



Connection offline

Technical product information

Topic	Steering Rack Requires Replacement Bentayga 17-18MY
Market area	Bentley: worldwide (2WBE),China 796 VW Import Comp. Ltd (Vico), Beijing (6796)
Brand	Bentley
Transaction No.	2082806/1
Level	EH
Status	
Release date	

New customer code

Object of complaint	Complaint type	Position
running gear -> steering, power-assisted steering	functionality	
running gear -> steering system	functionality	

Vehicle data

Bentayga

Sales types

Type	MY	Brand	Designation	Engine code	Gearbox code	Final drive code
4V1*	2017	E		*	*	*
4V1*	2018	E		*	*	*

Documents

Document name
master.xml



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Technical product information

Transaction No.: **2082806/1**

Steering Rack Requires Replacement | Bentayga | 17-18MY

Customer statement / workshop findings

Following diagnosis, the steering rack has been identified as requiring replacement.

Technical background

The original steering rack part numbers have been superseded by a new steering rack assembly within the ETKA parts catalogue. If the steering rack part numbers 4N1423053F / 4N2423053F are no longer available, the supersession part can be used instead.

The latest steering rack is only compatible with the latest mono camera software and hardware specification. To ensure correct steering system operation and driver assistance functionality, vehicles must have:

- The latest steering rack installed.
- Mono camera part number 36A 907 217 D installed.
- The applicable SVM software updates completed following component installation.



NOTICE

This TPI must not be applied to vehicles not equipped with Bentley Dynamic Ride. Only applicable to:

- Bentley PR family: FFW
- PR number: 1P7 = EAWS fitted (active suspension)

Refer to the '**Measure**' section and complete all mandatory next steps to completion.

Production change

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Measure



CAUTION

The latest steering rack must only be installed in conjunction with mono camera part number: 36A 907 217 D. Failure to install the correct mono camera may result in steering system and driver assistance system functionality concerns.

1. Confirm the vehicle is equipped with Bentley Dynamic Ride.

PR family: FFW

- 1P7 = EAWS fitted (active suspension)

2. Confirm steering rack replacement is required.

3. Identify the currently installed mono camera part number.

If the vehicle is fitted with: **36A 907 217 D**

Proceed to Step 4.

If the vehicle is fitted with any earlier mono camera version:

Replace the mono camera with: **36A 907 217 D**

Refer to ElsaPro Rep.Gr 44 – "Camera for driver assist systems - To remove and fit" for removal and installation instructions only.



NOTICE

Do not perform the replacement test or commissioning procedure for the new part. Instead, carry out the SVM software update detailed below following installation to complete the repair process.

Steering Rack Replacement

4. Replace the steering rack using the latest supersession part number listed in ETKA.

Refer to ElsaPro Rep.Gr 48 – 'Steering rack and power steering control unit (J500) - To remove and fit'

5. Carry out a 4-wheel alignment.

Refer to ElsaPro Rep.Gr 44 - "Vehicle geometry - wheel alignment and ride heights"

6. Where fitted also carry out an alignment of the following systems.

- Automatic cruise control.
- Night vision.
- Lane assist.
- Top view camera.
- Reversing camera.

Preparation Before SVM Update



CAUTION

The Bentley ODIS-S Brand Version MUST be at least 2.36.4 (or higher).



CAUTION

Before conducting the onward instructions, the operative **MUST** recheck the communication method in ODIS and ensure that DoIP is selected before proceeding. Within ODIS-S, perform the following:

- On the right hand side, select the “Admin” tile (Within ‘Operating modes’)
- Select “GFF sequence” (Within ‘General information’ section)
- Under the “Selection of Communication path” drop-down menu, select “Only permit DoIP communication”



CAUTION

DO NOT, UNDER ANY CIRCUMSTANCES, ATTEMPT TO CONDUCT THE SOFTWARE UPDATE VIA THE CAN NETWORK. ONLY DoIP SHOULD BE USED WHEN PERFORMING THE SVM UPDATE.



CAUTION

You MUST ONLY use the Diagnosis Interface VAS 6154 (WiFi Diagnostic Tool) in USB OPERATION or the CABLE-CONNECTED VAS 5055 for the reprogramming (updating) of the control units.

- If neither of these units are available, the VAS 5054 (A) may be used in USB MODE.
- **DO NOT** under any circumstances use a Bluetooth connection to conduct the reprogramming (updating) of any control units.

Battery Charger



CAUTION

ONLY chargers that meet the approved specification on the Mandatory Equipment List (available on the Bentley Hub) **MUST** be used.

- The charger must be set to a mode where a **MINIMUM** of 90a is supplied to the battery during the process. Typically, this is known as ‘Power Supply Mode’ or ‘DIAG+ Mode’.
- A minimum voltage of 12.8V must be set and maintained throughout the process.
- Please refer to the manual to ensure that these requirements are met before beginning any SVM update

SVM Update

7. Conduct a full guided fault find of the vehicle and address any unknown faults **BEFORE** conducting any of the below updates.

8. Ensure that the correct battery charger is connected to the vehicle. Refer – to the “Battery Charger” section above.

9. Select the special functions tab, and navigate to ‘SVM – Code Input’

10. Enter the SVM Code: “**4V0A544C2V**”

11. On the next screen, ensure that the SVM code displayed is correct and select perform test.

12. Allow the test to run until completion

13. Re-run guided fault finding and clear DTCs. If any faults are present, refer to TPI 2075920. If any of the faults present are non-sporadic, please raise a full DISS query with a full GFF log uploaded online, stating the error encountered

14. After successful completion of the update perform the following

- a. Turn off the ignition
- b. Remove all equipment from the car (Diagnostic tester/dongle, battery charger, keys).
- c. Close all doors, windows, bonnet and boot lid
- d. Lock the vehicle to perform a CAN-BUS sleep (wait 15 minutes)

Warranty accounting instructions

Warranty type: 110 or 910

Damage service number: 96 38

Damage code: 00 38

Time to remove and install the camera for driver assist systems (Monocamera) – If Required

Labour operation code: 96 38 19 00

Time: 20 TU

Time to adjust the camera for driver assist systems (Monocamera) – If Required

Labour operation code: 96 38 15 50

Time: 120 TU

Time to remove and install the Steering Rack Assembly

Labour operation code: 48 35 19 20

Time: 330 TU

Time to complete SVM update

Labour operation code: 01 51 00 00

Time: As per ODIS log (Must not exceed 50 TU)



As this TPI is only applicable to vehicles outside of Manufactures Warranty, the above information is for reference only and is not to be submitted as a Warranty claim

Parts information

Part Number	Description
4N1 423 053 P	Steering Rack (Supersession Part)
4N2 423 053 P	Steering Rack (Supersession Part)
36A 907 217 D	Mono Camera for Driver Assistance Systems

Always refer to the latest ETKA catalogue for current supersession part information before ordering parts.