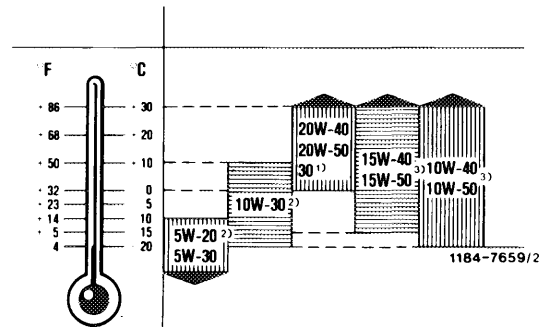


01—030 Removal and installation of engine (oil capacity)

Specified viscosity classes according to SAE during constant ambient temperatures

- 1) During constant ambient temperatures above +30 °C (+86 °F), SAE 40 may be used.
- 2) For engine oils identified by footnote ¹⁾ on sheets 226.1 and 227.1 of Specs. for service products the following applies: SAE 5 W–20 below +10 °C SAE 10 W–30 in moderate zones all year
- 3) All year oil.



Oil capacity in liters (for approved engine oils, refer to specifications for service products)

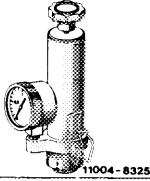
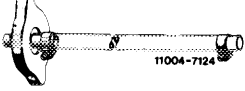



Engine (total filling capacity)	Full capacity (dry engine)	8.5 ¹⁾
	During oil and filter change	8.0

¹⁾ On vehicles with air oil cooler additionally 0.5 liter.

Tightening torques

		Nm
Oil drain plug to oil pan	M 26	50
	M 12	40
Fastening screw for filter lower half (or filter cover)		40

Special tools

Tester for cooling system and radiator cap		001 589 48 21 00
Radiator cap with hose for leak test		605 589 00 25 00
Double connection for radiator cap test in combination with tester		000 589 73 63 00
Open end wrench 46 mm for clamping nut of propeller shaft		126 589 00 01 00
Torque wrench handle 25–130 Nm for 126 589 00 01 00		001 589 66 21 00

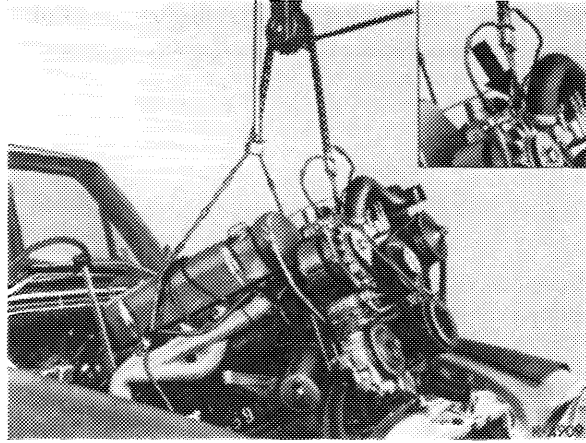
Conventional tool

Engine hoist size 1.5
Bäcker, D-5630 Remscheid
order No. 3178

Note

Remove and install engine with transmission at approx. 45° tilt.

Remove engine hood for above purpose.

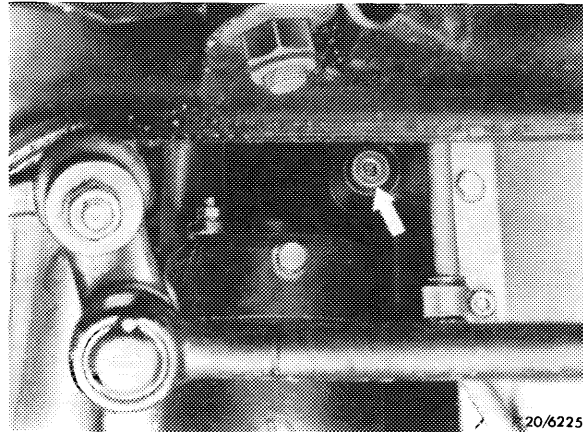


Removal

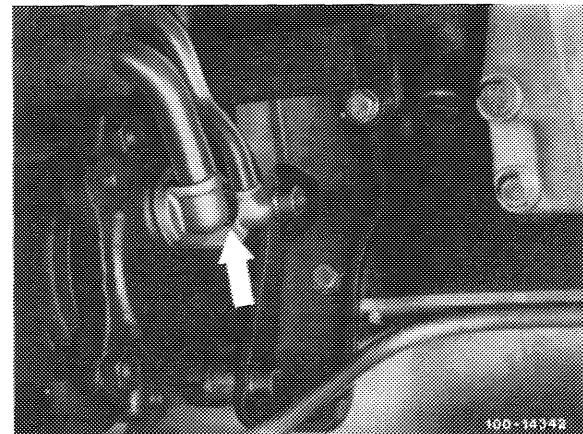
1 Drain coolant.

Attention!

Drain plugs (arrow) are located at the right and left on engine block.

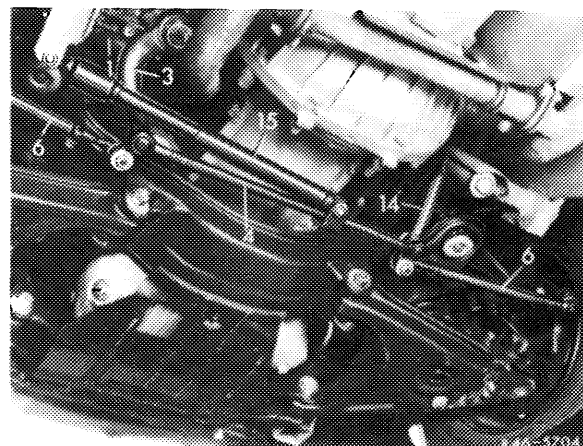


2 On vehicles with air conditioning system, drain system and disconnect hose lines on pipe set (arrow) (83-516).



3 Completely remove exhaust system (except model 116).

4 **Model 107:** Force off drag link (4) on righthand ball head.



5 **Model 116:** Remove battery frame.

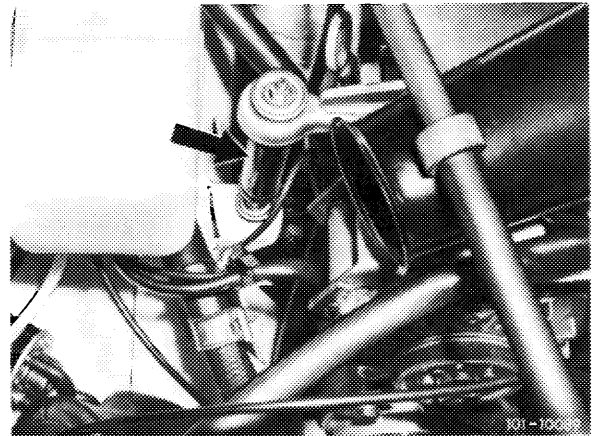
6 Suck reservoir of power steering pump empty.

7 Disconnect pressure oil hoses on power steering.

8 Disconnect all coolant hoses, vacuum, oil, fuel and electric lines leading to engine.

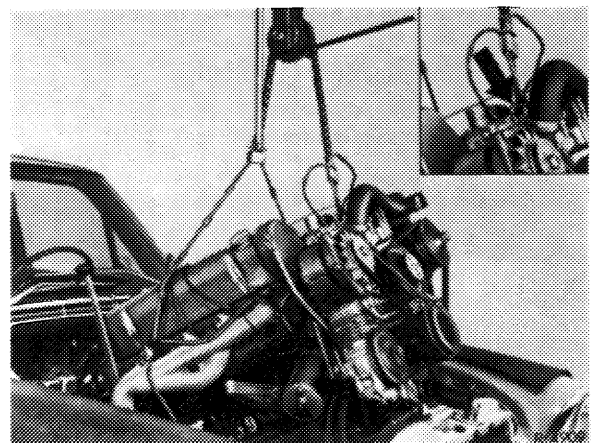
9 Pull cable for TDC transmitter from diagnosis socket. For this purpose, unscrew diagnosis socket.

10 Remove engine shock absorber left and right.

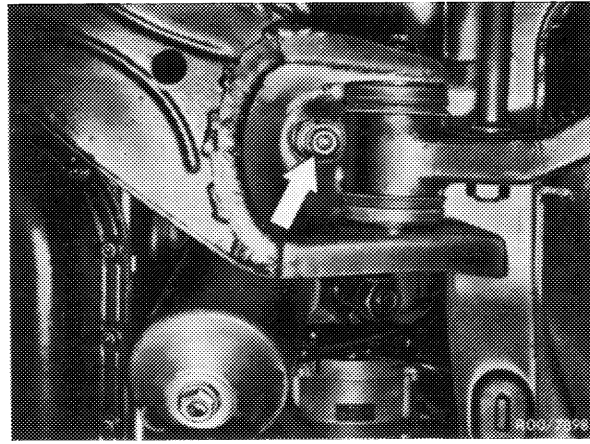


Model 107

11 Suspend engine at suspension eyes.



12 Unscrew fastening bolts on engine mounts left and right.



Model 116

- 13 Remove rear engine carrier with engine mount.
- 14 Loosen clamping nut of universal shaft.
- 15 Disconnect universal shaft on transmission.
- 16 Loosen connections on transmission.
- 17 Lift out engine.

Installation

Attention!

When installing a new engine following previous bearing damage, carefully flush oil hoses and oil cooler, disassemble and clean oil damper.

- 18 Check engine mounts, coolant, vacuum, oil and fuel hoses and renew, if required.
- 19 Install engine and connect.

- 20 Install rear engine mount free of tension.
- 21 Adjust universal shaft (41-020).
- 22 Check all drain plugs for tight seat.
- 23 Add oil, coolant and refrigerant.

24 Check cooling system for leaks with leak tester.

Check coolant for presence of anti-freeze.

25 Clean air filter and renew, if required.

26 Check timing angle (dwell angle) and firing point (15–501).

27 Adjust idle speed and emission value (07.3–100).