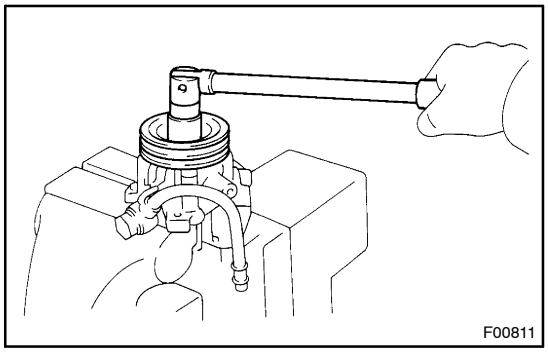
320QN–01

OVERHAUL

1. REMOVE GENERATOR ASSY (See page 19–15)

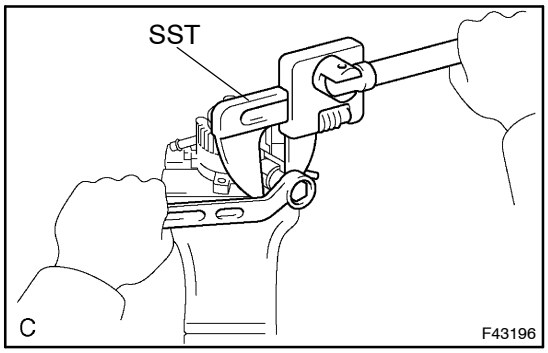
2. REMOVE VACUUM PUMP ASSY

(a) Remove the 4 bolts and vacuum pump from the generator assy.



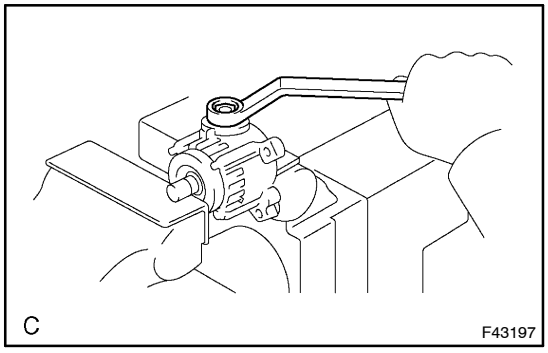
3. REMOVE VACUUM PUMP PULLEY

(a) Using soft jaws in a vise, place vacuum pump in the vise, and remove the pulley lock nut and pulley.



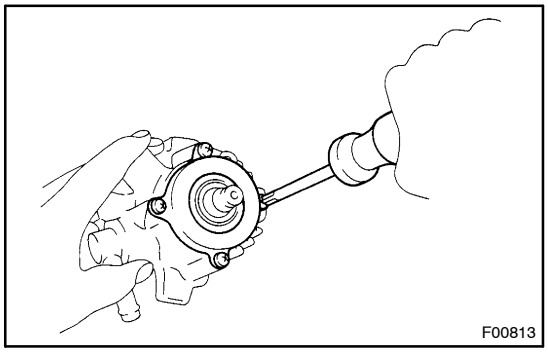
4. REMOVE MANIFOLD SIDE VACUUM HOSE UNION

(a) Using SST, hold the check valve sub–assy, and remove the union bolt, vacuum hose union and 2 gaskets.
SST 09922–10010



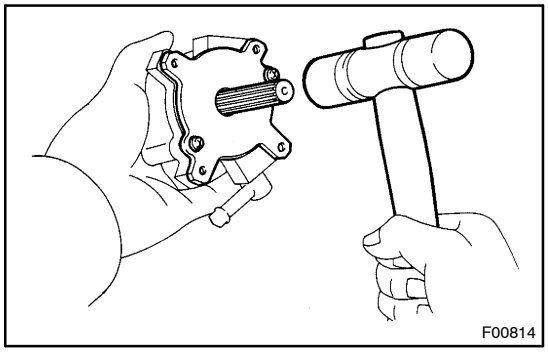
5. REMOVE CHECK VALVE SUB–ASSY

(a) Remove the check valve sub–assy and gasket.



6. REMOVE VACUUM PUMP SHAFT

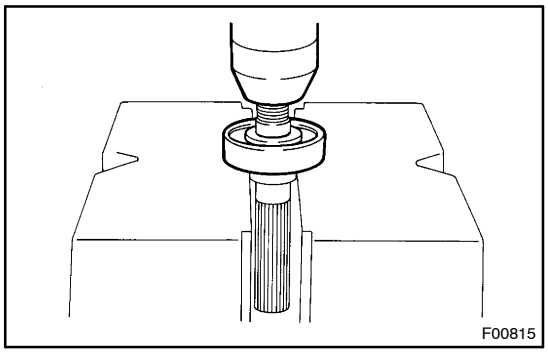
(a) Remove the 4 screws and end cover.



(b) Using a plastic hammer, tap out the vacuum pump shaft with bearing.

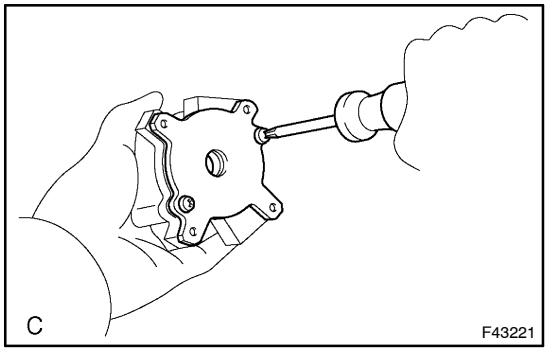
7. REMOVE STOP RING

(a) Remove the stop ring from the vacuum pump shaft.



8. REMOVE VACUUM PUMP BEARING

(a) Using a press, remove the bearing from the rotor shaft.



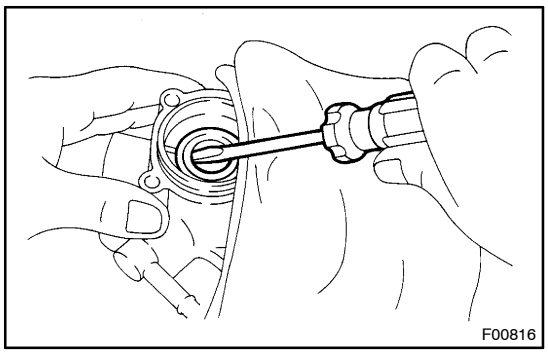
9. REMOVE VACUUM PUMP BLADE A

(a) Remove the 2 screws and end plate.

(b) Remove the rotor and 5 pump blades A.

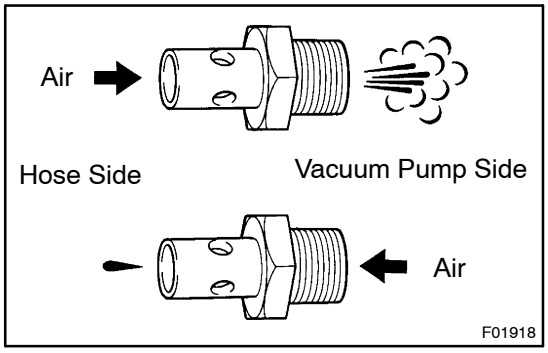
10. REMOVE O–RING

(a) Remove the O–ring from the casing.



11. REMOVE OIL SEAL

(a) Using a screwdriver, remove the oil seal.



12. INSPECT CHECK VALVE SUB–ASSY

(a) Check that air flows from the hose side to the pump side.

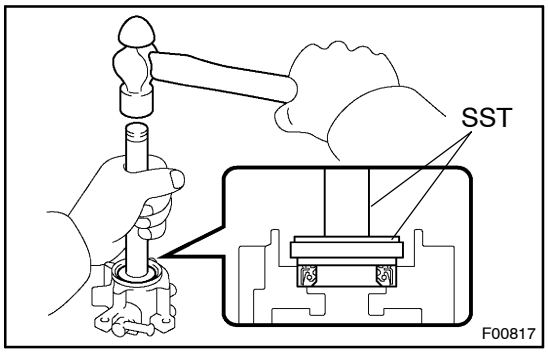
(b) Check that air does not flow from the pump side to the hose side.

If necessary, replace the check valve sub–assy.

13. INSPECT VACUUM PUMP CASE

(a) Inspect the inside surface on the casing for scoring.

If necessary, replace the vacuum pump assy.



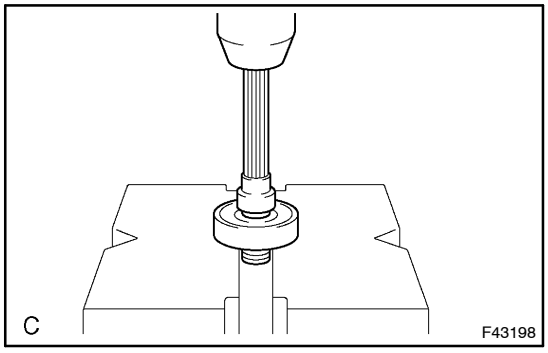
14. INSTALL OIL SEAL

(a) Using SST and a hammer, tap in the oil seal.

SST 09950–60010 (09951–00400), 09950–70010 (09951–07150)

15. INSTALL O–RING

(a) Apply the engine oil on a new O–ring and install the O–ring to the casing.

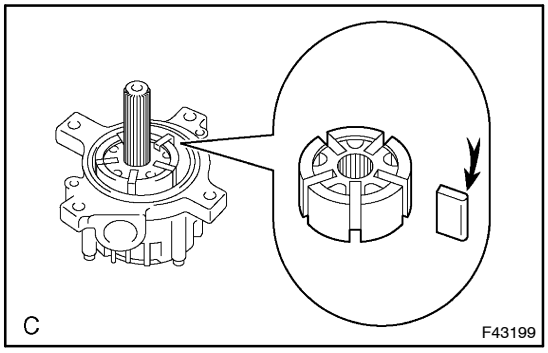


16. INSTALL VACUUM PUMP BEARING

(a) Using a press, install a new bearing to the pump shaft.

17. INSTALL VACUUM PUMP SHAFT

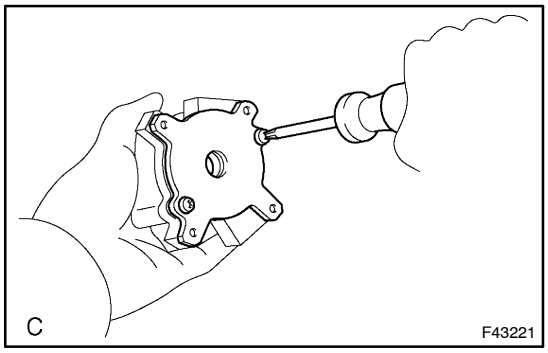
(a) Install the vacuum pump shaft and stop ring to the casing.



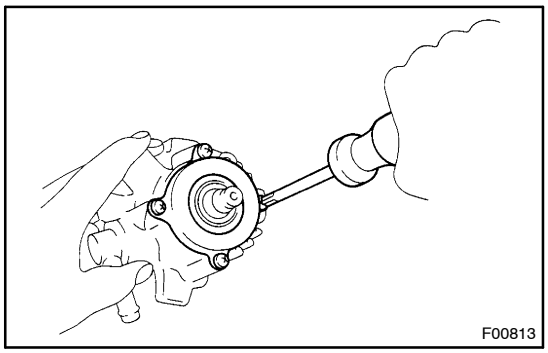
18. INSTALL VACUUM PUMP BLADE A

(a) Apply the engine oil on a rotor and 5 new vacuum pump blades.

(b) Install the rotor and pump blades A with the round end facing outward.

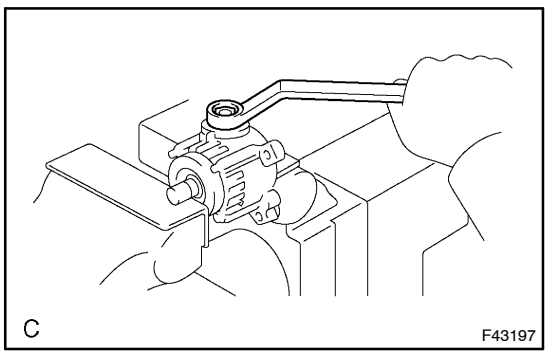


(c) Install the end plate with the 2 screws.
Torque: 2.0 N·m (20 kgf·cm, 17 in.·lbf)



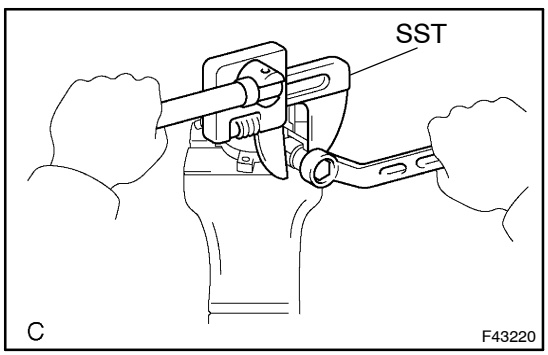
19. INSTALL VACUUM PUMP END COVER

(a) Install the end cover with the 4 screws.
Torque: 4.6 N·m (47 kgf·cm, 41 in.·lbf)



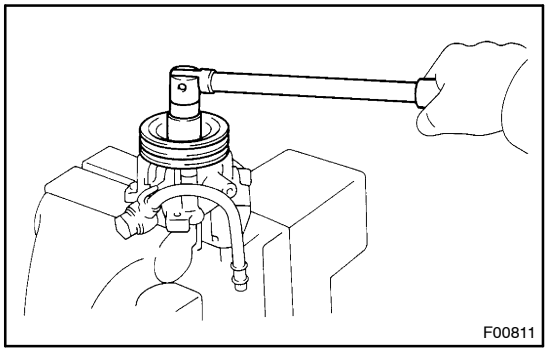
20. INSTALL CHECK VALVE SUB–ASSY

(a) Using soft jaws in a vise, place vacuum pump in vise, install a new gasket, and check valve.
Torque: 74 N·m (750 kgf·cm, 54 ft·lbf)



21. INSTALL MANIFOLD SIDE VACUUM HOSE UNION

(a) Using SST, hold the check valve assy, and install vacuum hose union with union bolt and 2 new gaskets.
SST 09922–10010
Torque: 14 N·m (140 kgf·cm, 10 ft·lbf)



22. INSTALL VACUUM PUMP PULLEY

(a) Install the vacuum pump pulley and pulley lock nut.
Torque: 105 N·m (1,075 kgf·cm, 78 ft·lbf)

23. INSTALL VACUUM PUMP ASSY

(a) Install the vacuum pump with the 4 bolts to the generator assy.
Torque: 7.8 N·m (80 kgf·cm, 69 in·lbf)

24. INSTALL GENERATOR ASSY (See page 19–15)

25. INSPECT VACUUM PUMP ASSY (See page 32–59)