FD-RK-10

AODE AND 4R70W LOCKUP RACEKIT

HIGH PERFORMANCE TORQUE CONVERTER PARTS

Part No.
FD-RK-10
Lockup Racekit

IMPELLER ASSEMBLY INSTRUCTIONS (SEE FIGURE 1)

1. Remove the stock GM 245mm impeller hub by boring a 3.380"/3.385" diameter hole on center in the stock GM 245mm impeller.
2. Install the **FD-90CM-55G** impeller hub from the outside. Weld around the OD of the **FD-90CM-55G** impeller hub, making sure that it is centered in the impeller.

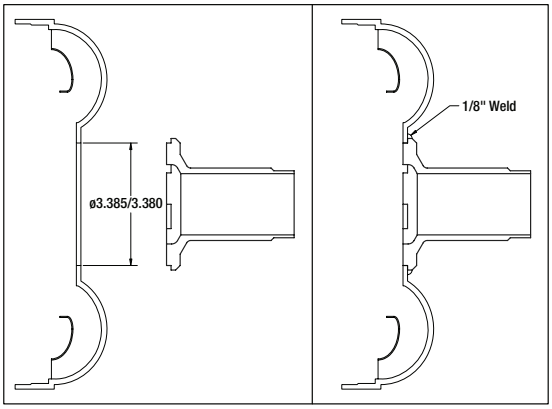

Figure 1

STATOR ASSEMBLY INSTRUCTIONS

1. Remove the OEM snap ring, stator cap, inner stator race, rolls and springs from the GM 245mm stator assembly.
2. Thoroughly clean and inspect the stator body and outer race.
3. Install the **FD-HR-3** stator race into the stator body. The smaller OD of the **FD-HR-3** should be fitted toward the impeller. This will convert the stator for use with the 32-tooth Ford stator support shaft.
4. Install new springs and rolls into the stator.
5. Install the stator cap. Use either a new **GM-WA-4** stator cap or, if it is not damaged, reuse the OEM stator cap. Install the snap ring.

TURBINE ASSEMBLY INSTRUCTIONS

1. Bore a 3.200/3.205" diameter hole on center in the stock GM 245mm turbine. This will remove the OEM turbine hub. **Note:** The mounting diameter is different than non-lockup racekit turbine hubs. Also different from other racekits is that both flanges of the OEM turbine hub assembly are removed.

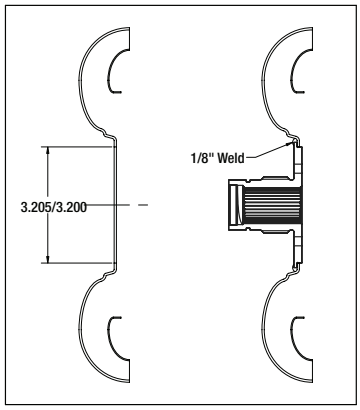

Figure 2A

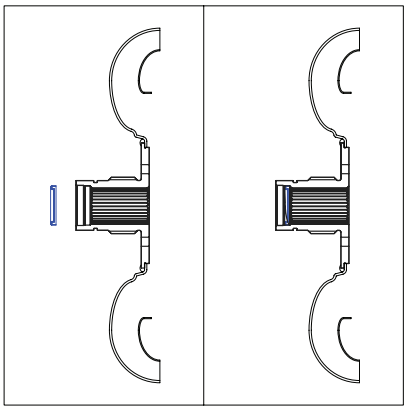

Figure 2B

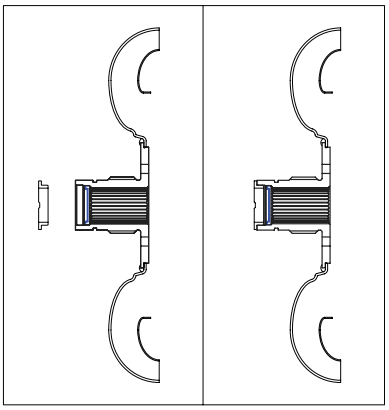

Figure 2C

2. Install the **FD-HTCM-35** turbine hub into the turbine from the front cover side and then weld around the OD of the turbine hub (see Figure 2A).

3. Install the **FD-O-5V** radial lip seal into the **FD-HTCM-35** turbine hub (see Figure 2B).

4. The aluminum thrust washer **GM-WA-27B** gets pressed into the end of the **FD-HTCM-35** turbine hub the same way as the OEM 245mm assembly (see Figure 2C).

FRONT COVER ASSEMBLY INSTRUCTIONS

1. Remove the pilot of the stock GM 245mm front cover (FWD) and, from the outside of the cover, bore a 1.750"/1.752" diameter hole.

2. Remove the OEM mounting pads and make a skim cut (.005"-.010") of the front cover stamping where the **FD-BM-2** mounting ring will fit. Make sure that the parallelism between the lockup surface and where the skim cut was taken is minimal.

3. Install the pilot from the outside of the cover and then weld around the OD of the pilot (see Figure 3A).

4. Center the **FD-BM-2** mounting ring to the **FD-PI-9** front cover pilot. Weld at the seam between the OD of the cover and the mounting ring. Weld again where the ID of the mounting ring meets the front cover (see Figure 3B).

5. After the welding process, check the runout of the lockup surface to the mounting pads. If it exceeds .005" or the lockup surface is damaged, it is recommended that the lockup surface be remachined. A minimal skim cut should be taken and surface finish should not exceed RA 20 micro-inches. Polishing with Scotchbrite™ or emery cloth is recommended at this point.

CLUTCH ASSEMBLY

Some consideration should be used when deciding what clutch to use. It is suggested to use High Carbon linings with the FD-RK-10.

Sonnax offers 3 choices:

GM-FE-4HC 7¾" x 9" x .040"

GM-FE-5HC 7¾" x 9" x .070"

GM-FE-17HC 7½" x 9⅜" x .040"

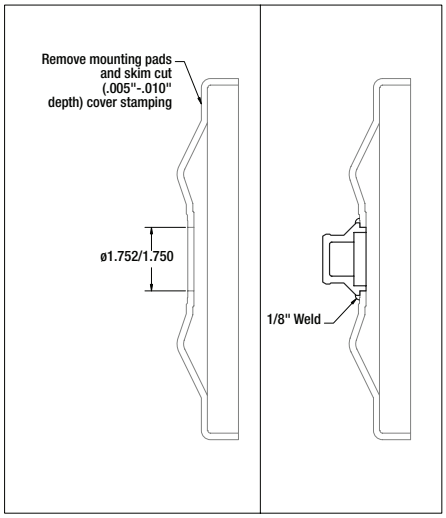

Figure 3A

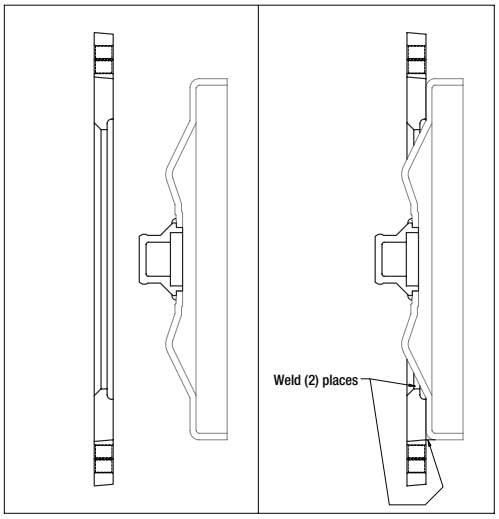

Figure 3B

FINAL ASSEMBLY

From this point on, the kit can be assembled in the same way as a stock GM 245mm converter. The endplay of the converter should be set the same as a stock GM 245mm converter, .001"-.015". The height from the mounting pads to the impeller hub will be the same as an OEM Ford AODE converter, approximately 6.625".

Note: High torque applications can overpower the torque capacity of stock GM 245mm single disc clutch and damper assemblies. The ability of this single disc clutch to handle a specific torque load is dependent on many factors, including the amount of input torque and the strategy that is used in applying the torque converter clutch. Sonnax does not guarantee that the capability of the 245mm damper assembly will be adequate in all applications.