



62TE

REPEATED COMPOUNDER SET FAILURE

COMPLAINT: A 62TE transmission comes into the shop with no reverse along with a variety of flared shift issues going forward. The odor and color of the transmission fluid indicates internal transmission problems are present. Upon disassembly, the compounder assembly is found to be severely damaged which contributed to the no reverse condition. The damage to the compounder set was such that the low brake was inoperable and is necessary for reverse to function. Forward gears can continue to function without the low brake if the overrun (low) sprag is still functional. Flared shifts was attributed to excessive widening of the direct clutch ring grooves on the low brake drum. The pilot on the end of the underdrive center shaft was also found to be damaged. With all the damage combined, it required the replacement of a complete compounder set and output planetary assembly during the rebuild. Three to six months later the vehicle returned with shifting issues only to find damage to the replacement compounder set once again.

CAUSE: A ledge in the case where the low brake drum sits up against and the case wall (figure 3) had developed excessive wear caused by the original compounder failure. This allowed the replacement compounder set to have excessive movement causing shift issues and damage to the assembly.

CORRECTION: Replace the case with one that does not have excessive wear along with another good compounder set. Use figures ?? to ?? to adjust the compounder assembly clearance. Once the unit and tapered snap ring is installed into the case, there should be no side to side or up and down movement of the assembly.

Note: If the drum needs to be pulled up to fit the feed tubes into the low brake drum, this is an indication of excessive case wear.

SERVICE INFORMATION:

Substandard parts is another reason for repeated compounder unit failure. Anthony from All Transmission World in Orlando Florida discovered that a brand new complete compounder set (Underdrive Assembly) from Chrysler-Dodge-Jeep can be purchased for as low as \$250.00 to \$330.00 under part number: RL078815AD.

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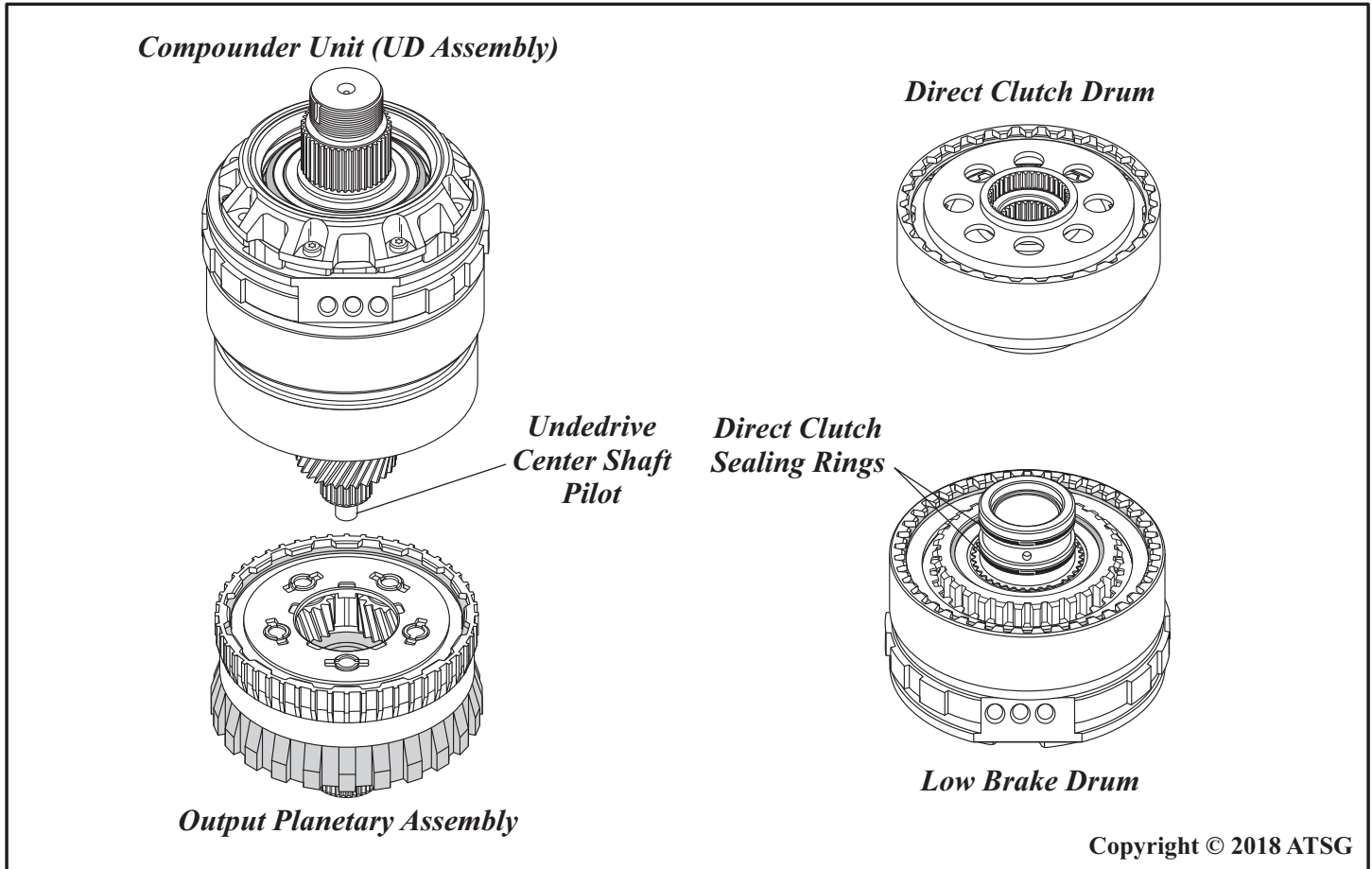


Figure 1

COMPONENT APPLICATION CHART									
<i>Gear</i>	<i>Underdrive Clutch</i>	<i>2-4 Brake</i>	<i>Overdrive Clutch</i>	<i>Reverse Clutch</i>	<i>Low-Rev Brake</i>	<i>Low Brake</i>	<i>Direct Clutch</i>	<i>Over-run Sprag</i>	<i>Ratio</i>
<i>Reverse</i>				<i>ON</i>	<i>ON</i>	<i>ON</i>			<i>3.215</i>
<i>1st Gear</i>	<i>ON</i>				<i>ON</i>	<i>ON**</i>		<i>Hold</i>	<i>4.127</i>
<i>2nd Gear</i>	<i>ON</i>				<i>ON</i>		<i>ON</i>		<i>2.842</i>
<i>3rd Gear</i>	<i>ON</i>	<i>ON</i>				<i>ON*</i>		<i>Hold</i>	<i>2.284</i>
<i>4th Prime</i>	<i>ON</i>	<i>ON</i>					<i>ON</i>		<i>1.573</i>
<i>4th Gear</i>	<i>ON</i>		<i>ON</i>			<i>ON*</i>		<i>Hold</i>	<i>1.452</i>
<i>5th Gear</i>	<i>ON</i>		<i>ON</i>				<i>ON</i>		<i>1.000</i>
<i>6th Gear</i>		<i>ON</i>	<i>ON</i>				<i>ON</i>		<i>0.689</i>

Note: 3rd Gear is used for "Limp-in Mode".
Note: 4th Prime is used on a 6-4 downshift only to avoid "Double Swap" shift.
*Note: * = Effective on coast only for engine braking.*
*Note: ** = In OD 1st gear, ON at launch, Off at 150 RPM output speed. Always ON in Manual Low.*

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Figure 2

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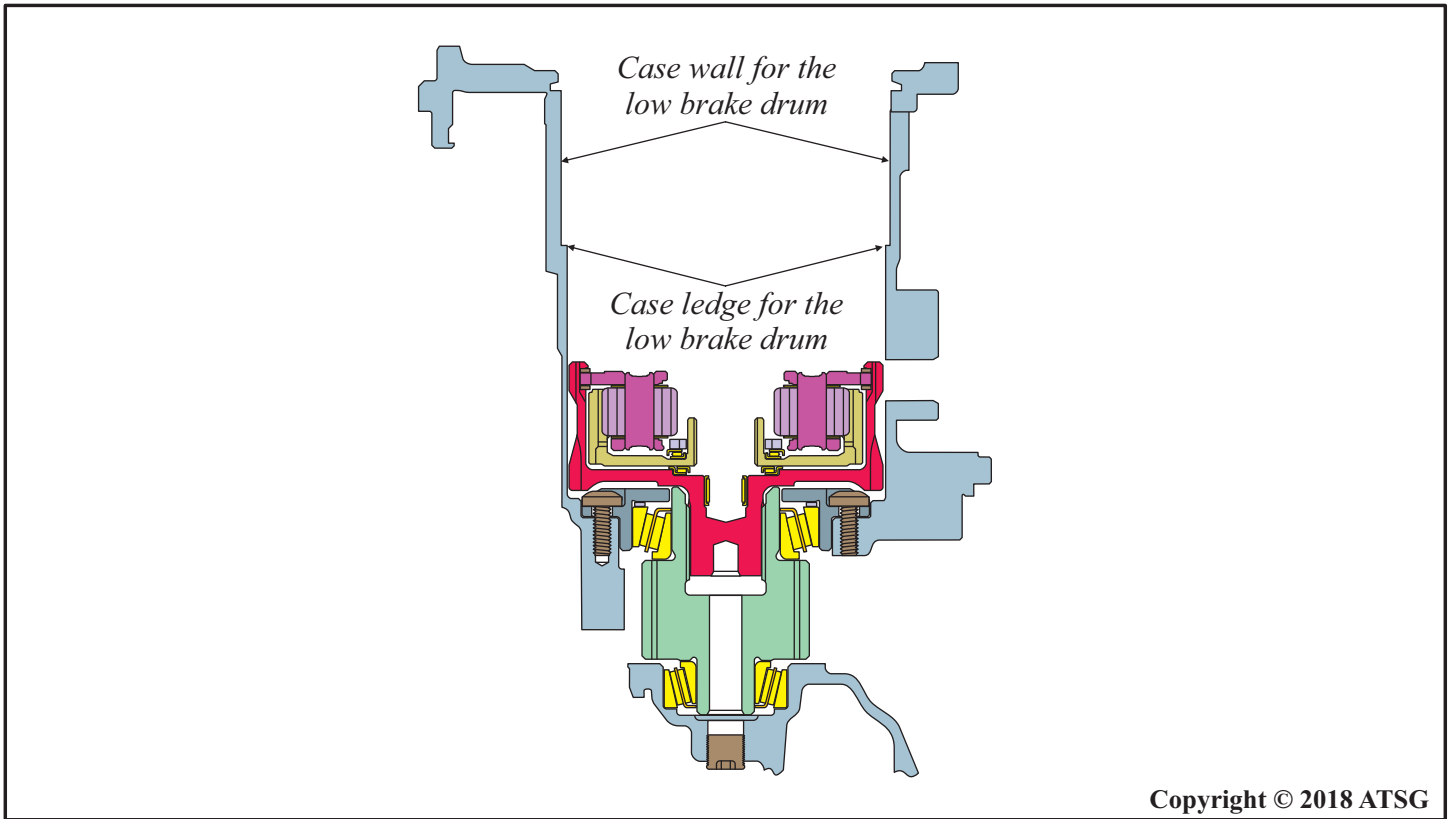


Figure 3

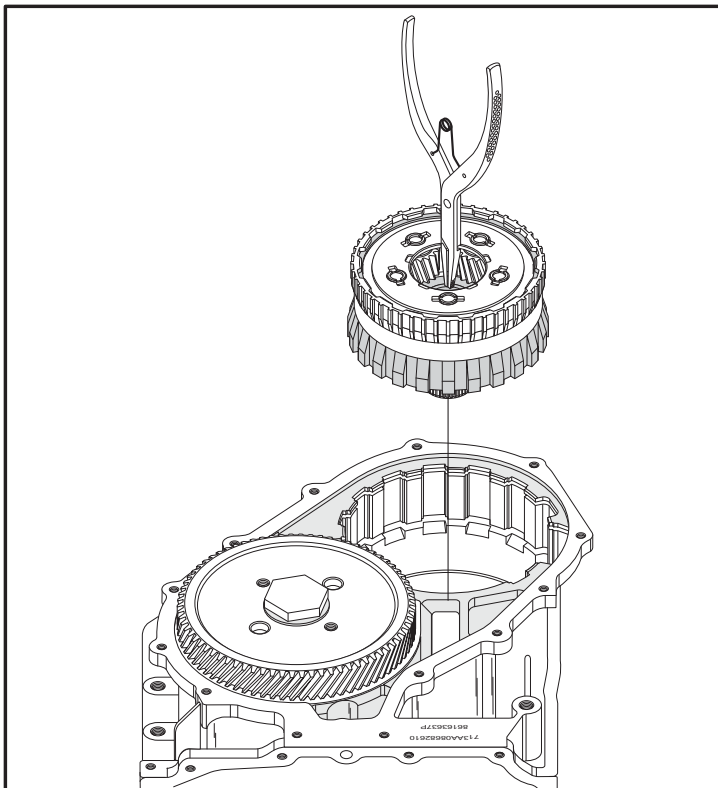


Figure 4

Install the output planetary carrier assembly using a pair of snap ring pliers and ensure it is fully seated.

Once in place, compounder end-play check procedure can begin.

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Install "H" gage into transaxle case against the surface where the low clutch housing rests, as shown in figures 5 and 6.

Lower the adjustment rod to the surface of the helical cut shim in the output planetary carrier, as shown in figure 6, and tighten adjustment rod locking knob.

Remove the "H" gage from case, turn it over and place on pre-assembled compounder assembly as shown in figure 7.

Measure with feeler gauge between output sun gear and the adjustment rod, as shown in figure 7.

The compounder end-play should measure 0.25-0.50mm (.010"-.020").

Change helical cut shim in the output planetary carrier as necessary to obtain proper clearance (figure 8).

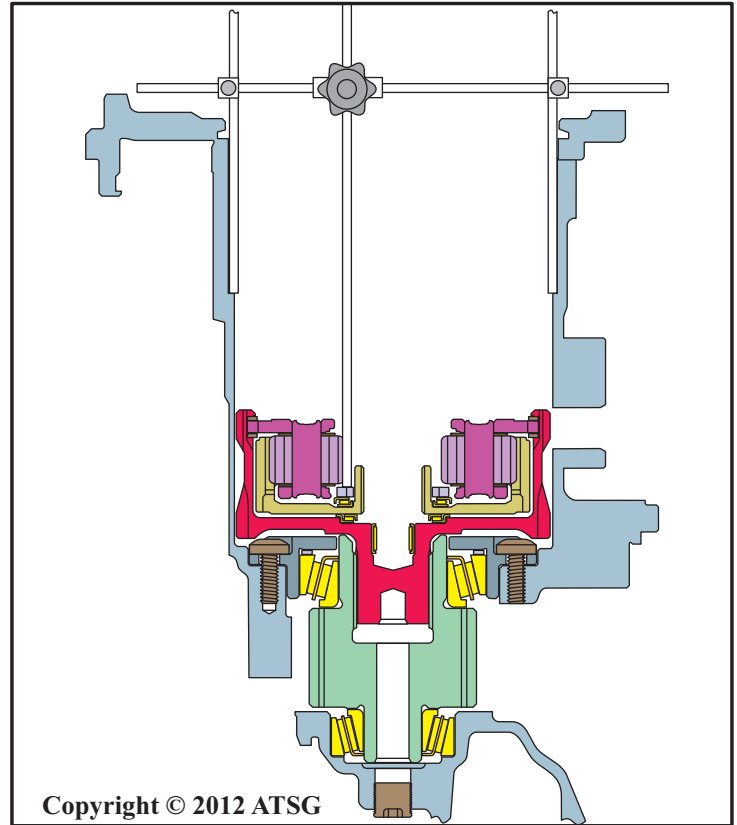


Figure 5

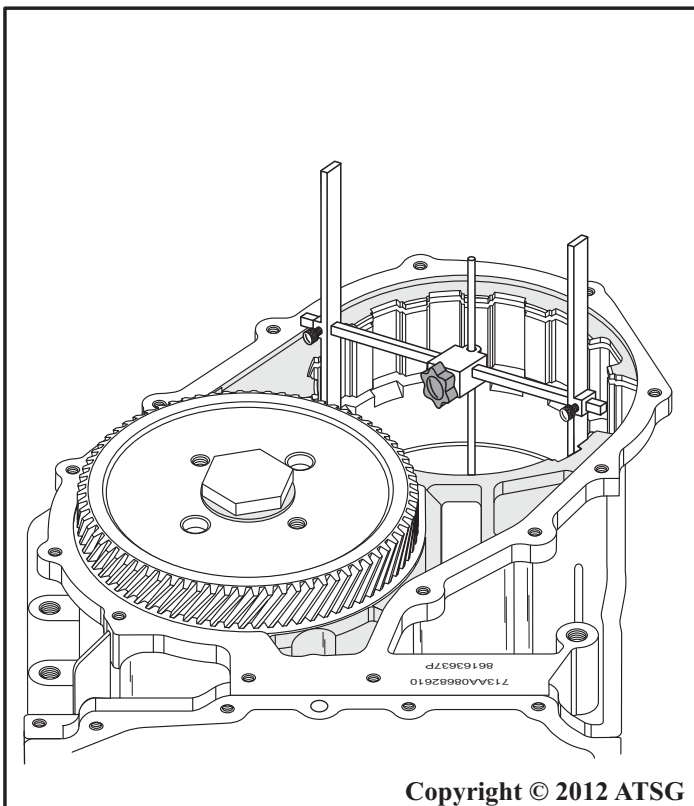


Figure 6

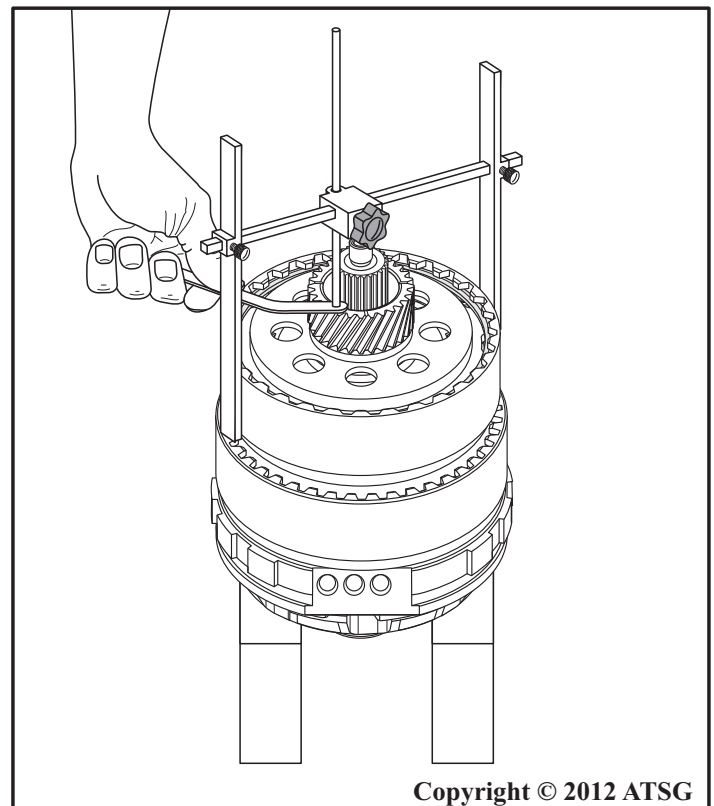


Figure 7

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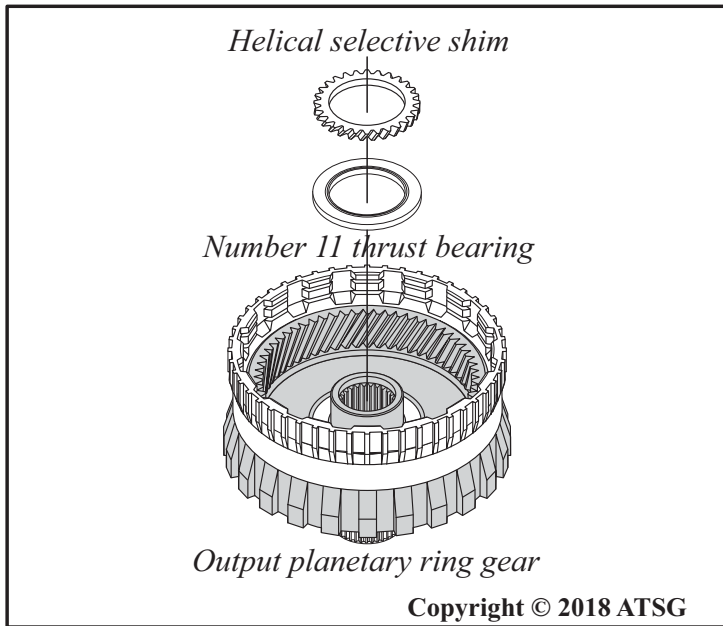


Figure 8

Change helical cut shim that sits on top of the number 11 thrust washer in the output planetary ring gear as necessary to obtain proper clearance (figure 8).

Once adjusted, complete the compounder unit assembly installing the retaining tapered snap ring as shown in figure 9 with the taper facing up.

Once the tapered snap ring is installed there should not be a gap between the snap ring and the compounder unit.

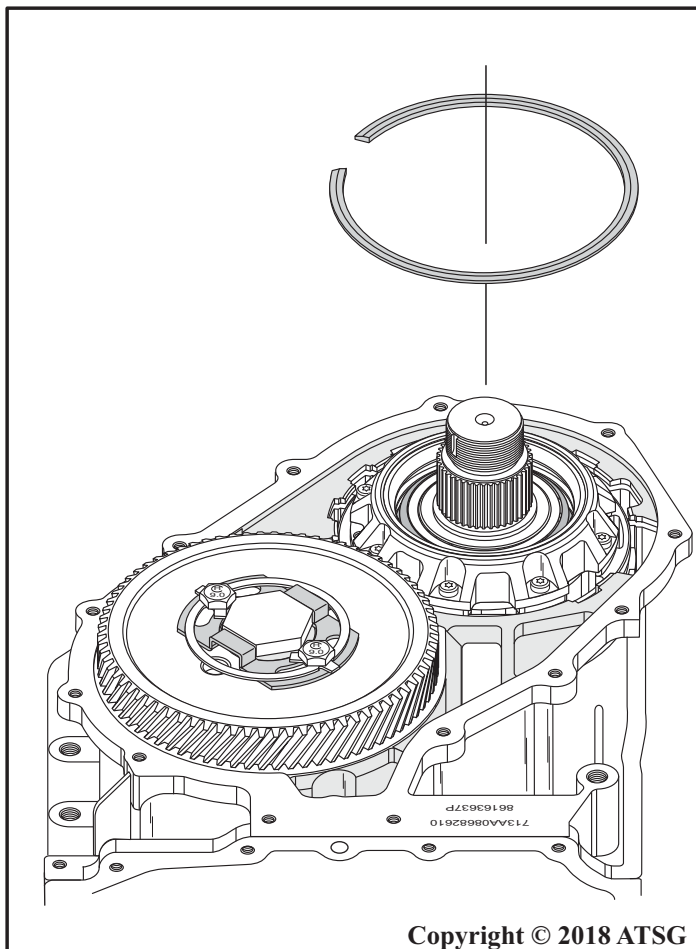


Figure 9

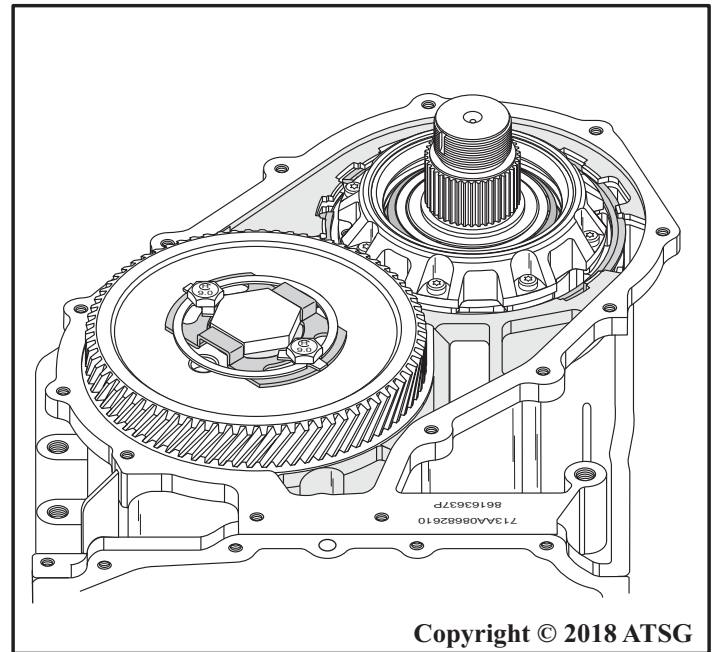


Figure 10