



## THM 4T65-E 2002-2003 OIL PUMP CHANGES

**CHANGE:** Beginning in June of 2002 Hydra-matic changed the design of the Oil Pump Assembly on 2002 and 2003 models of the 4T65-E transaxles. The “2 Piece” design level pump has been changed to a “3 Piece” design and has affected many of the related parts. The “2 Piece” design level pump is illustrated in Figure 2 and the “3 Piece” design level is illustrated in Figure 3.

A physical inspection of the I.D. Tag will be **mandatory**, to obtain the update level, before ordering components for these transaxles. Refer to Figure 1 for the location of the update level on the I.D. Tag and a usage chart for design level of pump assembly.

**REASON:** Ease of assembly and cost savings.

### **PARTS AFFECTED:**

- (1) OIL PUMP ASSEMBLY - Changed to a “3 Piece” design, as shown in Figure 3. The “3 Piece” design now incorporates the rotor support sleeve in the pump instead of the valve body. The previous design “2 Piece design level pump is illustrated in Figure 2.
- (2) OIL PUMP ASSEMBLY RETAINING BOLTS - Are a different length than the previous design level oil pump bolts.
- (3) VALVE BODY ASSEMBLY - The pump rotor support sleeve has been removed from the valve body to accommodate the “3 Piece” design level pump assembly, as shown in Figure 1.
- (4) PRESSURE SWITCH ASSEMBLY - Changed to a much smaller Pressure Switch Assembly with the elimination of all switches except the TCC switch, as shown in Figure 4.
- (5) INTERNAL WIRE HARNESS ASSEMBLY - Changed to accommodate the 2nd design (Smaller) Pressure Switch Assembly.
- (6) PRESSURE CONTROL SOLENOID - Solenoid that is much smaller than the previous design, as shown in Figure 4, for improved line pressure control.

**SPECIAL INFORMATION:** *Following are the possible combinations that you may encounter.*

1. “2 Piece” Oil Pump and Valve Body Assembly with large 1st design Pressure Switch.
2. “3 Piece” Oil Pump and Valve Body Assembly with large 1st design Pressure Switch.
3. “2 Piece” Oil Pump and Valve Body Assembly with small 2nd design Pressure Switch.
4. “3 Piece” Oil Pump and Valve Body Assembly with small 2nd design Pressure Switch.

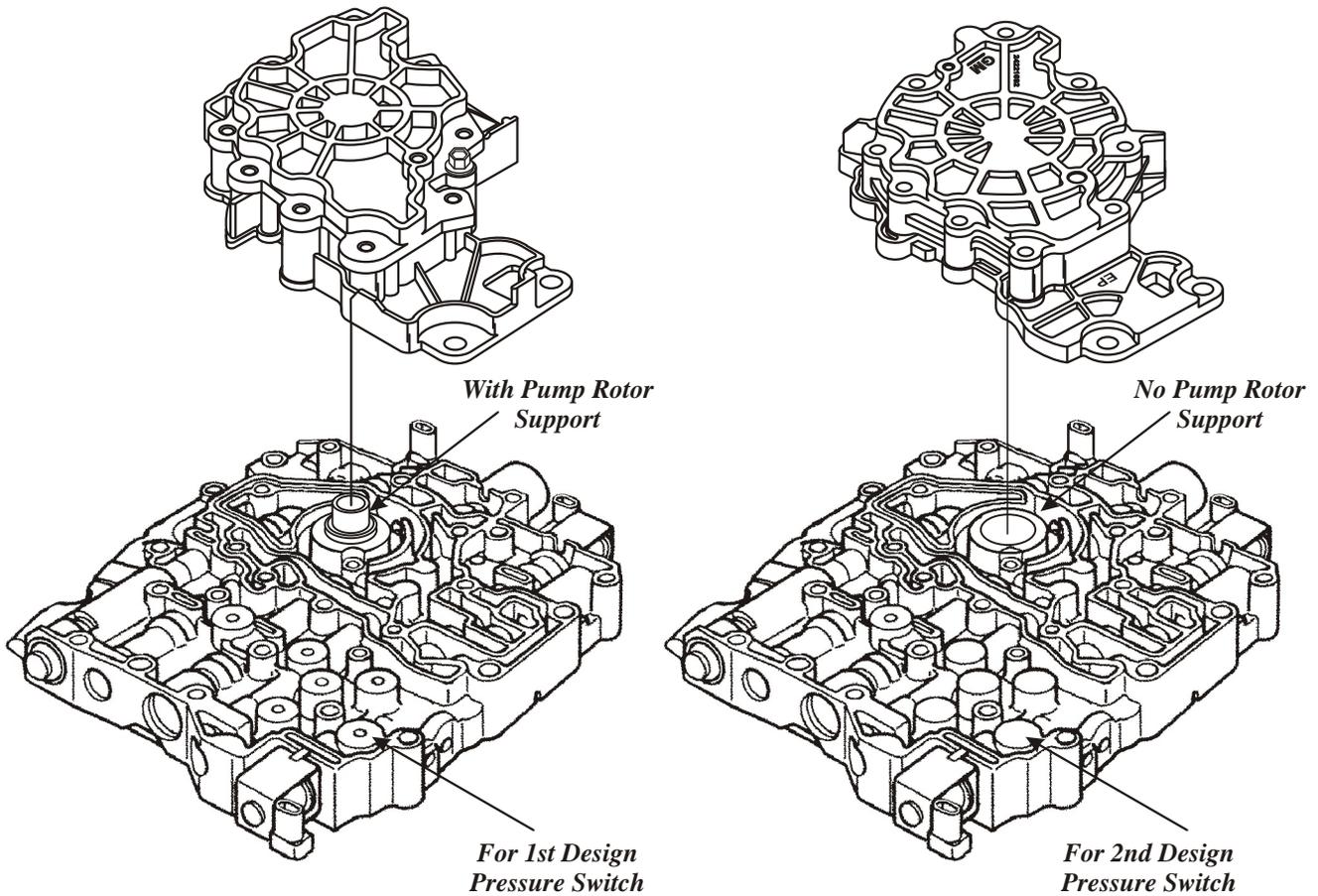
### **INTERCHANGEABILITY:**

None of the parts listed above will interchange with one another. 1st design parts “**must**” be used together and 2nd design level parts “**must**” be used together.

**Special Note:** The physical dimensions will allow the new Pressure Control Solenoid to be installed in past models, or the previous Pressure Control Solenoid to be installed in 2003 models. **Interchanging the Pressure Control Solenoids will result in customer dissatisfaction and additional repairs.**

## 1ST DESIGN "2 PIECE" PUMP AND VALVE BODY

## 2ND DESIGN "3 PIECE" PUMP AND VALVE BODY



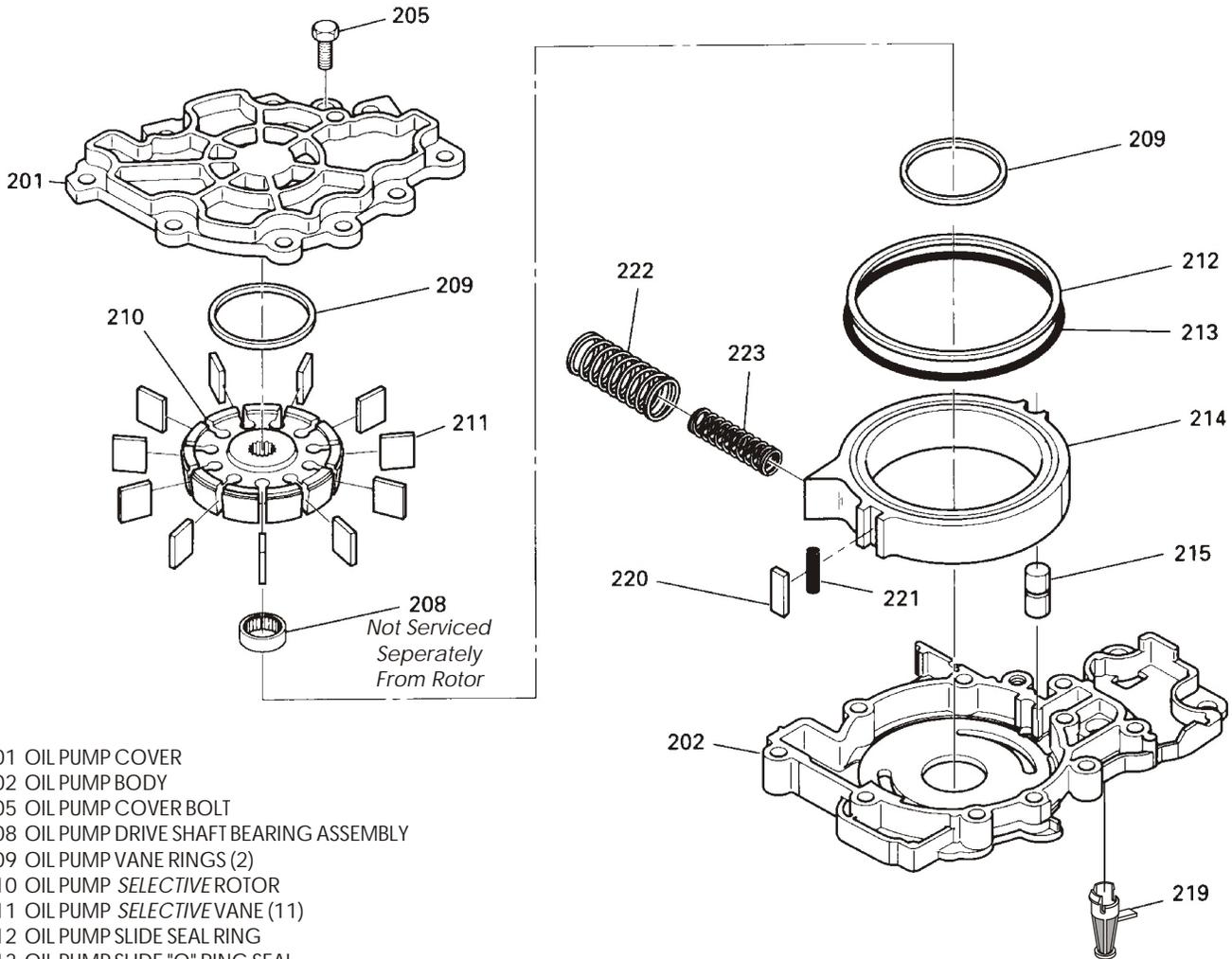
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<b>PUMP AND VALVE BODY USAGE CHART</b>		
<i>Broadcast Code</i>	<i>Update Level</i>	<i>Pump Style</i>
All 2002 Models except 2BCB, 2RNB	Less Than 7	"2 Piece"
2002 Model, 2BCB	Less Than 4	"2 Piece"
2002 Model, 2RNB	Less Than 4	"2 Piece"
All 2002 Models except 2BCB, 2RNB	7	"3 Piece"
2002 Model, 2BCB	4	"3 Piece"
2002 Model, 2RNB	4	"3 Piece"
All 2003 Models except 3BCB,	Less Than 3	"2 Piece"
2003 Model, 3BCB	4	"2 Piece"
All 2003 Models except 3BCB,	3 And Greater	"3 Piece"
2003 Model, 3BCB	Greater Than 4	"3 Piece"

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Figure 1

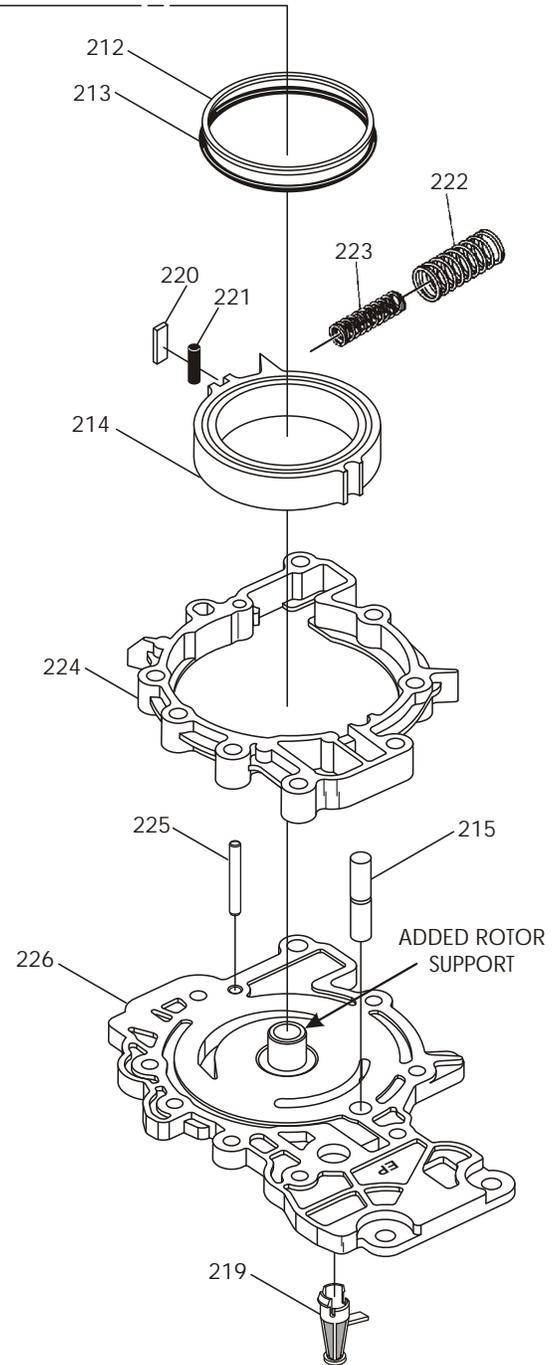
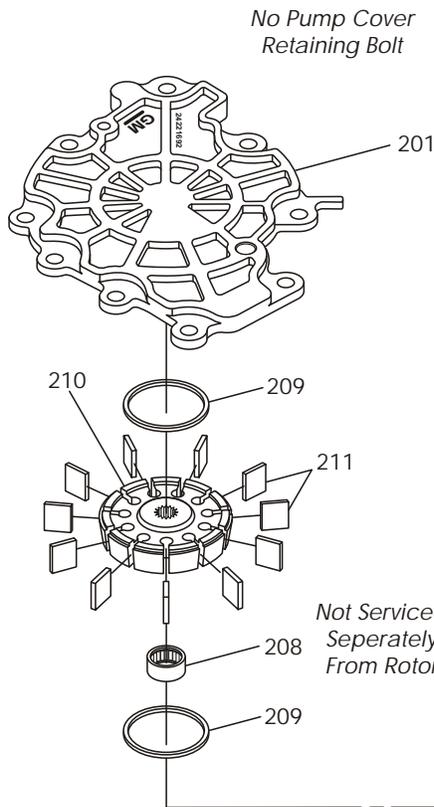
## 1ST DESIGN "2 PIECE" PUMP AND VALVE BODY



- 201 OIL PUMP COVER
- 202 OIL PUMP BODY
- 205 OIL PUMP COVER BOLT
- 208 OIL PUMP DRIVE SHAFT BEARING ASSEMBLY
- 209 OIL PUMP VANE RINGS (2)
- 210 OIL PUMP *SELECTIVE* ROTOR
- 211 OIL PUMP *SELECTIVE* VANE (11)
- 212 OIL PUMP SLIDE SEAL RING
- 213 OIL PUMP SLIDE "O" RING SEAL
- 214 OIL PUMP *SELECTIVE* SLIDE
- 215 OIL PUMP SLIDE PIVOT PIN
- 219 OIL PUMP OUTLET SCREEN ASSEMBLY
- 220 OIL PUMP SLIDE SEAL
- 221 OIL PUMP SLIDE SEAL SUPPORT
- 222 OIL PUMP PRIME OUTER SPRING
- 223 OIL PUMP PRIME INNER SPRING

Figure 2

## 2ND DESIGN "3 PIECE" PUMP AND VALVE BODY

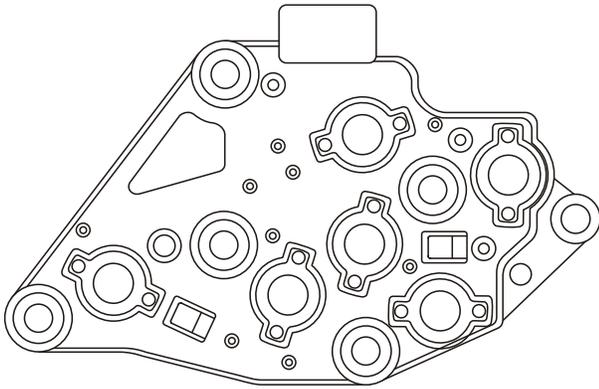


- 201 OIL PUMP COVER
- 208 OIL PUMP DRIVE SHAFT BEARING ASSEMBLY
- 209 OIL PUMP VANE RINGS (2)
- 210 OIL PUMP SELECTIVE ROTOR
- 211 OIL PUMP SELECTIVE VANE (11)
- 212 OIL PUMP SLIDE SEAL RING
- 213 OIL PUMP SLIDE "O" RING SEAL
- 214 OIL PUMP SELECTIVE SLIDE
- 215 OIL PUMP SLIDE PIVOT PIN
- 219 OIL PUMP OUTLET SCREEN ASSEMBLY
- 220 OIL PUMP SLIDE SEAL
- 221 OIL PUMP SLIDE SEAL SUPPORT
- 222 OIL PUMP PRIME OUTER SPRING
- 223 OIL PUMP PRIME INNER SPRING
- 224 OIL PUMP SPACER/BODY
- 225 OIL PUMP DOWEL PIN
- 226 OIL PUMP PLATE/ROTOR SUPPORT ASSEMBLY

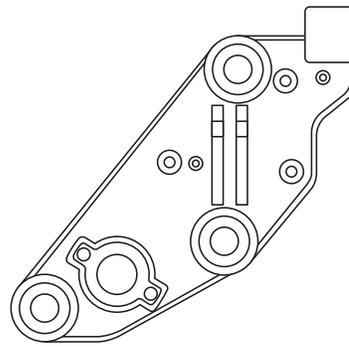
**Note:** The Oil Pump Retaining Bolts For This Pump Are Different Length Than For The "2 Piece" Pump.

Figure 3

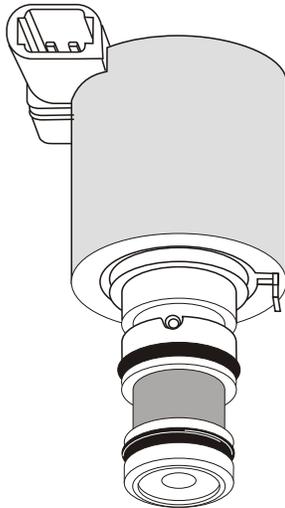
**“1ST DESIGN”  
PRESSURE SWITCH ASSEMBLY**



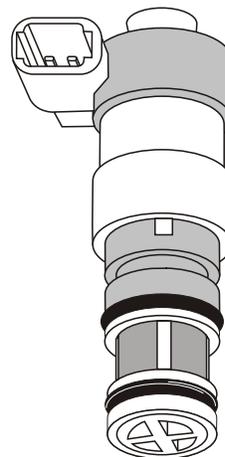
**“2ND DESIGN”  
PRESSURE SWITCH ASSEMBLY**



**“1ST DESIGN”  
PRESSURE CONTROL SOLENOID**



**“2ND DESIGN”  
PRESSURE CONTROL SOLENOID**



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Figure 4