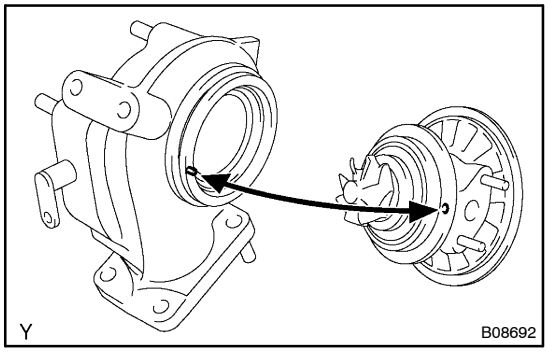
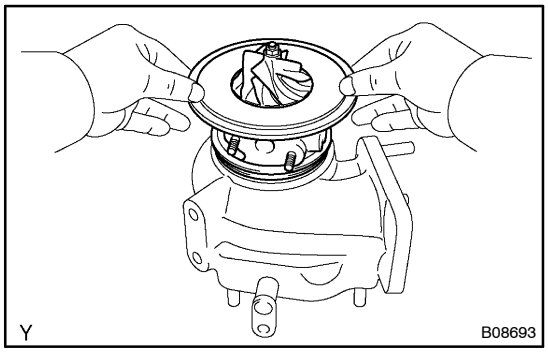
TC02Z–03

REASSEMBLY

1. INSTALL BEARING HOUSING

(a) Align the pin of the turbine housing with the pin hole of the bearing housing.





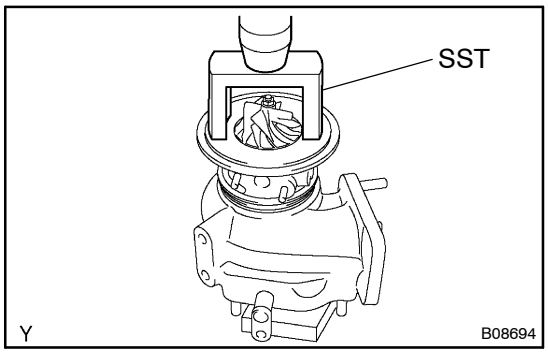
(b) Install the bearing housing to the turbine housing.

NOTICE:

- **Install the bearing housing straight, and be careful not to damage the turbine wheel.**
- **In case of having difficulty of pressing in the bearing housing to install with a hand due to hard engagement, apply the procedure (c).**

HINT:

Apply a little penetrate rust prevention lubricant onto the engagement section to make installation easier.

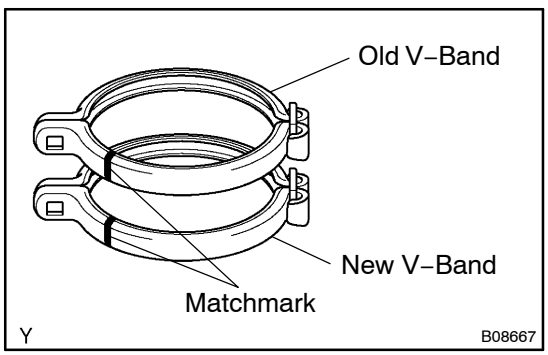


(c) In case that the engagement of the bearing housing is hard, using SST and a press, install the bearing housing while checking the smooth rotation of the impeller wheel.

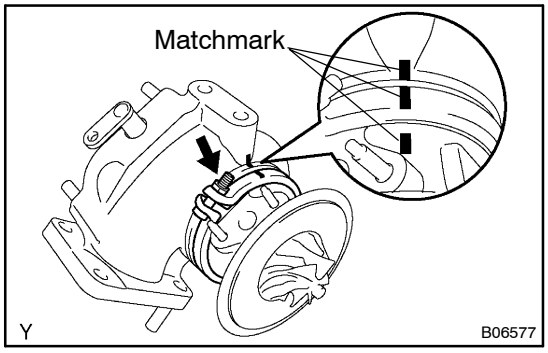
SST 09350–32014 (09351–32070)

NOTICE:

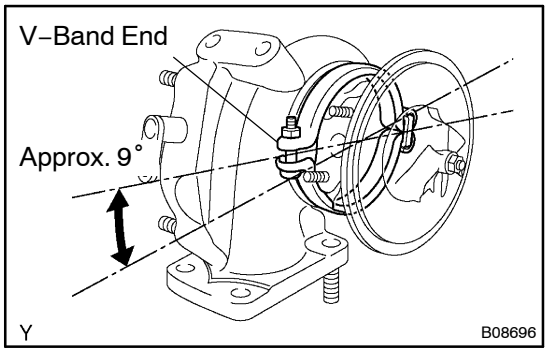
- **Do not hold the turbine housing with the stud bolts.**
- **Be sure to install the bearing housing straight without tilting as the shaft may bent and cause the irregular noise.**
- **Press in the bearing housing slowly. When the rotation of the impeller wheel becomes heavy, return the press immediately and do the operation again.**
- **After installed, check that the turbine shaft turns smoothly.**



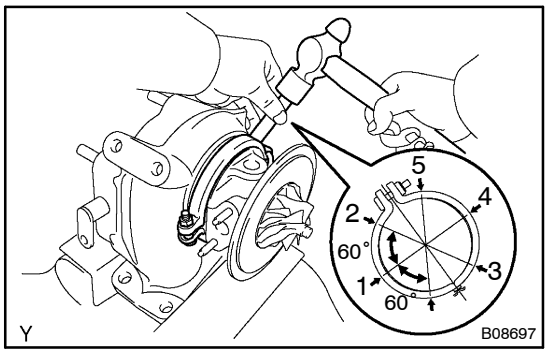
(d) Place a new and old (used) V–bands in line, then reprint the matchmark position on the old V–band to the new one.



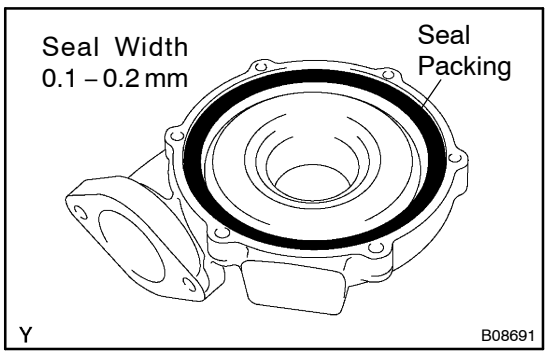
(e) Align the matchmarks on the new V–band, turbine housing and bearing housing, and temporarily torque with a new bolt and nut.
Torque: 8.3 N·m (85 kgf·cm, 74 in.·lbf)



HINT:
When the matchmarks are erased, make the matching openings meet at the position shown in the illustration.

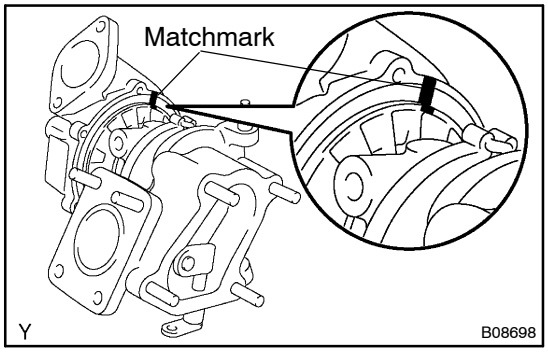


(f) Using a brass bar and hammer, hit 2 or 3 times lightly at each place in order of 1 through 5.
(g) Tighten the bolt and nut more.
Torque: 8.3 N·m (85 kgf·cm, 74 in.·lbf)
(h) Using a brass bar and hammer, hit 2 or 3 times lightly at each place of 1 and 4.
(i) Tighten the bolt and nut completely.
Torque: 8.3 N·m (85 kgf·cm, 74 in.·lbf)



2. INSTALL COMPRESSOR HOUSING
(a) In case of reusing the compressor housing and bearing housing:
(1) Apply seal packing to the compressor housing as shown in the illustration.
Seal packing: Part No. 08826–00080 or equivalent

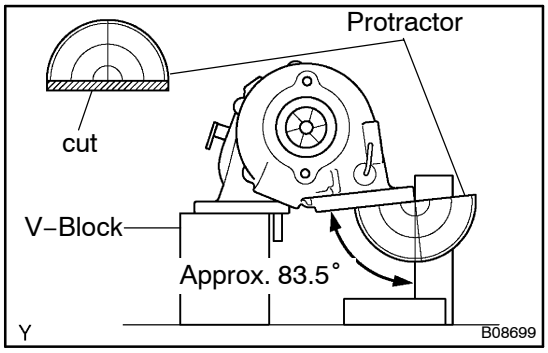
NOTICE:
Avoid applying an excessive amount to the surface.
- Install a nozzle that has been cut to a 0.1 – 0.2 mm (0.004 – 0.008 in.) opening.
- Parts must be assembled within 7 minutes of application. Otherwise the material must be removed and reapplied.
- Immediately remove nozzle from the tube and reinstall cap.



(2) Align the matchmarks on the compressor housing and bearing housing, and install them.

NOTICE:

- **Do not make the impeller wheel interfere with the compressor housing.**
- **Check that the turbine shaft turns smoothly.**



(3) Using a steel square and protractor, check the installation angle of the outlet port of the compressor housing shown in the illustration.

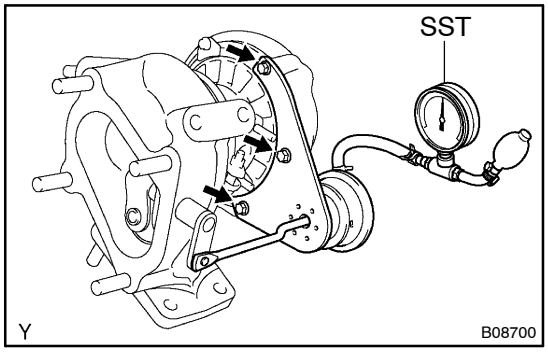
(4) Temporarily install the 3 clamp plates and 3 bolts.

(b) In case of using a new compressor housing and/or bearing housing:

(1) Temporarily install the compressor housing on the bearing housing, make the installation angle of the outlet port of the compressor housing meet at the position shown in the illustration, and place the matchmarks.

(2) Remove the compressor housing.

(3) The following procedure is the same as that of reusing the compressor housing and/or bearing housing.



3. INSTALL ACTUATOR

(a) Using SST, move the actuator push rod.

NOTICE:

Never apply more than 185 kPa (1.89 kgf/cm^2, 26.9 psi) of pressure of the actuator.

(b) Connect the actuator push rod to the waste gate valve link with a new E–ring.

(c) Install the actuator to compressor housing with the 3 bolts. Uniformly tighten the 6 bolts in several passes.

Torque: 4.7 N·m (48 kgf·cm, 42 in.·lbf)

(d) Remove the SST.

(e) Connect the actuator hose.

4. INSTALL No.2 TURBO PIPE TO TURBOCHARGER

Install a new gasket and the water pipe with the union bolt.

Torque: 26 N·m (265 kgf·cm, 19 ft·lbf)