

**WRL4 - Replacing Power Steering Gear (Workshop Campaign)**

Model Line: **Panamera (YAA)**

Model Year: **2024**

Concerns: **Power steering gear**

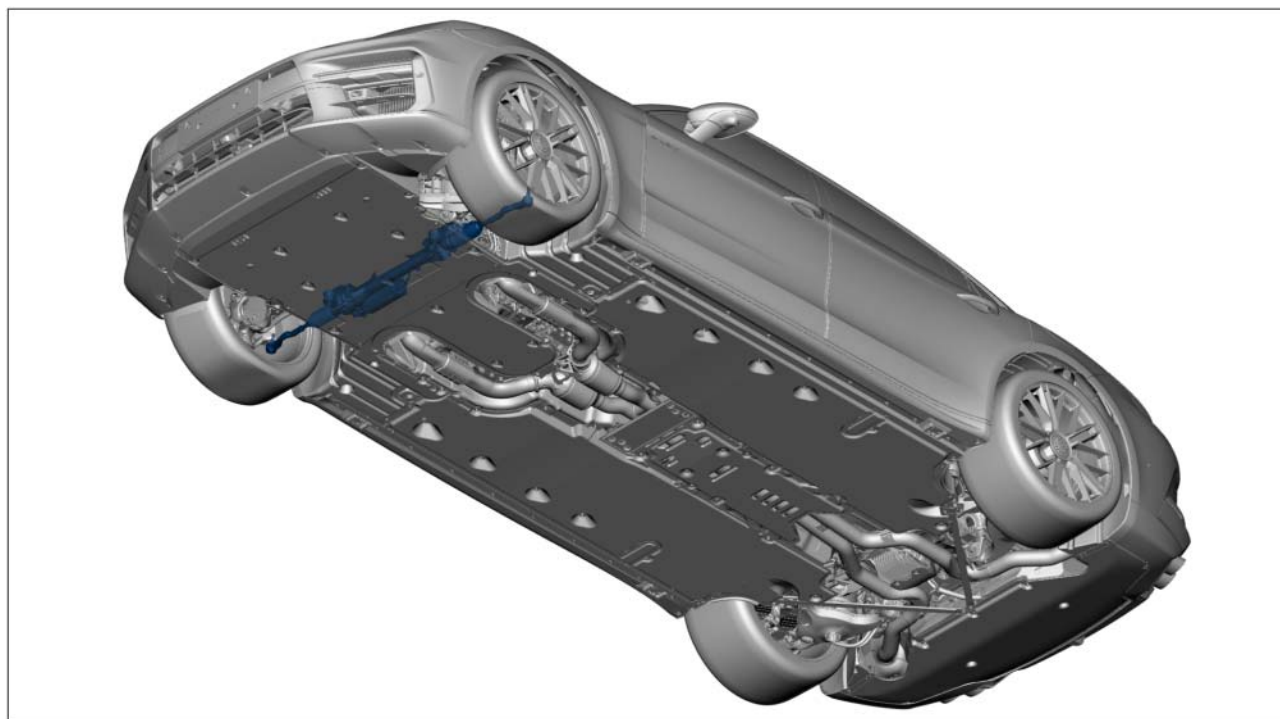
Cause: **There is a possibility that a power steering gear installed on the affected vehicles does not meet the required specifications.**

If this is the case, noises may develop over the service life of the vehicle.

Action: Replace power steering gear.

Affected Vehicles: Only vehicles assigned to the campaign (see also PCSS Vehicle Information).

Installation Position:



*Installation position for power steering gear*

## Required parts and materials

The **part numbers** of the **required parts and materials** for the respective vehicle can be seen in the **assigned scope**. For an overview of the campaign scopes, see: ⇒ *Technical Information 'Warranty processing'*.

For materials (lubricants) required for carrying out the action, see the corresponding Workshop Manual in PCSS. These lubricants are usually available in the Porsche Center.

## Required tools

Tools:

- Threaded bolts for installing wheel
- Assembly wedge
- Plastic-coated assembly lever
- Torque wrench, 2–10 Nm (1.5–7.5 ftlb.), e.g. **V.A.G 1783 - torque wrench, 2–10 Nm (1.5–7.5 ftlb.)**
- Torque wrench, 6–50 Nm (4.5–37 ftlb.), e.g. **V.A.G 1331A - torque wrench, 6–50 Nm (4.5–37 ftlb.)**
- Torque wrench 40–200 Nm (30–148 ftlb.), e.g. **V.A.G 1332A - Torque wrench 40–200 Nm (30–148 ftlb.)**
- Battery charger with a current rating of **at least 90 A**, e.g. **VAS 5908 - battery charger 90 A**
- **P90999 - PIWIS Tester 4**
- **VAS 6931A - Transmission and gearbox jack**
- **P90009 - Puller**
- **VAS 6826 - Steering wheel balance**
- **9229/1 - Puller hook**
- **VAS 6918 - Quick-clamping unit**
- **T10188 - Insertion tool**

Tools additionally required for vehicles with Night View Assist (M no. 9R1):

- **VAS 6350A - Calibration unit**
- **VAS 6430/1A - Adjustment device with reflector**
- **VAS 6430/3 - Mirrors for adjustment device**
- **VAS 6430/6 - Night View Assist calibration unit**

Additionally required tools for vehicles with Real Top View (M-no. KA6) or multi-function camera (M-no. QK1):

- **VAS 6350A - Calibration unit**
- **VAS 6430/1A - Adjustment device with reflector**
- **VAS 6430/4 - Lane Keep Assist calibration board**

Tools additionally required for vehicles with automatic distance control (M-no. 3V2) or (M-no. 8T8):

- **VAS 6430/1A - Adjustment device with reflector**
- **VAS 6430/3 - Mirrors for adjustment device**

**Replacing power steering gear**

- Work Procedure: 1 Remove power steering gear and install **new** power steering gear. ⇒ *Workshop Manual '489019 Removing and installing power steering gear'*
- 2 Code **new** power steering gear using **P90999 - PIWIS Tester 4**. ⇒ *Workshop Manual '489055 Replacing power steering gear'*
- 3 Teach **new** power steering gear. ⇒ *Workshop Manual '489025 Teach power steering gear'*
- 4 Enter the campaign in the Warranty and Maintenance logbook.

**Warranty processing**



**Information**

The specified labor times were determined specifically for carrying out this campaign and include all necessary preliminary and subsequent rework. The labor time may differ from the labor time published in the Labor Operation List in PCSS.

Scope 1: **Replacing power steering gear**

Valid for vehicles with the following equipment:

- **with** automatic distance control (**M-no. 3V2**) or (**M-no. 8T8**)
- **with** Night View Assist (**M-no. 9R1**)
- **with** Real Top View (**M-no. KA6**) or multi-function camera (**M-no. QK1**)

**Labor time:**

Replacing power steering gear

Labor time: **578 TU**

- Includes:
- Removing and installing wheel
  - Removing and installing front cover
  - Removing and installing front anti-roll bar
  - Remove and install anti-roll bar mount
  - Removing and installing power steering gear
  - Charge battery
  - Programming power-steering gear
  - Teach power steering gear
  - Measure front and rear of vehicle
  - Adjust vehicle at front and rear
  - Programming infrared camera
  - Calibrate front camera
  - Adjusting distance measuring sensor control unit

**Required parts:**

Part No.	Designation – Location	Quantity
V04015010L	Power steering gear	1 piece
WHT004955A	Internal hexagon round cheese head bolt, M8 x 30 – Steering column universal joint for at the power steering gear	1 piece
9A700499500	Hexagon nut, M12 x 1.5 – Tie-rod ball to wheel bearing housing	2 pieces
N 10784702	Hexagon flange bolt M12 x 1.5 x 85 – Power steering gear on front axle carrier	2 pieces
PAF108648	Hexagonal fit bolt with flange M8 x 80 - Power steering gear on anti-roll bar mounting	1 piece
N 0150818	Hexagon collar nut, M12 x 1.5 – Connecting link to anti-roll bar	2 pieces
N 10793603	Hexagon-head bolt M12 x 1.5 x 60 – Connecting link to anti-roll bar	2 pieces
N 91006202	Hexagonal bolt (combination) M10 x 32 – Anti-roll bar clamps to anti-roll bar mounting	4 pieces
N 91244301	Hexagon-head bolt with hex socket head (Duo) – Mounting anti-roll bar to body	8 pieces
N 91259801	Round head screw, M8 x 20 Mounting anti-roll bar to front axle carrier	2 pieces
N 10609207	Hexagon collar nut, M8 Mounting anti-roll bar to front axle carrier	2 pieces
N 10629602	Hexagon-head bolt, M10 x 35 Mounting anti-roll bar to front axle carrier	4 pieces
N 10714101	Hexagon flange bolt, M10 x 25 – Strut on body	2 pieces
N 91260401	Hexagon-head bolt with hex socket head (Duo) - Front axle beam to body	2 pieces

⇒ Damage number WRL4 066 000 2

Scope 2:

**Replacing power steering gear**

Valid for vehicles with the following equipment:

- **with** automatic distance control (M-no. 3V2) or (M-no. 8T8)
- **without** Night View Assist (M-No. 9R0)
- **with** Real Top View (M-no. KA6) or multi-function camera (M-no. QK1)

**Labor time:**

Replacing power steering gear

Labor time: **566 TU**

- Includes:
- Removing and installing wheel
  - Removing and installing front cover
  - Removing and installing front anti-roll bar
  - Remove and install anti-roll bar mount
  - Removing and installing power steering gear
  - Charge battery
  - Programming power-steering gear
  - Teach power steering gear
  - Measure front and rear of vehicle
  - Adjust vehicle at front and rear
  - Calibrate front camera
  - Adjusting distance measuring sensor control unit

**Required parts:**

<b>Part No.</b>	<b>Designation – Location</b>	<b>Quantity</b>
V04015010L	Power steering gear	1 piece
WHT004955A	Internal hexagon round cheese head bolt, M8 x 30 – Steering column universal joint for at the power steering gear	1 piece
9A700499500	Hexagon nut, M12 x 1.5 – Tie-rod ball to wheel bearing housing	2 pieces
N 10784702	Hexagon flange bolt M12 x 1.5 x 85 – Power steering gear on front axle carrier	2 pieces
PAF108648	Hexagonal fit bolt with flange M8 x 80 - Power steering gear on anti-roll bar mounting	1 piece
N 0150818	Hexagon collar nut, M12 x 1.5 – Connecting link to anti-roll bar	2 pieces
N 10793603	Hexagon-head bolt M12 x 1.5 x 60 – Connecting link to anti-roll bar	2 pieces
N 91006202	Hexagonal bolt (combination) M10 x 32 - Anti-roll bar clamps to anti-roll bar mounting	4 pieces
N 91244301	Hexagon-head bolt with hex socket head (Duo) – Mounting anti-roll bar to body	8 pieces
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N 10629602	Hexagon-head bolt, M10 x 35 Mounting anti-roll bar to front axle carrier	4 pieces
N 10714101	Hexagon flange bolt, M10 x 25 – Strut on body	2 pieces
N 91260401	Hexagon-head bolt with hex socket head (Duo) - Front axle beam to body	2 pieces

⇒ Damage number WRL4 066 000 2

Scope 3: **Replacing power steering gear**

Valid for vehicles with the following equipment:

- **without** automatic distance control (**M-no. 3V2**) or (**M-no. 8T8**)
- **without** Night View Assist (**M-no. 9R0**)
- **with** Real Top View (**M-no. KA6**) or multi-function camera (**M-no. QK1**)

**Labor time:**

Replacing power steering gear

Labor time: **538 TU**

Includes:

- Removing and installing wheel
- Removing and installing front cover
- Removing and installing front anti-roll bar
- Remove and install anti-roll bar mount
- Removing and installing power steering gear
- Charge battery
- Programming power-steering gear
- Teach power steering gear
- Measure front and rear of vehicle
- Adjust vehicle at front and rear
- Calibrate front camera

**Required parts:**

Part No.	Designation – Location	Quantity
V04015010L	Power steering gear	1 piece
WHT004955A	Internal hexagon round cheese head bolt, M8 x 30 – Steering column universal joint for at the power steering gear	1 piece
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N 10714101	Hexagon flange bolt, M10 x 25 – Strut on body	2 pieces
N 91260401	Hexagon-head bolt with hex socket head (Duo) - Front axle beam to body	2 pieces
⇒ Damage number WRL4 066 000 2		

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