

**Abrasion Marks on Rear Drive Shaft: Replacing Air Bellows, Checking Rear Drive Shaft and Replacing if Necessary (124/23)**

Model Line: **Cayenne (9YA / 9YB)**

Model Year: **2024**

Equipment: Adaptive air suspension with levelling system and height adjustment including Porsche Active Suspension Management (PASM) (M-No. **1BK / 2MA / 2MB**)

Concerns: **Air bellows and rear drive shaft**

Information: **During the endurance test, intermittent paint abrasion (abrasion marks) was detected on the rear drive shafts.**

Cause: Due to an incorrect wall thickness of the air bellows, contact between the drive shaft and air bellows can occur in certain driving conditions, e.g. at full load in combination with high spring compression rates.

Action: In the event of a complaint, the rear air bellows must be replaced with air bellows with a new component status, the rear drive shaft must be checked and replaced depending on the test result.

**Required parts**

Parts Info:	<b>Part No.</b>	<b>Designation – Location of use</b>	<b>Number</b>
	<b>Required parts when replacing the air spring</b>		
	9Y0616025D	⇒ Air springs – Rear axle, left	1 piece
	<b>or</b>		
	9Y0616026D	⇒ Air springs – Rear axle, right	1 piece
	N 91236301	⇒ Hexagon-head bolt (combination) M14 x 1.5 x 100 – Axle guide to wheel bearing housing	1 piece
	PAF010332	⇒ Hexagon flange nut, self-locking M14x 1.5 – Axle guide to wheel bearing housing	1 piece

N 91236401	⇒ Hexagon-head bolt (combination) M12 x 1.5 x 100 – Spring damper on trailing arm	1 piece
N 10106403	⇒ Hexagon collar nut, self-locking M12 x 1.5 – Spring damper on trailing arm	1 piece

**Additional parts required if the chassis must be adjusted**

PAF91237901	⇒ Hexagon flange bolt (instrument cluster), M14 x 1.5 x 100 – Front axle carrier on body rear	4 pieces
PAF91184301	⇒ Hexagon-head bolt, M12 x 1.5 x 90 – Front axle carrier on body	4 pieces
PAF005372	⇒ Cheese head bolt with multiple-tooth head, M12 x 1.5 x 51 – Front-axle support to front-axle carrier	2 pieces
PAF911511	⇒ Hexagon-head bolt (combination) M12 x 1.5 x 42 – Front-axle support to front-axle carrier	4 pieces
WHT002305	⇒ Square nut, M12 x 1.5 – Front-axle support to front-axle carrier	4 pieces

**Additional parts required for vehicles with Porsche Dynamic Chassis Control (PDCC) (M-No. 1P7)**

PAF00072900	⇒ Hexagon socket head bolt, M8 x 20 – Front section of front underbody cover	3 pieces
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or

**Additional parts required for vehicles with engine protective plate (M-No. 1SF):**

N 10082912	⇒ Hexagon screw (instrument cluster), self-locking M6 x 16 – Engine guard	3 pieces
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**Additional parts required when replacing a drive shaft**

PAB407643	⇒ Collared cheese head bolt with hexagon socket head, M16 x 1.5 x 72 – Drive shaft to wheel hub	1 piece
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95533212500	⇒ Circlip, 35 x 2.6 – Circlip on drive shaft	1 piece
95533205700	⇒ Screw plug, M16 x 1.5 – Oil filler screw on rear axle differential	1 piece
N 91237101	⇒ Hexagon flange bolt (instrument cluster), M12 x 1.5 x 85 – Longitudinal arm to wheel bearing housing	1 piece
N 10106403	⇒ Hexagon collar nut, self-locking M12 x 1.5 – Longitudinal arm to wheel bearing housing	1 piece
PAF006496	⇒ Hexagon flange bolt (instrument cluster), M14 x 1.5 x 100 – Wheel bearing housing mounting	2 pieces
958007096	⇒ Hexagon-head bolt, M12 x 1.5 x 85 – Longitudinal arm to wheel bearing housing	1 piece
N 10456004	⇒ Internal hexagon round countersunk screw, self-locking M12 x 6 – Brake disc to wheel hub	2 pieces
95533259600	⇒ Shaft sealing ring 82 x 50 x 9 – Sealing ring on left halfshaft flange	1 piece

**or**

95533259610	⇒ Shaft sealing ring 72 x 50 x 9 – Sealing ring for right halfshaft flange	1 piece
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**Vehicles with equipment (M-No. 1KV and 2EZ)**

9A700758500	⇒ Cheese head bolt, fixed calliper M12 x 1.5 x 85 – Brake calliper to wheel bearing housing	2 pieces
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**Vehicles with equipment (M-No. 1KA, 1KE, 1KJ, 1KU, 1KF, 1KS, 1KT, 1KZ, 2EI, 2EK, 2EL, 2EG, 2EN)**

PAF911837	⇒ Cheese head bolt with multiple-tooth head, M12 x 1.5 x 115 – Brake calliper to wheel bearing housing	2 pieces
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**Vehicles with equipment (M-No. 1KK, 1KL, 2EU)**

N 91252201	⇒ Cheese head bolt with multiple-tooth head, M12 x 1.5 x 130 – Brake calliper to wheel bearing housing	2 pieces
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**Vehicles with regulated transverse lock (M-No. GH3)**

PAB501203J	⇒ Left drive shaft – Rear axle	1 piece
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or

PAB501203K	⇒ Right drive shaft – Rear axle	1 piece
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**Vehicles without transverse lock, 8-cylinder engines (M-No. 1VJ)**

PAB501203G	⇒ Drive shaft – Rear axle (left or right)	1 piece
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**Vehicles without rear transverse lock, 6-cylinder-engines (M-No. 1VH or OK3)**

PAB501203F	⇒ Drive shaft – Rear axle (left or right)	1 piece
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Material: **Required materials** (usually already available in the Porsche Center)

Part No.	Designation – Location of use	Quantity
00004330508	⇒ Optimoly TA (aluminium paste) – Wheel centring surfaces on the wheel hub	0.02 pieces

**Additional material required when replacing a drive shaft****Vehicles without rear transverse lock (M-No. GH1)**

00004330504	⇒ Transmission oil , 1 liter/ 33.8 fl oz 75W 90 – Transmission oil	As required
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or

**Vehicles with regulated transverse lock (M-No. GH3)**

00004321048	⇒ Transmission oil, 1 liter/ 33.8 fl SAF EH MOD.LV75 W 90 – Transmission oil	As required
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## Required tools

- Tools:
- 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, 20-100 Nm (15-74 ftlb.), e.g. **VAS 5820 - Torque wrench, 20-100 Nm (15-74 ftlb.)**
  - Torque wrench, 40-200 Nm (30-148 ftlb.), e.g. **V.A.G 1332A - Torque wrench, 40-200 Nm (30-148 ftlb.)**
  - Transmission and gearbox jack, e.g. **VAS 6931 - Transmission and gearbox jack**
  - **P90999 - PIWIS Tester 4**
  - Battery charger with a current rating of **at least 90 A**, e.g. **VAS 5908 - battery charger 90 A**

### Additional required tools for measuring and adjusting the assist systems

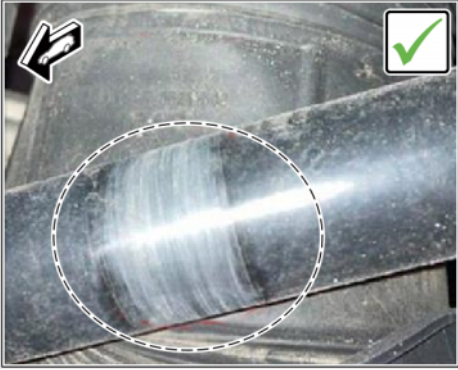
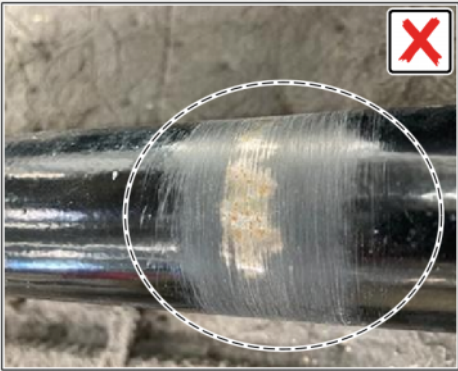
- **9229/1 - Puller hook**
- **T40183 - Insertion tool**
- **VAS 6826 - Steering wheel balance**
- **VAS 6918 - Quick-clamping unit**
- **VAS 6430/1A - Adjustment device with reflector**
- **VAS 6430/3 - Mirror for adjustment device**
- **VAS 6350/2A - Spacing laser**
- **VAS 6350A - Calibration unit**
- **VAS 6430/4 - Lane Keep Assist calibration board**
- **VAS 6430/6 - Night View Assist calibration unit**

### Additional required tools when replacing drive shaft

- **T10181 - Pressure piece**
- **T10256 - Pressure piece**
- **T20143 - Puller hook**
- **VAS 6965 - Puller set**
- **VAS 6563 - Manual metering pumps, Porsche set**
- **9472 - Brake piston resetting fixture**

## Check drive shaft

- Work Procedure: 1 Raise the vehicle.  
⇒ *Workshop Manual '4X00IN Raising vehicle'*
- 2 Check affected rear drive shaft.

	Assessment	Action
(✓)	Joint shaft worn, <b>paint layer not sanded</b>  <i>Drive shaft OK</i>	Replace the affected air bellows with a new component status.  Continue to replace with air bellows. ⇒ <i>Technical Information '4X00IN Replace air bellows'</i>
(✗)	Visible abrasion marks on drive shaft, <b>paint abrasion down to bare metal</b>  <i>Joint shaft not OK</i>	Replace the affected air bellows with a new component level and replace the drive shaft.  Continue to replace with air bellows and drive shaft. ⇒ <i>Technical Information '4X00IN Replacing air bellows and drive shaft'</i>

### Replacing air bellows

Work procedure: 1 Replace air bellows.  
⇒ *Workshop Manual '434355 Replace air bellows'*

### Replacing air bellows and drive shaft

Work Procedure: 1 Remove the drive shaft.  
For instructions, see: ⇒ *Workshop Manual '422119 Removing and installing drive shaft'*

2 Replace air bellows.  
⇒ *Workshop Manual '434355 Replace air bellows'*

3 Install **new** drive shaft.  
For instructions, see: ⇒ *Workshop Manual '422119 Removing and installing drive shaft'*

**Working position and PCSS encryption**

Labor position:

APOS	Labor operation	I No.
43435501	Replace air bellows	
43435502	Replace air bellows	
42211901	Removing and installing drive shaft	
42211902	Removing and installing drive shaft	
44950303	Performing vehicle at front + rear	
44951553	Adjusting vehicle at front + rear	
90802550	Programming camera night vision	
96382550	Calibrating front camera	
27851550	Adjusting distance measuring sensor control unit	
40061550	Adjusting front-axle carrier	
45600550	Checking and adjusting steering-angle sensor for PSM	

<b>Location (FES5)</b>	43430	Air bellows
<b>Damage type (SA4)</b>	1027	wrong position/location

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