



## RE5R05A 2ND TO 3RD DESIGN VALVE VALVE BODY COMPARISON

Sometime in 2006, some RE4R05A models received a new design valve body assembly. The new design is referred to as the 3rd design in the illustrations following. There were numerous casting changes and spacer plate changes, and spring calibration changes on the 3rd design.

### **Changes:**

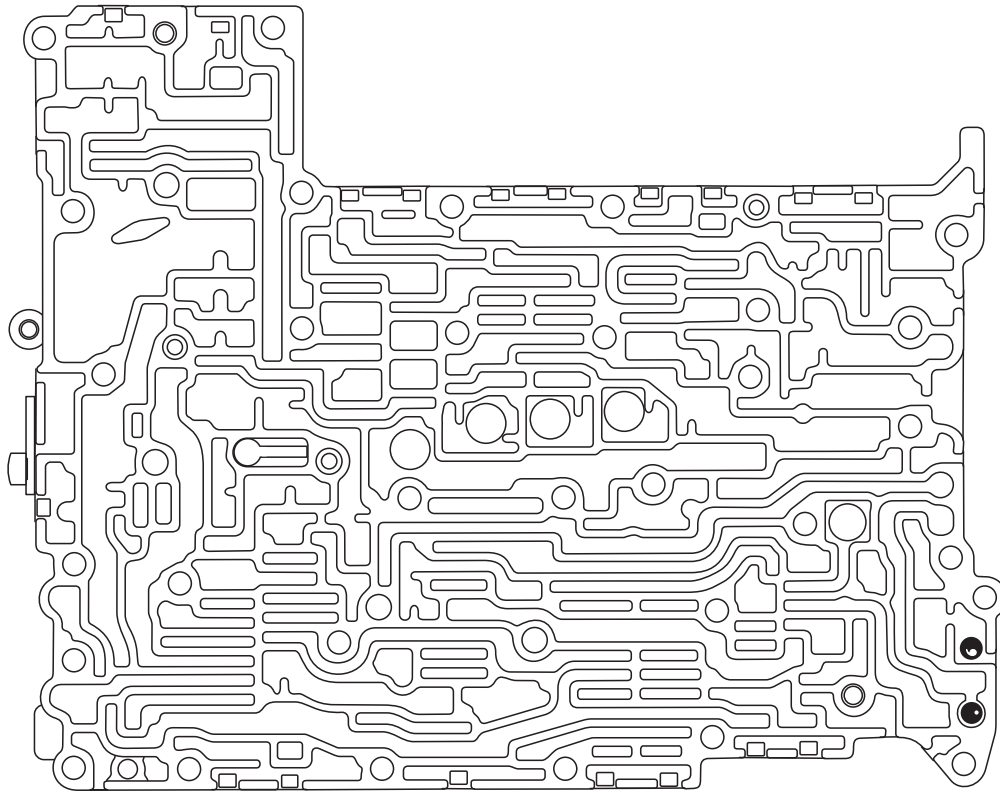
1. The 3rd Design TCC Solenoid is now fed with Pilot "B" pressure.
2. The 3rd Design now utilizes one N-R accumulator piston.
3. The TCC Apply Exhaust, Pilot Valve "A" and Pilot Valve "B" Exhaust ports are now moved out of the Pump Suction passage.

Refer to the figures listed below to see the main differences and changes between the 2nd and 3rd design.

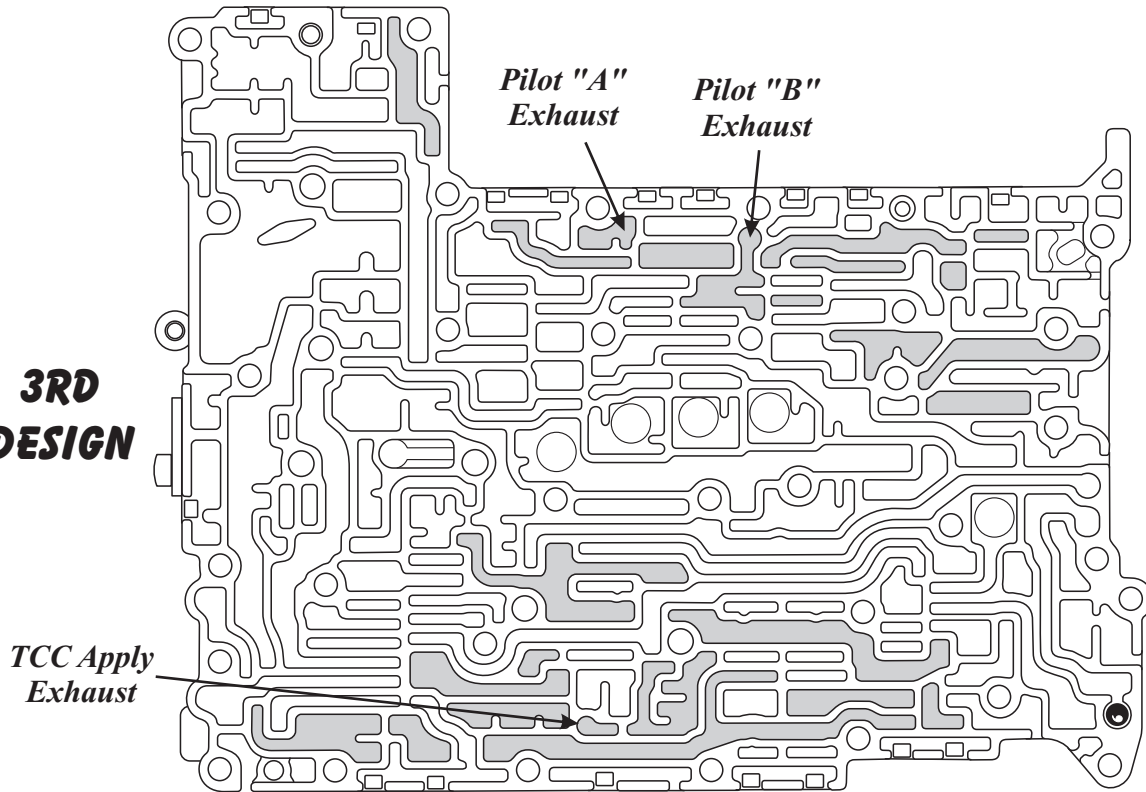
- *Refer to Figure 1 to see the differences in the Lower Valve Body worm tracks.*
- *Refer to Figure 2 to see the differences in the Spacer Plate.*
- *Refer to Figure 3 to see the differences in the Upper Valve Body worm tracks.*
- *Refer to Figure 4 to see the differences in the Lower Valve body worm tracks, filter side, which identifies the Exhaust port changes and locations for TCC Apply Exhaust, Pilot "A" and Pilot "B."*
- *Refer to Figure 5 to see a partial Hydraulic Circuit diagram of the TCC Solenoid connection to Pilot "B" pressure.*
- *Refer to Figure 6 to see a partial Hydraulic Circuit diagram of the N-R accumulator.*
- *Refer to Figure 7 to see a partial Hydraulic Circuit diagram of the Torque Converter Clutch Control Valve.*
- *Refer to Figure 8 to see a partial Hydraulic Circuit diagram of Pilot Valve "A" and Pilot Valve "B."*

## LOWER VALVE BODY WORM TRACK DIFFERENCES

**2ND  
DESIGN**



**3RD  
DESIGN**



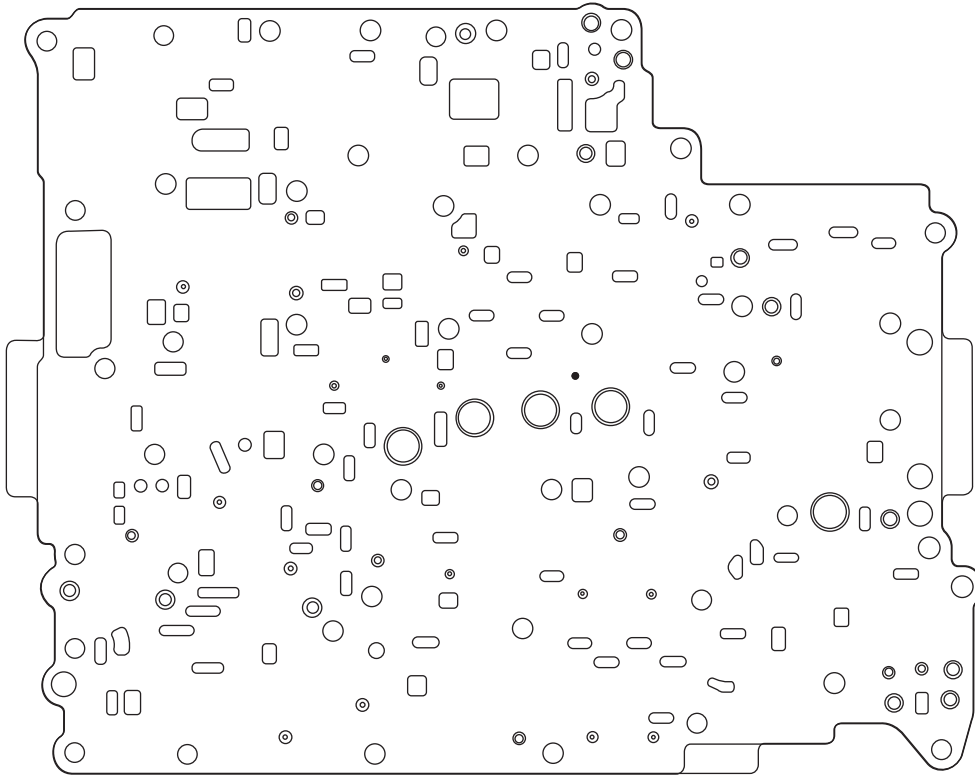
*Areas highlighted in grey identify the main changes.*

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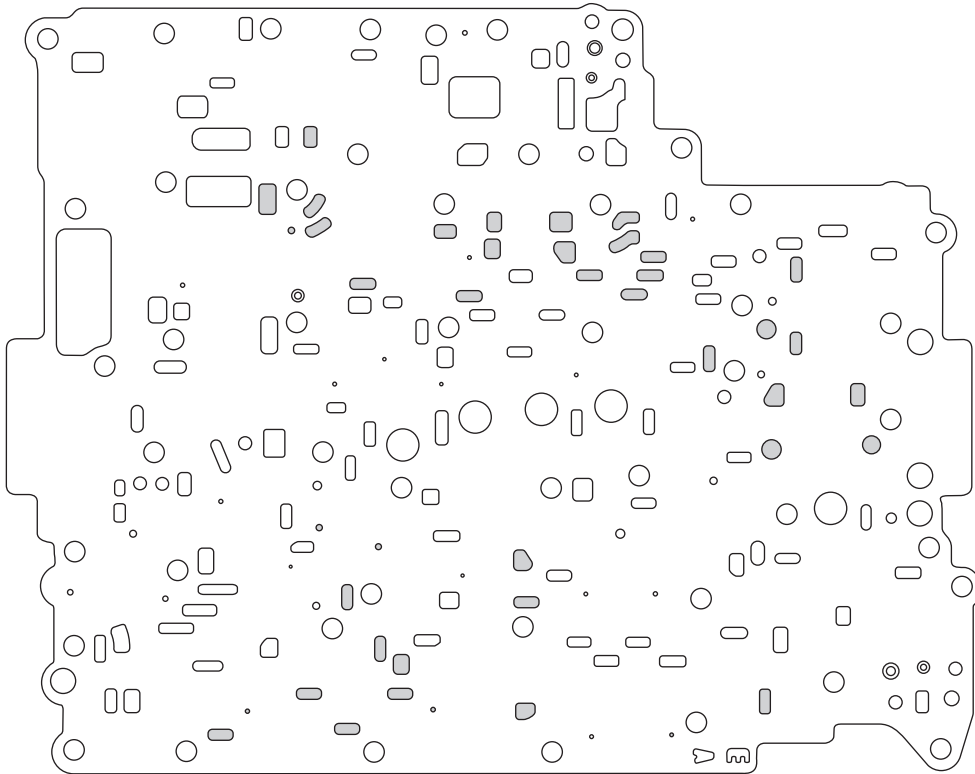
Figure 1

## SPACER PLATE DIFFERENCES

**2ND  
DESIGN**



**3RD  
DESIGN**



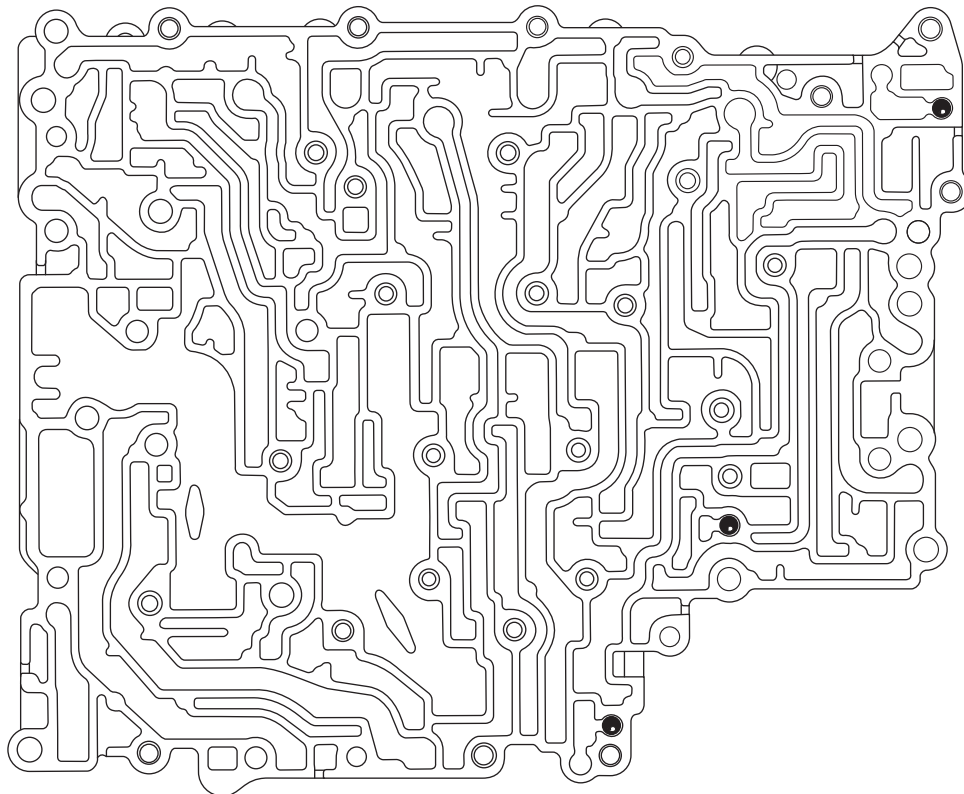
*Areas highlighted in grey identify the main changes.*

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Figure 2

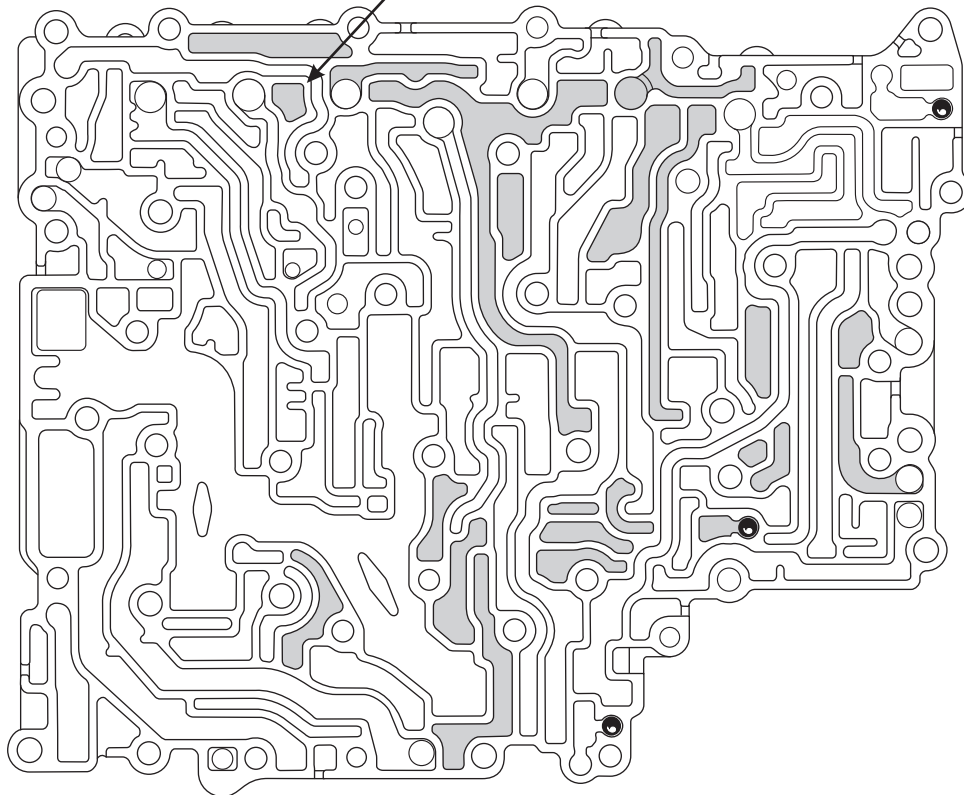
## UPPER VALVE BODY WORM TRACK DIFFERENCES

**2ND  
DESIGN**



*Pilot "B" connection to TCC Solenoid*

**3RD  
DESIGN**



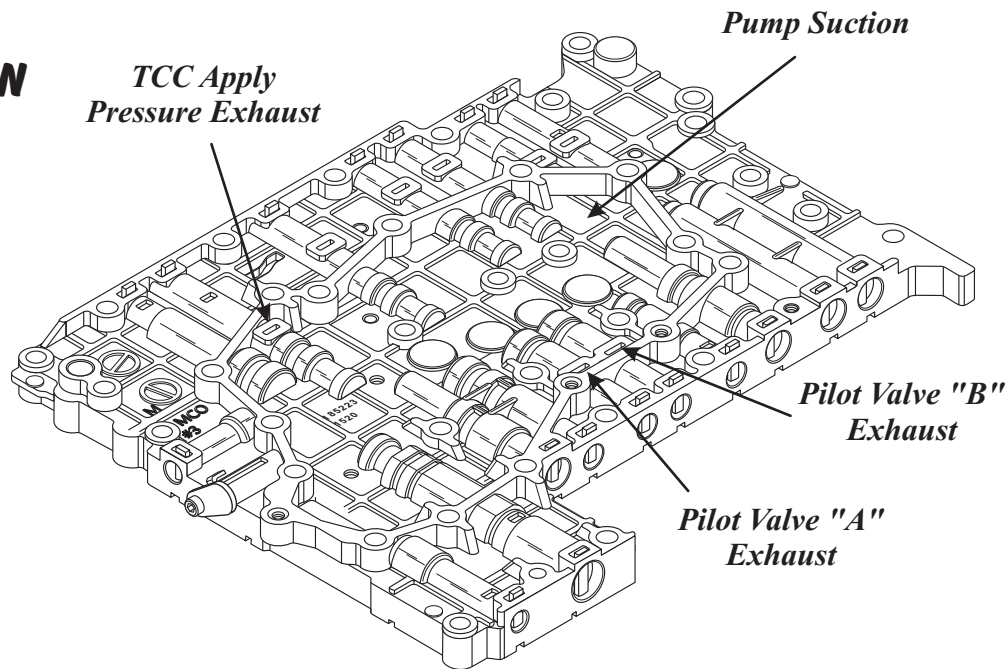
*Areas highlighted in grey identify the main changes.*

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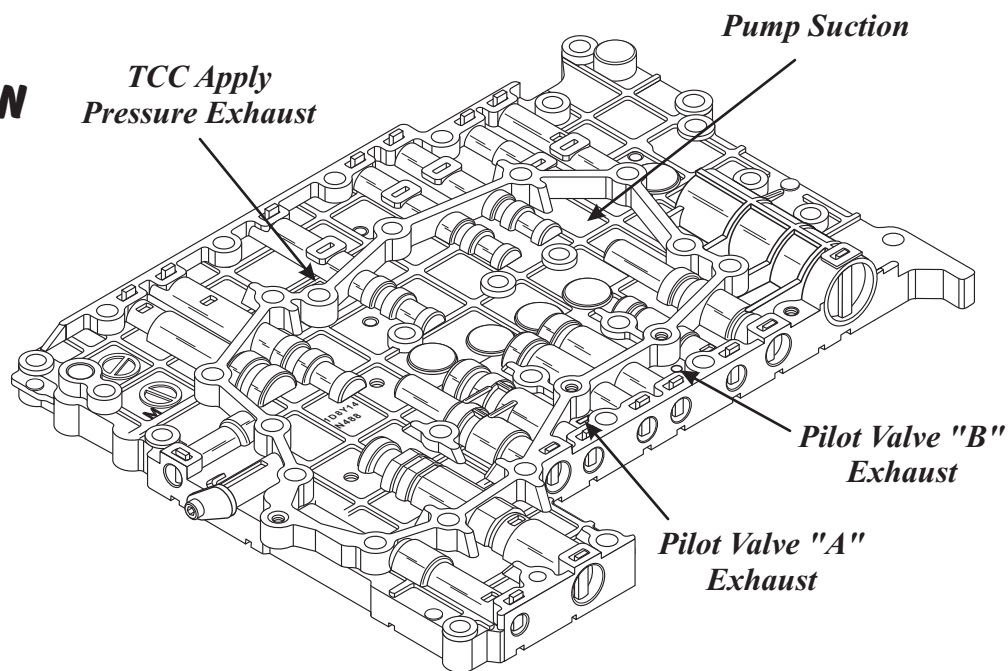
Figure 3

## LOWER VALVE BODY FILTER SIDE DIFFERENCES

### 2ND DESIGN



### 3RD DESIGN



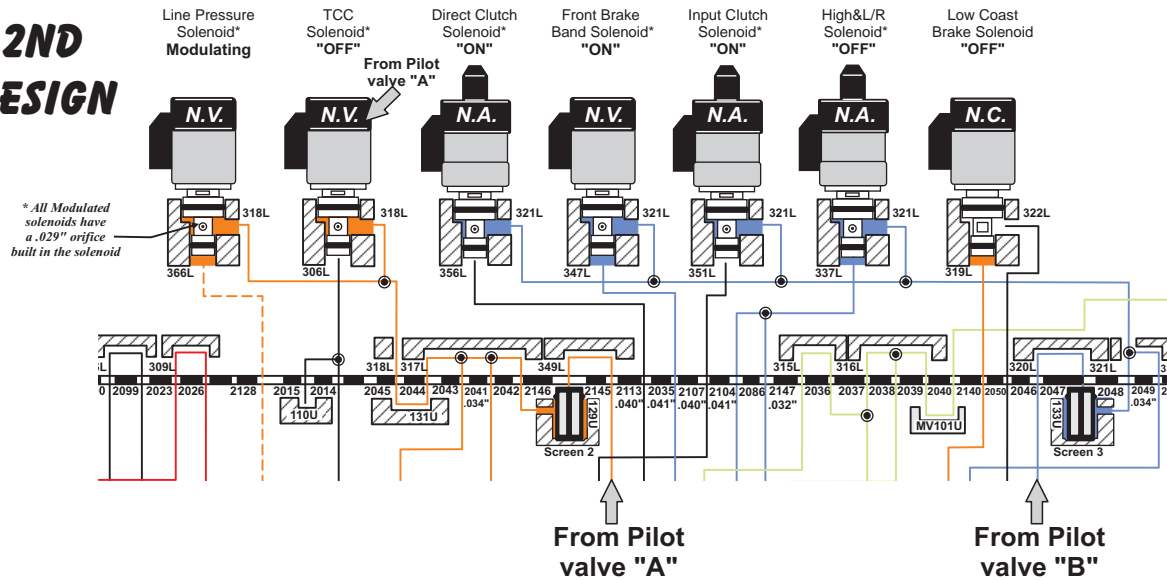
**Note:** TCC Apply Exhaust, and Pilot Valve "A" and "B" Exhaust ports were moved outside of the Pump Suction area of the 3rd Design Lower Valve Body.

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Figure 4

## 2nd AND 3rd DESIGN SOLENOID HYDRAULIC DIFFERENCES

### 2ND DESIGN

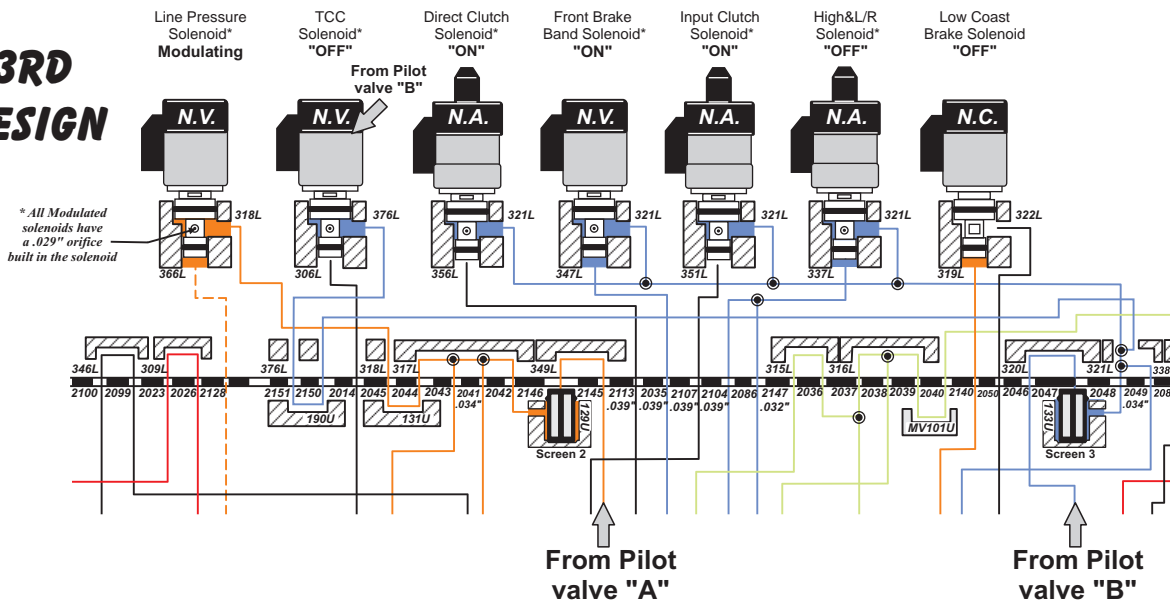


### 2nd Design

*The Line Pressure, TCC and Low Coast Brake Solenoids are fed by Pilot Valve "A."  
The Direct Clutch, Front Brake Band, Input Clutch and High & L/R Solenoids are fed by Pilot Valve "B."*

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### 3RD DESIGN



### 3rd Design

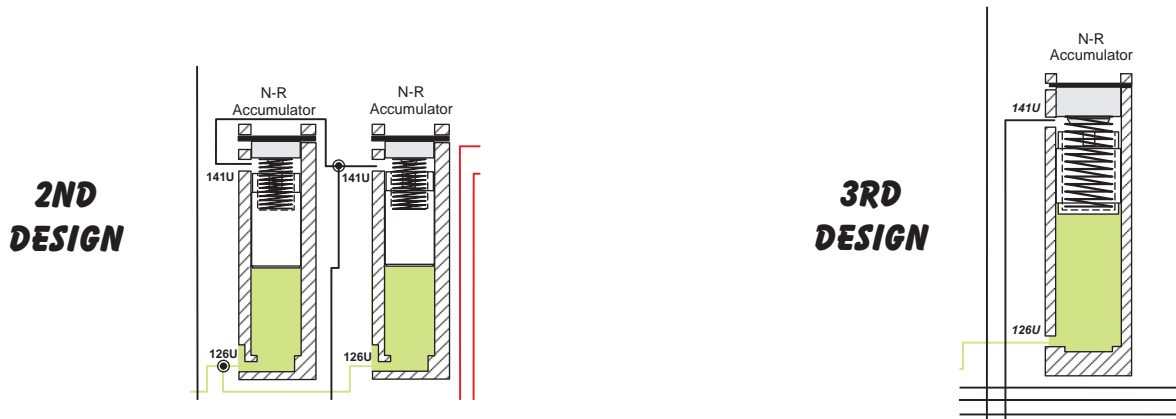
*The Line Pressure and Low Coast Brake Solenoids are fed by Pilot Valve "A."  
The TCC, Direct Clutch, Front Brake Band, Input Clutch and High & L/R Solenoids are fed by Pilot Valve "B." The Solenoid Orifices leading to the valve trains were also reduced.*

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Figure 5



## 2nd AND 3rd DESIGN N-R ACCUMULATOR HYDRAULIC DIFFERENCES

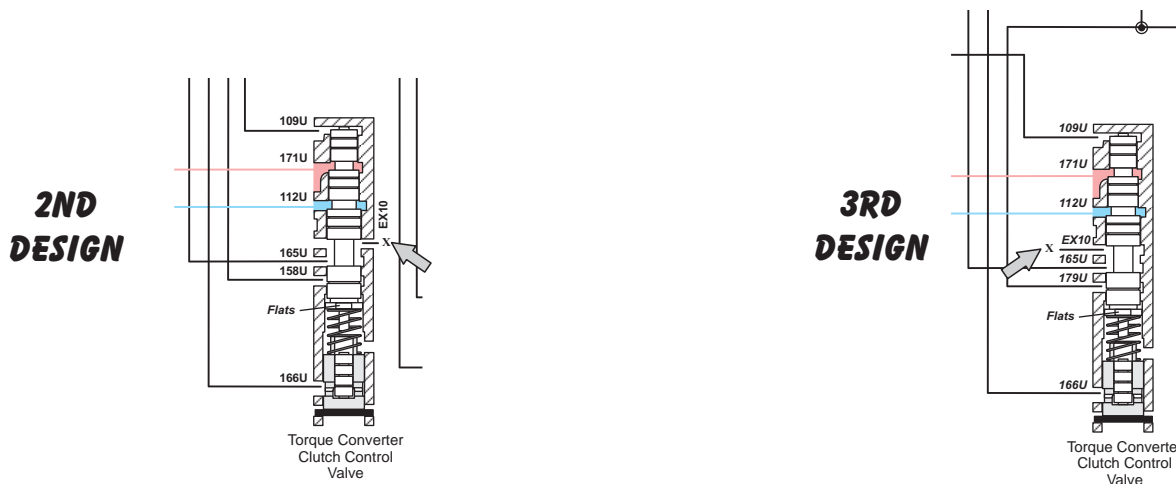


*The 3rd Design Neutral - Reverse Accumulator was redesigned to utilize one Piston instead of two.*

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Figure 6

## 2nd AND 3rd DESIGN TCC CONTROL VALVE HYDRAULIC DIFFERENCES



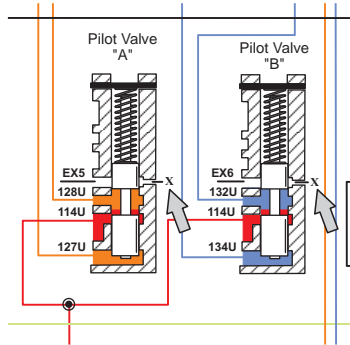
*The 3rd Design Torque Converter Clutch Control Valve was redesigned , to move the TCC Apply Exhaust out of the Suction side of the pump. Also See Figure 4 for a location of the Exhaust port.*

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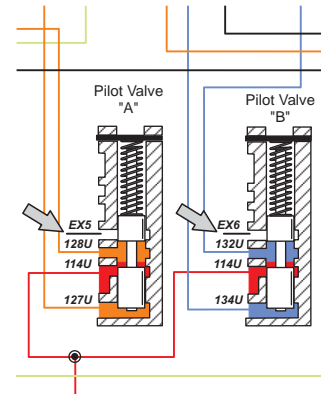
Figure 7

## 2nd AND 3rd DESIGN PILOT VALVE A & B HYDRAULIC DIFFERENCES

### 2ND DESIGN



### 3RD DESIGN



*The 3rd Design Pilot Valve A & B were redesigned , to move their exhaust passages out of the Suction side of the pump. Also See Figure 4 for the locations of the Exhaust ports.*

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Figure 8