

95B.III – 2022 Macan Transfer Box Shudder/Jerk at Slower Speeds

Vehicles Affected

Models	Model Year	Model Type	VIN Range	Vehicle-Specific Equipment
Macan	2022	95B	n/a	All

Revision History

Revision	Release Date	Changes
0	July 29, 2022	Original document
1	November 30, 2022	Updated Condition, Technical Background, and Software Information

Condition

Customer uses adjectives like shuddering, jerking, jolting, lurching, lunging or similar to describe the behavior of the vehicle's drivetrain at lower speeds. Particularly, this occurs while driving in 1st or 2nd gear in the transmission's automatic mode with some slight brake application in combination with a greater steering angle input (at or close to 'full-lock'), travelling between 6-10 mph, e.g. while negotiating a parking space or lot. The condition happens in reverse too, and can be disconcerting. There are no fault memory occurrences associated with the behavior described herein.

In some cases, customers may also complain of clicking or clunking noises from the front under similar operating conditions.



Figure 1- Driveshaft detached from splines at outer joint

Technical Background

A software issue in the All-wheel drive (transfer box) control unit may allow too much torque to be applied to the front driveshafts while the vehicle is moving at slow speeds (6-10 mph) in combination with a high steering angle. This sharp torque increase causes the condition described by the customer.

Repeated occurrences of the sharp increase in torque may cause one or both of the driveshafts to detach from the splines on the wheel hub (outer joint). The separation of the driveshaft from the wheel hub may cause a clicking or clunking noise during low speed maneuvering.

Service Information

ONLY recommended for diagnostic purposes, fixing the degree of locking to a constant between the front and rear drive shafts from the transfer box serves to eliminate the concern. Disconnecting the electrical plug on the transfer box serves to fix or lock the torque ratio (diagnostic purposes ONLY).

1. Please determine if the customer's complaint is consistent with the description provided in the 'Condition' section above, by first operating the vehicle under the described parameters (preferably with the customer).
=> If this issue is consistent, please operate the vehicle under the same parameters with a fixed or constant torque lock in the transfer box, which is possible by disconnecting the electrical plug to the transfer box.
2. Visually inspect both front driveshafts for excessive play. If either of the driveshafts are detached from the splines in the wheel hub, please replace the detached front driveshaft(s) as instructed in *WM 404119 – Removing and installing the front drive shaft*.
3. Read out the current software version and Porsche part number of the transfer box (All-wheel drive) with the PIWIS Tester. If the software version and Porsche part number match the "Original" column in Table 1 below, please program the transfer box control unit (All-wheel drive):
=> Please ensure your PIWIS Tester is updated to version **41.400.060** or later.
=> Create a Before VAL to document the current software version and Porsche part number of the All-wheel drive control unit.
=> Perform Automatic Programming of the All-wheel drive control unit.
All-wheel drive --> Coding/programming --> Automatic programming
4. Read out the updated software version and Porsche part number. Create an After VAL to document any software or Porsche part number changes. The target software version and corresponding Porsche part number is given in the table below.

Model	Control Unit	Original SW Level	Target SW Level
		Original Porsche Part Number	Target Porsche Part Number
Macan, Macan T, Macan S, Macan GTS	All-wheel drive	0700	0900
		95B927755GE	95B927755GF

Table 1 - Target Software Levels and Porsche Part Numbers for All-wheel drive control unit

Warranty

As always, please document the repair completely in PQIS.

For this repair, please code the "cause" as follows:

Cause location: 3965 Transfer box
Cause symptom: 1126 Jerky gear change

Use the following troubleshooting labor operations:

03350050 Fault memory read-out
03350053 Creation of the VAL
39132550 Transfer gear control unit program (Composite work)
39650199 Unplug transfer box and test-drive
51921900 Cover front remove and reinstall

The following labor operations may be claimed **only as needed**:

40411901 Front drive shaft remove and reinstall (Main work) – left
40411902 Front drive shaft remove and reinstall (Main work) – right

Additional labor operations may be claimed **only as needed**.

Search Items

Macan, 95B, driveshaft, transfer case, transfer box, shuddering, jerking, jolting, lurching, transmission

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