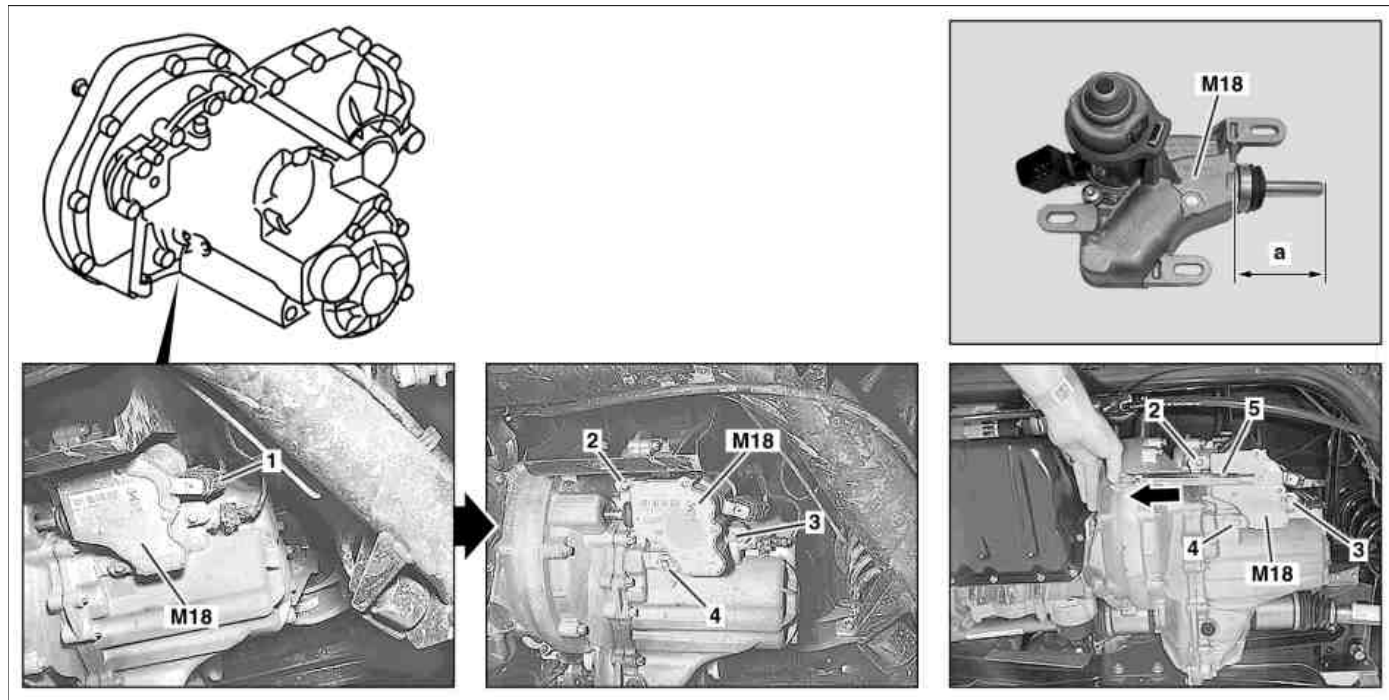


AR25.20-P-0125SM	Clutch actuator remove/install	30.11.06
MODEL 450.3 /4 with ENGINE 160.910 with TRANSMISSION 717.407 up to WME01MCO12H106037		
MODEL 450.3 /4 with ENGINE 160.920 with TRANSMISSION 717.408 /476 as of WME4503001J000001		
MODEL 450.3 /4 with ENGINE 660.940 with TRANSMISSION 717.409		
MODEL 452.3 /4 with ENGINE 160.921 /922 /923		









P25.20-2022-09

1	Connector	4	Bolt	a	Dimension
2	Bolt	5	 Spring balance	M18	Coupling motor
3	Bolt				

Modification notes

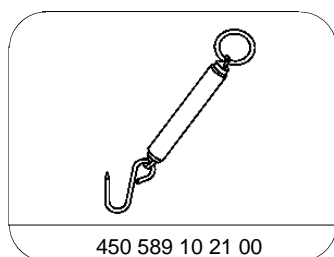
7.8.06	Description of menu updated by STAR DIAGNOSIS.	Steps 8, 11, 12	
13.11.06	Switch off ignition and wait for computer afterrun added Method for loosening clutch actuator revised	Step 9 Step 11	

	Removing		
 Danger!	Risk of death caused by vehicle slipping or toppling off of the lifting platform.	Align vehicle between columns of vehicle lift and position four support plates at vehicle lift support points specified by vehicle manufacturer.	AS00.00-Z-0010-01A
1	Disconnect plug (1) from clutch motor (M18)		
2	Unscrew bolts (2, 3, 4) and remove clutch motor (M18)		
	Install		
3	Check plunger position on clutch motor (M18)	 Do not activate the clutch motor (M18) when removed or installed before adjusting (ignition ON). The clutch motor (M18) can then only be moved back in electrically with additional force from the clutch. The plunger must be in the moved-in position for installation, dimension (a) is 60 mm. If necessary insert the plunger mechanically. Ensure that the plunger is engaged.	
4	Insert clutch motor (M18) in the transmission housing and screw in bolts (2, 3, 4) loosely		
5	Connect plug (1) to clutch motor (M18)		

6	Position spring balance (5) on clutch motor (M18) and load with 50 Nm axially in the direction of the clutch rocker (arrow). Hold the clutch motor (M18) in this position and tighten the bolts (2, 3, 4) in the specified sequence	<p>i Only carry out the adjustment on a cold engine, at a coolant temperature < 40 °C. When adjusted correctly the plunger must not have any axial play and must fit correctly in the socket of the release lever. Slight radial movement with friction in the socket is permissible.</p> <p>Nm</p> <p>Spring balance</p>	<p>*BA25.20-P-1002-01C</p> <p>*450589102100</p>
7 	Connect STAR DIAGNOSIS Connect STAR DIAGNOSIS and read out fault memory	<p>Model 450</p> <p>Type 452</p>	<p>AD00.00-P-2000-04SM</p> <p>AD00.00-P-2000-04RR</p>
8	Perform "Pulse clutch" menu using STAR DIAGNOSIS	<p>i The "pulse clutch" menu is located in the menu structure:</p> <ul style="list-style-type: none"> - "Main menu" - "Systems" menu - "engine electronics - electronic accelerator - transmission (MEG) control unit or electronic diesel transmission control control unit" menu - "Actuator control" menu - "Clutch" menu - "After removing/installing or exchanging the component" menu - "Pulsing the clutch" menu 	
9	Switch off ignition and wait for STAR DIAGNOSIS computer afterrun	<p>i The computer afterrun is approx. 30 s.</p>	
10	Position spring balance (5) on clutch motor (M18) and load with 50 Nm axially in the direction of the clutch rocker (arrow). Loosen bolts (2, 3, 4) carefully, in the process keep the spring balance (5) under load	<p>i The clutch motor (M18) must not be relieved of load to 0 Nm, otherwise the adjustment is to be repeated.</p> <p>Spring balance</p>	<p>*450589102100</p>
11	Relieve the load on the clutch motor (M18) to 11 Nm with the spring balance (5), hold in this position and tighten the bolts (2, 3, 4) in the specified sequence	<p>Nm</p> <p>Spring balance</p>	<p>*BA25.20-P-1002-01C</p> <p>*450589102100</p>
12	Program engagement of clutch/ disengagement of clutch point using STAR DIAGNOSIS	<p>i The menu item "Teach in engaged clutch and disengaged clutch position" is located in the:</p> <ul style="list-style-type: none"> - "Clutch" menu 	
13	Teach in clutch drag point using STAR DIAGNOSIS	<p>i The menu item "Teach in clutch drag point" is located in the:</p> <ul style="list-style-type: none"> - "Clutch" menu 	
14 	Close STAR DIAGNOSIS Connect STAR DIAGNOSIS and read out fault memory	<p>Model 450</p> <p>Model 452</p>	<p>AD00.00-P-2000-04SM</p> <p>AD00.00-P-2000-04RR</p>

Nm Clutch mechanism

Number	Designation		Model 450.3	Model 450.4	Model 452.3/4
BA25.20-P-1002-01C	Clutch actuation to transmission	Nm	10	10	10



Spring balance