

TCRA

Torque Converter Rebuilders Association

Welcome New Members:
 Brian Meade of TCE, Inc in Gray, TN

Getting to know the 68RFE

Assembly Specifications Include

Overall Height..... 7.200
 Internal Clearance..... 0.120 - 0.150
 Endplay 0.010 - 0.035
 Min. Clutch Release Clearance 0.010
 Pilot Diameter..... 2.125

After cutting this unit apart disassembly will reveal the bolt in style captive clutch. Nine # 40 Torx style bolts hold the piston assembly to the cover. Care should be taken when removing these bolts as they tend to strip easily. Heating the bolts prior to removal makes

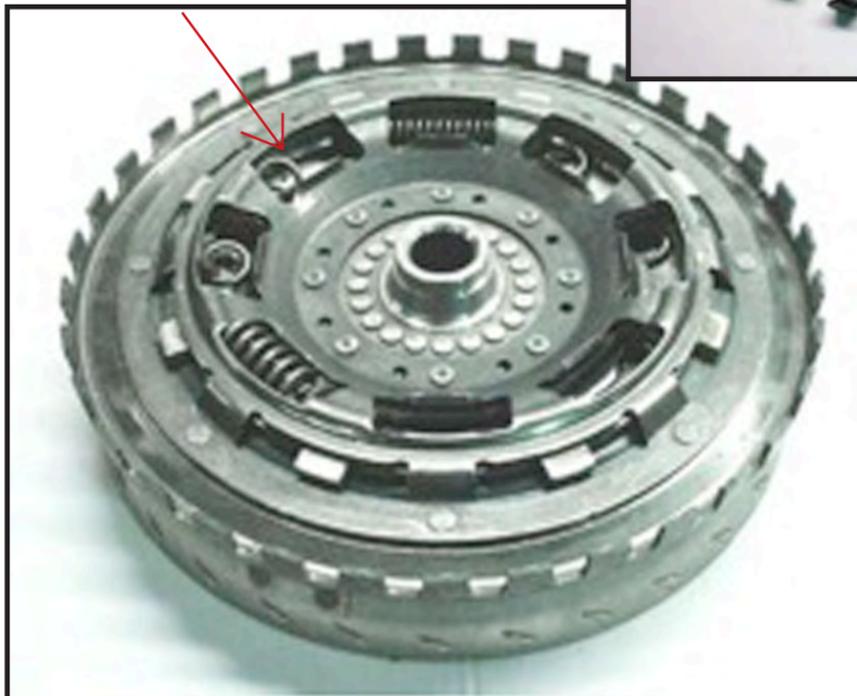


Dual Friction Clutch Plate



Introduced to replace the 48RE in the 2007 model year, the 68RFE is becoming a mainstay in shops around the country. Like the 48RE the 68RFE provides some unique challenges for most rebuilders. The popularity of the diesel pickup market lends to the first challenge you may face and that is core availability. Although the 2007 to 2009 model year 68 uses the same pump and stator housing as the 48, there are several other differences. Those include a flat style 4140 Chrome Moly pump drive; 650ft-lbs damper springs incorporated into the turbine assembly, a captive style lock up clutch and a larger crankshaft pilot. Common failures found in this unit include hub breakage, thrust surface wear between the stator and turbine and broken damper springs.

Also common to these units is friction failure on the dual friction clutch plate.



this process much easier.

After a thorough inspection and cleaning, care should be taken to establish the correct clutch release clearances as well as allowing adequate piston travel for apply. Any surfacing done to the cover or piston apply surface (figure 1) can have an adverse effect on both of these measurements. To determine clutch release clearance assemble cover, piston and clutch plate. Make sure there is zero clearance, in other words the clutch plate is held in place. Using one of the three access holes (figure 2) holding to the inside diameter measure from the top of the piston to the top of the tower the piston bolts to. This thickness will typically be around 0.140. Next holding to the outside diameter of the access hole measure down, the difference in these measurements will be the available clutch release clearance. Typically you will see a measurement of about 0.175 or 0.030 clearance. Once the clutch assembly is

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Getting to know the 68RFE continued

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complete final assembly can take place. Many of the replacement parts needed to repair this unit are readily available from member suppliers. As this converter has continued to evolve over the years there are some changes you should be aware of. During the 2009 model year a 110K stator was introduced to replace the original 95K style. During the 2011 model year the damper

spring rate was increased from 650 to 800ft-lbs. By using a consistent process and focus on proper clearances you can successfully return this unit to service. A special "Thank You" to Ed Lee, Don Randolph, Lou Darling and Brad Gilbert for their contributions to this article.

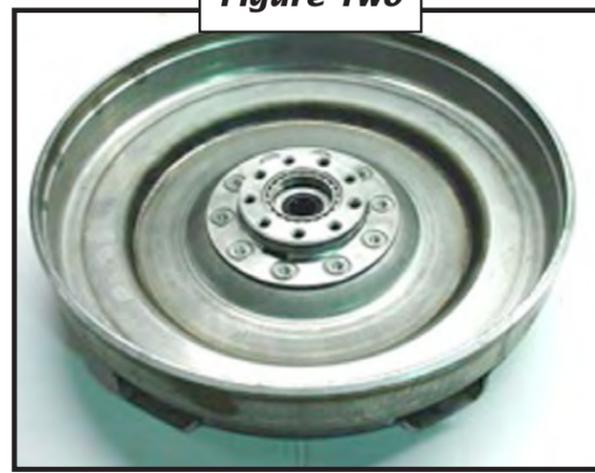
Jeff Stuck
Certified Transmission



Figure One



Figure Two



Have Items For Sale?
 Member Looking For
**Good Quality, Used TCRS or
 ATI Rebuilding Equipment.**
 Located in Los Angeles, CA
 and Willing To Negotiate.
 Contact Art Hernandez at
 qualityconverters@hotmail.com

Month in Review... what's **HOT** online?

online question:

Why does the Chrysler (#787-90 degree) turbine hub washer break?

answer:

Check the turbine hub surface where the thrust washer rides to see if the surface is flat and not rounded. This could be causing failure.

Questions or comments? Contact the TCRA newsletter by e-mail at tcranewsletter@comcast.net visit the web www.tcronline.com or contact Dennis Sneath, newsletter committee team lead, at dgsneath@aol.com.



TCRA thanks all gold and platinum sponsors!

Upcoming Events

2011 ATRA Powertrain Expo



Las Vegas Hilton, 3000 Paradise Rd, Las Vegas, NV

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