

4T60E/4T65E

TORQUE CONVERTER CLUTCH STUCK OFF

COMPLAINT: After overhaul of a 4T65E, the MIL lamp comes on during the road test. A scan of the PCM reveals code P0741 for “TCC Stuck Off” is stored. Upon switching to the scan tool data list, the TCC Duty Cycle is at maximum but TCC Slip is high and there is no rpm drop when TCC is commanded on.

The problem remained after the installation of multiple converters and valve bodies, new solenoids, all the possible Sonnax® valve repair kits as well as the replacement of the delivery sleeve in the center of the channel plate and the turbine shaft sealing rings. Cooler flow was checked and all shift adapts were reset.

CAUSE: A stator support shaft from a 4T60E was installed into the 4T65E.

CORRECTION: When the stator support or turbine shaft requires replacement in either the 4T60E or the 4T65E, care must be taken as these parts do not interchange.

The two shafts in a 4T65E are dimensionally taller than the same two shafts in the 4T60E, (Refer to figures 1 and 2). When the turbine shafts are placed side by side it would appear there would be contact between the turbine and stator shafts due to the difference in the ramp of the shafts which would produce metal contamination and noise. There is no contact between the stator and turbine shaft, however, it is the location of the TCC feed orifice along with the difference in the ramped area that caused the P0741 code and the lack of TCC application, (Refer to figure 3).

The longer shaft would restrict oil flow to the TCC apply circuit at the inner ramped area of the stator shaft resulting in no converter clutch apply, (Refer to figure 4).

A special thanks to Brian at Ledgewood Transmissions in Ledgewood, N.J. for the feedback which made this bulletin possible.

A very special thank you to Jeff Hunt, at Whatever It Takes for supplying the parts for this material.

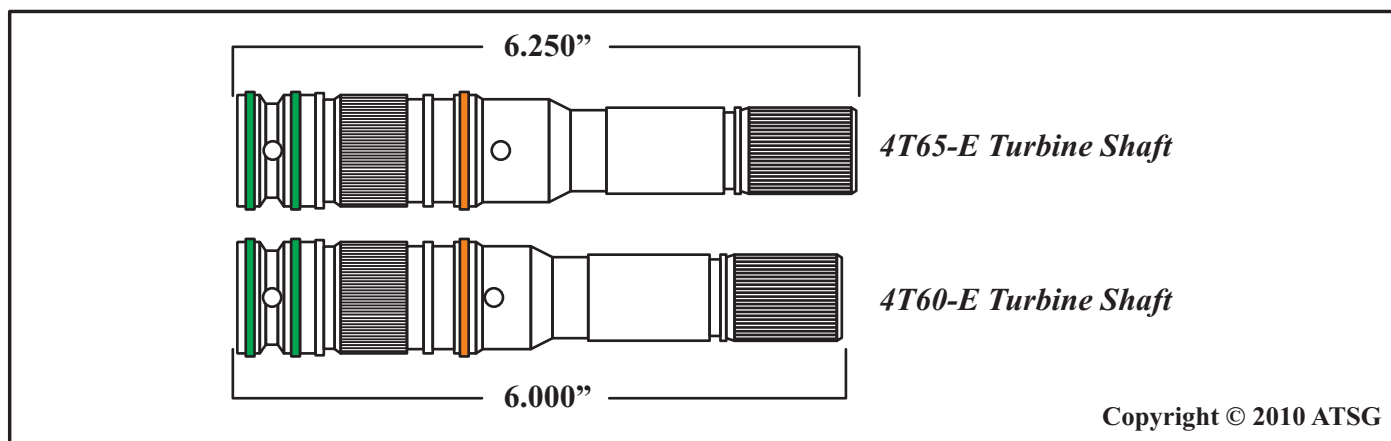


Figure 1

4T60E/4T65E

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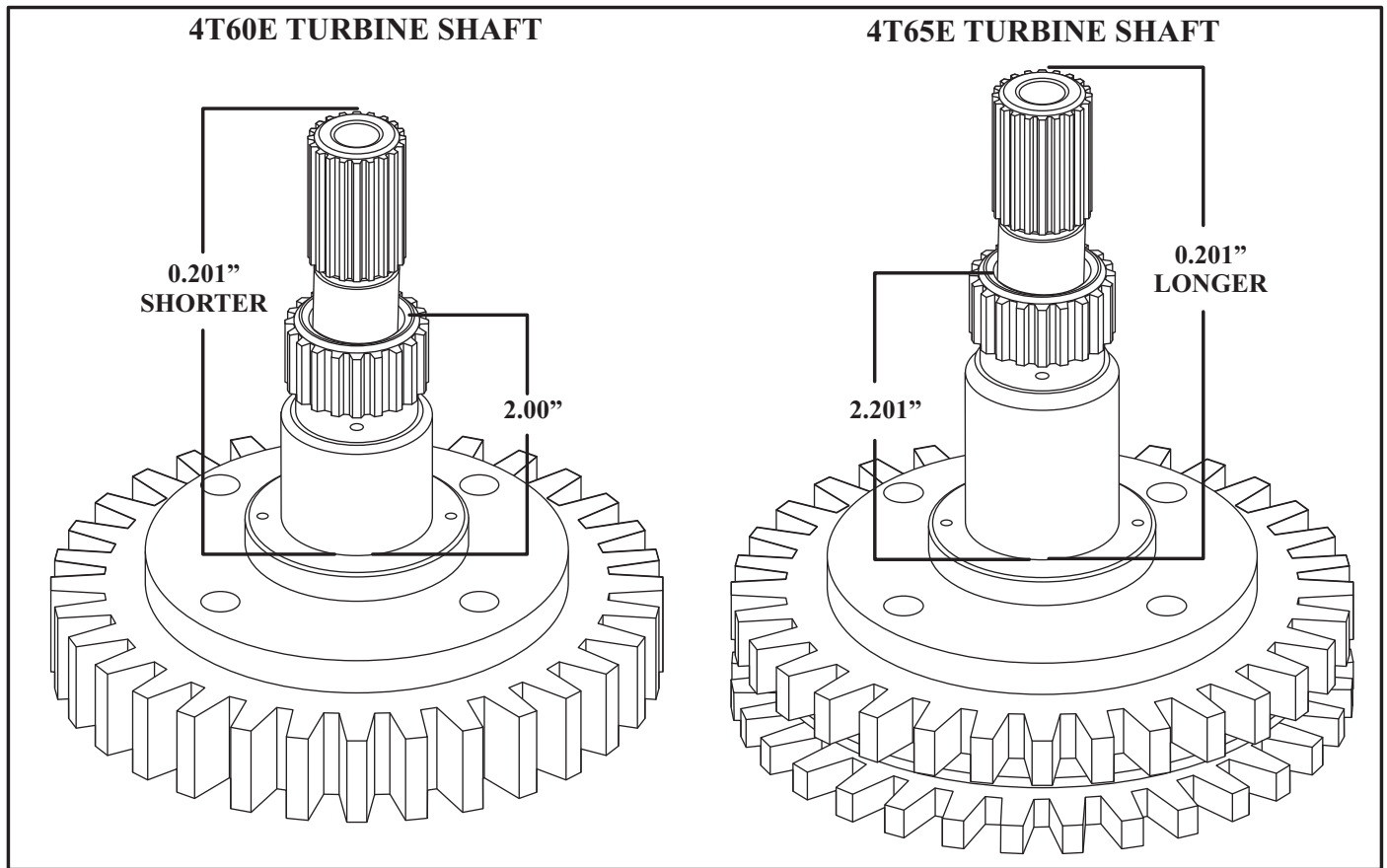


Figure 2

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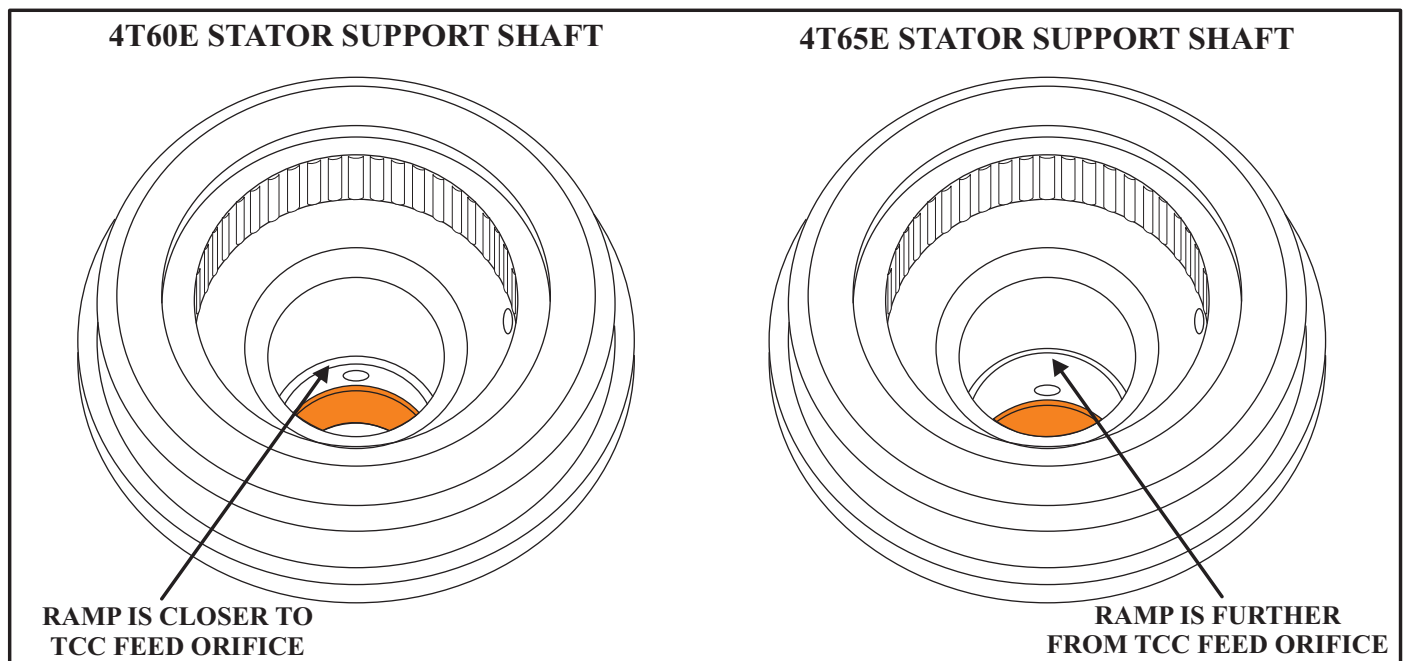
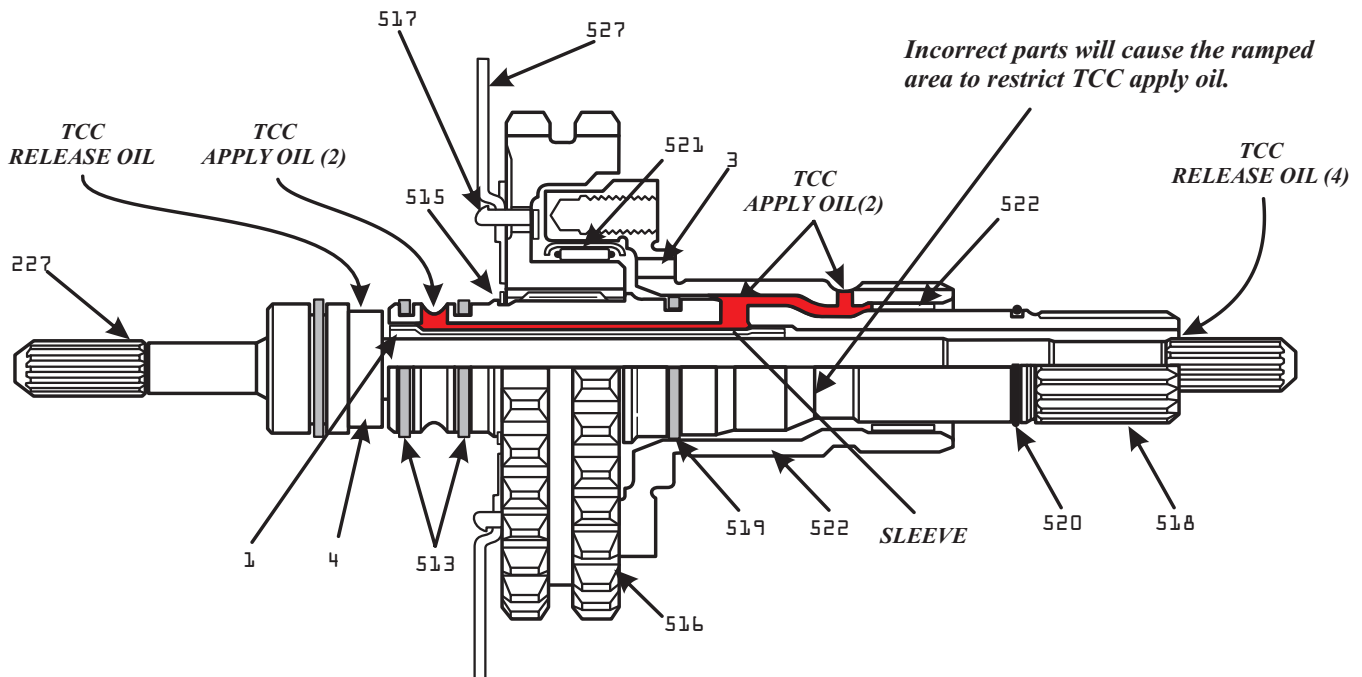


Figure 3

4T60E/4T65E

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OIL PUMP DRIVE SHAFT & TURBINE SHAFT TCC PASSAGES



Legend:

- | | |
|--------------------------------------|---|
| (1) Steel Sleeve | (517) Drive Sprocket Thrust Washer |
| (2) TCC Apply Passage | (518) Turbine Shaft |
| (3) Converter Seal Drainback Passage | (519) Turbine Shaft Oil Seal Ring |
| (4) TCC Release Passage | (520) Turbine Shaft O-Ring Seal |
| (227) Oil Pump Drive Shaft | (521) Drive Sprocket Bearing |
| (513) Turbine Shaft Oil Seal Ring | (522) Drive Sprocket Support |
| (515) Drive Sprocket Retaining Ring | (523) Drive Sprocket Support Bushing |
| (516) Drive Sprocket | (527) Turbine Speed Sensor Reluctor Wheel |

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Figure 4