

22 Engine suspension

	Job No.
Engine mounting	
Removal and installation of front engine mounts	22-211
Removal and installation of rear engine mount	212
Removal and installation of front engine stop	215
Adjusting engine stop	220
Removal and installation of engine shock absorber	240

22-211 Removal and installation of front engine mounts

Tightening torques	Nm
Screws for engine carrier on engine mount front	40
Screws for engine mount on front axle carrier	25
Screws for engine shock absorber on front axle carrier	10
Adjusting screw on front engine stop	130

Special tools

Torque wrench with plug-in ratchet, 1/2" square, 25-130 Nm		001 589662100
Torque wrench with plug-in ratchet, 1/2" square, 40-200 Nm		001 589 67 21 00
Gauge for adjusting front engine stop		201589042300

Note

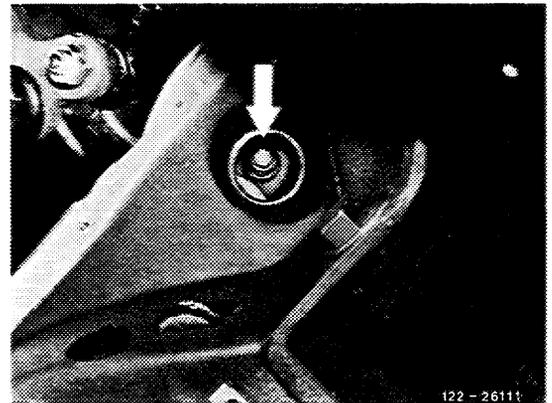
Shore hardness of engine mounts is alike.

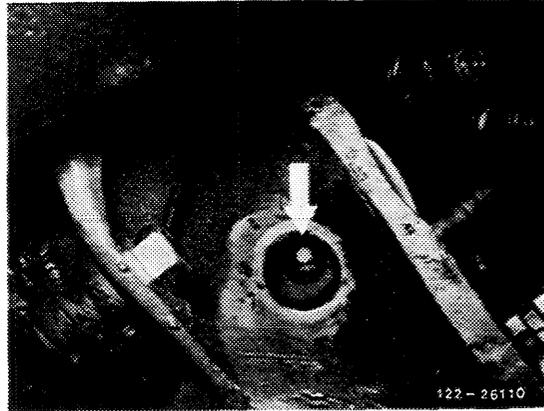
Shielding plates are inserted between engine carriers and engine mounts.

Removal

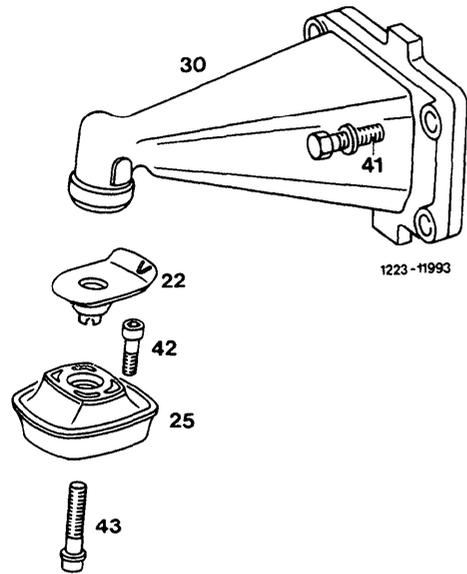
- 1 Remove noise capsule below.
- 2 Unscrew hex. socket screws for engine carrier on engine mount from below (arrow).

Hex. socket screw for engine carrier, right



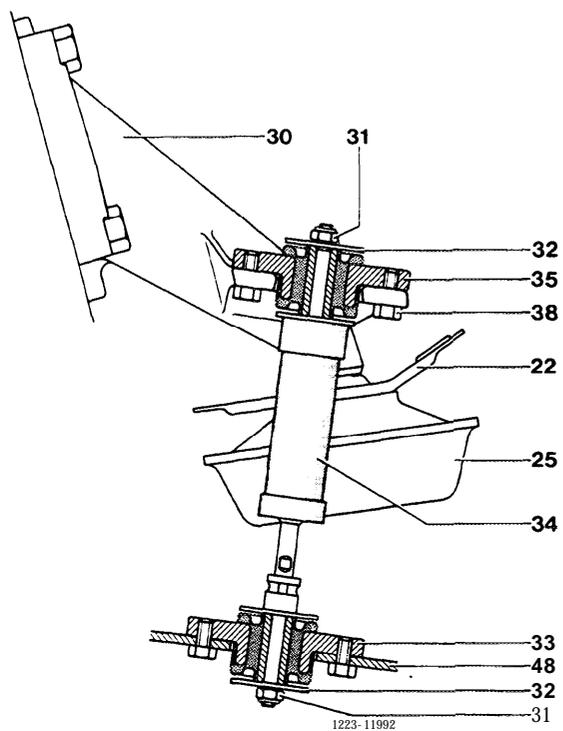


Hex. socket screw for engine carrier, left



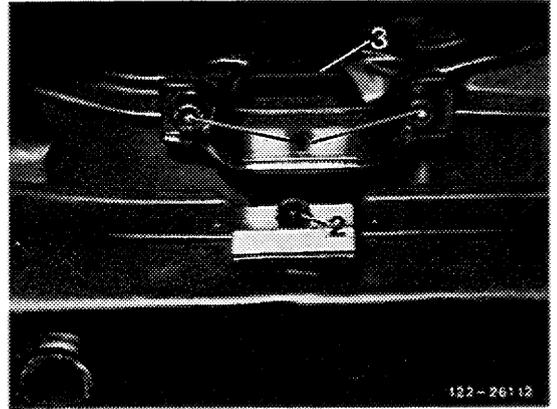
- Engine carrier, right
- 22 Shielding plate
 - 25 Engine mount
 - 30 Engine carrier
 - 41 Screw M 8 x 30
 - 42 Combination screw M 8 x 18
 - 43 Screw M 10 x 30

3 Unscrew engine shock absorber below.

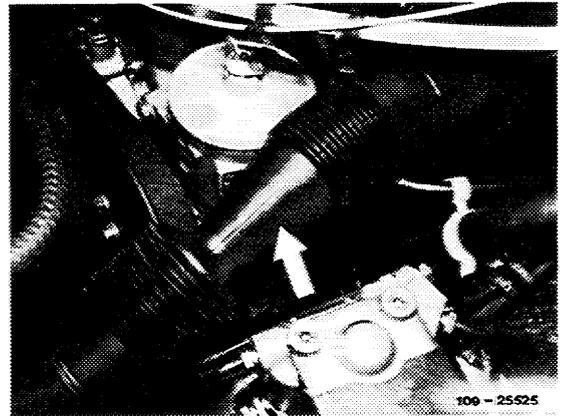


- Engine carrier, left
- 22 Shielding plate
 - 25 Engine mount
 - 30 Engine carrier
 - 31 Hex. nut M 6
 - 32 Washer
 - 33 Lower rubber mount
 - 34 Engine shock absorber
 - 35 Upper rubber mount
 - 38 Hex. head screw M 6 x 18
 - 48 Cross member

4 Unscrew hex. socket screws (1) for engine stop and remove holder.



5 Remove adapter on air cleaner (arrow).

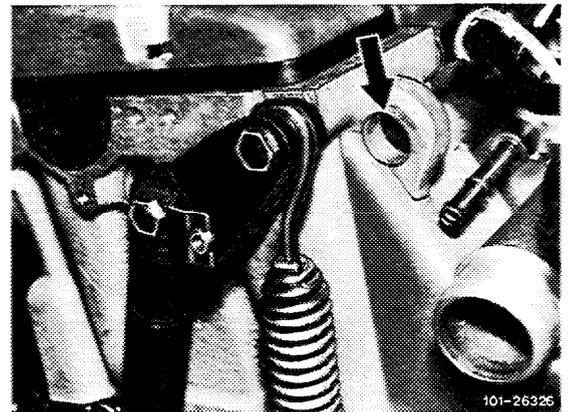


6 Attach ropes of engine hoist to front suspension eye (arrow) and lift engine with a crane.

When lifting, make sure that fan is not wiping against fan cover.

7 Remove both engine mount shielding plates.

8 Unscrew screws (42) and remove engine mounts.



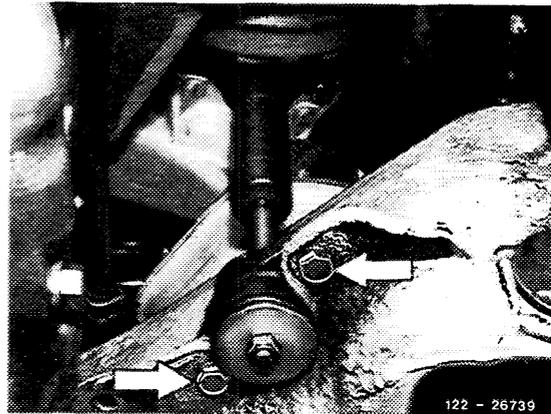
Installation

9 Install new engine mounts and screw down.

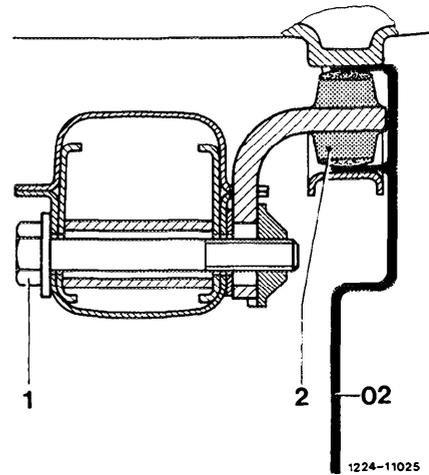
10 insert both shielding plates.

11 Lower engine and tighten hex. socket screws for engine carrier on engine mount to 70 Nm.

12 Screw engine shock absorber to front axle carrier and tighten screws to 10 Nm.



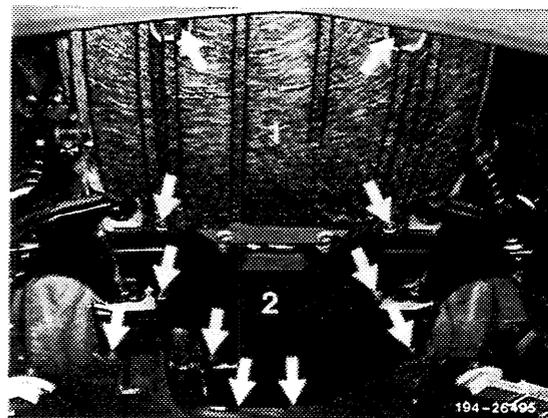
13 Mount holder for engine stop and adjust engine stop (22–220).



14 Install noise capsule.

15 Mount adapter for air cleaner.

16 Disengage engine hoist.



22-212 Removal and installation of rear engine mounts

Tightening torques	Nm
Screws for engine mounts on engine carrier	25
Adjusting screw for engine mounts	30
Nut for engine mount on transmission (reference value)	70

Special tool

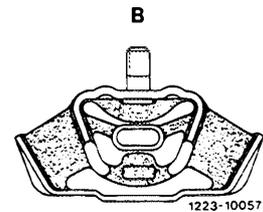
Torque wrench with plug-in ratchet,
1/2'' square, 25-l 30 Nm



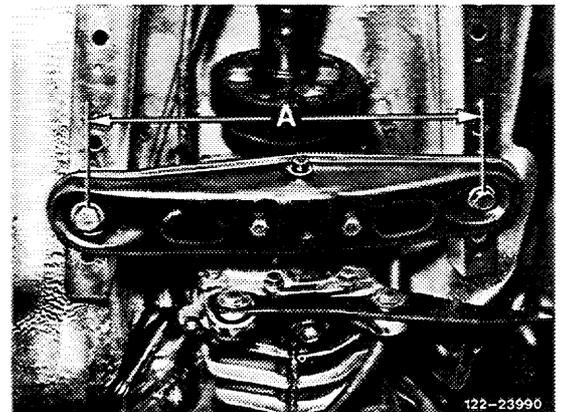
001 589 66 21 00

Note

An engine mount with stop is installed with all transmission versions.

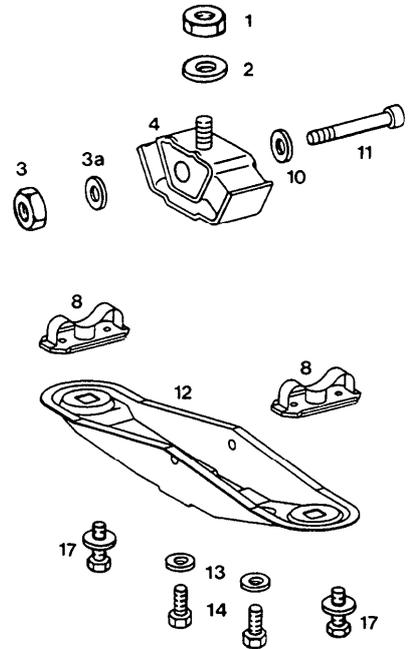


The engine carriers are of different width (dimension A) depending on transmission version.



Removal

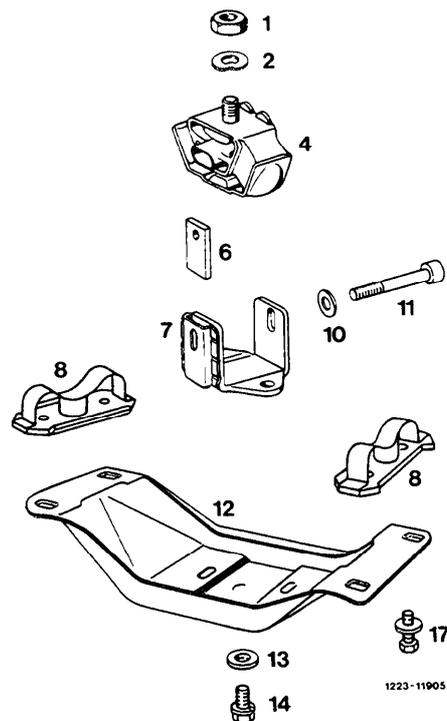
- 1 Remove noise capsule.
- 2 Unscrew nut (1).
- 3 Unscrew adjusting screw (11).
- 4 Unscrew screws (14).
- 5 Lift transmission with a pit lift and remove engine mount (4).



Vehicles with manual 4-speed or automatic transmission

- | | | | |
|----|--------------------------------|-------|-----------------------------|
| 1 | | 10 11 | Washer B 8.4 screw |
| 2 | Lockwasher Nut M 12 x 1.5 B 12 | 12 | Engine carrier |
| 3 | Nut M 8 | 13 | Washer B 8.4 |
| 3a | Washer 0.4 | 14 | Screw M 8 x 18 |
| 4 | Engine mount | 17 | Combination screw M 10 x 22 |
| 8 | Cage nut | | |

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Vehicles with 5-speed transmission

- | | | | |
|---|-----------------|----|-----------------------------|
| 1 | Nut M 12 x 1.5 | 10 | Washer B 8.4 |
| 2 | Lockwasher B 12 | 11 | Adjusting screw |
| 4 | Engine mount | 12 | Engine carrier |
| 6 | Threaded plate | 13 | Washers B 8.4 |
| 7 | Holder | 14 | Screws M 8 x 18 |
| 8 | Cage nut | 17 | Combination screw M 10 x 22 |

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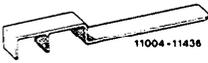
Installation

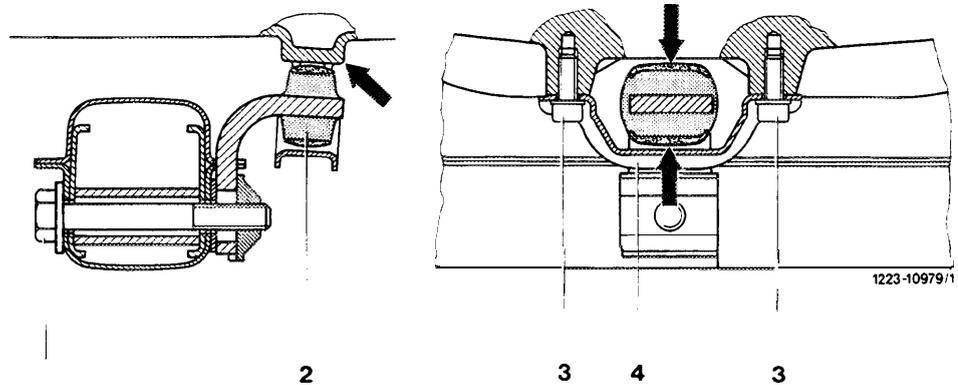
- 6 On vehicles with manual 4-speed or automatic transmission, place engine mount in carrier (12) and lower transmission.
- 7 On vehicles with 5-speed transmission, place engine mount into holder (7).
- 8 Screw down engine mount with screws (14).
- 9 Screw on nut (1). Torque reference value 70 Nm.
- 10 Adjust engine stop (22–220).
- 11 Mount adjusting screw (11) and tighten to 130 Nm.
- 12 Install noise capsule.

22-215 Removal and installation of front engine stop

Tightening torques	Nm
Adjusting screw (1)	130
Hex. socket screws for holder on oil pan	25

Special tools

<p>Torque wrench, double arm, 3/8" square, 8 -32 Nm</p>		001 589 51 21 00
<p>Torque wrench with plug-in ratchet, 1/2" square, 40-200 Nm</p>		001 589 67 21 00
<p>Gauge for adjusting front engine stop</p>		201 589 04 23 00



- | | |
|-------------------------|-------------------|
| 1 Screw M 12 x 1.5 x 90 | 3 Screws M 8 x 20 |
| 2 Stop clamp | 4 Clamp |

Removal

- 1 Unscrew noise capsule.
- 2 Unscrew adjusting screw (1).
- 3 Unscrew hex. socket screws (3) and remove clamp (4) together with engine stop.

Installation

- 4 For installation proceed vice versa to removal.
- 5 Adjust engine stop (22-220).
- 6 Tighten hex. socket screws (3) to 25 Nm and adjusting screw (1) to 130 Nm.
- 7 Install noise capsule.

22-220 Adjusting engine stop

Tightening torques	Nm
Adjusting screw for front engine stop	130
Adjusting screw for rear engine mount	30

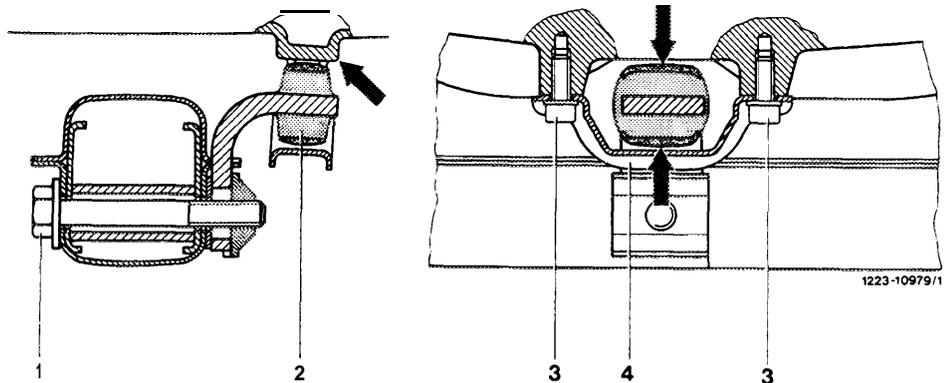
Special tools

Torque wrench with plug-in ratchet, 1/2" square, 25-1 30 Nm		001 589 66 21 00
Torque wrench with plug-in ratchet, 1/2" square, 40-200 Nm		001 589 67 21 00
Gauge for adjusting front engine stop		201 589 04 23 00

Note

Vehicle should rest on its wheels ready-to-drive.

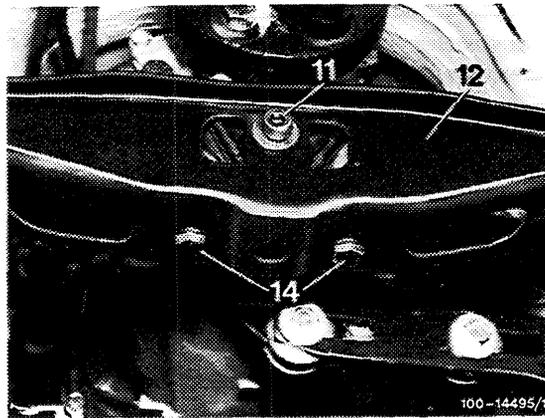
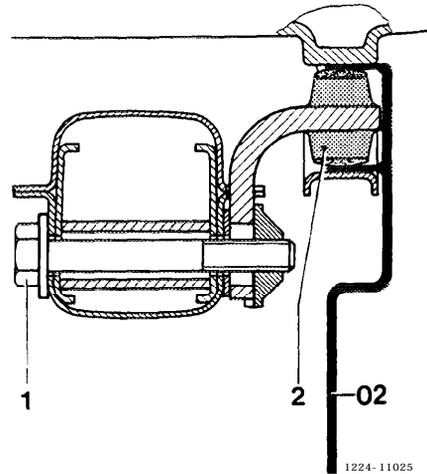
Do not use grease or oil for engine stop.



- 1 Screw M 12 x 1.5 x 90 3 Screws M 8 x 20
2 Stop clamp 4 Clamp

Installation

- 1 Unscrew noise capsule.
- 2 Completely loosen adjusting screw (1) on front engine stop.
- 3 Loosen adjusting screw (11) on rear engine stop.
- 4 Insert adjusting gauge (02) on front engine stop.
- 5 Move engine by lightly shaking crosswise manually.
- 6 Tighten adjusting screw (11) on rear engine mount to 30 Nm.
- 7 Tighten adjusting screw (1) on front engine stop to 130 Nm.
- 8 Remove adjusting gauge (02).
- 9 Install noise capsule.

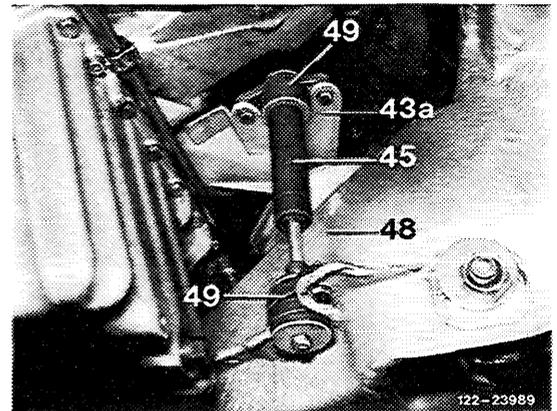


22-240 Removal and installation of engine shock absorber

Note

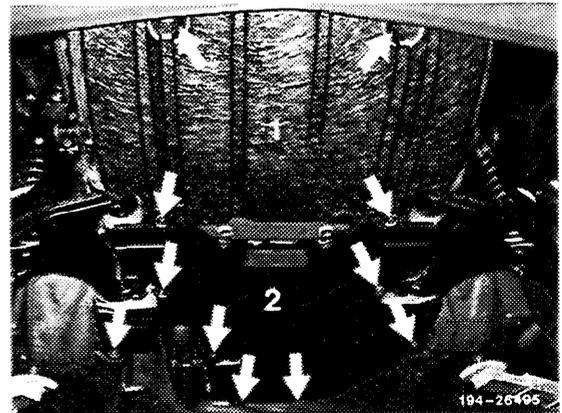
An engine shock absorber (45) is installed at the left on engine and side member above one rubber mount (49) each.

- 43a Engine carrier
- 45 Engine shock absorber
- 48 Side member
- 49 Rubber mount



Removal

- 1 Unscrew front noise capsule below (arrows).
- 2 Unscrew the two upper and lower hex. screws and remove engine shock absorber.



Installation

- 3 For installation proceed vice versa to removal.