
PuMA measure

Transfer box ATC13-x - Jerking/Jolting when accelerating, contaminants in transfer box oil

UR-V-2 65537163-01 - 4/20/21

Complaint:

Jerking/Jolting when cornering or accelerating from low speeds and at low to medium loads.
Complaint is also perceived as tension fluctuations.

No warning lights or Check Control Messages

Cause

Contaminants in oil (water, metal debris) or transfer box (VTG).

"Clutch Ruptures" in the transfer box.

Measure

In case of a customer complaint proceed as follows:

Inspect condition and tread depth of wheel/tyre combination.

When creating TSARA case please include images of tyre size, make and model and include rolling circumferences.

Please Note:

Significantly different tyre tread depths in the tyres, or differences in rolling circumferences (mixed tyres) between front and rear axle may also increase the jerking of the transfer box while driving. This may also cause premature wear and/or failure in the Transfer Box or Differentials.

To rule out other causes for the jerking, the entire vehicle fault memory must be read out and if necessary the relevant test modules worked through.

To pinpoint the fault cause, the transfer box can be temporarily deactivated with the test module found under Troubleshooting> Function Structure> Powertrain> Transfer Box

*** Information on the test module ***

When the all-wheel system is deactivated, the front drivetrain (front propeller shaft, front axle transmission and front output shafts) revolves without load. The clutch of the transfer box is open. this allows complaints to be excluded or pinpointed to this area.

After a terminal change, the all-wheel system is automatically reactivated.

Important:

If the complaint persists when the transfer box is deactivated, the transfer box is OK and the fault cause must be searched for elsewhere.

If the transfer box is the cause, then an oil change in the transfer box must be carried out in accordance with the repair instructions.

Then apply the following test module for calibration of the transfer box:

Service Function> Powertrain> Transfer Box> Transfer Box (VTG): Calibration

This test module re-learns the clutch calibration value.

Then delete the fault memory.

The transfer box clutch then has a running in period of approximately 200km and only after this period will the complaints be rectified.

Validity information

Model series:	[RR22, RR31, RR21]
Engine range:	[ALL]
Body style:	[ALL]
Fault codes:	[]
Production period:	-

Repair overviews

27/10/002/27302/11532, Transfer box, Cannot be encoded with VFC, , Cannot be encoded with VFC, , Checking, repairing, replacing