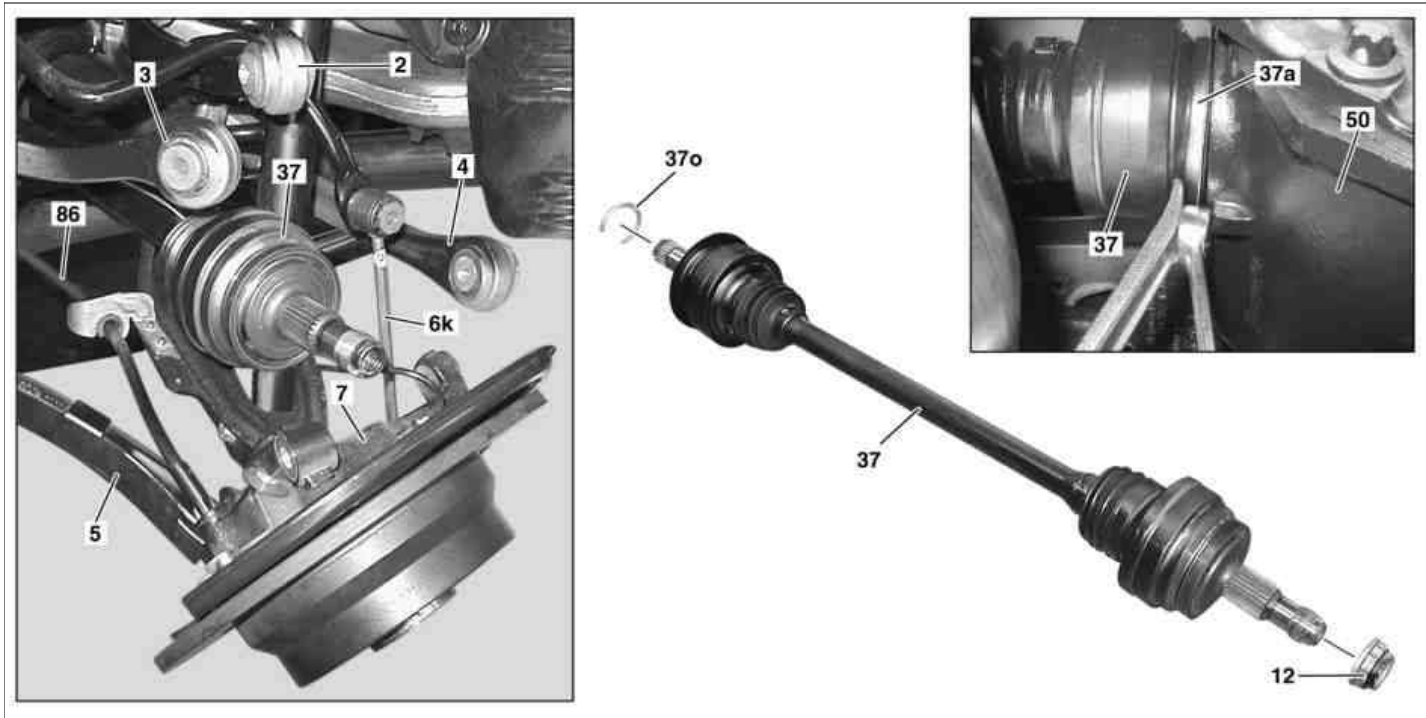


MODEL 219.356 up to 31.5.06
Rear axle differential 198 FE
MODEL 219.354,
 219.356 as of 1.6.06,
 219.357
rear axle differential 200 FE
MODEL 219.322 /372 /375 /376 /377
Rear axle differential 215 FE






































P35.30-2061-09

Shown on rear axle with steel suspension

- | | | |
|----------------------------|----------------------------|---------------------|
| 2 Camber strut | 7 Wheel carrier | 50 Differential |
| 3 Torque strut | 12 Twelve-point collar nut | 86 Rear brake cable |
| 4 Tie rod | 37 Rear axle shaft | |
| 5 Thrust arm | 37a Protective ring | |
| 6k Stabilizer bar link rod | 37o Retaining ring | |

	Remove/install		
⚠		Risk of injury caused by body parts being jammed or crushed. Risk of injury to skin and eyes caused by brake fluid spraying out at high pressure when working on the SBC brake system	AS42.46-Z-0001-01A
ⓘ		Notes on self-locking nuts and bolts	AH00.00-N-0001-01A
1		Deactivate SBC brake system using STAR DIAGNOSIS.	Vehicles with Sensotronic Brake Control (SBC)
AD		Connect STAR DIAGNOSIS and read out fault memory	The following steps should be run through in STAR DIAGNOSIS: Select menu item "SBC Sensotronic Brake Control"/"Deactivate 'SBC' system". Then process all the individual steps from top to bottom. AD00.00-P-2000-04A
2		Secure vehicle on the lifting platform	AR00.60-P-0100TX
3		Empty rear springs completely using STAR DIAGNOSIS	Vehicles with AIRmatic (semi-active air suspension), code 489 AR32.22-P-1500-04TX
ⓘ		Notes on AIRmatic	AH32.22-P-1000-02T

	Connect STAR DIAGNOSIS and read out fault memory	<p> Installation: The filling process for the air springs must be observed, otherwise the air springs will be irreparably damaged.</p> <p>    </p> <p>Electronic inclinometer gotis://F_40.2_02.0</p>	<p>AD00.00-P-2000-04A</p> <p>AR32.22-P-1500-03TX</p> <p>*BA32.25-P-1006-04K *BA32.25-P-1007-04K *211589000900 *001589862100 *001589000300</p>
4	Unscrew twelve-point collar nut (12) from rear axle shaft (37)	<p> To prevent wheel bearing damage the vehicle must no longer be moved on its wheels when the twelve-point collar nut (12) has been loosened.</p> <p> Installation: Replace twelve-point collar nut (12), tighten and secure.</p> <p></p>	<p>AR35.30-P-0115-01TX</p> <p>*BA35.30-P-1001-01F</p>
5	 Remove rear wheel Remove/install wheels, rotate if necessary		<p>AP40.10-P-4050TX</p>
6	Remove rear brake pads	<p> Fasten brake caliper to a suitable point in the wheel housing with a hook to relieve stress on the brake hose and secure it to prevent it from falling. Brake hose may otherwise be damaged.</p> <p>Model 219.322/ 354/ 356/ 357/ 372/ 375 Model 219.376/ 377</p>	<p>AR42.10-P-1700TX AR42.10-P-1700TZ AR42.20-P-0525TX</p>
7	Detach rear brake cable (86) at cable slack adjuster on parking brake		
8	Detach stabilizer bar link rod (6k) from wheel carrier (7)	<p></p>	<p>*BA32.20-P-1001-04J</p>
9	Lift wheel carrier (7) using transmission jack and transmission platform	<p> The rear axle shaft (37) must be approximately horizontal.</p> <p> Installation: Tighten threaded connections of torque strut (3), camber strut (2), thrust arm (5) and tie rod (4).</p> <p>   </p>	<p>*BA35.20-P-1002-03E *BA35.20-P-1002-02E *BA35.20-P-1002-05E *BA35.20-P-1001-04E</p>
10	Detach torque strut (3) from wheel carrier (7)	<p> Installation: Bolt on torque strut (3) loosely.</p>	
11	Detach camber strut (2) from wheel carrier (7)	<p> Installation: Bolt on camber strut (2) loosely.</p>	
12	Detach tie rod (4) from wheel carrier (7)	<p> Installation: Bolt on tie rod (4) loosely.</p>	
13	Detach thrust arm (5) from wheel carrier (7)	<p> Installation: Bolt on thrust arm (5) loosely.</p>	
14	Lower transmission jack	<p> Installation: Lift wheel carrier (7) with transmission jack and transmission platform until the rear axle shaft (37) is approximately horizontal.</p>	
15	Fold down wheel carrier (7) and pull rear axle shaft (37) out of rear axle shaft flange	<p> Do not overstretch the rear brake cable (86) to avoid any damage.</p> <p> Hook the rear axle shaft (37) up to avoid damaging the rubber boot of the rear axle shaft (37).</p> <p> If the rear axle shaft (37) is difficult to remove:</p> <p style="text-align: center;">↓</p> <p>Pull out/press in rear axle shaft (37) at rear axle shaft flange.</p> <p> </p>	<p>AR35.30-P-0115-03TX</p> <p>*210589034300 *210589014000</p>

16	Pull rear axle shaft (37) out of the rear axle center assembly (50)	<p>⚠ While working on the rear axle care must be taken to ensure that the surface of all aluminum components do not get any scratches, cracks and notches. Otherwise the service life of the of the parts will be reduced.</p> <p>⚠ Do not damage protective ring (37a). Align twisted protective ring (37a) before installing rear axle shaft (37) to prevent grinding noises while driving.</p> <p>⚠ Do not damage radial sealing ring in rear axle center assembly (50) in order to prevent leakage.</p> <p>i Installation: Install new retaining ring (37o) on inner splined profile.</p>	AR35.30-P-0620-02TX
17	Lower differential (50)	<p>Vehicles with code (489) AIRmatic (semi-active air suspension) and balance mass on rear axle shaft (37)</p> <p>i Detach the additional volume reservoir only on the affected side.</p>	
	Checking		
18	Check constant velocity joints and rubber boots for leaks and damage	<p>i If the constant velocity joint is defective, the rear axle shaft (37) must be completely replaced.</p> <p>If damaged or leaking: ↓ Replace constant velocity joint or rubber boot on rear axle shaft.</p>	AR35.30-P-0661P
19	Check condition of radial sealing ring in side of rear axle center assembly (50)	<p>If damaged or leaking: ↓ Replace radial sealing rings on side of differential (50).</p>	AR35.31-P-0545TX
20	Install in the reverse order		
21	Check oil level in rear axle differential (50) and correct if necessary.	<p>⚠ In order to avoid damage to the rear axle center assembly (50), it is absolutely essential to follow the work procedure and the Specifications for Operating Fluids.</p> <p>i In the interest of better fuel economy, avoid mixing old universal hypoid gear oil with new FE hypoid gear oil.</p> <p>Nm    </p> <p>Loctite 7063 cleaning spray (150 ml) Omnifit sealing compound 100H (50 g)</p>	<p>AR35.31-P-0520-03TX</p> <p>*BA35.31-P-1002-02D *BF35.31-P-1003-01P *BF35.31-P-1004-01P *BF35.31-P-1005-01P *BR00.45-Z-1046-04A *BR00.45-Z-1061-01A</p>
22.1	<p>Activate SBC brake system using STAR DIAGNOSIS</p> <p> AD Connect STAR DIAGNOSIS and read out fault memory</p>	<p>Vehicles with Sensotronic Brake Control (SBC)</p> <p>The following steps should be run through in STAR DIAGNOSIS: Select "Initial startup after repair"/"Remove/install brake pads" menu item. Then process all the individual steps from top to bottom.</p> <p>STAR DIAGNOSIS diagnosis system</p>	AD00.00-P-2000-04A
22.2	<p>Risk of accident when commissioning the vehicle due to a lack of braking effect when the service brake is operated for the first time after repair work</p> <p>Press the brake pedal several times until the brake pads contact the brake disks</p>	<p>Before starting engine, actuate brake pedal several times until the pressure is built up and maintained in the brake system.</p> <p>Vehicles with Adaptive Brake (ABR)</p> <p>i Firm resistance should be noticeable at the brake pedal.</p>	AS42.50-Z-0002-01A
23	Perform wheel alignment check		AR40.20-P-0200TX

 Rear axle stabilizer bar

Number	Designation	Model 219
BA32.20-P-1001-04J	Nut, link rod to wheel carrier	Nm 50

Nm Suspension struts

Number	Designation	Model 219 with AIRmatic
BA32.25-P-1006-04K	Nut, rear air spring at spring control arm	Nm 150
BA32.25-P-1007-04K	Air suspension pressure line at rear axle distributor	Nm 5

Nm Rear axle shaft

Number	Designation	Model 219
BA35.30-P-1001-01F	Collar nut, rear axle shaft to rear axle shaft flange	self-locking Nm 350
		not self-locking Stage 1 Nm 170
		Stage 2 \sphericalangle° 45

Nm Camber strut

Number	Designation	Model 219
BA35.20-P-1002-02E	Self-locking nut, camber strut to wheel carrier.	Aluminum M12 Stage 1 Nm 50
		Stage 2 \sphericalangle° 90
		Steel M14 Stage 1 Nm 80
		Stage 2 \sphericalangle° 90

Nm Torque strut

Number	Designation	Model 219
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BA35.20-P-1002-03E	Self-locking nut, torque strut to wheel carrier	Aluminum	M12	Stage 1	Nm	50
				Stage 2	⌵°	90
		Steel	M14	Stage 1	Nm	80
				Stage 2	⌵°	90

Tie rod

Number	Designation	Model 219		
BA35.20-P-1001-04E	Self-locking nut, tie rod at wheel carrier	Stage 1	Nm	40
		Stage 2	⌵°	90

Torque strut

Number	Designation	Model 219				
BA35.20-P-1002-05E	Self-locking nut, thrust arm to wheel carrier	Aluminum	M12	Stage 1	Nm	50
				Stage 2	⌵°	90
		Steel	M14	Stage 1	Nm	80
				Stage 2	⌵°	90

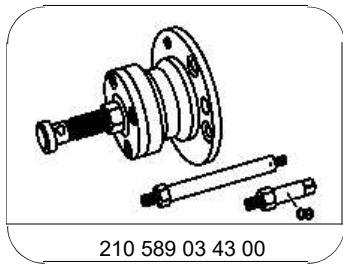
Differential housing

Number	Designation	Model 219	
BA35.31-P-1002-02D	Oil filler screw, differential	Nm	50

Differential

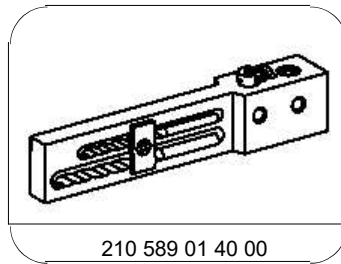
Number	Designation	Model 219 except 219.376/377	Model 219.376/377
BF35.31-P-1003-01P	Filling capacity Differential Ø 215 mm	Liters 1.2	1.2

		Specifications for Operating Fluids	Sheet	BB00.40-P-0235-07 A	BB00.40-P-0235-61 A
BF35.31-P-1004-01P	Filling capacity	Rear axle differential dia. 198 mm	Liters	1.1	-
		Specifications for Operating Fluids	Sheet	BB00.40-P-0235-07 A	-
BF35.31-P-1005-01P	Filling capacity	Rear axle center assembly dia. 200 mm	Liters	1.1	-
		Specifications for Operating Fluids	Sheet	BB00.40-P-0235-07 A	-



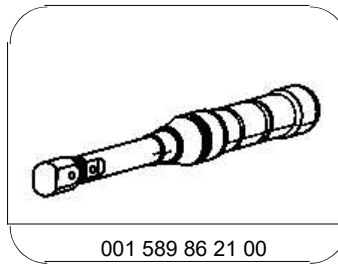
210 589 03 43 00

Extraction and insertion tool



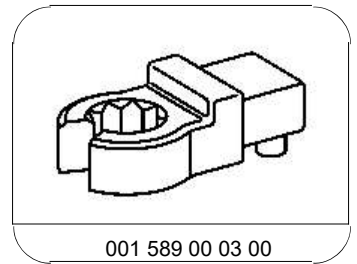
210 589 01 40 00

Bracket



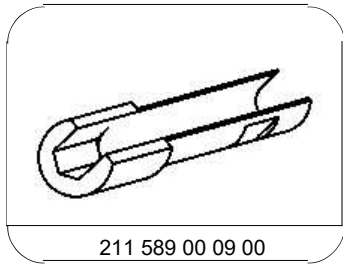
001 589 86 21 00

Torque wrench



001 589 00 03 00

Box wrench bit



211 589 00 09 00

Wrench socket

Repair materials

Number	Designation	Order number
BR00.45-Z-1061-01A	Sealant, Omnifit 100H (50 g)	A 002 989 23 71
BR00.45-Z-1046-04A	Loctite 7063 cleaning spray (150 ml)	A 001 986 71 71 10