

Document title Remove/install front axle differential propeller shaft

Document number ar4110p0070ewx

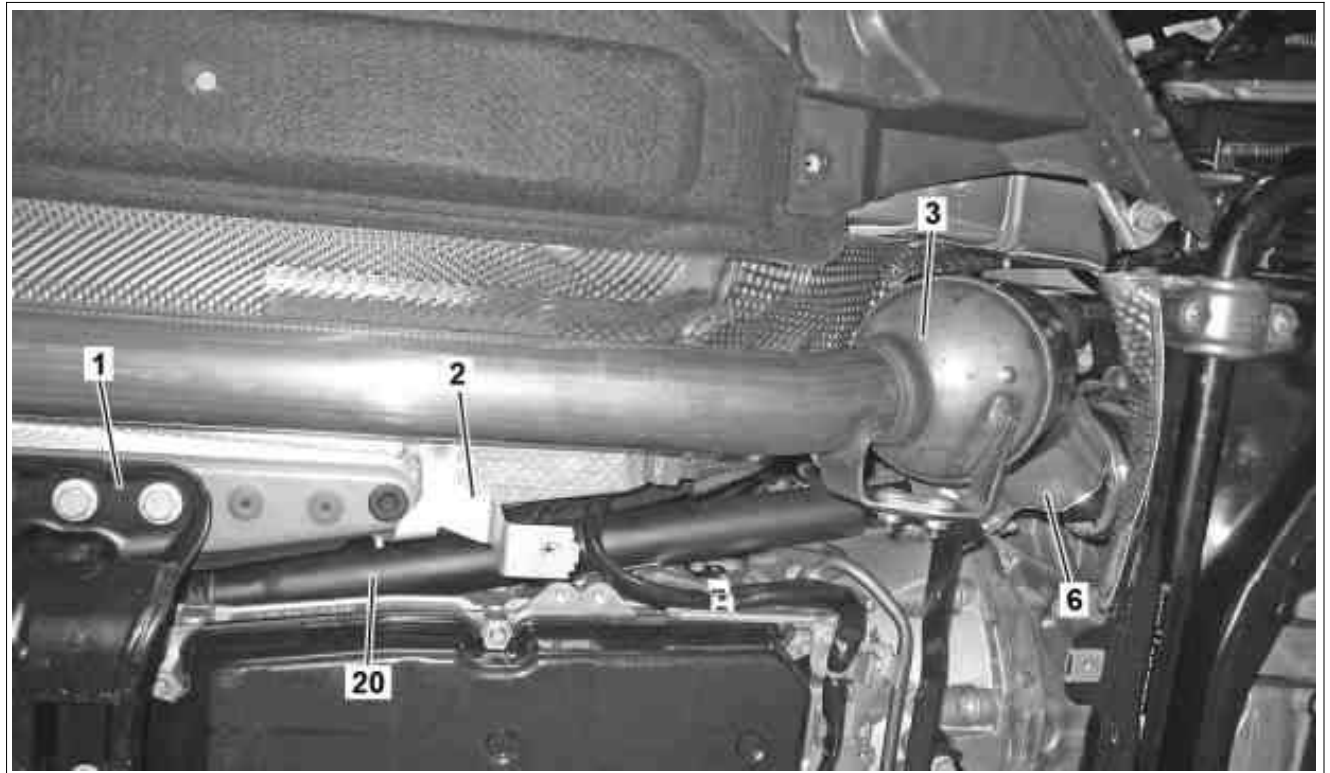
Model 212, 218 with transmission 722.97

Model 212.08/09/28/29, 218.36/39/99 with transmission 722.96

Modification notes

18.03.2020	Remove diesel particulate filter.	Operation step 4.3.	
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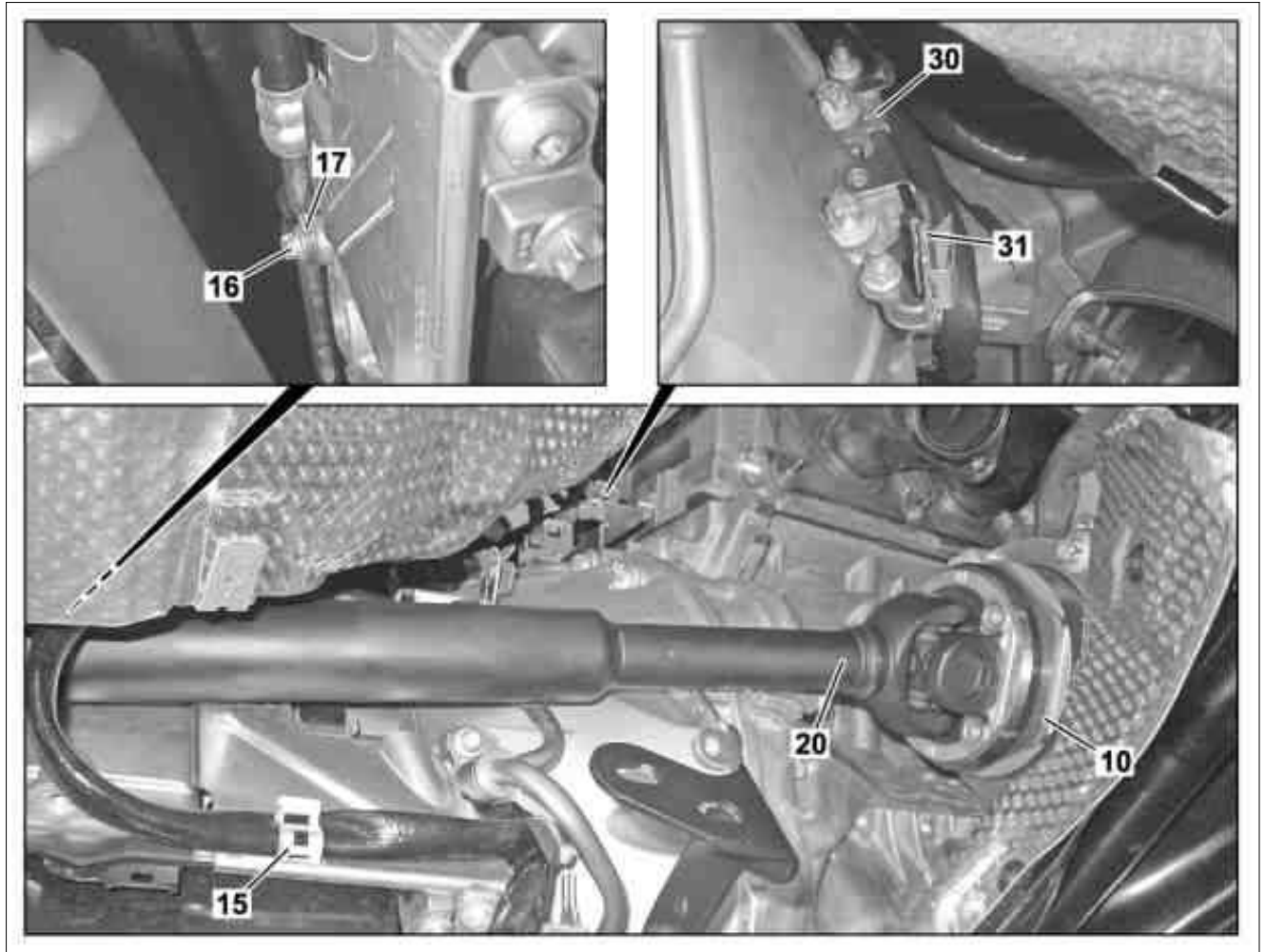
- 1 Rear engine cross member
- 2 Bracket
- 6 Heat shield
- 20 Front axle transmission propeller shaft



P41.10-2330-05

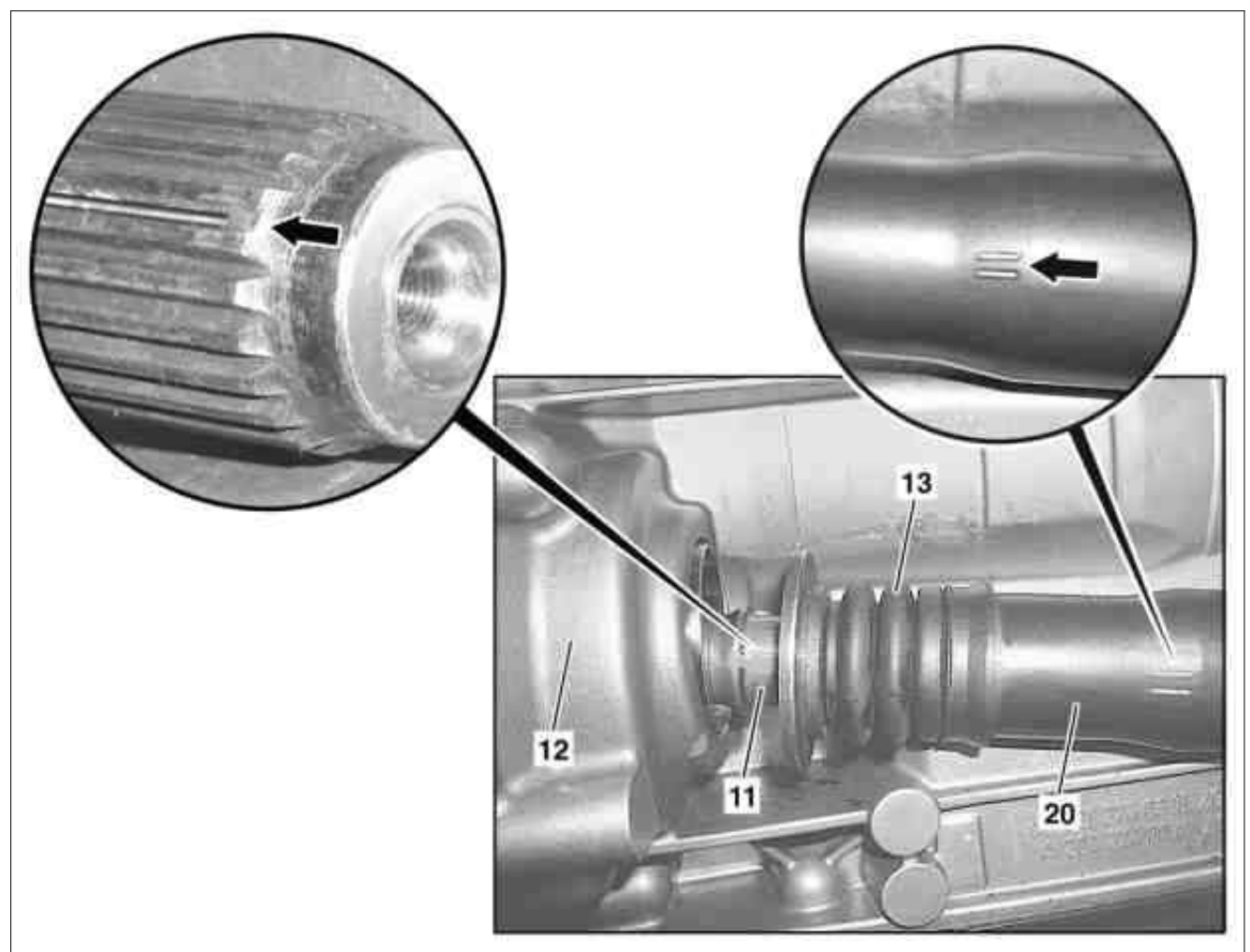
Shown on engine 273

- 10 Front axle transmission
- 15 Transmission electrical line bracket
- 16 Screw
- 17 Retaining clamp for supply line
- 20 Front axle transmission propeller shaft



P41.10-2329-06

- 11 Splined profile for transfer case
- 12 Transfer case
- 13 Seal boot
- 20 Front axle transmission propeller shaft



P41.20-2001-06
















Shown on ENGINE 642

- 20 Front axle transmission propeller shaft
- 25 Exhaust system bracket
- 27 Bolts
- 28 Bolts
- 29 Retaining plate



P41.10-2327-12

	Risk of death caused by vehicle slipping or toppling off of the lifting platform.	Align vehicle between vehicle lift columns and position the four support plates at the vehicle lift support points specified by the vehicle manufacturer.	AS00.00-Z-0010-01A
⚠ Warning	Risk of injury. Moving parts can pinch, crush or, in extreme cases even sever extremities.	No parts of the body or limbs should be within the operating area of mechanical components when moving components.	AS00.00-Z-0009-01A
⚠ Warning	Risk of burn injuries , suffocation and poisoning when working on the exhaust system and the components connected to it. Risk of suffocation and risk of poisoning caused by inhalation of gaseous and solid components of the exhaust. Risk of poisoning caused by skin contact with solid components of the exhaust.	Wear protective clothing and safety glasses. Use the extraction system. Move people out of the hazard area.	AS49.00-Z-0001-01A
⚠ Warning	Risk of injury. Skin or eye injuries may result when handling hot or glowing objects.	Wear protective gloves, protective clothing and safety glasses, if necessary.	AS00.00-Z-0002-01A
⚠ Caution	Risk of injury to skin and eyes due to handling of transmission oil. Health risk caused by swallowing transmission oil	Wear protective gloves, protective clothing and safety glasses. Do not pour transmission oil into beverage bottles.	AS00.40-Z-0001-01A

 Caution	Risk of injury caused by scraping or cutting body parts on sharp vehicle parts	Always wear protective gloves when working on or near sharp and non-deburred vehicle parts. Deburr repair panels.	AS00.00-Z-0017-01A
	Notes on threaded connections fastened using a tightening angle-based tightening process		AH00.00-P-0020-01A
	Notes on self-locking nuts and bolts		AH00.00-N-0001-01A
	Remove/install		
1	Shift transmission to neutral position.		
2	Secure vehicle on vehicle lift.		AR00.60-P-0100EWS
3.1	Remove bottom sections of soundproofing.	MODEL 212, 218 Vehicles with diesel engine	AR94.30-P-5300EW
3.2	Remove lower engine compartment paneling.	MODEL 212, 218 Vehicles with gasoline engine	AR61.20-P-1105EW
4.1	Remove diesel particulate filter.	MODEL 212, 218 with engine 642	AR14.40-P-1000OGE
4.2	Remove the catalytic converter.	MODEL 212 with engine 651	AR49.10-P-5500OMD
4.3	Remove diesel particulate filter.	MODEL 218 with engine 651	AR49.10-P-5501CD
4.4	Remove right catalytic converter with front connecting strut.	MODEL 212 with engine 272, 273	AR49.10-P-7100EW
4.5	Remove right catalytic converter together with center muffler.	MODEL 212, 218 with engine 276, 278	AR49.10-P-7100EL
5	Remove heat shield (6).	 Collar bolt, heat shield to holder of heat shield/retaining plate/front axle differential  Collar bolt, holder for heat shield to transmission/holder for exhaust system	*BA33.30-P-1009-03G *BA33.30-P-1010-03G
6	Unscrew screws (27) and remove exhaust system holder (25).	 Bolt, automatic transmission to engine	*BA27.40-P-1008-01A
7	Remove holder (2) of lower engine compartment lining from frame floor assembly.		
8	Remove propeller shaft from transmission.		AR41.10-P-0050EW
9	Remove rear engine crossmember (1) from frame floor assembly.		AR22.10-P-1180CW
10	Unclip transmission electric line from transmission electric line holder (15).		
11	Lower transmission.		
12	Unscrew screw (16) from supply line retaining clamp (17).	 Installation: Replace screw (16).  Bolt, oil line to transmission housing	*BA27.55-P-1002-01D
13	Mark position of front axle differential propeller shaft (20) relative to flange of front axle differential (10).	 To be able to reproduce the plant installation position.	
14	Remove front axle differential propeller shaft (20) from front axle differential (10).	 Do not counterhold front axle transmission drive shaft (20) on universal joint. The needle roller bearings and the seals of the front axle transmission drive shaft (20) may be damaged if not observed.  To undo the bolts of the front axle transmission propeller shaft (20) at the front axle transmission (10) the front wheels must be blocked.  Installation: Replace bolts.  Screw/bolt, propeller shaft to front axle gear	*BA33.30-P-1012-03G
15	Remove front axle differential propeller shaft (20) from flange.		
16	Unscrew screws (28) and remove retaining plate (29).	Model 212, 218 with transmission 722.97 Model 212.09/29, 218.39/99 with engine 278 with transmission 722.96  Collar bolt, retaining plate to front axle differential	*BA33.30-P-1004-03G
17	Remove holder of differential pressure sensor DPF (B28/8).	Vehicles with diesel engine	
18	Detach front axle differential propeller shaft (20) along engine from transfer case splined profile (11) at transfer case (12).	 Installation: Line up the marking (arrow in right enlarged detail in 3rd picture) on the front axle transmission propeller shaft (20) and the closed groove (arrow in left enlarged detail in 3rd picture) on the splined profile (11).	
19	Remove front axle differential propeller shaft (20) downward.		
	Check		
20	Check sealing boot (13) of front axle differential propeller shaft (20) for damage.	If problems exist, ↓	

		Replace sealing boot (13).	
21	Check constant velocity joint and double cardan U-joint of front axle differential propeller shaft (20) for wear and damage.	If problems exist, ↓ Replace front axle differential propeller shaft (20).	
22	Install in the reverse order.		

Nm Housing

Number	Designation			Transmission 722.9
BA27.40-P-1008-01A	Bolt, automatic transmission to engine	M10×40	Nm	38
		M10×45	Nm	38
		M10×90	Nm	38
		M12	Nm	–

Nm Transmission oil cooling

Number	Designation			Transmission 722.9	
BA27.55-P-1002-01D	Bolt, oil line to transmission housing	Banjo bolt	Stage 1	Nm	5
			Stage 2	∠°	90
		Hexalobular bolt		Nm	12

Nm Front axle gear

Number	Designation		Model 212	Model 218
BA33.30-P-1004-03G	Collar bolt, retaining plate to front axle differential	Nm	55	55

Nm Front axle gear

Number	Designation		Model 212	Model 218
BA33.30-P-1009-03G	Collar bolt, heat shield to holder of heat shield/retaining plate/front axle differential	Nm	8	8

Nm Front axle gear

Number	Designation		Model 212	Model 218	
BA33.30-P-1010-03G	Collar bolt, holder for heat shield to transmission/holder for exhaust system	M6	Nm	8	12
		M8	Nm	-	-

Nm Front axle gear

Number	Designation		Model 212	Model 218	
BA33.30-P-1012-03G	Screw/bolt, propeller shaft to front axle gear	Stage 1	Nm	45	45
		Stage 2	∠°	95	95