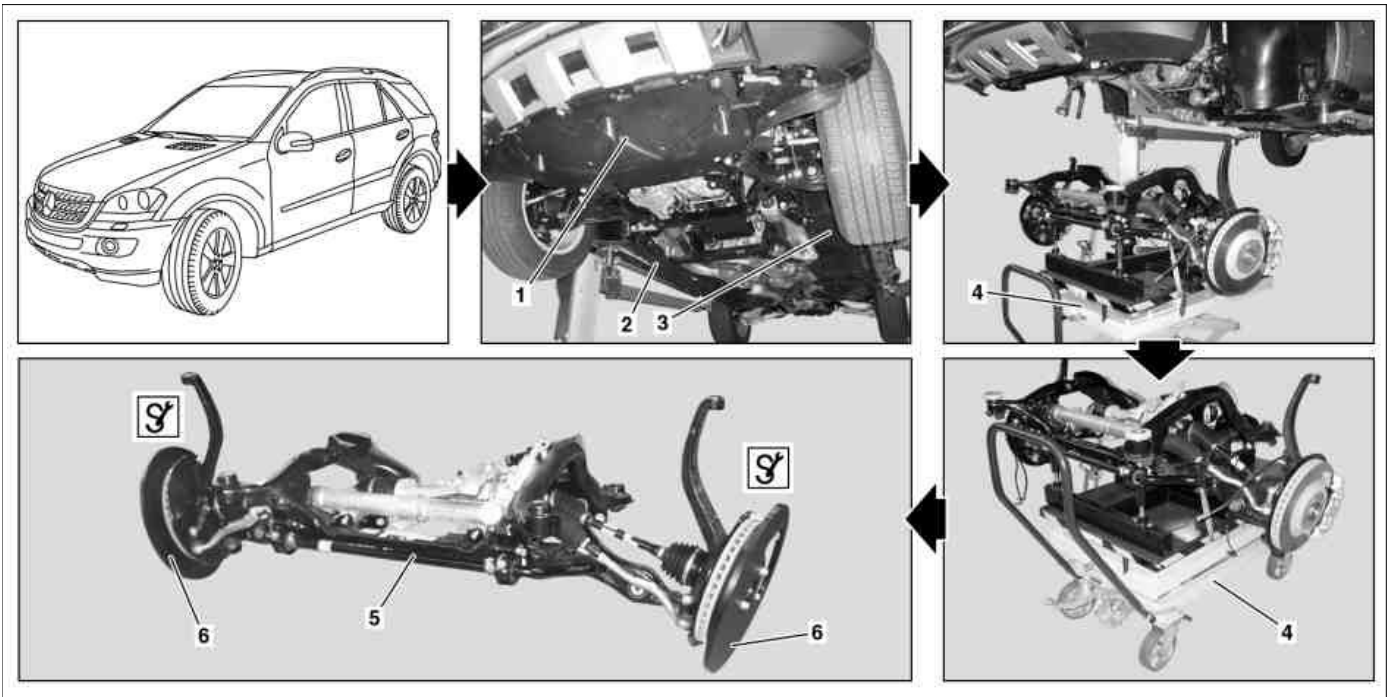


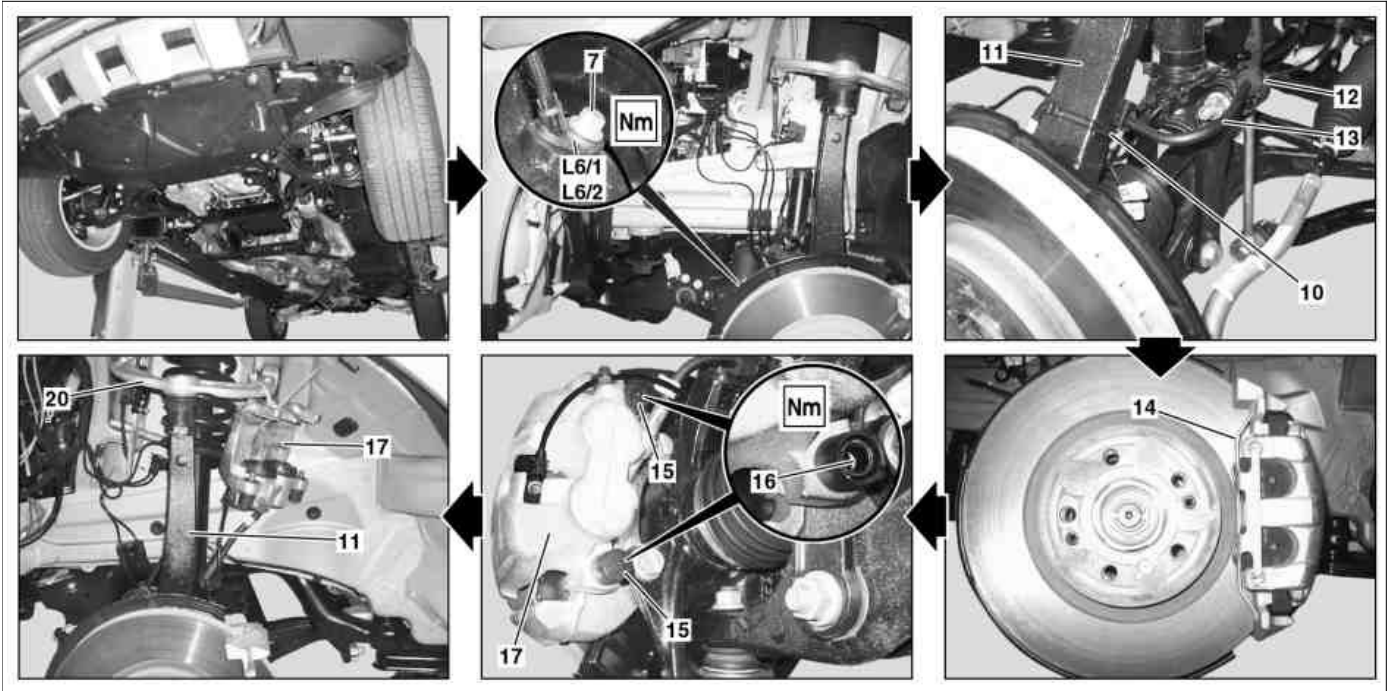
MODEL 164



P33.10-2246-09

Shown on model 164.1 with engine 113

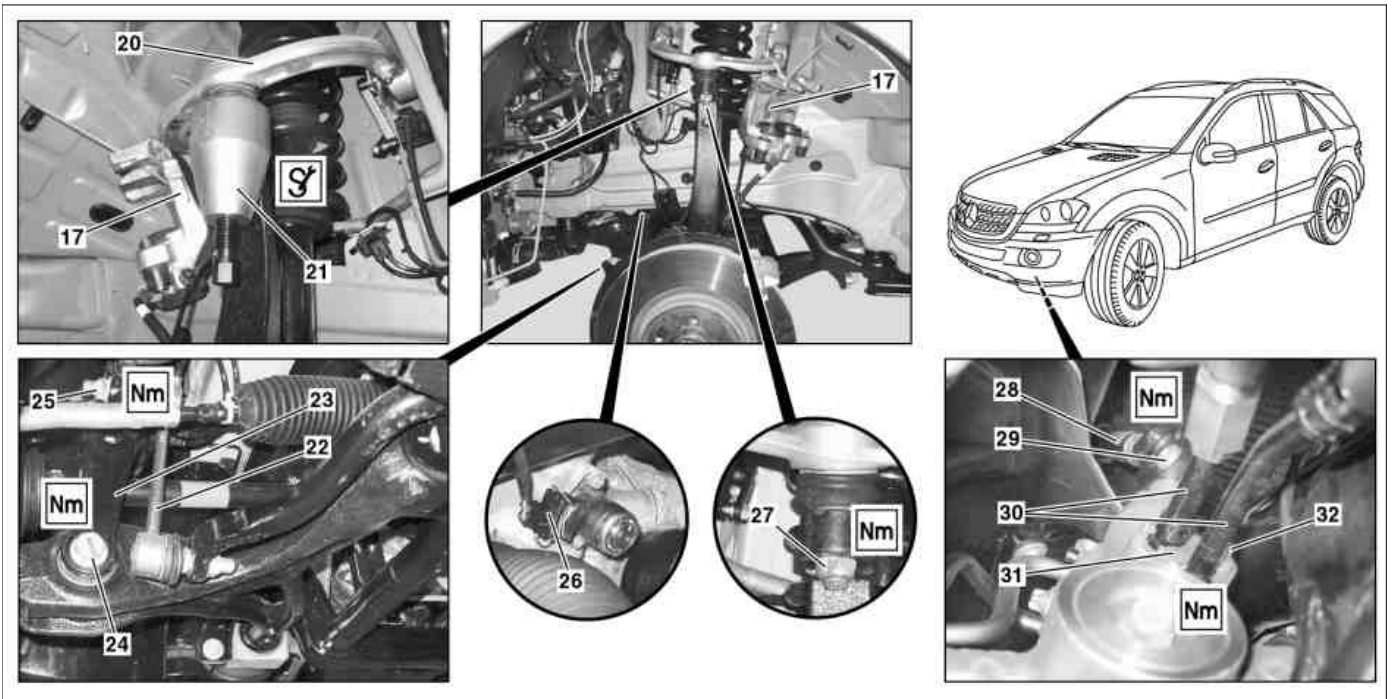
- |   |                             |   |                |
|---|-----------------------------|---|----------------|
| 1 | Engine compartment paneling | 4 | Lifting device |
| 2 | Right underfloor paneling   | 5 | Front axle     |
| 3 | Left underfloor paneling    | 6 | Guard plates   |



P33.10-2247-09

Shown on model 164.1 with engine 113

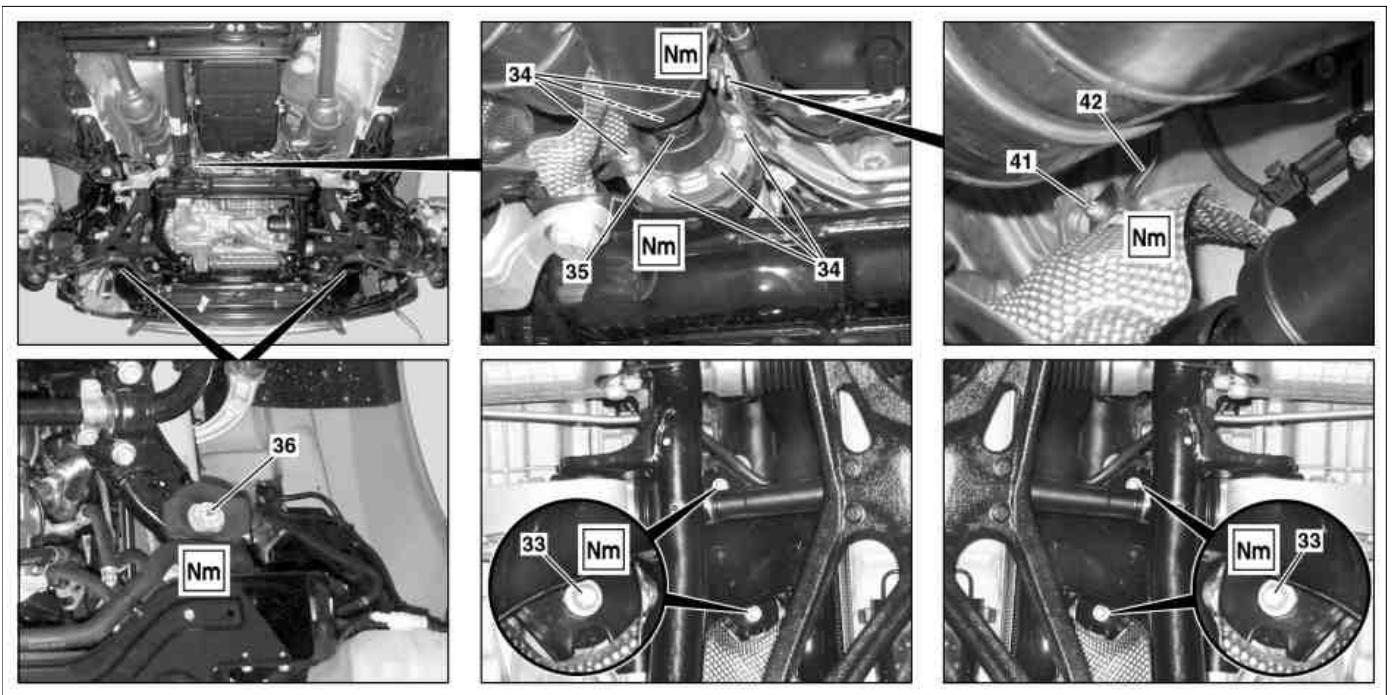
- |    |                        |      |                              |
|----|------------------------|------|------------------------------|
| 7  | Speed sensor bolt      | 16   | Guide bolts                  |
| 10 | Cable tie              | 17   | Brake caliper                |
| 11 | Steering knuckle       | 20   | Upper transverse control arm |
| 12 | Bracket for brake hose |      |                              |
| 13 | Brake hose             | L6/1 | Left front rpm sensor        |
| 14 | Clamp                  | L6/2 | Right front rpm sensor       |
| 15 | Plastic caps           |      |                              |



P33.10-2248-09

Shown on model 164.1 with engine 113

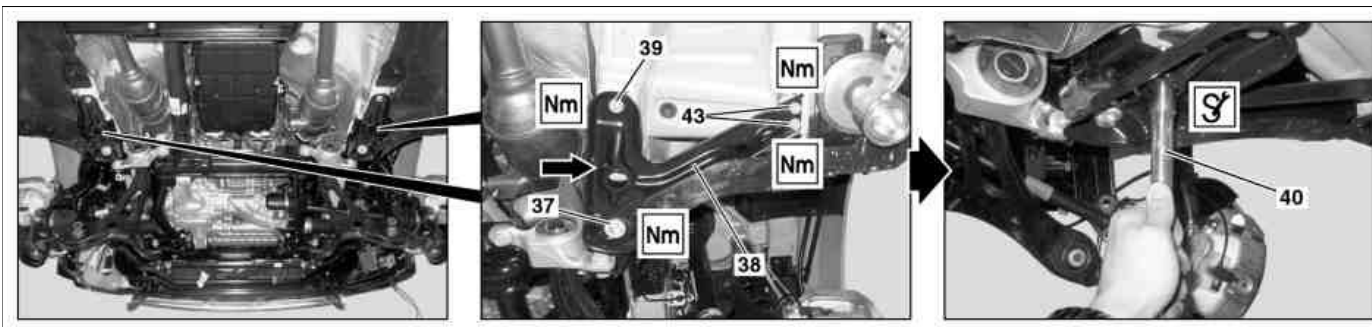
- |                                 |                               |
|---------------------------------|-------------------------------|
| 17 Brake caliper                | 26 Connector                  |
| 20 Upper transverse control arm | 27 Nut for steering knuckle   |
| 21 Puller                       | 28 Steering column            |
| 22 Link rod                     | 29 Bolt for steering coupling |
| 23 Suspension strut             | 30 Oil lines                  |
| 24 Screw connection             | 31 Retaining plate            |
| 25 Link rod nut                 | 32 Retaining plate bolt       |



P33.10-2250-09

Shown on model 164.1 with engine 113

- |                              |                                  |
|------------------------------|----------------------------------|
| 33 Front engine mount bolts  | 36 Bolts for front axle carrier  |
| 34 Bolts for propeller shaft | 41 Bolt for vent line's bracket  |
| 35 Propeller shaft           | 42 Vent line for front axle gear |



P33.10-2251-07

















Shown on model 164.1 with engine 113






























- 37 Bolts for rear axle carrier
- 38 Centering panel
- 39 Bolts for rear centering panel

- 40 Drifts
- 43 Bolts for outer centering panel

**Modification notes**

2.2.11	Final tightening in K0 position - added	Operation step 20	
--------	---	-------------------	--

 	Remove/install		
	<b>Risk of death</b> 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
	<b>Risk of death</b> when touching components on vehicles with high-voltage on-board electrical system	Do not touch components and open lines of the high-voltage on-board electrical system. Persons who are carriers of electronic implants (e.g. cardiac pacemakers), must <b>not</b> carry out any work on high-voltage on-board electrical systems.	AS54.00-Z-0001-01A
	Notes on self-locking nuts and bolts	All models	AH00.00-N-0001-01A
	When working on the front-end assembly, be careful not to scratch, mark or notch the surfaces of aluminum parts. Otherwise the service life of the parts will be affected		
	Evaluating steering rack when repairing accident vehicles		AH46.20-P-9409-01A
	Notes on installing brake hoses		AH42.10-P-9406-01GZ
	Notes on AIRmatic		AH32.22-P-1000-02GZ
1	Deactivate easy entry/exit function	 Only on vehicles with memory package (driver seat, steering column, mirrors), code 275.  Otherwise the steering wheel moves to another position when the driver door is opened or closed. The installed holding device may cause damage as a consequence.	AR54.30-P-1000-02GZ
2	Attach lifting platform safety devices and fasten vehicle onto lifting platform	 Lifting platform retainer	AR00.60-P-1000GZ *169589023100
3  AP	Remove the front wheels Remove/install wheels, rotate if necessary		AP40.10-P-4050Z
4  AD	Evacuate front suspension struts using STAR DIAGNOSIS  Connect STAR DIAGNOSIS and read out fault memory	 For vehicles with air suspension only.  The vehicle may not be standing on its wheels.	AD00.00-P-2000-04A
5	Turn key in ignition switch to position "0".	 Vehicles with Keyless Go, code 889: Press Keyless Go start/stop button repeatedly until ignition is switched off.	
6	Remove strut tower brace	Model 164.8 with diesel engine	AR62.30-P-2500GY
7	Remove engine trim panel	 <b>Installation, engine 642:</b> Ignition switched off.	
8	Remove power electronics with power distributor	Engine 272.973 in model 164.195	AR08.10-P-0011GZH
9	Remove air filter housing	Engine 642 left side	AR09.10-P-1150GZB

		Engine 642 right side	AR09.10-P-1150GZC
		Engine 629	AR09.10-P-1150GZD
10	Suction off oil from expansion reservoir of power steering	 Hand pump	*210589007100
11	Mount engine support frame and raise engine	Engine support device, engine hoist <a href="#">gotis://A_01_09.0</a>	AR33.10-P-0100-01GZ
12	Raise vehicle		AR00.60-P-1000GZ
13	Remove fender liner.	 On both sides of the vehicle.	AR88.10-P-1300GZ
14	Remove left front rpm sensor (L6/1) and right front rpm sensor (L6/2), detach electrical lines up to suspension strut (23)		*BA42.30-P-1001-01G
15	Remove cable tie (10), open bracket of brake hose (12) and unclip brake hose (13)	 On both sides of the vehicle.  <b>Installation:</b> Observe installation position.  <b>Installation:</b> The brake hose must not be installed in a twisted state.  <b>Installation:</b> Use new cable ties.  Pliers	*164589013700
16	Remove clamp (14) from brake caliper (17) on both sides of vehicle		
17	Detach brake lining thickness contact sensor plug on brake caliper (17)	 The brake lining thickness contact sensor is only available on one side of the vehicle.	
18	Remove plastic caps (15) on left and right and remove guide pins (16)		*BA42.10-P-1002-10L
19	Remove brake caliper (17), take out brake pads and fasten brake caliper (17) at upper transverse control arm (20)	 On both sides of the vehicle.  <b>Installation:</b> Check parts of the brake system, press back piston with pusher tool, clean contact surfaces of brake pads: ↓ Remove/install brake pads.  Pusher tool	AR42.10-P-0160GZ *000589524300
20	Remove bolted connection (24) on suspension strut (23) at left and right	 <b>Installation:</b> Final tightening if vehicle on measuring platform or in K0 position, in order to avoid placing the rubber mount under stress. 	*BA32.25-P-1002-01G
21	Remove link rod nut (25) and detach link rod (22) from suspension strut (23)	 On both sides of the vehicle. 	*BA32.20-P-1003-02L
22	Unscrew nut for steering knuckle (27) at left and right		*BA33.20-P-1001-01J
23	Use puller (21) to detach left and right steering knuckle (11) and remove thrust piece from upper transverse control arm (20)	 Puller  Thrust piece	*601589043300 *140589006300
24	Mount guard plates (6)	 Guard plate	*220589013100
25	Raise vehicle		AR00.60-P-1000GZ
26.1	Remove engine compartment paneling (1)	Vehicles with gasoline engine without offroad package, code 430.	AR61.20-P-1105GZ
26.2	Remove bottom section of soundproofing	Vehicles with diesel engine without offroad package, code 430.	AR94.30-P-5300GZ
26.3	Remove underride guard	Vehicles with offroad package, code 430.	AR88.30-P-0010GZ
27	Detach left underfloor paneling (3) and right underfloor paneling (2) downstream of the two front wheelhouses	 Loosen until the bolts of rear centering plate (39) and bolts of outer centering plate (43) are accessible: ↓ Remove/install underfloor paneling.	AR61.30-P-1001GZ
28	Detach plug (26) on steering gear		
29	Remove bolt for retaining plate (32) and remove retaining plate (31)		*BA46.20-P-1001-01K
30	Tie oil lines (30) to one side	 Collect and dispose of hydraulic fluid. Seal off oil lines.  Set of stop plugs	*129589009100
31	Remove bolt for steering coupling (29) and remove steering column (28) from the steering coupling	 Turn steering up to half a rotation if the bolt for the steering coupling is not accessible. 	*BA46.10-P-1002-01J
32	Lower vehicle	 Until the driver door can be opened and the steering wheel can be reached.	AR00.60-P-1000GZ
33	Attach clamping device to steering wheel	 Holding device	*129589012100

34	Raise vehicle		AR00.60-P-1000GZ
35	Remove bolts for front engine mount (33)	Nm	*BA22.10-P-1001-03G
36	Remove bolt of bracket of vent line (41) and remove vent line of front axle gear (42)		
37	Mark position of propeller shaft (35) relative to flange of front axle gear		
38	Remove bolts for propeller shaft (34)	<p> <b>Installation:</b> It is essential to observe the tightening instructions. Failure to do so can result in noises and vibrations.</p> <p> Retainer wrench</p> <p>Nm</p>	<p>AR41.10-P-0070-03GZ</p> <p>*164589020700</p> <p>*BA41.10-P-1004-01F</p>
39	Detach propeller shaft (35) from front axle gear and fasten loosely to vehicle floor	Do not let the propeller shaft dangle loosely otherwise the joints may be damaged.	
40	Prop up front axle (5) using suitable hoisting gear (4)	Additionally attach front axle to lifting device.	
41	Remove the bolts of the front axle carrier (36) and bolts of the rear axle carrier (37)	On both sides of the vehicle. Nm	*BA33.10-P-1001-01I
42	Remove bolts of rear centering panel (39) and bolts of outer centering panel (43), remove centering panel (38)	<p> <b>Installation:</b> Insert drift (40) through the holes (arrow), align centering plate, tighten bolts of the outer centering plate and bolts of the rear centering plate. The alignment is correct when the drift (40) is vertical in all directions.</p> <p> On both sides of the vehicle.</p> <p>Nm</p> <p>Nm</p> <p> Drift set</p>	<p>*BA33.10-P-1002-01I</p> <p>*BA33.10-P-1003-01I</p> <p>*164589011500</p>
43	Lower front axle (5) slowly		
	<b>Checking</b>		
44	Check front axle (5) parts	Replace damaged parts with new parts.	
45	Install in the reverse order		
46	Fill power steering pump and bleed		AR46.30-P-0010GZ
	<b>Checking</b>		
47	Check oil level in front axle gear, rectify if necessary	<p>Nm</p> <p></p> <p>Loctite 7063 cleaning spray Omnifit 100H cleaning compound</p>	<p>*BA33.30-P-1001-03F</p> <p>*BF33.30-P-1001-03D</p> <p>*BR00.45-Z-1046-04A</p> <p>*BR00.45-Z-1061-01A</p>
48	Perform wheel alignment check		AR40.20-P-0200GZ
49	Check headlamp adjustment, correct if necessary AP Check and correct the adjustment of the headlamps	Only if suspension components have been replaced.	AP82.10-P-8260GZ

Engine mount, engine support (engine side)

Number	Designation	Model 164
BA22.10-P-1001-03G	Bolt, front engine mount to front axle carrier	Nm 53

Front axle stabilizer bar

Number	Designation	Model 164.1/8
BA32.20-P-1003-02L	Nut, link rod to front shock	Stage 1 Nm 100
		2nd stage loosen $\sphericalangle$ ° 180
		Stage 3 Nm 120

		Stage 4	∠°	45
--	--	---------	----	----

#### **Nm** Front axle shock absorber

Number	Designation	Model 164.1/8
BA32.25-P-1002-01G	Self-locking nut, shock absorber to wishbone	Nm 265

#### **Nm** Front axle carrier

Number	Designation	Model 164.1/8 except 164.177
BA33.10-P-1001-01I	Bolt, front axle carrier to longitudinal member	M14×1.5 Stage 1 Nm 100
		Stage 2 ∠° 120
		Stage 3 ∠° -180
		Stage 4 Nm 100
		Stage 5 ∠° 90
BA33.10-P-1002-01I	Bolt, stiffening plate to longitudinal member	M10 Nm 61
BA33.10-P-1003-01I	Bolt, stiffening plate to body	M8 Nm 31

#### **Nm** Wheel control, hub

Number	Designation	Model 164.1/8
BA33.20-P-1001-01J	Self-locking nut, upper ball joint out of upper transverse control arm to steering knuckle	Stage 1 Nm 20
		Stage 2 ∠° 90

#### **Nm** Front axle transmission

Number	Designation	Model 164.1/8
BA33.30-P-1001-03F	Oil filler screw, front axle transmission	Nm 35

#### **Nm** Propeller shaft

Number	Designation			Model 164.1/8
BA41.10-P-1004-01F	Self-locking bolt, propeller shaft to front axle gear	Stage 1	Nm	40
		Stage 2	∠°	90

 **Front axle brake caliper**

Number	Designation		Model 164 except 164.177	Model 164.177
BA42.10-P-1002-10L	Guide pin on caliper support	Nm	55	30

 **Front axle rpm sensor**


Number	Designation	Model 164.1/8	
BA42.30-P-1001-01G	Self-locking bolt, front axle rpm sensor to steering knuckle	Nm	8

 **Steering shaft**

Number	Designation	Model 164.1/8	
BA46.10-P-1002-01J	Bolt, steering coupling to rack-and-pinion steering	Nm	33

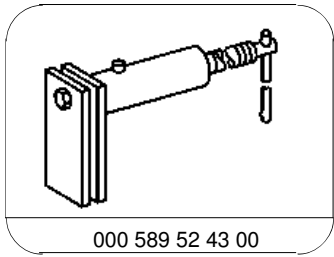
 **Steering gear**

Number	Designation	Model 164.1/8	
BA46.20-P-1001-01K	Bolt, retaining plate for oil line to control head	Nm	18

 **Front axle transmission**

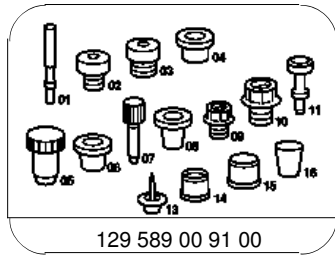
Number	Designation	Model 164.1/8

BF33.30-P-1001-03D	Filling capacity	Front axle transmission	Liters	1.1
		Specifications for Operating Fluids	Sheet	BB00.40-P-0235-07A



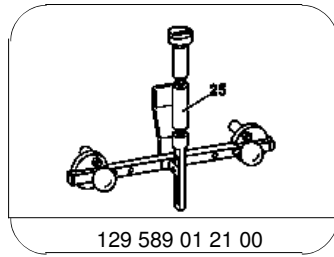
000 589 52 43 00

Pusher tool



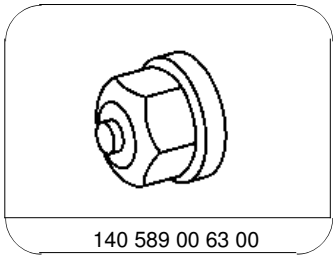
129 589 00 91 00

Set of stop plugs



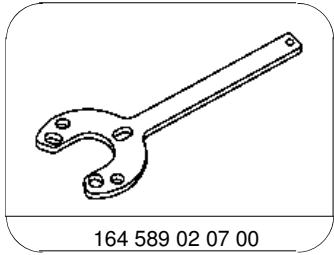
129 589 01 21 00

Holding device



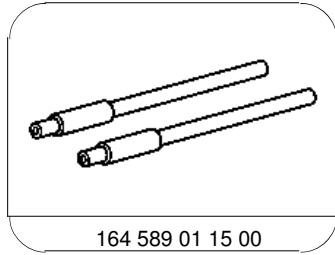
140 589 00 63 00

Thrust piece



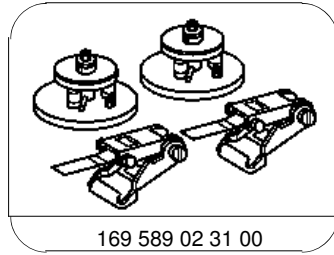
164 589 02 07 00

Retainer wrench



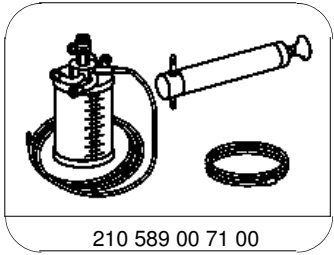
164 589 01 15 00

Drift set



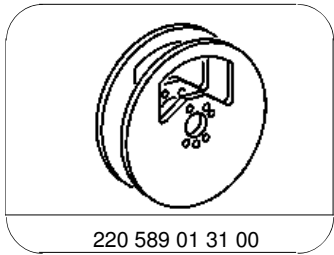
169 589 02 31 00

Vehicle lift safety device



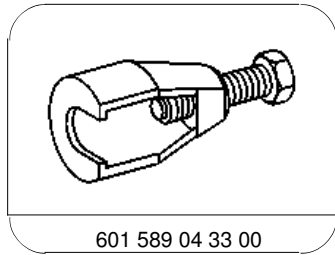
210 589 00 71 00

Hand pump



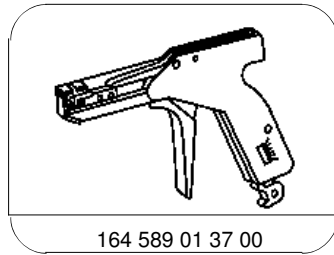
220 589 01 31 00

Guard plate



601 589 04 33 00

Puller



164 589 01 37 00

Pliers

### 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