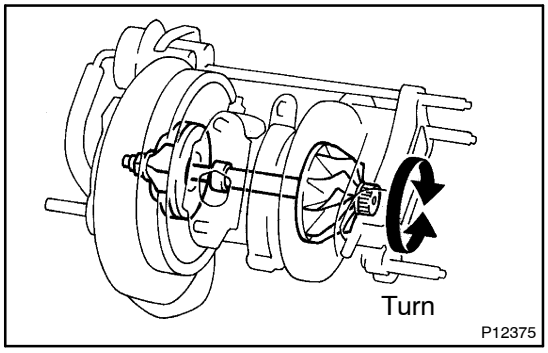
TC033–01

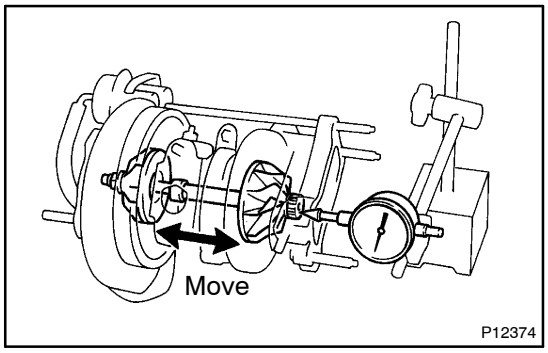
DISASSEMBLY



1. INSPECT TURBINE SHAFT ROTATION

Grasp the edge of the turbine shaft, and turn it. Check that the turbine shaft turns smoothly.

If the turbine shaft does not turn or if it turns with a heavy drag, replace the turbocharger.



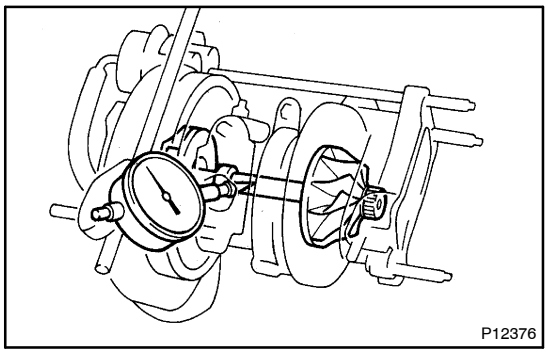
2. INSPECT AXIAL PLAY OF TURBINE SHAFT

(a) Using a dial indicator, insert the needle of the dial indicator into the exhaust side.

(b) Move the turbine shaft in an axial direction, measure the axial play of the turbine shaft.

Maximum axial play: 0.15 mm (0.0063 in.)

If the axial play is greater than maximum, replace the turbocharger.



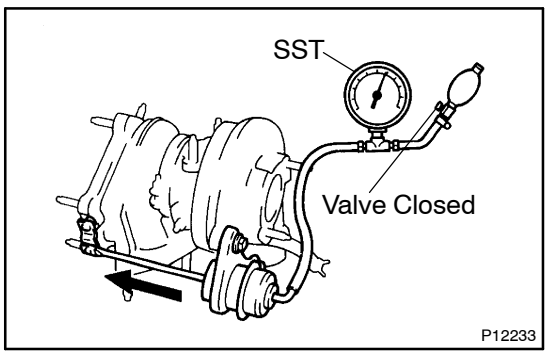
3. INSPECT RADIAL PLAY OF TURBINE SHAFT

(a) Using a dial indicator, insert the needle of the dial indicator into the oil outlet hole, and set it in the center of the turbine shaft.

(b) Move the turbine shaft in a radial direction, measure the radial play of the turbine shaft.

Maximum radial play: 0.11 mm (0.0043 in.)

If the radial play is greater than maximum, replace the turbocharger.



4. INSPECT ACTUATOR AND WASTE GATE VALVE OPERATION

(a) Disconnect the actuator hose from the compressor housing.

(b) Using SST, apply approx. 116 kPa (1.18 kgf/cm^2, 16.7 psi) of pressure to the actuator.

SST 09992–00242

(c) Move the actuator push rod, and check that the waste gate valve is open.

If the rod does not move, replace the actuator or turbocharger.

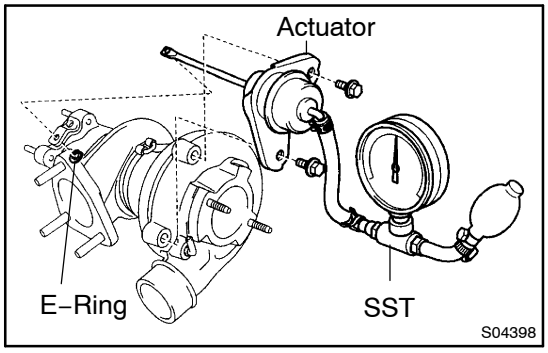
NOTICE:

Never apply more than 141 kPa (1.44 kgf/cm^2, 20.5 psi) of pressure to the actuator.

(d) Reconnect the actuator hose to the compressor housing.

5. REMOVE BEARING HOUSING SIDE PLATE FROM TURBOCHARGER

Remove the 2 bolts, side plate and gasket.



6. REMOVE ACTUATOR

(a) Disconnect the actuator hose form the compressor housing.

(b) Using SST, apply pressure to the actuator.
SST 09992–00242

NOTICE:

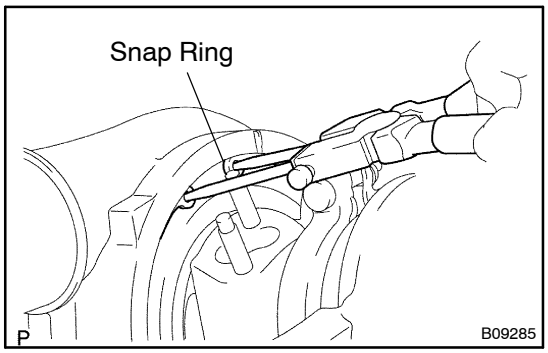
Never apply more than 141 kPa (1.44 kgf/cm^2, 20.5 psi) of pressure to the actuator.

(c) Remove the 2 bolts holding the actuator to the compressor housing.

(d) Remove the E–ring holding the actuator push rod to the waste gate valve link, and remove the actuator.

7. REMOVE COMPRESSOR HOUSING

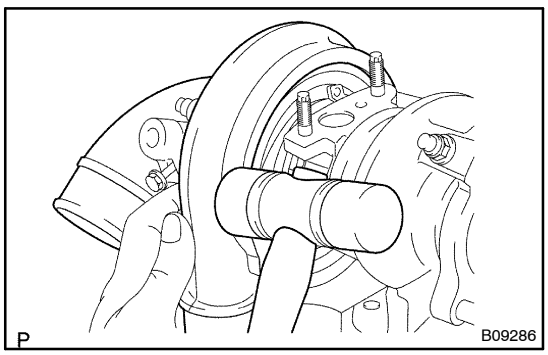
(a) Place the matchmarks on the compressor housing and bearing housing.



(b) Using snap ring pliers, remove the snap ring from the compressor housing.

HINT:

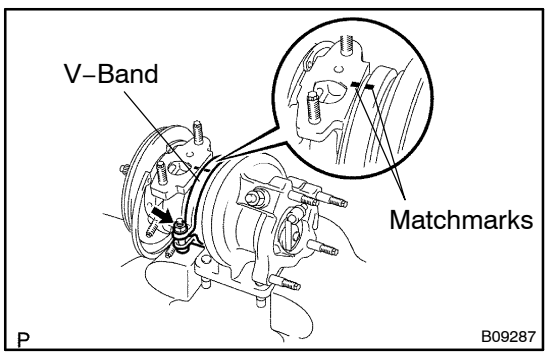
Do not remove the snap ring with force from the turbocharger.



(c) Using a plastic–faced hammer, tap out the compressor housing.

NOTICE:

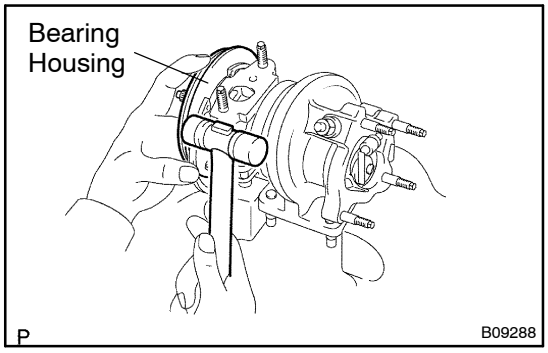
Remove the compressor housing as straight as possible and do not make the impeller wheel interfere with the compressor housing.



8. REMOVE BEARING HOUSING

(a) Place the matchmarks on the V–band, turbine housing and bearing housing.

(b) Remove the bolt, nut and V–band.



(c) Using a plastic–faced hammer, tap out the bearing housing.

NOTICE:

Remove the bearing housing as straight as possible and so not make the turbine wheel interfere with the turbine housing.

(d) Remove the snap ring from the turbocharger.

(e) Remove the O–ring from the bearing housing.