TECH ADVISORY

sonnax
TIME TESTED • INDUSTRY TRUSTED™

TORQUE CONVERTER

DECEMBER 2007

Installation of the Roller Clutch Outer Race in the BW-ST-1 Stator

Application: Chrysler 47RE & 48RE (A618)

Proper fixturing

Correct alignment is critical for successful installation of the roller clutch outer race into the BW-ST-1 stator, and proper fixturing is the key to correct alignment. The only area suitable for supporting the stator is directly below the roller clutch outer race. A piece of tubing will do a good job of supporting the stator, provided it is the correct size. The I.D. of the tubing cannot be any smaller than 3.50" or it will come into contact with the radius at the I.D. of the stator where the bearing rides. The O.D. of the tubing cannot be any larger than 4.50" or it will come into contact with the outside radius of the stator. Any tubing with I.D. and O.D. dimensions that remain within the 3.50" to 4.50" parameters will work. Do not try to support the stator on the bearing thrust area or on the outer O.D. because supporting the stator on either of these surfaces will distort the stator, making the installation more difficult (see Figures 1 and 2).

The roller clutch race must also be supported. A standard piece of aluminum or steel round stock, 2.80" to 3.60" in diameter, will do an excellent job (see Figures 3 and 4). The ends of both the stator and clutch race fixtures must also be machined parallel to ensure proper seating of the race.

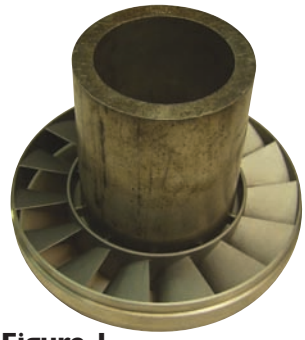

Figure 1

Figure 2

Figure 3

Figure 4

Avoid heat if possible

Heating the stator and cooling the race will make the installation easier. However, one of the functions that occurs during installation is the cutting of new splines by the outer serrated edge of the race. This is especially critical on late-model races that no longer have lugs. When the stator expands from heating, the depth of the splines created when the race is pressed in will be less.

Use a press

A standard shop press equipped with a 5-ton or greater bottle jack will do the job. Avoid striking the race in any manner. Also, avoid using an arbor press. Most arbor presses do not have the capacity to do the job correctly.

sonnax • 800/843-2600 • 802/463-9722 • fax: 802/463-4059 • www.sonnax.com • info@sonnax.com