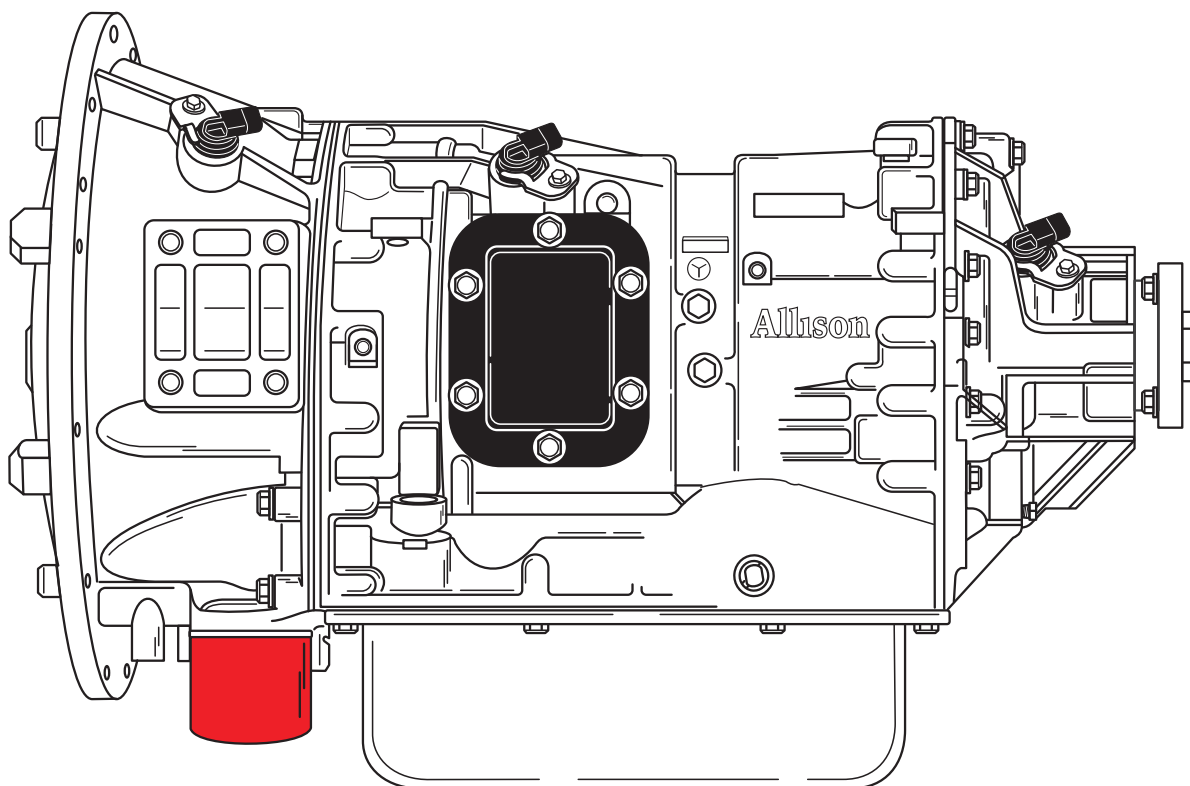




## ALLISON 1000 DURABILITY UPDATES FOR 2010



# Technical Service Information

## ALLISON 1000/2000 "6 SPEED"

### 2010 UPDATES

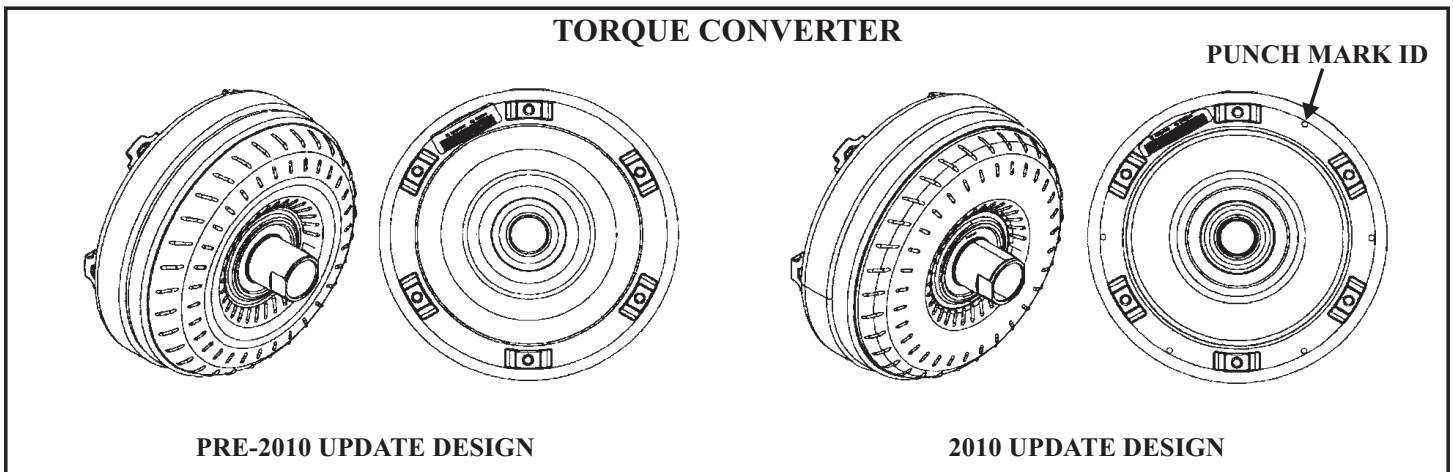


Figure 1

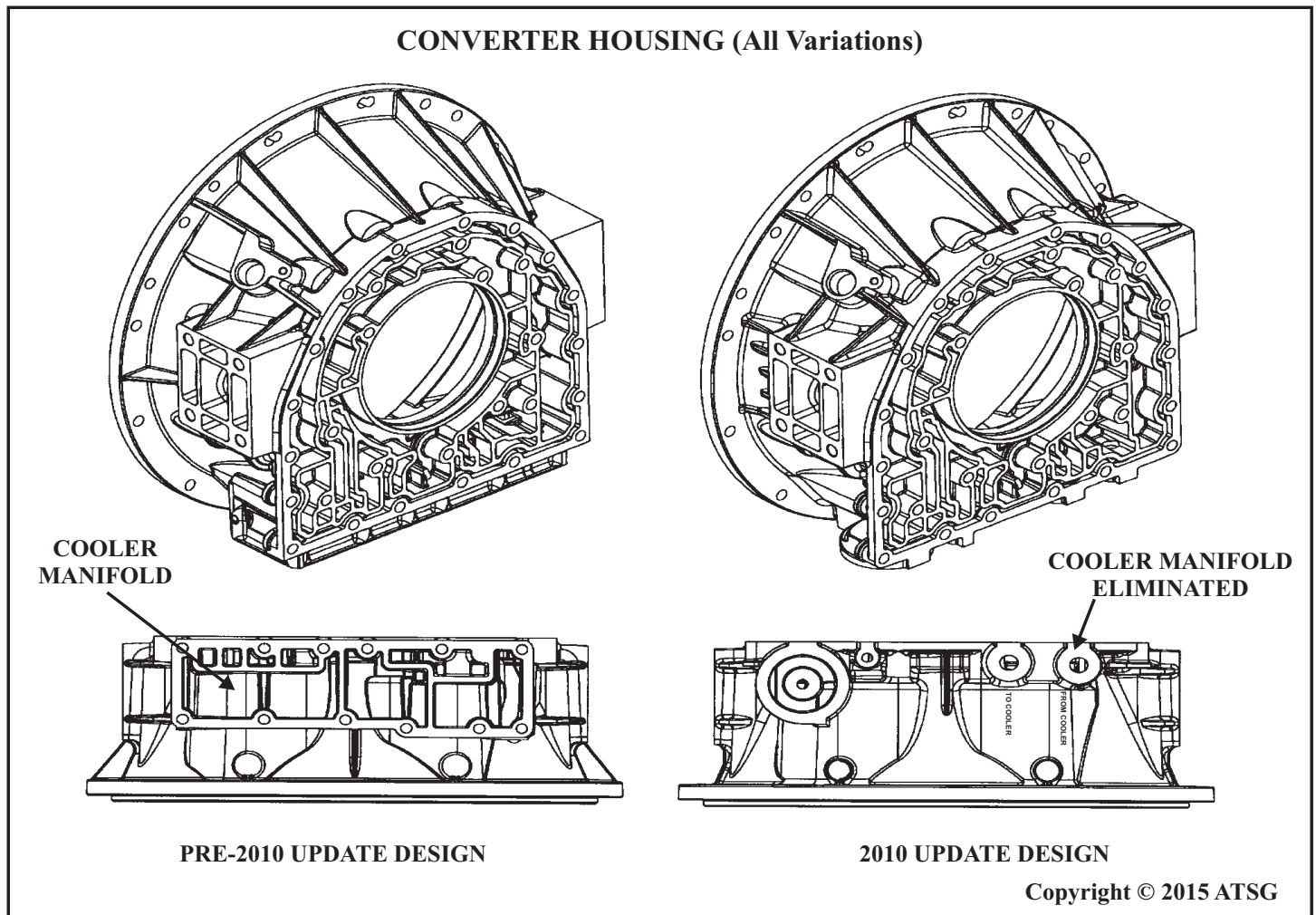


Figure 2

# Technical Service Information

## ALLISON 1000/2000 "6 SPEED"

### 2010 UPDATES

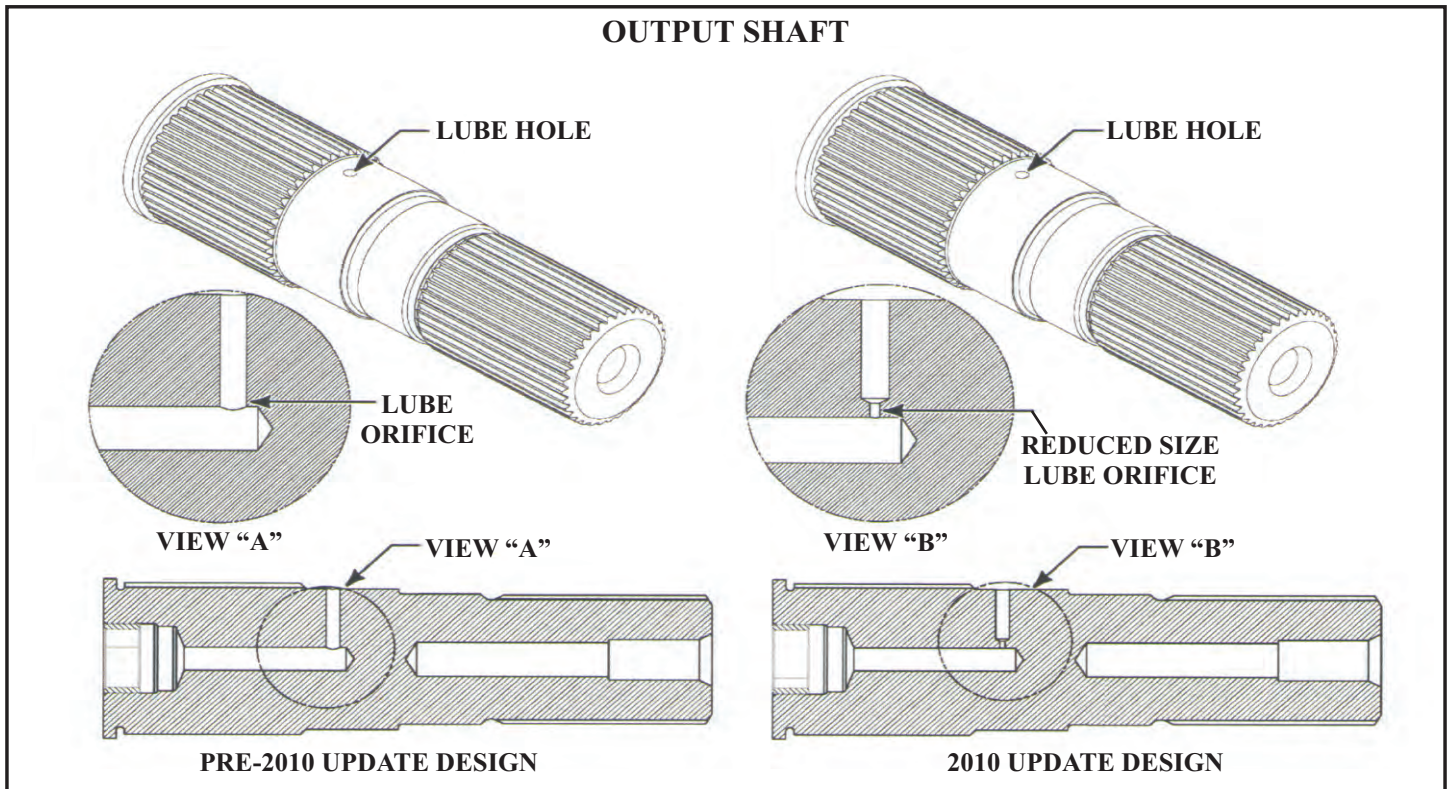


Figure 3

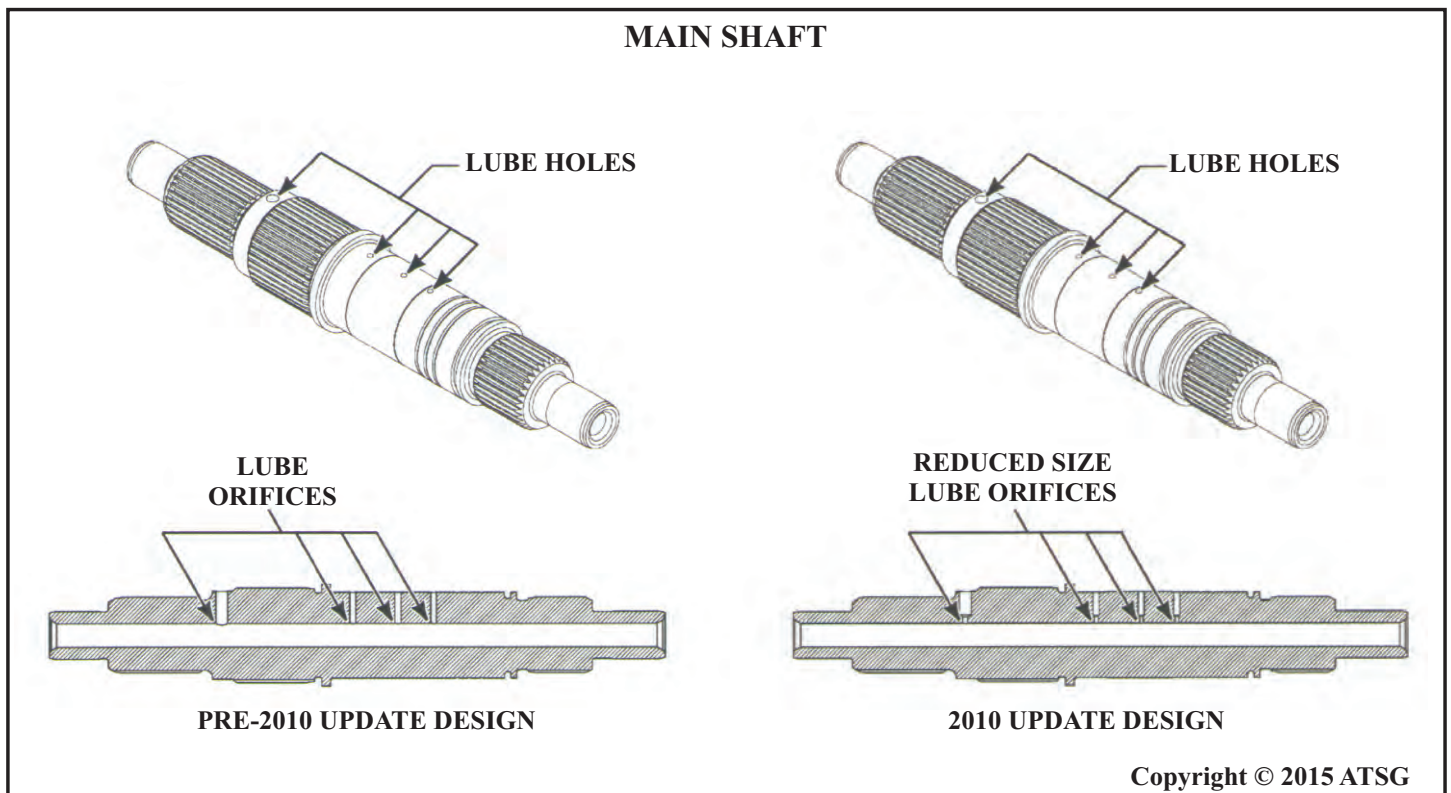


Figure 4



## ALLISON 1000/2000 "6 SPEED" 2010 UPDATES

### C1 CLUTCH HOUSING (All Variations)

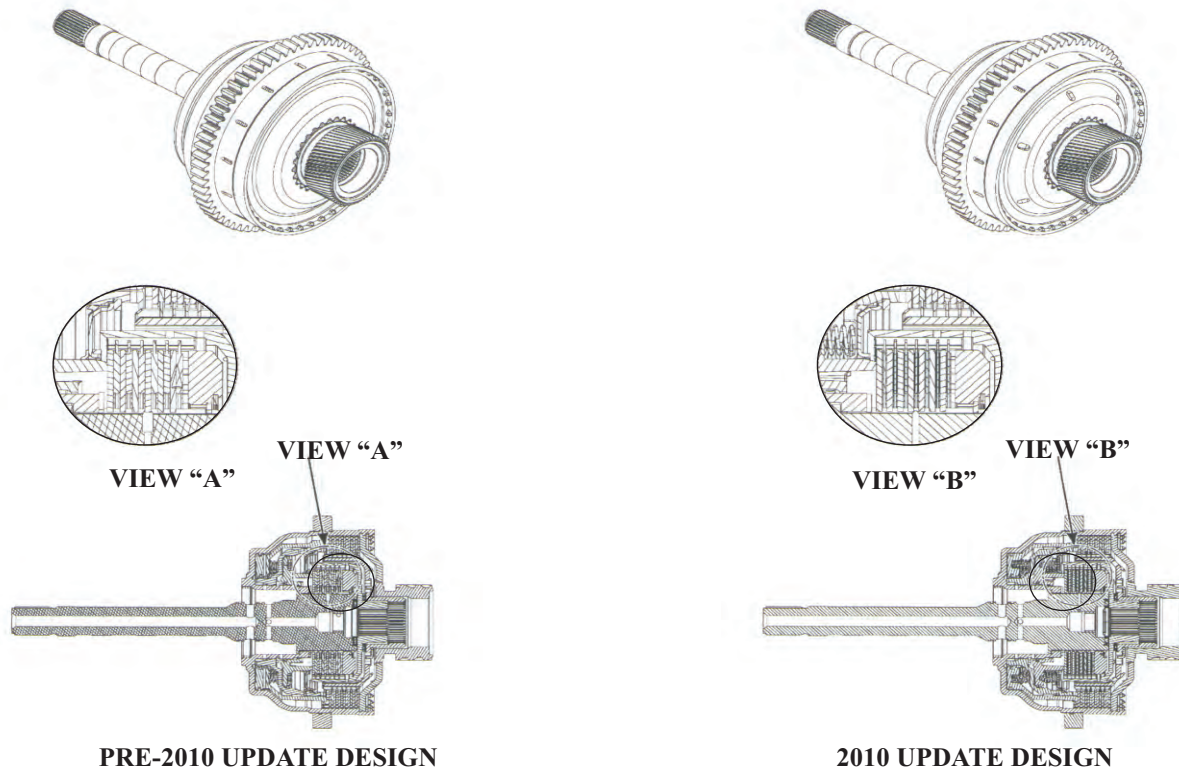
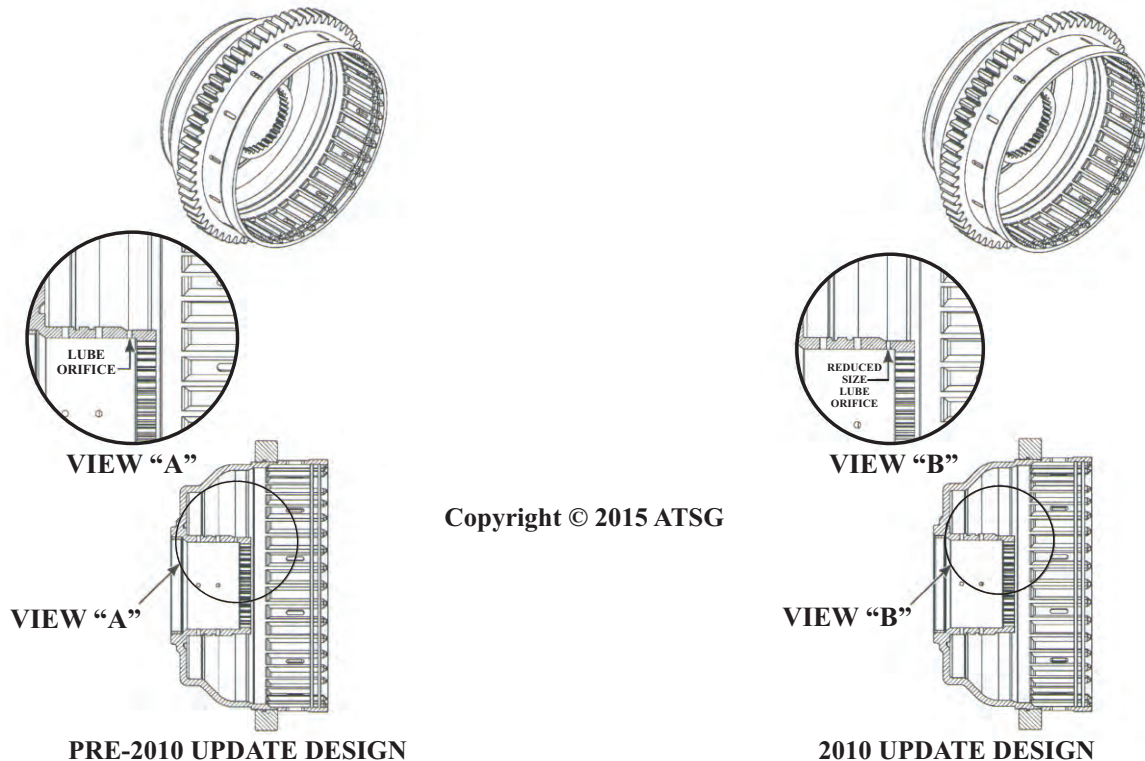


Figure 5

### C1 CLUTCH HOUSING (All Variations)



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Figure 6

## ALLISON 1000/2000 "6 SPEED" 2010 UPDATES

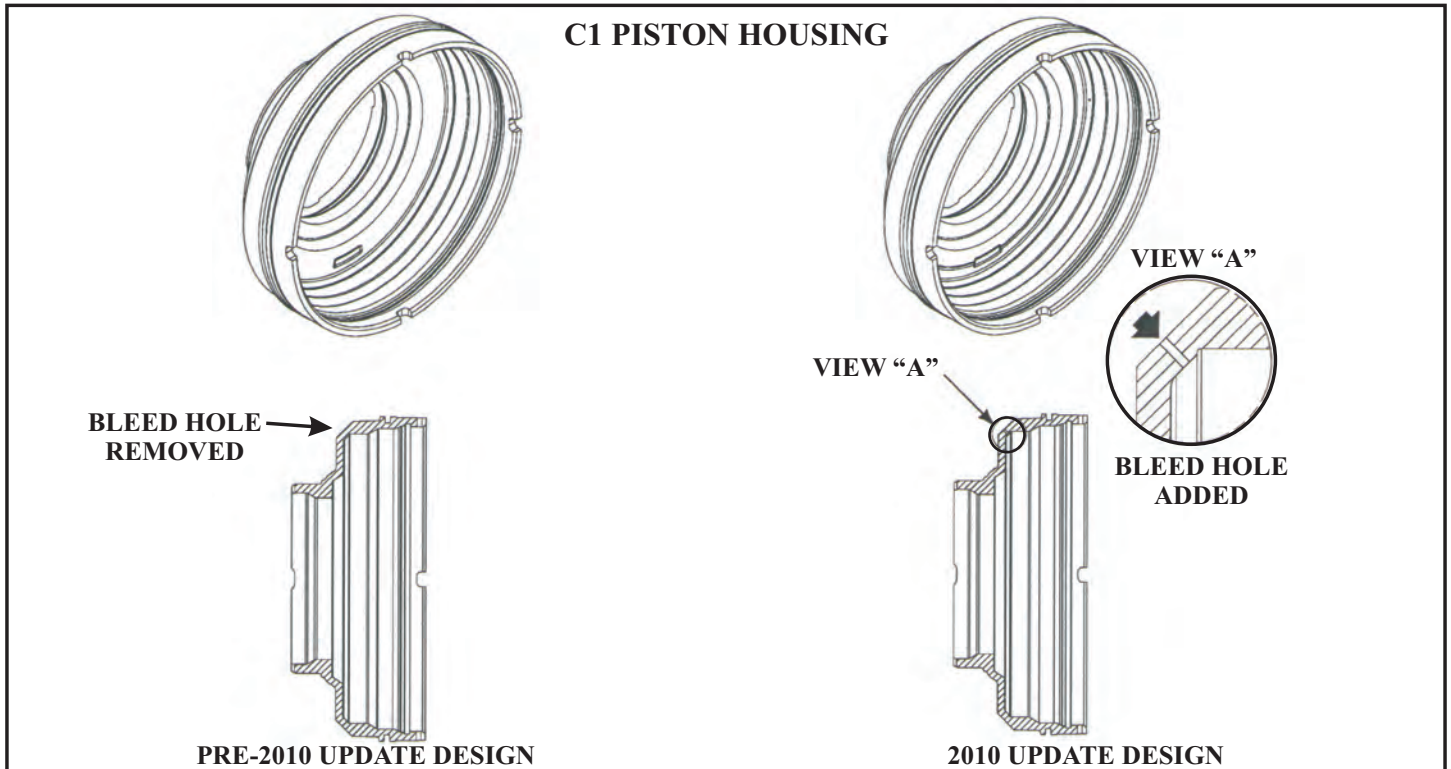


Figure 7

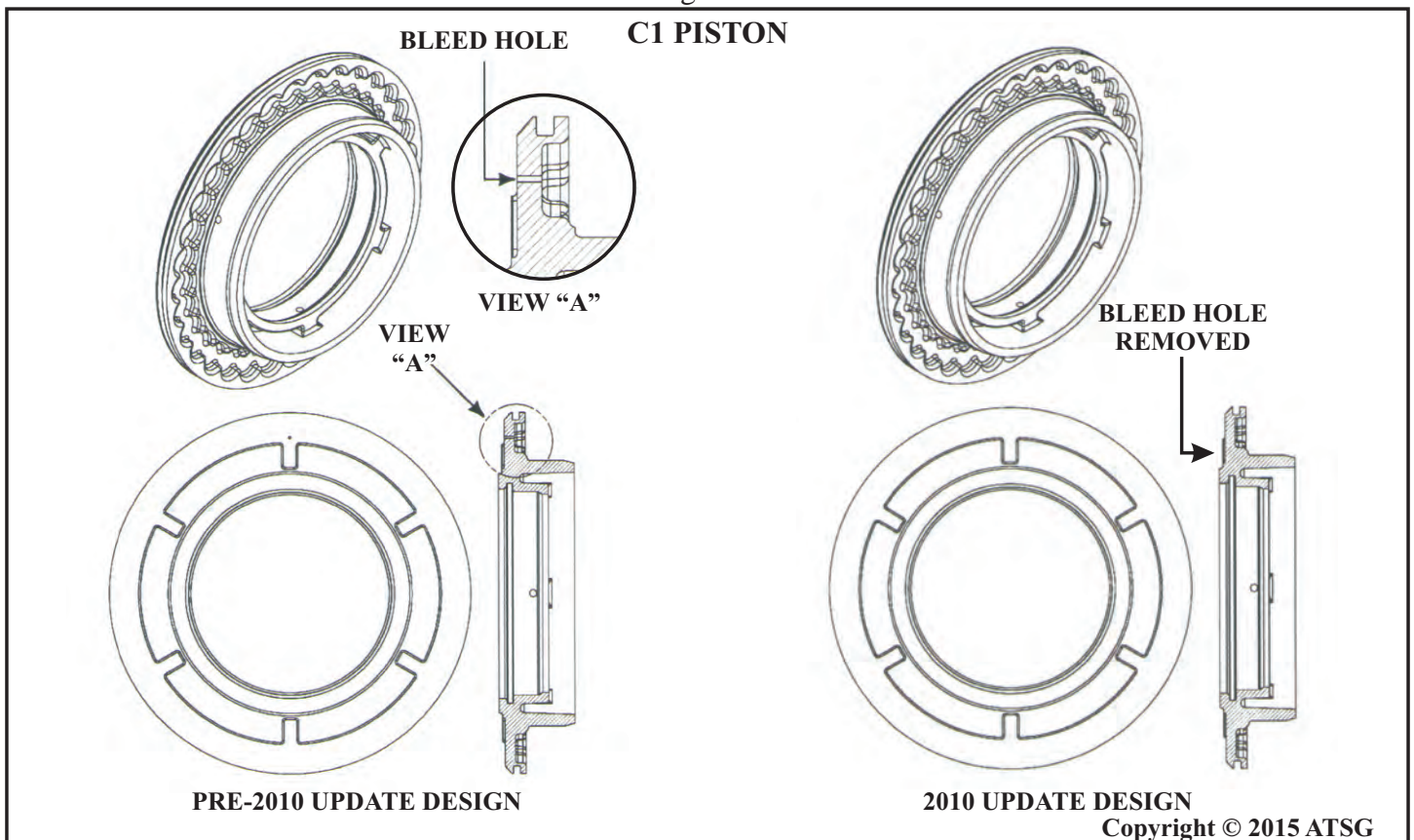


Figure 8

# Technical Service Information

## ALLISON 1000/2000 "6 SPEED"

### 2010 UPDATES

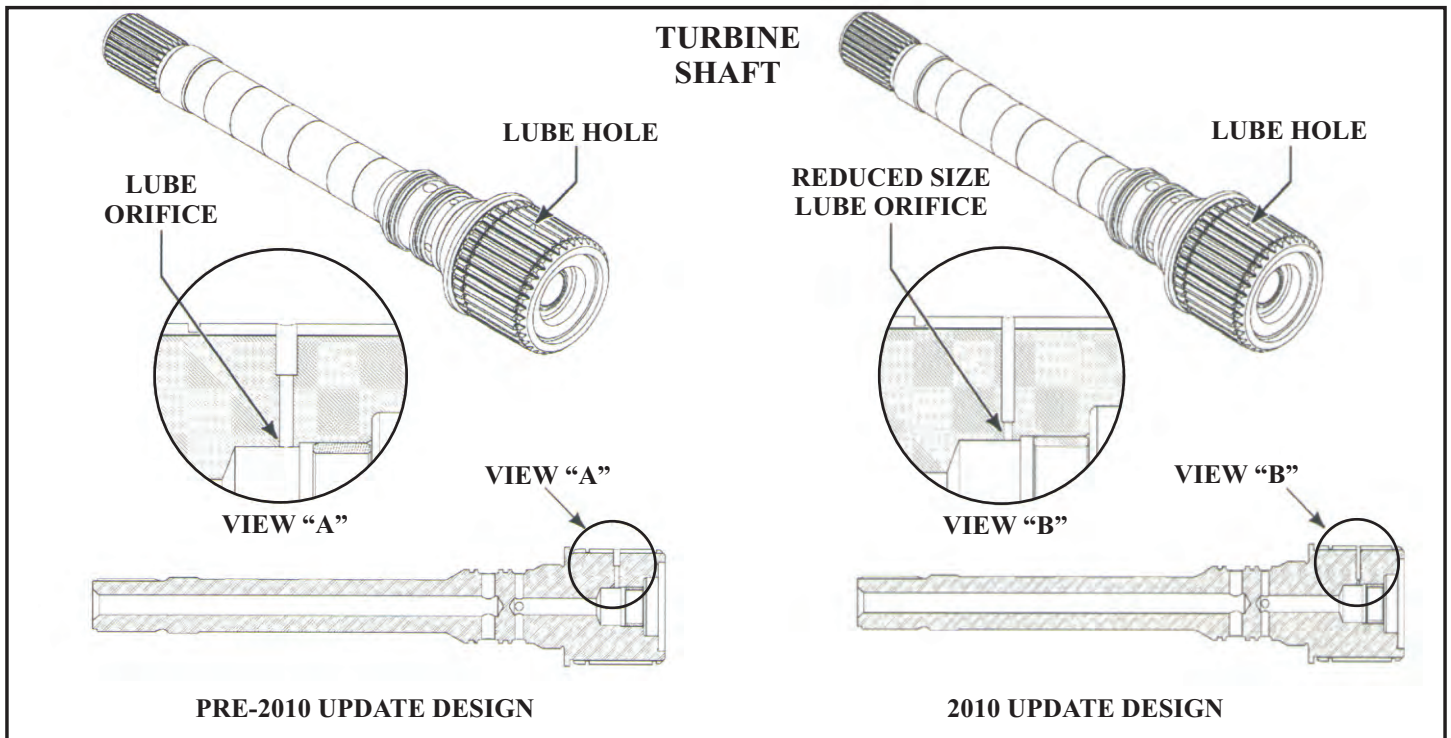


Figure 9

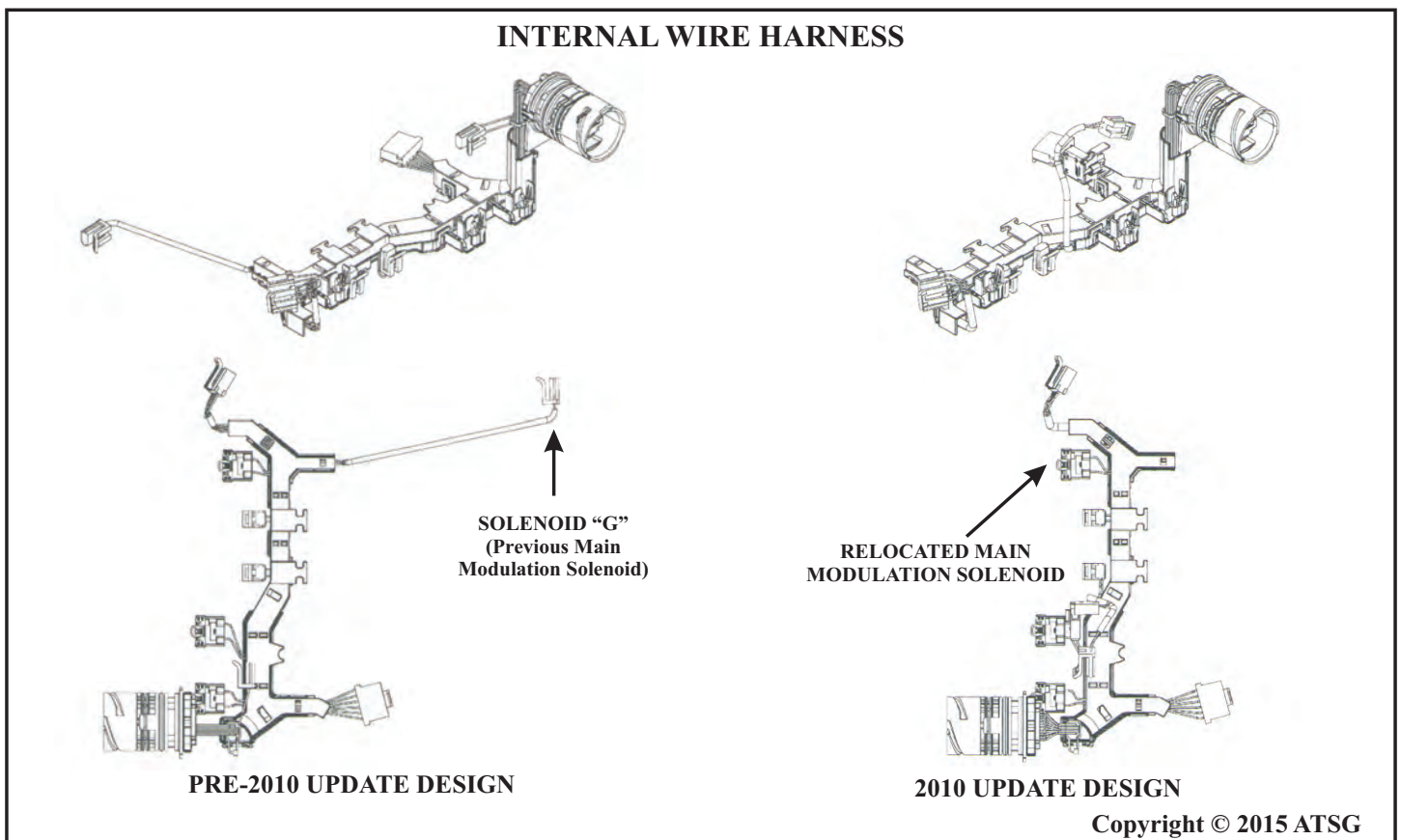


Figure 10

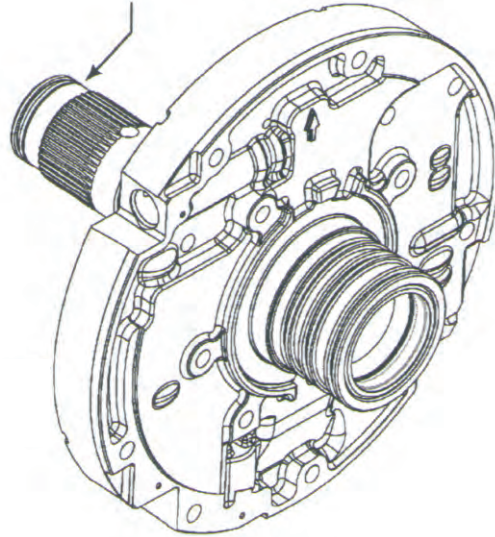
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### 2010 UPDATES

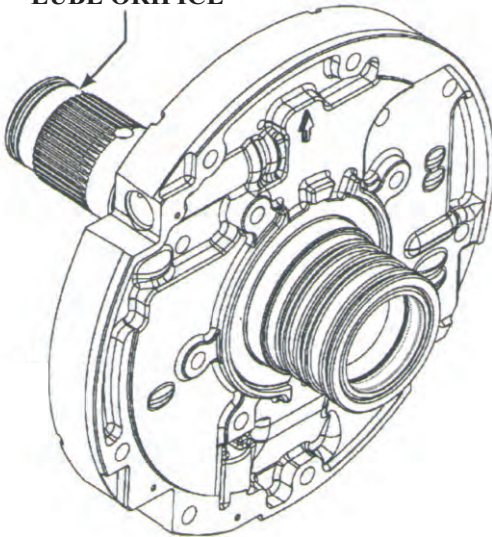
#### PUMP SUPPORT

8MM  
LUBE ORIFICE



MODEL YEAR 2006 DESIGN

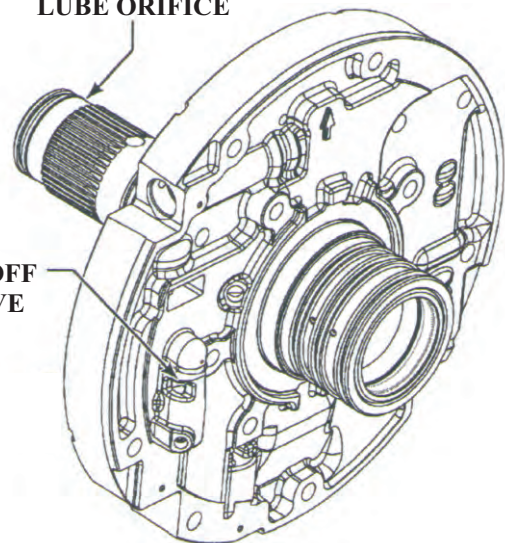
4MM  
LUBE ORIFICE



PRE-2010 UPDATE DESIGN

4MM  
LUBE ORIFICE

POP OFF  
VALVE



2010 UPDATE DESIGN

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Figure 11

#### CONVERTER HOUSING SPACER PLATE

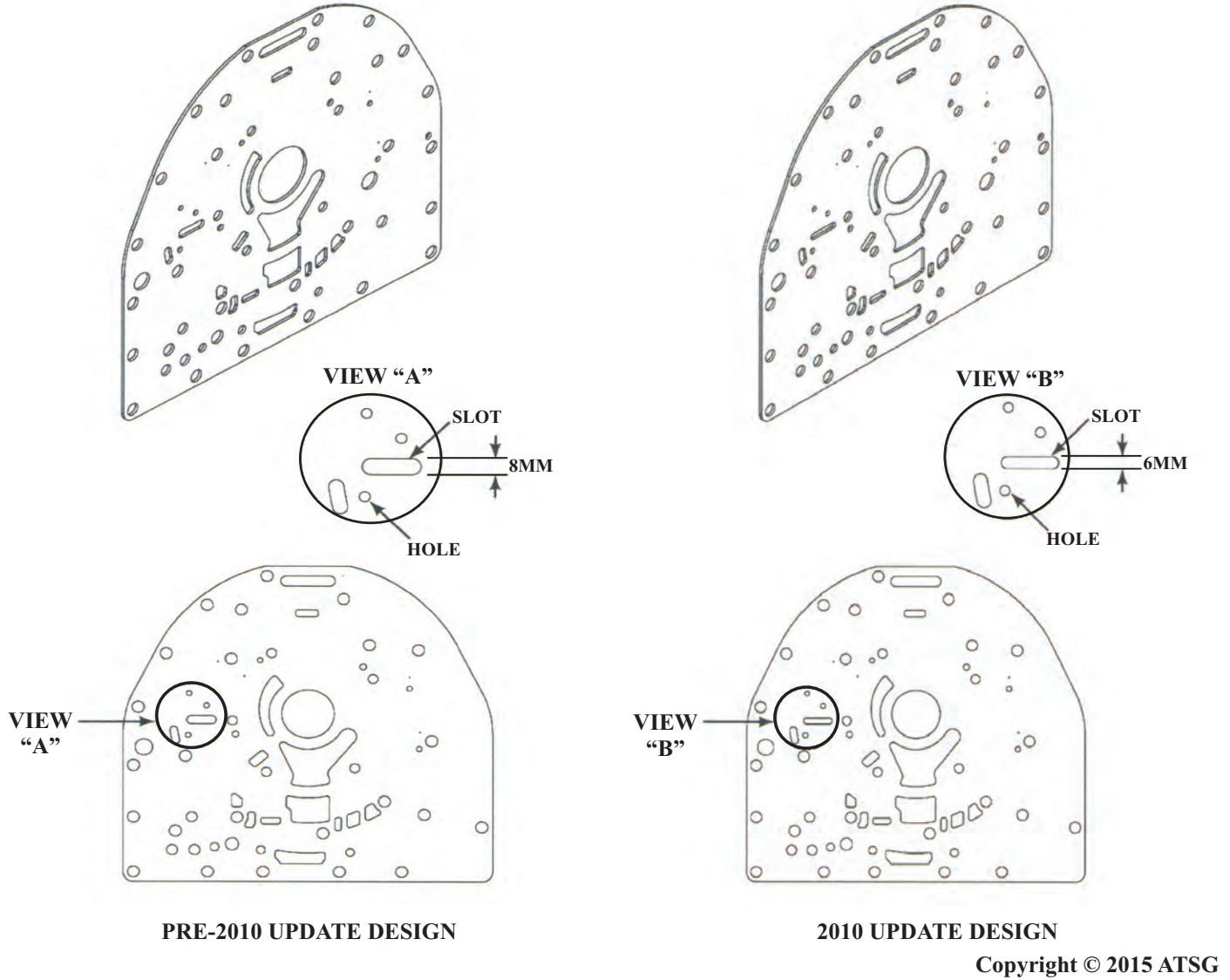
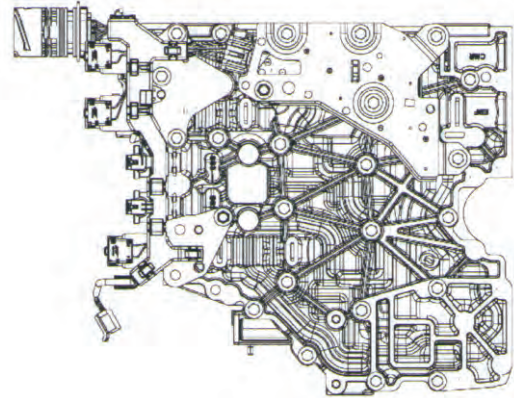
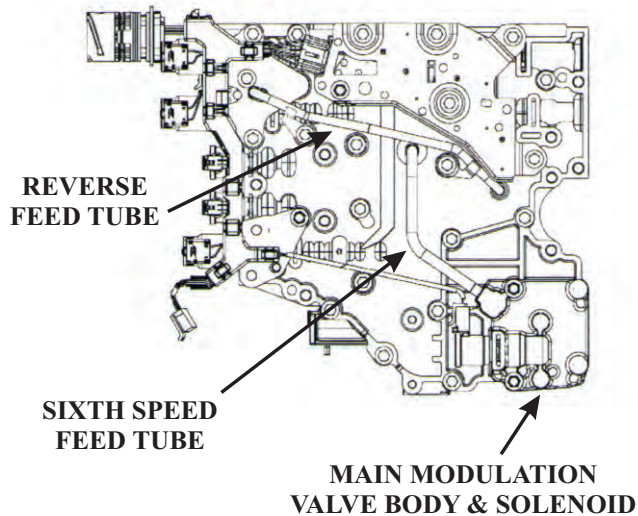
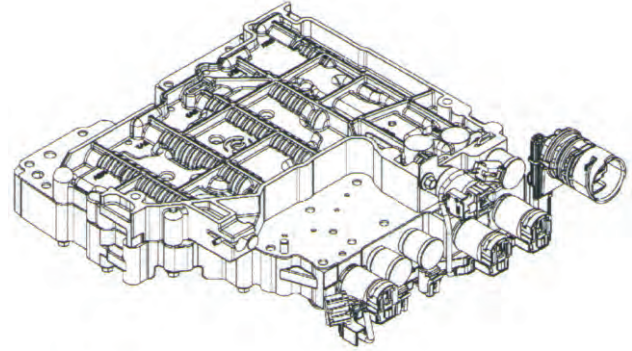
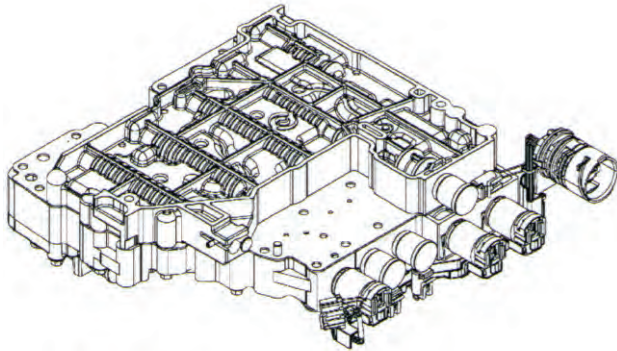


Figure 12



#### VALVE BODY



*The Sixth Speed & Reverse Feed Tubes & Main Modulation Valve Body Are Eliminated. The Main Modulation Solenoid Has Been Relocated.*

PRE-2010 UPDATE DESIGN

2010 UPDATE DESIGN

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Figure 13

## ALLISON 1000/2000 "6 SPEED"

### 2010 UPDATES

#### VALVE BODY SEPARATOR PLATE

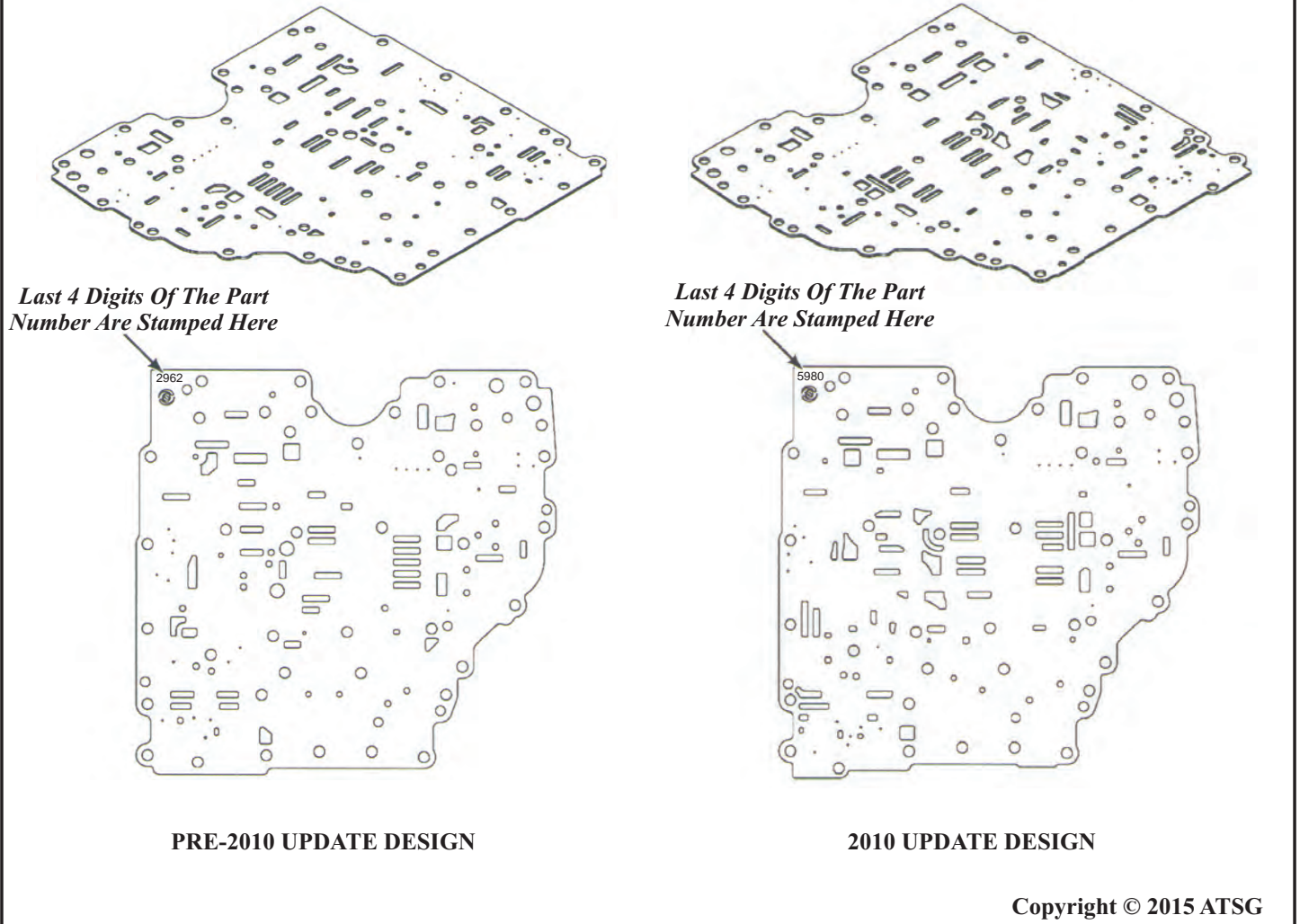


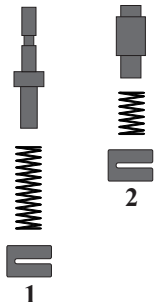
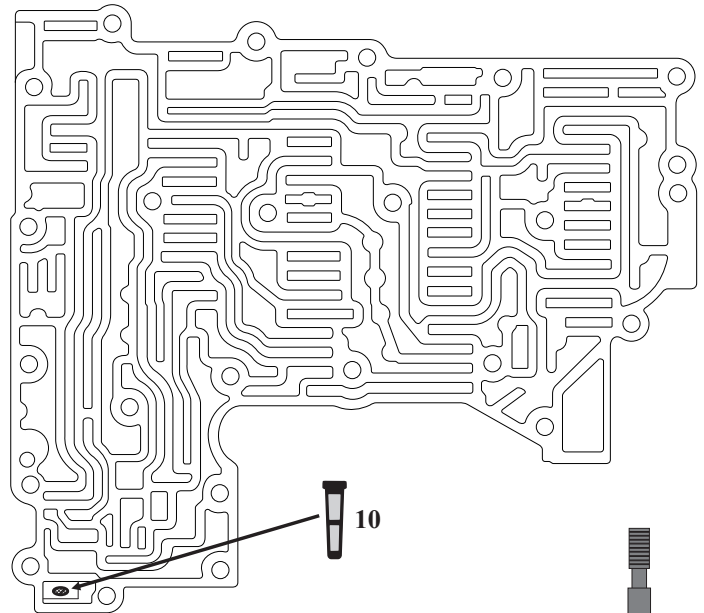
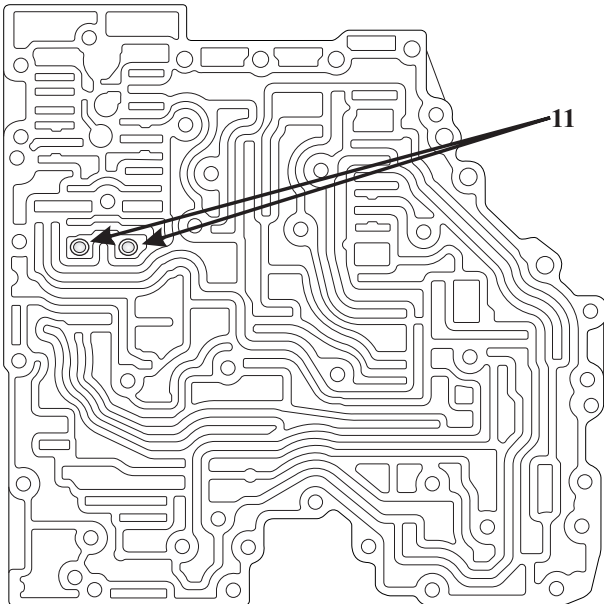
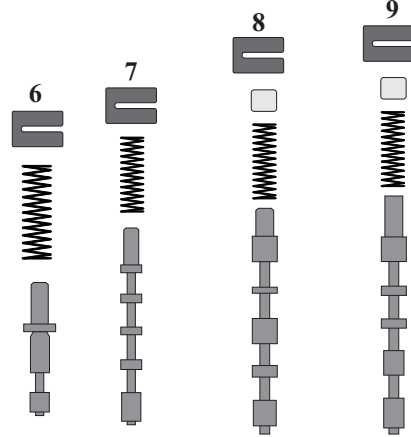
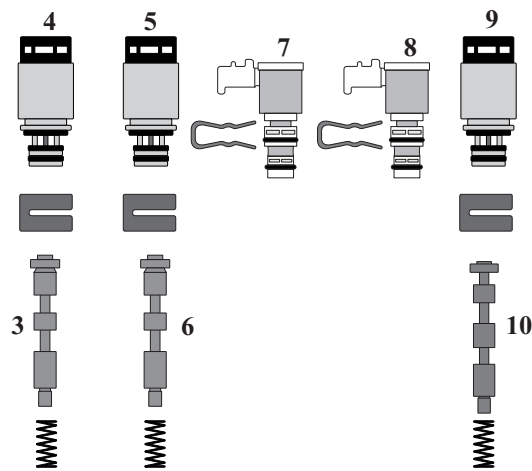
Figure 14

# Technical Service Information

## ALLISON 1000/2000 "6 SPEED"

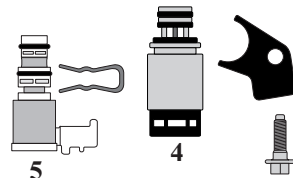
### 2010 UPDATES

#### 2010 VALVE IDENTIFICATION



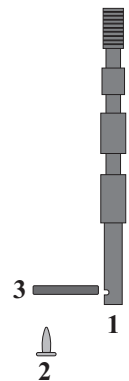
#### MAIN VALVE BODY

1. Command Relief Valve
2. Exhaust Backfill Valve
3. Pressure Control Valve 1
4. Pressure Control Solenoid 1
5. Pressure Control Solenoid 2
6. Pressure Control Valve 2
7. Shift Solenoid 3
8. Shift Solenoid 2
9. TCC Solenoid
10. TCC Control Valve
11. Check Ball Capsules



#### SHIFT VALVE BODY

1. Manual Valve
2. Plastic Plug
3. Manual Valve Pin
4. Main Modulation Solenoid
5. Shift Solenoid 1
6. Control Main Valve
7. Shift Valve 1
8. Shift Valve 3
9. Shift Valve 2
10. Solenoid Filter Screen



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Figure 15





# Technical Service Information

## ALLISON 1000/2000 "6 SPEED"

### 2010 UPDATES

COMPONENT	PREVIOUS PART #	UPDATED PART #	DESCRIPTION OF CHANGE	BACK SERVICE TO 2006
Torque Converter-TC211 Torque Converter-TC210 Torque Converter-TC221 Torque Converter-TC222	29549522 29549521 29549519 29549520	29546573 29546574 29546576 29546575	Dual friction lockup clutch. Identified by a punch mark on front cover of converter.	NO
Converter Housing SAE #3 (#12) Converter Housing SAE #3 (#8) Converter Housing SAE #2	29536810 29538610 29536710	29547463 29547463 29547462	The heat exchanger manifold has been eliminated. The cooler ports are an integral part of the converter housing.	YES As long as the cooler lines are adapted to the new porting.
C3/C4 Piston	29543321	29546697	Orifice size has changed.	NO
C3/C4 Spring/Plate Assembly	29542192 29542191	29546698	Plate & springs are integral.	NO
C3/C4 Friction Plates	29531049 (C3 Requires 4 Plates) (C4 Requires 5 Plates)	29546270 (C3 Requires 4 Plates) (C4 Requires 6 Plates)	The friction plates are now waved and are thinner.	NO
C3/C4 Reaction Plates	29531049 (C3 Requires 3 Plates) (C4 Requires 4 Plates)	29546701 (C3 Requires 4 Plates) (C4 Requires 6 Plates)	Quantity change required for integral spring assembly clearance.	YES
C3 Backing Plate	29535648	29546702	The backing plate thickness has been increased.	NO
C4 Backing Plate	29535640	29546271	The backing plate thickness has been decreased.	NO
Output Shaft	29536845	29546744	Lube orifice size change.	YES ONLY when used with Ground Sleeve, Turbine Shaft, Main Shaft & Output Shaft.
Main Sump Filter (Shallow Pan)	29537965	29542833	Increased filtration capacity & lower flow restriction.	YES ONLY back to 2006 Gen-IV.
Main Sump Filter (Standard Pan)	29537966	29542824	Increased filtration capacity & lower flow restriction.	YES
C1 Clutch Housing w/Turbine Shaft & PTO Drive Gear	29545811	29546281	Changes to accommodate higher horsepower & torque ratings.	YES ONLY back to 2006 Gen-IV as a complete assembly.
C1 Clutch Housing w/ PTO Drive Gear	29542802	29547424	Reduced size lube orifice.	YES ONLY back to 2006 Gen-IV as a complete assembly.
C1 Clutch Housing & Turbine Shaft w/ Tone Wheel For Speed Sensor (NON-PTO)	29545812	29546282	Changes to accommodate higher horsepower & torque ratings.	YES ONLY back to 2006 Gen-IV as a complete assembly.
C1 Clutch Housing w/ Tone Wheel For Speed Sensor	29542804	29547425	Reduced size lube orifice.	YES ONLY back to 2006 Gen-IV as a complete assembly.



# Technical Service Information

## ALLISON 1000/2000 "6 SPEED"

### 2010 UPDATES

COMPONENT	PREVIOUS PART #	UPDATED PART #	DESCRIPTION OF CHANGE	BACK SERVICE TO 2006
C1 Clutch Housing w/ Bushing	29542699	29546704	Reduced size lube orifice.	YES ONLY back to 2006 Gen-IV as a complete assembly.
C1 Friction Plates	29538468 (6 Plates Required)	29546276 (7 Plates Required)	The friction plate thickness has been reduced.	NO
C1 Reaction Plates	29530314 (6 Plates Required)	29530314 (7 Plates Required)	Changes to accommodate higher horsepower & torque ratings.	YES
C1 Clutch Piston Housing	29542811	29546277	Bleed hole relocated from C1 piston.	NO
C1 Clutch Piston	29543239	29549579	Bleed hole eliminated.	NO
C2 Clutch Hub	29536962	29546705	Vent holes added.	YES ONLY back to 2006 Gen-IV.
P1 Drive Flange	29531094	29546706	Vent holes added.	YES ONLY back to 2006 Gen-IV.
Turbine Shaft	29539506	29548947	Reduced size lube orifice.	YES ONLY with 2010 updated shafts.
Main Shaft	29536984	29546284	Reduced size lube orifice.	YES ONLY with 2010 updated shafts.
Front Pump Support w/ Ground Sleeve & Bearing	29542793	29546323	Part of the 2010 updates which will be listed further down in this chart.	NO
Front Pump Support w/ Ground Sleeve	29542794	29546324	Part of the 2010 updates which will be listed further down in this chart.	NO
Ground Sleeve & Bushing	29531309	29549325	Lube Orifice size change.	YES ONLY with 2010 updated shafts.
Ground Sleeve	29531015	29546283	Lube Orifice size change.	YES ONLY with 2010 updated shafts.
Main Pressure Regulator Valve	29541138 29547600	29547716	Part of the line pressure control modification.	NO
Main Pressure Regulator Valve Spring	29544465	29546317	Part of the line pressure control modification.	NO
Bore plug w/ O-Ring	N/A	29546314	Part of the line pressure control modification.	NO
Main Pressure Regulator Valve Stop	29531018	29546318	Part of the line pressure control modification.	NO
O-Ring For Bore Plug	N/A	29546762	Part of the line pressure control modification.	NO
Converter Flow Valve	29541144 29547604	29547719	Part of the pump update modification.	NO
Converter Flow Valve Spring	29531024	29546320	Part of the pump update modification.	NO
Converter Flow Valve Stop	29531028	29546320	Part of the pump update modification.	NO



# Technical Service Information

## ALLISON 1000/2000 "6 SPEED"

### 2010 UPDATES

COMPONENT	PREVIOUS PART #	UPDATED PART #	DESCRIPTION OF CHANGE	BACK SERVICE TO 2006
C1/C2 Pump Support Sealing Rings	29538940 (3 Required)	29546763 (3 Required)	Better sealing capability.	YES
Converter Housing to Pump Separator Plate	29541148	29546315	Hole location & size of slot change	YES (Not Recommended)
24 Pin Internal Wire Harness	29543334	29545308	Relocation of wires and connectors to match new solenoid and component positioning.	NO
<b>VALVE BODY CHANGES</b>				
Complete Valve Body w/ Internal Electrical Components & 24 Pin Internal Wire Harness	29543335	29545979	Complete redesign of valve body and all related components as well as the elimination of the reverse & 6th speed tubes.	NO
Main Valve Body Assy	29543342	29545997	Passages have been redesigned.	NO
Main Valve Body w/ Alignment Dowel Pins	29543341	29545997	Passages have been redesigned.	NO
Main Valve Body (Empty Casting)	29543340	29545996	Passages have been redesigned.	NO
Checkball Capsule	N/A	29549893 (2 Required)	Part of the valve body hydraulic redesign.	NO
TCC Valve	29542979	29545994	Part of the valve body hydraulic redesign.	NO
Pressure Control Solenoid 1	29537260	N/A	No change required.	YES
Pressure Control Solenoid 2	29537261	N/A	No change required.	YES
Pressure Control Valves 1 and 2	N/A	29550069 (2 Required)	Part of the valve body hydraulic redesign.	NO
PCV 1, 2 & TCC Spring	29536313	29550070	Part of the valve body hydraulic redesign.	NO
Gain Valve	29537229	N/A	No change required.	YES
Gain Valve Spring	29537230	N/A	No change required.	YES
PCV 1, 2 Solenoid Retainer	29542974	29545991	Added hole for new accumulator.	NO
TCC Solenoid Retainer	29542973	29545990	Added hole.	NO
Shift Valve Body Assembly	29542972	29545989	Passages have been redesigned.	NO
Shift Valve Body (Empty Casting)	29542972	29545989	Passages have been redesigned.	NO
Shift Valve 1	29531173	29545988	Valve redesign.	NO
Shift Valve 2	29536398	29545987	Valve redesign.	NO
Shift Valve 3	29536944	29545986	Valve redesign.	NO
Shift Valve Spring	29531176	29545966	Spring redesign.	NO
Control Main Valve	29541152	29545965	Valve redesign.	NO
Control Main Valve Spring	29541153	29546994 (2 Required)	Spring redesign.	NO





## Technical Service Information

### ALLISON 1000/2000 "6 SPEED" 2010 UPDATES

COMPONENT	PREVIOUS PART #	UPDATED PART #	DESCRIPTION OF CHANGE	BACK SERVICE TO 2006
Variable Modulated Main Solenoid	N/A	29541895	Same as GEN IV PCS 1. Solenoid "G" & Main Modulated VB Eliminated.	YES
Variable Modulated Main Solenoid Retainer	N/A	29545982	To secure the new Main Modulation Solenoid	NO
Valve Body Separator Plate	29542962	29545980	Part of the valve body hydraulic redesign.	NO
Converter Relief/ Lube Regulation Valve Stop Clip	29531022 (2 Required)	29531022 (5 Required)	The number of clips increases from 2 to 5 in the Main Valve body but the total number in the complete valve body is 9.	YES
Modulated Main Valve Body	29543338	N/A	This has been eliminated for the 2010 update.	Pre 2010 update only
Shift Solenoids 1, 2 & 3	29536833	N/A	These have not changed.	YES
Shift Solenoids 1, 2 & 3 Retainer	29534518	N/A	These have not changed.	YES
Reverse Signal Tube	29542964	N/A	This has been eliminated for the 2010 update.	Pre 2010 update only
Sixth Speed Feed Tube	29543337	N/A	This has been eliminated for the 2010 update.	Pre 2010 update only

Figure 19