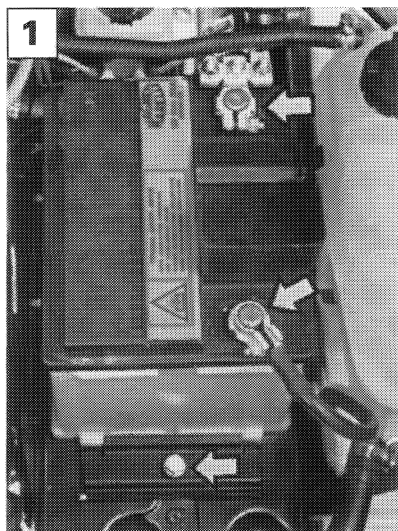


# PUNTO eMANUAL

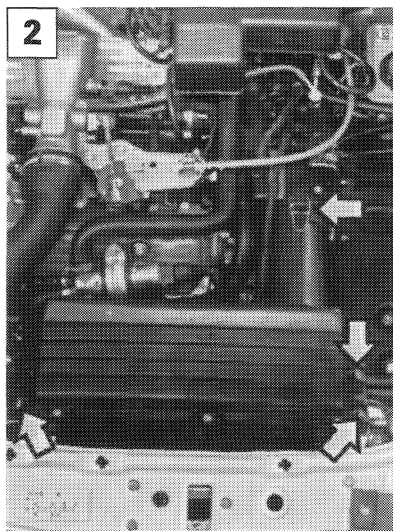
Engines

Title	Page
Removal/refitting power unit .....	1 ➡
Separating gearbox from power unit .....	14 ➡
Drawings .....	17 ➡
Special tools .....	19 ➡

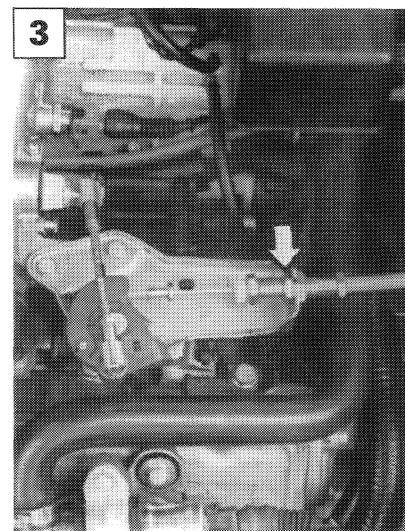
#### REMOVING-REFITTING POWER UNIT



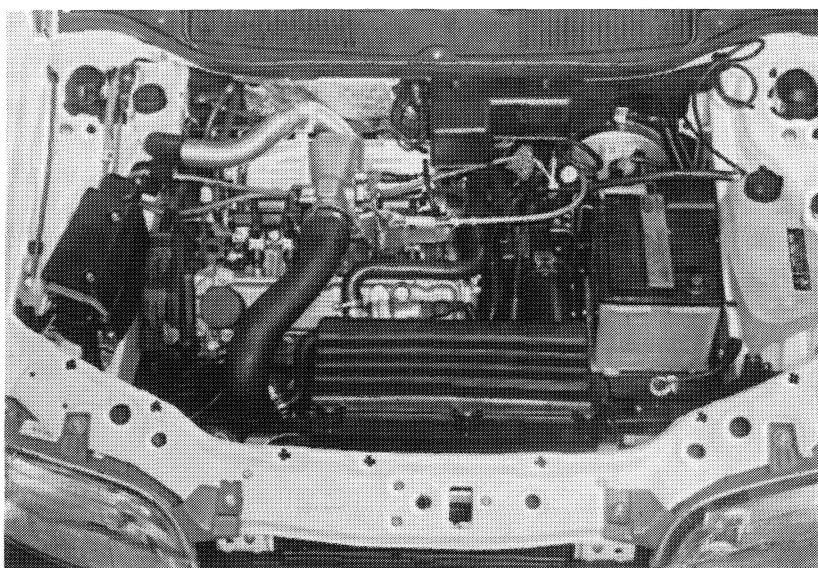
P3M01CJ01



P3M01CJ02



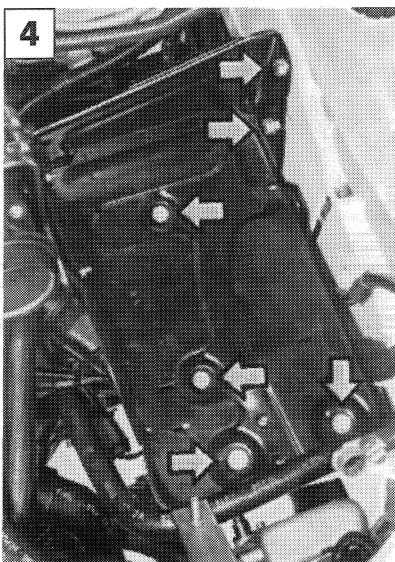
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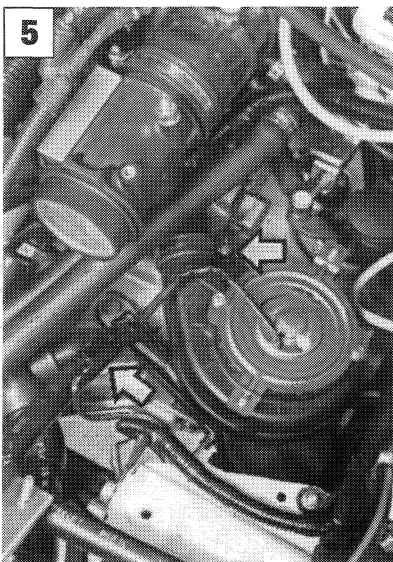
P3M01CJ04

Remove the bonnet lid, position vehicle on lift, drain coolant from engine and fluid from power steering system, then proceed as follows.

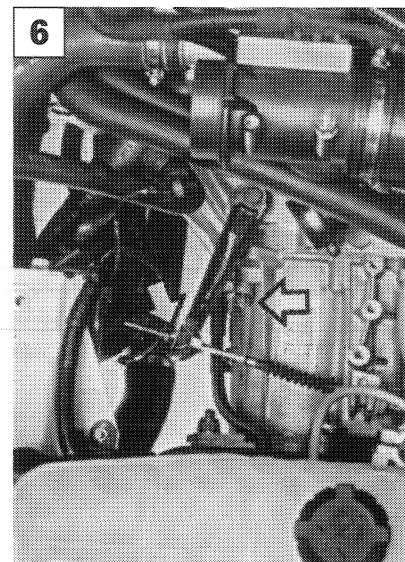
1. Disconnect leads, unscrew retaining screw and remove battery.
2. Undo the clips, unscrew the screws and remove the air cleaner.
3. Loosen the bolts and remove the accelerator cable.
4. Unscrew the bolts and remove the battery mount.
5. Disconnect the connector, loosen the clip and remove the injector fan.
6. Disconnect the clutch cable and the earth lead.



P3M01CJ05

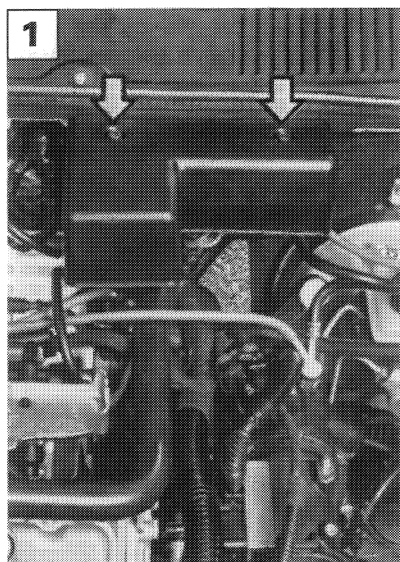


P3M01CJ06



P3M01CJ07

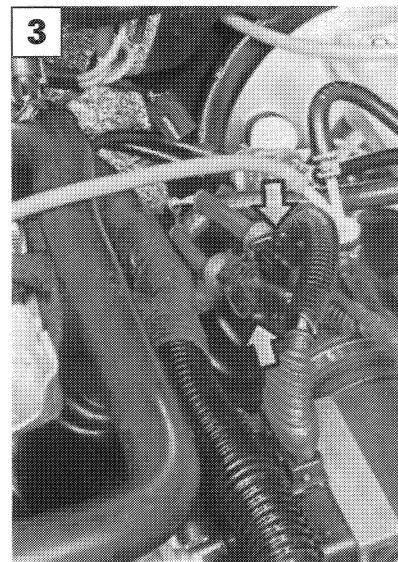
### 10.



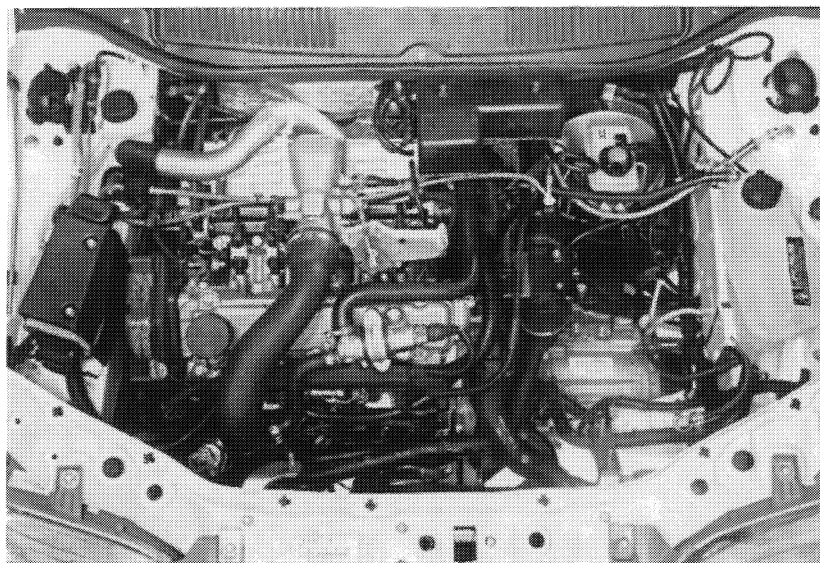
P3M02CJ01



P3M02CJ02



P3M02CJ03

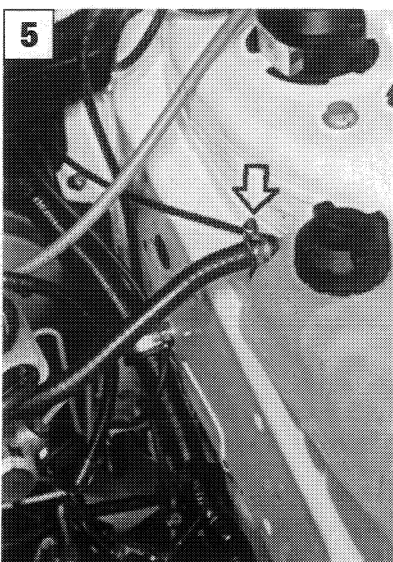


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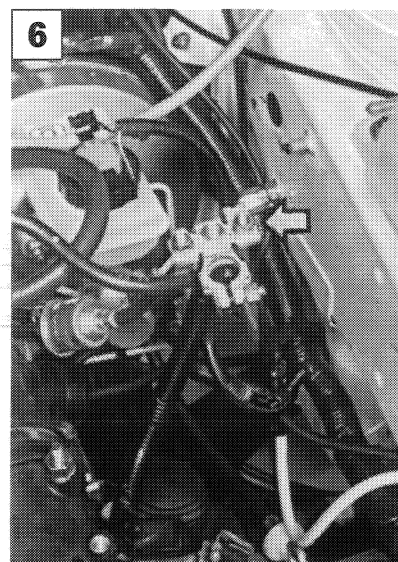
1. Unscrew bolts and remove the protection.
2. Disconnect connector and unscrew screw, then prise out the turbo control valve.
3. Disconnect the lambda probe lead connectors.
4. Disconnect the vacuum intake lines shown in the figure (servo brake and injection/ignition control unit).
5. Loosen the clip and disconnect the coolant return line to the expansion tank.
6. Separate the positive lead shown in figure from the battery terminal.



P3M02CJ05

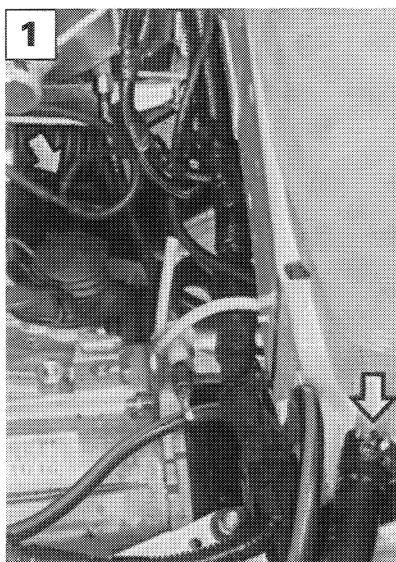


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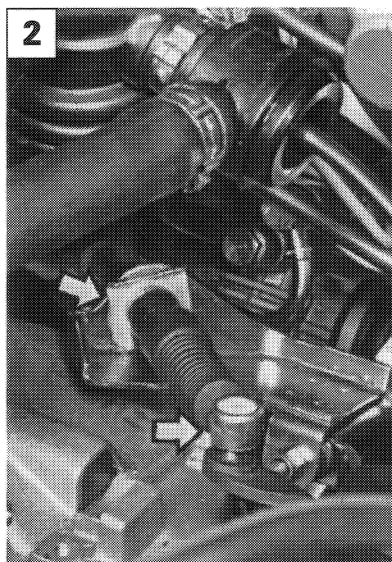


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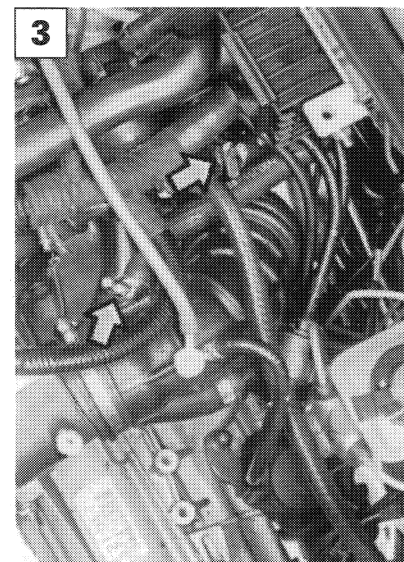




P3M03CJ01



P3M03CJ02

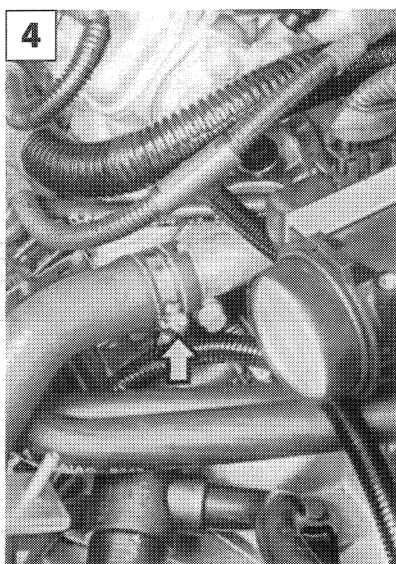


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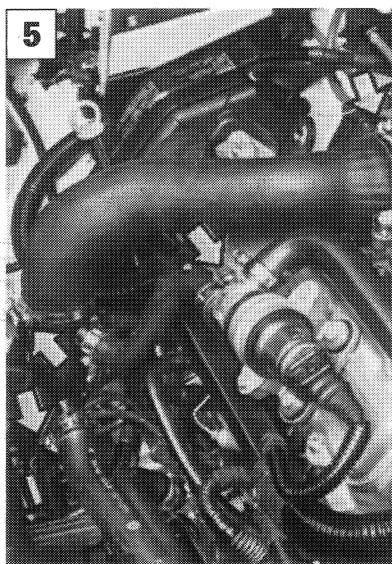


P3M03CJ04

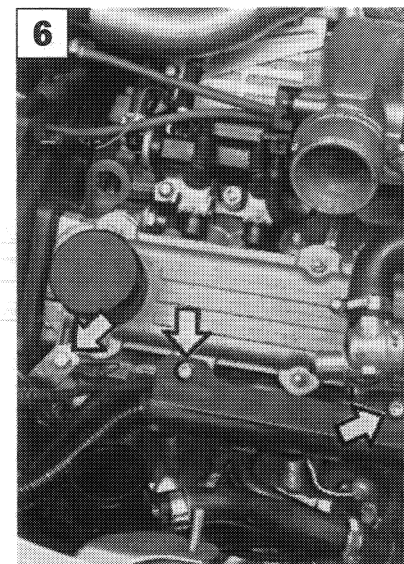
1. Disconnect the coolant delivery pipe from the expansion tank by loosening the clip. Disconnect the vacuum intake line from the fitting shown.
2. Disconnect the gear engagement lever, remove the retaining plate and withdraw the lead.
3. Loosen the clips and disconnect the coolant delivery and return lines to the passenger compartment heater.
4. Disconnect the line from the thermostat to the radiator.
5. Loosen the clips indicated and remove the air delivery lines.
6. Remove the cable protection and the earth lead by unscrewing the bolts indicated.



P3M03CJ05



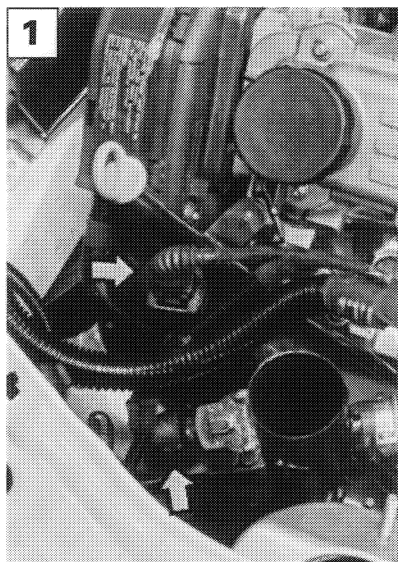
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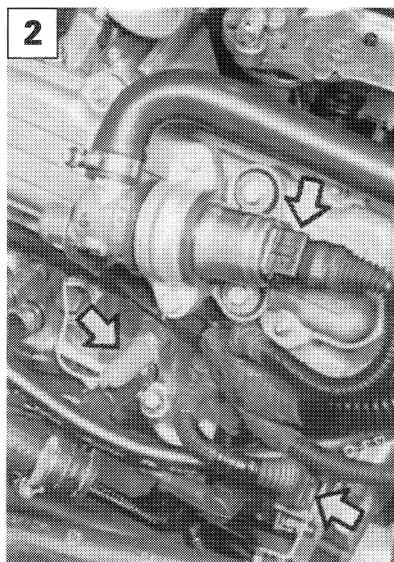
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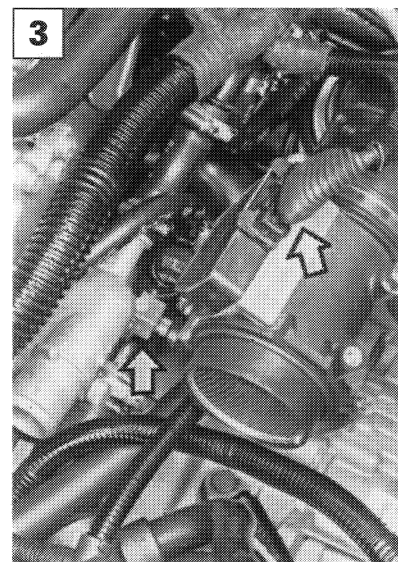
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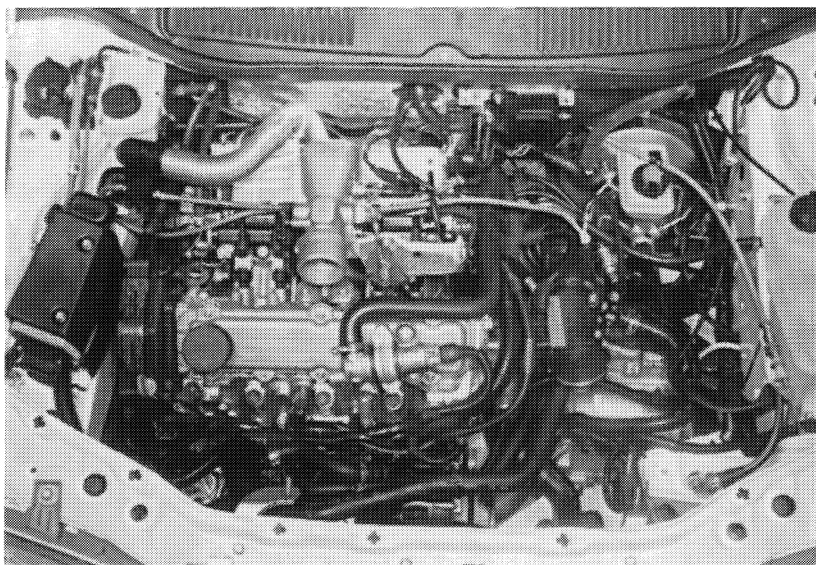
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P3M04CJ02

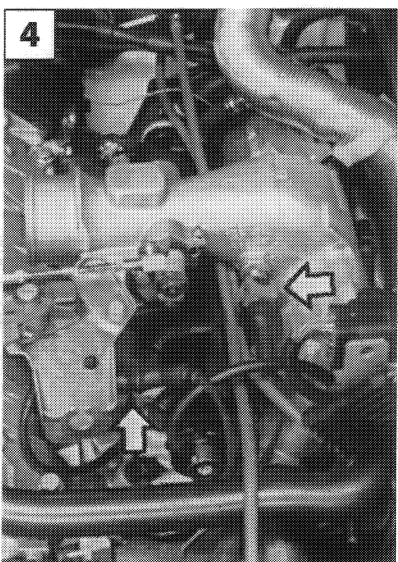


P3M04CJ03

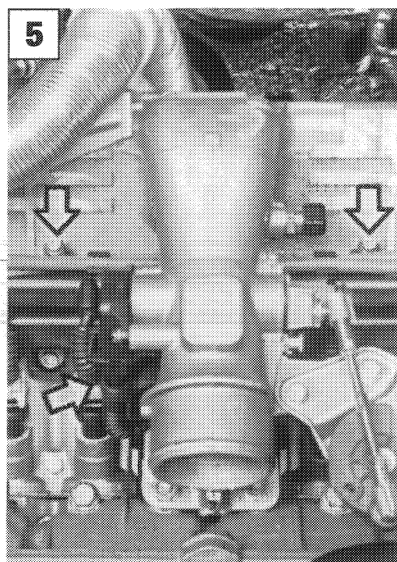


P3M04CJ04

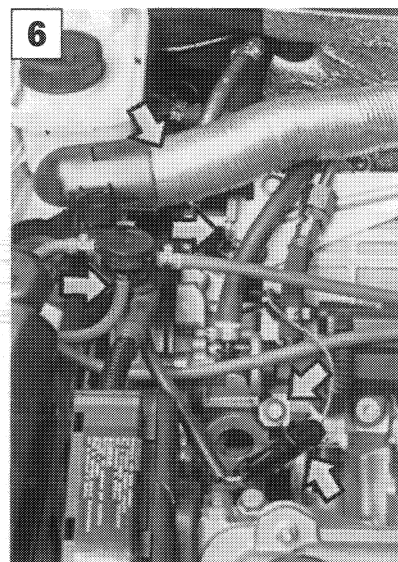
1. Disconnect the injection timing and rpm/TDC sensor connectors.
2. Disconnect the connectors of the coolant temperature sender unit, idle adjustment actuator and knock sensor.
3. Disconnect the coolant temperature sensor connectors from the thermostat and flow meter.
4. Disconnect the injector cooling switch connector and intake air temperature sensor.
5. Unscrew the wiring cover retaining screws and disconnect the throttle valve position sensor connector.
6. Disconnect the alternator cooling duct, petrol vapour pipe, connector and earth leads indicated.



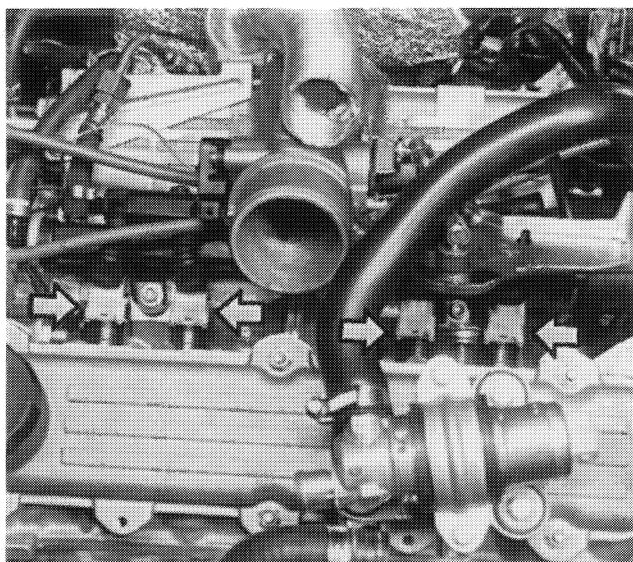
P3M04CJ05



P3M04CJ06



P3M04CJ07



P3M05CJ01



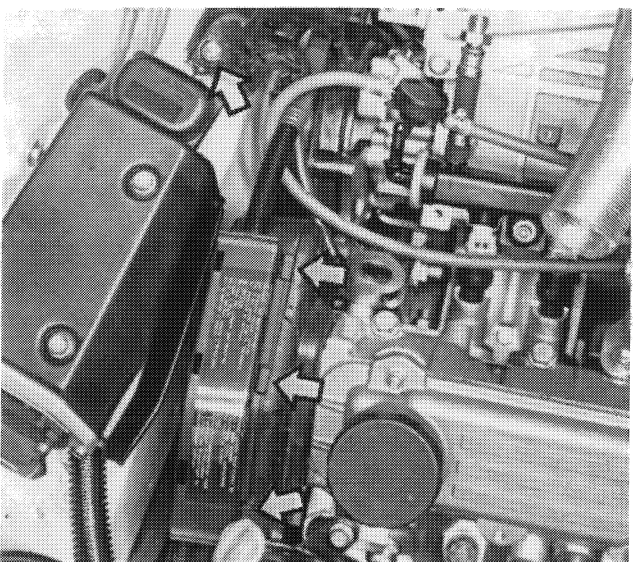
- disconnect the connectors from the injectors, then remove the wiring cover;



P3M05CJ02



- disconnect the fuel and fuel vapour delivery/return lines after loosening the connection and clips shown;



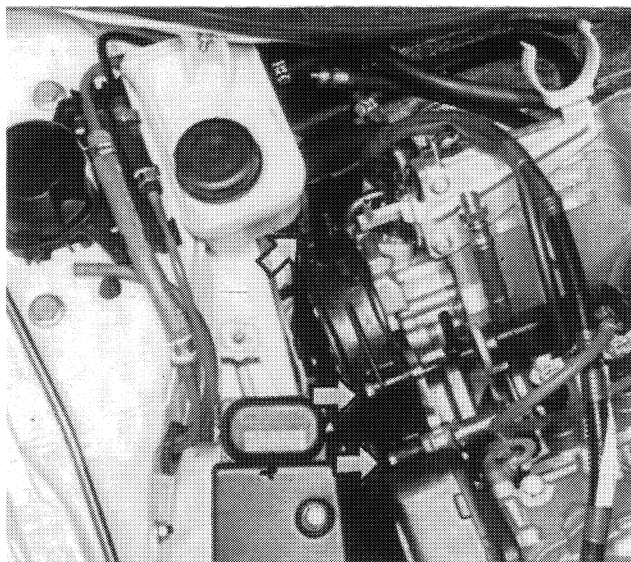
P3M05CJ03



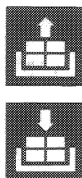
- release the attachments and remove the alternator lead protection;
- unscrew the bolt and remove the alternator cooling duct mount;



### 10.

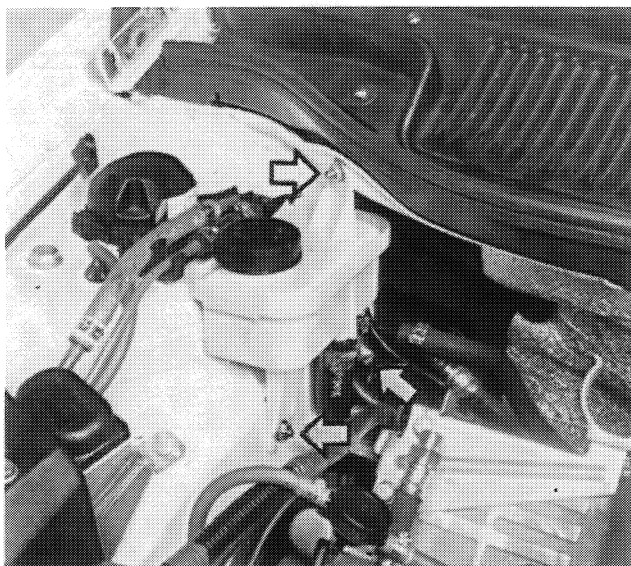


P3M06CJ01

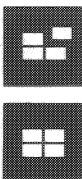


- unscrew the bolts indicated and remove the power steering pump pulley guard;

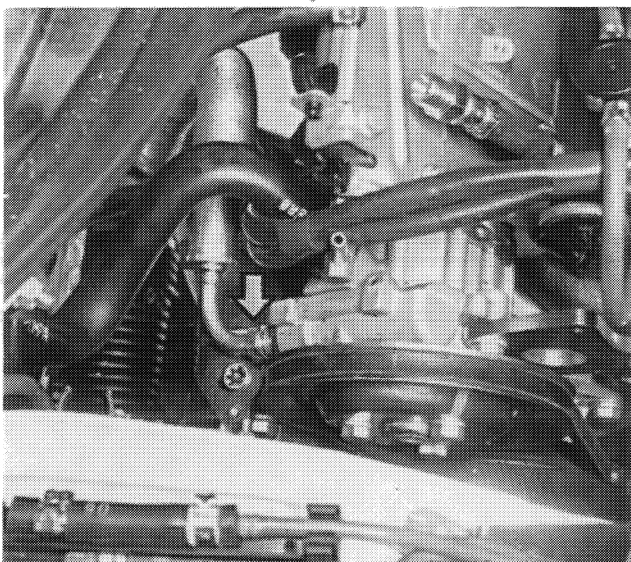
**NOTE** *The guard must be removed to gain access to the fluid delivery and return lines to the power steering pump.*



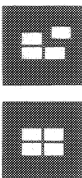
P3M06CJ02



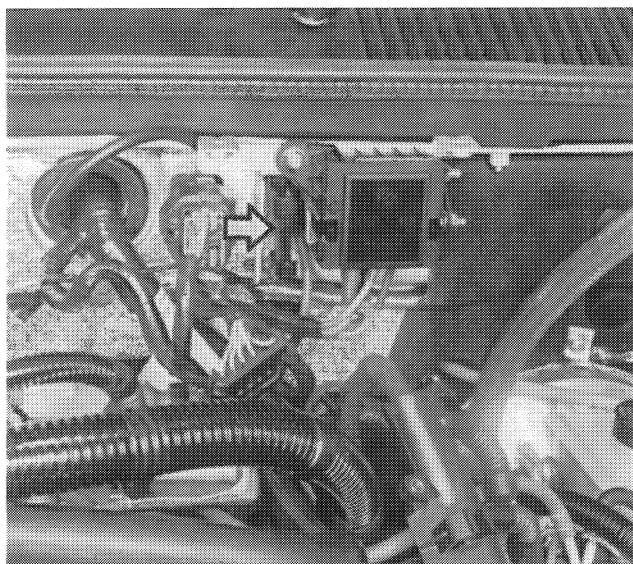
- loosen the clip and remove the pipe from the power steering reservoir;
- unscrew the bolts fastening the fluid reservoir to the body, then prise out to gain access to the connection shown in the following figure;



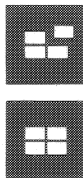
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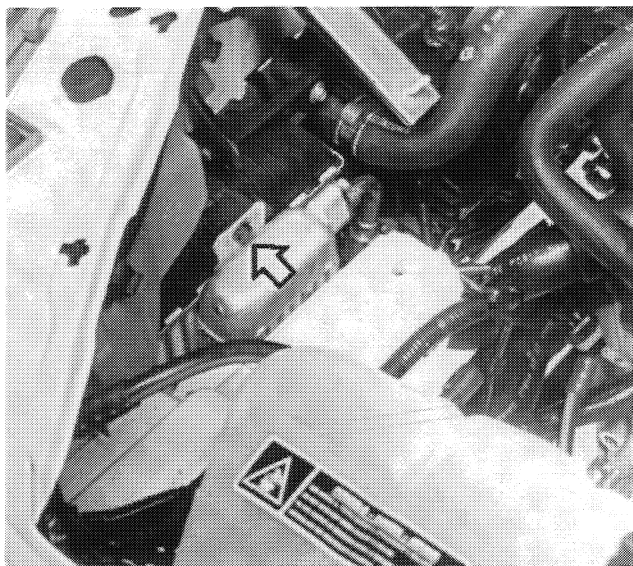
- using a suitable wrench (17 mm.), disconnect the oil delivery fitting from the power steering pump;



P3M07CJ01



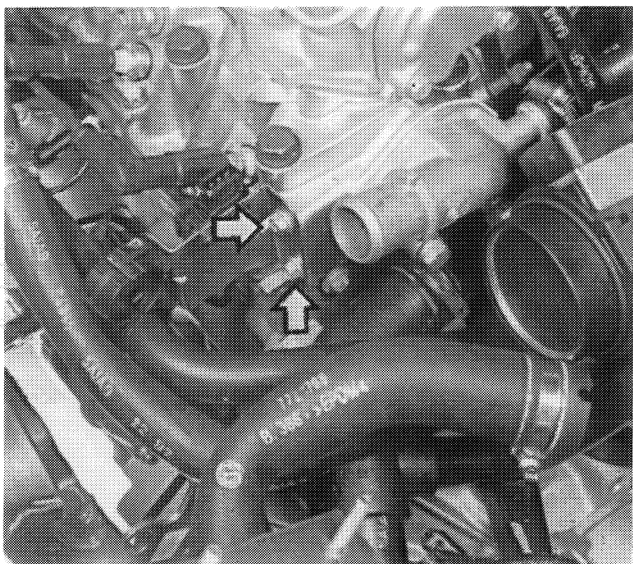
- disconnect the speedometer sensor connector;



P3M07CJ02



- separate the coolant radiator from the radiator-fan unit by unscrewing the retaining screw shown;



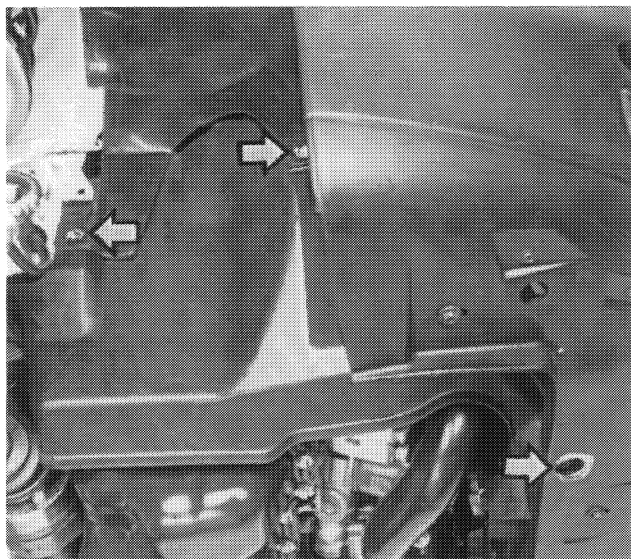
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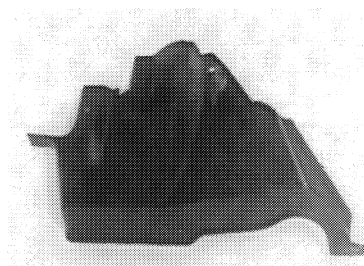
- unscrew the bolts indicated and prise out the bracket;



### 10.

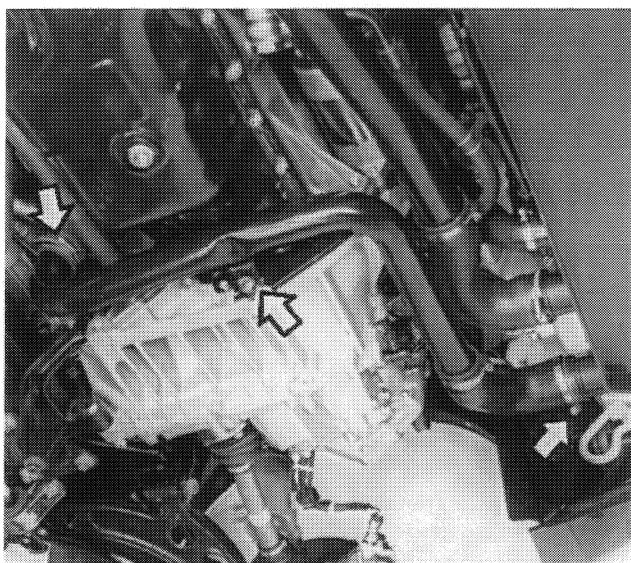


P3M08CJ01

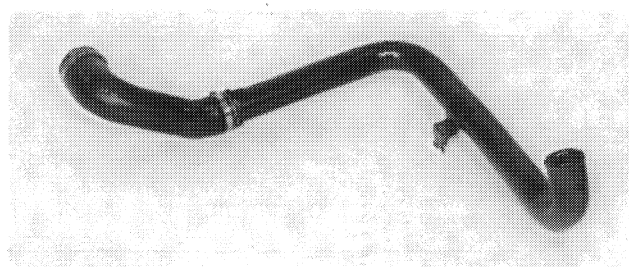


P3M08CJ02

- unscrew the bolts indicated and remove the crankshaft pulley protection;

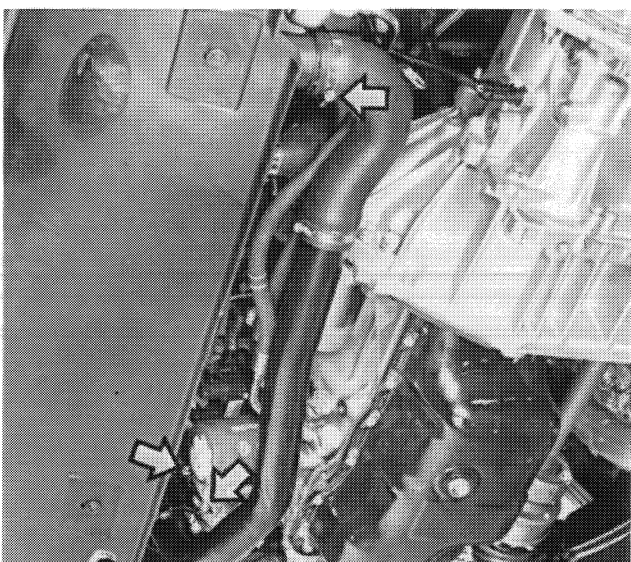


P3M08CJ03

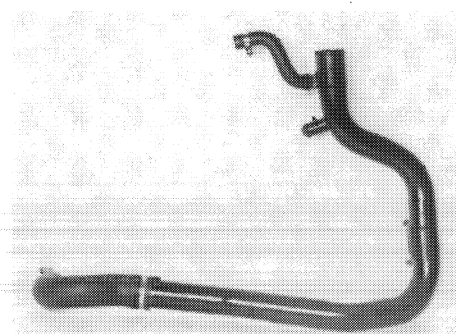


P3M08CJ04

- remove the air inlet duct to the turbo after loosening the clips and unscrewing the bolt shown in the figure;

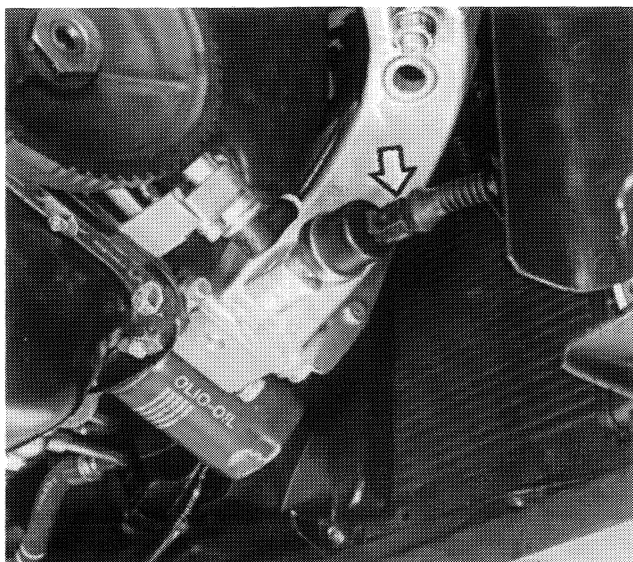


P3M08CJ05



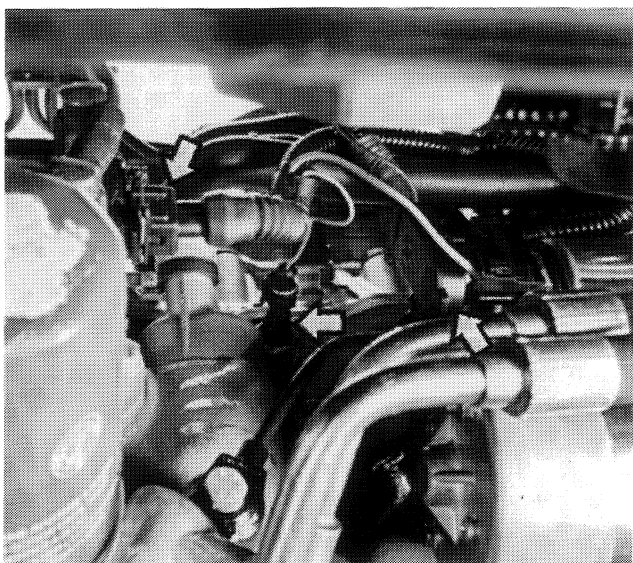
P3M08CJ06

- remove the air intake duct to the inlet manifold after loosening the clip and unscrewing the bolts shown;



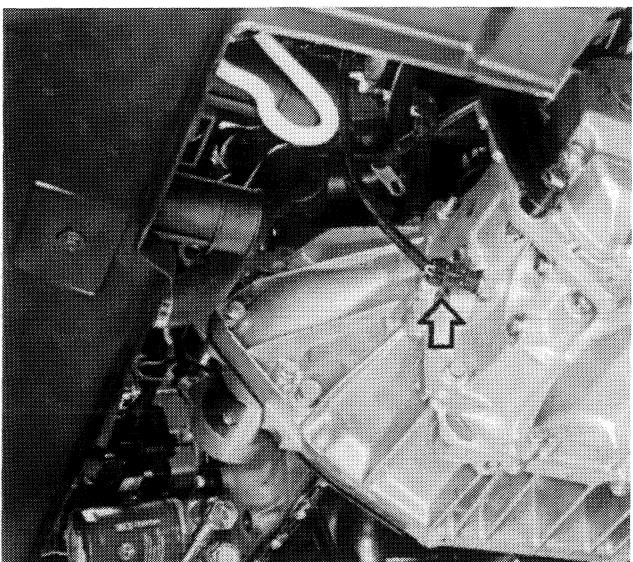
P3M09CJ01

- disconnect the engine oil pressure sensor connector;



P3M09CJ02

- raise the protection, unscrew the nut and disconnect the starter motor leads;
- disconnect the connector from the low engine oil pressure sensor;
- disconnect the connection shown from the ignition coil;

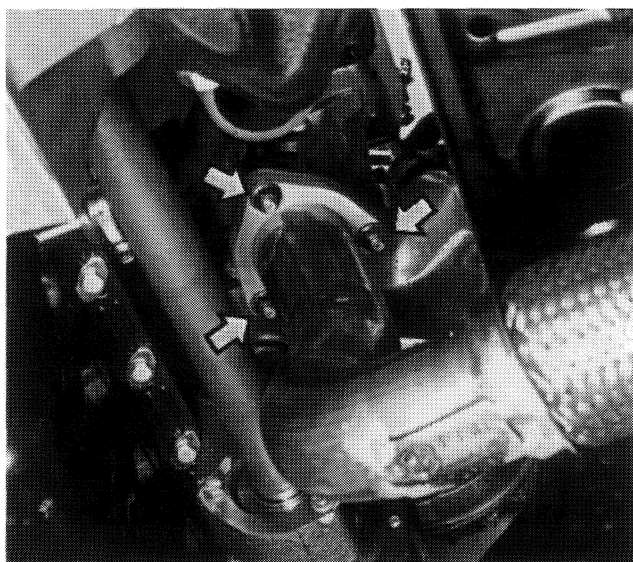


P3M09CJ03

- disconnect the reversing light sensor connector from the gearbox;



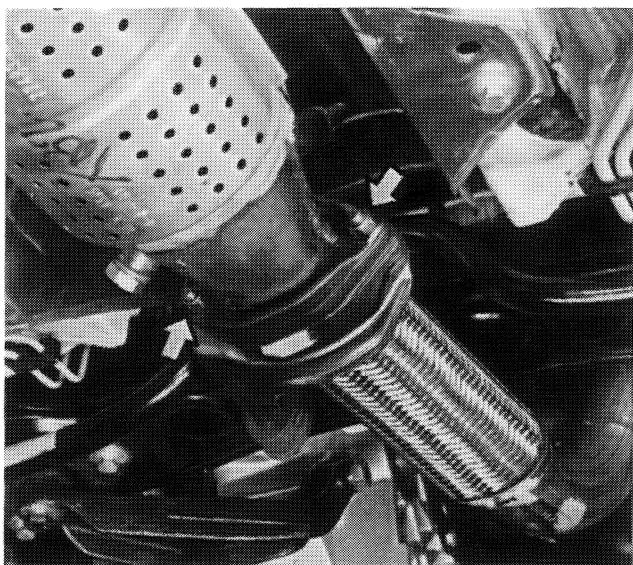
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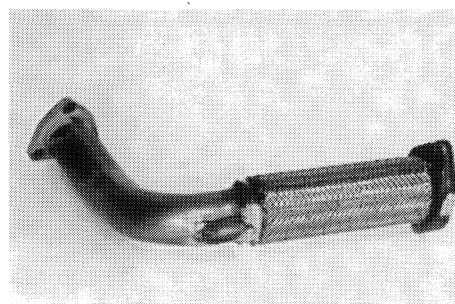
P3M10CJ01



- unscrew the bolts fastening the exhaust pipe front section to the manifold;

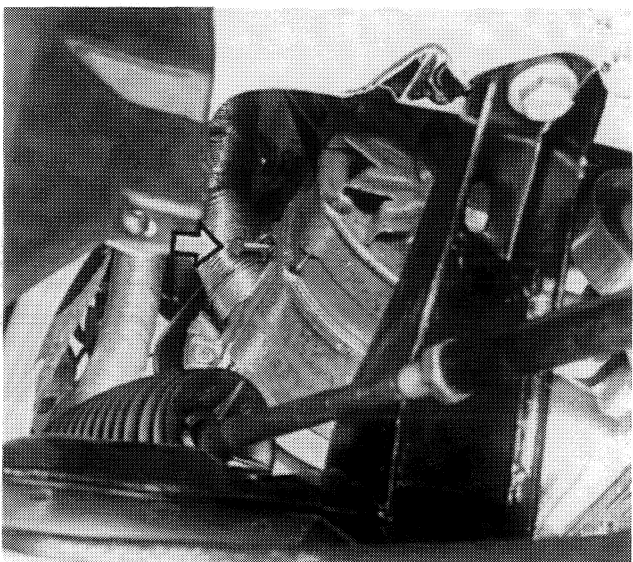


P3M10CJ02



P3M10CJ03

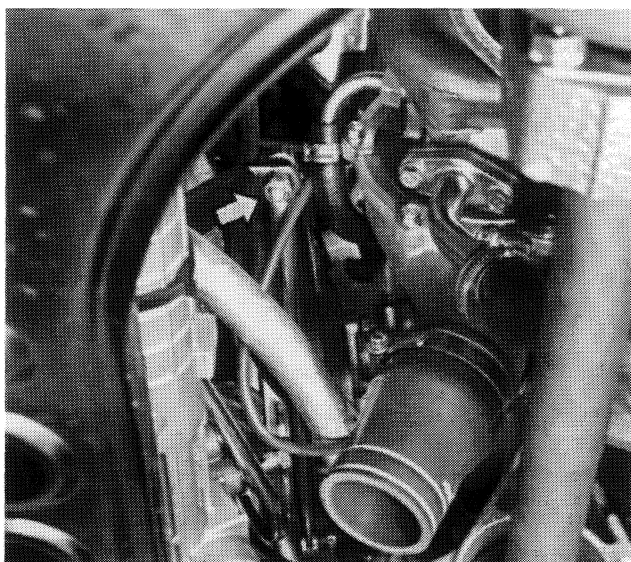
- unscrew bolts indicated in figure, then disconnect and remove the exhaust pipe and seal;



P3M10CJ04



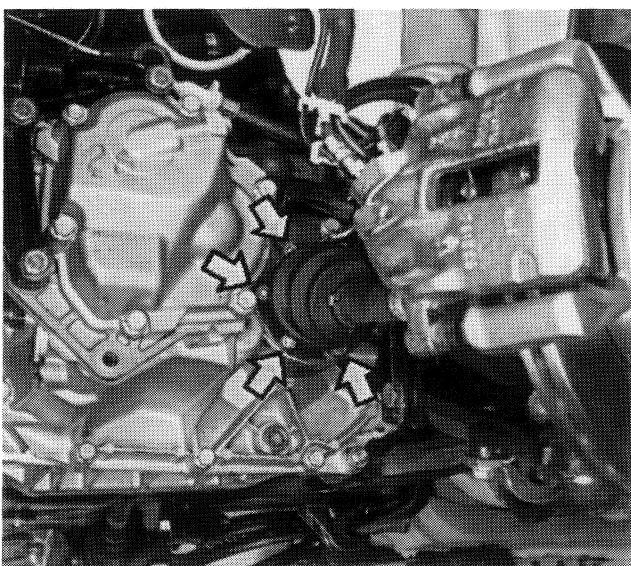
- loosen the clip and remove the alternator cooling duct;



P3M11CJ01



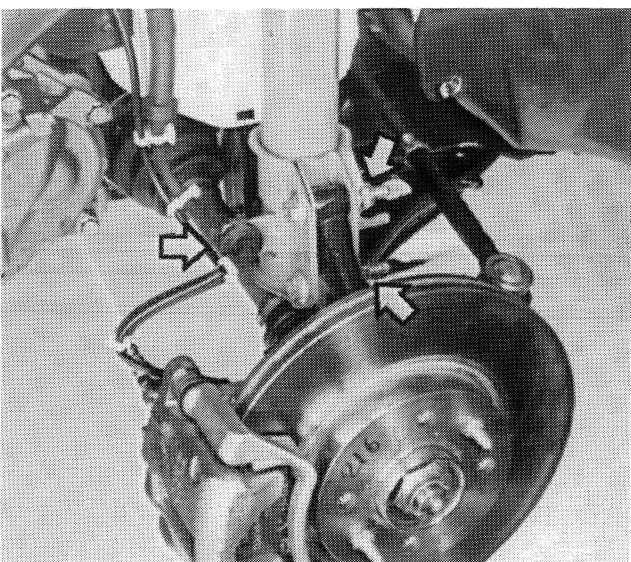
- unscrew the nut and remove the gear selection idler lever;



P3M11CJ02



- unscrew the constant velocity joint half-axle flange retaining bolts;



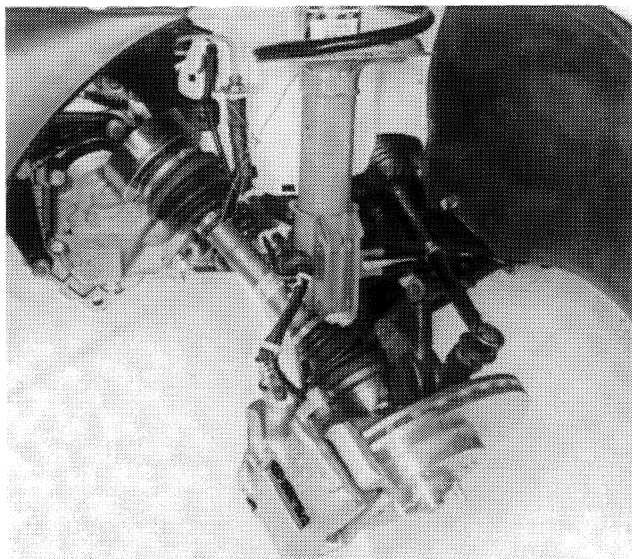
P3M11CJ03



- separate the wheel hub assembly from the damper by unscrewing the bolts and releasing the brake pipes shown in the figure;



### 10.



P3M12CJ01



- prise out the half-axles and fasten to the damper;

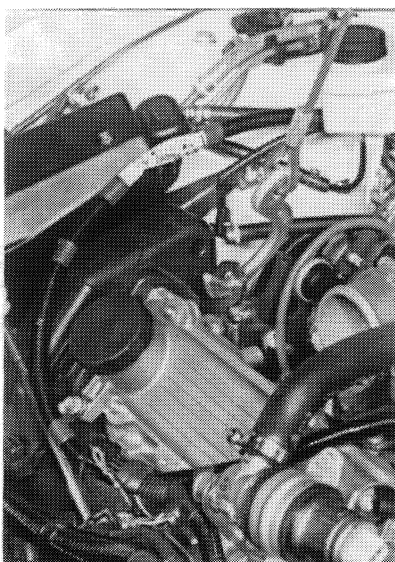


P3M12CJ02

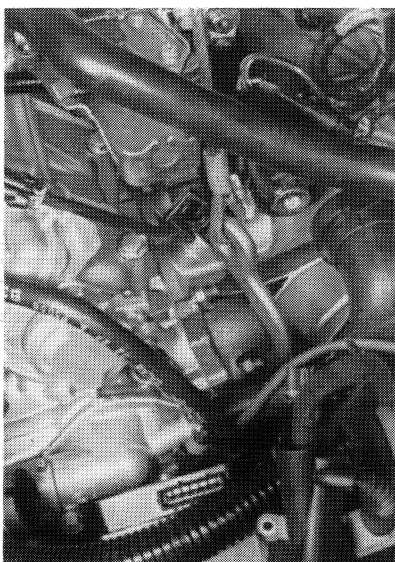


- lower the vehicle to the ground;
- position universal hook 1860592000, applied to a boom, in the power unit support brackets;
- adjust boom to take up slack in power unit support cables;

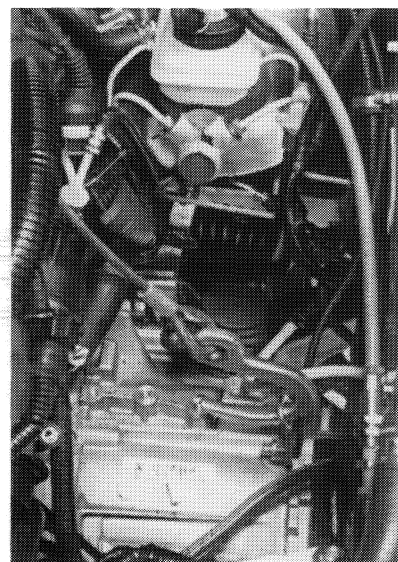
**NOTE** *The figure below shows the location of the hooks in the power unit support brackets.*



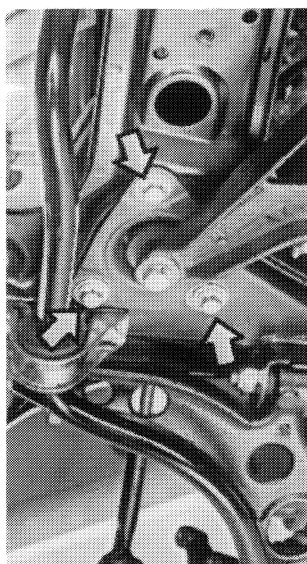
P3M12CJ03



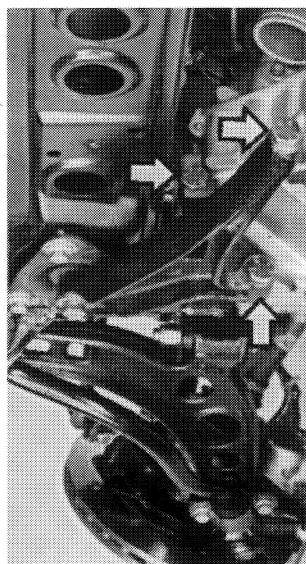
P3M12CJ04



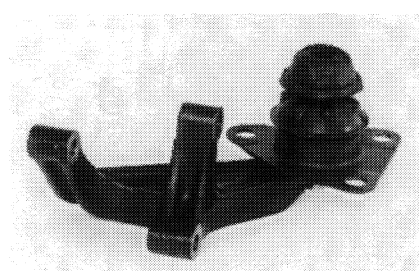
P3M12CJ05



P3M13CJ01

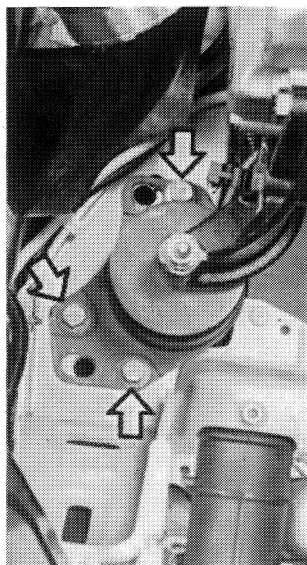


P3M13CJ02

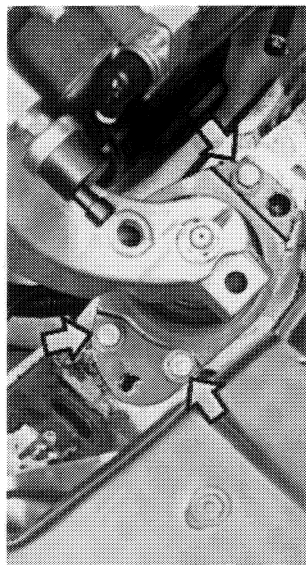


P3M13CJ03

- loosen the central mount bolts from the body (left hand box);
- support the power unit temporarily with a hydraulic jack;
- remove the central gearbox mount after unscrewing the bolts (right hand box);



P3M13CJ04



P3M13CJ05



- unscrew the power unit left front mount retaining bolts (left-hand box);
- unscrew the bolts retaining the power unit right front mount (right hand box);



P3M13CJ06

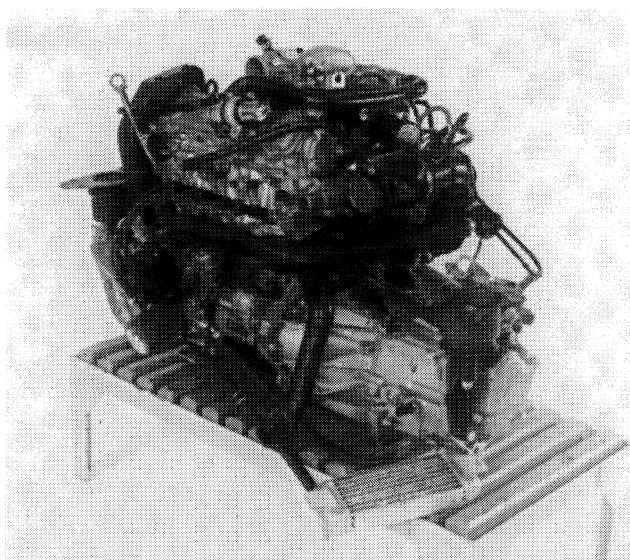


- remove the power unit from the engine bay by manoeuvring the boom and place on the platform below;



*The assistance of a second operator is required.*

### 10.



P3M14CJ01



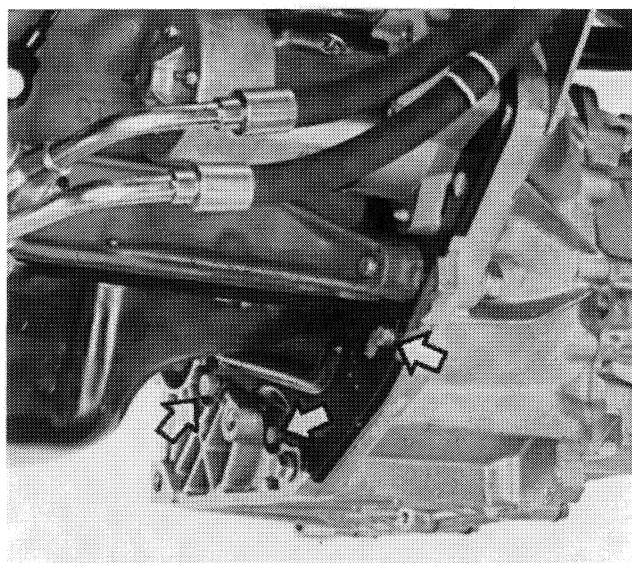
#### SEPARATING ENGINE - GEARBOX FROM POWER UNIT

##### Operation sequence

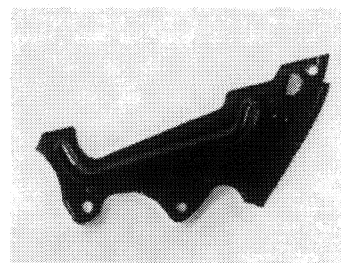
- Rest power unit on a platform, taking care to place in a stable position;



*Drain oil from gearbox.*

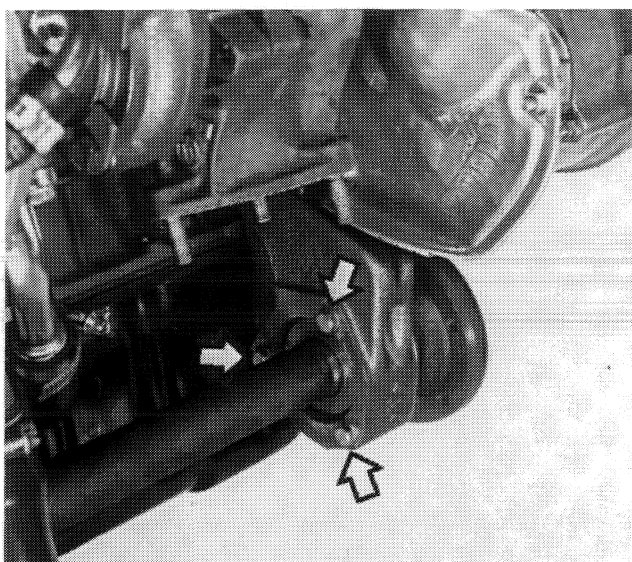


P3M14CJ02



P3M14CJ03

- unscrew bolts indicated in figure, then remove the engine flywheel protection;

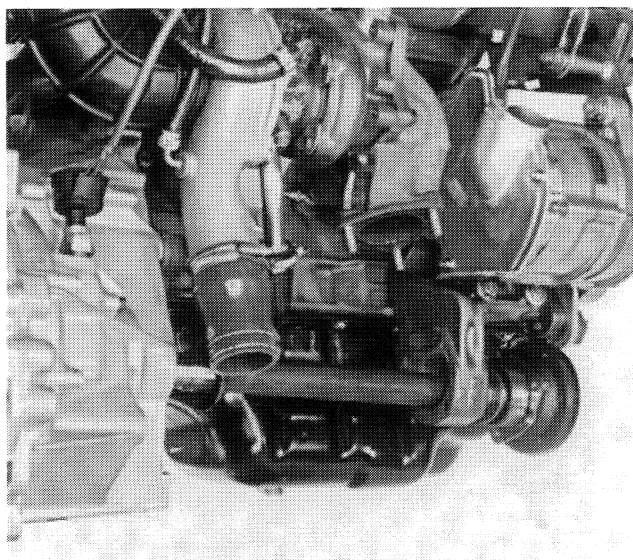


P3M14CJ04

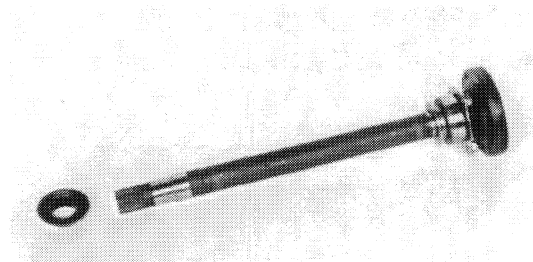


- unscrew the mount retaining screws and withdraw the intermediate shaft;



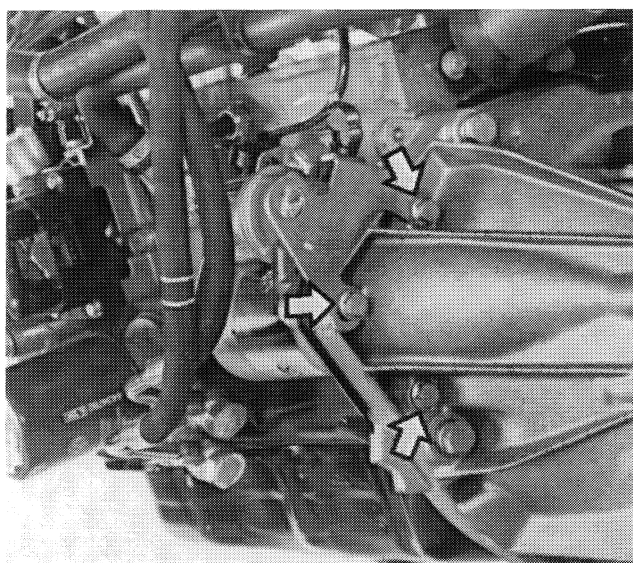


P3M15CJ01

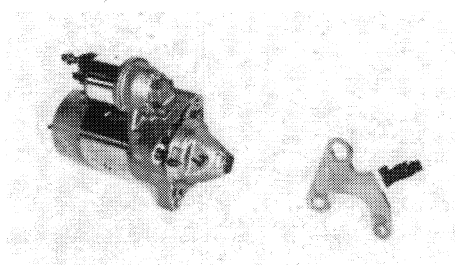


P3M15CJ02

- remove the intermediate shaft after withdrawing the dust boot;

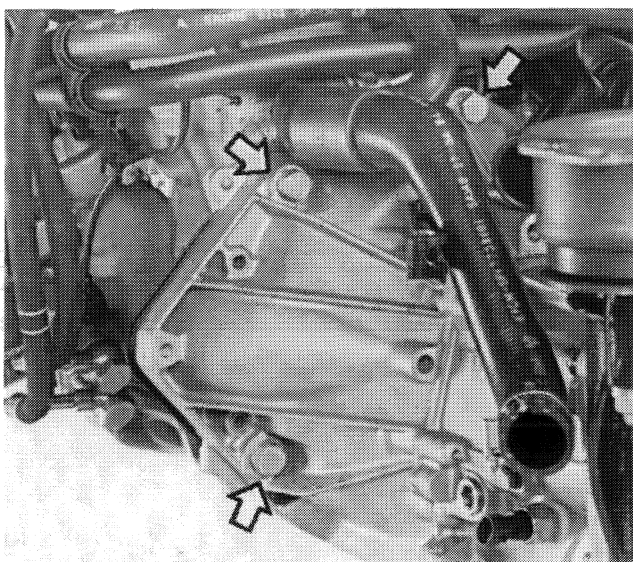


P3M15CJ03



P3M15CJ04

- unscrew bolts indicated in figure and disconnect the starter motor and bracket;

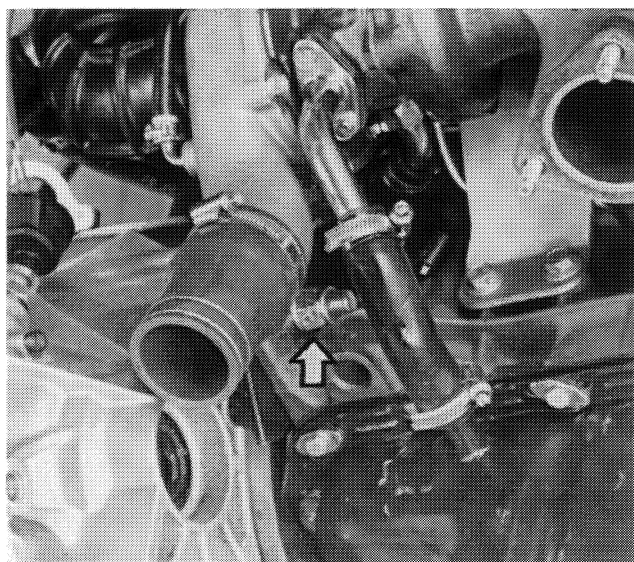


P3M15CJ05



- unscrew the bolts indicated fastening gearbox to engine;

### 10.



P3M16CJ01

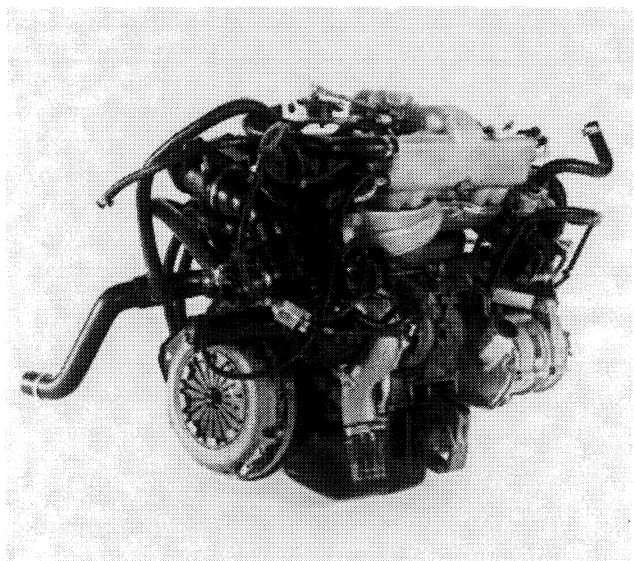


- unscrew the nut joining the gearbox and engine;
- separate the gearbox from the engine.

**NOTE** *To refit the power unit reverse removal instructions.*



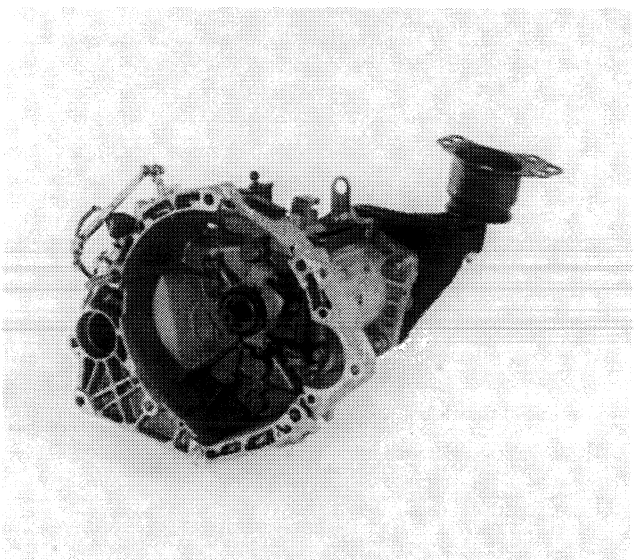
*To refill the cooling system, follow the instructions at the end of chapter 10 - Engine Section.*



P3M16CJ02



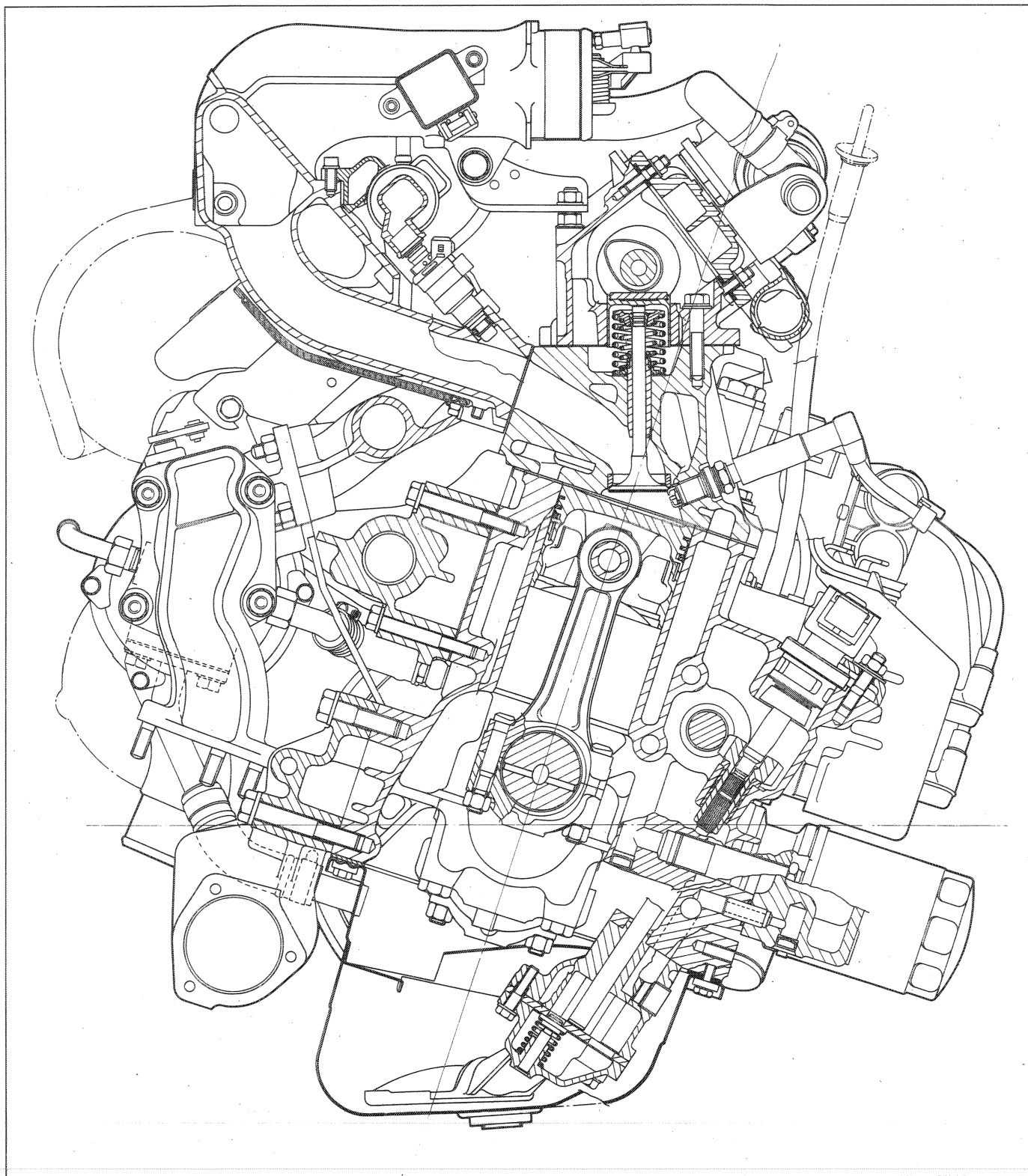
**Engine 1372 turbo**



P3M16CJ03



**Gearbox C513.5.21**

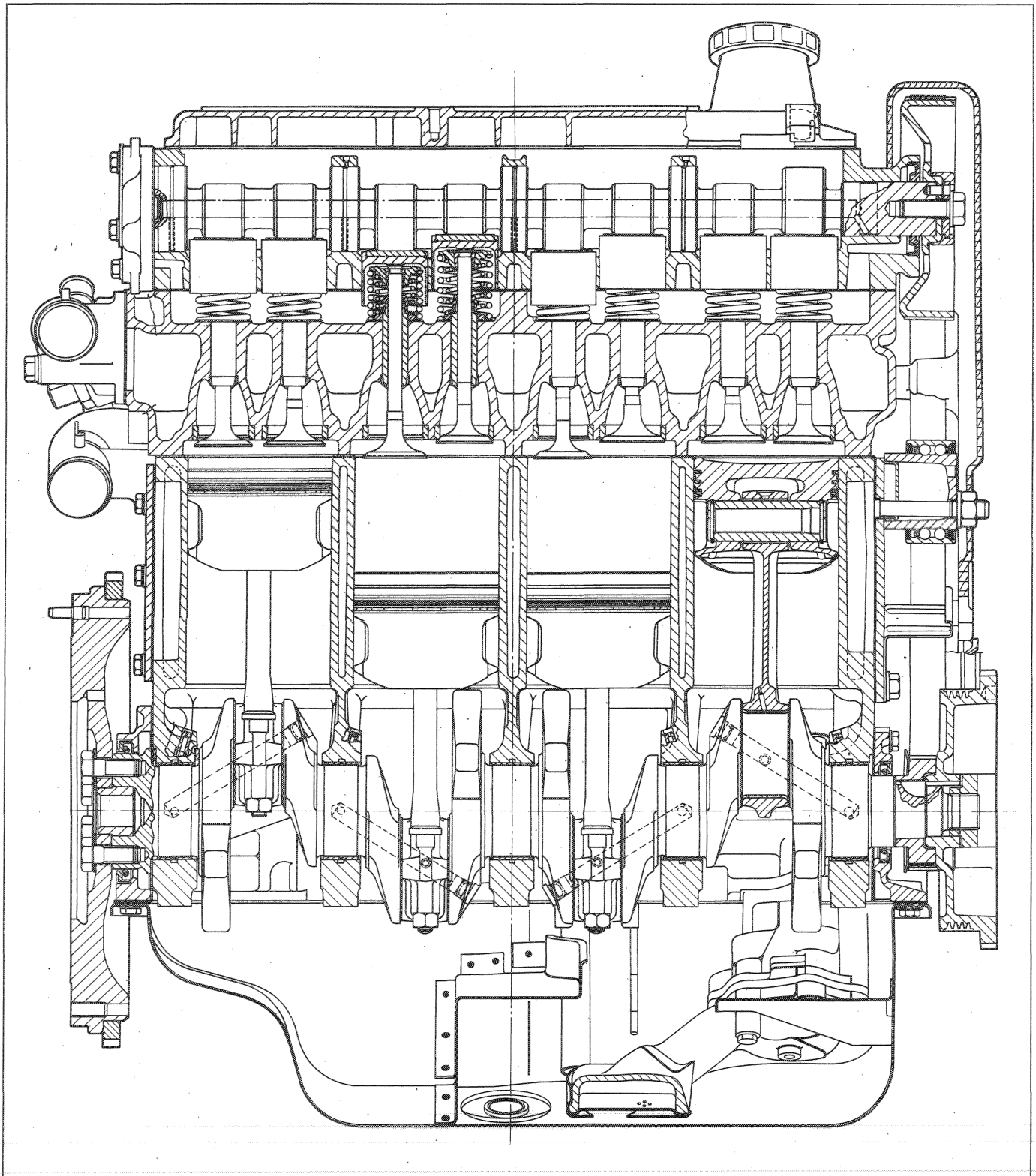


P3M17CJ01

**CROSS SECTION THROUGH ENGINE**

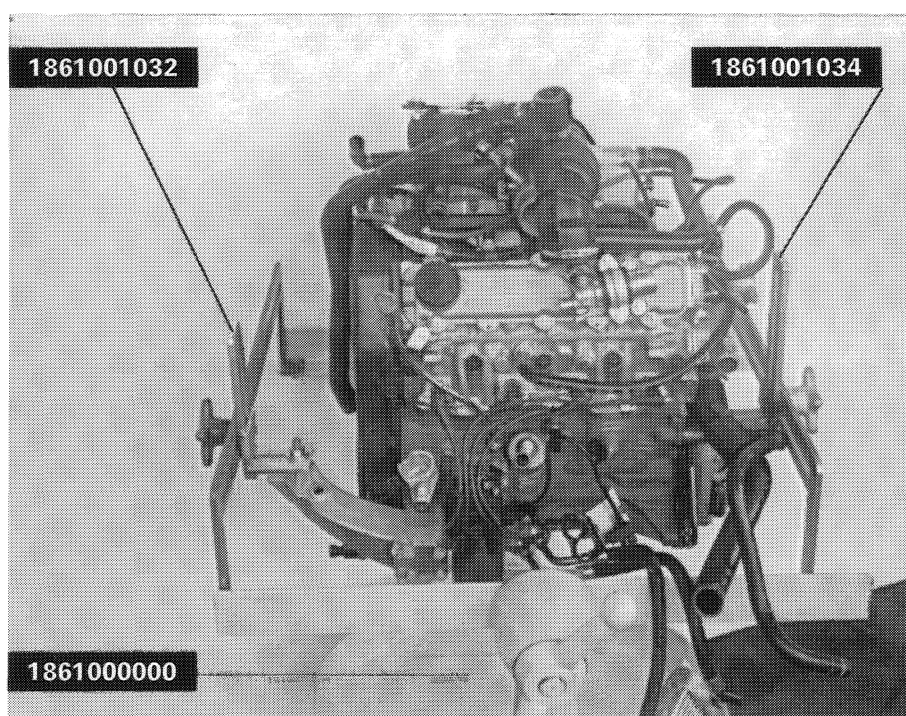


**10.**



P3M18CJ01

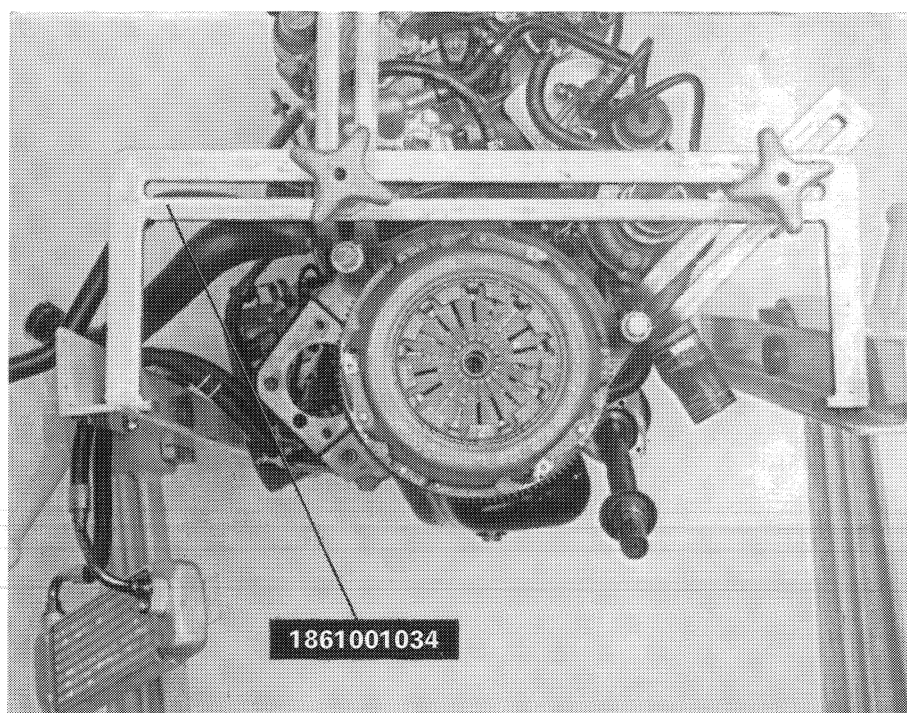
**LONGITUDINAL SECTION THROUGH ENGINE**



P3M19CJ01

**Positioning 1372 turbo engine on rotary stand 1861000000**

**1861001034** Flywheel side engine retaining bracket  
**1861001032** Timing side engine retaining bracket



P3M19CJ02

**Detail of flywheel side bracket 1861001034**