

01-0300 Removing and installing engine

Preceding work:
 Bottom engine compartment panel removed (Maintenance Manual Volume 2, Op. no. 6190).
 Air cleaner removed (09-1051).
 Radiator removed (20-4200).
 Viscous fan coupling removed (20-3120).

Operation no. of operation texts and work units or standard texts and flat rates
 01-2400, 01-2800

A. Model 124 and 124 4MATIC

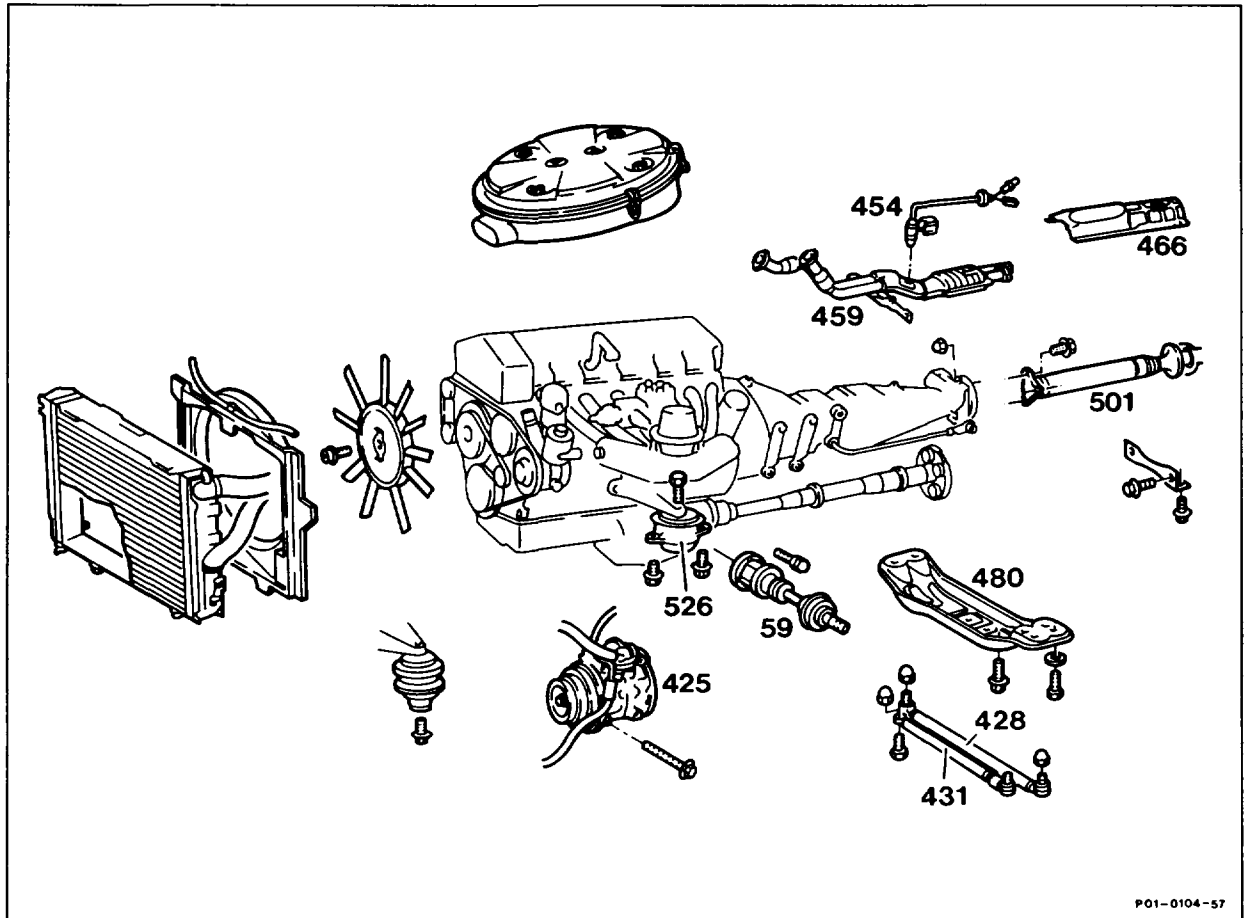


Illustration shows Model 124 4MATIC.

- | | |
|----------------------------------|---|
| Ground cable at battery | disconnect, connect (step 1). |
| If air conditioning fitted | attach guard plate to condenser, remove poly V-belt and fit on (13-3420) (steps 2 - 3). |
| Power steering pump | extract oil from reservoir, pour in oil to correct level (46-7150) (step 7). |

Oil lines	detach, attach (step 8).
If air conditioning fitted	detach refrigerant compressor (425) with piping group connected, place to the side, attach, 25 Nm (step 9).
Hydraulic system, high-pressure expansion hose (4MATIC)	depressurize, move lever on service valve to test position, unscrew and screw on (steps 5 – 6).
Fuel lines	detach and seal, briefly open fuel filler cap before, attach (step 10).
Bowden cable (accelerator control)	detach, attach (30–3402) (step 11).
Electrical connections and engine wiring harness	detach, attach (steps 12 and 13).
Heating hoses and vacuum lines	detach, attach (step 14).
Lambda sensor (454)	remove, install (step 22).
Exhaust system and shield above exhaust system	remove, install (49–7000) (step 23).
Cross bar (4MATIC)	remove, install 25 Nm (step 24).
Propeller shaft (501) at flexible joint	detach, attach 45 Nm, renew self-locking nuts (step 25).
Clamping nut and intermediate bearing mounting	slacken, tighten 35 and 35 Nm (steps 26 and 27).
Shift rods on transmission	detach, attach (steps 31 and 32).
Starter lockout switch (automatic transmission)	turn locking element, detach connector and fit on (step 32).
Hydraulic line for clutch	unscrew, screw on (step 33).
Drag link (428) with steering damper (431)	remove and install, renew self-locking nuts and bolts (46–550) (step 34).
Left, right front axle shafts (59) (4MATIC)	detach, attach on inside, 70 Nm, and secure joints with wire (step 35).
Engine hoist to suspension lugs	attach, detach (step 36).
Transmission	support (step 38).
Guard plate on component compartment wall	insert, remove (step 37).
Rear engine support (480) without engine mount	remove, install 4MATIC 20 Nm, Model 124 35 Nm (steps 39 and 40).
Front engine mounts (526 and 522) left and right	unscrew, screw on from below, 4MATIC 20 Nm, Model 124 40 Nm (step 41).



Engine with engine hoist	raise, lower (step 42).
	Installation note
	Replace seal at heater feed pipe (engine suspension eye)
Front and rear engine mounts	check.
Coolant, oil and fuel hoses	check.
If automatic transmission fitted	adjust cable for control pressure (27–100).
Idling	check and adjust
Oil drain plugs	check tightening torque.
Oil level in engine and transmission	adjust to correct level.
Coolant	pour in, check anti-corrosion/antifreeze protection and adjust to correct level (20–0100).
Hydraulic system (4MATIC)	bleed (steps 49 to 53).
Fault memory	read, erase.

Note

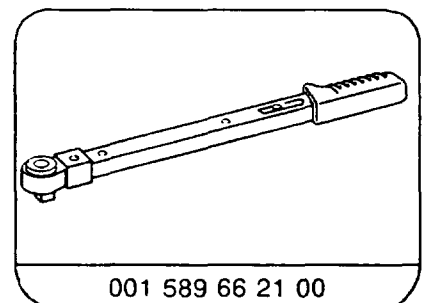
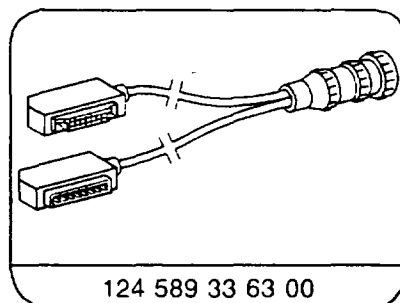
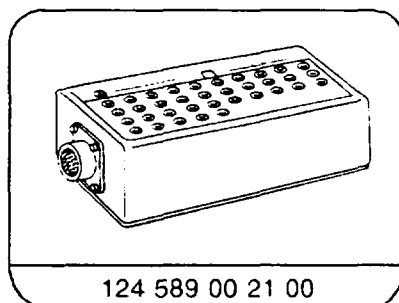
After completing the work, faults stored in the fault memories must be processed (rectified cause) and erased.

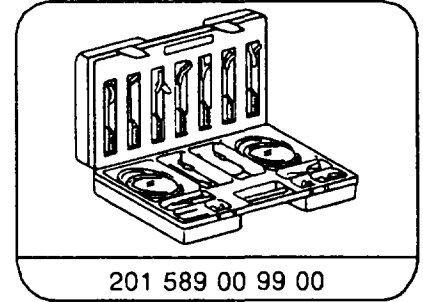
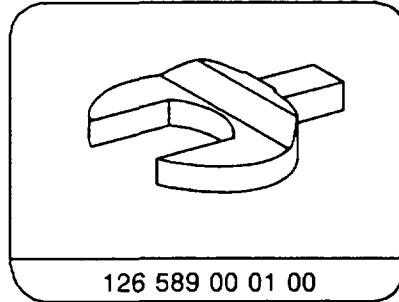
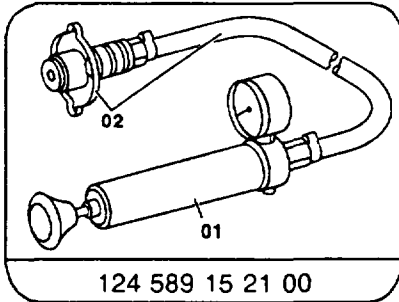
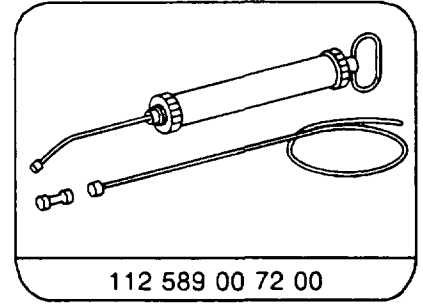
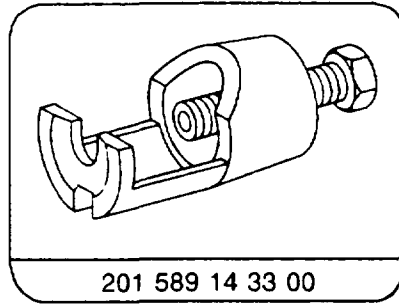
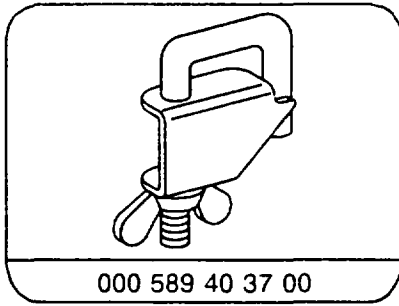
See Diagnosis Manual Volume 2:
Index 0: connecting and using testers.

Engine

run and check for leaks.

Special tools





Commercially available tools and testers

Designation

Engine hoist No. 3188
self-locking

eg. Wilhelm Bäcker
Herder Str.
D-42853 Remscheid

Anti-corrosion/antifreeze tester
Preston-VU-Check

eg. Philipp Gather
D-40822 Mettmann 2

Shop-made tools

Guard plate for radiator/condensor

Dim. approx. 480 × 600 × 1

Metal panel for component compartment wall

Dim. approx. 320 × 380 × 1



Note

Remove, install engine with transmission, if 4MATIC fitted with transfer case and front propeller shaft.

4MATIC reconditioned engines are supplied with assembly oil sump. This must be converted (01-3200).



Do not strike or place a load on lube oil line on transfer case when engine positioned at an angle because this may cause it to leak.



In the case of engine damage affecting the pistons, valves etc., parts may get in up to just before the catalytic converter or pre-catalytic converter.

When exchanging the engine, it is essential to remove these parts otherwise they may be pulsed back into the cylinders as a result of gas vibrations in the exhaust system and again cause engine damage.

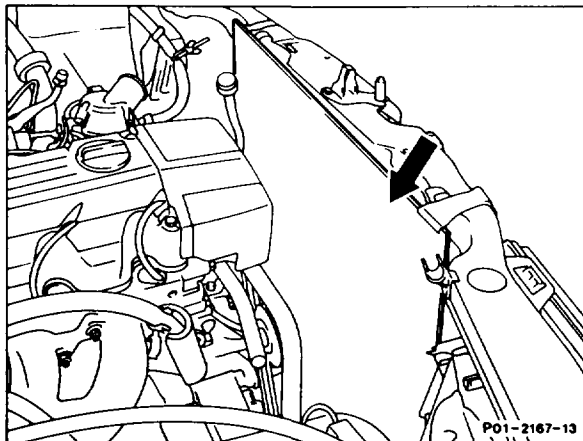
In addition, these parts may cause mechanical damage to the catalytic converter. In dealing with such engine damage, it is therefore essential to remove these foreign bodies in the exhaust system.

Damaged catalytic converters must be replaced.



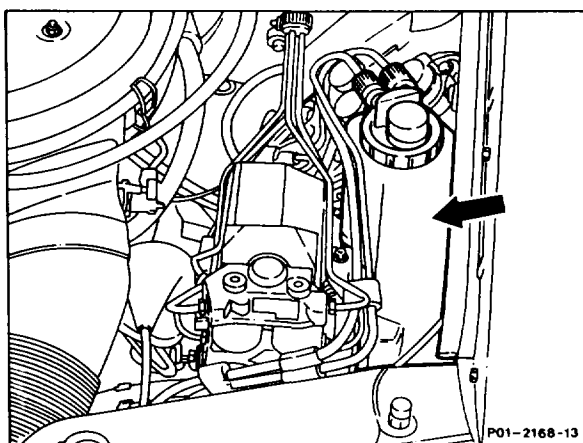
Removal, installation

- 1 Detach ground cable at battery.
- 2 If air conditioning fitted: attach guard plate (arrow) to condenser of air conditioning system.
- 3 If air conditioning fitted: remove poly-V-belt (13-3420).



4MATIC

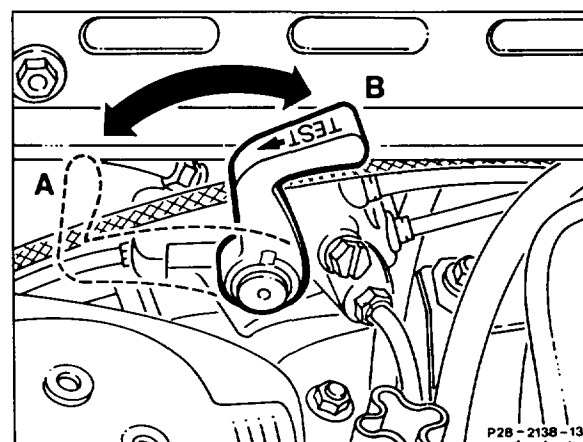
- 4 Pinch oil hose at bottom of hydraulic oil reservoir (arrow) and detach at power steering pump.



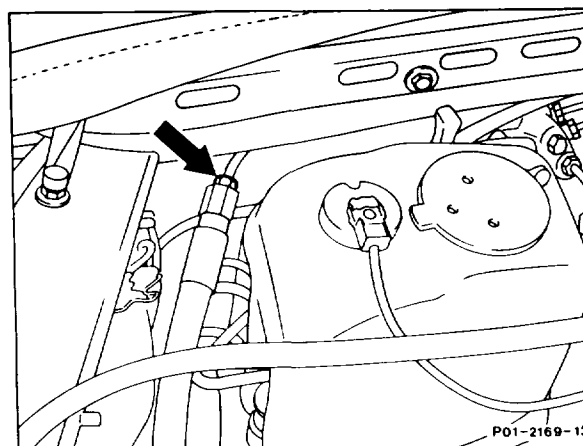
4MATIC

- 5 Depressurize hydraulic system by moving over lever (test position) on service valve.

A Test position
B Operate position



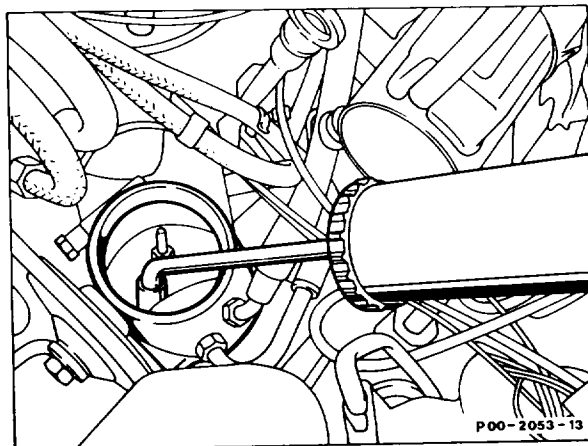
- 6 Detach screw connection (arrow) at high-pressure expansion hose.



7 Extract oil from the reservoir of the power steering pump with the priming pump.

Installation note

Bleed pressurized oil pump (32-6300).



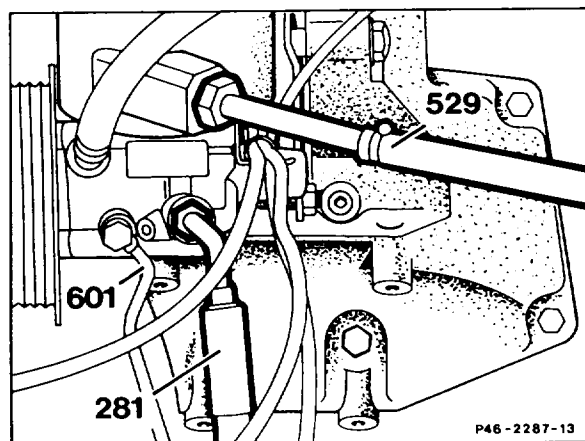
8 Unscrew oil lines (281, 529) to steering gear and oil line (601) for self-levelling suspension at power steering pump.

Installation instruction

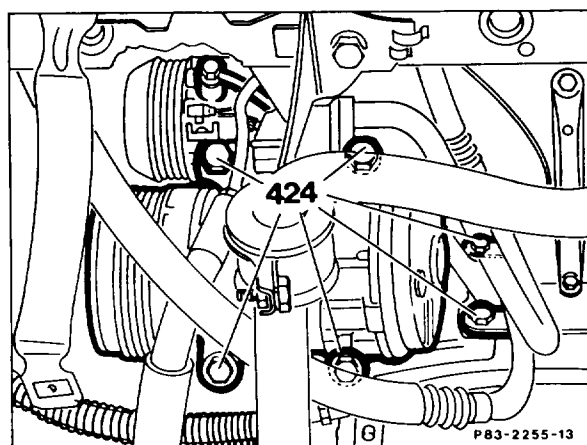
Renew seals.

Pay attention to tightening torque of high-pressure expansion hose (281).

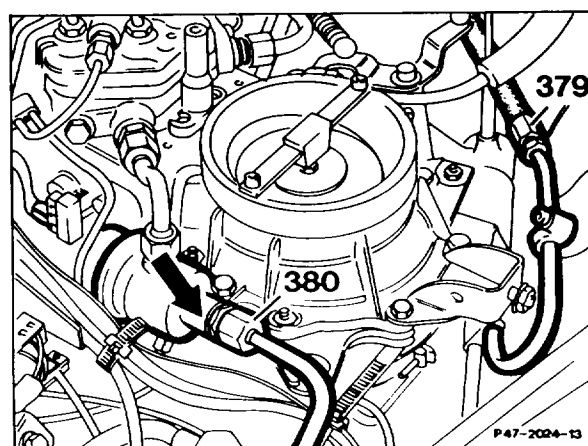
Pay attention to tightening torque of return line (529).



9 Detach refrigerant compressor of air conditioning system from engine. Unscrew bolts (424). Pay attention to tightening torque. Attach refrigerant compressor with pipe group connected at the side in bottom of engine compartment.



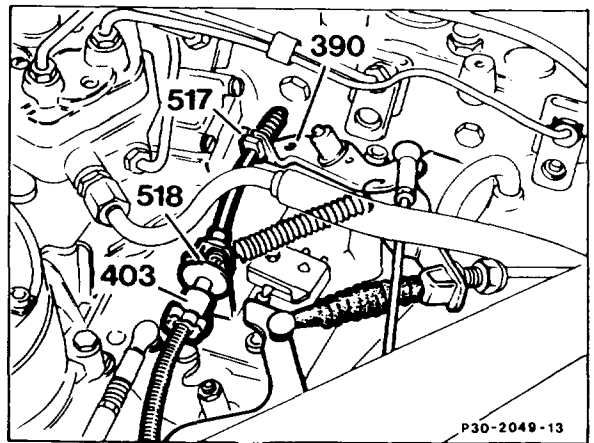
10 Briefly open the fuel filler cap to release the pressure in the fuel tank. Unscrew fuel lines (380, 379). Hold the connection fitting (arrow) when detaching the fuel line (380).



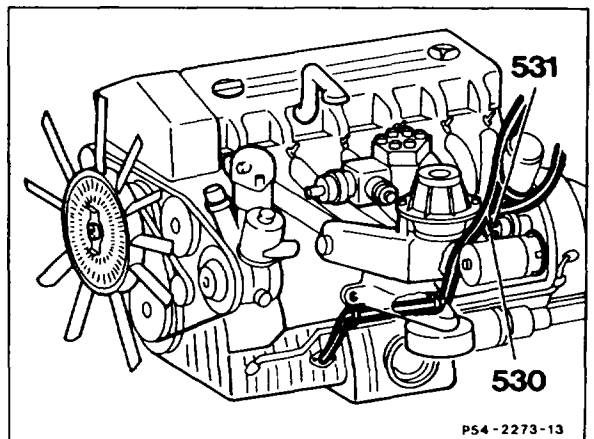
11 Detach Bowden cable of accelerator control. Press plastic guide (517) out of its seat in the fulcrum lever (390) and withdraw Bowden cable (403) through the slot in the fulcrum lever. Compress links of the plastic clip (518) and push clip with the Bowden cable (403) to the rear through the bracket.

Installation instruction

Adjust Bowden cable (30-3402).

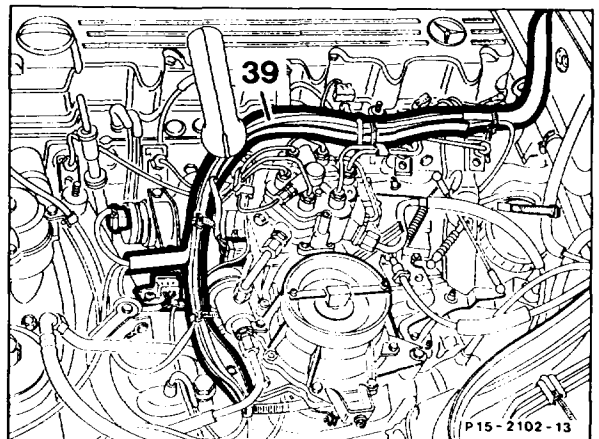


12 Unscrew electric cables. Turn nut (531) down. Unscrew cross-head screw (530). Detach cable from the oil level gauge and from oil pressure sensor.



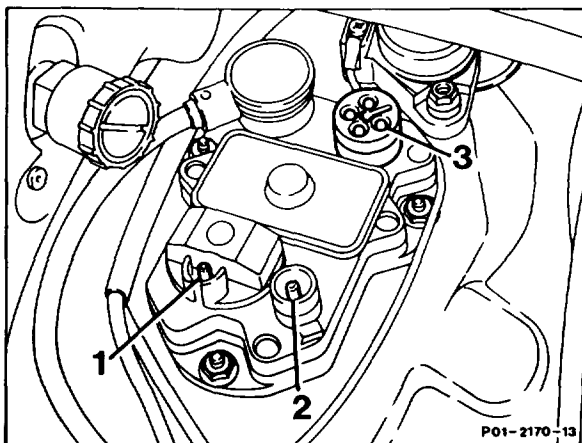
13 Slacken all cable straps of the engine wiring harness. Detach all plug connections along the engine wiring harness. Remove engine wiring harness (39).

14 Detach heating hoses and vacuum lines in engine compartment.

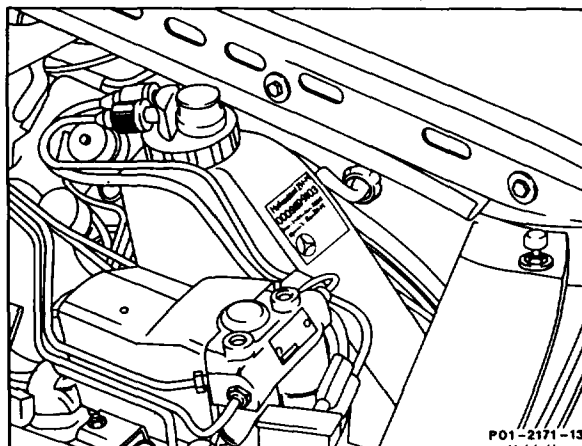


15 Detach green control line from position sensor and vacuum line at ignition control unit connector-sensor.

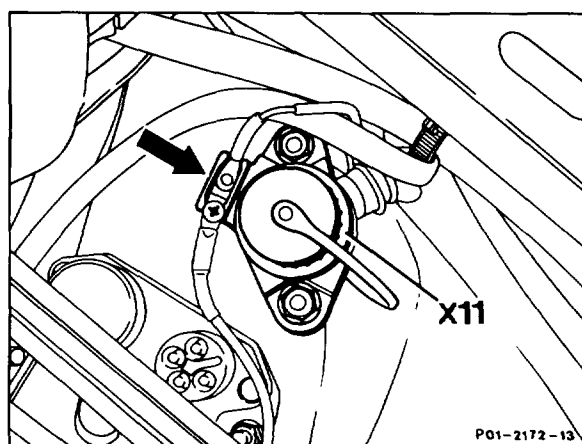
- 1 Vacuum connection
- 2 Control line connection
- 3 Connector-sensor connection



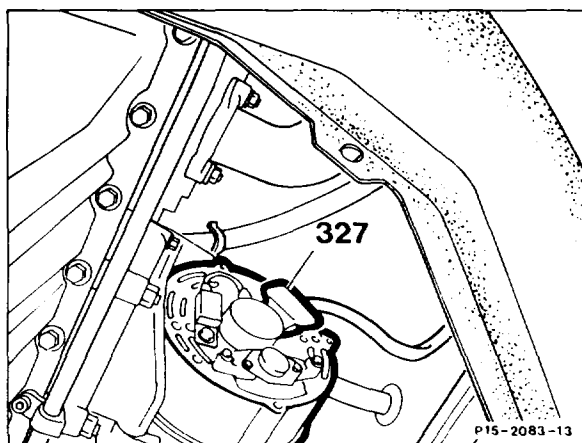
16 Detach extraction line (arrow) of fuel evaporation control system from connector fitting on left wheelhouse.



17 Detach terminal block terminal TD (arrow) next to diagnostic socket (X11), unscrew diagnostic socket, detach grey cable from TDC sensor on rear of diagnostic socket.



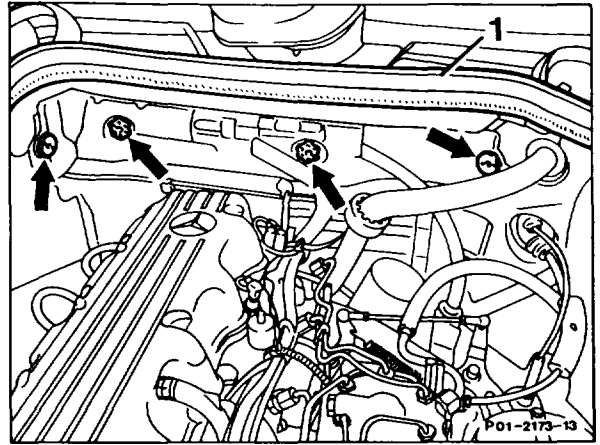
18 Detach connector (327) at alternator.



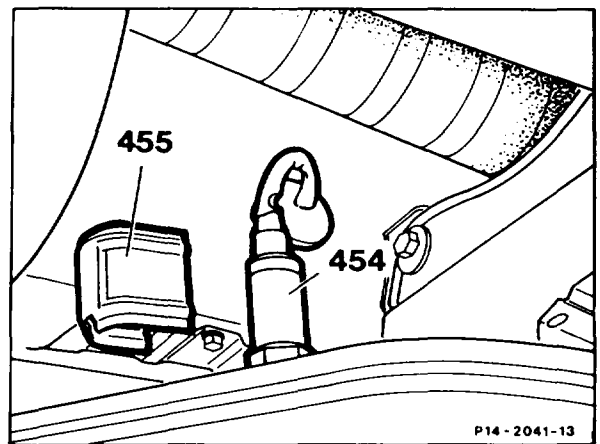
19 Remove rubber sealing strip (1) from component compartment wall.

20 Remove covering of wiring harnesses by unscrewing four plastic screw connections (arrows).

21 If car fitted with self-levelling suspension, unscrew cable bracket at front of engine.



22 Remove guard plate (455), unscrew lambda sensor (454).

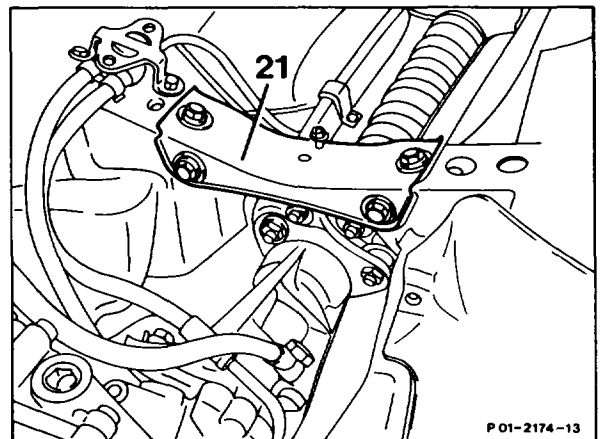


23 Remove exhaust system and shield above exhaust system (49-7000).

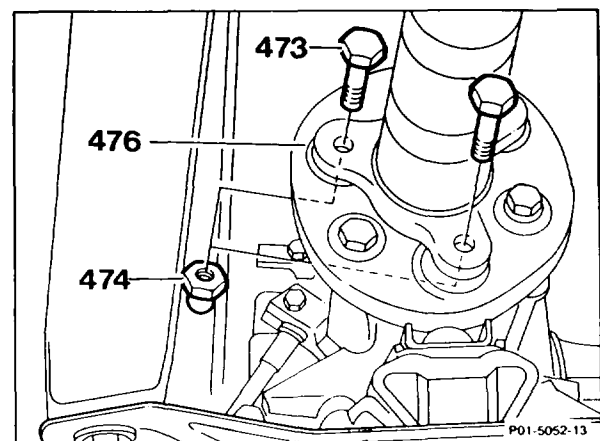
4MATIC

Remove shields on transfer case and centre tunnel.

24 Unscrew cross bar (524) on centre tunnel. Pay attention to tightening torque.

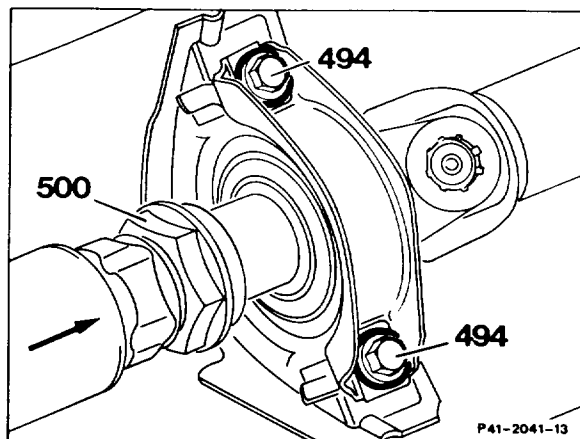


25 Remove propeller shaft. Unscrew nut (474), withdraw bolt (473). Pay attention to tightening torque. Flexible joint (476) remains on transmission.



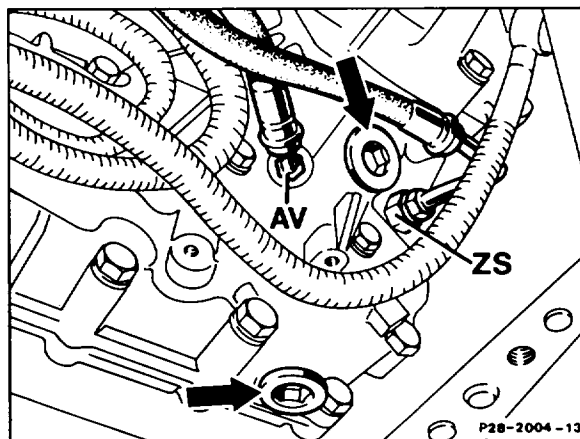
26 Slacken bolts (494) for propeller shaft intermediate bearing, but do not remove. Pay attention to tightening torque.

27 Slacken clamping nut (500) (waf 41/46) from propeller shaft. Push back propeller shaft in direction of arrow as far as possible. Pay attention to tightening torque.

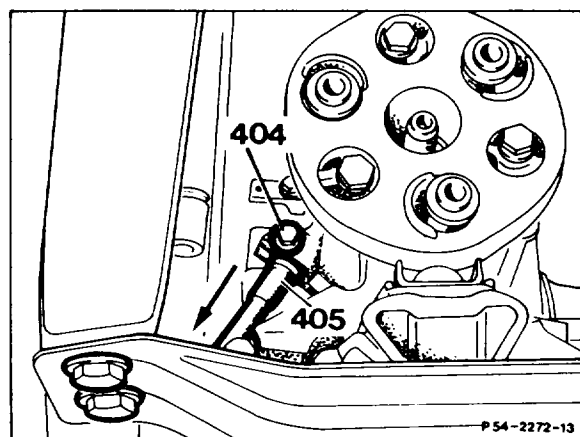


4MATIC

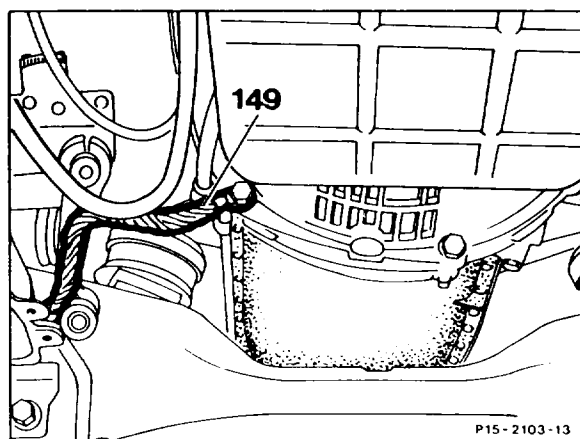
28 Unscrew hydraulic lines (AV, ZS) at transfer case.



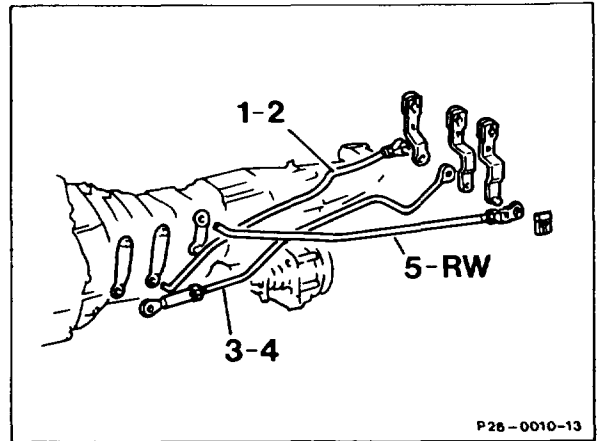
29 Unscrew bolt (404). Withdraw speedometer shaft (405) in direction of arrow.



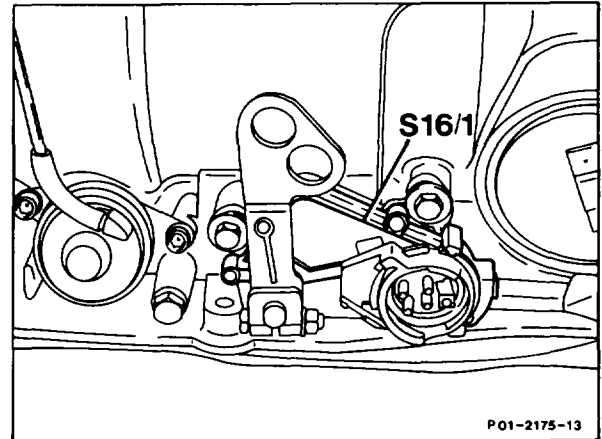
30 Unscrew ground cable (149) at transmission.



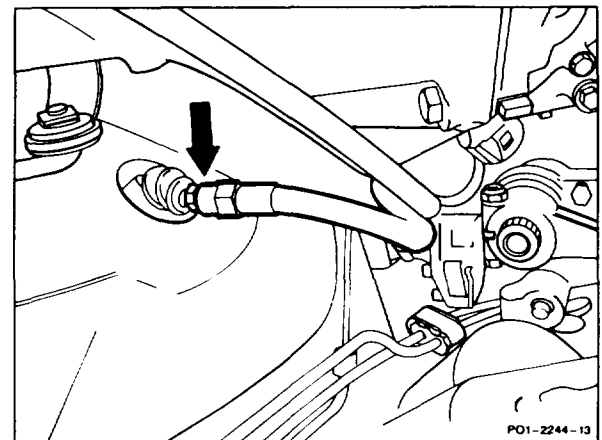
31 If manual transmission fitted: first press the clip locks off the transmission shift levers and then take off shift rods.



32 If automatic transmission fitted: detach shift rod at centre shift mechanism. Turn white plastic locking element on starter lockup, backup light switch (53) approx. 45° to the right and detach cable connector. Detach cable at kickdown solenoid valve.



33 If manual transmission fitted: disconnect hydraulic line (arrow) to the slave cylinder at hose screw union. Seal lines with dummy plugs or extract fluid from the rear chamber of the combined reservoir.

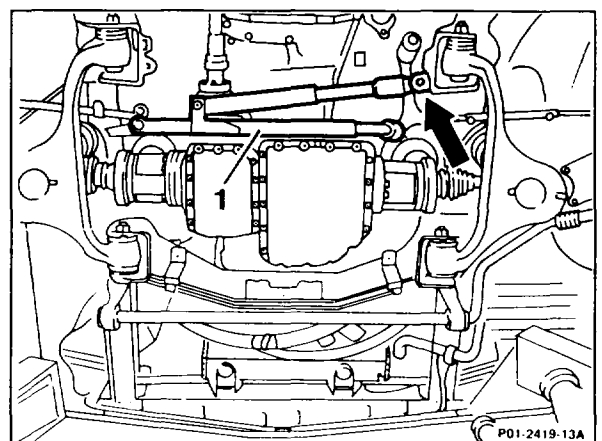


4MATIC

34 Remove drag link (1) together with steering damper. Unscrew steering damper (arrow) at the body. Remove drag link by using the tapered removing tool 201 589 08 33 00.

Note

Renew self-locking nuts.
Pay attention to tightening torques.

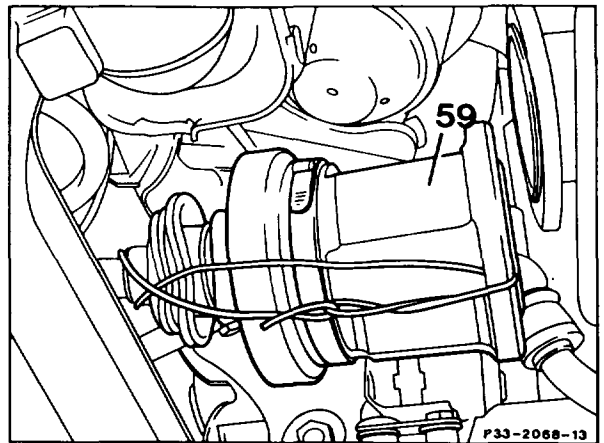


4MATIC

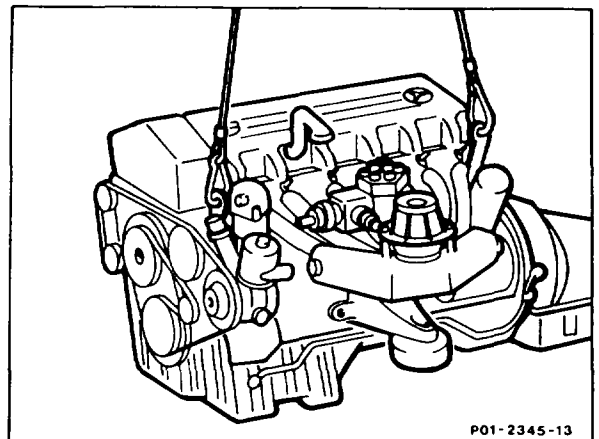
35 Remove front axle shafts (59). Operate footbrake to slacken the six bolts (microencapsulated). Push front axle shafts together as far as possible and fix in this position with wire. Place front axle shaft on wishbone arm. Pay attention to tightening torque.

Note

Do not pull inner joint too far apart and wrap to prevent the needle-bearing tripod joint rollers from dropping out of the journals at the tripod cross.

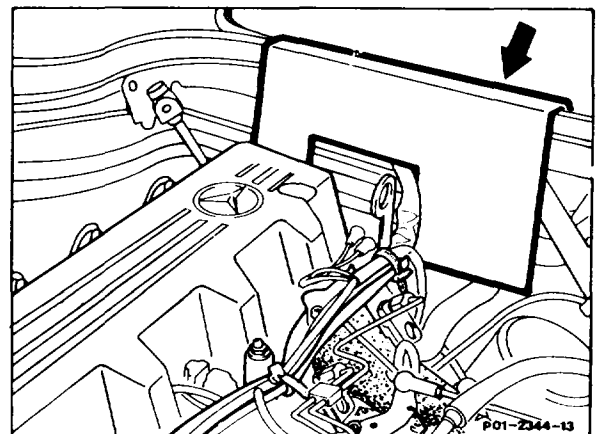


36 Attach engine hoist to the suspension lugs of the engine. Adjust engine hoist so that the engine can be raised horizontally.



37 Insert guard plate (arrow) between component compartment wall and engine.

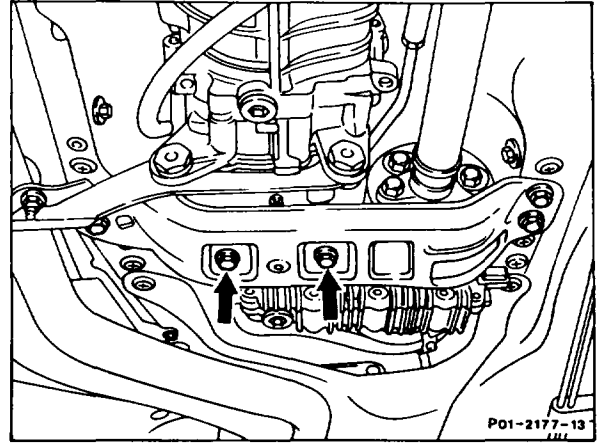
38 Support transmission with car jack or inspection pit lift.



4MATIC

39 Unscrew bolts (arrows). Tightening torque M8 20 Nm.

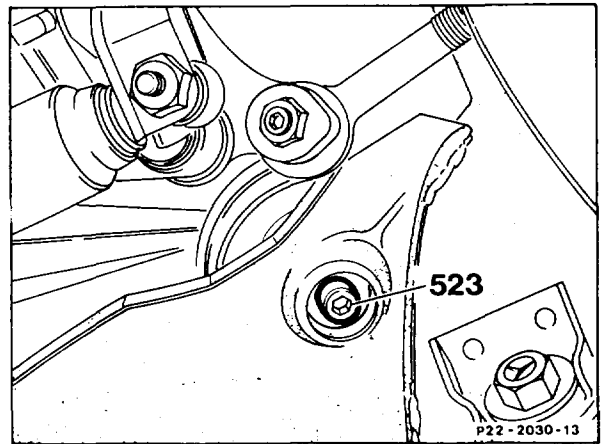
40 Remove rear engine support. Tightening torque M10 35 Nm.



41 Unscrew bolt (523) on left and right front engine mount from below. Tightening torque 40 Nm.

4MATIC

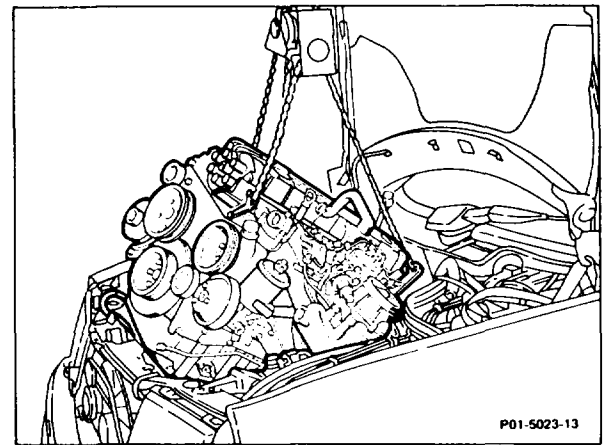
2 bolts from below. Tightening torque 20 Nm.



42 Move engine with transmission into inclined position and lift out of engine compartment by adjusting engine hoist several times, or install as appropriate.

Note

When tilting engine, pay attention to rear suspension lug and to the oil filter.



4MATIC

Do not place any load on, and do not strike lube oil line on transfer case (arrow) otherwise this may cause leaks.

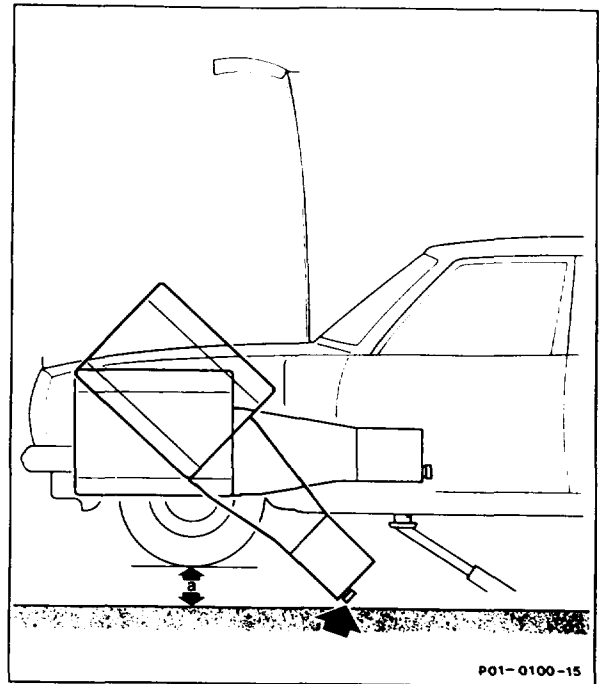
a = approx. 30 cm

Hook height at least approx. 260 cm.

Install in the reverse order.

43 Check front and rear engine mounts.

44 Check coolant, oil and fuel hoses.



45 If automatic transmission fitted: adjust cable for control pressure (27-100).

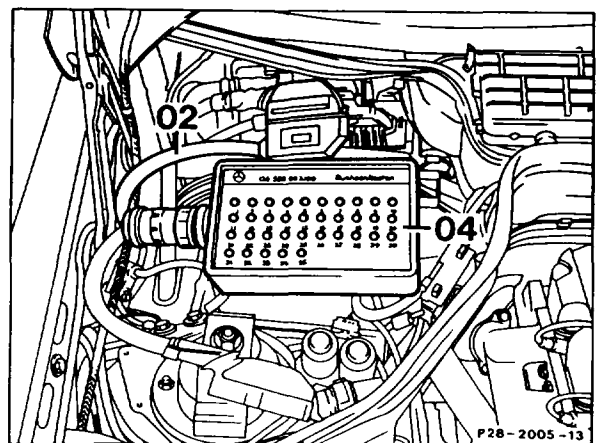
46 Check tightening torque of oil drain plugs.

47 Adjust engine oil in engine and transmission to correct level.

48 Pour in coolant, check anti-corrosion/antifreeze agent, adjust to correct level (20-0100).

4MATIC

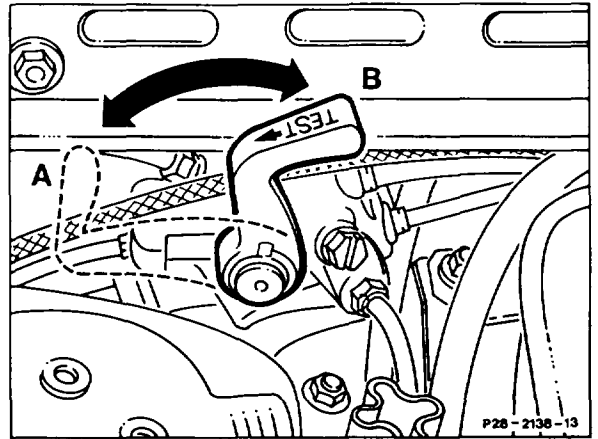
49 Bleed hydraulic system. Connect contact box 124 589 00 21 00. Disconnect 4MATIC control unit and connect 25-pin connector to the contact box (04) 124 589 00 21 00 with the Y cable (02). The control unit remains disconnected.



4MATIC

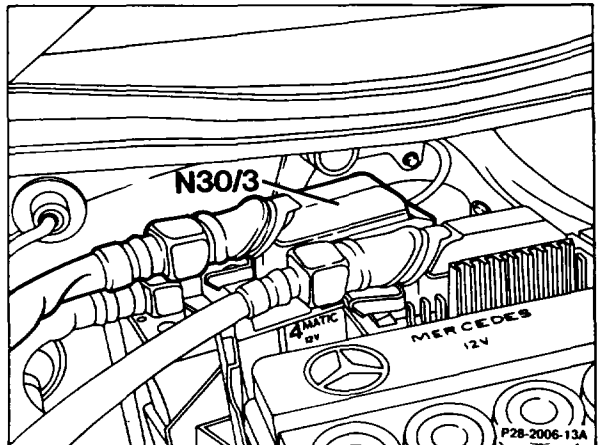
50 Bleed hydraulic oil pump. Check hydraulic oil level in reservoir. Service valve in test position. To bleed, start engine and run for approx. 30 seconds at 1000 – 2000 rpm. After bleeding, move service valve back to operate position.

A Test position
B Operate position



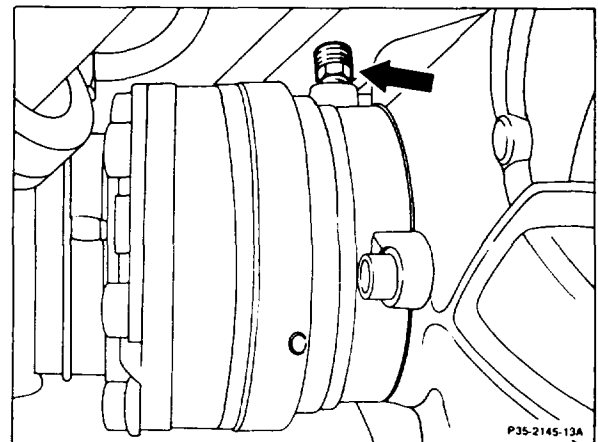
4MATIC

51 Detach 25-pin connector from control unit (N 30/3) and connect contact box 124 589 00 21 00. Service valve in operate position. Apply parking brake. Start engine and run at idling speed.



4MATIC

52 Bleed rear axle differential lock. Activate HS solenoid valve by jumpering contact 8 and contact 2 (ground) at contact box 124 589 00 21 00. Open bleeder (arrow) on rear axle centre section for as long as is necessary for the hydraulic oil to flow out free of bubbles (attach hose).

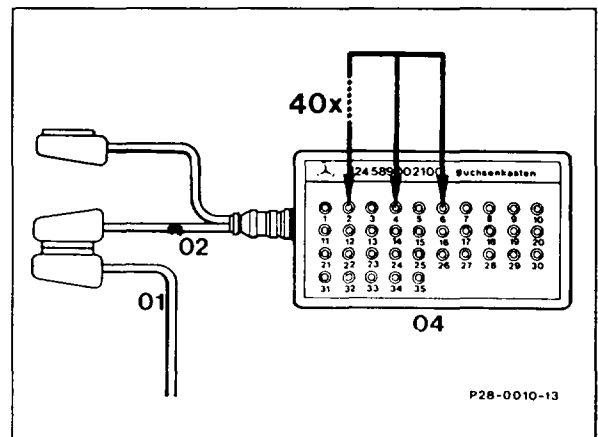


4MATIC

53 Bleed AV and ZS multi-disc clutches. Activate AV and ZS solenoid valve together 20 times by connecting contacts 4 and 6 at the contact box 124 589 00 21 00 and jumpering to contact 2 (ground) 20 times.

Note

The trapped air is removed through the hydraulic oil by actuating the AV and ZS multi-disc clutches several times.



54 Read, erase fault memories.

Note

After completing the work, the faults stored in the fault memories must be processed (rectified cause) and erased.

See Diagnosis Manual Volume 2:
Index 0: connecting and using testers

55 Check idle speed, adjust if necessary

56 Run engine and check for leaks.

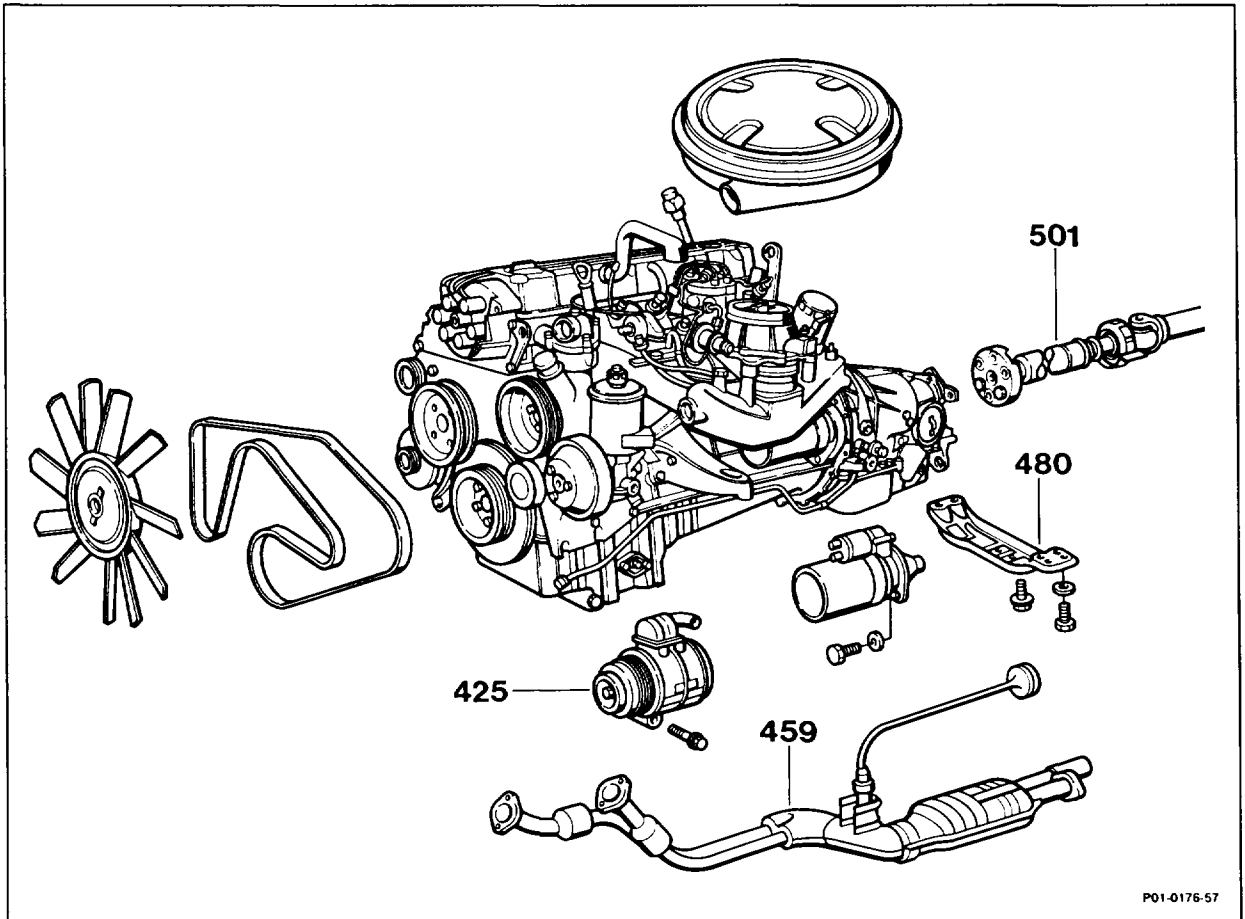


B. Model 107, 126, 129, 201

Preceding work:

Hood on model 107 removed (88-300).
 Bottom engine compartment panel removed (Maintenance Manual Volume 2, Op. no. 6190).
 Air cleaner removed (09-1051).
 Radiator removed (20-4200).
 Viscous fan clutch removed (20-3120).

Operation no. of operation texts and work units or standard texts and flat rates
 01-2400, 01-2800



- | | |
|----------------------------------|--|
| Ground cable at battery | detach, attach. |
| If air conditioning fitted | attach guard plate to condensor, detach poly V-belt (if AC fitted), attach (13-3420) (steps 2, 3). |
| If air conditioning fitted | detach refrigerant compressor (425) with pipe group connected, place to the side, attach (step 4). |

Power steering pump	extract oil from reservoir, adjust oil to correct level (46–7150) (step 6).
Oil lines of power steering pump	detach, attach. Renew seals (steps 5 and 7).
Fuel lines	detach and seal, briefly open fuel filler cap beforehand, attach (step 8).
Bowden cable (accelerator control) Model 129, 201	detach, attach (30–3402) (step 9).
Accelerator control linkage on Model 107, 126	detach, attach (steps 10 – 11).
Heating hoses and vacuum lines	detach, attach (step 13).
Engine wiring harness	detach, attach (steps 12, 14).
Ignition control unit and diagnostic socket (X11)	detach wiring and connectors, plug in (steps 15, 20).
Vacuum lines	detach, fit on (steps 16 – 18).
Starter on Model 129	remove, install (15–700) (place to side with wiring connected) (step 19).
Alternator on Model 107, 126, 129	detach connector, attach (step 21).
Alternator on Model 201	remove, install (step 22).
Wiring harnesses	remove covering, install (steps 23 – 25)
Lambda sensor	remove, install (step 26).
Exhaust system (459) and shield above exhaust system	remove, install (49–7000) (step 27).
Propeller shaft (501) at flexible joint	detach, attach. Renew self-locking nuts (step 28).
Propeller shaft intermediate bearing	slacken, tighten (step 29).
Clamping nut	slacken, push back and tighten (step 30).
Transmission	unscrew electronic speedometer and ground cable, screw on (steps 31 – 32).
Hydraulic lines for clutch on Model 129	unscrew, screw on (step 33).
Shift rods on transmission	detach, attach (steps 34, 35).
Starter lockout switch (automatic transmission)	turn locking element, detach connector and fit on (step 35).
Transverse yoke centre section of Model 126	unscrew, screw on. Renew self-locking bolts (step 36).
Drag link and steering damper on Model 107, 126, 201	unscrew, screw on (46–550) (step 37).



Rear engine support (480) without engine mount	remove, install (22-2120).
Engine shock absorber on model 107, 126	remove, install.
Front engine mounts, left and right	unbolt, bolt on from below (22-2110)
Guard plate at component compartment wall	insert, remove (step 43).
Engine with engine hoist	lift out (steps 38, 44).
Seal at heater feedpipe (engine suspension eye)	replace (25 Nm).
Front engine mounts	check.
Coolant, oil and fuel hoses	check.
If automatic transmission fitted	adjust Bowden cable for control pressure (27–100).
Idling speed	check and adjust.
Oil drain plugs	check tightening torque.
Oil level in engine and transmission	check (18-0020).
Coolant	pour in, check anti-corrosion/antifreeze agent (20–0100).
Fault memory	read, erase.

Note

After completing the work, faults stored in the fault memories must be processed (rectified cause) and erase.

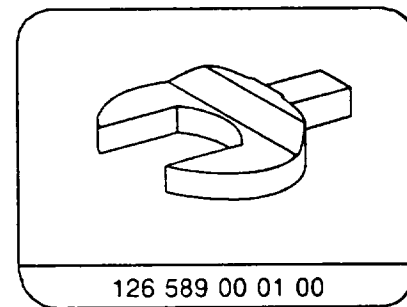
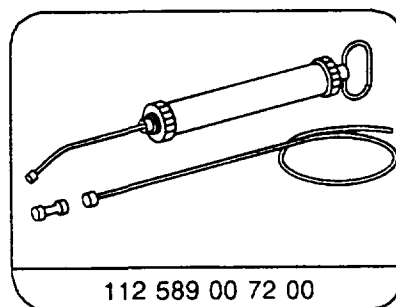
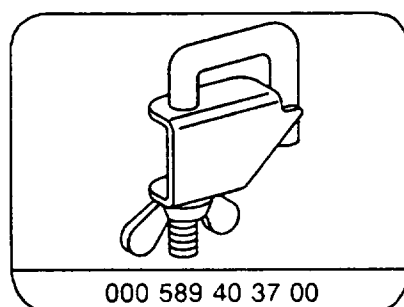
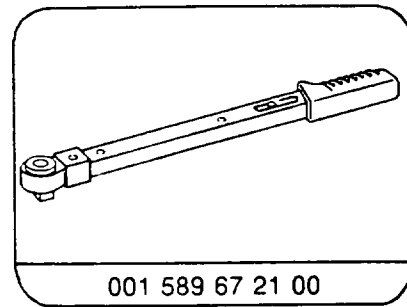
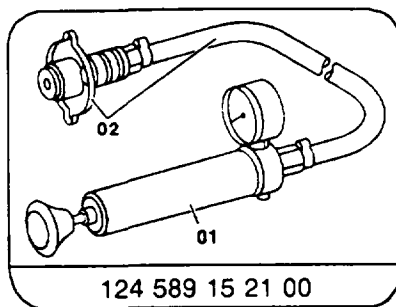
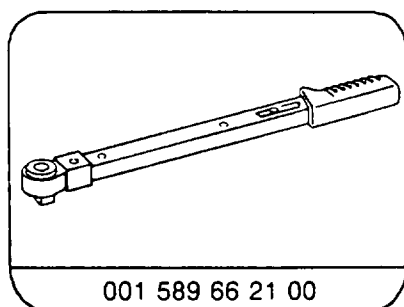
See Diagnosis Manual Volume 2:

Index 0: connecting and using testers.

Model 129 with ADS: steering angle sensor	initialize, see Diagnosis Manual Chassis Volume 2
Engine	run and check for leaks.



Special tools



Commercially available tools and testers

Designation	eg. make, order no.
Engine hoist No. 3188 self-locking	eg. Wilhelm Bäcker Herder Str. 13 D-42853 Remscheid
Anti-corrosion/antifreeze tester Preston-VU-Check	eg. Philipp Gather D-40822 Mettmann 2

Shop-made tools

Guard plate for radiator/condensor	Dim. approx. 480 × 680 × 1
Metal panel for component compartment wall	Dim. approx. 320 × 380 × 1



Note

Remove and install engine with transmission.



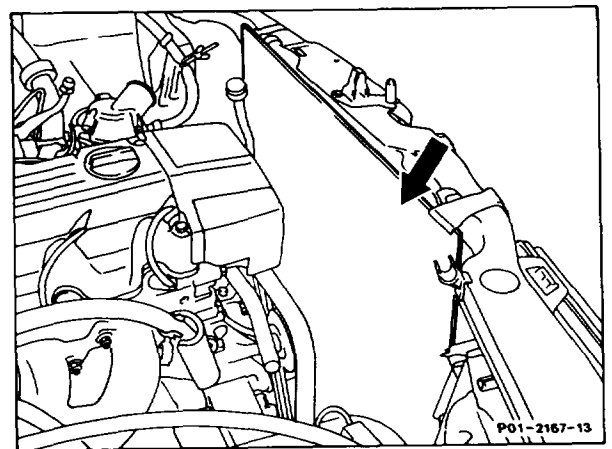
In the case of engine damage affecting the pistons, valves etc., parts may get in up to just before the catalytic converter or pre-catalytic converter.

When exchanging the engine, it is essential to remove these parts otherwise they may be pulsed back into the cylinders as a result of gas vibrations in the exhaust system and again cause engine damage.

In addition, these parts may cause mechanical damage to the catalytic converter. In dealing with such engine damage, it is therefore essential to remove these foreign bodies in the exhaust system.

Damaged catalytic converters must be replaced.

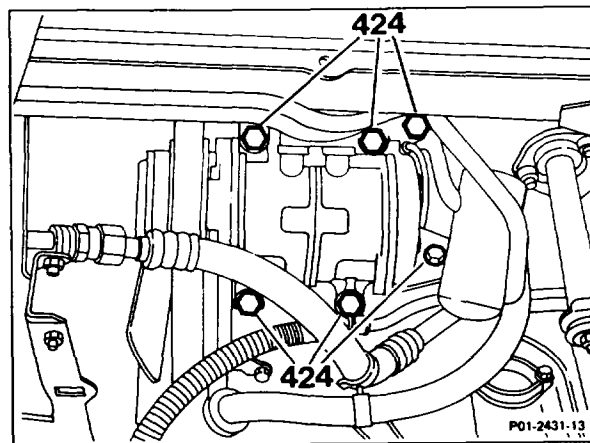
- 1 Detach ground cable at battery.
- 2 If air conditioning fitted: attach guard plate to condenser of air conditioning system (arrow).
- 3 If air conditioning fitted: remove poly-V-belt (13-3420).



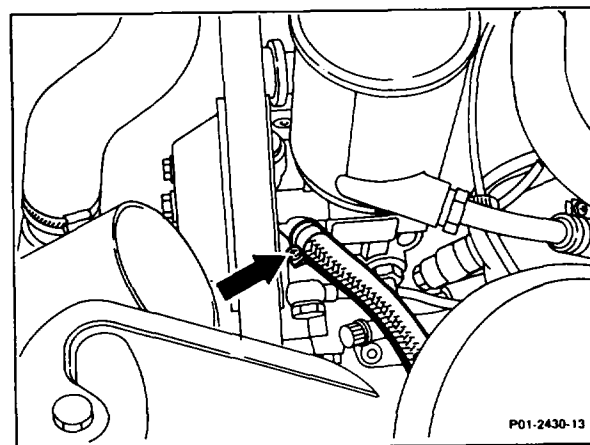
4 Detach refrigerant compressor of air conditioning system from crankcase. Unscrew bolts (424). Attach refrigerant compressor with pipe group connected to the side at the bottom of engine compartment. Unscrew hydraulic oil line at power steering pump and line bracket at front on cross member.

Installation instruction

Pay attention to tightening torque.



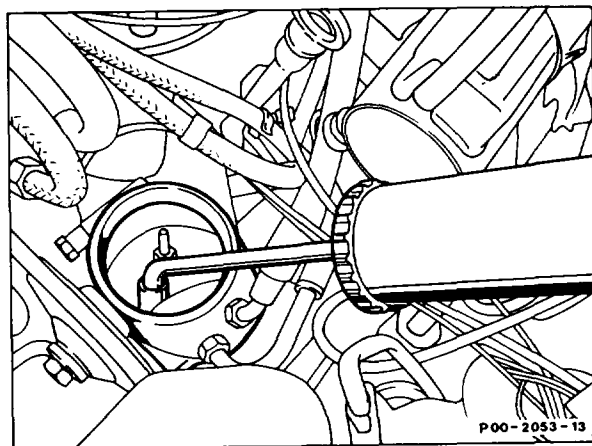
5 Slacken clip (arrow) and detach inlet hose of reservoir of self-levelling suspension at power steering pump and seal.



6 Extract oil from the reservoir of the power steering pump.

Installation instruction

Check oil level of power steering (46-7150).

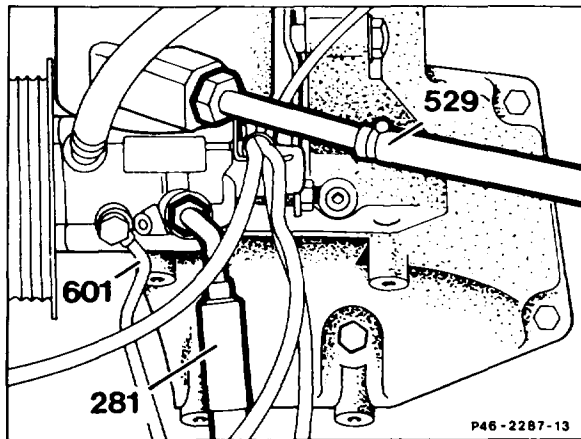


7 Unscrew high-pressure expansion hose (281), return line (529) to the steering gear and oil line (601) of the self-levelling suspension at the power steering pump.

Installation instruction

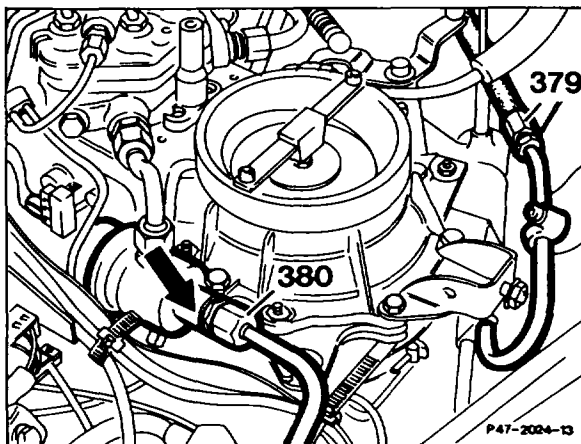
Renew seals.

Pay attention to tightening torque of high-pressure expansion hose (281) and return line (529).



8 Briefly open the fuel filler cap to release the pressure in fuel tank. Unscrew fuel lines (379, 380). Hold the connection fitting (arrow) when slackening the fuel line (380).

Shown on model 124

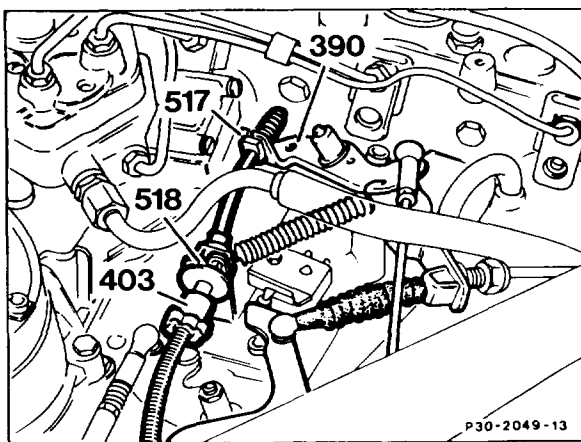


Model 129, 201

9 Detach Bowden cable of accelerator control. Press plastic guide (517) out of its seat in the fulcrum lever (390) and withdraw Bowden cable (403) through the slot in the fulcrum lever. Compress links of the plastic clip (518) and push clip with the Bowden cable (403) to the rear through the bracket.

Installation instruction

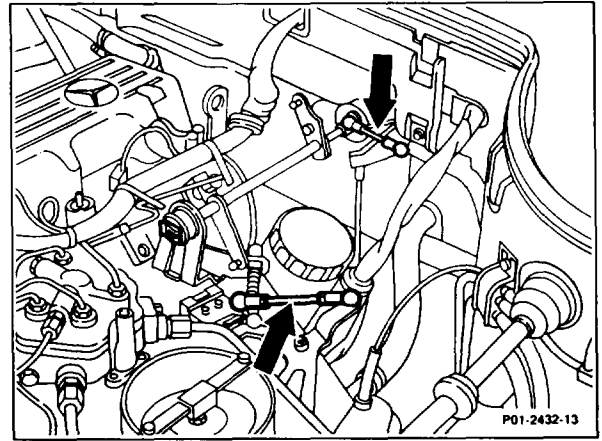
Adjust Bowden cable (30-3402).



Model 107, 126

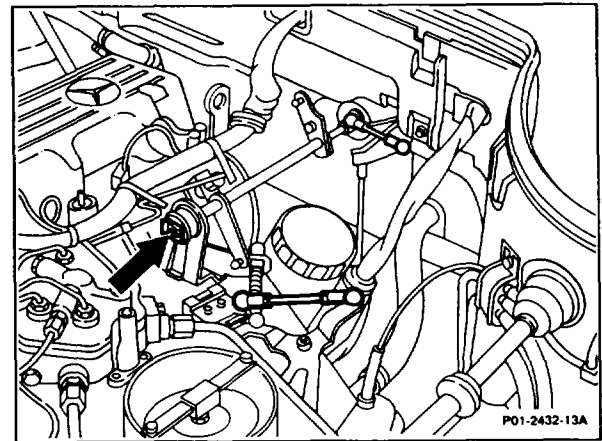
10 Press off accelerator control linkage (arrows), turn to the left and tie tight.

Shown on model 126

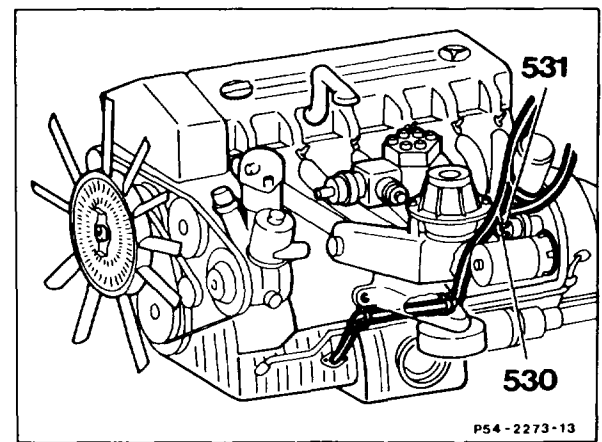


11 Take off clip at accelerator control linkage shaft (arrow) and withdraw the control linkage shaft from the mounting point and take out to the front.

Shown on model 126



12 Unscrew electric lead. Turn down nut (531). Unscrew cross-head screw (530). Detach cable from oil level gauge and from the oil pressure sensor. Detach wiring harness from the rear suspension lug and withdraw upward.



13 Detach heating hoses and vacuum lines in the engine compartment.

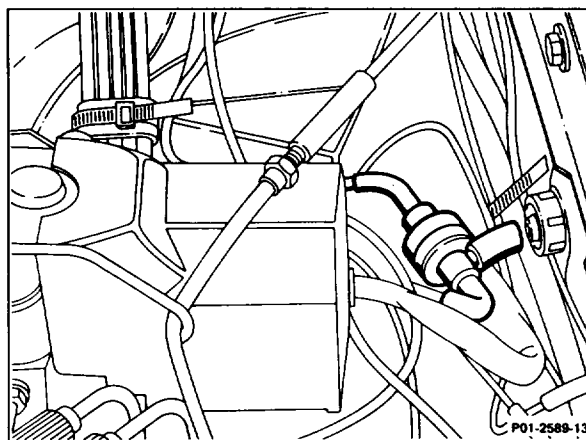


14 Slacken all the cable straps of the engine wiring harness. Detach all the plug connections along the engine wiring harness. Remove wiring harness.

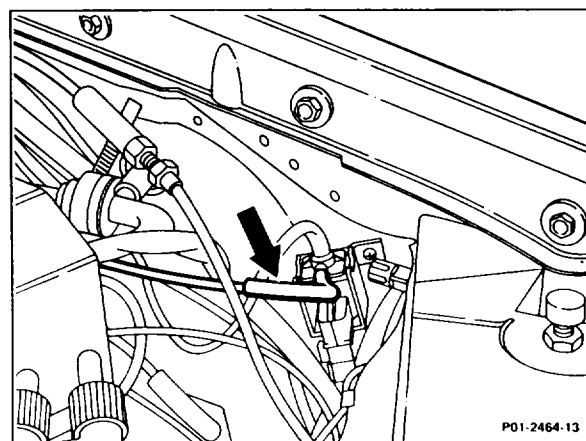
15 Detach control line from position sensor and vacuum line at the connector-sensor ignition control unit (arrow).

16 Detach vacuum lines.

17 Detach extraction line of fuel evaporation control system from connection fitting on the left wheelhouse.



18 Detach control pressure line (arrow) at the left wheelhouse and place over the engine.

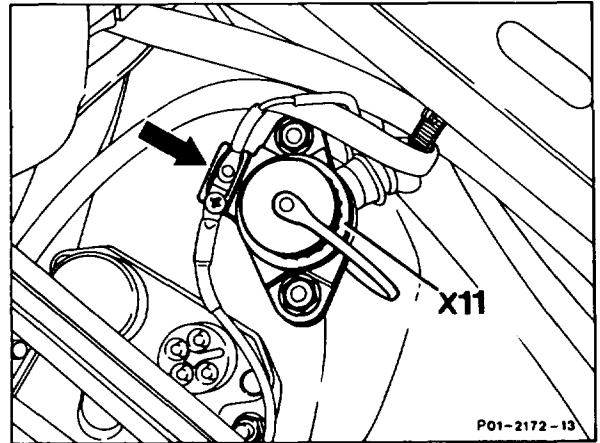


Model 129

19 Unscrew starter and place to the side (15-700).

Electric cables remain connected.

20 Detach terminal block terminal TD next to diagnostic socket (X11) (arrow), unscrew diagnostic socket, detach cable from TDC sensor on the rear of the diagnostic socket.

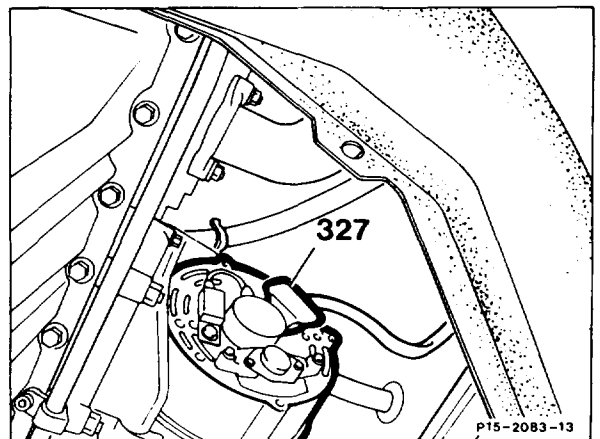


Model 107, 126, 129

21 Unplug connector (327) at the alternator.

Model 201

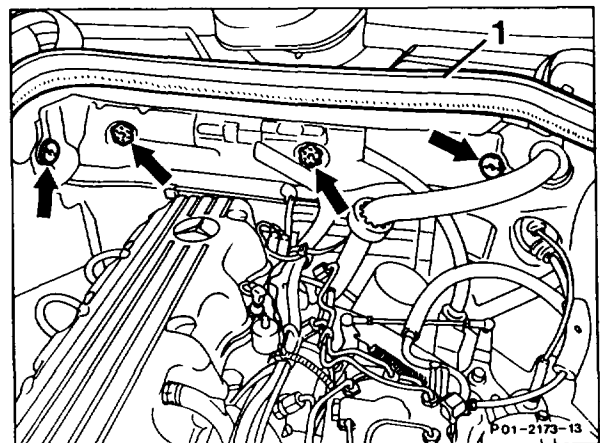
22 Unscrew alternator and take out oil line of self-levelling suspension.



23 Remove rubber sealing strip (1) from the component compartment wall.

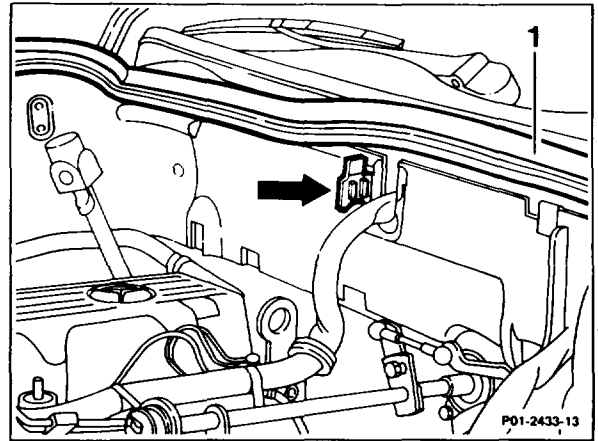
Model 129, 201

24 Remove covering of wiring harnesses by unscrewing four plastic screw fittings (arrows).



Model 126

Remove rubber sealing strip (1) from the component compartment wall and open the fixture (arrow) of the engine wiring harness, take out wiring harness upward and place to the side.

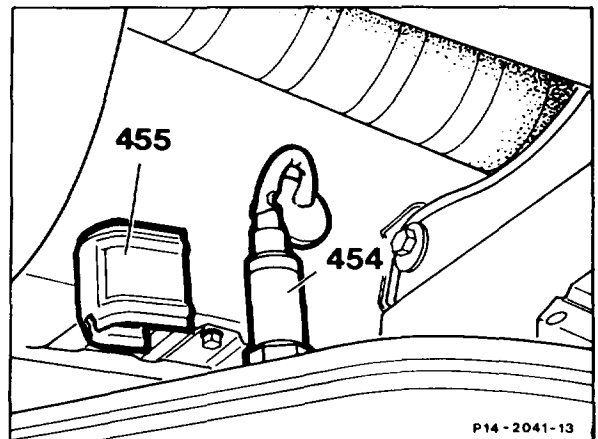


Model 129

25 If car fitted with air conditioning, unscrew cable holder at front on engine.

26 Pull off protective plate (455) and unscrew the lambda sensor (454).

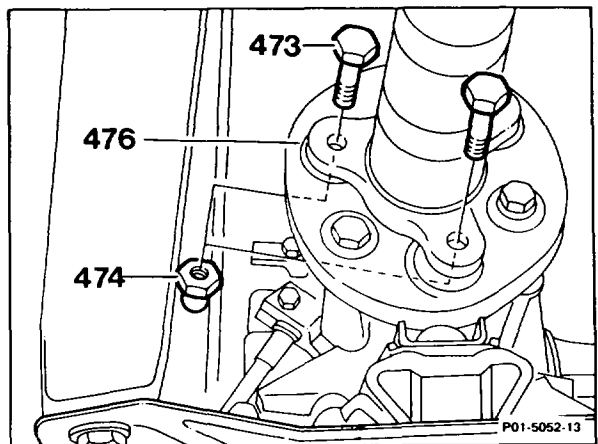
27 Remove exhaust system and shield above exhaust system (49-7000).



28 Detach propeller shaft. Unscrew nut (474), remove bolt (473). Flexible coupling (476) remains on transmission.

Installation instruction

Renew self-locking nuts.
Tightening torque 45 Nm.



29 Slacken bolts (494) for the propeller shaft intermediate bearing, but do not remove.

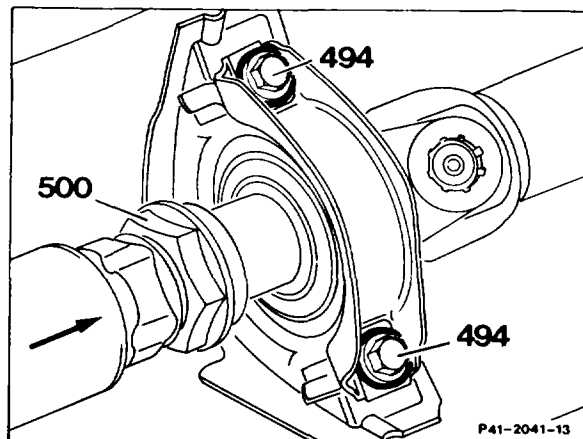
Installation instruction

Pay attention to tightening torque.

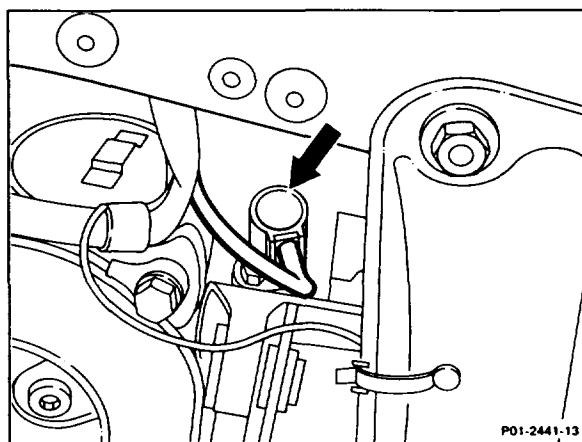
30 Slacken clamping nut (500) (waf 41/46) from the propeller shaft. Push back propeller shaft in direction of arrow as far as possible.

Installation instruction

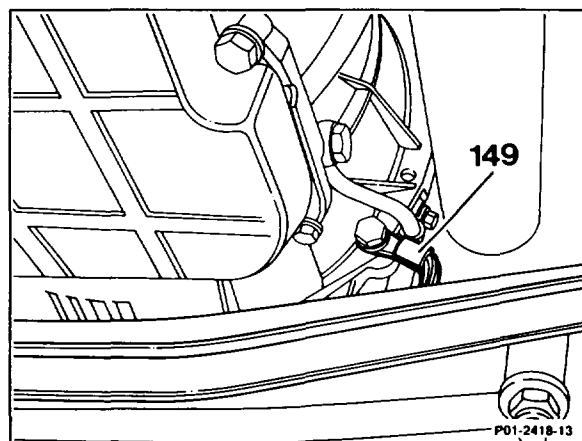
Pay attention to tightening torque.



31 Unscrew cable for electronic speedometer (arrow) from transmission.

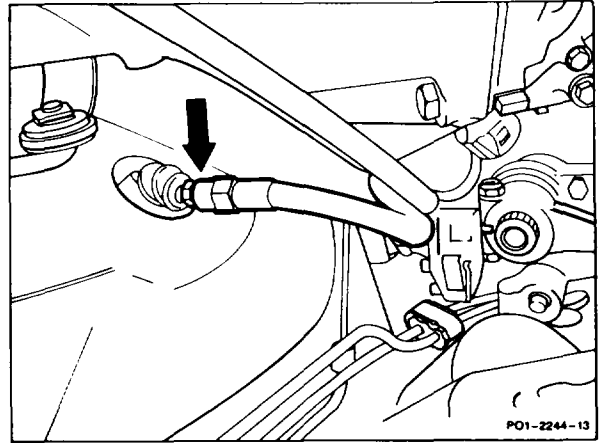


32 Unscrew ground cable (149) at transmission.

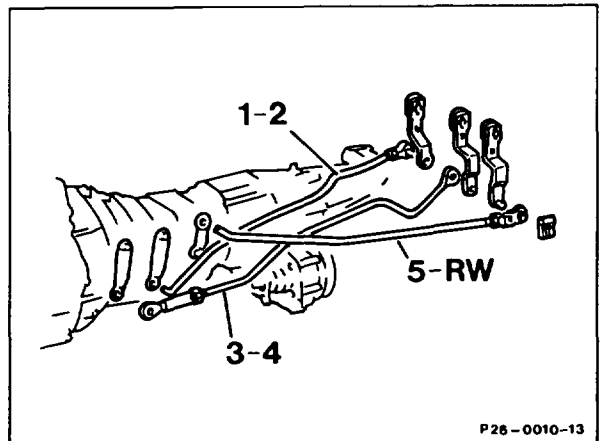


Model 129

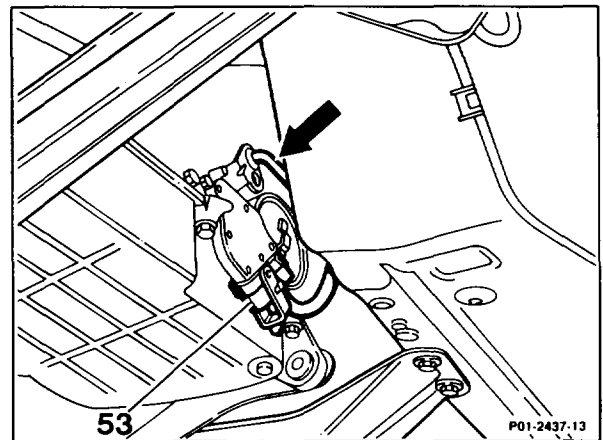
33 If manual transmission fitted: disconnect hydraulic line (arrow) to the slave cylinder at the hose union. Seal lines with dummy plugs or extract fluid from the rear chamber of the combined reservoir.



34 If manual transmission fitted: press clip locking elements off the transmission shift levers and then detach shift rods.



35 If automatic transmission fitted: detach shift rod (arrow) at the centre shift mechanism. Turn white plastic locking element on starter lockout, backup light switch (53) approx. 45° to the right and detach the cable connector. Detach cable on the kickdown solenoid valve.



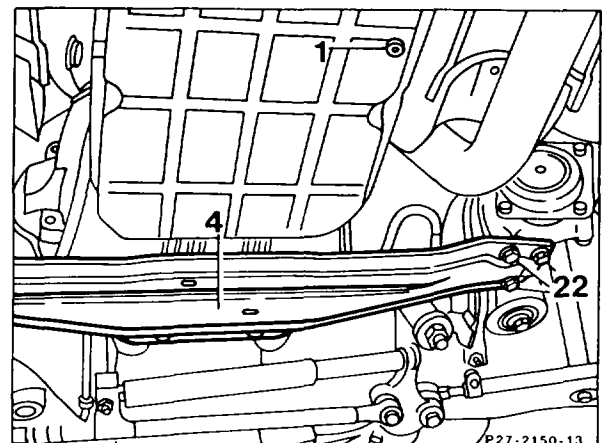
Model 126

36 Unscrew cross yoke centre piece (4) on the front axle.

Installation instruction

Renew self-locking bolts (22).

Pay attention to tightening torque.



Model 107, 126, 201

37 Unscrew drag link on left and steering damper on right, detach and turn drag link to the rear right (46-550).

38 Attach engine hoist to the suspension lugs of the engine.

Adjust engine hoist so that the engine can be raised horizontally.

39 Support transmission with car jack or inspection pit lift.

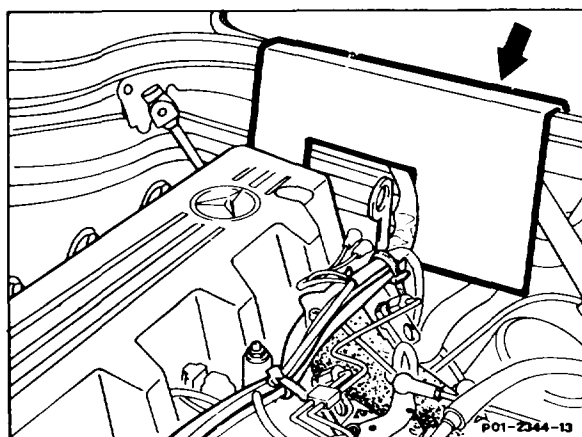
40 Remove rear engine mount cross bar (22-2120).

Model 107, 126

41 Remove left and right engine shock absorbers.

42 Unscrew bolt at left and right front engine mount from below (22-2110).

43 Insert guard plate (arrow) between component compartment wall and engine.



44 Tilt engine with transmission and lift out of the engine compartment, or install as appropriate, by repositioning engine hoist several times.

Note

When engine tilted, pay attention to the rear suspension lug and to the oil filter.

45 Check front and rear engine mounts.

46 Check coolant, oil and fuel hoses.

47 Install in the reverse order

48 If automatic transmission fitted, adjust Bowden cable for control pressure (27–1000).

49 Check idling speed, adjust. Read fault memories, erase.

Note

After completing the work, faults stored in the fault memories must be processed (rectified cause) and erase.

See Diagnosis Manual Volume 2:
Index 0: connecting and using testers.

50 Check tightening torque of oil drain plugs.

51 Check oil level in engine and transmission.

52 Pour in coolant, check anticorrosion-antifreeze agent (20–0100).

53 Run engine and check for leaks.

