



# Technical Service Information

## DODGE, CHRYSLER, HYUNDAI & MITSUBISHI BROKEN PUMP F4A41/42/51 SERIES TRANSAXLE

**COMPLAINT:** Vehicles equipped with the F4A51 transaxle may exhibit a no move condition. Fluid level may read high and line pressure is "0".

**CAUSE:** The cause may be broken pump gears and or severely damaged pump assembly. Pieces of Low/Reverse spiral cushion wave spring (Figure 1) located on top of the Low/Reverse clutch assembly may be found lodged between the pump gears (Figure 2). When the filter is cut open, there is a 3 to 4 inch section of filter media that is not crimped along edge of filter halves during assembly, see Figure 3 for location of filter. This allows the broken wave spring to enter the pump assembly .

**CORRECTION:** Replace pump and filter, and update Low/Reverse spiral cushion wave spring to a one piece circular wave spring.

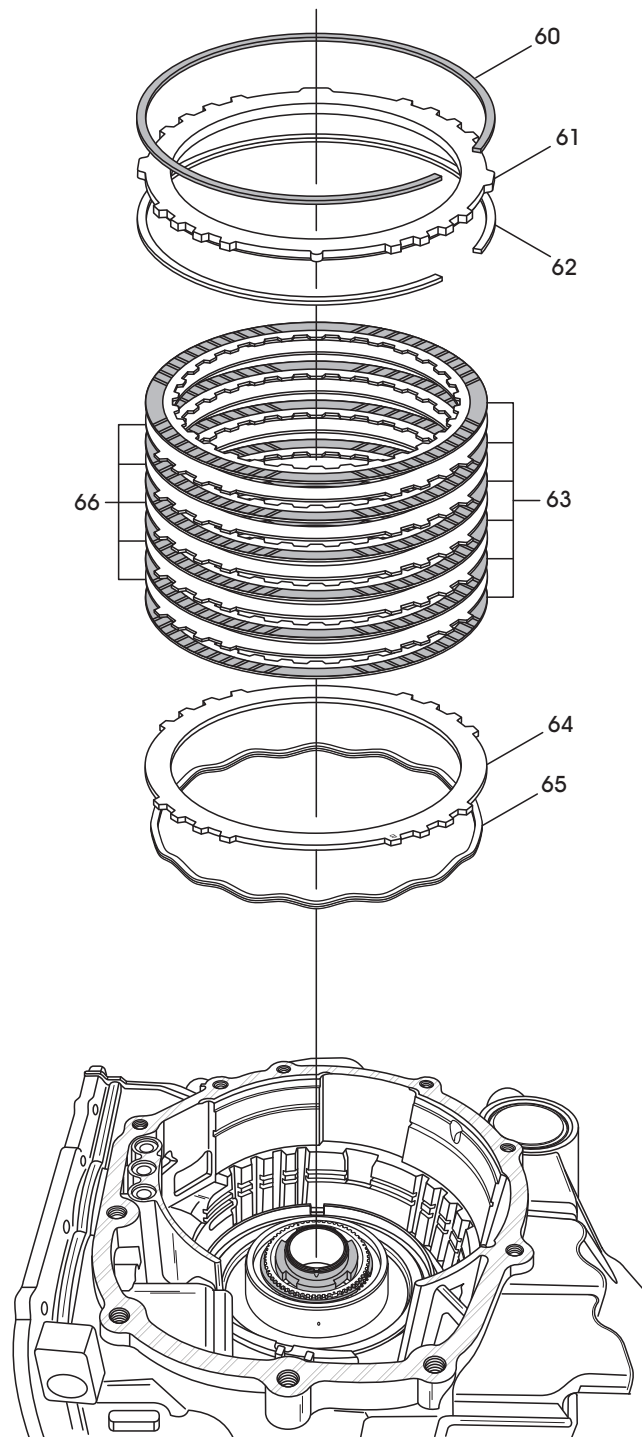
**Note:** One other issue that plagues this transmission is front seal leak and or damaged pump bushing after rebuild within as little as a few minutes during road test or in a couple of days. The original pump assembly is aligned during manufacturing and there are no leading edges or alignment pins to align the pump. There is an alignment tool available from Sonnax part number #41005-TL (Figure 4). With the alignment tool in place torque the pump bolts to 80 - 85 inch pounds as shown in Figure 5.

***Do not attempt to align pump with the torque converter. This procedure when attempted has had disastrous results.***

### SERVICE INFORMATION:

Low/Reverse Wave Spring.....MR 534166

## LOW REVERSE CLUTCH ASSEMBLY



- 60 LOW/REVERSE PRESSURE PLATE SNAP RING (*SELECTIVE*).
- 61 LOW/REVERSE STEPPED PRESSURE PLATE.
- 62 LOW/REVERSE PRESSURE PLATE SNAP RING (.099" THICK).
- 63 LOW/REVERSE FRICTION PLATES.
- 64 LOW/REVERSE APPLY PLATE (*SELECTIVE*).
- 65 LOW/REVERSE "WAVED" CUSHION PLATE.
- 66 LOW/REVERSE STEEL PLATES

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Figure 1

## PUMP ASSEMBLY

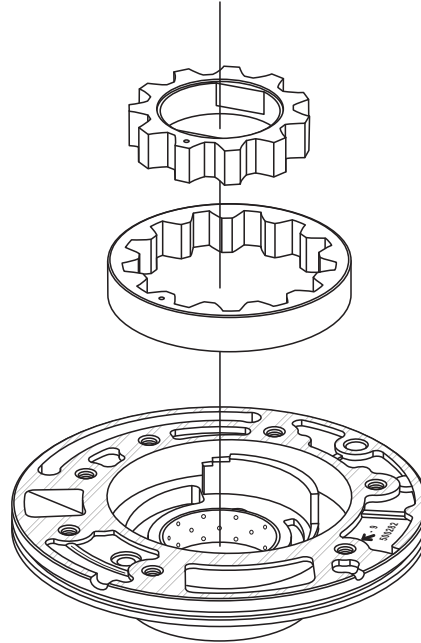
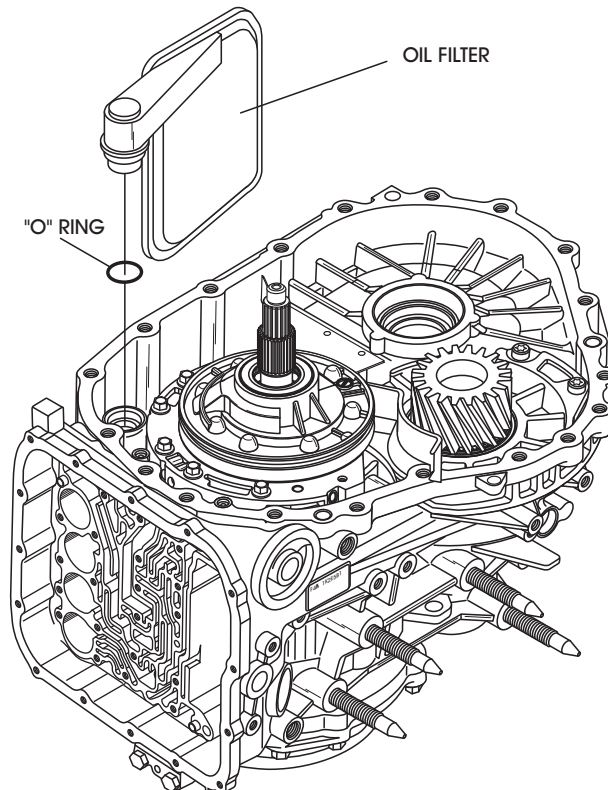


Figure 2

## FILTER LOCATION



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Figure 3

**SONNAX® KM PUMP  
ALIGNMENT TOOL  
#41005-TL**

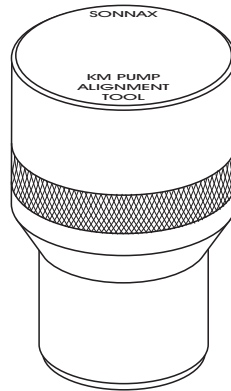
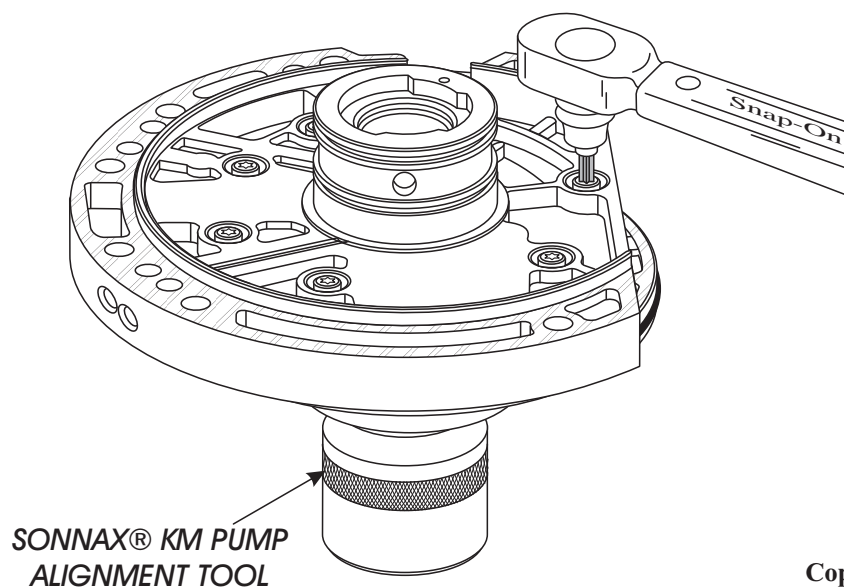


Figure 4

**TORQUE COVER TO BODY BOLTS TO  
9 NM (80 - 85 IN. LB.) WITH THE  
ALIGNMENT TOOL IN PLACE**



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Figure 5