

AMA3 - Reworking Various Threaded Connections on the Chassis (Recall Campaign)

Revision: This bulletin replaces bulletin Group 4 49/21 AMA3, dated March 31, 2021.

Model Year: **2021**

Model Line: **Taycan (Y1A, Y1B)**

Concerns: **Hexagon clamping nut M12 x 1.5 on various threaded connections on the chassis**

Information: **There is a possibility that clamping nuts, on which the thread was not manufactured according to specifications, were installed on various threaded connections on the chassis on the affected vehicles.**

As a result, the required tightening torque was reached before the threaded connection was actually tightened fully when installing the clamping nuts. There is therefore no guarantee that the affected threaded connections will remain sufficiently tight over the service life of the vehicle.

Action required: Rework threaded connections on the front and rear axle.
On vehicles that have already been delivered to customers, the screwed components must also be checked for damage.



Information

Please note that different screw positions on the front and rear axle must be reworked on the affected vehicles.

The following specific campaign scopes have therefore been defined for reworking the threaded connections. Every vehicle is clearly assigned just one campaign scope.

The relevant **M12 x 1.5 fastening nuts must be replaced on all affected vehicles**, depending on the assigned scope.

In addition, the **relevant fastening screws** must also be replaced.

On vehicles on which **a component is screwed at the relevant screw point** (e.g. actuator or connecting link), depending on the assigned scope, the **thread on the relevant component must be checked** and the component may also have to be replaced, depending on the result of the check.

On vehicles that have **already been delivered to customers**, the **components that are screwed together** must **also be checked for damage** caused by **relative movements** while driving as installings, contact surfaces or bores on the individual components may have been damaged.

The relevant components may also have to be replaced, depending on the result of the check.

Please note: All additional parts required to repair damage revealed by the test result are **not part** of this campaign and must be determined independently in the Porsche Electronic Parts Catalogue (PET). For warranty processing for these additional parts, see the section on ⇒ *Technical Information 'Warranty processing'*.

For an overview of each of the assigned scopes, see list below.

The scope that is clearly assigned to an affected vehicle is shown in the PCSS vehicle information for this campaign.

Example of a **damaged thread on the actuator**:

⇒ *Damaged thread on actuator*



Damaged thread on actuator

Example of **damage caused by driving**: ⇒ *Damage to component caused by driving*



Information

Scopes 1 to 9 are not valid for this vehicle type.

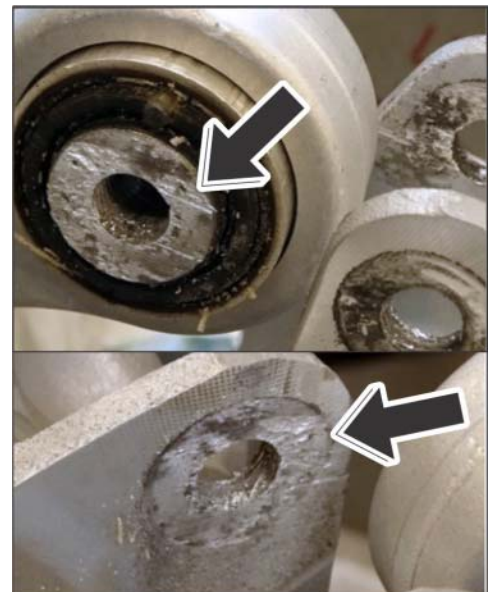
Scope 10: Reworking threaded joints on the front axle

- Reworking threaded joint securing **spring struts on lower control arms at the left and right on the front axle**
- Reworking threaded joint securing **connecting link (suspension/stabilizer) to left and right anti-roll bar on the front axle**

⇒ *Technical Information 'Scope 10: Reworking threaded joints on the front axle'*

Scope 11: Reworking threaded joints on the rear axle

- Reworking **front** threaded joint securing **lower trailing arms at left and right on the rear axle housing**



Damage to component caused by driving

- Reworking bolts securing **lower trailing arm to left and right wheel bearing housing on the rear axle**

⇒ *Technical Information 'Scope 11: Reworking threaded joints on the rear axle'*

Scope 12: Reworking threaded joints on the rear axle

- Reworking bolts securing **(front) upper longitudinal arm to left and right rear axle carrier**
- Reworking threaded joint securing **upper (front) longitudinal arm to left and right wheel bearing housing on the rear axle**
- Reworking bolts securing **(rear) upper trailing arm to left and right rear axle carrier**
- Reworking threaded joint securing **upper (rear) trailing arms to left and right wheel bearing housing on the rear axle**

⇒ *Technical Information 'Scope 12: Reworking threaded joints on the rear axle'*

Scope 13: Reworking threaded joints on front and rear axle

- Reworking threaded joint securing **spring struts on lower control arms at the left and right on the front axle**
- Reworking threaded joint securing **connecting link (suspension/stabilizer) to left and right anti-roll bar on the front axle**
- Reworking bolts securing **(front) upper longitudinal arm to left and right rear axle carrier**
- Reworking threaded joint securing **upper (front) longitudinal arm to left and right wheel bearing housing on the rear axle**
- Reworking bolts securing **(rear) upper trailing arm to left and right rear axle carrier**
- Reworking threaded joint securing **upper (rear) trailing arms to left and right wheel bearing housing on the rear axle**

⇒ *Technical Information 'Scope 13: Reworking threaded joints on front and rear axle'*

Scope 14: Reworking threaded joints on front and rear axle at the right

- Reworking threaded joint securing **connecting link (suspension/stabilizer) to right anti-roll bar on the front axle**
- Reworking threaded joint securing **lower trailing arm to right wheel bearing housing on the rear axle**

⇒ *Technical Information 'Scope 14: Reworking threaded joints on front and rear axle at the right'*

Scope 15: Reworking threaded joint on the left of the rear axle

- Reworking threaded joint securing **shock absorber on lower transverse control arm at left on the rear axle**

⇒ *Technical Information 'Scope 15: Reworking threaded joint on the left of the rear axle'*

Scope 16: Reworking threaded joints on the front axle

- Reworking threaded joint securing **spring struts on lower control arms at the left and right on the front axle**

- Reworking threaded joint securing **steering gear to front-axle carrier at the left**

⇒ *Technical Information 'Scope 16: Reworking threaded joints on the front axle'*

Scope 17: Reworking threaded joint on the front axle

- Reworking threaded joint securing **electric drive motor to front-axle module at the front left**

⇒ *Technical Information 'Scope 17: Reworking threaded joint on the front axle'*

Scope 18: Reworking threaded joints on front and rear axle

- Reworking threaded joint securing **spring struts on lower control arms at the left and right on the front axle**
- Reworking **front** threaded joint securing **lower trailing arms at left and right on the rear axle housing**

⇒ *Technical Information 'Scope 18: Reworking threaded joints on front and rear axle'*

Affected vehicles:

Only vehicles assigned to the campaign (see also PCSS Vehicle Information). This campaign affects 395 vehicles.

Parts required

Parts Info: Clamping nuts required for all affected vehicles:

Part No.	Designation	Qty.
PAF909664	Lock nut, M12 x 1.5	Scope-specific



Information

Due to the different screw positions to be reworked on the front and rear axle of each vehicle, the required fastening nuts and screws are listed in the relevant scope.

All additional parts that are required must be determined independently in accordance with the Porsche Electronic Parts Catalogue (PET).

Required tools

Tools:

Generally required tools:

- Torque wrench, 2-10 Nm (1.5-7.4 ftlb.), e.g. **VAG 1783 Torque wrench, 2-10 Nm (1.5-7.4 ftlb.)**
- Torque wrench, 6-50 Nm (4.5-37 ftlb.), e.g. **VAG 1331A Torque wrench, 6-50 Nm (4.5-37 ftlb.)**
- Torque wrench, 40-200 Nm (30-148 ftlb.), e.g. **VAG 1332 Torque wrench, 40-200 Nm (30-148 ftlb.)**

- Electronic torque angle torque wrench, 2-100 Nm (1.5-74 ftlb.), e.g. **9768 - Electronic torque wrench, 2-100 Nm (1.5-74 ftlb.)**
- Electronic torque angle torque wrench, 20-400 Nm (15-296 ftlb.), e.g. **VAS 6942 Torque angle torque wrench, 20-400 Nm (15-296 ftlb.)**
- Engine and gearbox jack, e.g. **VAS 6931 - Engine and gearbox jack**



Information

Due to the different screw positions to be reworked on the front and rear axle of each vehicle, the additional tools required are listed in the relevant scope.

Scope 10: Reworking threaded joints on the front axle

Parts Info: **Parts required for this scope:**

Part No.	Designation – Use	Qty.
PAF909664	⇒ Lock nut, M12 x 1.5 – Spring strut to wishbone – Connecting link to anti-roll bar	4 ea.
PAF108544	⇒ Lens-head screw, M12 x 1.5 x 90 – Spring strut to wishbone	2 ea.
N 10793603	⇒ Hexagon-head bolt M12 x 1.5 x 60 – Connecting link to anti-roll bar	2 ea.

Materials: **Materials required for this scope** (usually already available at the Porsche dealer):

Part No.	Designation – Use	Qty.
00004330508	⇒ Mounting paste – Wheel centring surface to wheel hub	100 g/ 3.53 oz tube (approx. 2 g/ 0.07 oz required per vehicle)

Tools: **Tool required for this scope:**

- **9900 - PIWIS Tester 3**
- Battery charger with a current rating of **at least 90 A**, e.g. **VAS 5908 battery charger 90A**



Information

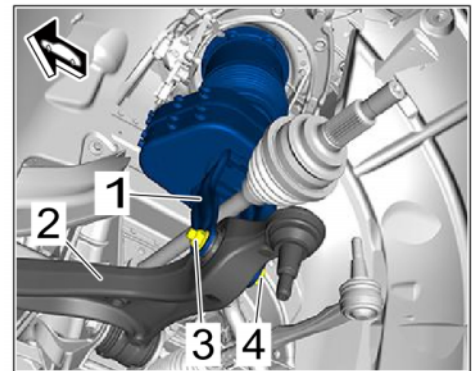
Due to the different screw positions to be reworked on the front and rear axle of each vehicle, the additional tools required are listed in the relevant scope.

- Work Procedure: 1 Move the vehicle onto a lifting platform and raise it. ⇒ *Workshop Manual '4X00IN Lifting the vehicle'*
- 2 Remove left and right front wheel. ⇒ *Workshop Manual '440519 Removing and installing wheel'*
- 3 Replace the following threaded connections on the **front axle at the left and right**:
- **Threaded joint securing spring strut to lower trailing arm on the front axle**
 - **Threaded joint securing connecting link to anti-roll bar on the front axle**

Also only for vehicles that have already been delivered to customers: After removing the relevant bolts, perform a **visual inspection** for **signs of damage caused by driving** in the area around the relevant screw points.

The **relevant components may also have to be replaced**, depending on the result of the check.

- 3.1 Empty the air spring in front left and right with the PIWIS Tester. ⇒ *Workshop Manual '430117 Bleeding and filling the levelling system'*
- 3.2 Support the wheel bearing housing using a suitable engine and gearbox jack. On vehicles with PCCB brake discs, make sure not to damage the brake disc.
- 3.3 Loosen and unscrew fastening nut ⇒ *Air-spring strut fork -3-* on spring strut fork ⇒ *Air-spring strut fork -1-*.
Counter fastening screw ⇒ *Air-spring strut fork -4-* while doing this. Then remove the fastening screw.
- 3.4 Insert a new fastening screw into spring strut fork ⇒ *Air-spring strut fork -1-* and lower trailing arm ⇒ *Air-spring strut fork -2-*.
- 3.5 Screw on new fastening nut and tighten.
Counter the fastening screw while doing this.
Tightening torque 90 Nm (67 ftlb.)
Torque angle +120°
- 3.6 Lower the engine and gearbox jack and remove it.
- 3.7 Loosen and unscrew fastening nut ⇒ *Connecting link for anti-roll bar -2-* from connecting link ⇒ *Connecting link for anti-roll bar -1-* to anti-roll bar.
Counter fastening screw ⇒ *Connecting link for anti-roll bar -3-* while doing this. Then remove the fastening screw.



Air-spring strut fork

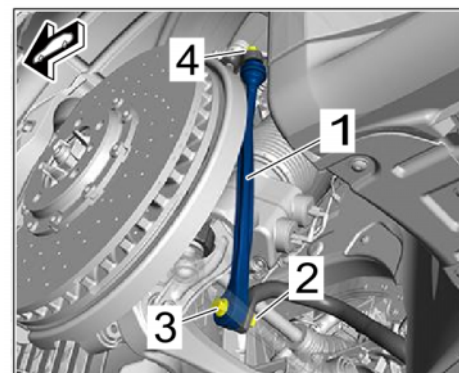
Please note: The fastening nut ⇒ *Connecting link for anti-roll bar -4-* is **not affected** and must not be loosened.

3.8 Insert new fastening screw into the anti-roll bar and connecting link.

3.9 Screw on new fastening nut and tighten. Counter the fastening screw while doing this.
Tightening torque 70 Nm (52 ftlb.)
Torque angle +90°

3.10 Repeat the procedure on the **other side of the vehicle**.

3.11 Fill air spring system using the PIWIS Tester. ⇒ *Workshop Manual '430117 Bleeding and filling the levelling system'*



Connecting link for anti-roll bar

4 Install front wheel at the left and right. ⇒ *Workshop Manual '440519 Removing and installing wheel'*

5 Lower the vehicle and remove it from the lifting platform.

6 Enter the campaign in the Warranty and Maintenance booklet.

End of action required

For warranty processing, see **General information on warranty processing** and **Scope 10** under ⇒ *Technical Information '440519 Warranty processing'*.

Scope 11: Reworking threaded joints on the rear axle

Parts Info: **Parts required for this scope:**

Part No.	Designation – Use	Qty.
PAF909664	⇒ Lock nut, M12 x 1.5 – Lower trailing arm to rear axle housing – Lower trailing arm to wheel bearing housing	4 ea.
N 10696901	⇒ Hexagon flange bolt, M12 x 1.5 x 120 x 90 – Lower trailing arm to rear axle housing	2 ea.
N 10695901	⇒ Hexagon-head bolt, M12 x 1.5 x 105 – Lower trailing arm to wheel bearing housing	2 ea.
9A700837900	⇒ Tie-wraps A8.0 x 337 – Cover on lower trailing arm	2 ea.

Materials: **Materials required for this scope** (usually already available at the Porsche dealer):

Part No.	Designation – Use	Qty.
00004330508	⇒ Mounting paste – Wheel centring surface to wheel hub	100 g/ 3.53 oz tube (approx. 3 g/ 0.11 oz required per vehicle)
00004330516	⇒ Coolant additive	20 liter/ 5.28 gal container (approx. 2 liter/ 0.53 gal required per vehicle)

Tools: **Additional tools required for this scope:**

- T40262 - Locking cap
- VAS 6410 - Contact surface cleaning set
- VAS 6558/9-6 - High-voltage test adapter HVA 280
- VAS 6558A - High-voltage test adapter
- VAS 6883 - Insulated tool set
- P90012 - Guide pins
- VAS 6832 - Master Gear unit elevating platform
- VAS 6832/9 - Assembly fixture
- VAS 5581 - Diagnostic box
- VAS 5581A/12 - Diagnostic cable
- VAS 6649 - Warning sign (warning of dangerous electrical voltage)
- VAS 6786 - Warning sign (warning of dangers associated with batteries)
- VAS 6881 - Warning sign (No unauthorized access)
- VAS 6882 - Warning sign (No fire, naked flames or smoking)
- VAS 6884 - High-voltage cordon
- VAS 6886 - Temperature gauge
- 3093 - Hose clamp
- 9696 - Filling device
- VAS 6096/2 - Vacuum pump
- VAS 6675A - Funnel
- VAS 6968 - Coolant filling device
- VAS 531 011 - Cooling system service equipment
- VAS 6558A - High-voltage test adapter
- VAS 6558A/27 - Set of Kelvin clamps and test probes
- VAS 681 003A - High-voltage battery charger
- 9900 - PIWIS Tester 3
- Battery charger with a current rating of **at least 90 A**, e.g. **VAS 5908 battery charger 90A**

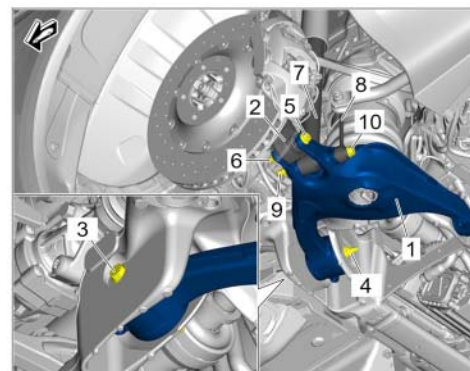
- Work Procedure: 1 Read and observe general warning notes re. working on the high-voltage vehicle electrical system.
 ⇒ *Workshop Manual '2X00IN General warning notes for working on the high-voltage system'*
- 2 Isolate and document the high-voltage system. ⇒ *Workshop Manual '2X00IN Isolating high-voltage system from power supply/Starting high-voltage system'*
- 3 Remove high-voltage battery. ⇒ *Workshop Manual '270819 Removing and installing high-voltage battery'*
- 4 Replace the following threaded connections on the **rear axle at the left and right**:
- **Front threaded joint securing lower trailing arms to rear axle housing**
 - **Threaded joint securing lower trailing arms to wheel bearing housing on the rear axle**

Also only for vehicles that have already been delivered to customers: After removing the relevant bolts, perform a **visual inspection** for **signs of damage caused by driving** in the area around the relevant screw points.

The **relevant components may also have to be replaced**, depending on the result of the check.

- 4.1 **Loosen and remove front** fastening nut ⇒ *Lower trailing arm on the rear axle -4-* and screw ⇒ *Lower trailing arm on the rear axle -3-* on lower trailing arm ⇒ *Lower trailing arm on the rear axle -1-* on the rear axle housing. Then insert a new fastening screw and secure with a new fastening nut.

For instructions, see: ⇒ *Workshop Manual '421119 Removing and installing trailing arm'*
 Please note: Threaded joint ⇒ *Lower trailing arm on the rear axle -9, 10-* on shock absorber ⇒ *Lower trailing arm on the rear axle -7-* or connecting link ⇒ *Lower trailing arm on the rear axle -8-* is **not affected** and must not be loosened.



Lower trailing arm on the rear axle

- 4.2 Loosen and remove fastening nut ⇒ *Lower trailing arm on the rear axle -6-* and screw ⇒ *Lower trailing arm on the rear axle -5-* from lower trailing arm ⇒ *Lower trailing arm on the rear axle -1-* on wheel bearing housing ⇒ *Lower trailing arm on the rear axle -2-*. Then insert a new fastening screw and secure with a new fastening nut.
 For instructions, see: ⇒ *Workshop Manual '421119 Removing and installing trailing arm'*
- 4.3 Repeat the procedure on the **other side of the vehicle**.
- 5 Install high-voltage battery. ⇒ *Workshop Manual '270819 Removing and installing high-voltage battery'*

- 6 Start the high-voltage system and complete the relevant documentation. ⇒ *Workshop Manual '2X00IN Isolating high-voltage system from power supply/Starting high-voltage system'*
- 7 Enter the campaign in the Warranty and Maintenance booklet.

End of action required

For warranty processing, see **General information on warranty processing** and **Scope 11** under ⇒ *Technical Information '2X00IN Warranty processing'*.

Scope 12: Reworking threaded joints on the rear axle

Parts Info: **Parts required for this scope:**

Part No.	Designation – Use	Qty.
PAF909664	⇒ Lock nut M12 x 1.5 – Upper longitudinal arm to rear axle housing – Upper longitudinal arm to wheel bearing housing – Upper trailing arm to rear axle housing – Upper trailing arm to wheel bearing housing – Rear axle tie rod	10 ea.
N 10628601	⇒ Hexagon-head bolt, M12 x 1.5 x 75 – Upper longitudinal arm to rear axle housing – Upper longitudinal arm to wheel bearing housing – Upper trailing arm to rear axle housing – Upper trailing arm to wheel bearing housing	8 ea.
N 91244301	⇒ Hexagon flange bolt M12 x 1.5 x 90 – Front-axle carrier to body	6 ea.
WHT007646	⇒ Eccentric screw M14 x 1.5 x 105 – Lower trailing arm to rear axle housing, rear	2 ea.
WHT001796A	⇒ Eccentric washer 38 x 5 – Lower trailing arm to rear axle housing, rear	2 ea.
WHT001938	⇒ Hexagon nut M14 x 1.5 – Lower trailing arm to rear axle housing, rear	2 ea.
PAF009123	⇒ Eccentric screw M12 x 1.5 x 95 – Rear axle tie rod	2 ea.
PAF007648	⇒ Eccentric washer – Rear axle tie rod	2 ea.

Materials: **Materials required for this scope** (usually already available at the Porsche dealer):

Part No.	Designation – Use	Qty.
00004330508	⇒ Mounting paste – Wheel centring surface to wheel hub	100 g/ 3.53 oz tube (approx. 2 g/ 0.07 oz required per vehicle)

Tools: **Additional tools required for this scope:**

- T40262 - Locking cap
- VAS 6410 - Contact surface cleaning set
- VAS 6558/9-6 - High-voltage test adapter HVA 280
- VAS 6558A - High-voltage test adapter
- VAS 6883 - Insulated tool set
- T90009 - Insert tool
- VAS 261 019 - Ratchet ring wrench socket, a/f 19
- VAS 6826 - Steering wheel balance
- VAS 6918 - Quick-clamping unit
- P90009 - Puller
- VAS 5208A Headlight aiming device
- VAS 5209B Headlight aiming device
- VAS 621 001 - Headlight adjusting unit
- 9900 - PIWIS Tester 3
- Battery charger with a current rating of **at least 90 A**, e.g. **VAS 5908 battery charger 90A**

- Work Procedure: 1 Move the vehicle onto a lifting platform and raise it. ⇒ *Workshop Manual '4X00IN Lifting the vehicle'*
- 2 Isolate and document the high-voltage system. ⇒ *Workshop Manual '2X00IN Isolating high-voltage system from power supply/Starting high-voltage system'*
- 3 Remove rear wheel at the left and right. ⇒ *Workshop Manual '440519 Removing and installing wheel'*
- 4 Replace the following threaded connections on the **rear axle at the left and right:**
- **Threaded joint securing (front) upper longitudinal arm to rear axle housing**
 - **Threaded joint securing (front) upper longitudinal arm to wheel bearing housing**
 - **Threaded joint securing (rear) upper trailing arm to rear axle housing**
 - **Threaded joint securing (rear) upper trailing arm to wheel bearing housing**

Also only for vehicles that have already been delivered to customers: After removing the relevant bolts, perform a **visual inspection** for **signs of damage caused by driving** in the area around the relevant screw points.

The **relevant components may also have to be replaced**, depending on the result of the check.

- 4.1 Remove (front) upper longitudinal arm from rear axle housing and wheel bearing housing. ⇒ *Workshop Manual '423519 Removing and installing upper control arm (front)'*
- 4.2 Install (front) upper longitudinal arm using new fastening nuts and screws. ⇒ *Workshop Manual '423519 Removing and installing upper control arm (front)'*
- 4.3 Remove (rear) upper trailing arm from rear axle housing and wheel bearing housing. ⇒ *Workshop Manual '423519 Removing and installing upper control arm (rear)'*
- 4.4 Install (rear) upper trailing arm using new fastening nuts and screws. ⇒ *Workshop Manual '423519 Removing and installing upper control arm (rear)'*
- 4.5 Repeat the procedure on the **other side of the vehicle**.
- 5 Install rear wheel at the left and right. ⇒ *Workshop Manual '440519 Removing and installing wheel'*
- 6 Start the high-voltage system and complete the relevant documentation. ⇒ *Workshop Manual '2X00IN Isolating high-voltage system from power supply/Starting high-voltage system'*
- 7 Lower the vehicle and remove it from the lifting platform.
- 8 Enter the campaign in the Warranty and Maintenance booklet.

End of action required

For warranty processing, see **General information on warranty processing** and **Scope 12** under ⇒ *Technical Information '2X00IN Warranty processing'*.

Scope 13: Reworking threaded joints on front and rear axle

Parts Info: **Parts required for this scope:**

Part No.	Designation – Use	Qty.
PAF909664	⇒ Lock nut M12 x 1.5 – Upper longitudinal arm to rear axle housing – Upper longitudinal arm to wheel bearing housing – Upper trailing arm to rear axle housing – Upper trailing arm to wheel bearing housing – Spring strut to wishbone – Connecting link to anti-roll bar – Rear axle tie rod	14 ea.

N 10628601	⇒ Hexagon-head bolt, M12 x 1.5 x 75 – Upper longitudinal arm to rear axle housing – Upper longitudinal arm to wheel bearing housing – Upper trailing arm to rear axle housing – Upper trailing arm to wheel bearing housing	8 ea.
PAF108544	⇒ Lens-head screw, M12 x 1.5 x 90 – Spring strut to wishbone	2 ea.
N 10793603	⇒ Hexagon-head bolt M12 x 1.5 x 60 – Connecting link to anti-roll bar	2 ea.
N 91244301	⇒ Hexagon flange bolt M12 x 1.5 x 90 – Front-axle carrier to body	6 ea.
WHT007646	⇒ Eccentric screw M14 x 1.5 x 105 – Lower trailing arm to rear axle housing, rear	2 ea.
WHT001796A	⇒ Eccentric washer 38 x 5 – Lower trailing arm to rear axle housing, rear	2 ea.
WHT001938	⇒ Hexagon nut M14 x 1.5 – Lower trailing arm to rear axle housing, rear	2 ea.
PAF009123	⇒ Eccentric screw M12 x 1.5 x 95 – Rear axle tie rod	2 ea.
PAF007648	⇒ Eccentric washer – Rear axle tie rod	2 ea.

Materials: **Materials required for this scope** (usually already available at the Porsche dealer):

Part No.	Designation – Use	Qty.
00004330508	⇒ Mounting paste – Wheel centring surface to wheel hub	100 g/ 3.53 oz tube (approx. 4 g/ 0.14 oz required per vehicle)

Tools: **Additional tools required for this scope:**

- **T40262 - Locking cap**
- **VAS 6410 - Contact surface cleaning set**
- **VAS 6558/9-6 - High-voltage test adapter HVA 280**

- VAS 6558A - High-voltage test adapter
- VAS 6883 - Insulated tool set
- T90009 - Insert tool
- VAS 261 019 - Ratchet ring wrench socket, a/f 19
- VAS 6826 - Steering wheel balance
- VAS 6918 - Quick-clamping unit
- P90009 - Puller
- Headlight aiming device
- Headlight aiming device
- VAS 621 001 - Headlight adjusting unit
- 9900 - PIWIS Tester 3
- Battery charger with a current rating of **at least 90 A**, e.g. **VAS 5908 battery charger 90A**

- Work Procedure: 1 Move the vehicle onto a lifting platform and raise it. ⇒ *Workshop Manual '4X00IN Lifting the vehicle'*
- 2 Isolate and document the high-voltage system. ⇒ *Workshop Manual '2X00IN Isolating high-voltage system from power supply/Starting high-voltage system'*
- 3 Remove all wheels. ⇒ *Workshop Manual '440519 Removing and installing wheel'*
- 4 Replace the following threaded connections on the **front axle at the left and right**:
- **Threaded joint securing spring strut to lower trailing arm on the front axle**
 - **Threaded joint securing connecting link to anti-roll bar on the front axle**

Also only for vehicles that have already been delivered to customers: After removing the relevant bolts, perform a **visual inspection** for **signs of damage caused by driving** in the area around the relevant screw points.

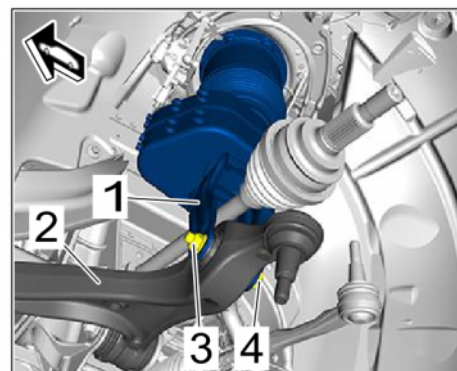
The **relevant components may also have to be replaced**, depending on the result of the check.

- 4.1 Empty the air spring in front left and right with the PIWIS Tester. ⇒ *Workshop Manual '430117 Bleeding and filling the levelling system'*
- 4.2 Support the wheel bearing housing using a suitable engine and gearbox jack. On vehicles with PCCB brake discs, make sure not to damage the brake disc.

4.3 Loosen and unscrew fastening nut ⇒ *Air-spring strut fork -3-* on spring strut fork ⇒ *Air-spring strut fork -1-*.
Counter fastening screw ⇒ *Air-spring strut fork -4-* while doing this. Then remove the fastening screw.

4.4 Insert a new fastening screw into spring strut fork ⇒ *Air-spring strut fork -1-* and lower trailing arm ⇒ *Air-spring strut fork -2-*.

4.5 Screw on new fastening nut and tighten. Counter the fastening screw while doing this.
Tightening torque 90 Nm (67 ftlb.)
Torque angle +120°



Air-spring strut fork

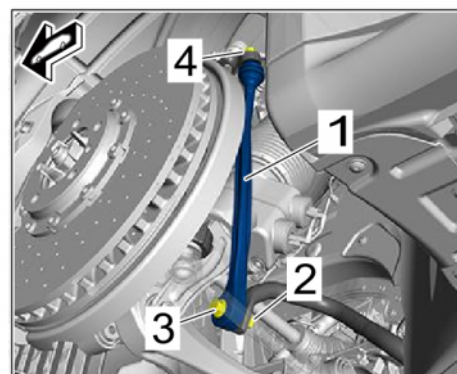
4.6 Lower the engine and gearbox jack and remove it.

4.7 Loosen and unscrew fastening nut ⇒ *Connecting link for anti-roll bar -2-* from connecting link ⇒ *Connecting link for anti-roll bar -1-* to anti-roll bar.
Counter fastening screw ⇒ *Connecting link for anti-roll bar -3-* while doing this. Then remove the fastening screw.

Please note: The fastening nut ⇒ *Connecting link for anti-roll bar -4-* is **not affected** and must not be loosened.

4.8 Insert new fastening screw into the anti-roll bar and connecting link.

4.9 Screw on new fastening nut and tighten. Counter the fastening screw while doing this.
Tightening torque 70 Nm (52 ftlb.)
Torque angle +90°



Connecting link for anti-roll bar

4.11 Fill air spring system using the PIWIS Tester. ⇒ *Workshop Manual '430117 Bleeding and filling the levelling system'*

5 Replace the following threaded connections on the **rear axle at the left and right**:

- **Threaded joint securing (front) upper longitudinal arm to rear axle housing**
- **Threaded joint securing (front) upper longitudinal arm to wheel bearing housing**
- **Threaded joint securing (rear) upper trailing arm to rear axle housing**
- **Threaded joint securing (rear) upper trailing arm to wheel bearing housing**

Also only for vehicles that have already been delivered to customers: After removing the relevant bolts, perform a **visual inspection** for **signs of damage caused by driving** in the area around the relevant screw points.

The **relevant components may also have to be replaced**, depending on the result of the check.

- 5.1 Remove (front) upper longitudinal arm from rear axle housing and wheel bearing housing. ⇒ *Workshop Manual '423519 Removing and installing upper control arm (front)'*
 - 5.2 Install (front) upper longitudinal arm using new fastening nuts and screws. ⇒ *Workshop Manual '423519 Removing and installing upper control arm (front)'*
 - 5.3 Remove (rear) upper trailing arm from rear axle housing and wheel bearing housing. ⇒ *Workshop Manual '423519 Removing and installing upper control arm (rear)'*
 - 5.4 Install (rear) upper trailing arm using new fastening nuts and screws. ⇒ *Workshop Manual '423519 Removing and installing upper control arm (rear)'*
 - 5.5 Repeat the procedure on the **other side of the vehicle**.
- 6 Install all wheels. ⇒ *Workshop Manual '440519 Removing and installing wheel'*
 - 7 Start the high-voltage system and complete the relevant documentation. ⇒ *Workshop Manual '2X00IN Isolating high-voltage system from power supply/Starting high-voltage system'*
 - 8 Lower the vehicle and remove it from the lifting platform.
 - 9 Enter the campaign in the Warranty and Maintenance booklet.

End of action required

For warranty processing, see **General information on warranty processing** and **Scope 13** under ⇒ *Technical Information '2X00IN Warranty processing'*.

Scope 14: Reworking threaded joints on front and rear axle at the right

Parts Info: **Parts required for this scope:**

Part No.	Designation – Use	Qty.
PAF909664	⇒ Lock nut, M12 x 1.5 – Connecting link to front anti-roll bar: – Lower trailing arm to rear wheel bearing housing	2 ea.
N 10793603	⇒ Hexagon-head bolt M12 x 1.5 x 60 – Connecting link to front anti-roll bar	1 ea.
N 10695901	⇒ Hexagon-head bolt, M12 x 1.5 x 105 – Lower trailing arm to rear wheel bearing housing	1 ea.

Materials: **Materials required for this scope** (usually already available at the Porsche dealer):

Part No.	Designation – Use	Qty.
00004330508	⇒ Mounting paste – Wheel centring surface to wheel hub	100 g/ 3.53 oz tube (approx. 2 g/ 0.07 oz required per vehicle)

- Work Procedure: 1 Move the vehicle onto a lifting platform and raise it. ⇒ *Workshop Manual '4X001N Lifting the vehicle'*
- 2 Remove right front and rear wheel. ⇒ *Workshop Manual '440519 Removing and installing wheel'*
- 3 Replace the following threaded connections on the **right-hand side of the vehicle**:
- **Threaded joint securing connecting link to anti-roll bar on the front axle**
 - **Threaded joint securing lower trailing arm to wheel bearing housing on the rear axle**

Also only for vehicles that have already been delivered to customers: After removing the relevant bolts, perform a **visual inspection** for **signs of damage caused by driving** in the area around the relevant screw points.

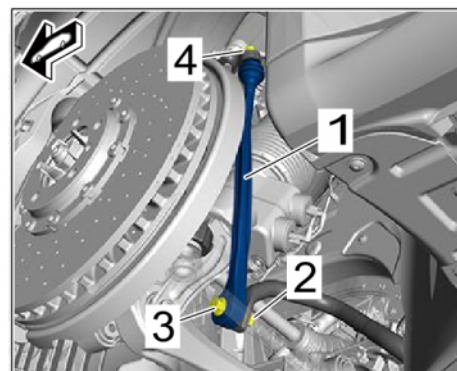
The **relevant components may also have to be replaced**, depending on the result of the check.

3.1 Replace threaded joint securing **right** connecting link to anti-roll bar on the **front axle**.

- 3.1.1 Loosen and unscrew fastening nut ⇒ *Connecting link for anti-roll bar -2-* from connecting link ⇒ *Connecting link for anti-roll bar -1-* to **front** anti-roll bar. Counter fastening screw ⇒ *Connecting link for anti-roll bar -3-* while doing this. Then remove the fastening screw.

Please note: The fastening nut ⇒ *Connecting link for anti-roll bar -4-* is **not affected** and must not be loosened.

- 3.1.2 Insert new fastening screw into the anti-roll bar and connecting link.
- 3.1.3 Screw on new fastening nut and tighten. Counter the fastening screw while doing this.
Tightening torque 70 Nm (52 ftlb.)
Torque angle +90°

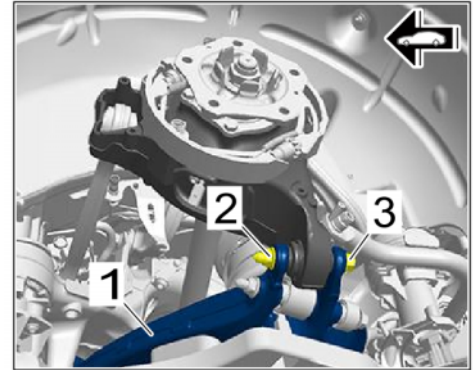


Connecting link for anti-roll bar

3.2 Replace threaded joints on lower **right** trailing arm to wheel bearing housing on the **rear axle**.

3.2.1 Support the wheel bearing housing using a suitable engine and gearbox jack. On vehicles with PCCB brake discs, make sure not to damage the brake disc.

3.2.2 Loosen and unscrew fastening nut ⇒ *Lower trailing arm on wheel bearing housing -2-* on lower trailing arm ⇒ *Lower trailing arm on wheel bearing housing -1-* to the wheel bearing housing.
Counter fastening screw ⇒ *Lower trailing arm on wheel bearing housing -3-* while doing this.



Lower trailing arm on wheel bearing housing

3.2.3 Remove fastening screw from the trailing arm/wheel bearing housing and insert a new fastening screw.

3.2.4 Screw on new fastening nut ⇒ *Lower trailing arm on wheel bearing housing -2-* and tighten.
Counter fastening screw ⇒ *Lower trailing arm on wheel bearing housing -3-* while doing this.

Tightening torque 70 Nm
Torque angle +180°

3.2.5 Lower the engine and gearbox jack and remove it.

4 Install right front and rear wheel. ⇒ *Workshop Manual '440519 Removing and installing wheel'*

5 Lower the vehicle and remove it from the lifting platform.

6 Enter the campaign in the Warranty and Maintenance booklet.

End of action required

For warranty processing, see **General information on warranty processing** and **Scope 14** under ⇒ *Technical Information '440519 Warranty processing'*.

Scope 15: Reworking threaded joint on the left of the rear axle

 Parts Info: **Parts required for this scope:**

Part No.	Designation – Use	Qty.
PAF909664	⇒ Lock nut, M12 x 1.5 – Damper/connecting link to lower wishbone	1 ea.
PAF107169	⇒ Hexagon-head bolt, M12 x 1.5 x 170 x 90 – Damper/connecting link to lower wishbone	1 ea.

 Materials: **Materials required for this scope** (usually already available at the Porsche dealer):

Part No.	Designation – Use	Qty.
00004330508	⇒ Mounting paste – Wheel centring surface to wheel hub	100 g tube (approx. 1 gram required per vehicle)

 Work Procedure: 1 Move the vehicle onto a lifting platform and raise it. ⇒ *Workshop Manual '4X001N Lifting the vehicle'*

 2 Remove rear left wheel. ⇒ *Workshop Manual '440519 Removing and installing wheel'*

 3 Remove air guide for rear left brake disc. ⇒ *Workshop Manual '461619 Removing and installing brake disc air guide (rear)'*

 4 Replace the following threaded connection on the **rear axle at the left**:

- **Threaded joint of the shock absorber together with the connecting link to the lower wishbone at the left**

Also only for vehicles that have already been delivered to customers: After removing the relevant bolts, perform a **visual inspection** for **signs of damage caused by driving** in the area around the relevant screw points.

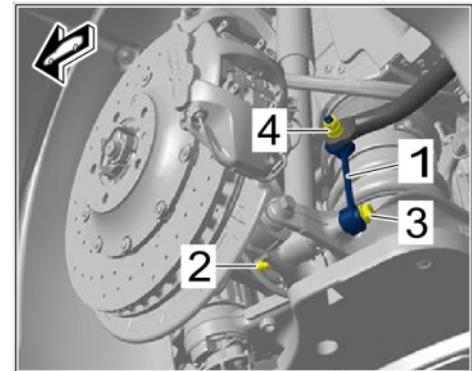
The **relevant components may also have to be replaced**, depending on the result of the check.

4.1 Support the wheel bearing housing using a suitable engine and gearbox jack. On vehicles with PCCB brake discs, make sure not to damage the brake disc.

- 4.2 Loosen and remove fastening nut ⇒ *Connecting link for anti-roll bar -2-* and screw ⇒ *Connecting link for anti-roll bar -3-* securing coupling link ⇒ *Connecting link for anti-roll bar -1-* to lower wishbone.

For instructions, see ⇒ *Workshop Manual '429119 Removing and installing connecting link for anti-roll bar'*

Please note: The fastening nut ⇒ *Connecting link for anti-roll bar -4-* is **not affected** and must not be loosened.



Connecting link for anti-roll bar

- 4.3 Secure coupling link together with the shock absorber to the lower wishbone using a new fastening nut ⇒ *Connecting link for anti-roll bar -2-* and screw ⇒ *Connecting link for anti-roll bar -3-*.

For instructions, see ⇒ *Workshop Manual '429119 Removing and installing connecting link for anti-roll bar'*.

- 4.4 Lower the engine and gearbox jack and remove it.

- 5 Install air guide for rear left brake disc ⇒ *Workshop Manual '461619 Removing and installing brake disc air guide (rear)'*.
- 6 Install rear left wheel ⇒ *Workshop Manual '440519 Removing and installing wheel'*.
- 7 Lower the vehicle and remove it from the lifting platform.
- 8 Enter the campaign in the Warranty and Maintenance booklet.

End of action required

For warranty processing, see **General information on warranty processing** and **Scope 15** under ⇒ *Technical Information '440519 Warranty processing'*.

Scope 16: Reworking threaded joints on the front axle

Parts Info: **Parts required for this scope:**

Part No.	Designation – Use	Qty.
PAF909664	⇒ Lock nut, M12 x 1.5 – Spring strut to wishbone – Steering gear to front-axle carrier	3 ea.

PAF108544	⇒ Lens-head screw, M12 x 1.5 x 90 – Spring strut to wishbone	2 ea.
N 10628301	⇒ Hexagon-head bolt, M12 x 1.5 x 90 – Steering gear to front-axle carrier	1 ea.

Materials: **Materials required for this scope** (usually already available at the Porsche dealer):

Part No.	Designation – Use	Qty.
00004330508	⇒ Mounting paste – Wheel centring surface to wheel hub	100 g/ 3.53 oz tube (approx. 2 g/ 0.07 oz required per vehicle)

- Work Procedure: 1 Move the vehicle onto a lifting platform and raise it. ⇒ *Workshop Manual '4X00IN Lifting the vehicle'*
- 2 Remove left and right front wheel. ⇒ *Workshop Manual '440519 Removing and installing wheel'*
- 3 Replace the following threaded connections on the **front axle at the left and right**:
- **Threaded joint securing spring strut to lower trailing arm on the front axle**

Also only for vehicles that have already been delivered to customers: After removing the relevant bolts, perform a **visual inspection** for **signs of damage caused by driving** in the area around the relevant screw points.

The **relevant components may also have to be replaced**, depending on the result of the check.

- 3.1 Empty the air spring in front left and right with the PIWIS Tester. ⇒ *Workshop Manual '430117 Bleeding and filling the levelling system'*
- 3.2 Support the wheel bearing housing using a suitable engine and gearbox jack. On vehicles with PCCB brake discs, make sure not to damage the brake disc.

- 3.3 Loosen and unscrew fastening nut ⇒ *Air-spring strut fork -3-* on spring strut fork ⇒ *Air-spring strut fork -1-*.
Counter fastening screw ⇒ *Air-spring strut fork -4-* while doing this. Then remove the fastening screw.

- 3.4 Insert a new fastening screw into spring strut fork ⇒ *Air-spring strut fork -1-* and lower trailing arm ⇒ *Air-spring strut fork -2-*.

- 3.5 Screw on new fastening nut and tighten.
Counter the fastening screw while doing this.
Tightening torque 90 Nm (67 ftlb.)
Torque angle +120°

- 3.6 Lower the engine and gearbox jack and remove it.

- 3.7 Fill air spring system using the PIWIS Tester. ⇒ *Workshop Manual '430117 Bleeding and filling the levelling system'*

- 4 Replace the following threaded connection on the **front axle at the left**:

- **Threaded joint securing steering gear to front-axle carrier at the left**

Also only for vehicles that have already been delivered to customers: After removing the relevant bolts, perform a **visual inspection** for **signs of damage caused by driving** in the area around the relevant screw points.

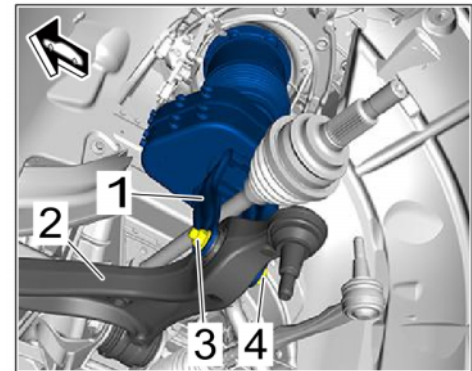
The **relevant components may also have to be replaced**, depending on the result of the check.

- 4.1 Remove front-axle support (rear section). ⇒ *Workshop Manual '400819 Removing and installing the front axle support (rear section)'*

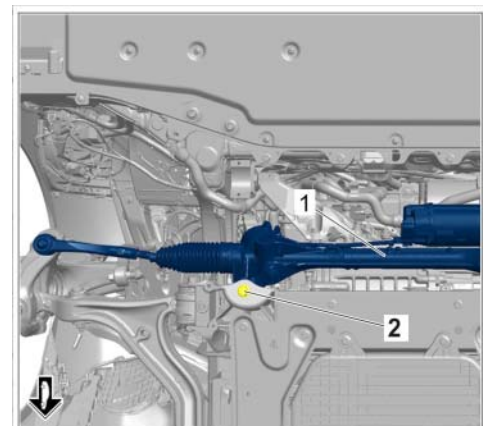
- 4.2 Loosen and remove the fastening screw ⇒ *Steering gear to front-axle cross member -2-* **on the left** of the steering gear ⇒ *Steering gear to front-axle cross member -1-*, while countering the fastening nut on the upper side of the steering gear through the wheel housing.

- 4.3 Insert new fastening screw and secure with a new fastening nut.
Tightening torque 70 Nm (52 ftlb.)
Torque angle +180°

- 4.4 Install front-axle support (rear section). ⇒ *Workshop Manual '400819 Removing and installing the front axle support (rear section)'*



Air-spring strut fork



Steering gear to front-axle cross member

- 5 Install front wheel at the left and right. ⇒ *Workshop Manual '440519 Removing and installing wheel'*
- 6 Lower the vehicle and remove it from the lifting platform.
- 7 Enter the campaign in the Warranty and Maintenance booklet.

End of action required

For warranty processing, see **General information on warranty processing** and **Scope 16** under ⇒ *Technical Information '440519 Warranty processing'*.

Scope 17: Reworking threaded joint on the front axle

Parts Info: **Parts required for this scope:**

Part No.	Designation – Use	Qty.
PAF909664	⇒ Lock nut M12 x 1.5 - Front electric drive motor to front-axle module - Air-spring strut fork to lower trailing arm - Rear axle tie rod	5 ea.
N 10640301	⇒ Hexagon-head bolt, M12 x 1.5 x 100 x 90 - Front electric drive motor to front-axle module	1 ea.
N 91244301	⇒ Hexagon flange bolt M12 x 1.5 x 90 - Front-axle carrier to body	6 ea.
WHT007646	⇒ Eccentric screw M14 x 1.5 x 105 - Lower trailing arm to rear axle housing, rear	2 ea.
WHT001796A	⇒ Eccentric washer 38 x 5 - Lower trailing arm to rear axle housing, rear	2 ea.
WHT001938	⇒ Hexagon nut M14 x 1.5 - Lower trailing arm to rear axle housing, rear	2 ea.
PAF009123	⇒ Eccentric screw M12 x 1.5 x 95 - Rear axle tie rod	2 ea.
PAF007648	⇒ Eccentric washer - Rear axle tie rod	2 ea.
PAF108544	⇒ Oval-head screw M12 x 1.5 x 90 - Air-spring strut fork to lower trailing arm	2 ea.

PAF911085	⇒ Collared cheese head bolt M10 x 60 – Upper trailing arm to wheel bearing housing	2 ea.
PAF102861	⇒ Hexagon collar nut M10 – Upper trailing arm to wheel bearing housing	2 ea.
WHT004955A	⇒ Internal hexagon round cheese head bolt – Steering shaft to power-steering gear	1 ea.
95557374901	⇒ Round seal 11 x 2.5 – Refrigerant line	2 ea.
9A757374903	⇒ O-ring 16.25 x 2.5 – Refrigerant line	1 ea.
9J1805230	⇒ Seal – Front bumper	2 ea.
9A700744300	⇒ External hexagon round-head bolt M10 x 40 – Front bumper	8 ea.
N 91033501	⇒ Hexagon-head bolt M6 x 22 – Lower part of front lock	2 ea.
9A700837900	⇒ Tie-wraps A8.0 x 337 – Brake disc air guide on front spring strut	2 ea.
PAF912040	⇒ Hexagon-head bolt M8 x 50 – Strut/dome strut	4 ea.
N 10261307	⇒ Hexagon nut M10 – Wiper arm to wiper linkage	2 ea.
N 10737001	⇒ Hexagon nut M6 – High voltage heater (PTC)	4 ea.

Additional vehicle-specific parts required:

WHT004571	⇒ Collared cheese head bolt M14 x 1.5 x 115 – Front brake calliper (M-no. A8C+1LS)	4 ea.
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or

WHT004572	⇒ Collared cheese head bolt M14 x 1.5 x 135 – Front brake calliper (M-no. A8F+1LR, 1LS, 1LQ, 1LX, 1ZP)	4 ea.
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Materials: **Materials required for this scope** (usually already available at the Porsche dealer):

Part No.	Designation – Use	Qty.
00004330508	⇒ Mounting paste – Wheel centring surface to wheel hub	100 g tube (approx. 1 gram required per vehicle)
00004330516	⇒ Coolant additive	20 liter/ 5.28 gal container (approx. 2 liter/ 0.53 gal required per vehicle)
00004321086	⇒ Brake fluid	30 liter/ 7.93 gal container (approx. 1 liter/ 33.8 fl oz required per vehicle)

Tools: **Additional tools required for this scope:**

- T40262 - Locking cap
- VAS 6410 - Contact surface cleaning set
- VAS 6558/9-6 - High-voltage test adapter HVA 280
- VAS 6558A - High-voltage test adapter
- VAS 6883 - Insulated tool set
- T90009 - Insert tool
- VAS 261 019 - Ratchet ring wrench socket, a/f 19
- VAS 6826 - Steering wheel balance
- VAS 6918 - Quick-clamping unit
- P90009 - Puller
- VAS 5208A Headlight aiming device
- VAS 5209B Headlight aiming device
- VAS 621 001 - Headlight adjusting unit
- VAS 6832 - Master Gear unit elevating platform
- VAS 6832/12 - Supplementary set
- VAS 6832/8 - Universal assembly tool
- VAS 6890 - Spring band clamp pliers
- VAS 6891 - Spring band clamp pliers
- VAS 6927 - Tie-wrap pliers
- 3093 - Hose clamp
- 9696 - 9696 - Filling device

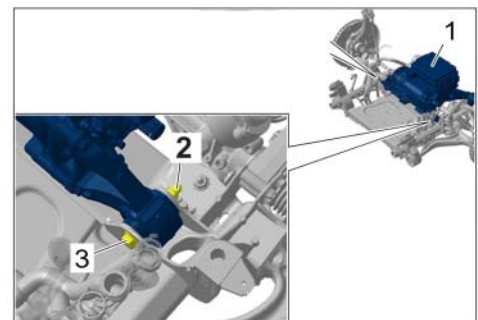
- **VAS 6096/2 - Vacuum pump**
- **VAS 6675A - Funnel**
- **VAS 6968 - Coolant filling device**
- **VAS 6935 - Pole terminal puller**
- **9900 - PIWIS Tester 3**
- Battery charger with a current rating of **at least 90 A**, e.g. **VAS 5208 battery charger 90A**

- Work Procedure: 1 Read and observe general warning notes re. working on the high-voltage vehicle electrical system.
⇒ *Workshop Manual '2X00IN General warning notes for working on the high-voltage system'*
- 2 Isolate and document the high-voltage system. ⇒ *Workshop Manual '2X00IN Isolating high-voltage system from power supply/Starting high-voltage system'*
- 3 Drain the coolant completely. ⇒ *Workshop Manual '193817 Draining and filling coolant'*
- 4 Drain refrigerant.
⇒ *Workshop Manual '870317 Draining and filling refrigerant R134a'*
⇒ *Workshop Manual '870317 Draining and filling refrigerant R1234yf'*
- 5 Replace the following threaded connection on the **front axle at the left**:
- **Threaded joint securing electric drive motor to front-axle module at the front left**

Also only for vehicles that have already been delivered to customers: After removing the relevant bolts, perform a **visual inspection** for **signs of damage caused by driving** in the area around the relevant screw points.

The **relevant components may also have to be replaced**, depending on the result of the check.

- 5.1 Remove front-axle module. ⇒ *Workshop Manual '400119 Removing and installing front axle'*
- 5.2 Loosen and unscrew the fastening nut **at front left** ⇒ *Front electric drive motor to front-axle module -2-* of the electric drive motor ⇒ *Front electric drive motor to front-axle module -1-*, while countering at the fastening screw ⇒ *Front electric drive motor to front-axle module -3-*.
Then remove the fastening screw.
- 5.3 Insert new fastening screw ⇒ *Front electric drive motor to front-axle module -3-* and secure using a new fastening nut ⇒ *Front electric drive motor to front-axle module -2-*.
Initial tightening 70 Nm (52 ftlb.)
Final tightening torque angle 90°
- 5.4 Install front-axle module. ⇒ *Workshop Manual '400119 Removing and installing front axle'*



Front electric drive motor
to front-axle module

- 6 Fill in refrigerant.
 ⇒ *Workshop Manual '870317 Draining and filling refrigerant R134a'*
 ⇒ *Workshop Manual '870317 Draining and filling refrigerant R1234yf'*
- 7 Add coolant and bleed the cooling system. ⇒ *Workshop Manual '193817 Draining and filling coolant'*
- 8 Start the high-voltage system and complete the relevant documentation. ⇒ *Workshop Manual '2X00IN Isolating high-voltage system from power supply/Starting high-voltage system'*
- 9 Align the entire vehicle suspension and adjust, if necessary.
 ⇒ *Workshop Manual '449503 Performing front and rear suspension alignment'*
 ⇒ *Workshop Manual '4495TW Adjustment values for suspension alignment'*
- 10 Enter the campaign in the Warranty and Maintenance booklet.

End of action required

For warranty processing, see **General information on warranty processing** and **Scope 17** under ⇒ *Technical Information '4495TW Warranty processing'*.

Scope 18: Reworking threaded joints on front and rear axle

Parts Info: **Parts required for this scope:**

Part No.	Designation – Use	Qty.
PAF909664	⇒ Lock nut, M12 x 1.5 – Front spring strut to wishbone – Lower trailing arm to rear axle housing	4 ea.
PAF108544	⇒ Lens-head screw, M12 x 1.5 x 90 – Spring strut to wishbone	2 ea.
N 10696901	⇒ Hexagon-head bolt, M12 x 1.5 x 120 x 90 – Lower trailing arm to rear axle housing	2 ea.
9A700837900	⇒ Tie-wraps A8.0 x 337 – Cover on lower trailing arm	2 ea.

Materials: **Materials required for this scope** (usually already available at the Porsche dealer):

Part No.	Designation – Use	Qty.
00004330508	⇒ Mounting paste – Wheel centring surface to wheel hub	100 g/ 3.53 oz tube (approx. 2 g/ 0.07 oz required per vehicle)
00004330516	⇒ Coolant additive	20 liter/ 5.28 gal container (approx. 2 liter/ 0.53 gal required per vehicle)

Tools: **Additional tools required for this scope:**

- T40262 - Locking cap
- VAS 6410 - Contact surface cleaning set
- VAS 6558/9-6 - High-voltage test adapter HVA 280
- VAS 6558A - High-voltage test adapter
- VAS 6883 - Insulated tool set
- P90012 - Guide pins
- VAS 6832 - Master Gear unit elevating platform
- VAS 6832/9 - Assembly fixture
- VAS 5581 - Diagnostic box
- VAS 5581A/12 - Diagnostic cable
- VAS 6649 - Warning sign (warning of dangerous electrical voltage)
- VAS 6786 - Warning sign (warning of dangers associated with batteries)
- VAS 6881 - Warning sign (No unauthorized access)
- VAS 6882 - Warning sign (No fire, naked flames or smoking)
- VAS 6884 - High-voltage cordon
- VAS 6886 - Temperature gauge
- 3093 - Hose clamp
- 9696 - Filling device
- VAS 6096/2 - Vacuum pump
- VAS 6675A - Funnel
- VAS 6968 - Coolant filling device
- VAS 531 011 - Cooling system service equipment
- VAS 6558A - High-voltage test adapter
- VAS 6558A/27 - Set of Kelvin clamps and test probes
- VAS 681 003A - High-voltage battery charger
- 9900 - PIWIS Tester 3
- Battery charger with a current rating of at least 90 A, e.g. VAS 5908 battery charger 90A

- Work Procedure: 1 Read and observe general warning notes re. working on the high-voltage vehicle electrical system. ⇒ *Workshop Manual '2X00IN General warning notes for working on the high-voltage system'*
- 2 Move the vehicle onto a lifting platform and raise it. ⇒ *Workshop Manual '4X00IN Lifting the vehicle'*
- 3 Remove left and right front wheel. ⇒ *Workshop Manual '440519 Removing and installing wheel'*
- 4 Replace the following threaded connections on the **front axle at the left and right:**
- **Threaded joint securing spring strut to lower trailing arm on the front axle**

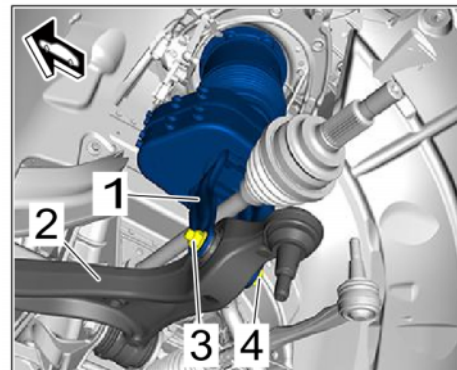
Also only for vehicles that have already been delivered to customers: After removing the relevant bolts, perform a **visual inspection** for **signs of damage caused by driving** in the area around the relevant screw points.

The **relevant components may also have to be replaced**, depending on the result of the check.

4.1 Empty the air spring in front left and right with the PIWIS Tester. ⇒ *Workshop Manual '430117 Bleeding and filling the levelling system'*

4.2 Support the wheel bearing housing using a suitable engine and gearbox jack. On vehicles with PCCB brake discs, make sure not to damage the brake disc.

4.3 Loosen and unscrew fastening nut ⇒ *Air-spring strut fork -3-* on spring strut fork ⇒ *Air-spring strut fork -1-*. Counter fastening screw ⇒ *Air-spring strut fork -4-* while doing this. Then remove the fastening screw.



Air-spring strut fork

4.4 Insert a new fastening screw into spring strut fork ⇒ *Air-spring strut fork -1-* and lower trailing arm ⇒ *Air-spring strut fork -2-*.

4.5 Screw on new fastening nut and tighten. Counter the fastening screw while doing this.
Tightening torque 90 Nm (67 ftlb.)
Torque angle +120°

4.6 Lower the engine and gearbox jack and remove it.

4.7 Repeat the procedure on the **other side of the vehicle**.

4.8 Fill air spring system using the PIWIS Tester. ⇒ *Workshop Manual '430117 Bleeding and filling the levelling system'*

5 Isolate and document the high-voltage system. ⇒ *Workshop Manual '2X00IN Isolating high-voltage system from power supply/Starting high-voltage system'*

- 6 Remove high-voltage battery. ⇒ *Workshop Manual '270819 Removing and installing high-voltage battery'*
- 7 Replace the following threaded connections on the **rear axle at the left and right**:

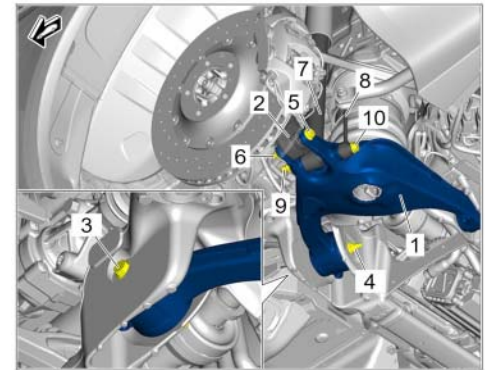
- **Front threaded joint securing lower trailing arms to rear axle housing**

Also only for vehicles that have already been delivered to customers: After removing the relevant bolts, perform a **visual inspection** for **signs of damage caused by driving** in the area around the relevant screw points.

The **relevant components may also have to be replaced**, depending on the result of the check.

- 7.1 **Loosen and remove front** fastening nut ⇒ *Lower trailing arm on the rear axle -4-* and screw ⇒ *Lower trailing arm on the rear axle -3-* on lower trailing arm ⇒ *Lower trailing arm on the rear axle -1-* on the rear axle housing. Then insert a new fastening screw and secure with a new fastening nut.

For instructions, see: ⇒ *Workshop Manual '421119 Removing and installing trailing arm'*
Please note: All other threaded joints shown ⇒ *Lower trailing arm on the rear axle -5-10-* are **not affected** and must not be loosened.



Lower trailing arm on the rear axle

- 7.2 Repeat the procedure on the **other side of the vehicle**.
- 8 Install high-voltage battery. ⇒ *Workshop Manual '270819 Removing and installing high-voltage battery'*
- 9 Start the high-voltage system and complete the relevant documentation. ⇒ *Workshop Manual '2X00IN Isolating high-voltage system from power supply/Starting high-voltage system'*
- 10 Enter the campaign in the Warranty and Maintenance booklet.

End of action required

For warranty processing, see **General information on warranty processing** and **Scope 18** under ⇒ *Technical Information '2X00IN Warranty processing'*.

Warranty processing

Information:



Information

The specified working times were determined specifically for carrying out this campaign and include all required preliminary and subsequent work.

The working times may differ from the working times published in the Labor Operation List in PCSS.

General information on warranty processing

The scopes listed below for this measure include **all the parts and work required to replace** the affected threaded joints.

If the inspection for consequential damage reveals the need to replace individual components, all work and required additional parts are **not** included and must be recorded separately at a later date.

For this campaign, please always invoice the assigned scope using a regular campaign claim in WWS.

If individual components must also be replaced due to **consequential damage**, any **labor costs incurred and additional costs for necessary parts over and above the relevant scope** must then be billed using a **reimbursement claim** for the original campaign claim for this campaign.

Scope: **Scope 1 – Scope 9: Not relevant** for this vehicle type.

Scope 10: **Reworking threaded joints on the front axle**

Working time:		
Reworking threaded joints on the front axle		Labor time: 134 TU
Includes:	Removing and installing both front wheels	
	Bleeding and filling the levelling system	
	Visually inspecting screwed components for damage	
Parts required:		
PAF909664	Lock nut, M12 x 1.5	4 ea.
PAF108544	Oval-head screw M12 x 1.5 x 90	2 ea.
N 10793603	Hexagon-head bolt M12 x 1.5 x 60	2 ea.
Required materials (usually already available at the Porsche dealer):		
00004330508	Mounting paste	0.02 ea.
⇒ Damage Code AMA3 099 000 2		

Scope 11: **Reworking threaded joints on the rear axle****Working time:**Reworking threaded joints on the rear axle Labor time: **941 TU**

Includes: Removing and installing the front left wheel
 Draining and filling coolant
 Removing and installing high-voltage battery
 Visually inspecting screwed components for damage
 Measuring high-voltage battery (voltage-free)
 Bleeding the cooling system

Parts required:

PAF909664	Lock nut, M12 x 1.5	4 ea.
N 10696901	Hex flange bolt, M12 x 1,5 x 120 x 90	2 ea.
N 10695901	Hexagon-head bolt M12 x 1.5 x 105	2 ea.
9A700837900	Tie-wrap A8.0 x 337	2 ea.

Required materials (usually already available at the Porsche dealer):

00004330508	Mounting paste	0.03 ea.
00004330516	Coolant additive	0.1 ea.

⇒ **Damage Code AMA3 099 000 2**Scope 12: **Reworking threaded joints on the rear axle****Working time:**Reworking threaded joints on the rear axle Labor time: **387 TU**

Includes: Removing and installing both rear wheels
 Visually inspecting screwed components for damage
 Adjusting vehicle at front + rear
 Performing front + rear suspension alignment

Parts required:

PAF909664	Lock nut, M12 x 1.5	10 ea.
N 10628601	Hexagon-head bolt M12 x 1.5 x 75	8 ea.
N 91244301	Hex flange bolt, M12 x 1.5 x 90	6 ea.
WHT007646	Eccentric screw M14 x 1.5 x 105	2 ea.
WHT001796A	Eccentric washer 38 x 5	2 ea.

WHT001938	Hexagon nut M14 x 1.5	2 ea.
PAF009123	Eccentric screw M12 x 1.5 x 95	2 ea.
PAF007648	Eccentric washer	2 ea.
Required materials (usually already available at the Porsche dealer):		
00004330508	Mounting paste	0.02 ea.
⇒ Damage Code AMA3 099 000 2		

Scope 13: **Reworking threaded joints on front and rear axle**

Working time:		
Reworking threaded joints on front and rear axle		Labor time: 447 TU
Includes:	<ul style="list-style-type: none"> Removing and installing both front and rear wheels Bleeding and filling the levelling system Visually inspecting screwed components for damage Adjusting vehicle at front + rear Performing front + rear suspension alignment 	
Parts required:		
PAF909664	Lock nut, M12 x 1.5	14 ea.
N 10628601	Hexagon-head bolt M12 x 1.5 x 75	8 ea.
PAF108544	Oval-head screw M12 x 1.5 x 90	2 ea.
N 10793603	Hexagon-head bolt M12 x 1.5 x 60	2 ea.
N 91244301	Hex flange bolt, M12 x 1.5 x 90	6 ea.
WHT007646	Eccentric screw M14 x 1.5 x 105	2 ea.
WHT001796A	Eccentric washer 38 x 5	2 ea.
WHT001938	Hexagon nut M14 x 1.5	2 ea.
PAF009123	Eccentric screw M12 x 1.5 x 95	2 ea.
PAF007648	Eccentric washer	2 ea.
Required materials (usually already available at the Porsche dealer):		
00004330508	Mounting paste	0.04 ea.
⇒ Damage Code AMA3 099 000 2		

Scope 14: **Reworking threaded joints on front and rear axle at the right****Working time:**

Reworking threaded joints on front and rear axle at the right

Labor time: **77 TU**Includes: Removing and installing one wheel at the front and rear
Visually inspecting screwed components for damage**Parts required:**

PAF909664	Lock nut, M12 x 1.5	2 ea.
N 10793603	Hexagon-head bolt M12 x 1.5 x 60	1 ea.
N 10695901	Hexagon-head bolt M12 x 1.5 x 105	1 ea.

Required materials (usually already available at the Porsche dealer):

00004330508	Mounting paste	0.02 ea.
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⇒ **Damage Code AMA3 099 000 2**Scope 15: **Reworking threaded joints on the rear axle****Working time:**

Reworking threaded joints on the rear axle

Labor time: **71 TU**Includes: Removing and installing one rear wheel
Removing and installing air guide for brake disc
Visually inspecting screwed components for damage**Parts required:**

PAF909664	Lock nut, M12 x 1.5	1 ea.
PAF107169	Hexagon-head bolt M12 x 1.5 x 170 x 90	1 ea.

Required materials (usually already available at the Porsche dealer):

00004330508	Mounting paste	0.01 ea.
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⇒ **Damage Code AMA3 099 000 2**

Scope 16: **Reworking threaded joints on the front axle**

Working time:

Reworking threaded joints on the front axle Labor time: **126 TU**
 Includes: Removing and installing both front wheels
 Bleeding and filling the levelling system
 Visually inspecting screwed components for damage

Parts required:

PAF909664	Lock nut, M12 x 1.5	3 ea.
PAF108544	Oval-head screw M12 x 1.5 x 90	2 ea.
N 10628301	Hexagon-head bolt M12 x 1.5 x 90	1 ea.

Required materials (usually already available at the Porsche dealer):

00004330508	Mounting paste	0.02 ea.
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⇒ **Damage Code AMA3 099 000 2**

Scope 17: **Reworking threaded joints on the front axle**

Working time:

Reworking threaded joints on the front axle Labor time: **1868 TU**
 Includes: Draining and filling coolant
 Draining and filling refrigerant
 Removing and installing front axle
 Visually inspecting screwed components for damage
 Adjusting vehicle at front + rear
 Performing front + rear suspension alignment

Parts required:

PAF909664	Lock nut, M12 x 1.5	5 ea.
N 10640301	Hexagon-head bolt M12 x 1.5 x 100 x 90	1 ea.
N 91244301	Hex flange bolt, M12 x 1.5 x 90	6 ea.
WHT007646	Eccentric screw M14 x 1.5 x 105	2 ea.
WHT001796A	Eccentric washer 38 x 5	2 ea.
WHT001938	Hexagon nut M14 x 1.5	2 ea.
PAF009123	Eccentric screw M12 x 1.5 x 95	2 ea.
PAF007648	Eccentric washer	2 ea.

PAF108544	Oval-head screw M12 x 1.5 x 90	2 ea.
PAF911085	Collared cheese head bolt, M10 x 60	2 ea.
PAF102861	Hexagon collar nut, M10	2 ea.
WHT004955A	Internal hexagon round cheese head bolt	1 ea.
95557374901	Round seal 11 x 2.5	2 ea.
9A757374903	O-ring, 16.25 x 2.5	1 ea.
9J1805230	Seal	2 ea.
9A700744300	External hexagon round-head bolt M10 x 40	8 ea.
N 91033501	Hexagon-head bolt M6 x 22	2 ea.
9A700837900	Tie-wrap A8.0 x 337	2 ea.
PAF912040	Hexagon-head bolt, M8 x 50	4 ea.
N 10261307	Hexagon nut, M10	2 ea.
N 10737001	Hexagon nut, M6	4 ea.
WHT004571	Collared cheese head bolt M14 x 1.5 x 115	4 ea.
or		
WHT004572	Collared cheese head bolt M14 x 1.5 x 135	4 ea.
Required materials (usually already available at the Porsche dealer):		
00004330508	Mounting paste	0.01 ea.
00004330516	Coolant additive	0.1 ea.
00004321086	Brake fluid	0.05 ea.

⇒ **Damage Code AMA3 099 000 2**

Scope 18: **Reworking threaded joints on front and rear axle**

Working time:

Reworking threaded joints on front and rear axle

Labor time: **990 TU**

Includes:

- Removing and installing both front wheels
- Draining and filling coolant
- Bleeding and filling the levelling system
- Removing and installing high-voltage battery
- Visually inspecting screwed components for damage
- Measuring the high-voltage battery (voltage-free)
- Bleeding the cooling system

Parts required:

PAF909664	Lock nut, M12 x 1.5	4 ea.
PAF108544	Oval-head screw M12 x 1.5 x 90	2 ea.
N 10696901	Hexagon-head bolt M12 x 1.5 x 120 x 90	2 ea.
9A700837900	Tie-wrap A8.0 x 337	2 ea.

Required materials (usually already available at the Porsche dealer):

00004330508	Mounting paste	0.02 ea.
00004330516	Coolant additive	0.1 ea.

⇒ **Damage Code AMA3 099 000 2**

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