

Transmission Type .. 5R55W/S

Rebuilder's Kwik Reference Guide



Clutch Clearances

Forward Clutch .....	.051-.079"	.....	Snap Ring
Direct Clutch .....	.051-.079"	.....	Snap Ring
Overrun Clutch .....	.051-.079"	.....	Snap Ring

Adjusted By:

Torque Specifications

Pump Halves	18 Ft. Lbs.
Pump To Case	18 Ft. Lbs.
Solenoid Body	71 In. Lbs
Valve Body To Case	89 In. Lbs.
Pan	8 Ft. Lbs.
Center Support	8 Ft. Lbs.
Extension Housing	19 Ft. Lbs.
Low/Reverse Servo	8 Ft. Lbs.
Bellhousing To Main Case	27-39 Ft. Lbs.

Band Adjustment

Intermediate Band.....	10 Ft. Lbs.	.....	1-1/2 Turns*
Overdrive Band.....	10 Ft. Lbs.	.....	1-1/2 Turns*

* 2003 S Cars 10 Ft. Lbs. 1 1/2 Turns

Unit Endplays

Location

Selective

Front Unit .008-.021"	Pump	Thrust Washer
Rear Unit .012-.022"	Center Support	Thrust Bearing

Transmission Type... 5R55W/S

Rebuilder's Kwik
Reference Guide



Clutch & Band /Solenoid Application Charts

5R55W/S

Selector Position	Gear	Overdrive Band	Intermediate Band	Low/Reverse Band	Coast Clutch Band	Direct Clutch	Forward Clutch	Overdrive One-Way Clutch	Low/Reverse One-Way Clutch
R	R			X		X		X	
D	1						X	X	X
	2	X					X		X
	3		X				X	X	
	4					X	X	X	
	5	X				X	X		
	M 4TH					X	X	X	X
3	M 3RD		X		X		X	X	
2	M 2ND	X		X			X		X
1	M 1ST			X	X		X	X	X

X = Applied

Transmission Type... 5R55W/S

Rebuilder's Kwik
Reference Guide



Clutch & Band/Solenoid Application Charts

S Series Car - Base Shifter

Selector Position	Gear	Shift Solenoid A	Shift Solenoid B	Shift Solenoid C	Shift Solenoid D	PC A	PC B	PC C
P or N	P or N	On	Off	Off	On	L	R	L
R	R	On	Off	Off	On	R	L	H
D5	1	On	Off	Off	On	H	R	L
	2	On	Off	On	On	R	H	L
	3	On	On	Off	On	H	R	L
	4	Off	Off	Off	On	H	R	H
	5	Off	Off	On	On	H	H	H
D4	1	On	Off	Off	On	H	R	L
	2	On	Off	On	On	R	H	L
	3	On	On	Off	On	H	R	L
	4	Off	Off	Off	Off	R	H	H
Manual 3	3	On	On	Off	Off	H	L	R
Manual 2	2	On	Off	On	Off	H	L	R
Manual 1	1	On	Off	Off	Off	H	L	R

L = Low Pressure

H = High Pressure

R = Regulating Pressure

Transmission Type... 5R55W/S

Rebuilder's Kwik
Reference Guide



Clutch & Band/Solenoid Application Charts

S Series Car - Optional Shifter

Selector Position	Gear	Shift Solenoid A	Shift Solenoid B	Shift Solenoid C	Shift Solenoid D	PC A	PC B	PC C
P or N	P or N	On	Off	Off	On	L	R	L
R	R	On	Off	Off	On	R	L	H
D5	1	On	Off	Off	On	H	R	L
	2	On	Off	On	On	R	H	L
	3	On	On	Off	On	H	R	L
	4	Off	Off	Off	On	H	R	H
	5	Off	Off	On	On	H	H	H
D5 with +/- control	1	On	Off	Off	Off	H	R	L
	2	On	Off	On	Off	R	H	L
	3	On	On	Off	Off	H	R	L
	4	Off	Off	Off	Off	H	R	H
	5	Off	Off	On	On	H	H	H
D4	1	On	Off	Off	On	H	R	L
	2	On	Off	On	On	R	H	L
	3	On	On	Off	On	H	R	L
	4	Off	Off	Off	Off	R	H	H

L = Low Pressure
H = High Pressure
R = Regulating Pressure

Transmission Type... 5R55W/S

Rebuilder's Kwik
Reference Guide



Clutch & Band/Solenoid Application Charts

W/S Series Truck

Position Selector	Gear	Shift Solenoid A	Shift Solenoid B	Shift Solenoid C	Shift Solenoid D	PC A	PC B	PC C
P or N	P or N	On	Off	Off	On	L	R	L
R	R	On	Off	Off	On	R	L	H
D	1	On	Off	Off	On	H	R	L
	2	On	Off	On	On	R	H	L
	3	On	On	Off	On	H	R	L
	4	Off	Off	Off	On	H	R	H
	5	Off	Off	On	On	H	H	H
D Overdrive cancel	1	On	Off	Off	On	H	R	L
	2	On	Off	On	On	R	H	L
	3	On	On	Off	On	H	R	L
	4	Off	Off	Off	Off	R	H	H
Manual 3	3	On	On	Off	Off	H	L	R
Manual 2	2	On	Off	On	Off	H	L	R
Manual 1	1	On	Off	Off	Off	H	L	R

L = Low Pressure

H = High Pressure

R = Regulating Pressure

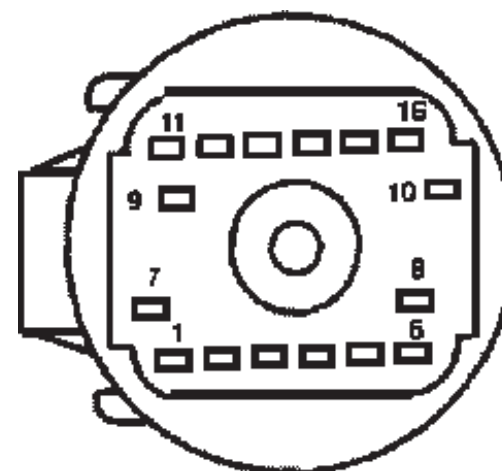
Transmission Type... 5R55W/S

Solenoid & Harness Information

Rebuilder's Kwik
Reference Guide



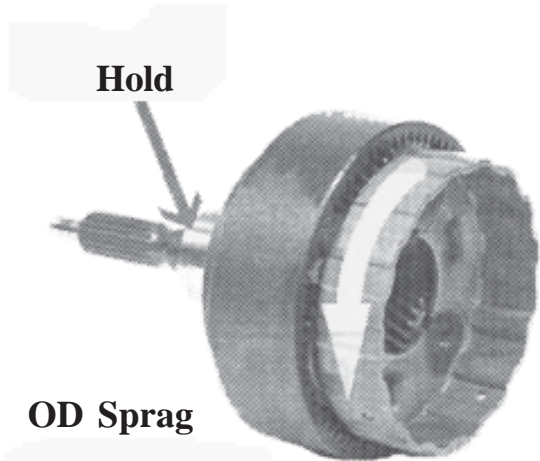
Pin #	Description	Resistance
1	Pressure Control Solenoid B	3.3 - 7.5 Ohms
2	TFT Sensor	-
3	Solenoid Power	-
4	Pressure Control Solenoid C	3.3 - 7.5 Ohms
5	Shift Solenoid D	16 - 45 Ohms
6	Shift Solenoid C	16 - 45 Ohms
7	Blank	-
8	Blank	-
9	Blank	-
10	Blank	-
11	Pressure Control Solenoid A	3.3 - 7.5 Ohms
12	Signal Return	-
13	Blank	-
14	TCC Solenoid	9 -16 Ohms
15	Shift Solenoid B	16 - 45 Ohms
16	Shift Solenoid A	16 - 45 Ohms



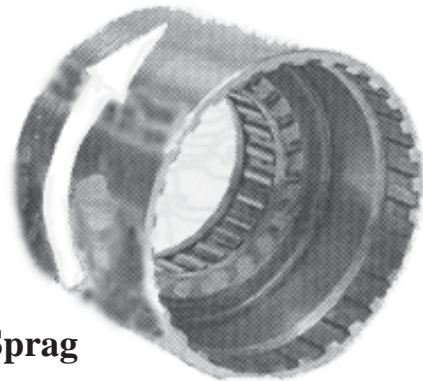
Transmission Type... 5R55W/S

Technical Tips for Rebuilding This Unit

Rebuilder's Kwik
Reference Guide

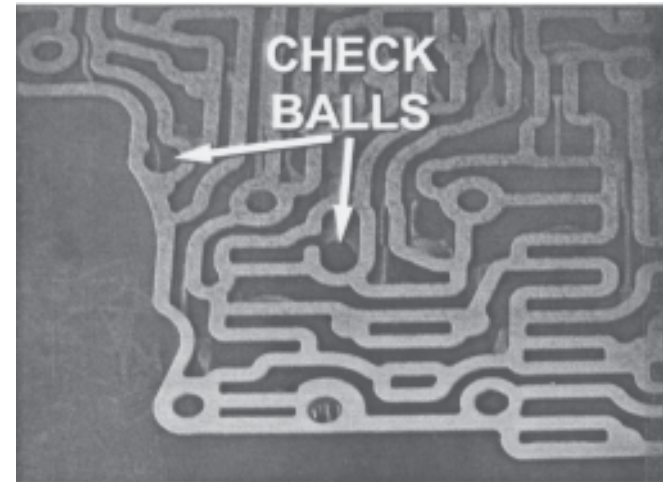


OD Sprag



Low Sprag

Checkball Locations



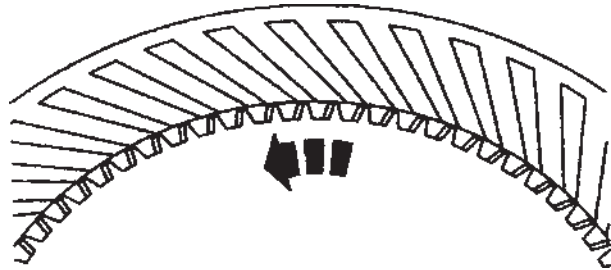
Transmission Type... 5R55W/S

Technical Tips for Rebuilding This Unit

Rebuilder's Kwik
Reference Guide

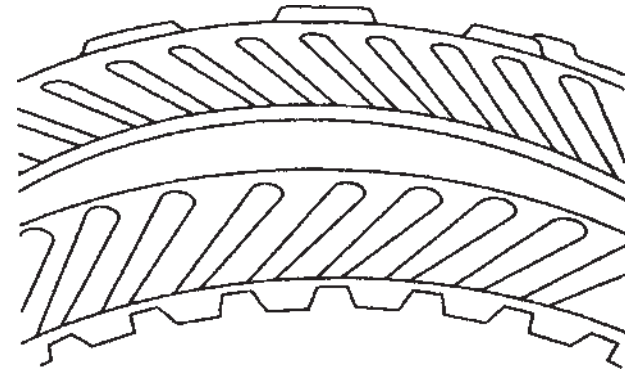


Forward Clutch



Forward clutch friction plates are directional and must be installed with grooves counterwise (I.D. to O.D.).

Direct Clutch



Direct clutch friction plates are directional and must be installed with grooves clockwise or counterclockwise (I.D. to O.D.). Alternate the internally splined (clockwise) and externally splined (counterclockwise) clutch plates.

Coast Clutch



Coast Clutch friction plates are directional and must be installed with grooves clockwise (I.D. to O.D.). The word "TOP" should face up.

Assemble the friction plates in alternating order, starting with an externally splined (counterclockwise) plate and then an internally splined (clockwise) plate.

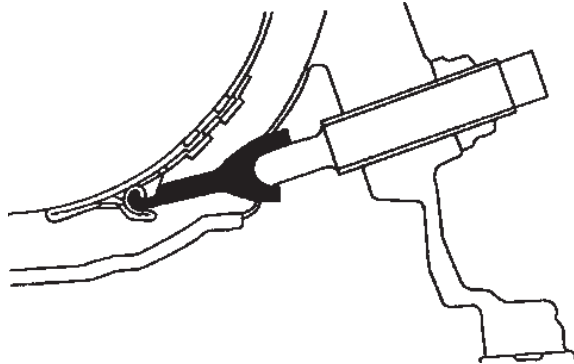
Transmission Type... 5R55W/S

Technical Tips for Rebuilding This Unit

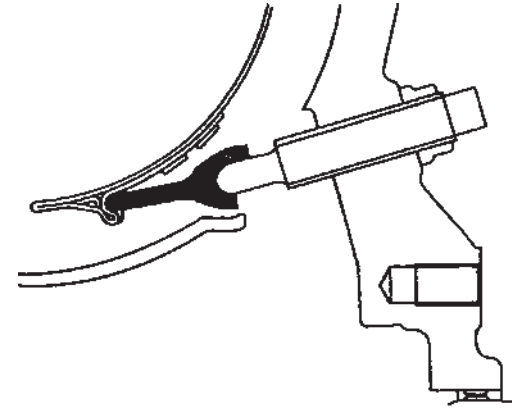
Rebuilder's Kwik
Reference Guide



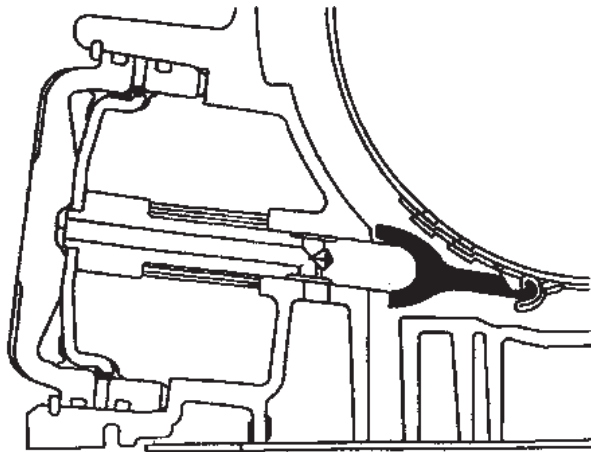
Intermediate Band Anchor Strut



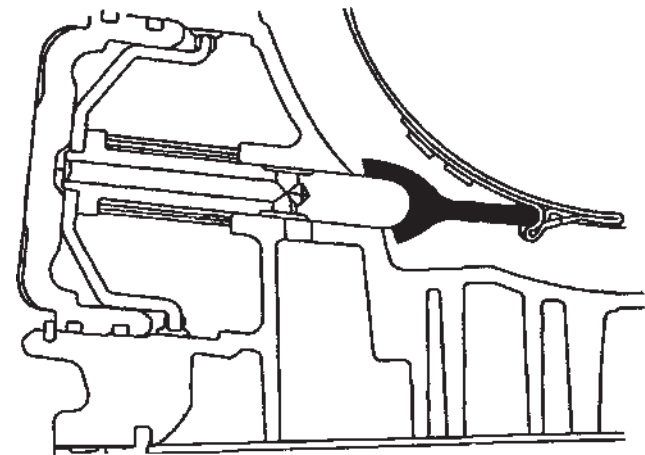
OD Band Anchor Strut



Intermediate Band Apply Strut



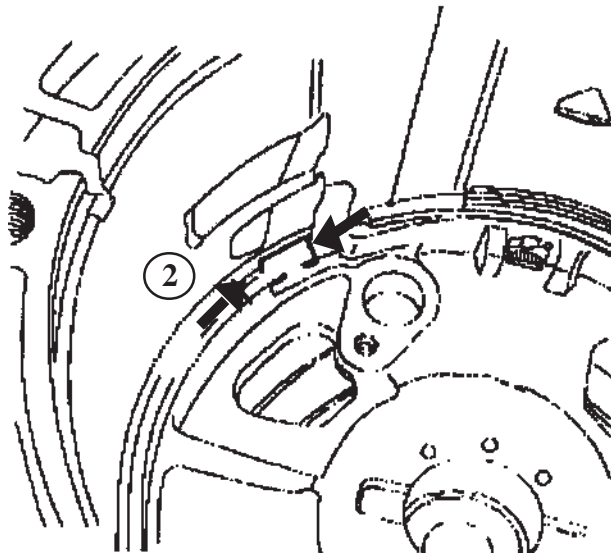
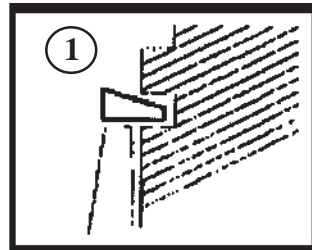
OD Band Apply Strut



Transmission Type... 5R55W/S

Technical Tips for Rebuilding this Unit

Rebuilder's Kwik
Reference Guide



Center Support Snap Ring Installation

1. Install center support ring with tapered side facing up.
2. Make sure the notch opening is not obstructed by the center support retaining ring.

Transmission Type... 5R55W/S

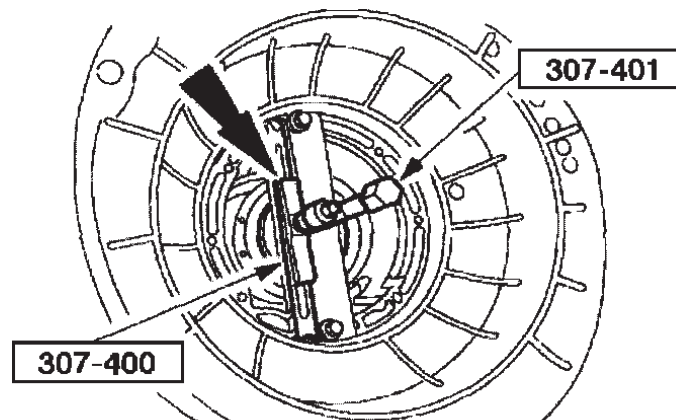
Rebuilder's Kwik Reference Guide



Technical Tips for Rebuilding this Unit

Front Unit EndPlay Checking Procedure

1. Install cushion spring compressor #307-401 or equivalent on gasket surface of front pump. Hold in position with two pump bolts at the 6 and 12 o'clock position.
2. Tighten pressure screw on tool to 10 In. Lbs.
3. Position gauge bar #307-400 or equivalent and depth micrometer on gasket surface of front pump. (gauge bar is .700 thick)
4. Measure the distance from the top of the gauge bar to the coast drum bearing surface in two places. If the special tool is used measure through the two holes in the pressure disc. (See Figure 3)
5. Add the two measurements together and divide by two. Use this as dimension A.
6. Subtract dimension A from the thickness of the gauge bar (.700) to determine dimension B.
7. Use dimension B to select the proper thickness front pump washer from the chart.



Dimension B	Washer Thickness	Identification Color/ID
1.500-1.510	.060	Brown/8
1.510	.070	Red/4
1.510/1.520	.080	Black/6
1.520/1.530	.090	Orange/9
1.530	.100	Purple/10

Transmission Type... 5R55W/S

Technical Tips for Rebuilding this Unit

Rebuilder's Kwik Reference Guide



Rear Unit Endplay Checking Procedure

1. Position gauge bar #307-400 or equivalent and depth micrometer on gasket surface of front pump. (Gauge bar is .700 thick)
2. Measure the distance from the top of the gauge bar or equivalent to the center support ledge in the case at four places 90 degrees apart (See Figure 1).
3. Add the four measurements together and divide by four. Use this as dimension A.
4. Install cushion spring compressor #307-401 or equivalent on gasket surface of front pump. Hold in position with two pump bolts at the 6 and 12 o'clock position (See Figure 2).
5. Tighten pressure screw on tool to 10 In. Lbs.
6. Position gauge bar or equivalent and depth micrometer on gasket surface of front pump.
7. Measure the distance from the top of the gauge bar to the direct drum bearing surface in two places. If the special tool is used measure through the two holes in the pressure disc.
8. Add the two measurements together and divide by two. Use this as dimension B.
9. Subtract dimension A from dimension B to determine dimension C.
10. Use dimension C to select proper thickness center support thrust bearing from the chart.

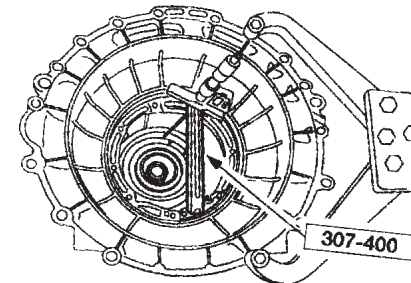


Figure 1

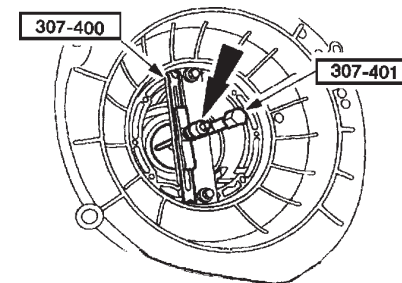


Figure 2

Dimension C	Bearing Thickness	Identification Notches
.066-.073	.104-.110	0
.073-.080	.111-.116	1
.081-.088	.118-.124	2
.089-.096	.126-.132	3