WATER PUMP ASSY (3RZ–FE)

160HJ–01

REPLACEMENT

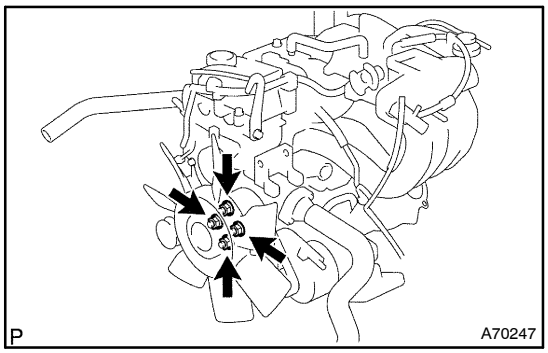
1. REMOVE ENGINE UNDER COVER SUB–ASSY NO.1

(a) Remove the 4 bolts and engine under cover.

2. DRAIN ENGINE COOLANT (See page 16–7)

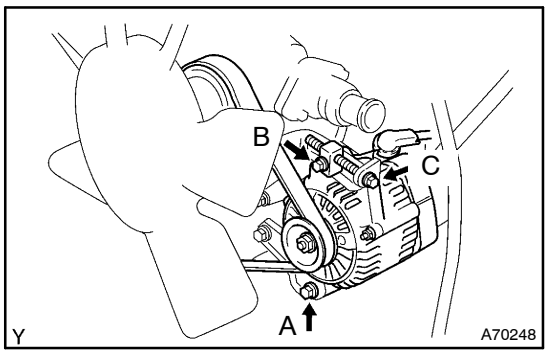
3. REMOVE RADIATOR SUPPORT SEAL UPPER (See page 16–10)

4. REMOVE VANE PUMP V BELT (See page 14–7)



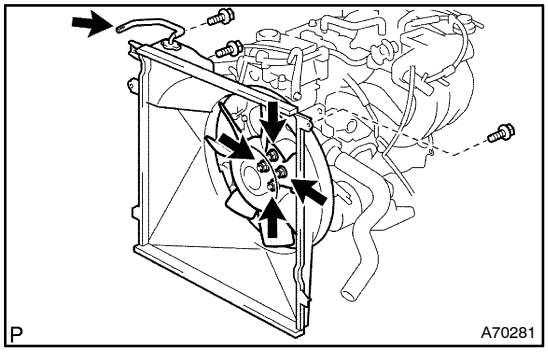
5. REMOVE FLUID COUPLING ASSY

(a) Loosen the 4 fluid coupling nuts.



(b) Loosen the generator bolt A and B.

(c) Loosen the adjusting bolt C and remove the fan and generator V belt.

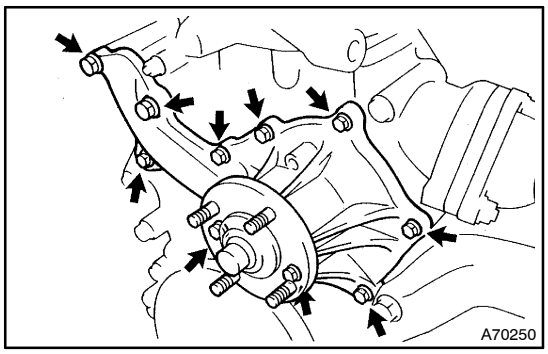


(d) Disconnect the radiator reserve tank hose.

(e) Remove the 3 fan shroud bolts.

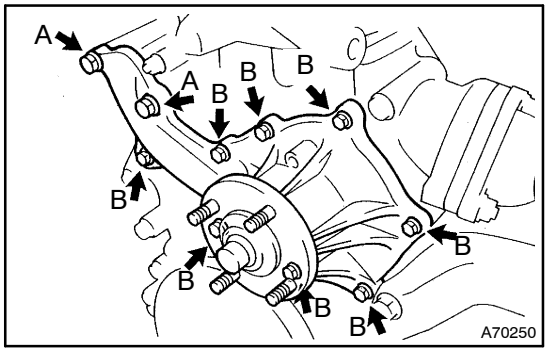
(f) Remove the 4 fluid coupling nuts, fan shroud and fluid coupling.

6. REMOVE FAN PULLEY



7. REMOVE WATER PUMP ASSY

(a) Remove the 10 bolts, water pump and gasket.



8. INSTALL WATER PUMP ASSY

(a) Install a new gasket and the water pump with the 10 bolts.

Torque:
25 N·m (255 kgf·cm, 18 ft·lbf) for bolt A
8.9 N·m (90 kgf·cm, 78 in.·lbf) for bolt B

9. INSTALL FAN PULLEY

10. INSTALL FLUID COUPLING ASSY

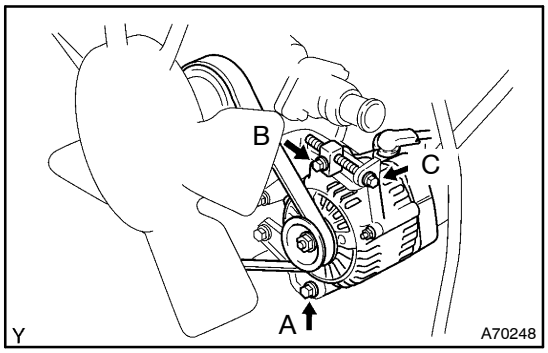
(a) Install the fan and fluid coupling.

(b) Temporary tighten the 4 fluid coupling nuts.

(c) Tighten the 3 fan shroud bolts.

Torque: 5.0 N·m (51 kgf·cm, 44 in.·lbf)

(d) Connect the radiator reserve tank hose.



(e) Temporary install the fan and generator V belt to the each pulley.

(f) Turn the adjusting bolt C, and adjust the fan and generator V belt tension.

(g) First tighten the generator bolt A, then the generator bolt B.

Torque:
59 N·m (600 kgf·cm, 43 ft·lbf) for bolt A
29 N·m (300 kgf·cm, 21 ft·lbf) for bolt B

(h) Tighten the 4 fluid coupling nuts.

Torque: 21 N·m (210 kgf·cm, 15 ft·lbf)

11. INSTALL VANE PUMP V BELT (See page 14–7)

12. INSPECT DRIVE BELT (See page 14–1)

13. INSTALL RADIATOR SUPPORT SEAL UPPER

14. ADD ENGINE COOLANT (See page 16–7)

15. CHECK FOR ENGINE COOLANT LEAKS (See page 16–7)

16. INSTALL ENGINE UNDER COVER SUB–ASSY NO.1

(a) Install the engine under cover with the 4 bolts.

Torque: 29 N·m (296 kgf·cm, 21 ft·lbf)