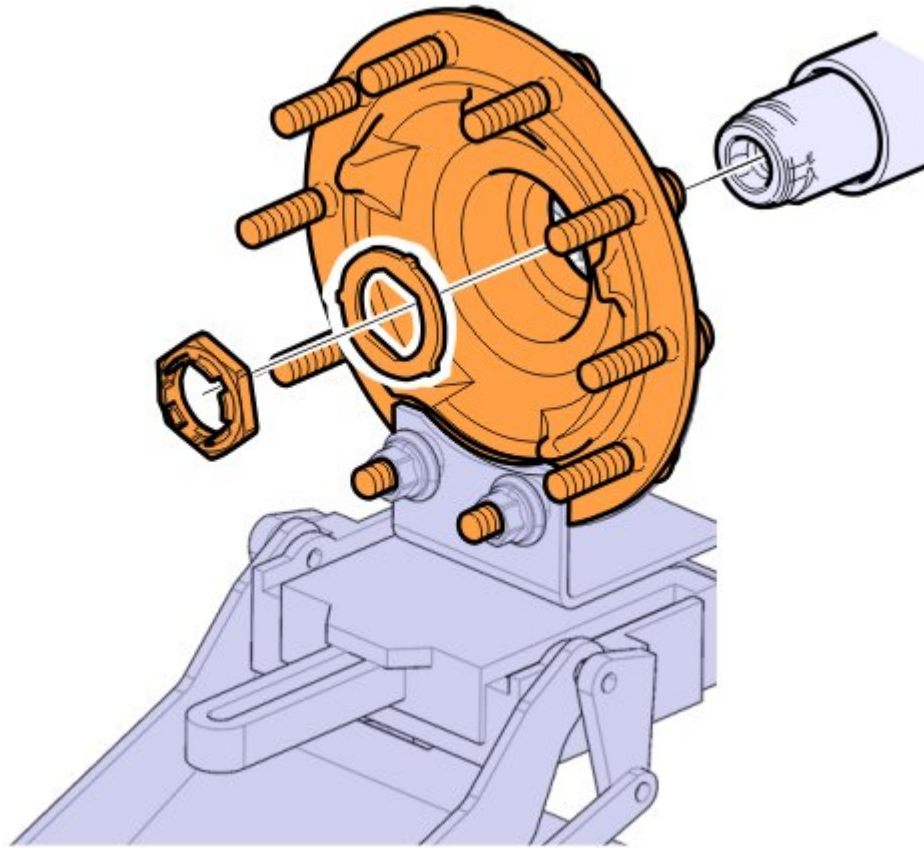


Note

Do not force the hub when inserting to avoid damage to the gaskets.



| | |
|------------------|--|
| <p>93</p> | <p>This step contains 2 alternatives. Select one of the valid alternatives below.</p> <p>Alternative 1 / 2 – Hub with self-locking nut</p> <ul style="list-style-type: none"> <li data-bbox="159 1496 1366 1688"> <p>▶ Install the safety washer.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p> Note Follow the groove and flat surface matching between the washer and the spindle.</p> </div> <li data-bbox="159 1704 1366 1895"> <p>▶ Hand-tighten the nut.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p> Note Use new parts.</p> </div> |
|------------------|--|



Alternative 2 / 2 – Hub with hexagon nut

- ▶ Install the safety washer (6).

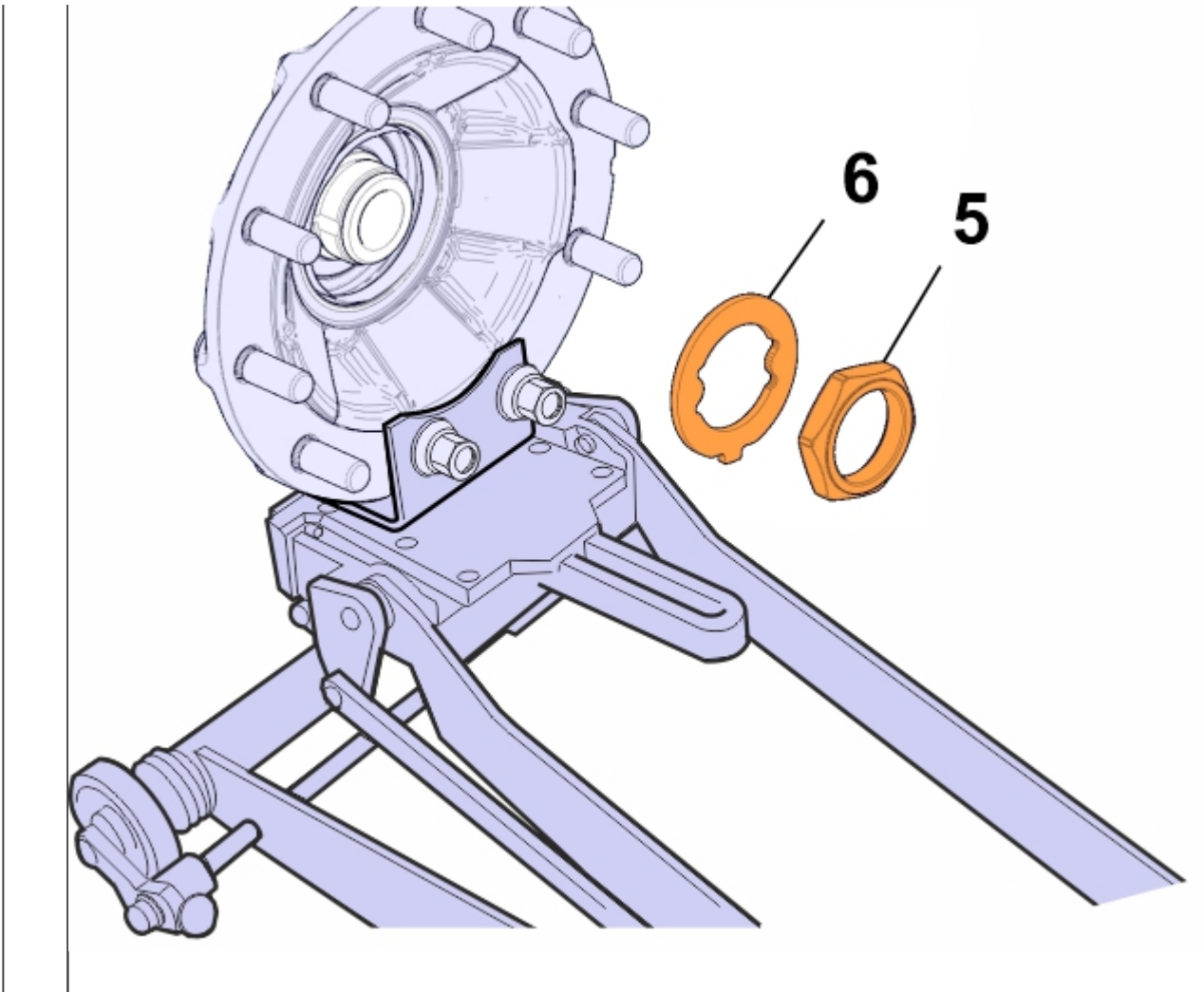
**Note**

Follow the groove and flat surface matching between the washer and the spindle.

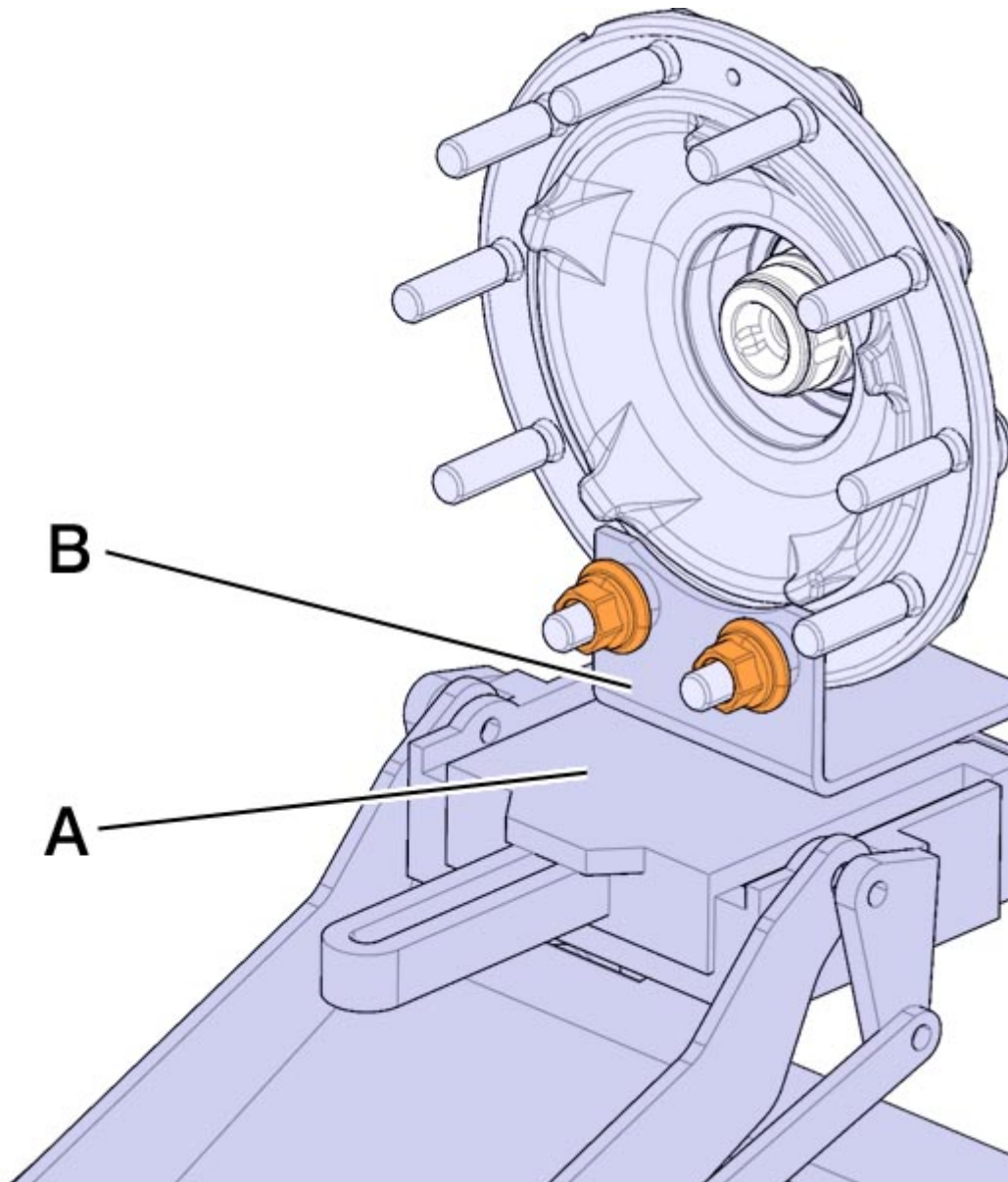
- ▶ Hand tighten the nut (5).

**Note**

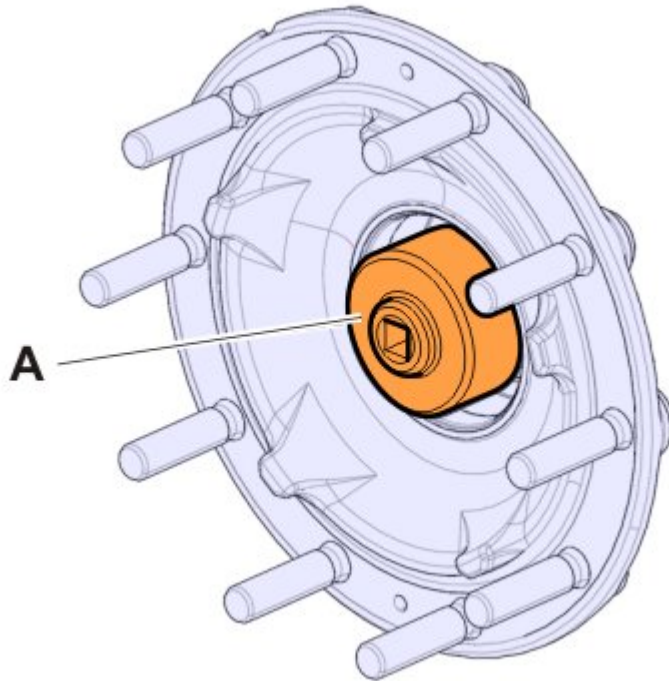
Use new parts.



94 Remove the lifting equipment.



| | |
|-----------|--|
| 95 | Install the socket (A). |
| | Required material |
| | Conditions: Bearing. spindle, D58 (M52 nut) |
| | IMPACT HEXAGON SOCKET 1158142 |
| | Conditions: Bearing. spindle, D68 (M60 nut) |
| | SOCKET WRENCH 9996940 |
| | Conditions: Bearing. spindle, D78 (M70 nut) |
| | SOCKET WRENCH 9996945 |
| | |




| | | | |
|--------------------|---|-------------------|---|
| 96 | Torque tighten the nut, with one of the spanners, according to the specification. | | |
| | Conditions | | |
| | • D58-STD, D58-HD and D68 | | |
| | • Self-locking nut | | |
| | Tightening torque | | |
| | Hub, self-locking nut | 1. | Pre-load torque (at max 30 rpm rotational speed) 250 ±25 Nm |
| | | 2. | Rotate the hub. 20 – 30 rev. |
| | | 3. | For D58-STD and D58-HD - final tightening torque (at max 5 rpm spindle speed) 950 ±95 Nm |
| | | 4. | For D68 - final tightening torque (at max 5 rpm spindle speed) 1,100 ±110 Nm |
| | | Conditions | |
| • D58, D68 and D78 | | | |
| • Hexagon nut | | | |
| | | | |

| Tightening torque | | |
|-------------------|----|--|
| Hub, hexagon nut | 1. | Pre-load torque (at max 30 rpm rotational speed) |
| | | 150 ±25 Nm |
| | 2. | Rotate the hub. |
| | | 20 – 30 rev. |
| | 3. | For D58 and D68 - final tightening torque (at max 5 rpm spindle speed) |
| | | 1,000 ±100 Nm |
| | 4. | For D78 - final tightening torque (at max 5 rpm spindle speed) |
| | | 1,100 ±110 Nm |

Required material


| | |
|--|-------------------------|
| Torque converter | 9812469 |
| Conditions: Bearing. spindle, D58 (M52 nut) | |
| IMPACT HEXAGON SOCKET | 1158142 |
| Conditions: Bearing. spindle, D68 (M60 nut) | |
| SOCKET WRENCH | 9996940 |
| Conditions: Bearing. spindle, D78 (M70 nut) | |
| SOCKET WRENCH | 9996945 |

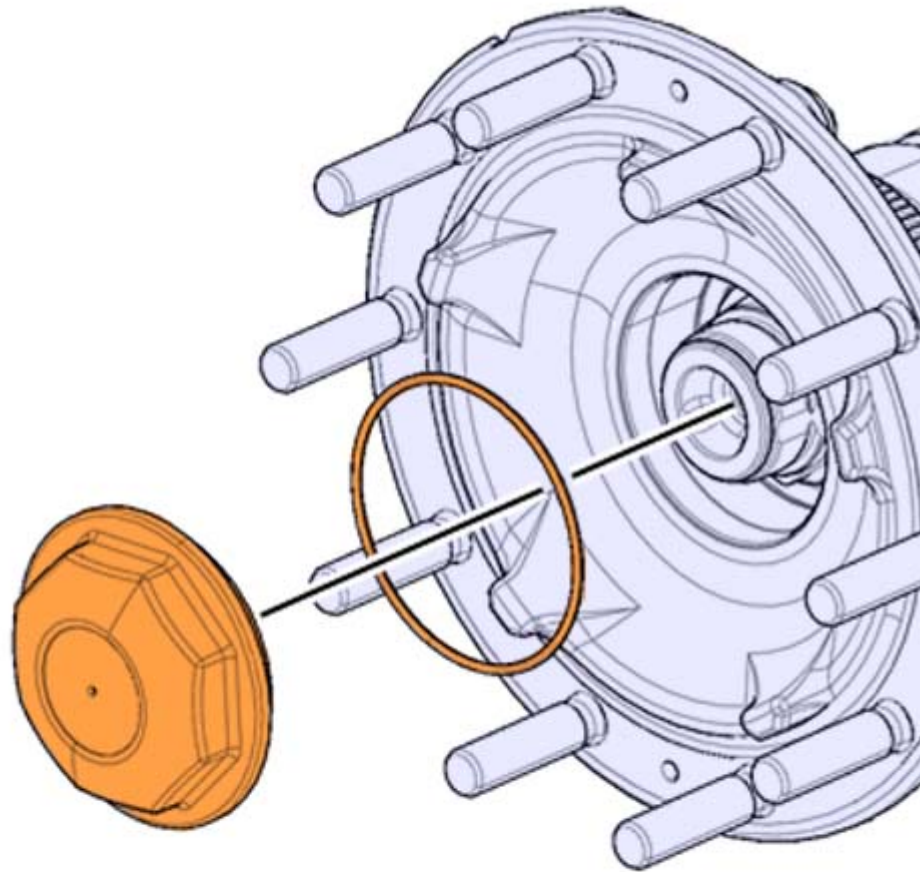
| | |
|---|---|
|  | <p>Note Control friction torque for the hub mounted on the axle. Requirement: 15 Nm maximum.</p> |
|---|---|

97 This step contains 2 alternatives.
Select one of the valid alternatives below.

Alternative 1 / 2 – Hub with self-locking nut

- ▶ Install the gasket.

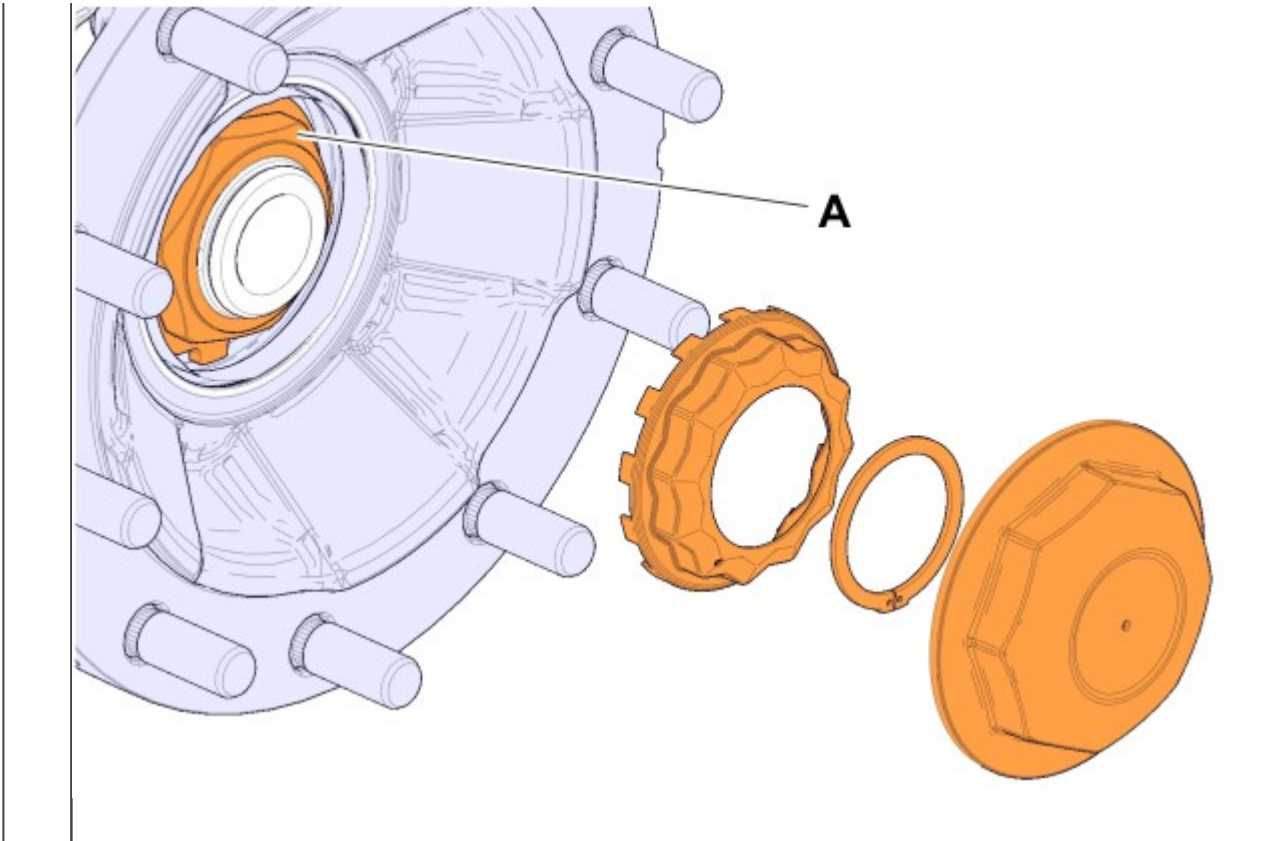
| | |
|---|--|
|  | <p>Note Use a new part.</p> |
|---|--|
- ▶ Hand-tighten the hub cap.



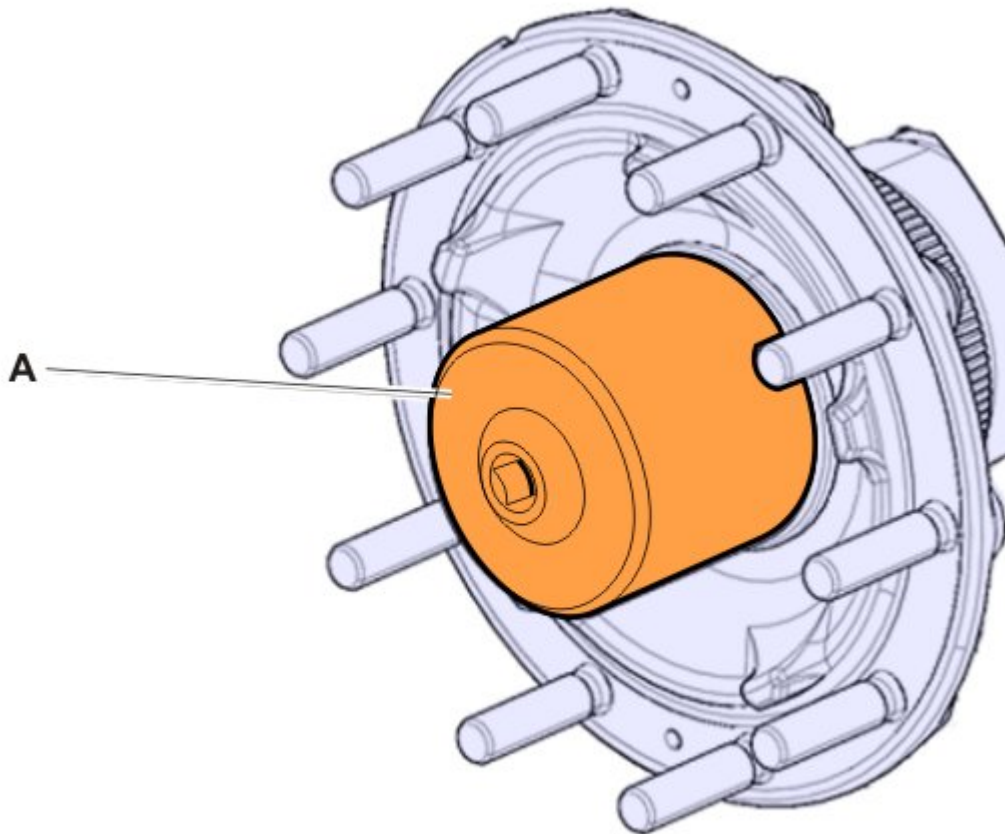
Alternative 2 / 2 – Hub with hexagon nut (A)

- ▶ Install the lock cover.
- ▶ Install the lock ring.
- ▶ Install the gasket.

| | |
|----------|--------------------------------|
| i | Note Use a new part. |
|----------|--------------------------------|
- ▶ Hand-tighten the hub cap.



98 Install the sleeve (A).



99 Torque tighten the cap.

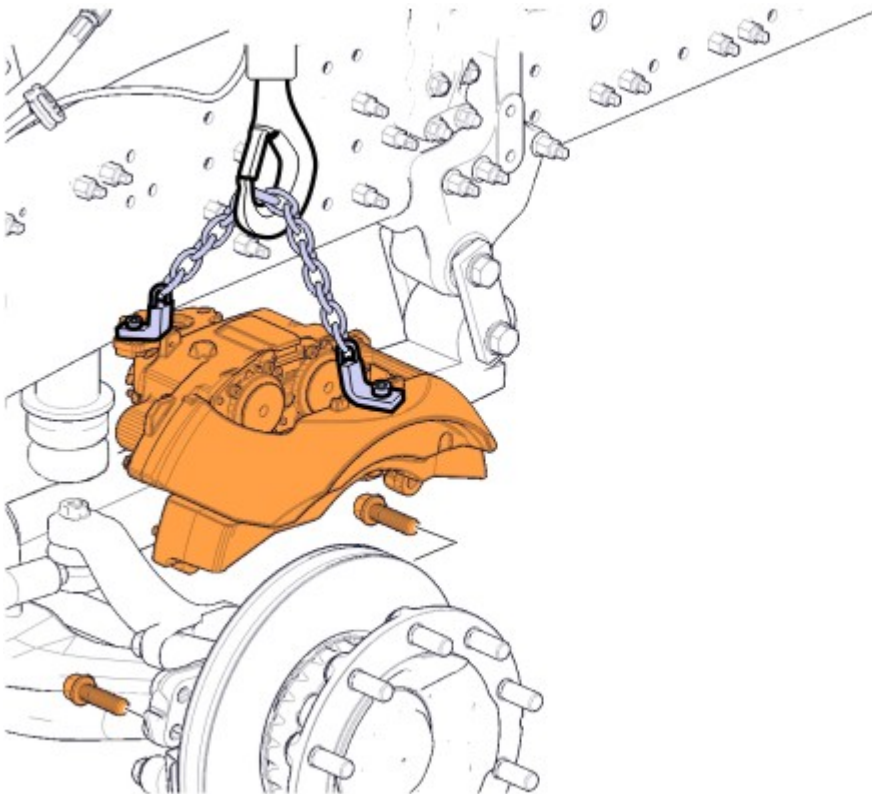
Tightening torque

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| | |
|--------------------------|-------------------------|
| Wheel hub, cap | Final tightening torque |
| | 500 ±50 Nm |
| Required material | |
| SLEEVE | 9996773 |

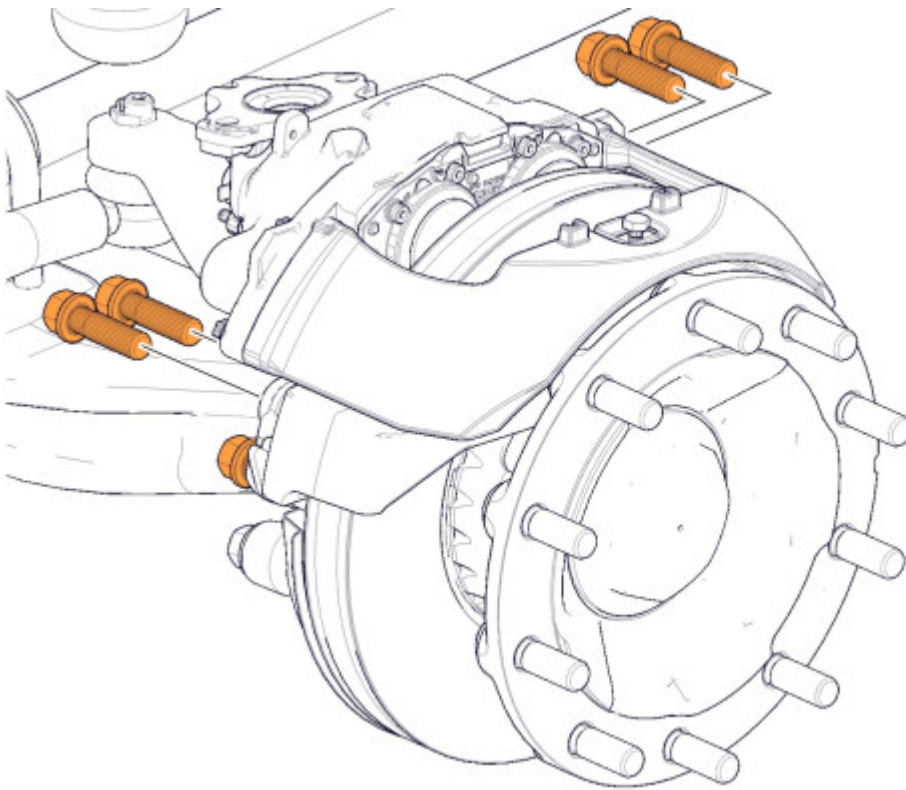
- 100** Install the brake caliper.
- 101** Install the screws.
- 102** Remove the lifting chain.




- 103** Install the remaining screws.
- 104** Torque tighten the screws.


| Tightening torque | | |
|-------------------------------|----|------------|
| Brake caliper assembly, screw | 1. | 300 ±30 Nm |
| | 2. | 60 ±5° |
- 105** Angle-tighten the screws.

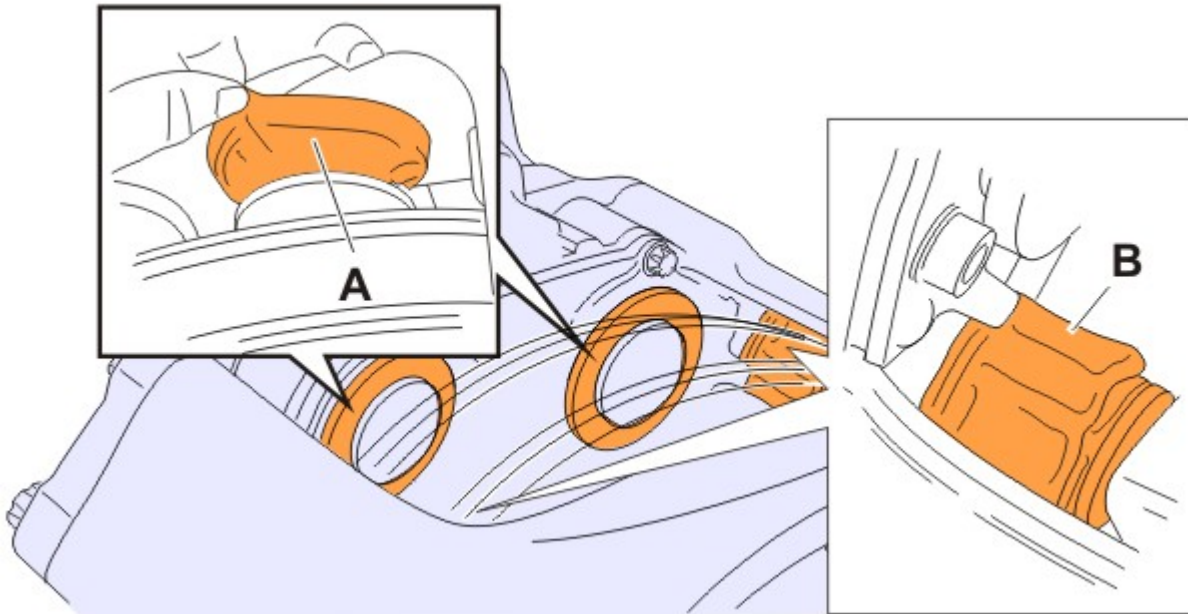
Service hint
 Use a striking ring spanner or a nut runner to angle tighten the screws.



| | |
|------------|---|
| 106 | Check that the brake caliper slides easily between its end stops. |
|------------|---|

| | |
|---|---|
| 107 | Check the dust covers (B) . |
|  | Note The dust covers are sucked together when the yoke is pushed out which indicates that the covers are undamaged. Avoid sudden movements that could detach the dust covers. |

| | |
|---|--|
| 108 | Turn the adjustment screw for the brake pistons backwards and forwards. |
|  | Note Check that the dust covers (A) swell or are sucked together. This indicates that the covers are undamaged. |



109 Clean the contact surfaces.

110 Lubricate the push rod.

Required material

[Universal grease](#)

111 Check the seals.

| | |
|----------|---------------------------------------|
| i | Note Replace, if necessary. |
|----------|---------------------------------------|

112 Lubricate the seals.

Required material

[Universal grease](#)

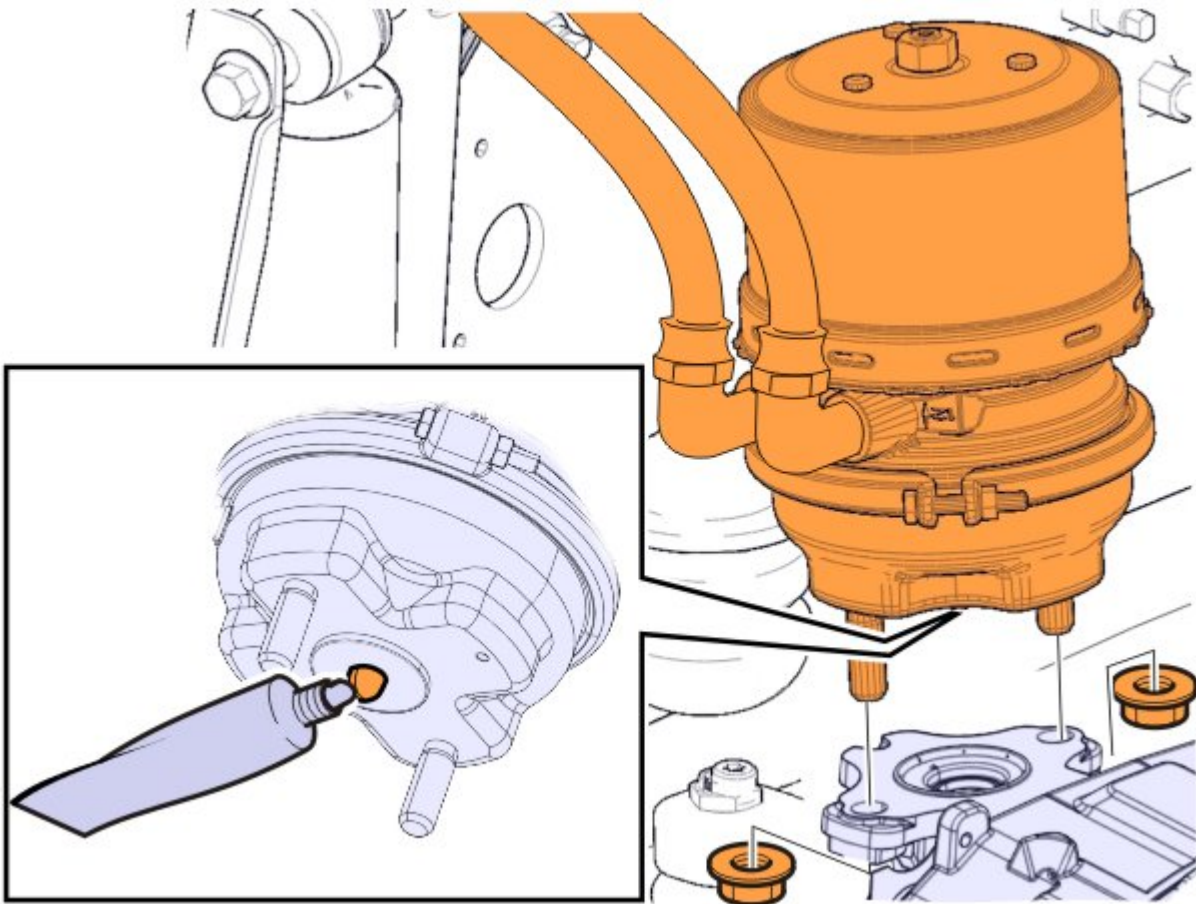
113 Install the brake chamber.

114 Install the nuts.

115 Torque tighten the nuts.

Tightening torque

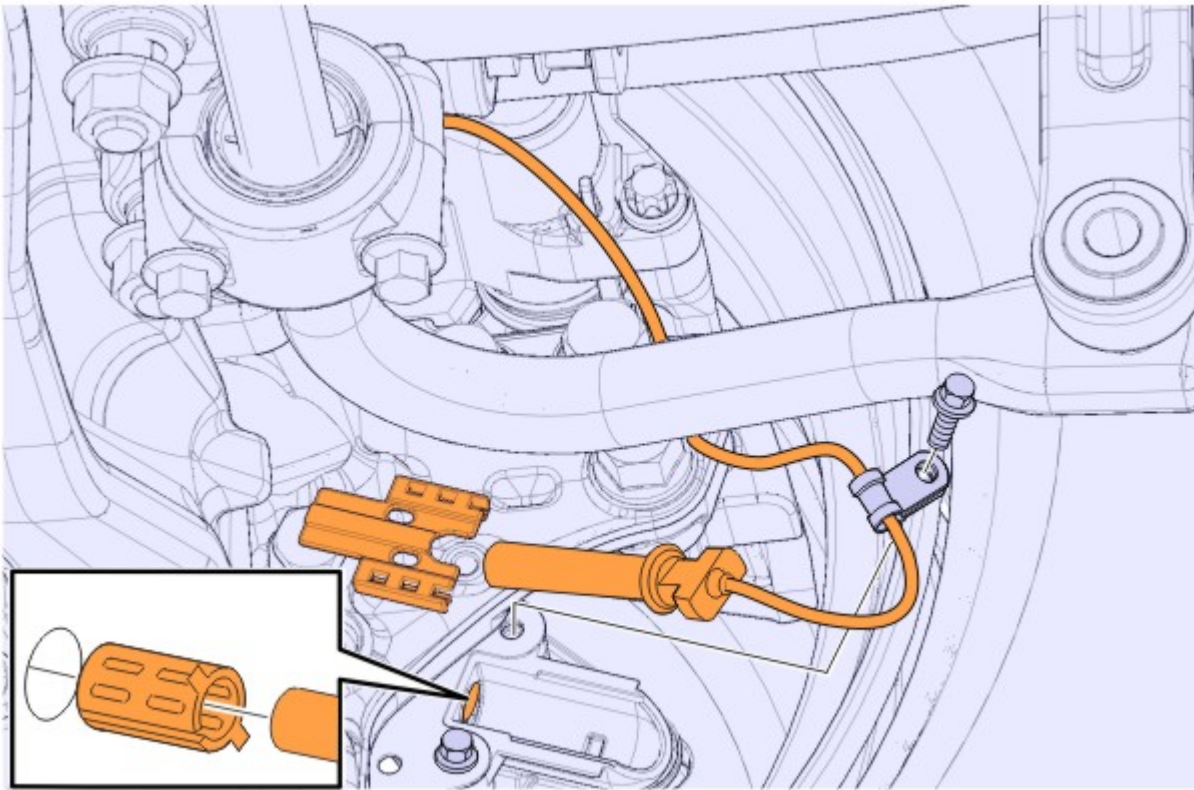
| | | |
|---------------------|----|--------------|
| Brake cylinder, nut | 1. | Pre-torque |
| | | 80 ±30 Nm |
| | 2. | Final torque |
| | | 195 ±15 Nm |



| | |
|------------|----------------------------------|
| 116 | Brush grease on the sensor. |
| | Required material |
| | Universal grease |

| | |
|------------|--|
| 117 | Press in the sensor until it comes into contact with the sensor wheel. |
|------------|--|

| | | | |
|------------|--|----------|---|
| 118 | Check that the sensor is securely in place. | | |
| | <table border="1" style="width: 100%;"> <tr> <td style="width: 30px; text-align: center;">i</td> <td>Note Replace the guide sleeve if the sensor is loose.</td> </tr> </table> | i | Note Replace the guide sleeve if the sensor is loose. |
| i | Note Replace the guide sleeve if the sensor is loose. | | |




 **CAUTION**

Risk of material damage.
 The air hose for the brake can chafe against the electrical cable.

► Make sure that the lines and cables do not chafe against each other.

119 Install the cable according to earlier marking.

| | |
|---|---|
|  | Note It is important that the cable is clamped in the same way as before removal. |
|---|---|

120 Lubricate the seal.

| |
|----------------------------------|
| Required material |
| Universal grease |

121 Install the sensor.

122 Install the screw.




123 Torque tighten the screw.

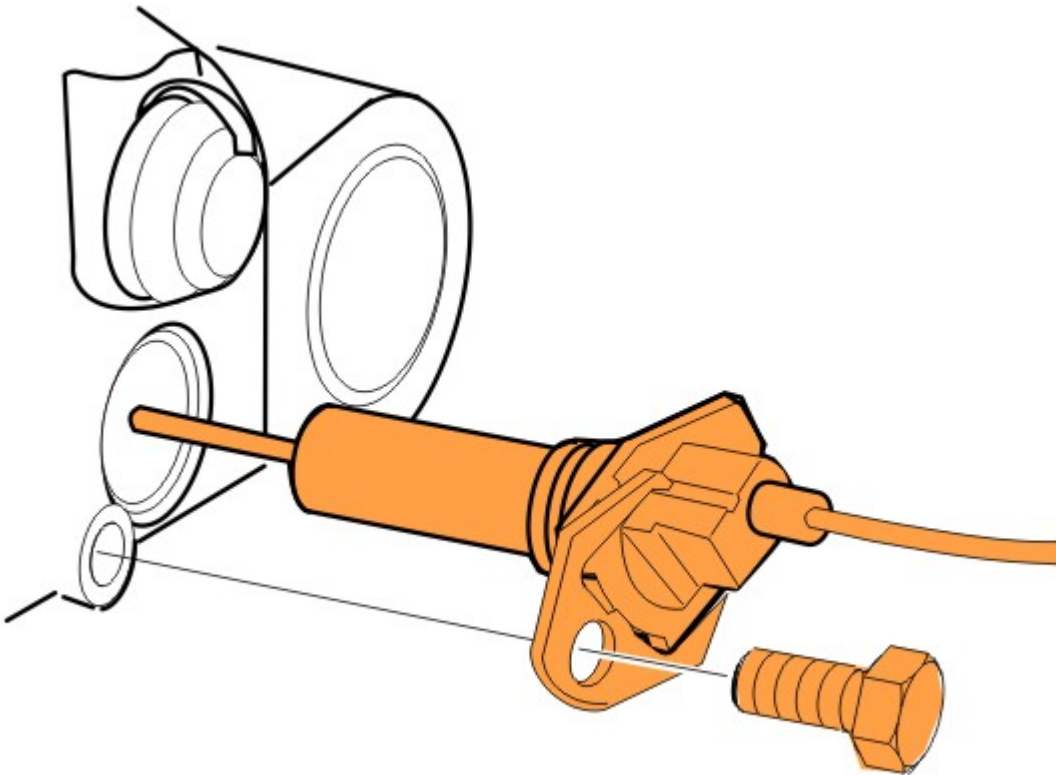
| | |
|--------------------------|--------------|
| Tightening torque | |
| Wear sensor, screw | 36.5 ±3.5 Nm |


 **CAUTION**

Risk of material damage.
 The air hose for the brake can chafe against the electrical cable.

► Make sure that the lines and cables do not chafe against each other.

- 124** Install the cable ties.
-  **Note**
Use new parts.
 -  **Note**
As noted.
 -  **Note**
Ensure that the wiring harness is not damaged.



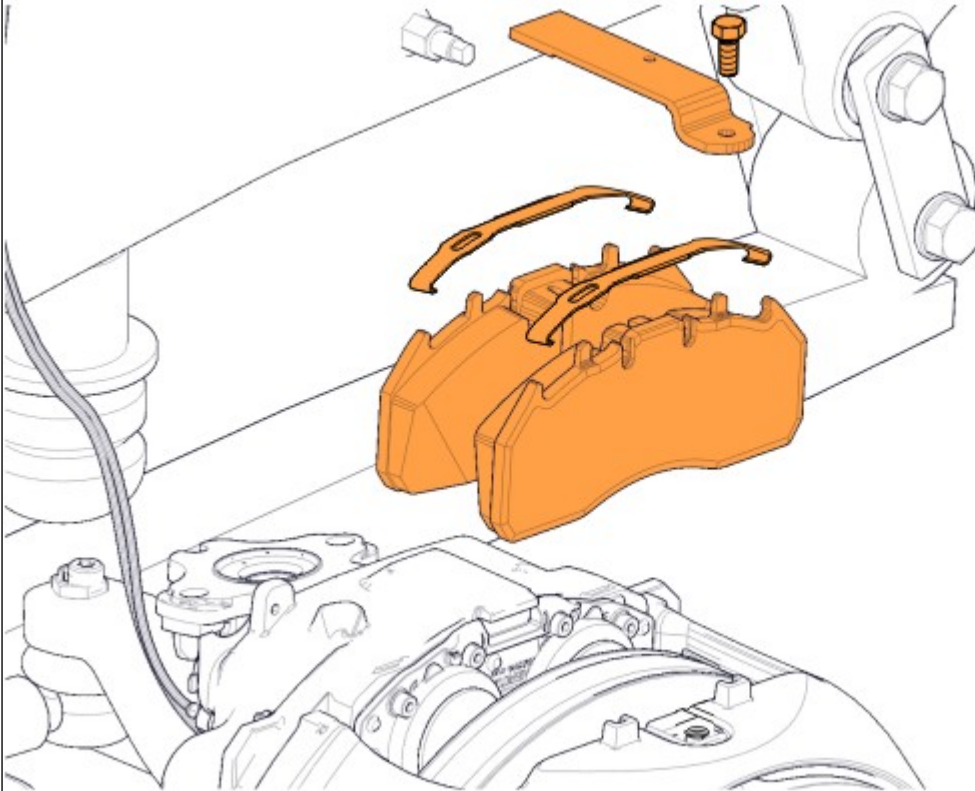
- 125** This step contains 2 alternatives.
 Select one of the valid alternatives below.
- Alternative 1 / 2**
- Install the brake pads.
-  **Note**
The brake pads should be easy to install.



Note

The brake pads must be replaced on both sides of the axle.

- ▶ Install the springs.



- ▶ Install the retaining plate.

- ▶ Torque tighten the screw.

Tightening torque

| | |
|------------------------------------|----------|
| Retaining plate, brake pads, screw | 37 ±3 Nm |
|------------------------------------|----------|



Note

Use a new screw.

Alternative 2 / 2

- ▶ Install the brake pads.



Note

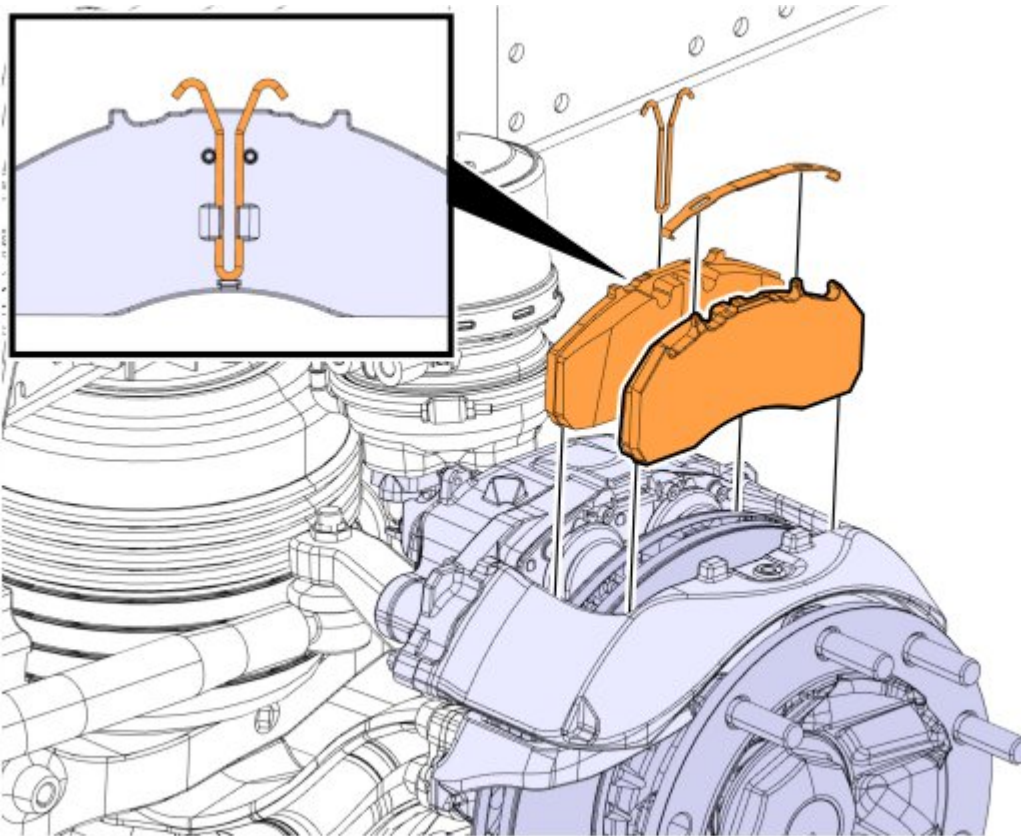
The brake pads should be easy to install.



Note

The brake pads must be replaced on both sides of the axle.

- ▶ Install the springs.



▶ Install the retaining plate.

▶ Torque tighten the screw.

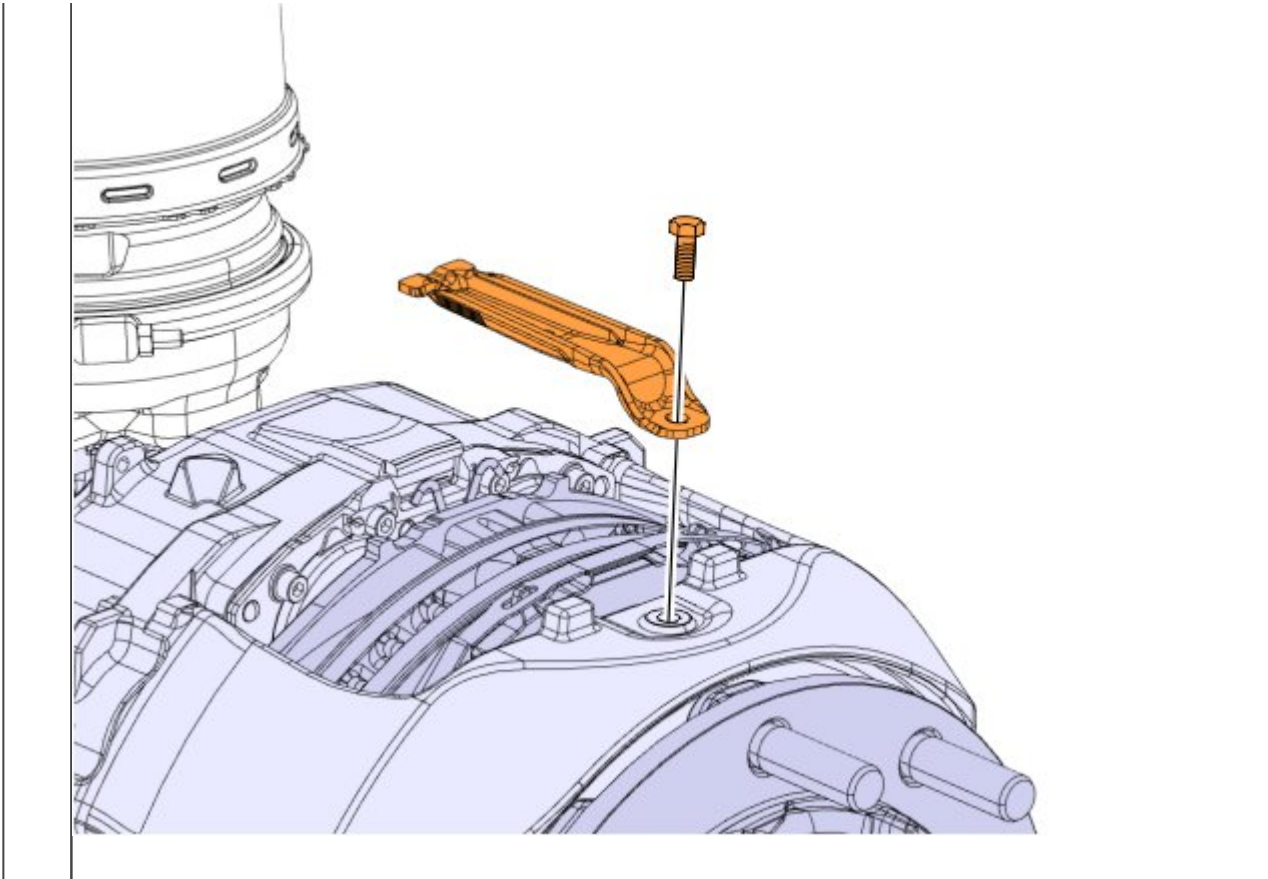
Tightening torque

| | |
|------------------------------------|----------|
| Retaining plate, brake pads, screw | 37 ±3 Nm |
|------------------------------------|----------|



Note

Use a new screw.



 **CAUTION**

Risk of material damage.

The mechanism can be easily damaged if the adjusting screw is over-tightened.

- ▶ Do not exceed the maximum specified torque. Use a ratchet spanner, do NOT use a nut runner.

Tech data

| | |
|---|-------|
| Brake, adjusting screw, maximum torque (FBRA-D43) | 40 Nm |
| Brake, adjusting screw, maximum torque (FBRA-D37) | 15 Nm |

- 126** Turn the adjustment screw clockwise **(A)** to reduce the play.

Tech data

The brake pads must touch the disc, but the hub must still be easy to turn by hand.

- 127** Turn the adjustment screw anticlockwise **(B)** to achieve the correct play.

Tech data

| | |
|------------------------------|------------|
| Disc brake, adjustment value | 120 – 180° |
|------------------------------|------------|

- 128** Install the protecting cover.

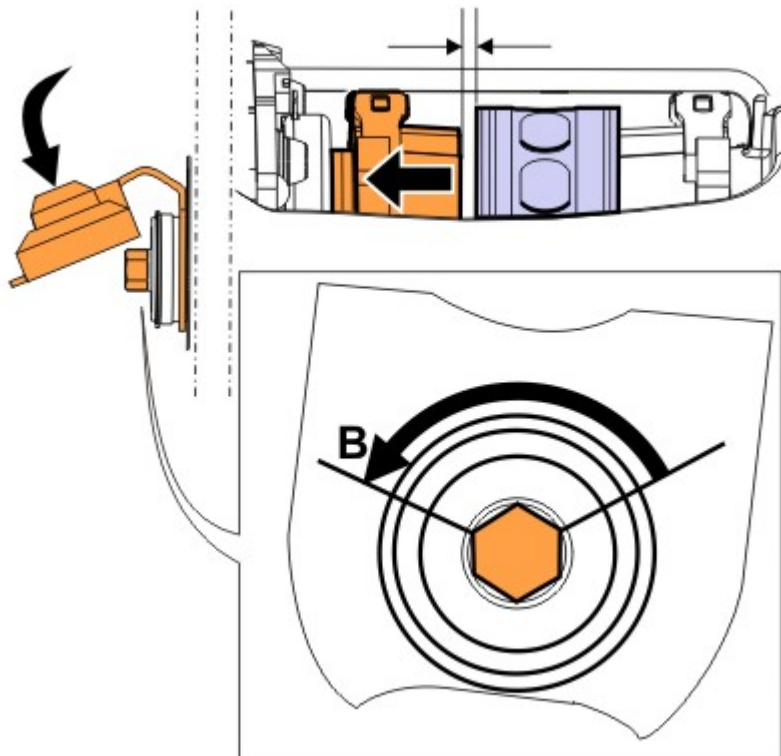
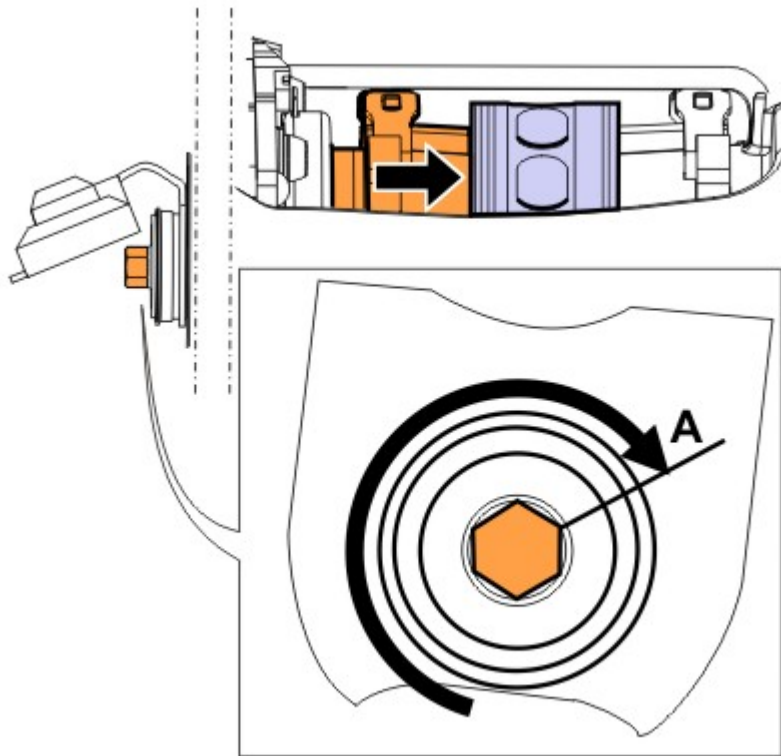
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Ensure that the protecting cover is not damaged.
Replace, if necessary.

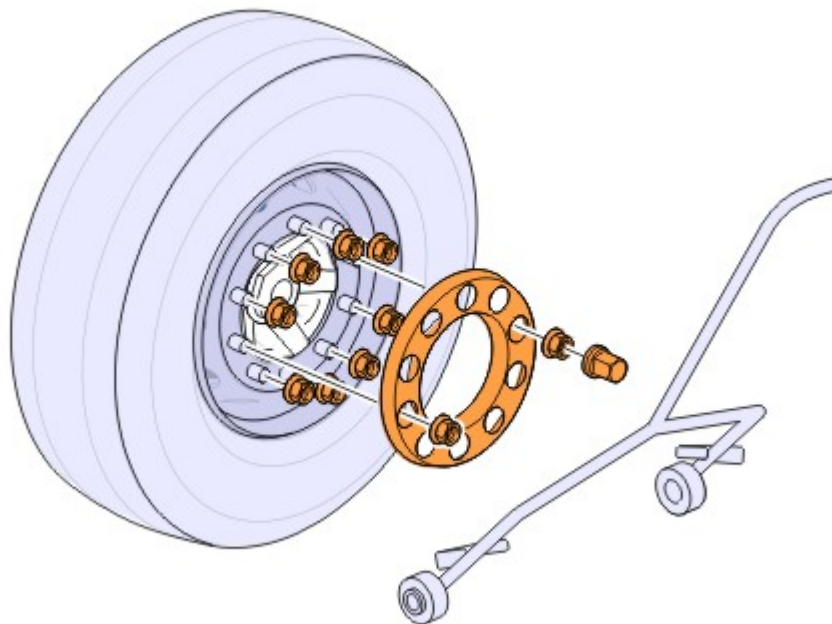



129 Apply the brakes several times.

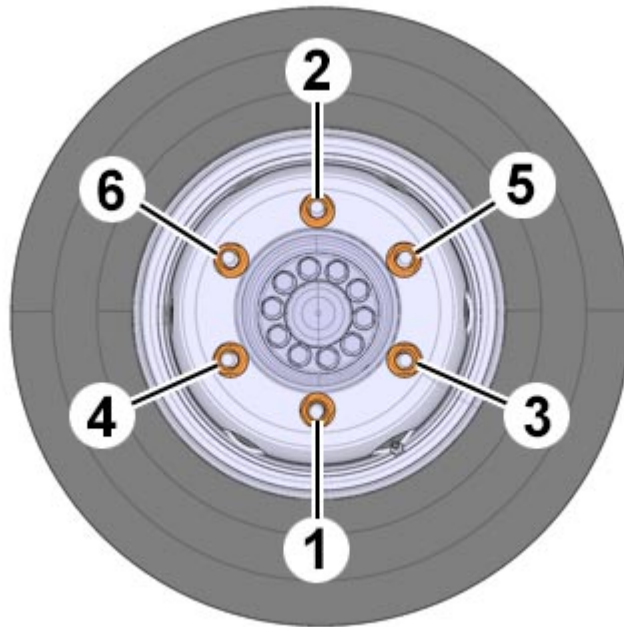
130 Check that the hubs rotate freely.

131 Clean the contact surfaces.

| | |
|-------------------------------|-------------------------------|
| Required material | |
| Brake cleaner | |
| 132 | Install the wheel. |
| Required material | |
| WHEEL EQUIPMENT | 9999676 |
| 133 | Install the locking ring. |
| 134 | Install the wheel nuts. |
| 135 | Tighten the bottom nut first. |



| | | |
|------------|---|--|
| 136 | This step contains 4 alternatives. | |
| | Select one of the valid alternatives below. | |
| | Alternative 1 / 4 | |
| | ▶ | Check the tightening. |
| | Conditions | |
| | • | nuts M18 |
| | Tightening torque | |
| | Wheel, nut | 360 ±40 Nm |
| |  | Note Observe the tightening order. |



Alternative 2 / 4

► Check the tightening.

Conditions

- nuts M20

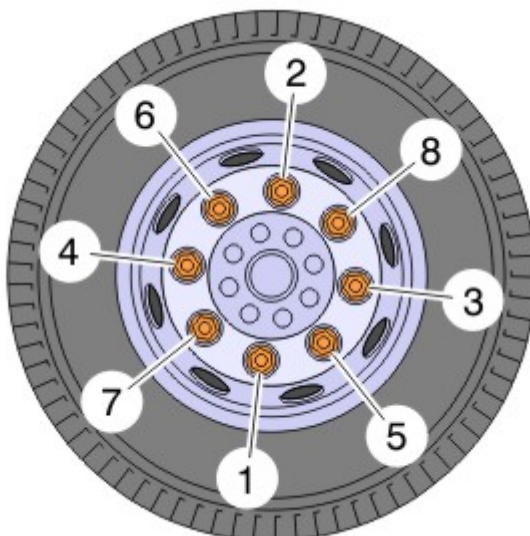
Tightening torque

| | |
|------------|------------|
| Wheel, nut | 500 ±50 Nm |
|------------|------------|



Note

Observe the tightening order.



Alternative 3 / 4

► Check the tightening.

Conditions

- nuts M22

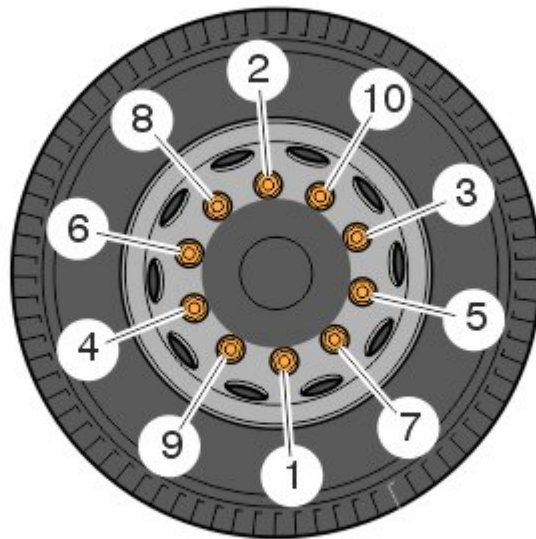
Tightening torque

| | | |
|------------|----|---------------------------|
| Wheel, nut | 1. | Tightening sequence: 1-10 |
| | | 200 ±8 Nm |
| | 2. | Tightening sequence: 1-10 |
| | | 90 ±10° |
| | 3. | Checking torque |
| | | 670 ±30 Nm |



Note

Observe the tightening order.



Alternative 4 / 4

- ▶ Check the tightening.

Conditions

- nuts M24

Tightening torque

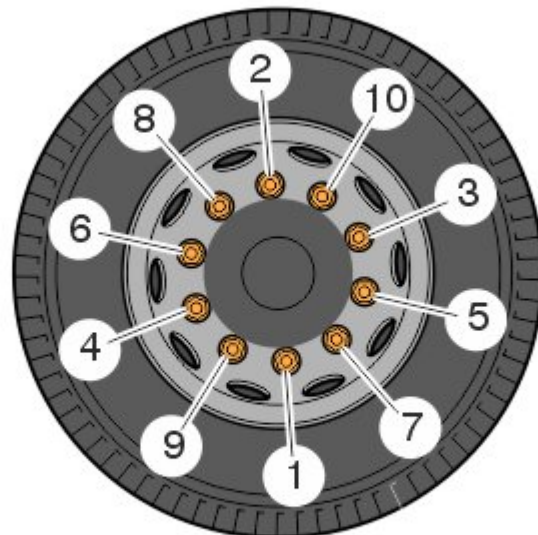
| | | |
|------------|----|---------------------------|
| Wheel, nut | 1. | Tightening sequence: 1-10 |
|------------|----|---------------------------|

| | | |
|----|---------------------------|-----------|
| | | 200 ±8 Nm |
| 2. | Tightening sequence: 1-10 | |
| | 90 ±10° | |
| 3. | Checking torque | |
| | 850 ±75 Nm | |

Required material

| | |
|------------------|-------------------------|
| Torque converter | 9812469 |
|------------------|-------------------------|

i **Note**
Observe the tightening order.

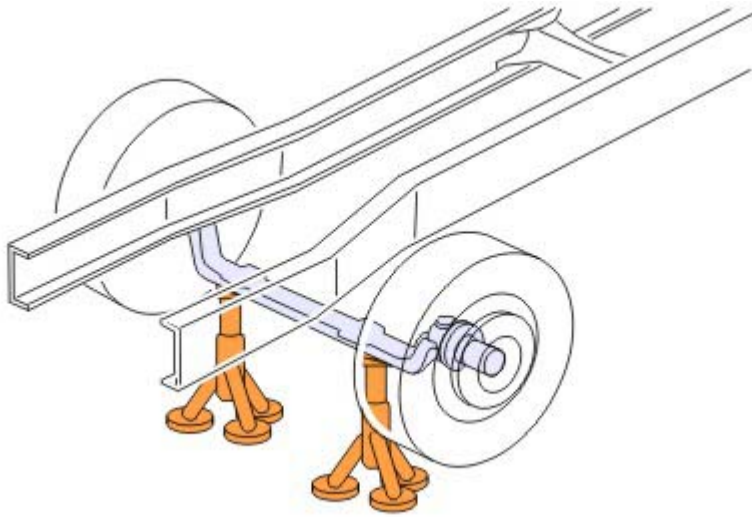



137 Raise the axle.

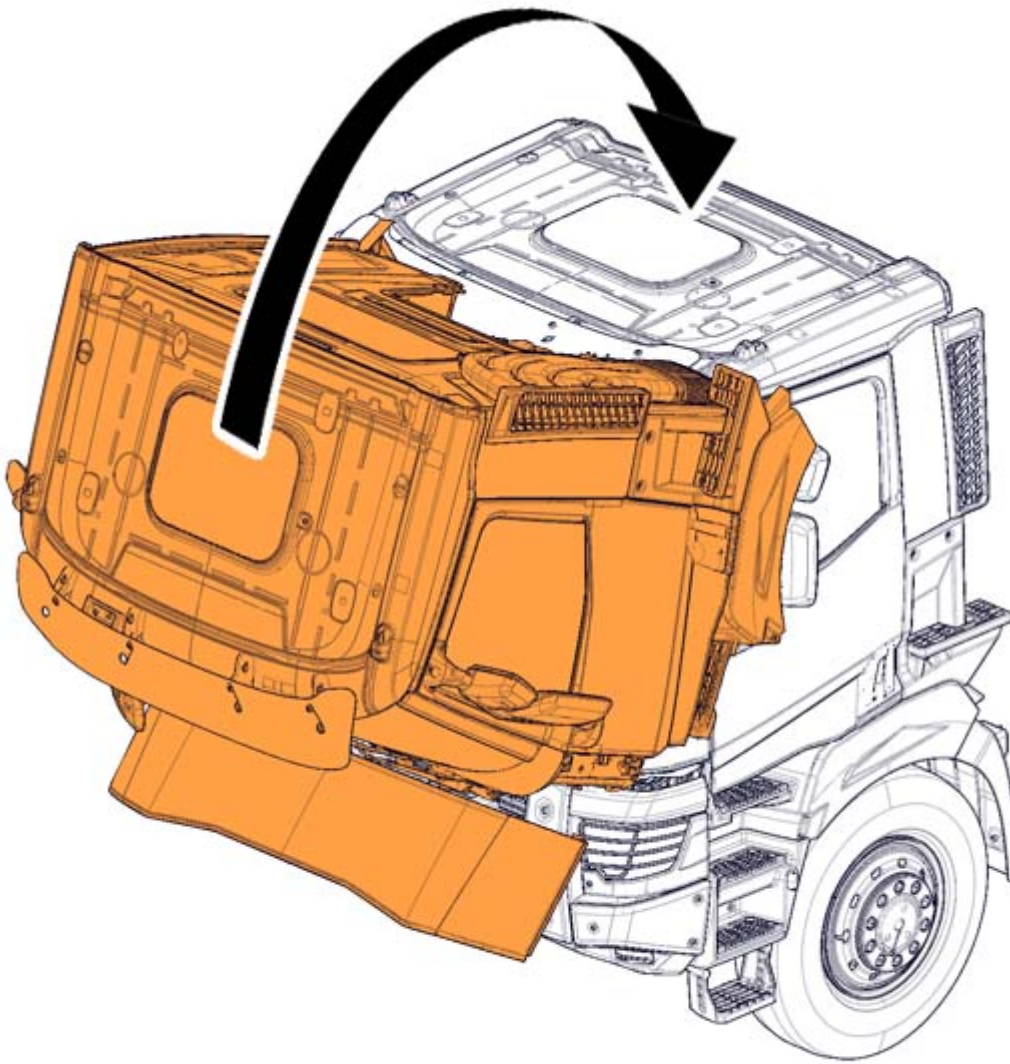
138 Remove the jack stands.

i **Note**
Ensure that the parking brake is applied.

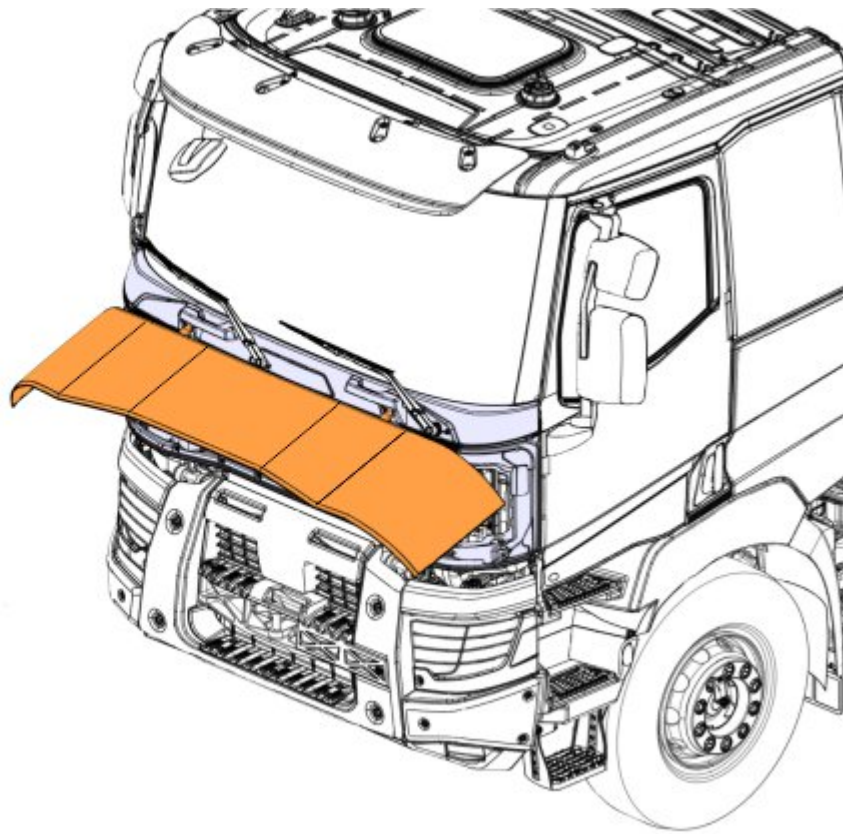
139 Lower the vehicle.



| | |
|---|---|
|  DANGER | |
| Risk of serious injury or death. | |
| A cab that is not tilted to the end position constitutes a safety risk. | |
| ▶ | It is forbidden to work in, under or in front of a cab that is not fully tilted. |
| ▶ | No persons are to remain in, under or in front of the cab while tilting is in progress. |
| ▶ | Always tilt the cab to the end position. |
| 140 | Tilt back the cab. |



| | |
|-----|------------------------|
| 141 | Close the front panel. |
|-----|------------------------|



| | |
|-----|--------------------------|
| 142 | Remove the wheel chocks. |
|-----|--------------------------|

