

Leak on TRANSMISSION 725.0 (9G TRONIC) BR166/292/167 with 4MATIC

Topic number	LI27.00-P-067577
Version	3
Function group	27.00 General
Date	10-05-2020
Validity	Leak on TRANSMISSION 725.0 in BR166/292/167 with 4MATIC
Reason for change	For model series 167, gold/yellow oil is now being used in the transfer case instead of red oil. It is not possible to differentiate between the transmission oil and transfer case oil based on color in model series 167.
Reason for block	

Complaint:

Leakage at transmission 725.0 (9G TRONIC) in area of transfer case/adaptor housing.

If leakages are detected on the TRANSMISSION 725.0 (9G TRONIC), work through the tests with any remedial measures.

Attachments	
File	Description
Öl im Bereich RWDR am Getriebe 725.0.jpg	Oil in radial shaft sealing ring area on transmission 725.0
Öl im Rundflansch am Getriebe 725.0.jpg	Oil in round flange on transmission 725.0

Cause:

- Tightening torque on collar nut (output shaft)
- Leakage at transfer case
- Leakage at radial shaft sealing ring (RSS)

Remedy:

For model series 166/292, the leakage can be localized by checking the oil color:

For better differentiation of the oil, drops should be placed onto a white sheet of paper:

- Gold/yellow oil leaks from transmission 725.0 (9G TRONIC). If gold/yellow oil detected: Check if oil is visible on round flange/collar nut:
- Red oil leaks from the transfer case

For model series 167, the leakage is localized by the position of the leakage.

XENTRY TIPS

*Notes: From model series 167, gold/yellow oil is now being used in the transfer case instead of red oil.

If gold/yellow oil is visible on round flange:

1. Assess caulking of collar nut and determine release torque of collar nut
2. Replace collar nut (B) and round flange (A), clean everything beforehand
3. Tighten new collar nut to 220 ± 20 Nm (initial tightening torque), then release collar nut by 30° , finally tighten collar nut again to 200 ± 20 Nm (second tightening torque)
4. Caulk new collar nut according to specification
5. Specify damage code 27332 38

If gold/yellow oil is visible in area of radial shaft sealing ring (RSS):

1. Remove RSS
2. Check position of retaining ring opening
3. If necessary, use retaining ring pliers (see picture "Retaining ring pliers.jpg") to turn it to the "7 o'clock position" (see example picture "Verdrehen auf 7Uhr_Turn to 7oclock.jpg")

*Note: The ventilation hole on the housing must not be covered by the retaining ring.

4. Replace the RSS; coat the new RSS with transmission oil and press in using the special tool; observe AR27.40-p-0206EWM
5. Clean everything beforehand and replace collar nut (B) and round flange (A)
6. Tighten new collar nut to 220 ± 20 Nm (initial tightening torque), then release collar nut by 30° , finally tighten collar nut again to 200 ± 20 Nm (second tightening torque)
7. Caulk new collar nut according to specification
8. Specify damage code 27311 04.

In the event of red oil or gold/yellow oil from the transfer case (see fault profile "Gold/yellow oil from transfer case of model series 167.jpg"):

Repair transfer case in accordance with WIS specification and assign corresponding damage code.

Attachments	
File	Description
Verdrehen auf 7Uhr_Turn to 7oclock.jpg	If necessary, turn to "7 o'clock" position (see example picture "Turn to 7 o'clock.jpg") using retaining ring pliers (see picture "Retaining ring pliers.jpg") *Note: The ventilation hole on the housing should not be covered
Gold-Gelbes Öl aus dem Verteilergetriebe der BR167.jpg	Gold/yellow oil from the transfer case of model series 167

Symptoms
Power transmission / Automatic transmission / Leakage / Leaks

XENTRY TIPS

Parts

Attachments	
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File	Description
Bundmutter (B) und Rundflansch (A) am GETRIEBE 725.0.JPG	Collar nut (B) and round flange (A) on TRANSMISSION 725.0.
Sicherungsring Zange.jpg	Retaining ring pliers

Operation numbers/damage codes				
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Op. no.	Operation text	Time	Damage code	Note
			27332 38	Bolt/nut for output flange for automatic transmission loose
			27311 04	Radial shaft sealing ring on transmission housing at rear leaky