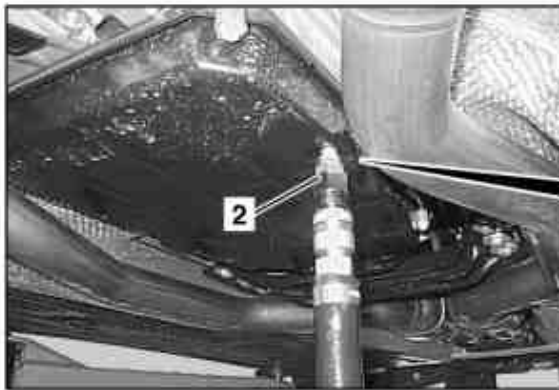


WEISTEC 722.9 Transmission Service Data

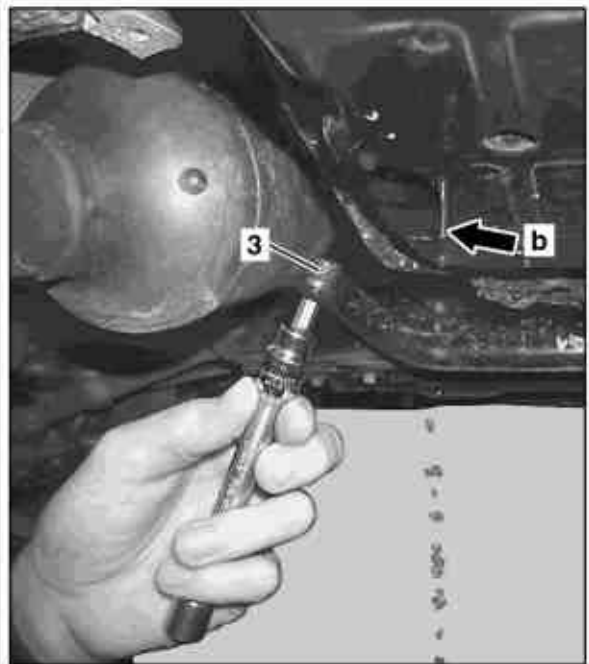
TRANSMISSION 722.950 /960 /961 /962 /963 /964 /965 /966

- 1 Overflow pipe
- 2 Adapter


















- 3 Oil drain screw

- a Constant oil flow for excessively large oil filling capacity and at start of oil adjustment
- b Correct oil filling capacity after draining off excess quantity



		i The transmission must be filled with transmission oil before starting the engine
1	Raise vehicle	i The vehicle must be situated on the lifting platform so that it is level in both the longitudinal and transverse axes.
2	Check the transmission oil pan for damage and leaktightness	
3	Remove rear engine crossmember	Model 216, 221 Model 204
4	Lower transmission/transfer case at rear	
5	Prefill transfer case with transmission oil	Remove the oil filler screw from the transfer case, pour the prefill quantity (700 ml) into the transfer case and screw in a new oil filler screw. Nm S
6	Install rear engine crossmember	Model 216, 221 Model 204

7	Remove oil drain screw (3) on transmission, mount adapter (2) and connect oil dispenser	The adapter (2) and oil dispenser can be obtained from two manufacturers:
8	Pump 6 liters of transmission oil into transmission	 In order to avoid damage to the transmission, always consult the Specifications for Operating Fluids.  On transmissions which have been repaired the quantity of transmission oil drained +0.5 liters should be poured in. 
9	Start engine	
10	Call up the transmission fluid temperature using STAR DIAGNOSIS  AD Connect STAR DIAGNOSIS	
11.1	Bring transmission oil temperature to <u>90°C/194°F</u>	Vehicles with additional transmission oil cooler  Only with previous removal/replacement of additional transmission oil cooler.  Thermostat opens at <u>90°C/194°F</u>  Engine speed 2500 rpm, selector lever in position "P".
11.2	Bring transmission oil temperature to <u>45°C/113°F</u>	Vehicles without additional transmission oil cooler
12.1	Switch off engine and allow transmission oil to cool down	Vehicles with additional transmission oil cooler  Only with previous removal/replacement of additional transmission oil cooler.
12.2	Turn off engine	Vehicles without additional transmission oil cooler
13	Call up the transmission fluid temperature using STAR DIAGNOSIS	 Transmission oil temperature <u>45°C/113°F</u> . The transmission oil temperature must not exceed the specified value as the overflow pipe (1) in the transmission oil pan is designed for the transmission oil temperature.
14	Start engine and allow to run in selector lever position "P"	
15	Pump transmission oil using oil dispenser into transmission	 After replacing the transmission and torque converter : Refill 4 liters of transmission oil.  If the torque converter has not been emptied: Refill 2 liters of transmission oil.
	Correct transmission fluid level	
16	Shift through "P-R-N-D" several times with the vehicle stationary and the engine idling	
17	Allow engine to idle in selector lever position "P"	
18	Call up the transmission fluid temperature using STAR DIAGNOSIS	 Transmission oil temperature <u>45°C/113°F</u> . The transmission oil temperature must not exceed the specified value as the overflow pipe (1) in the transmission oil pan is designed for the transmission oil temperature.
19	Remove the adapter (2)	
20	Drain off constant oil flow (arrow a) at specified transmission oil temperature, until only drops come out (refer to correct oil filling capacity (arrow b))	 Transmission oil temperature <u>45°C/113°F</u> . The engine must run at idle speed and the transmission oil temperature must not be above the specified transmission oil temperature, too much transmission oil is drained at a higher transmission oil temperature.  If the oil flow is not constant after opening the drain screw, the transmission oil level has to be corrected (as of operation step 15) and then adjust it again.
21	Replace sealing ring and screw in oil drain screw (3)	
22	Turn off engine	

Nm Oil pan, automatic transmission

Number	Designation		Transmission 722.9
	Oil drain screw to oil pan	Nm	22

Nm Transfer case complete

Number	Designation		Transmission 722.96
	Oil filler screw to intermediate housing	Nm	20

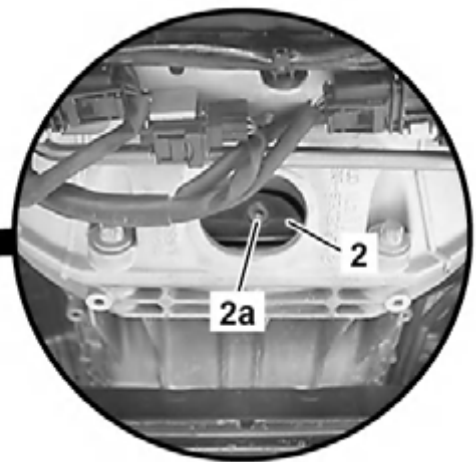
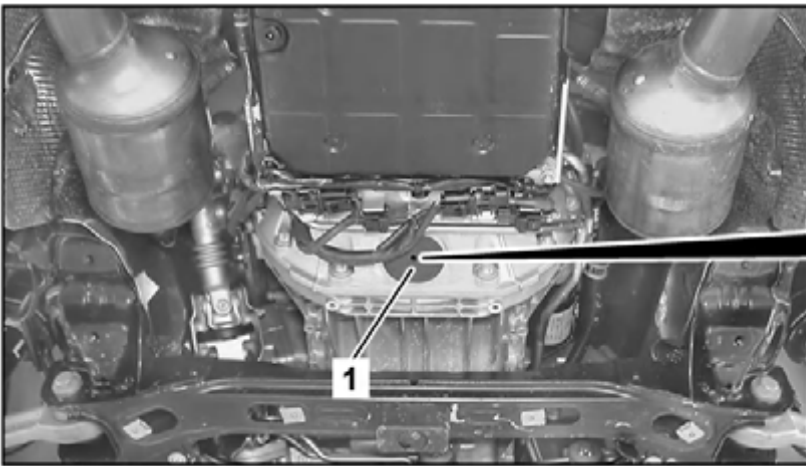
Automatic transmission

Number	Designation		Transmission 722.9 except 722.93/960/961/ 962/963/964/ 965/966	Transmission 722.960/961/ 962/963/964/ 965/966	
	Filling capacity	Initial charge	Liters	9	9,7
		during oil change	Liters	-	-
		Specifications for Operating Fluids	Sheet		
			Sheet	-	-

Drain gear oil from torque converter

Nm Torque converter	Oil drain bolt to torque converter	M8	Nm	10
		M10	Nm	15

- 1 Take out cover (1) from bell housing.
- 2 Turn the engine in the direction of engine rotation until the drain screw (2a) on the torque converter (2) is accessible.
- 3 Remove drain screw (2a) from torque converter (2) and allow ATF to drain.
- 4 Replace sealing ring of drain screw (2a) and screw drain screw (2a) into the torque converter (2) . **Nm**
- 5 Insert cover (1) in bell housing.



Remove/install automatic transmission oil pan

TRANSMISSION 722.9

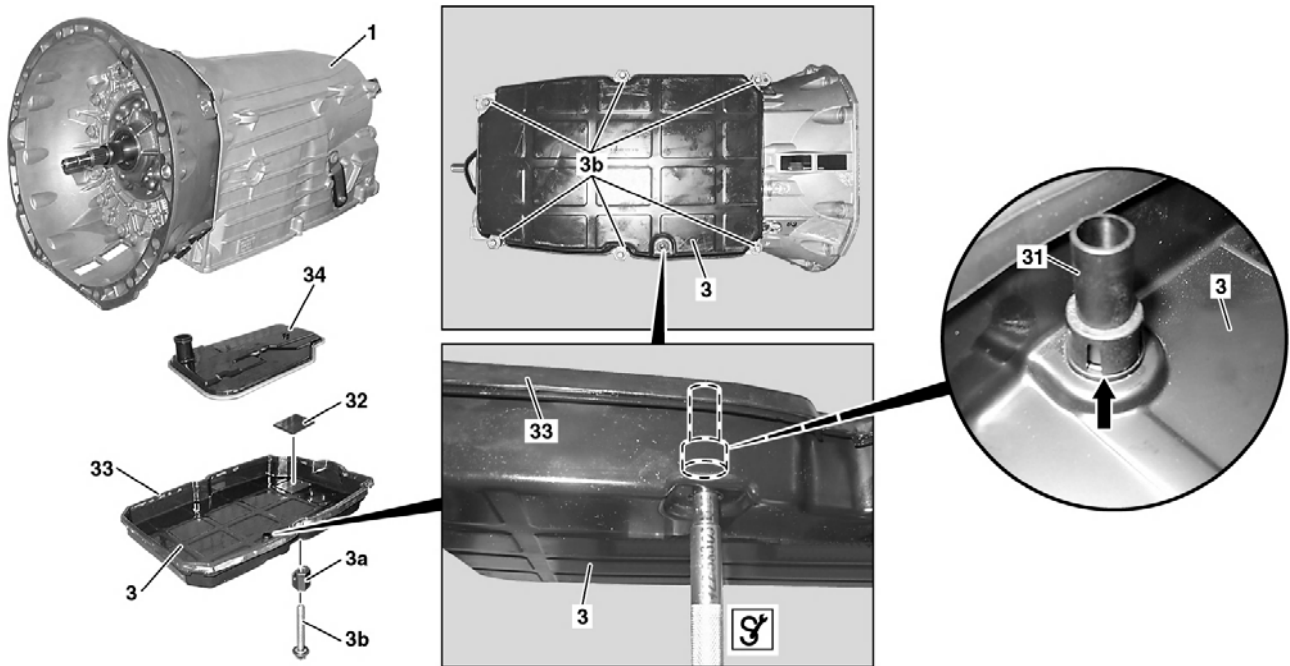





Illustration shows transmission oil pan (3) without sloped surface and with black overflow tube (31)

- | | | | | | |
|----|----------------------|----|---------------|----|------------|
| 1 | Transmission housing | 3b | Bolts | 33 | Seal |
| 3 | Transmission oil pan | 31 | Overflow pipe | 34 | Oil filter |
| 3a | Sprag | 32 | Magnet | | |

⚠	Danger !	toppling off of the lifting platform.	position the four support plates at the vehicle lift support points specified by vehicle manufacturer.
BT	1	Check transmission oil pan (3) Oil pan and overflow tube modified	Only category P with transmission 722.9 as of production date 21.6.2010 with engine 113, 156, 157, 271, 272, 273, 275, 276, 278, 642, 651
BT		Oil pan and overflow tube modified	Only category P with transmission 722.901 i The transmission oil pan (3) and overflow pipe (31) have been redesigned to optimize the oil supply to the A/T. The previous transmission oil pan (3) without chamfers and with a black overflow pipe (31) after removal is to be replaced by a transmission oil pan (3) with chamfers and with a white overflow pipe (31).
🧼	Clean		
2		Clean transmission oil pan (3) and surrounding area thoroughly	⚠ Cleanliness is essential when working on the transmission. Otherwise, even the smallest foreign particle in the hydraulic components of the transmission can lead to malfunctions or a total failure of the transmission i For cleaning, use lint-free cleaning cloth. Chamois leathers are the most suitable.

3	Drain the transmission oil and collect for determining the quantity of transmission	<p>i Remove drain screw and pry overflow pipe (31) off  from the base (arrow) with drift. The remaining transmission oil drains out immediately after prying off.</p> <p>i Installation: Replace seal.</p> <p>Nm Oil drain screw to oil pan</p> <p> Drift</p>
4	Detach transmission oil pan (3) from transmission housing (1)	<p>i Installation: The sprags (3a) are only permitted for transmission 722.9 and they may not be mixed up with sprags for other transmissions. Contact corrosion can occur otherwise</p> <p>i Installation: Replace bolts (3b).</p> <p>Nm Screw/bolt, oil pan to transmission housing</p>
5	Remove overflow pipe (31) from the transmission oil pan (3)	<p>i The distance from the upper edge of the overflow pipe (31) to the base of the transmission oil pan (3) determines the filling capacity of the transmission.</p> <p>i Installation: Replace overflow pipe (31) and press firmly onto the base (arrow).</p>
6	Remove seal (33)	<p>i Installation: Do not coat any sealant or sealing component on transmission oil pan (3) and transmission housing (1). Leaks can occur otherwise.</p> <p>i Installation: Always replace seal (33).</p>
	Clean	
7	Remove and clean the magnet (32) from the transmission oil pan (3)	<p>i Installation: Check the magnet (32) for damage and replace if necessary</p>
8	Clean the transmission oil pan (3)	<p>i Installation: Sealing surfaces must be absolutely free of oil and grease. Leaks can occur otherwise.</p> <p>i Installation: Have the cleaning sprays completely extracted.</p>
9	Check oil filter (34) and replace if necessary	
10	Install in the reverse order	
11	Fill transmission with transmission fluid	<p>TRANSMISSION 722.9 (except 722.96)</p> <p>TRANSMISSION 722.96</p> <p>i It is very essential to observe the work procedure and Specifications for Operating Fluids. Otherwise the transmission may be damaged.</p>

Nm Oil pan, automatic transmission

Number	Designation	TRANSMISSION 722.9
	Oil drain screw to oil pan	Nm 22

Nm Oil pan, automatic transmission

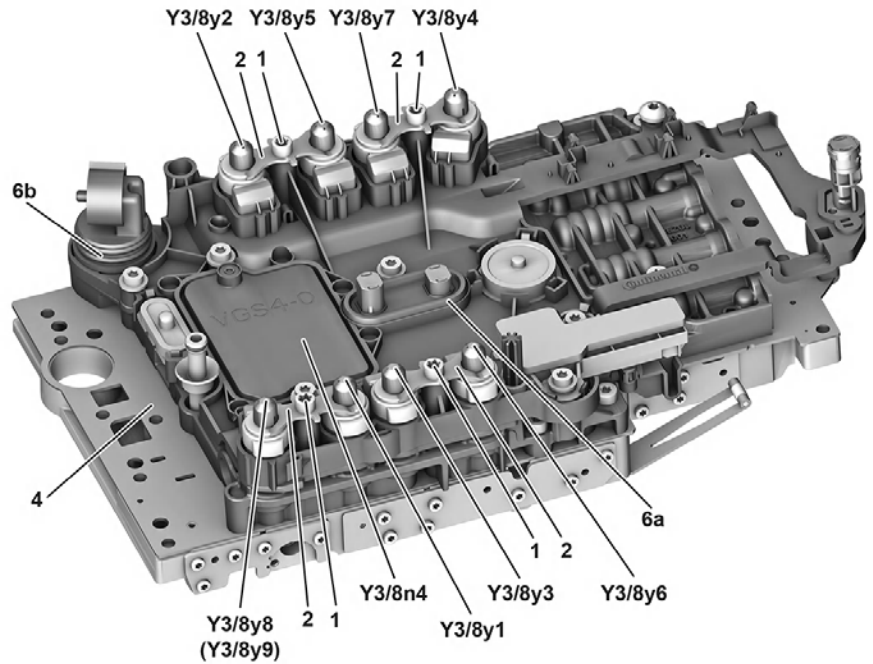
Number	Designation	TRANSMISSION 722.9
	Screw/bolt, oil pan to transmission housing	Stage 1 Nm 4 Stage 2 4° 180

Remove/install control solenoid valves of electric controller unit

Transmission 722.9

Shown here transmission 722.9 in model 205

- 1 Bolts
- 2 Leaf springs
- 4 Valve body assembly
- 6a Seal
- 6b Seal
- Y3/8n4 Fully integrated transmission control control unit
- Y3/8y1 Control solenoid valve working pressure (black cap)
- Y3/8y2 Clutch control solenoid valve K1 (blue cap)
- Y3/8y3 Clutch control solenoid valve K2 (black cap)
- Y3/8y4 Clutch control solenoid valve K3 (black cap)
- Y3/8y5 Control solenoid valve disk brake control B1 (black cap)
- Y3/8y6 Control solenoid valve disk brake control B2 (blue cap)
- Y3/8y7 Control solenoid valve disk brake control B3 (blue cap)
- Y3/8y8 Control solenoid valve torque converter lockup clutch (blue cap)
- Y3/8y9 Control solenoid valve wet clutch (blue cap)



A If the control solenoid valve looks like this after cleaning, it needs to be replaced

B Clean control solenoid valve; if it looks like this after cleaning, it can be installed again

C Control solenoid valve OK, can be installed again

 Electrohydraulic controller unit

	Designation		Transmission 722.9
	Bolt, solenoid valve to shift plate	Nm	8

Service Information: Additional adaptation counter indicator

Transmission 722.9

i Since the end of 2012, a modified transmission adaptation has been performed. This change relates to the adaptation counter for gear adaptation. The values are now indicated not only acoustically but also in the various temperatures "cold", "warm" and "hot" using a frequency counter. This is intended to make checking of the performed adaptations verifiable and clearer.

Only the model series as of model 204 which are compatible with Xentry Diagnostics can be processed.

Additional "adaptation counter" display (shown in German)

The highlighted area on the right of the picture is the additional display for the counters above the individual temperature interpolation points.

Adaptationswerte der Schaltung 2-3

Häufigkeitszähler 'Adaption'	Werte vor Durchführung der Adaption	Werte nach Durchführung der Adaption	Anzahl der Adaptionsvorgänge
KALT	7	9	2
WARM	4	4	0
HEISS	1	2	1

Additional "adaptation counter" display (shown in English)

The highlighted area on the right of the picture is the additional display for the counters above the individual temperature interpolation points.

Adaptation values of shift 1-2:

Frequency counter adaptation	Values prior to adaptation	Values after adaptation	Number of adaptation processes
COLD	7	9	2
WARM	4	4	0
HOT	1	2	1

Weistec- 722.9 Air Check Pressure Testing Locations

