

REMOVAL

1. REMOVE TURBOCHARGER

(See page [TC-10](#))

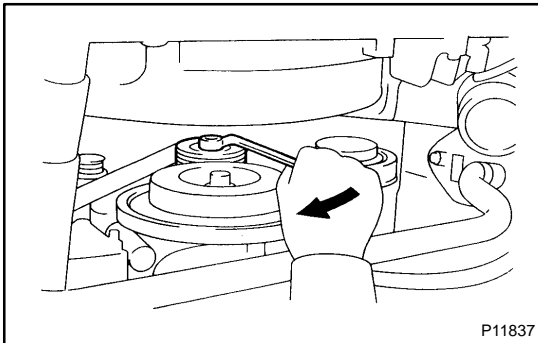
2. REMOVE EXHAUST MANIFOLD

Remove the 12 nuts, exhaust manifold and 2 gaskets.

3. M/T:

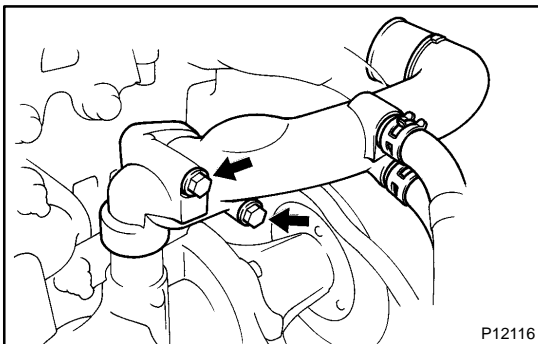
REMOVE DRIVE BELT TENSIONER DAMPER

(See page [EM-15](#))



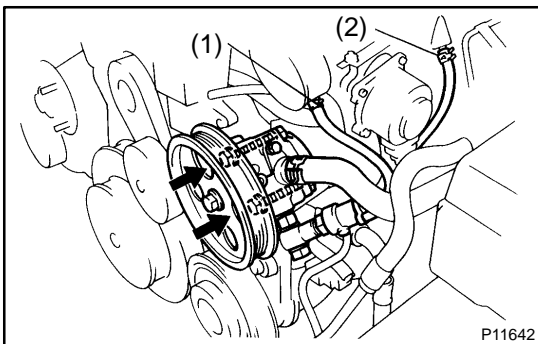
4. REMOVE DRIVE BELT

Loosen the drive belt tension by turning the drive belt tensioner clockwise, and remove the drive belt.



5. REMOVE WATER OUTLET AND NO.1 WATER BYPASS PIPE

- Disconnect the upper radiator hose from the water outlet.
- Disconnect the ECT sensor and sender gauge connectors.
- Remove the 2 bolts, water outlet and gasket.
- Remove the No.1 water bypass pipe and 2 O-rings.

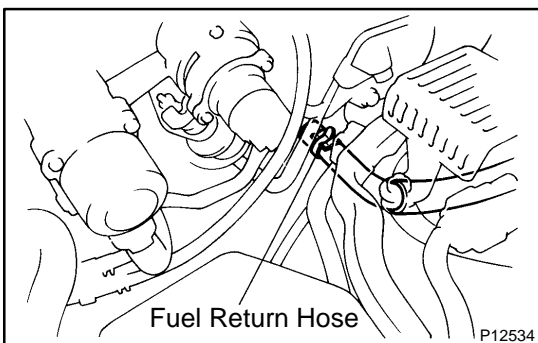


6. DISCONNECT PS PUMP WITHOUT DISCONNECTING HOSES

- Disconnect these hoses:
 - PS air hose from throttle body
 - PS air hose from air intake chamber
- Remove the 2 bolts, and disconnect the vane pump from the pump bracket.

HINT:

Put aside the vane pump, and suspend it.

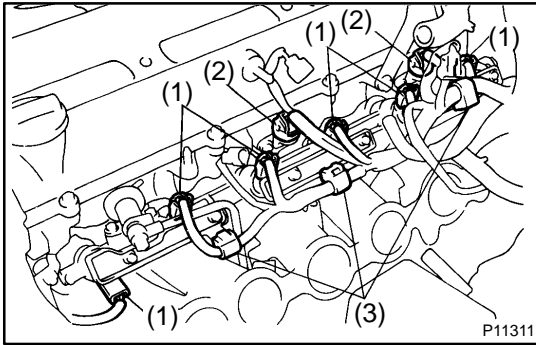


7. DISCONNECT FUEL RETURN HOSE

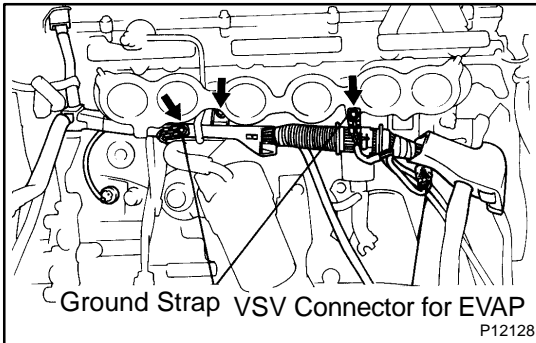
Disconnect the fuel return hose from the fuel return pipe. Plug the hose end.

8. REMOVE AIR INTAKE CHAMBER ASSEMBLY

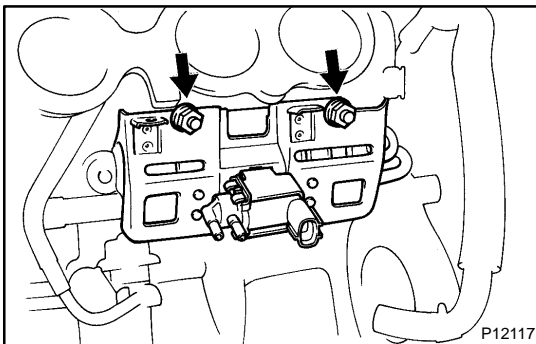
(See page [SF-20](#))

**9. DISCONNECT ENGINE WIRE**

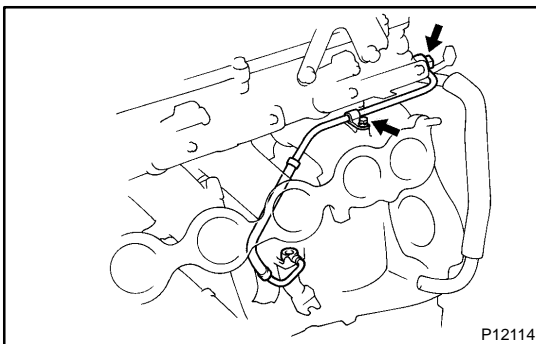
- (a) Disconnect these connectors and clamps:
- (1) 6 injector connectors
 - (2) 2 camshaft position sensor connectors
 - (3) 3 engine wire clamps from injector holders



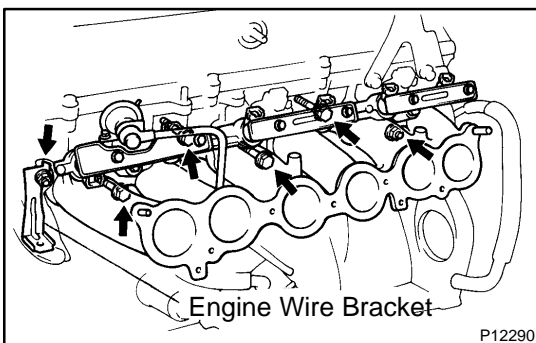
- (4) VSV connector for EVAP
- (b) Remove the 2 bolts, and disconnect the 2 ground straps from the intake manifold.
- (c) Remove the nut, and disconnect the engine wire protector from the intake manifold.

**10. REMOVE PRESSURE TANK AND VSV ASSEMBLY**

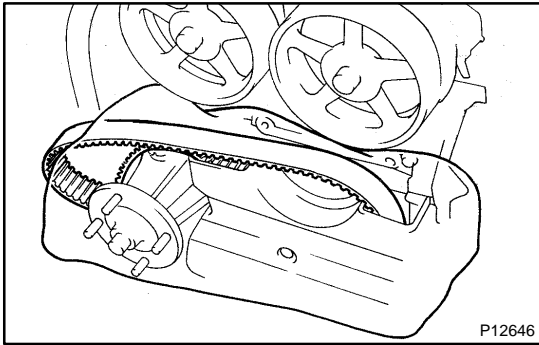
- (a) Disconnect the 2 vacuum hoses from the pressure tank.
- (b) Remove the 2 nuts and pressure tank and VSV assembly.

11. REMOVE FUEL PRESSURE PULSATION DAMPER
(See page [SF-31](#))**12. REMOVE FUEL INLET PIPE**

Remove the union bolt, 2 gaskets, clamp bolt and fuel inlet pipe.

**13. REMOVE INTAKE MANIFOLD AND DELIVERY PIPE ASSEMBLY**

Remove the 4 bolts, 2 nuts, engine wire bracket, the intake manifold, delivery pipe assembly and gasket.



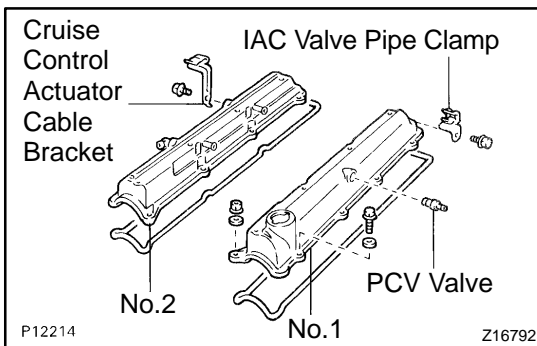
14. REMOVE TIMING BELT FROM CAMSHAFT TIMING PULLEYS (See page EM-15)

NOTICE:

- Support the timing belt, so that the meshing of the crankshaft timing pulley and timing belt does not shift.
- Be careful not to drop anything inside the timing belt cover.
- Do not allow the timing belt to come into contact with oil, water or dust.

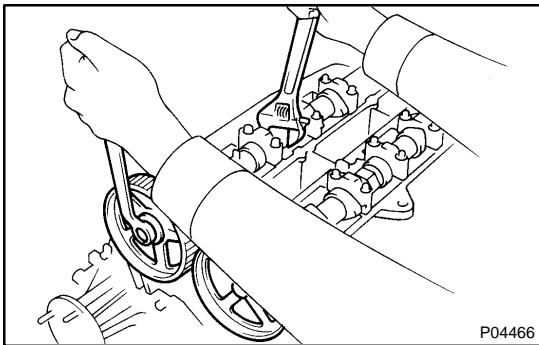
15. REMOVE IGNITION COILS ASSEMBLIES (See page IG-6)

16. REMOVE SPARK PLUGS



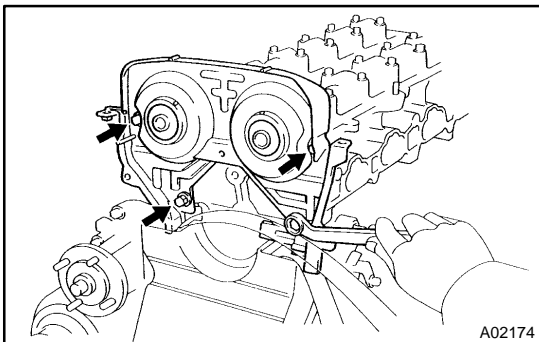
17. REMOVE NO.1 AND NO.2 CYLINDER HEAD COVERS

- Remove the 2 bolts, cruise control actuator cable bracket and IAC valve pipe clamp.
- Remove the PCV valve.
- Remove the 6 bolts, 2 nuts, 8 seal washers and No.1 cylinder head cover and gasket.
- Remove the 6 bolts, 2 nuts, 8 seal washers and No.2 cylinder head cover and gasket.



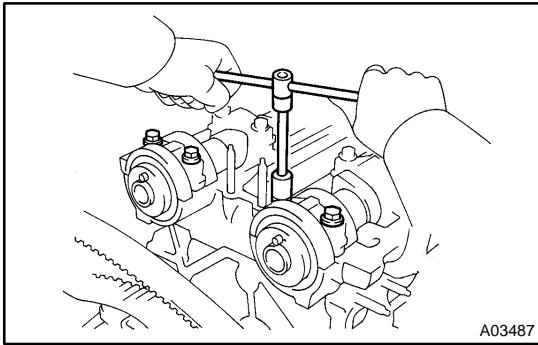
18. REMOVE CAMSHAFT TIMING PULLEYS

Hold the hexagon portion of the camshaft with a wrench, and remove the pulley mounting bolt and camshaft pulley.

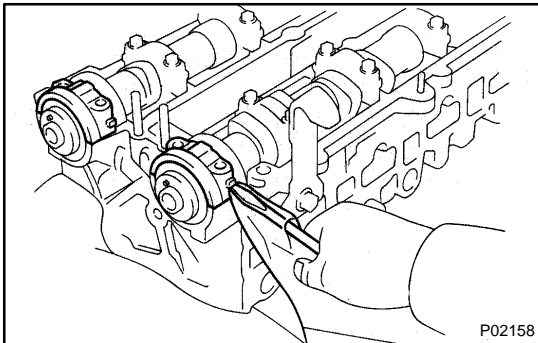


19. REMOVE NO.4 TIMING BELT COVER

Remove the 4 bolts and timing belt cover.

**20. REMOVE CAMSHAFTS**

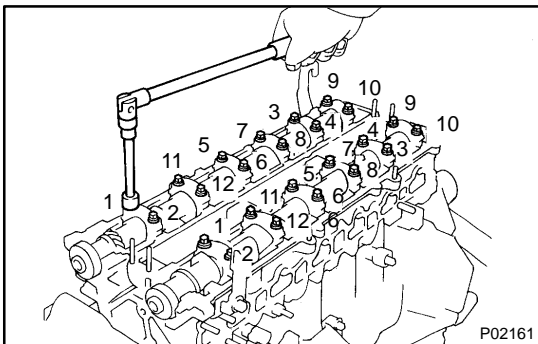
- (a) Uniformly loosen and remove the 4 No.1 camshaft bearing cap bolts.



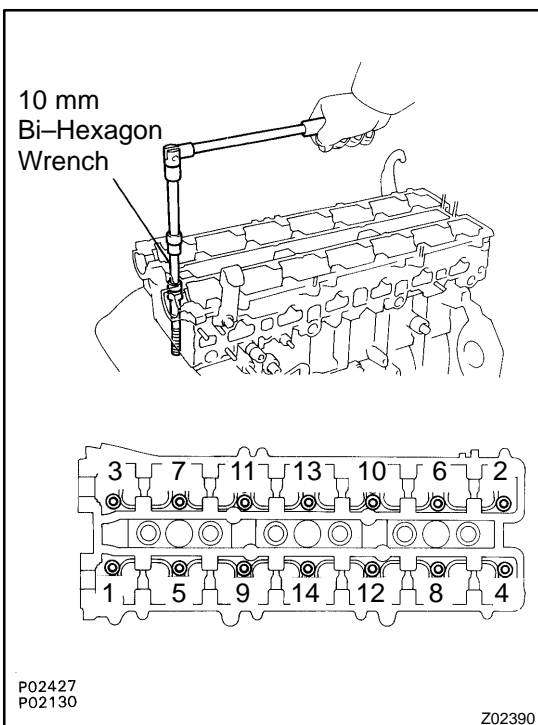
- (b) Using a screwdriver, pry out the 2 No.1 camshaft bearing caps and oil seals.

NOTICE:

Be careful not to damage the cap. Tape the screwdriver tip.



- (c) Uniformly loosen and remove the 12 bearing cap bolts, in several passes, in the sequence shown, and remove the 6 bearing caps and camshaft.
- (d) Remove the intake and exhaust camshafts.

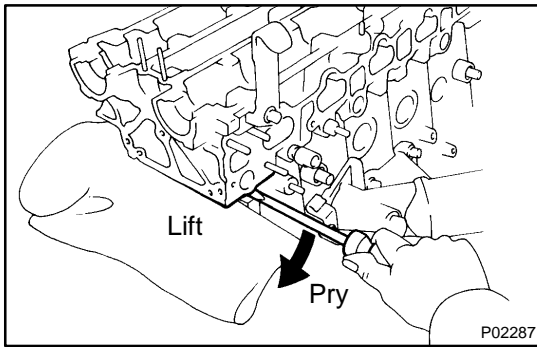
**21. REMOVE CYLINDER HEAD**

- (a) Using a 10 mm bi-hexagon wrench, uniformly loosen and remove the 14 cylinder head bolts, in several passes, in the sequence shown.

NOTICE:

Cylinder head warpage or cracking could result from removing in incorrect order.

- (b) Remove the 14 plate washers.



- (c) Lift the cylinder head from the dowels on the cylinder block.
- (d) Place the head on wooden blocks on a bench.
If the cylinder head is difficult to lift off, pry with a screwdriver between the cylinder head and block projection.

NOTICE:

Be careful not to damage the contact surfaces of the cylinder head and cylinder block.