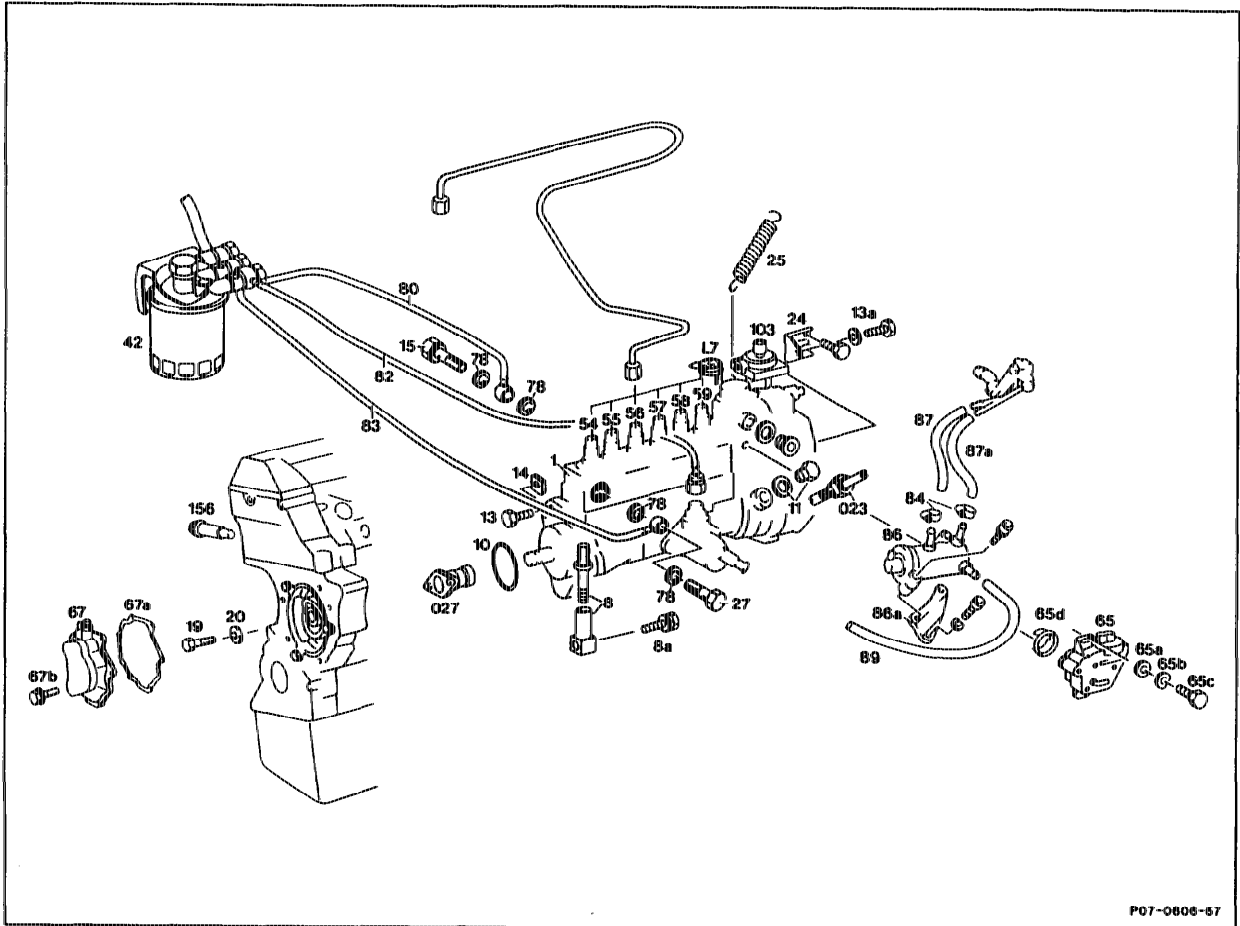


07.1-8410 Removing and Installing Injection Pump

Operation no. of operation texts and work units or standard texts
and flat rates: 07-8410 or 07-8411



P07-0806-87

Bottom section of noise encapsulation	remove, fit (94-0050).
Belt tensioning device	remove, install (13-340).
Fan cowl and fan	remove, install (20-335).
Vacuum pump (67)	remove, install (43-618). Renew gasket (67).
Assembly sleeve (067)	install, remove, so that engine can be turned over properly. Special tool 601 589-05 14 00 (engines effective 09/89).
Radiator	remove, install (20-470). Model 201.128 only.
Actuator of cruise control	remove, install (54-541), Engine 603 only.

Central fastening bolt (19) with washer (20) unscrew, screw in, tightening torque 40–50 Nm.



Left-hand thread

Crankshaft in direction of rotation
turn to 15° ATDC of no. 1 cylinder.

Chain tensioner (156) remove, install (05–310).
Special tool 001 589 65 09 00.

Injection lines (54–59) at injection pump disconnect, connect.
Tightening torque 10–20 Nm.

Fuel lines (80, 82, 83) Special tool 000 589 77 03 00.

Fuel lines (80, 82, 83) disconnect, connect, renew seals.



Do not mix up hollow screw (27) and overflow orifice (15).

Fuel thermostat (86) and fuel line (89) disconnect, connect.

Pressure lines at ALDA unit (103) and vacuum lines disconnect, connect.

Electric cables disconnect, connect at control rod travel sensor (L7) and at actuator (Y22).

Accelerator control linkage detach, attach. Check setting (30–1010).

Injection pump (1) unscrew bolt (13 and 13a), tightening torque 20–25 Nm. Withdraw injection pump to the rear; **hold Injection timer tight** when performing this step.

O-ring (10) renew.

Start of delivery adjusting device (8) remove, install; unscrew bolt (8a) for this step.

Spring (25) detach, attach.

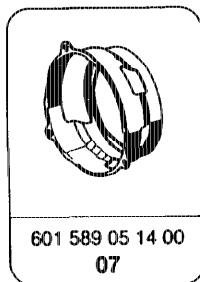
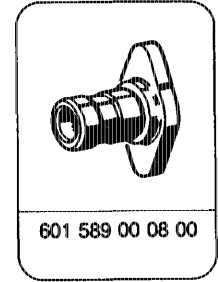
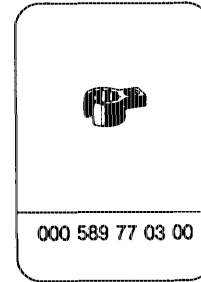
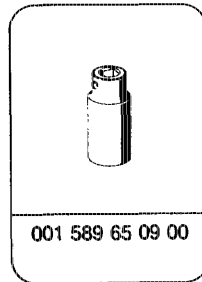
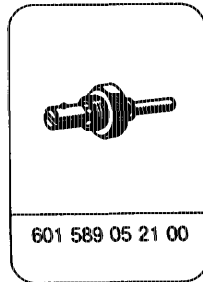
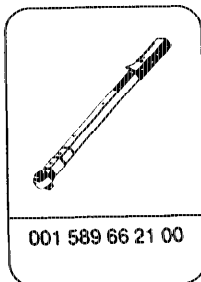


- Screw plug (11) remove and turn removed injection pump with serrated wrench (027) until lug is visible in the governor housing hole. In this position, push in locking bolt (023) until it is felt to engage.
- Start of delivery check (07.1-8240 or 8244), set if necessary (07.1-8300).
- Vacuum control valve (65) remove, install, set (07.1-1826).



Remove locking bolt (023) after installing injection pump and re-fit screw plug (11).

Special tools



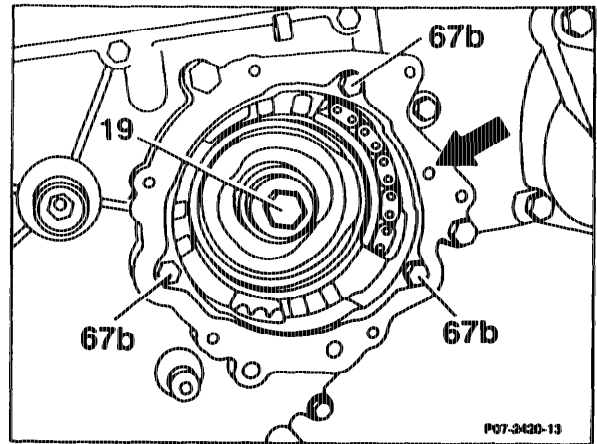
Removal and installation

1 Slacken central fastening bolt (19), unscrew while holding crankshaft tight.

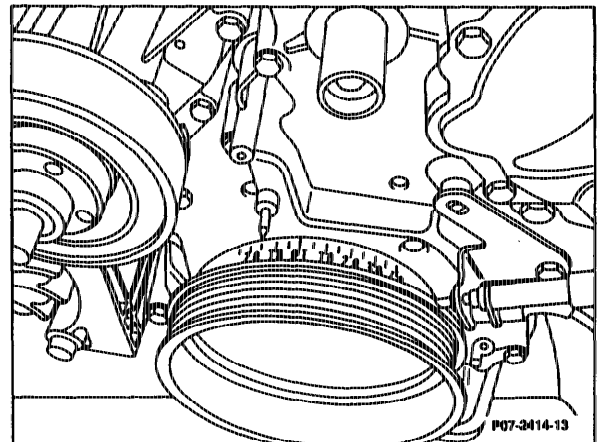


Left-hand thread.

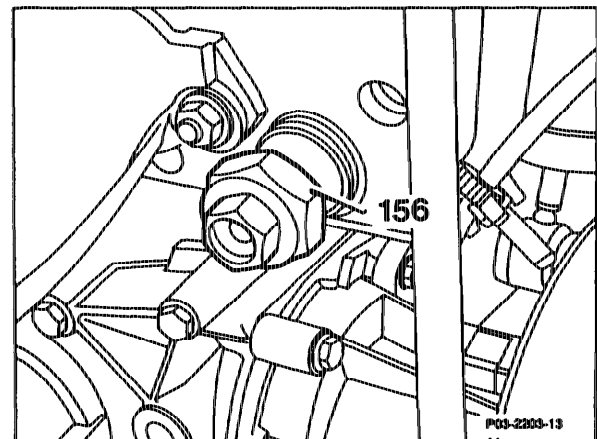
Mount assembly basket using bolts (67b), so that the engine can be cranked easily (on engines effective 09/89).



2 Turn crankshaft in direction of rotation to 15° ATDC of no.1 cylinder.



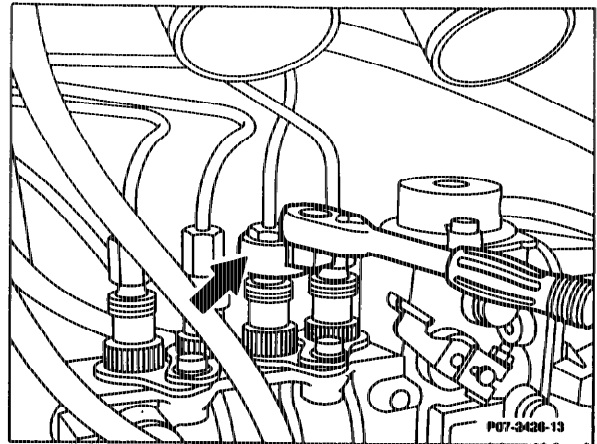
3 Remove chain tensioner (05-310).



156 Wrench socket
Special tool 001 589 65 09 00

4 Detach injection and fuel lines at the injection pump.

Arrow Box wrench socket
Special tool 000 589 77 03 00
with 1/4" ratchet



5 Disconnect vacuum lines at vacuum unit for stop unit and vacuum control valve. Detach 2-pin connector at actuator (Y22) of electronic idle speed control.

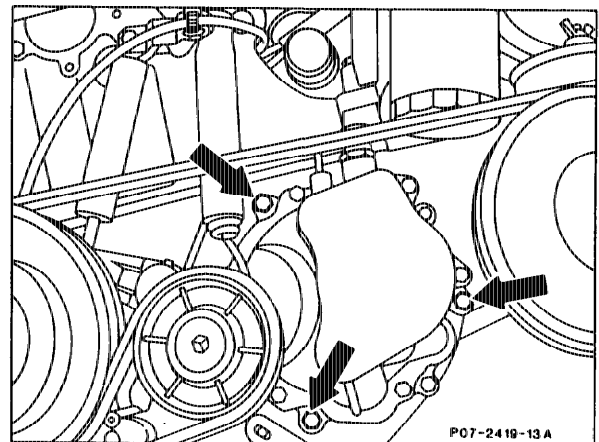
6 Disconnect electric cables at control rod travel sensor (L7) and at actuator (Y22).

7 Disconnect pressure line at ALDA unit.

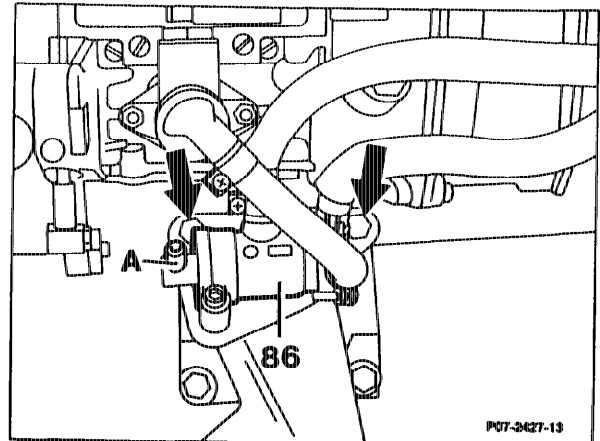
8 Detach accelerator control linkage at control lever and spring.

9 Remove vacuum control valve.

10 Remove injection pump; unscrew fastening bolts (arrows) and bolt on mounting bracket for this step. Withdraw injection pump to the rear, holding timing device in place.



11 Remove fuel thermostat (86) complete; unscrew bolts (arrows) for this step.

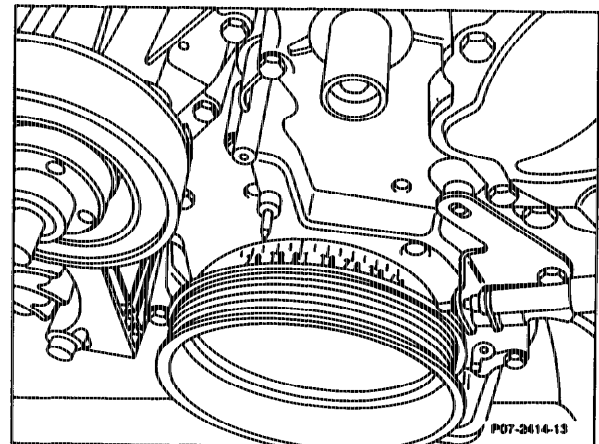


A Inlet from fuel tank

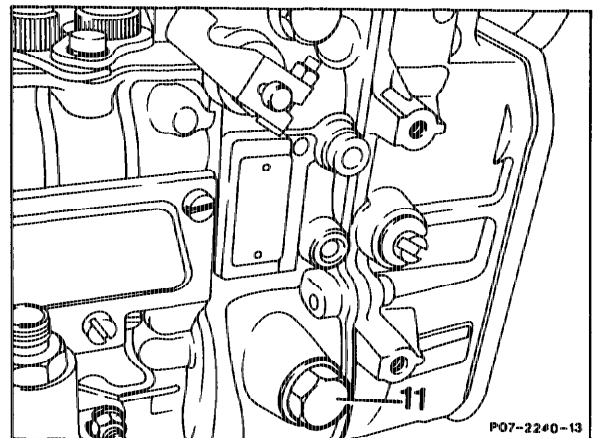
12 Check whether the engine is positioned at 15° ATDC of no. 1 cylinder; adjust if necessary.



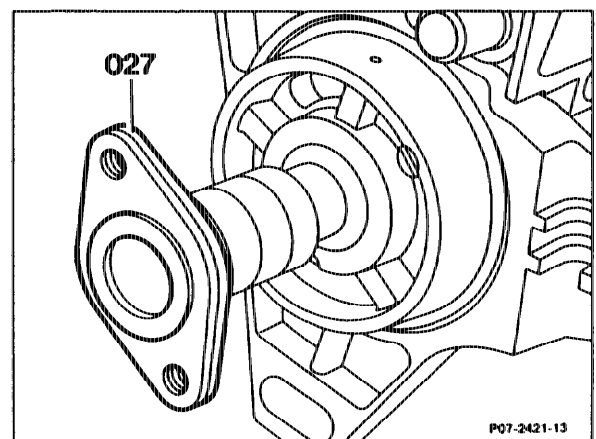
Engine must only be cranked in direction of rotation!



13 Unscrew plug (11).



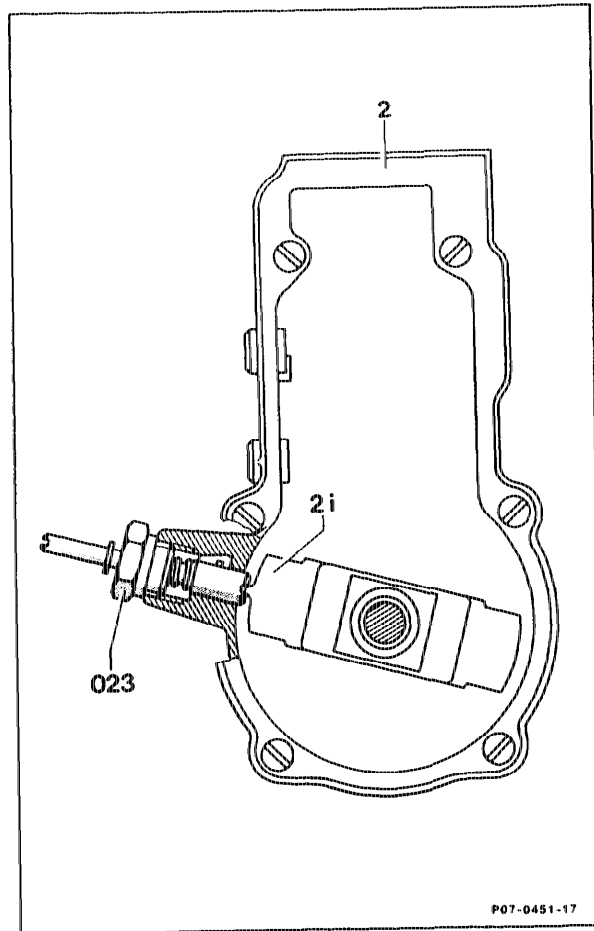
14 Use serrated wrench (027) to turn injection pump on the injection pump crankshaft until the lug of the governor is visible at the hole, i.e. push in locking bolt (023) in this position until it is felt to engage, and tighten by hand.



027 Serrated wrench
Special tool 601 589 00 08 00



Remove locking bolt (023) after installing injection pump, otherwise the injection pump will be damaged when starting the engine.



023 Locking bolt
Special tool 601 589 05 21 00

15 Fit remaining parts to engine.

Note

When starting engine, the injection system is automatically bled.

16 Check start of delivery (07.1-8240 or 8244);
set start injection if necessary (07.1-8300).

17 Install vacuum control valve and set
(07.1-1826).