TREMEC®

Magnum
Magnum-XL
Magnum-F
GM Magnum
Service Manual

Magnum 01/01/2024

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Section 1: General Information

Safety First

Carefully read this service manual before beginning any work on your TREMEC transmission.

Throughout this manual, you will see symbols that warn of potential physical danger or product damage if the accompanying instructions are not followed.

Symbols and Their Meaning
Note the following symbols and their meanings.

Warning.
This symbol indicates a potentially hazardous situation. If the instructions are not followed, the result could be death or serious injury.

Mandatory Action.
This symbol indicates that you must do an activity in order for the transmission to function properly. For example, you must use only one gasket underneath the shift tower. If it is eliminated, or more than one gasket is used, binding can occur. This would prevent proper shifting of the transmission and could damage the unit.

Prohibited.
This symbol indicates that you must **NOT** do something in order to avoid damaging the transmission. For example, you must not use sealant underneath the shift tower. Using sealant underneath the tower will prevent proper interlock functioning and could damage the unit.

Customer Service
Be sure you understand all procedures and instructions in this manual before you begin working on your TREMEC transmission. If you have any questions, contact TREMEC customer service at:

- Email: customer.service@tremec.com
- Toll Free: 1-800-401-9866

Notice

General Safety Precautions Use a hoist whenever lifting the transmission or shaft assemblies. Using a hoist can help prevent muscle strain or other possible injuries.

Always wear safety glasses when working on the transmission to help prevent possible eye injury due to small parts (such as snap rings) or metal chips that may fly up unexpectedly during a tear-down or rebuild.

To avoid injury, be careful when picking up gears or other sharp components. Consider wearing heavy cloth gloves or covering sharp objects with shop towels before picking them up.

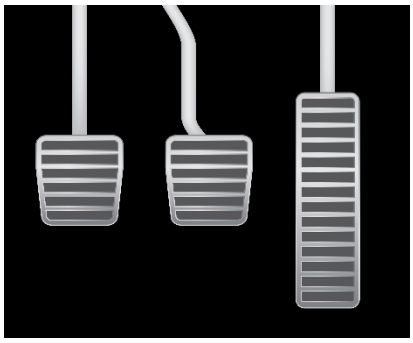
To avoid injury, let the transmission cool down prior to draining the fluid. It is recommended to drain the transmission fluid prior to disassembly of the unit.

Manual Transmission Operation

The love of the manual transmission isn't rational and doesn't need to be. Rowing your own gears enhances driving pleasure because it connects you to a car in a way that an automatic can't.

The key to driving a manual is the simultaneous engagement of the clutch and smooth application of the throttle. The following will provide basic guidelines for driving a vehicle with a manual transmission.

Understand the Different Pedals



A manual transmission requires the driver to shift the gears themselves. It will have three pedals: clutch, brake and accelerator to operate the vehicle.

The clutch pedal is located at the far left and is used when upshifting or downshifting. The clutch is disengaged when the pedal is pushed to the floor.

The middle pedal is the brake. The right pedal is the accelerator. You will use your left foot for the clutch and you right foot for the brake and accelerator.

When you push in the clutch, you are disengaging the drivetrain assembly. When you lift your foot off the clutch pedal, the friction of the assembly starts engaging, causing your vehicle to move.

Learn the Gears

The TREMEC 6-speed Magnum manual transmission has 6 forward gears plus reverse. The gear patterns are clearly marked on the shifter or dashboard.

If the shift position is located in the center, the car will be in neutral - at which point you should be able to easily move the gear shifter back and forth. Neutral is not a gear; it is the absence of a gear.

For most cars, second gear is the workhorse. It will get you up and down steep hills, power you through curves, and gracefully motor you through downtown streets.

Reverse is somewhat different. It has a higher gear ratio than most gears – giving you fast acceleration. It is recommended to not go too far or too fast in this gear.

Sixth gear provides the Magnum with a Dual overdrive. Overdrive is the operation of cruising at a sustained speed - such as highway driving - with reduced engine revolutions per minute (RPMs). Lower RPMs lead to better fuel consumption, lower noise, and lower wear on the engine.

When to Shift

Generally, you should up shift gears when the tachometer is around "3" or 3,000 RPMs; down shift when the tachometer is around "1" or 1,000 RPMs. With experience, you will be able to figure out when to best shift by the way your engine sounds and "feels."

Make sure you do not exceed the tachometer redline; this may cause damage to the engine.

Basic Steps to Drive a Manual Transmission

The golden rule of the manual transmission is that shifting begins with the clutch but ends with the gas. The following are basic steps to drive a stick shift.

Getting Started

The shift pattern shows you the location of each gear and the order to move through as you accelerate and decelerate. First gear is the lowest gear and is used for starting from rest.

- Put the shifter into the neutral position. Place your right foot firmly on the brake pedal and fully depress the clutch with your left foot.
- Turn the ignition key or press the starter button. (If you're not holding the clutch pedal fully down, a neutral-safety switch might not allow the starter to be activated.)
- With the clutch depressed and the car now running, move the shift lever into the first-gear position in the shift gate. Check the area immediately in front of the car for vehicles, objects, and pedestrians, then release the parking brake.
- Very smoothly and slowly, lift your left foot until you feel the car just begin to move. At the point the car starts to inch forward, stop any movement of your left (clutch) foot. Simultaneously slide your right foot off the brake and onto the throttle pedal (to the right), bringing engine speed up a bit.
- Feel the car edge forward. As it does, release a little pressure from the clutch. At this point, you will be hardly moving.
- Finally, lift fully off the clutch pedal and slowly step into the throttle pedal. The car should be picking up speed. If it shudders to a stop and the engine shuts off, you've stalled. Put the shift lever back in neutral and start over again with more focus on a smooth application of throttle and more gradual clutch-pedal release. This coordination is essential to flawless shifting – regardless if up-shifting or down-shifting your vehicle.

Know When to Change Gears

Gear Change	Approx. Speed	Tachometer RPM
Upshifting		
1st – 2nd	15 mph	2,000 – 3,000
2nd – 3rd	25 mph	2,500 – 3,500
3rd – 4th	40 mph	2,500 – 3,500
4th – 5th	50 mph	2,500 – 3,500
5th – 6th	60 mph	2,500 – 3,500
Downshifting		
6th – 5th	60 mph	2,000
5th – 4th	40 mph	2,000
4th – 3rd	30 mph	2,000
3rd – 2nd	20 mph	2,000
2nd – 1st	10 mph	1,500

- When it is time to shift into second gear, lift your foot off the throttle while simultaneously stepping down fully on the clutch pedal. As the car coasts, move the shift lever from the first-gear position to the second-gear position. Release the clutch pedal slowly while gently stepping back into the throttle pedal.
- Higher road speeds are attained by moving up sequentially through the gears. Each time a higher gear is required, lift off the gas, step down on the clutch, and move the lever to the next higher gear. If your car's acceleration seems "bogged down," you needed to be in the previous gear a bit longer. You'll get the feel for which gear you should be in at a given speed; the engine's sound and the amount of acceleration the car is delivering will guide you.

Stopping

- To slow down or stop, apply the brake pedal smoothly. To stop fully, you must push the clutch all the way in as the car gets below about 5 mph, or the engine will stall. At a stop, it's a good idea to slide the shift lever into neutral and keep the foot brake applied.

Parking

- For parking, you'll need to be able to access reverse. Don't try reversing and parking until you've mastered creeping ahead in first gear from rest, as you'll need to perform the same slow-creep operation while backing up.
- To park the car safely, put the shifter into first or reverse and apply the parking brake

Important Notice

To locate and correct transmission issues, a systematic procedure should be followed.

Road test whenever possible. Technicians usually get second or third-hand reports of trouble experienced with the transmission. These reports do not always accurately describe the actual conditions.

Symptoms may indicate trouble in the transmission, while actually the problem may be with the axle, driveshaft, universal joints, engine, or clutch. This is especially true of noise complaints. Before removing the transmission to diagnose an issue, road test to check the possibility of trouble in other closely associated components.

Road testing is most effective when the technician drives the vehicle. However, riding with the driver can be very informative.

Check Functioning Prior to Disassembly

If a remote shift control is used, a careful check of the remote and connecting linkages (and their adjustment) must be made. The remote unit must be in good working order if the transmission is expected to shift properly.

Inspect Thoroughly During Disassembly

As the transmission is disassembled, inspect each part to ensure that it is not worn, damaged or no longer meets factory specifications. After the transmission is completely disassembled, check the lubricant for foreign particles. This is a source of trouble often overlooked during the disassembly.

Repair or Replace Worn Parts

All parts and components should be carefully examined. All parts that are damaged, worn or no longer meet specification should be replaced.

Parts that are worn to the extent that they do not have a long service life remaining should be replaced. Replacing these parts now will avoid another teardown in the near future.

Making the recommended changes or modifications will bring the transmission up to date and increase the service life of the unit.

Before You Start

A suitable holding fixture or overhaul stand with a hole for the input shaft is desirable.
For easier working conditions, table height should be 28 - 30 inches.

Rebuild Facilities

A suitable holding fixture or overhaul stand with a hole for the input shaft is desirable.
For easier working conditions, table height should be 28 - 30 inches.

Cleanliness

Transmissions should be steam cleaned prior to disassembly. Seal all openings before steam cleaning to prevent entry of dirt and water which can damage serviceable parts.
Dirt is abrasive and will cause premature wear of bearings and other parts. TREMEC suggests that technicians have a wash tank available to clean parts just prior to reassembly.

Bearings
When a transmission is removed at relatively low mileage, bearings should be removed with pullers designed for this purpose. Wrap the bearings to keep out dirt. Clean, inspect, and lubricate all bearings just prior to reassembly. If accumulated mileage is over 150,000 miles, we suggest that all bearings be replaced. If bearings are worn or damaged, always replace them regardless of mileage.

Do not hammer on end yokes and flanges to remove or install them. It is not only destructive to the yoke or the flange itself, but can also cause serious internal transmission damage.

Hammering destroys or mutilates the pilot diameters and warps or bends the flange. Hammering on end yokes will close-in the bearing bores or misalign yoke lugs. This will result in early failures of journal needle bearings.

Serious damage can be done internally to bearings, thrust faces and washers by hammering on external parts. In most designs, when the yoke/flange locknuts are tightened and secure, the internal bearings and gears are in proper location. When the yoke/flange is driven on the shaft, however, two conditions can exist.

(1) If the bearing fit is tight on the shaft, usually the bearings will brinell as they must absorb the pounding force.
(2) If the bearing fit is loose, the shaft will keep moving inward until it is stopped by the internal parts such as the pilot bearing thrust washers.

These conditions must be prevented.

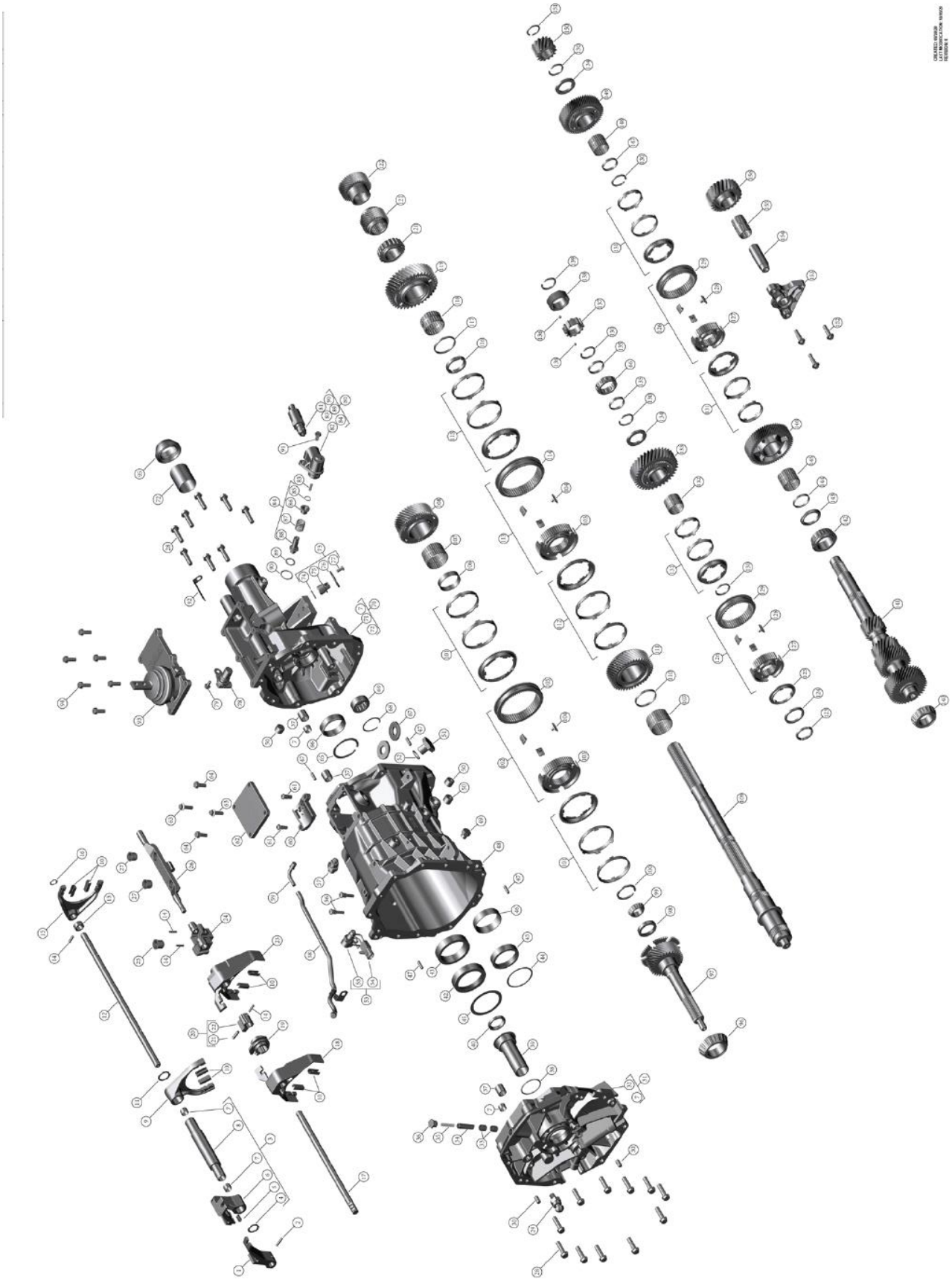
Tools
In addition to a regular mechanics toolset, you will need the following specialty tools:

1. Hydraulic press. Available at local tool supply company
2. Snap-ring plier set. There are a few different snap ring sizes and styles that hold everything together so having a full set is a must
3. Bearing splitter (puller). Available at local tool supply company
4. Punch set. The shift arm, shift fork, and other pieces are held on with roll pins that need a good punch set to hammer them out.
5. T-40 Torx Bit
6. Gear puller with extended arms
7. Transmission jack
8. Five-foot (or larger) table to lay everything out and keep it organized
9. Rubber mallet
10. Feeler gauges

This guide assumes that the operator has the knowledge and capability to put the car on jack stands, remove the rear cradle, the differential, and subsequently remove the transmission

Section 2: Magnum Specifications

Magnum Manual Transmission Disassembled View



Legend for Magnum Manual Transmission Disassembled View

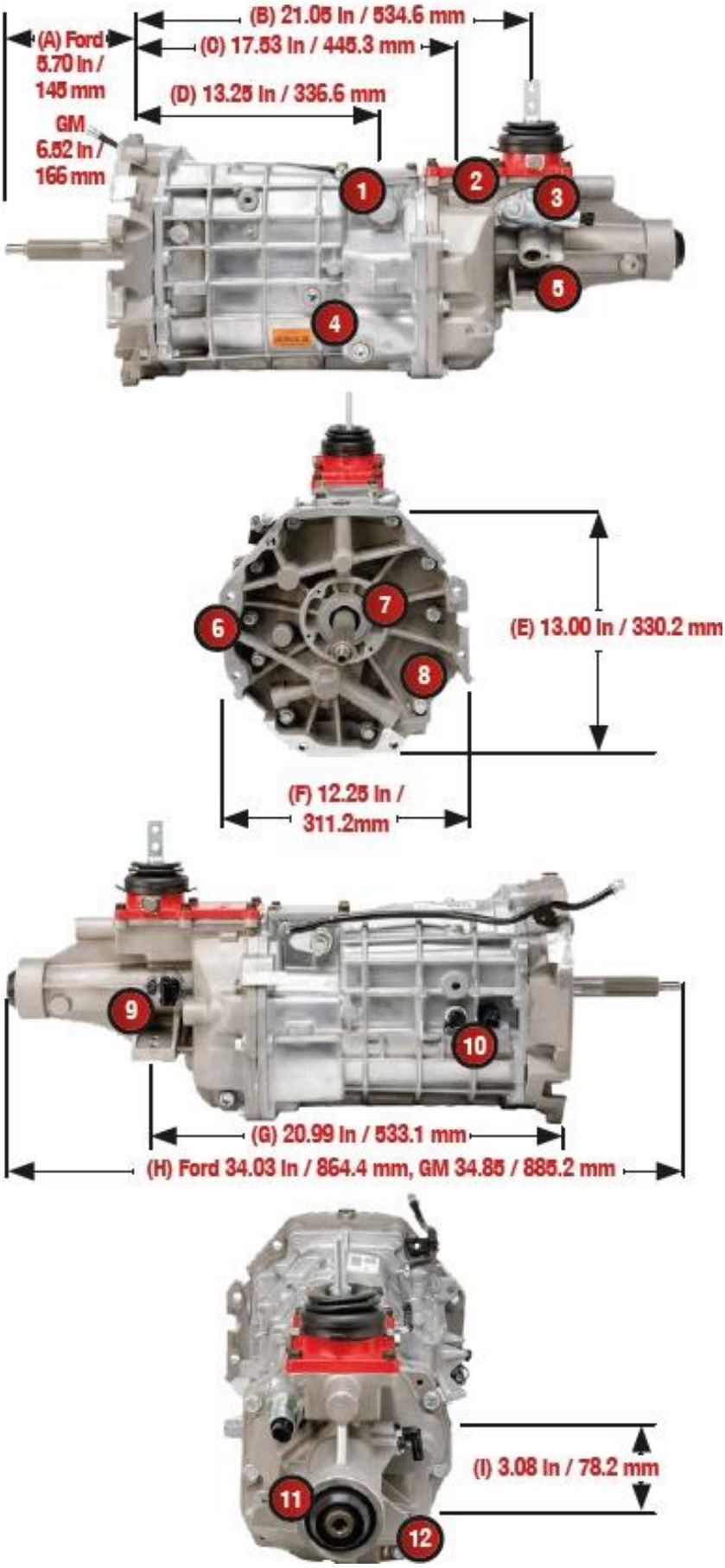
ITEM	QTY.	PART NAME	PART NUMBER
1	1	LEVER SHIFT (REVERSE)	TULE7572
2	1	PIN - SLOTTED SPRING	1000-043-016
3	1	5TH-6TH LEVER ASSY	TUEC6200
4	1	RING - RETAINING 5TH-6TH LEVER	1386-139-007
5	1	PAD - SHIFT FORK	1386-235-002
6	1	LEVER 5TH-6TH SHIFT	TULE6200
7	4	BUSHING - TOP SHIFT RAIL	1386-127-001
8	1	5TH FORK RAIL	TUTB6890
9	1	FORK 5TH-6TH SHIFT	TUHR6106
10	8	PAD - SHIFT FORK	1386-235-001
11	1	RING RETAINING	1300-139-001
12	1	RAIL REVERSE SHIFT	TUBR5842
13	1	COLLAR - REV SHIFT	1386-103-003
14	4	ROLL PIN	1332-043-004
15	1	FORK REVERSE SHIFT	TUHR6107
16	1	RING SNAP	1386-139-004
17	1	SHAFT - TOP SHIFTER	TUBR6671
18	1	FORK 3RD-4TH GEAR SHIFT	TUHR6058
19	1	INTERLOCK	TUTP16714
20	1	ASSY SHIFT SELECTOR	TUEC16713
21	1	PIN SELECTOR SHAFT	TUPE16712
22	1	BODY - SHIFT SELECTOR	TULE16713
23	1	FORK 1ST - 2ND GEAR SHIFT	TUHR7329
24	1	OFFSET LEVER	TUTP5799
25	1	SLEEVE - DAMPER	1352-127-009
26	1	SELECTOR SEAT	TUTP8543
27	2	SHIFT LEVER BUSHING	TUMS8545
28	19	BOLT HEX. WASHER HEAD	1386-183-001
30	2	DOWEL PIN	1300-043-009
33	2	BUSHING ROLLER DETENT	TUSP2040
34	1	ROLLER DETENT	TUPE2047
35	1	SPRING SHIFT DETENT	TURE2046
36	1	ROLLER DETENT BOLT	TUTN2096
37	3	LINEAR BEARING	TUBA7952
40	1	SEAL OIL (RETAINER)	TSCJ1428
41	A/R	SHIM FRONT BEARING RETAINER	TDMS1337
		TDMS1338, TDMS1339, TDMS1340,TDMS1366, TDMS1367, TDMS7440, TDMS7441, TDMS7442, TDMS7443, TDMS7444	
42	1	CUP (INPUT SHAFT)	TUBA6772
43	1	CUP (M.S. INTERMEDIATE)	TUBA6774
44	A/R	BEARING SHIM	1386-037-005 THRU 37
45	1	RACE BEARING CLUSTER GEAR	TUBA6914
46	1	BEARING TAPERED ROLLER CUP	TUBA6967
47	4	DOWEL PIN	141199
48	1	CASE TRANSMISSION	TUCA6918
49	1	PLUG SCREW	TUTN7205
50	3	SOCKET HEAD PIPE PLUG	1300-052-007
51	1	SHIFT PLUG	1386-052-001
52	1	O'RING SOLENOIDE	1300-141-117
53	1	CLIP SWITCH ASSEMBLY	TCEM1728
54	1	CLIP	TCMS1727
55	1	SWICH BACK UP	1300-140-012
56	2	INTERLOCK BOLT	1386-183-003
57	1	ASSY SHIFT DETENT	1386-608-006
58	1	TRANS. VENT PIPE ASSY	TUMS5100
59	1	CONNECTOR VENT BODY	1300-072-004
60	1	PLATE - DETENT & GUIDE	TUPT7092
61	2	SHIFT GUIDE PLATE, BOLT	1386-183-002
62	1	COVER MAIN CASE	TUPT4311
63	2	HEX. M8-1.25X30 BOLT	W500425
64	6	BOLT - M8 THREAD ROLLING	1300-183-034
65	1	RING - RETAINING	1386-139-005
66	1	ASSY - ROLLER BEARING	1386-134-001
67	2	MAGNET	4915
68	1	RING-RETAINER	1300-139-043
69	1	ROLLER BEARING	TUBA6919
70	1	REAR EXTENSION ASSY	TUEP8522
71	1	REAR EXTENSION	TUEX8522
72	1	BUSHING EXTENSION	1386-127-003
73	1	PLUG KIT	30-360-1X.
74	1	O-RING	30-463-10.
75	1	SPEEDOMETER PLUG	30-39-1.
76	1	RETAINER	30-360-1.
77	2	SCREW	30-443-1
78	1	SPEED SENSOR	4400-640-019
79	1	SPEEDOMETER BOLT	1300-183-038
80	1	ASSY REVERSE LOCKOUT	TUSW7406
81	1	SOLENOID REVERSE LOCKOUT	TUSW6588
82	1	HOUSING REVERSE LOCKOUT	TUMS7369
83	1	SPRING-REVERSE BIAS RETURN	1386-156-010
84	1	ASSY REVERSE BIAS PLUNGER	TUSW7405
85	1	RING RETAINER	1386-139-003
86	1	COLLAR - REVERSE BIAS	1386-103-002
87	1	SPRING REVERSE BIAS	TURE6892
88	1	PLUNGER - REVERSE SHIFT BIAS	TUPE7370
89	1	SNAP - RING - REV LOCKOUT	1386-139-002
90	1	O - RING - REV LOCKOUT	1300-141-120
91	1	BOLT - HEX. HEAD	1300-183-002
92	1	TAG - IDENTIFICATION	2604737
93	1	SHIFTER ASSEMBLY	TUEP8542
94	6	CONTROL TOWER BOLT	2603968
95	1	OIL SEAL MAIN SHAFT	TCSJ1277
96	1	CONE BEARING (INPUT SHAFT)	TUBA6771
98	1	CUP (INPUT SHAFT)	1386-133-003
99	1	CONE BEARING (INPUT SHAFT)	1386-133-004
100	1	RETAINER SNAP RING	1300-139-015
101	2	DBL. CONE SYS. 89 mm (3RD-4TH)	TUES13931
102	1	3RD-4TH SYNCH. ASSY	TUES10700
103	2	HUB - TRANS. 1ST-2ND-3RD-4TH SYNC.	TUMZ10699
104	6	STRUT (1ST-2ND & 3RD-4TH)	TUNS7112
105	1	SLEEVE - SYNC. 3RD-4TH	TUCL10701
106	1	SPACER BEARING 3RD	TUMS7333
107	2	BEARING - ASSY NEEDLE 2ND & 3RD	1300-132-009
109	1	OUTPUT SHAFT	TUFP7308
110	1	SPACER BEARING 2ND GEAR	1386-053-006
112	1	CARBON TRIPLE CONE SYSTEM 89mm (2ND)	TUES11858
113	1	1ST - 2ND SYNC ASSY	TUES10698
114	1	SLEEVE-SYNC 1ST - 2ND	TUCL10223
115	1	BRONZE TRIPLE CONE SYSTEM 89mm (1ST)	TUES5779
116	2	SPLIT WASHER	TURA5203
117	1	SPLIT WASHER ENCLOSURE RING	TURA5202
118	1	BEARING FIRST GEAR	1386-132-002
120	1	CONE BEARING (M.S. INTERMEDIATE)	TUBA6773
123	2	SPLIT WASHER	TURA6056
124	1	SPLIT WASHER ENCLOSURE RING	TURA6057
125	1	INSERT RETAINER	TUMS6073
126	2	5TH-6TH& REV. SYNC. ASSY	TUES10696
127	2	HUB - TRANS 5TH-6TH-REV SYNCHRO.	TUMZ6059
128	6	STRUT (5TH-6TH-REV)	TUNS5793
129	2	SLEEVE-SYNC 5TH-6TH-REV	TUCL10697
130	5	SNAP RING (5TH-6TH-REV)	1386-139-001
131	3	DOUBLE CONE SYSTEM 67.5mm (5TH-6TH-REV)	TUES5787
132	1	BEARING - REV MAINSHAFT	1386-132-003
133	1	GEAR REVERSE DRIVEN ASSY	TUEE7697
134	2	WASHER - THRUST REVERSE	1386-193-004
135	2	WASHER (M.S. BEARING)	1386-193-006
136	2	BALL	10J000008
137	1	SPEEDOMETER GEAR	TUEV1276
138	1	GEAR SPEEDOMETER GEAR	TCEV4259
139	1	SPEEDOMETER GEAR RETAINING SNAP RING	2604502
140	1	TAPERED ROLLER BEARING FRONT	TUBA6913
142	1	ROLLER BEARING CONE ASSEMBLY	TUBA6966
143	1	WASHER THRUST SPACER	TURA6909
144	1	SPACER BEARING 6TH	TUMS7335
145	1	BEARING ASSY NEEDLE	1000-132-046
147	1	SPACER BEARING 5TH	TUMS7334
148	1	BEARING - 5TH GEAR NEEDLE	1386-132-005
150	1	REVERSE GEAR DRIVE	TUEN7698
151	1	RETAINER-SNAP RING (REVERSE)	AA20-139-011
152	3	BOLT SHOULDER	TUTN5894
153	1	BRACKET REV. IDLER SHAFT	TURB5933
154	1	SHAFT REVERSE IDLER	1386-068-002
155	1	BEARING REVERSE-IDLER	1386-132-006
156	1	REVERSE IDLER GEAR	TUEN7699

VARIABLE PARTS		TRANSMISSION ASSEMBLY											
		TUET11009		TUET16885		TUET11012		TUET11010		TUET16884		TUET11011	
ITEM	PART NAME	QTY.	PART NUMBER	QTY.	PART NUMBER	QTY.	PART NUMBER	QTY.	PART NUMBER	QTY.	PART NUMBER	QTY.	PART NUMBER
29	STUD-CLUTCH RELEASE LEVER	N/A	NOT USED	N/A	NOT USED	N/A	NOT USED	1	TNTN1261	1	TNTN1261		TNTN1261
31	FRONT ADAPTER ASSY	1	TUEP7311	1	TUEP7311	1	TUEP7311	1	TUEP7371	1	TUEP7371	1	TUEP7371
32	FRONT ADAPTER	1	TUCM7311	1	TUCM7311	1	TUCM7311	1	TUCM7371	1	TUCM7371	1	TUCM7371
38	O-RING (GUIDE TUBE)	N/A	NOT USED	N/A	NOT USED	N/A	NOT USED	1	1300-141-134	1	1300-141-134	1	1300-141-134
39	GUIDE TUBE	N/A	NOT USED	N/A	NOT USED	N/A	NOT USED	1	1386-034-006	1	1386-034-006	1	1386-034-006
97	INPUT SHAFT	1	TUFM8203	1	TUFM8203	1	TUFM8203	1	TUFM7310	1	TUFM7310	1	TUFM7310
108	3RD SPEED GEAR ASSY	1	TUEE8292	1	TUEE7581	1	TUEE7581	1	TUEE8292	1	TUEE7581	1	TUEE7581
111	2ND SPEED GEAR ASSY	1	TUEE10227	1	TUEE10098	1	TUEE10098	1	TUEE10227	1	TUEE10098	1	TUEE10098
119	1ST SPEED GEAR ASSY	1	TUEE10024	1	TUEE10100	1	TUEE10100	1	TUEE10024	1	TUEE10100	1	TUEE10100
121	6TH SPEED GEAR DRIVEN	1	TUEN7119	1	TUEN7119	1	TUEN10299	1	TUEN7119	1	TUEN7119	1	TUEN10299
122	5TH SPEED GEAR DRIVEN	1	TUEN7118	1	TUEN7118	1	TUEN10298	1	TUEN7118	1	TUEN7118	1	TUEN10298
141	GEAR CLUSTER	1	TUCF10228	1	TUCF10289	1	TUCF10289	1	TUCF10228	1	TUCF10289	1	TUCF10289
146	6TH SPEED GEAR ASSY	1	TUEE11215	1	TUEE11215	1	TUEE8144	1	TUEE11215	1	TUEE11215	1	TUEE8144
149	5TH SPEED GEAR ASSY	1	TUEE16454	1	TUEE16454	1	TUEE13524	1	TUEE16454	1	TUEE16454	1	TUEE13524

Features and Dimensions

1 Forward shift provision[1]
2 Standard reversible rear shifter[2]
3 Reverse inhibitor solenoid
4 Fluid drain and fill ports
5 Mechanical speedometer output
6 Common ‘T-56’ style bolt pattern
7 Mounted pad for OEM style hydraulic slave or aftermarket guide tube
8 Clutch fork exit window
9 Electronic speedometer output
10 Reverse light switch
11 Slip yoke output
12 Transmission mount location.

A. Input shaft length from front face of transmission
B. Standard shifter location from front face of transmission.
C. Optional shifter location from front face of transmission.
D. Optional shifter location from front face of transmission[1]
E. Height at transmission face.
F. Width at transmission face.
G. Trans mount pad from front face of transmission.
H. Overall length.
I. Trans mount pad to main shaft centerline.



Quick Specs

Forward Gears	6
Shifter Positions	3
Torque Capacity	Up to 700 lb-ft / 949 N-m
Max Rated RPM	7800
Overdrive	Double
Output Splines	31
Release Type	Hydraulic or Mechanical
Speedo Output	Mechanical (7 tooth) and Electronic (12 tooth)
Dry Weight	140 lbs / 64 kg
Fluid Capacity	3.66 quart / 3.46 liter

Available Models

Part Number	Style	Torque Rating	Input Spline	Gear Ratios						
				1st	2nd	3rd	4th	5th	6th	R
TUET11009	GM	700 lb-ft	26	2.66	1.78	1.30	1.00	0.80	0.63	2.90
TUET16885	GM	700 lb-ft	26	2.97	2.10	1.46	1.00	0.80	0.63	2.90
TUET11012	GM	700 lb-ft	26	2.97	2.10	1.46	1.00	0.74	0.50	2.90
TUET11010	Ford	700 lb-ft	26	2.66	1.78	1.30	1.00	0.80	0.63	2.90
TUET16884	Ford	700 lb-ft	26	2.97	2.10	1.46	1.00	0.80	0.63	2.90
TUET11011	Ford	700 lb-ft	26	2.97	2.10	1.46	1.00	0.74	0.50	2.90

Lubrication Specifications

For all MAGNUM 6-speed models, TREMEC recommends TREMEC High Performance Manual Transmission Fluid (HP-MTF™), Dexron-III or Mobil 1 Synthetic ATF. Fluid capacity is 3.66 quart / 3.46 liter.

California Proposition 65 Warning

This product can expose you to chemicals, including 2-Ethoxyethanol, Methyl 1 Isobutyl Ketone, and Ethyl Acrylate which are known to the State of California to cause cancer, birth defects or other reproductive harm.
For more information, visit the California Office of Environmental Health Hazard Assessment website at: California proposition 65 (https://www.p65warnings.ca.gov/)

Fastener Tightening Specifications

Bolt Torque (Dry Thread)				
No.*	**Bolt**	**Description**	**Torque**	
28	M10X1.5x40	Front adapter-case/ Extension Case	31-40 ft. lbs	43-54n-m
49	9/16"-18UNF-2A	Case plug-oil return	11-18 ft. lbs	15-24n-m
50	1/2-14 NPTF socket head	Fill/ drain plug	15-25 ft. lbs	20-34n-m
91	M8X1.25x20	Inhibitor housing-case	11-15 ft. lbs	15-20n-m
54	NA	Rail detent, Guide	25-29 ft lbs	34-47nm
77	NA	Mechanical speedo bolt	7.5 ft lbs	10nm
51	M20X1.5-6g	Solenoid-Rev. Inhibitor	25-35 ft. lbs	34-47n-m
79	M6X1.0x14.6 hex flange	Elect. Speedo	6-9 ft. lbs	8-12n-m
61	M8X1.25x30	Fwd cover (FNT Driver/Rear Pass	18-22 ft. lbs	24-30n-m
28	NA	Front Cover bolts	31-35 ft. lbs	43-54nm
60	M8X1.25X30	Fwd cover(fnt pass / rear driver)	12-24 ft. lbs	16-32n-m
55	NA	Back-up switch	15-25 ft. lbs	20-34n-m
36	M20X1.5-6g	Detent capsule	25-35 ft. lbs	34-47n-m
153	M8X1.25-6g flange/18.25 shoulder	Rev idler plate 35L	19-25 ft. lbs	26-34n-m
58	M8X1.25 -12.3 shoulder/12 thd	Guideplate T40 Torx	12-20 ft. lbs	16-27n-m
56	M10X1.5-6g Special stud end	Interlock pin T40 Torx	15-25 ft. lbs	20-34n-m

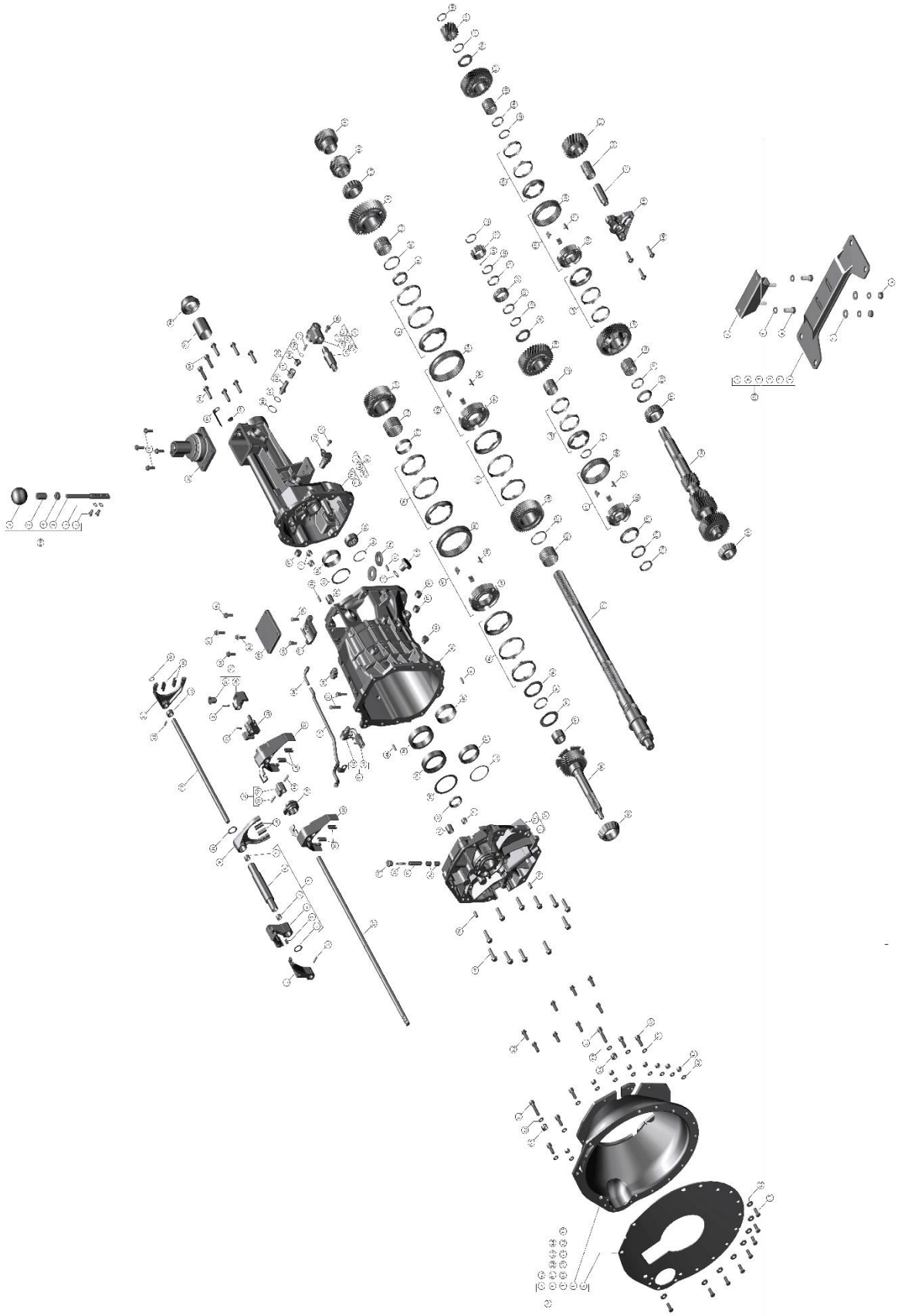
** See Disassembled Parts Illustration/Legend*

Shimming Specifications

Description	Shim to Attain
Input Shaft / Mainshaft Shim	Endplay of 0.001 to 0.005 inch (0.0127 to 0.0889 mm)
Countershaft Shim	Preload of 0.001 to 0.005 inch (0.0127 to 0.0889 mm)

Section 3: Magnum XL Specifications

Magnum XL Manual Transmission Disassembled View



Legend for Magnum XL Manual Transmission Disassembled View

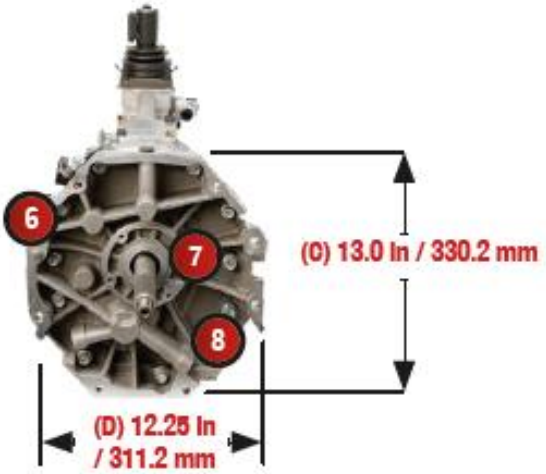
TRANSMISSION ASSEMBLY			TUET11940
ITEM	QTY.	PART NAME	PART NUMBER
1	1	LEVER SHIFT (REVERSE)	TULE7572
2	2	PIN - SLOTTED SPRING	1000-043-016
3	1	5TH-6TH LEVER ASSY	TUEC6200
4	1	RING - RETAINING 5TH-6TH LEVER	1386-139-007
5	1	PAD - SHIFT FORK	1386-235-002
6	1	LEVER 5TH-6TH SHIFT	TULE6200
7	5	BUSHING - TOP SHIFT RAIL	1386-127-001
8	1	5TH FORK RAIL	TUTB6890
9	1	FORK 5TH-6TH SHIFT	TUHR6106
10	8	PAD - SHIFT FORK	1386-235-001
11	1	RING RETAINING	1300-139-001
12	1	RAIL REVERSE SHIFT	TUBR5842
13	1	COLLAR - REV SHIFT	1386-103-003
14	3	ROLL PIN	1332-043-004
15	1	FORK REVERSE SHIFT	TUHR6107
16	1	RING SNAP	1386-139-004
17	1	SHAFT - TOP SHIFTER	TUBR11721
18	1	FORK 3RD-4TH GEAR SHIFT	TUHR6058
19	1	INTERLOCK	TUTP16714
20	1	ASSY SHIFT SELECTOR	TUEC16713
21	1	PIN SELECTOR SHAFT	TUPE16712
22	1	BODY - SHIFT SELECTOR	TULE16713
23	1	FORK 1ST - 2ND GEAR SHIFT	TUHR7329
24	1	OFFSET LEVER	TULE7644
25	1	ASSY REAR OFFSET	1386-598-016
26	1	OFFSET LEVER (REAR)	1386-098-016
27	1	SLEEVE - DAMPER	1352-127-009
28	17	BOLT HEX. WASHER HEAD	1386-183-001
29	2	DOWEL PIN	1300-043-009
30	1	FRONT ADAPTER ASSY	TUEP7311
31	1	FRONT ADAPTER	TUCM7311
32	2	BUSHING ROLLER DETENT	TUSP2040
33	1	ROLLER DETENT	TUPE2047
34	1	SPRING SHIFT DETENT	TURE2046
35	1	ROLLER DETENT BOLT	TUTN2096
36	2	LINEAR BEARING	TUBA7952
37	1	SEAL OIL (RETAINER)	TSCJ1428
38	A/R	SHIM FRONT BEARING RETAINER	TDMS1337
		TDMS1338, TDMS1339, TDMS1340,TDMS1366, TDMS1367, TDMS7440,	
		TDMS7441, TDMS7442, TDMS7443, TDMS7444	
39	1	CUP (INPUT SHAFT)	TUBA6772
40	1	CUP (M.S. INTERMEDIATE)	TUBA6774
41	A/R	BEARING SHIM	1386-037-005 THRU 37
42	1	RACE BEARING CLUSTER GEAR	TUBA6914
43	1	BEARING TAPERED ROLLER CUP	TUBA6967
44	4	DOWEL PIN	141199
45	1	CASE TRANSMISSION	TUCA6918
46	1	PLUG SCREW	TUTN7205
47	3	SOCKET HEAD PIPE PLUG	1300-052-007
48	1	SHIFT PLUG	1386-052-001
49	1	O'RING SOLENOIDE	1300-141-117
50	1	CLIP SWITCH ASSEMBLY	TCEM1728
51	1	CLIP	TCMS1727
52	1	SWICH BACK UP	1300-140-012
53	2	INTERLOCK BOLT	1386-183-003
54	1	ASSY SHIFT DETENT	1386-608-006
55	1	TRANS. VENT PIPE ASSY	TUMS5100
56	1	CONNECTOR VENT BODY	1300-072-004
57	1	PLATE - DETENT & GUIDE	TUPT7092
58	2	SHIFT GUIDE PLATE, BOLT	1386-183-002
59	1	COVER MAIN CASE	TUPT4311
60	2	HEX. M8-1.25X30 BOLT	W500425
61	6	BOLT - M8 THREAD ROLLING	1300-183-034
62	1	RING - RETAINING	1386-139-005
63	1	ASSY - ROLLER BEARING	1386-134-001
64	2	MAGNET	4915
65	1	RING-RETAINER	1300-139-043
66	1	ROLLER BEARING	TUBA6919
67	1	REAR EXTENSION ASSY	TUEP11738
68	1	REAR EXTENSION AND BUSHING	TUEP11429
69	1	PLUG REAR EXTENSION	103892
70	1	BUSHING EXTENSION	1386-127-003
71	1	REAR EXTENSION	TUEX11429
72	1	SPEED SENSOR	4400-640-019
73	1	SPEEDOMETER BOLT	1300-183-038
74	1	ASSY REVERSE LOCKOUT	TUSW7406
75	1	SOLENOID REVERSE LOCKOUT	TUSW6588
76	1	HOUSING REVERSE LOCKOUT	TUMS7369
77	1	SPRING-REVERSE BIAS RETURN	1386-156-010
78	1	ASSY REVERSE BIAS PLUNGER	TUSW7405
79	1	RING RETAINER	1386-139-003
80	1	COLLAR - REVERSE BIAS	1386-103-002
81	1	SPRING REVERSE BIAS	TURE6892
82	1	PLUNGER - REVERSE SHIFT BIAS	TUPE7370
83	1	SNAP - RING - REV LOCKOUT	1386-139-002
84	1	O - RING - REV LOCKOUT	1300-141-120
85	1	BOLT - HEX. HEAD	1300-183-009
86	1	TAG - IDENTIFICATION	2604737
87	1	SHIFTER ASSEMBLY	TBEC9787
88	2	SOCKET HEAD CAP SCREW	TUTN17571
89	1	OIL SEAL MAIN SHAFT	TCSJ1277
90	1	CONE BEARING (INPUT SHAFT)	TUBA6771
91	1	INPUT SHAFT	TUFM11716
92	1	GUIDE BEARING INPUT SHAFT	TCBA0653
93	1	AXIAL BEARING	TUBA10963
94	1	RETAINER SNAP RING	1300-139-015
95	1	THRUST WASHER	TURA10964
96	2	DBL. CONE SYS. 89 mm (3RD-4TH)	TUES13931
97	1	3RD-4TH SYNCH. ASSY	TUES10700
98	2	HUB - TRANS. 1ST-2ND-3RD-4TH SYNC.	TUMZ10699
98	2	HUB - TRANS. 1ST-2ND-3RD-4TH SYNC.	TUMZ10699
99	6	STRUT (1ST-2ND & 3RD-4TH)	TUNS7112
100	1	SLEEVE - SYNC. 3RD-4TH	TUCL10701
101	1	SPACER BEARING 3RD	TUMS7333
102	2	BEARING - ASSY NEEDLE 2ND & 3RD	1300-132-009
103	1	3RD SPEED GEAR ASSY	TUEE7581
104	1	OUTPUT SHAFT	TUFP11715
105	1	SPACER BEARING 2ND GEAR	1386-053-006
106	1	2ND SPEED GEAR ASSY DRIVEN	TUEE10098
107	1	CARBON TRIPLE CONE SYSTEM 89mm (2ND)	TUES11858
108	1	1ST - 2ND SYNC ASSY	TUES10698
109	1	SLEEVE-SYNC 1ST - 2ND	TUCL10223
110	1	BRONZE TRIPLE CONE SYSTEM 89mm (1ST)	TUES5779
111	2	SPLIT WASHER	TURA5203
112	1	SPLIT WASHER ENCLOSURE RING	TURA5202
113	1	BEARING FIRST GEAR	1386-132-002
114	1	1ST SPEED GEAR ASSEMBLY	TUEE10100
115	1	CONE BEARING (M.S. INTERMEDIATE)	TUBA6773
116	1	6TH SPEED GEAR DRIVEN	TUEN7119
117	1	5TH SPEED GEAR DRIVEN	TUEN7118
118	2	SPLIT WASHER	TURA6056
119	1	SPLIT WASHER ENCLOSURE RING	TURA6057
120	1	INSERT RETAINER	TUMS6073
121	2	5TH-6TH& REV. SYNC. ASSY	TUES10696
122	2	HUB - TRANS 5TH-6TH-REV SYNCHRO.	TUMZ6059
123	6	STRUT (5TH-6TH-REV)	TUNS5793
124	2	SLEEVE-SYNC 5TH-6TH-REV	TUCL10697
125	6	SNAP RING (5TH-6TH-REV)	1386-139-001
126	3	DOUBLE CONE SYSTEM 67.5mm (5TH-6TH-REV)	TUES5787
127	1	BEARING - REV MAINSHAFT	1386-132-003
128	1	GEAR REVERSE DRIVEN ASSY	TUEE11358
129	2	WASHER - THRUST REVERSE	1386-193-004
130	2	WASHER (M.S. BEARING)	1386-193-006
131	1	BALL	10J000008
132	1	SPEEDOMETER GEAR	TCEV1276
133	1	TAPERED ROLLER BEARING FRONT	TUBA6913
134	1	GEAR - CLUSTER	TUCF10289
135	1	ROLLER BEARING CONE ASSEMBLY	TUBA6966
136	1	WASHER THRUST SPACER	TURA6909
137	1	SPACER BEARING 6TH	TUMS7335
138	1	BEARING ASSY NEEDLE	1000-132-046
139	1	6TH SPEED GEAR ASSY	TUEE11215
140	1	SPACER BEARING 5TH	TUMS7334
141	1	BEARING - 5TH GEAR NEEDLE	1386-132-005
142	1	5TH SPEED GEAR ASSY	TUEE16454
143	1	REVERSE GEAR DRIVE	TUEN7698
144	1	RETAINER-SNAP RING (REVERSE)	AA20-139-011
145	3	BOLT SHOULDER	TUTN5894
146	1	BRACKET REV. IDLER SHAFT	TURB5933
147	1	SHAFT REVERSE IDLER	1386-068-002
148	1	BEARING REVERSE-IDLER	1386-132-006
149	1	REVERSE IDLER GEAR	TUEN11490

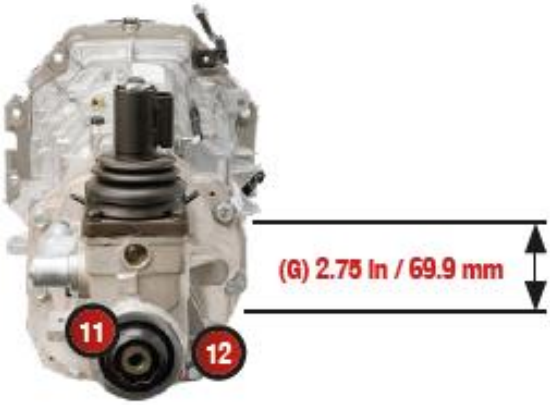
ITEM	QTY.	PART NAME	PART NUMBER
150	1	UPPER SHIFT LEVER ASSY KIT	TUKT9793
1	1	UPPER LEVER	TBPC9792
2	1	FERRULE - HAND BALL ADJ STOP	TUPC9797
3	1	SHIFT KNOB	39Q-44-1
4	1	HEX NUT- M12 X 1.75 THD	TUTU9804
5	2	HEX HD CAP SCREW - 5/16-18 UNC X 1/2 LG	2670450
6	2	LOCK WASHER - 5/16 EXTERNAL TOOTH	2604899
151	1	CROSS MEMBER KIT	TUKT9782
1	1	TRANS. REAR SUPPORT CROSS MEMBER	TUTP9782
2	1	MOUNT TRANSMISSION	TUMS12018
3	2	NUT M12 X 1.25	TUTU9804
4	4	LOCK WASHER M12	4E000009
5	2	FLAT WASHER Ø 1/2	2671070
6	2	1/2"-13 BOLT X 1.25"	B1821BH050C125N
152	1	KIT CLUTCH HOUSING	TUKT11839
1	1	CLUTCH HOUSING	TUCM11839
2	1	CLUTCH HOUSING STEEL PLATE	TUPT11742
3	1	ENGINE BOLT KIT	TUKT12173
3.1	2	M10 - 1.5 X 50 mm CAP SCREW	N/A
3.2	5	M10 - 1.5 X 30 mm CAP SCREW	N/A
3.3	7	M10 LOCK WASHER	N/A
3.4	1	DOWEL PIN BUSHING (LEFT)	N/A
3.5	1	DOWEL PIN BUSHING (RIGHT)	N/A
4	1	SFI BOLT KIT	TUKT12248
4.1	8	3/8"-16 X 1" HEX BOLT	N/A
4.2	8	3/8"-16 HEX NUT	N/A
4.3	8	3/8"-16 LOCK WASHER	N/A
4.4	8	3/8"-16 FLAT WASHER	N/A
5	1	TRANSMISSION BOLT KIT	TUKT12247
5.1	8	M10 - 1.5 X 30 mm FLANGED HEX BOLT WITH PATCH LOCK	N/A

Features and Dimensions

1 Extended- length (XL) extension housing
2 Shifter location that mimics several late-model applications
3 Reverse inhibitor solenoid
4 Electronic Speedometer output
5 Fluid fill and drain ports.
6 Common ‘T-56’ style bolt pattern
7 Mounted pad for OEM style hydraulic slave or aftermarket guide tube
8 Standard Magnum clutch fork exit window
9 Unique isolator – style shifter for reduced noise, vibration, and harshness (NVH)
10 Reverse light switch
11 Slip yoke output
12 Transmission mount location

A. Input shaft length from front face of transmission
B. Standard shifter location from front face of transmission.
C. Height at transmission face.
D. Width at transmission face.
E. Trans mount pad from front face of transmission.
F. Overall length.
G. Trans mount pad to main shaft centerline.





Quick Specs

Forward Gears	6
Shifter Positions	1
Torque Capacity	Up to 700 lb-ft / 949 N-m
Max Rated RPM	7800
Overdrive	Double
Output Splines	31
Release Type	Hydraulic
Speedo Output	Electronic (12 tooth)
Dry Weight	150 lbs / 68 kg
Fluid Capacity	3.66 quart / 3.46 liter

Available Models

Part Number	Application	Torque Rating	Input Spline	Gear Ratios						
				1st	2nd	3rd	4th	5th	6th	R
TUET16886	Non-Specific	700 lb-ft	26	2.66	1.78	1.30	1.00	0.80	0.63	2.90
TUET11940	Non-Specific	700 lb-ft	26	2.97	2.10	1.46	1.00	0.80	0.63	2.90
TUKT16901	'05-Up Mustang	700 lb-ft	26	2.66	1.78	1.30	1.00	0.80	0.63	2.90
TUKT12021	'05-Up Mustang	700 lb-ft	26	2.97	2.10	1.46	1.00	0.80	0.63	2.90

Lubrication Specifications

For all MAGNUM 6-speed models, TREMEC recommends TREMEC High Performance Manual Transmission Fluid (HP-MTF™), Dexron-III or Mobil 1 Synthetic ATF. Fluid capacity is 3.66 quart / 3.46 liter.

California Proposition 65 Warning

This product can expose you to chemicals, including 2-Ethoxyethanol, Methyl 1 Isobutyl Ketone, and Ethyl Acrylate which are known to the State of California to cause cancer, birth defects or other reproductive harm.
For more information, visit the California Office of Environmental Health Hazard Assessment website at: California proposition 65 (https://www.p65warnings.ca.gov/)

Fastener Tightening Specifications

Bolt Torque (Dry Thread)				
No.*	**Bolt**	**Description**	**Torque**	
28	M10X1.5x40	Front adapter-case/ Extension Case	31-40 ft. lbs	43-54n-m
49	9/16"-18UNF-2A	Case plug-oil return	11-18 ft. lbs	15-24n-m
50	1/2-14 NPTF socket head	Fill/ drain plug	15-25 ft. lbs	20-34n-m
91	M8X1.25x20	Inhibitor housing-case	11-15 ft. lbs	15-20n-m
54	NA	Rail detent, Guide	25-29 ft lbs	34-47nm
77	NA	Mechanical speedo bolt	7.5 ft lbs	10nm
51	M20X1.5-6g	Solenoid-Rev. Inhibitor	25-35 ft. lbs	34-47n-m
79	M6X1.0x14.6 hex flange	Elect. Speedo	6-9 ft. lbs	8-12n-m
61	M8X1.25x30	Fwd cover (FNT Driver/Rear Pass	18-22 ft. lbs	24-30n-m
28	NA	Front Cover bolts	31-35 ft. lbs	43-54nm
60	M8X1.25X30	Fwd cover(fnt pass / rear driver)	12-24 ft. lbs	16-32n-m
55	NA	Back-up switch	15-25 ft. lbs	20-34n-m
36	M20X1.5-6g	Detent capsule	25-35 ft. lbs	34-47n-m
153	M8X1.25-6g flange/18.25 shoulder	Rev idler plate 35L	19-25 ft. lbs	26-34n-m
58	M8X1.25 -12.3 shoulder/12 thd	Guideplate T40 Torx	12-20 ft. lbs	16-27n-m
56	M10X1.5-6g Special stud end	Interlock pin T40 Torx	15-25 ft. lbs	20-34n-m

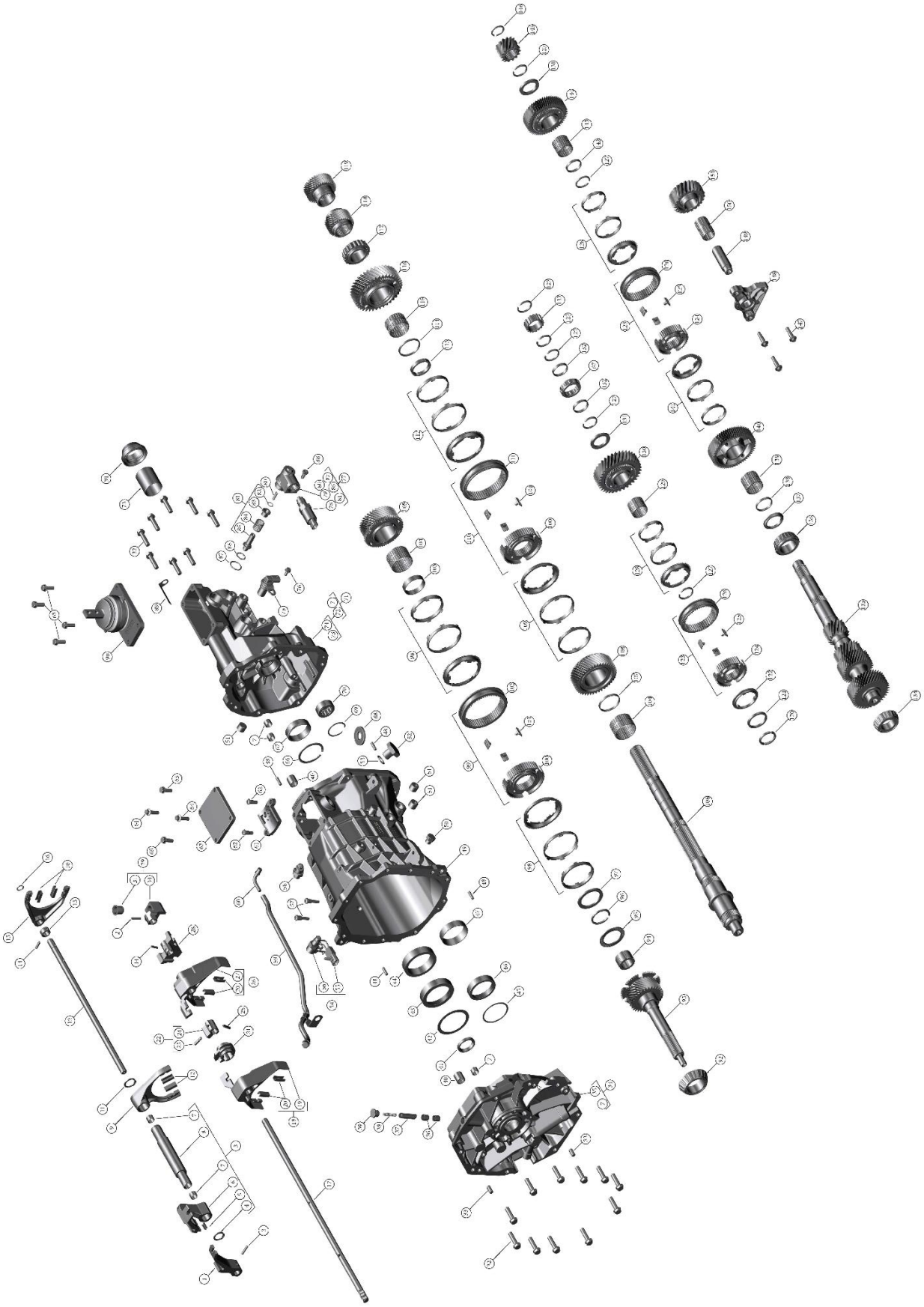
** See Disassembled Parts Illustration/Legend*

Shimming Specifications

Description	Shim to Attain
Input Shaft / Mainshaft Shim	Endplay of 0.001 to 0.005 inch (0.0127 to 0.0889 mm)
Countershaft Shim	Preload of 0.001 to 0.005 inch (0.0127 to 0.0889 mm)

Section 4: Magnum F Specifications

Magnum F Manual Transmission Disassembled View



Legend for Magnum F Manual Transmission Disassembled View

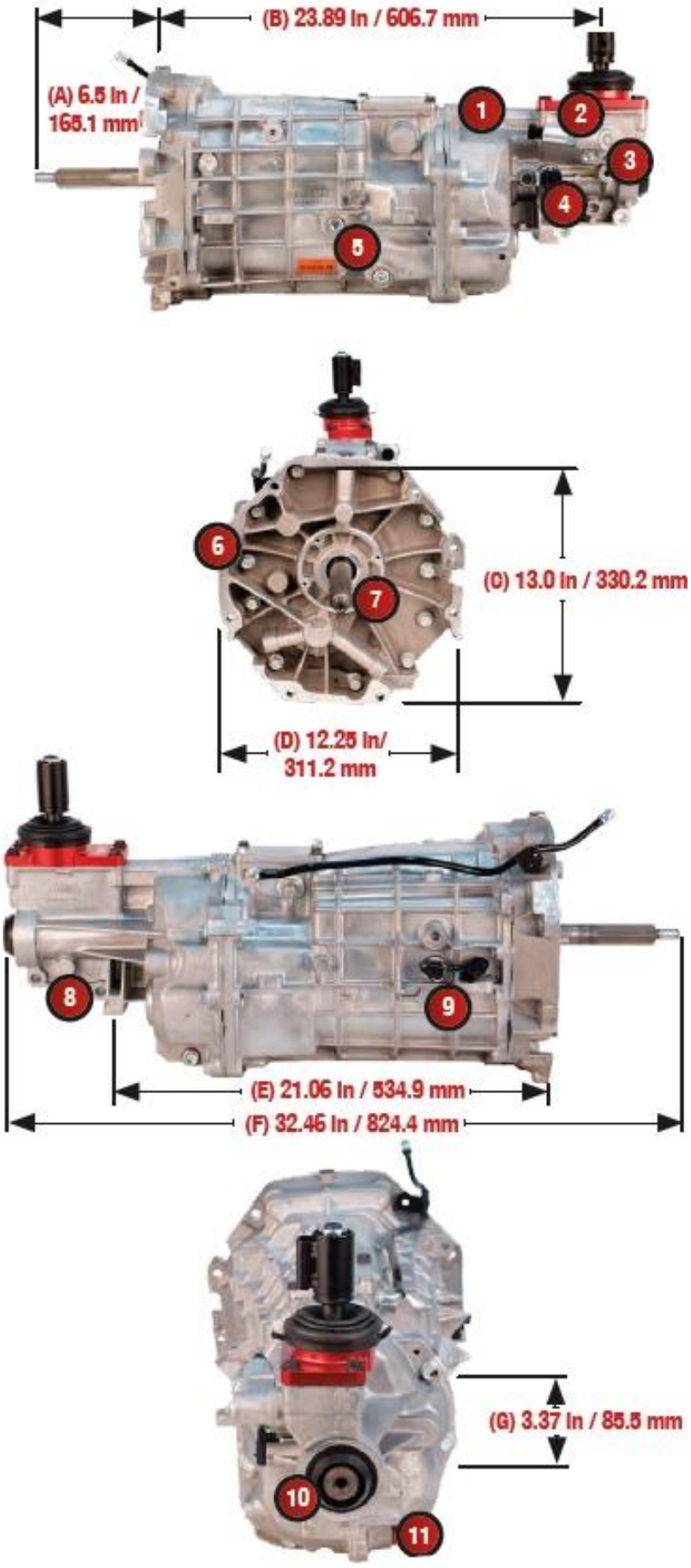
ITEM	QTY.	PART NAME	PART NUMBER
1	1	LEVER SHIFT (REVERSE)	TULE7572
2	2	PIN - SLOTTED SPRING	1000-043-016
3	1	5TH-6TH LEVER ASSY	TUEC6200
4	1	RING - RETAINING 5TH-6TH LEVER	1386-139-007
5	1	PAD - SHIFT FORK	1386-235-002
6	1	LEVER 5TH-6TH SHIFT	TULE6200
7	5	BUSHING - TOP SHIFT RAIL	1386-127-001
8	1	5TH FORK RAIL	TUTB6890
9	1	FORK 5TH-6TH SHIFT	TUHR6106
10	4	PAD - SHIFT FORK	1386-235-001
11	1	RING RETAINING	1300-139-001
12	1	RAIL REVERSE SHIFT	TUBR5842
13	1	COLLAR - REV SHIFT	1386-103-003
14	2	ROLL PIN	1332-043-004
15	1	FORK REVERSE SHIFT	TUHR6107
16	1	RING SNAP	1386-139-004
17	1	SHAFT - TOP SHIFTER	TUBR16380
18	1	FORK 3RD-4TH ASSY	TUKT8634
19	1	FORK 3RD-4TH GEAR SHIFT	TUHR6058
20	4	PAD - SHIFT FORK	TUMS7571
21	1	INTERLOCK	TUTP13215
22	1	ASSY SHIFT SELECTOR	TUEC12197
23	1	PIN SELECTOR SHAFT	TUPE12904
24	1	BODY - SHIFT SELECTOR	TULE12197
25	1	COILED PIN	TUPE12212
26	1	FORK 1ST-2ND ASSY	TUKT8637
27	1	FORK 1ST - 2ND GEAR SHIFT	TUHR7329
28	1	OFFSET LEVER	TULE12082
29	1	ASSY REAR OFFSET	1386-598-016
30	1	OFFSET LEVER (REAR)	1386-098-016
31	1	SLEEVE - DAMPER	1352-127-009
32	19	BOLT HEX. WASHER HEAD	1386-183-001
33	2	DOWEL PIN	1300-043-009
34	1	FRONT ADAPTER ASSY	TUEP7311
35	1	FRONT ADAPTER	TUCM7311
36	2	BUSHING ROLLER DETENT	TUSP2040
37	1	ROLLER DETENT	TUPE2047
38	1	SPRING SHIFT DETENT	TURE2046
39	1	ROLLER DETENT BOLT	TUTN2096
40	2	LINEAR BEARING	TUBA7952
41	1	SEAL OIL (RETAINER)	TSCJ1428
42	A/R	SHIM FRONT BEARING RETAINER	TDMS1337
		TDMS1338, TDMS1339, TDMS1340,TDMS1366, TDMS1367, TDMS7440,	
		TDMS7441, TDMS7442, TDMS7443, TDMS7444	
43	1	CUP (INPUT SHAFT)	TUBA6772
44	1	CUP (M.S. INTERMEDIATE)	TUBA6774
45	A/R	BEARING SHIM	1386-037-005 THRU 37
46	1	RACE BEARING CLUSTER GEAR	TUBA6914
47	1	BEARING TAPERED ROLLER CUP	TUBA6967
48	4	DOWEL PIN	141199
49	1	CASE TRANSMISSION	TUCA6918
50	1	PLUG SCREW	TUTN7205
51	3	SOCKET HEAD PIPE PLUG	1300-052-007
52	1	SHIFT PLUG	1386-052-001
53	1	O'RING SOLENOIDE	1300-141-117
54	1	CLIP SWITCH ASSEMBLY	TCEM1728
55	1	CLIP	TCMS1727
56	1	SWICH BACK UP	1300-140-012
57	2	INTERLOCK BOLT	1386-183-003
58	1	ASSY SHIFT DETENT	TUTN11627
59	1	TRANS. VENT PIPE ASSY	TUMS5100
60	1	CONNECTOR VENT BODY	1300-072-004
61	1	PLATE - DETENT & GUIDE	TUPT7092
62	2	SHIFT GUIDE PLATE, BOLT	1386-183-002
63	1	COVER MAIN CASE	TUPT4311
64	2	HEX. M8-1.25X30 BOLT	W500425
65	6	BOLT - M8 THREAD ROLLING	1300-183-034
66	1	RING - RETAINING	1386-139-005
67	1	ASSY - ROLLER BEARING	1386-134-001
68	1	MAGNET	4915
69	1	RING-RETAINER	1300-139-043
70	1	ROLLER BEARING	TUBA6919
71	1	REAR EXTENSION ASSY	TUEP16382
72	1	REAR EXTENSION AND BUSHING	TUEP16381
73	1	BUSHING EXTENSION	1386-127-003
74	1	REAR EXTENSION	TUEX16381
75	1	SPEED SENSOR	TNSW1137
76	1	SPEEDOMETER BOLT	1300-183-038
77	1	ASSY REVERSE LOCKOUT	TUSW7406
78	1	SOLENOID REVERSE LOCKOUT	TUSW6588
79	1	HOUSING REVERSE LOCKOUT	TUMS7369
80	1	SPRING-REVERSE BIAS RETURN	1386-156-010
81	1	ASSY REVERSE BIAS PLUNGER	TUSW7405
82	1	RING RETAINER	1386-139-003
83	1	COLLAR - REVERSE BIAS	1386-103-002
84	1	SPRING REVERSE BIAS	TURE6892
85	1	PLUNGER - REVERSE SHIFT BIAS	TUPE7370
86	1	SNAP - RING - REV LOCKOUT	1386-139-002
87	1	O - RING - REV LOCKOUT	1300-141-120
88	1	BOLT - HEX. HEAD	1300-183-002
89	1	TAG - IDENTIFICATION	2604737
90	1	SHIFTER ASSEMBLY	TUEC16384
91	1	OIL SEAL MAIN SHAFT	TCSJ1277
92	1	CONE BEARING (INPUT SHAFT)	TUBA6771
93	1	INPUT SHAFT	TUFM10718
94	1	GUIDE BEARING INPUT SHAFT	TCBA0653
95	1	AXIAL BEARING	TUBA10963
96	1	RETAINER SNAP RING	1300-139-015
97	1	THRUST WASHER	TURA10964
98	2	DBL. CONE SYS. 89 mm (3RD-4TH)	TUES13927
99	1	3RD-4TH SYNCH. ASSY	TUES10700
100	2	HUB - TRANS. 1ST-2ND-3RD-4TH SYNC.	TUMZ10699
101	6	STRUT (1ST-2ND & 3RD-4TH)	TUNS7112
102	1	SLEEVE - SYNC. 3RD-4TH	TUCL10701
103	1	SPACER BEARING 3RD	TUMS7333
104	2	BEARING - ASSY NEEDLE 2ND & 3RD	1300-132-009
106	1	OUTPUT SHAFT	TUFP16385
107	1	SPACER BEARING 2ND GEAR	1386-053-006
109	1	CARBON TRIPLE CONE SYSTEM 89mm (2ND)	TUES11858
110	1	1ST - 2ND SYNC ASSY	TUES10698
111	1	SLEEVE-SYNC 1ST - 2ND	TUCL10223
112	1	BRONZE TRIPLE CONE SYSTEM 89mm (1ST)	TUES5779
113	2	SPLIT WASHER	TURA5203
114	1	SPLIT WASHER ENCLOSURE RING	TURA5202
115	1	BEARING FIRST GEAR	1386-132-002
117	1	CONE BEARING (M.S. INTERMEDIATE)	TUBA6773
120	2	SPLIT WASHER	TURA6056
121	1	SPLIT WASHER ENCLOSURE RING	TURA6057
122	1	INSERT RETAINER	TUMS6073
123	2	5TH-6TH& REV. SYNC. ASSY	TUES10696
124	2	HUB - TRANS 5TH-6TH-REV SYNCHRO.	TUMZ6059
125	6	STRUT (5TH-6TH-REV)	TUNS5793
126	2	SLEEVE-SYNC 5TH-6TH-REV	TUCL10697
127	7	SNAP RING (5TH-6TH-REV)	1386-139-001
128	2	DOUBLE CONE SYSTEM 67.5mm (5TH-REV)	TUES13928
129	1	BEARING - REV MAINSHAFT	1386-132-003
130	1	GEAR REVERSE DRIVEN ASSY	TUEE7697
131	2	WASHER - THRUST REVERSE	1386-193-004
132	2	WASHER (M.S. BEARING)	1386-193-006
133	1	SPEEDOMETER GEAR	TUEV2036
134	1	TAPERED ROLLER BEARING FRONT	TUBA6913
136	1	ROLLER BEARING CONE ASSEMBLY	TUBA6966
137	1	WASHER THRUST SPACER	TURA6909
138	1	SPACER BEARING 6TH	TUMS7335
139	1	BEARING ASSY NEEDLE	1000-132-046
141	1	DOUBLE CONE SYSTEM 67.5mm HYBRID (6TH)	TUES13926
142	1	SPACER BEARING 5TH	TUMS7334
143	1	BEARING - 5TH GEAR NEEDLE	1386-132-005
145	1	REVERSE GEAR DRIVE	TUEN7698
146	1	RETAINER-SNAP RING (REVERSE)	AA20-139-011
147	3	BOLT SHOULDER	TUTN5894
148	1	BRACKET REV. IDLER SHAFT	TURB5933
149	1	SHAFT REVERSE IDLER	1386-068-002
150	1	BEARING REVERSE-IDLER	1386-132-006
151	1	REVERSE IDLER GEAR	TUEN7699

VARIABLE PARTS		TRANSMISSION ASSEMBLY					
		TUET16362		TUET16363		TUET17638	
ITEM	PART NAME	QTY.	PART NUMBER	QTY.	PART NUMBER	QTY.	PART NUMBER
105	3RD SPEED GEAR ASSY	1	TUEE8292	1	TUEE7581	1	TUEE7581
108	2ND SPEED GEAR ASSY DRIVEN	1	TUEE10227	1	TUEE10098	1	TUEE10098
116	1ST SPEED GEAR ASSEMBLY	1	TUEE10024	1	TUEE10100	1	TUEE10100
118	6TH SPEED GEAR DRIVEN	1	TUEN7119	1	TUEN7119	1	TUEN10299
119	5TH SPEED GEAR DRIVEN	1	TUEN7118	1	TUEN7118	1	TUEN10298
135	GEAR - CLUSTER	1	TUCF10228	1	TUCF10289	1	TUCF10289
140	6TH SPEED GEAR ASSY	1	TUEE11215	1	TUEE11215	1	TUEE8144
144	5TH SPEED GEAR ASSY	1	TUEE16454	1	TUEE16454	1	TUEE13524

Features and Dimensions

1 4th-Gen ‘F-Body’ extension housing
2 4th-Gen ‘F-Body’ shifter location
3 Reverse inhibitor solenoid
4 Electronic speedometer output
5 Fluid drain and fill ports
6 Common ‘T-56’ style bolt pattern, works with factory LS1 and LS2 bellhousings
7 Mounted pad for OEM style hydraulic slave or aftermarket guide tube
8 Provision for factory 4th-Gen ‘F-Body’ torque arm
9 Reverse light switch
10 31-spline slip yoke output
11 Transmission mount location.

A. Input shaft length from front face of transmission
B. Standard shifter location from front face of transmission.
C. Height at transmission face.
D. Width at transmission face.
E. Trans mount pad from front face of transmission.
F. Overall length.
G. Trans mount pad to main shaft centerline.



Quick Specs

Forward Gears	6
Shifter Positions	1
Torque Capacity	Up to 700 lb-ft / 949 N-m
Max Rated RPM	7800
Overdrive	Double
Output Splines	31
Release Type	Hydraulic
Speedo Output	Electronic (16 tooth)
Dry Weight	140 lbs / 64 kg
Fluid Capacity	3.66 quart / 3.46 liter

Available Models

Part Number	Style	Torque Rating	Input Spline	Gear Ratios						
				1st	2nd	3rd	4th	5th	6th	R
TUET16362	GM	700 lb-ft	26	2.66	1.78	1.30	1.00	0.80	0.63	2.90
TUET16363	GM	700 lb-ft	26	2.97	2.10	1.46	1.00	0.80	0.63	2.90
TBD	GM	700 lb-ft	26	2.66	1.78	1.30	1.00	0.74	0.50	2.90
TUET17638	GM	700 lb-ft	26	2.97	2.10	1.46	1.00	0.74	0.50	2.90

Lubrication Specifications

For all MAGNUM 6-speed models, TREMEC recommends TREMEC High Performance Manual Transmission Fluid (HP-MTF™), Dexron-III or Mobil 1 Synthetic ATF. Fluid capacity is 3.66 quart / 3.46 liter.

California Proposition 65 Warning

This product can expose you to chemicals, including 2-Ethoxyethanol, Methyl 1 Isobutyl Ketone, and Ethyl Acrylate which are known to the State of California to cause cancer, birth defects or other reproductive harm.
For more information, visit the California Office of Environmental Health Hazard Assessment website at: California proposition 65 (https://www.p65warnings.ca.gov/)

Fastener Tightening Specifications

Bolt Torque (Dry Thread)				
No.*	**Bolt**	**Description**	**Torque**	
28	M10X1.5x40	Front adapter-case/ Extension Case	31-40 ft. lbs	43-54n-m
49	9/16"-18UNF-2A	Case plug-oil return	11-18 ft. lbs	15-24n-m
50	1/2-14 NPTF socket head	Fill/ drain plug	15-25 ft. lbs	20-34n-m
91	M8X1.25x20	Inhibitor housing-case	11-15 ft. lbs	15-20n-m
54	NA	Rail detent, Guide	25-29 ft lbs	34-47nm
77	NA	Mechanical speedo bolt	7.5 ft lbs	10nm
51	M20X1.5-6g	Solenoid-Rev. Inhibitor	25-35 ft. lbs	34-47n-m
79	M6X1.0x14.6 hex flange	Elect. Speedo	6-9 ft. lbs	8-12n-m
61	M8X1.25x30	Fwd cover (FNT Driver/Rear Pass	18-22 ft. lbs	24-30n-m
28	NA	Front Cover bolts	31-35 ft. lbs	43-54nm
60	M8X1.25X30	Fwd cover(fnt pass / rear driver)	12-24 ft. lbs	16-32n-m
55	NA	Back-up switch	15-25 ft. lbs	20-34n-m
36	M20X1.5-6g	Detent capsule	25-35 ft. lbs	34-47n-m
153	M8X1.25-6g flange/18.25 shoulder	Rev idler plate 35L	19-25 ft. lbs	26-34n-m
58	M8X1.25 -12.3 shoulder/12 thd	Guideplate T40 Torx	12-20 ft. lbs	16-27n-m
56	M10X1.5-6g Special stud end	Interlock pin T40 Torx	15-25 ft. lbs	20-34n-m

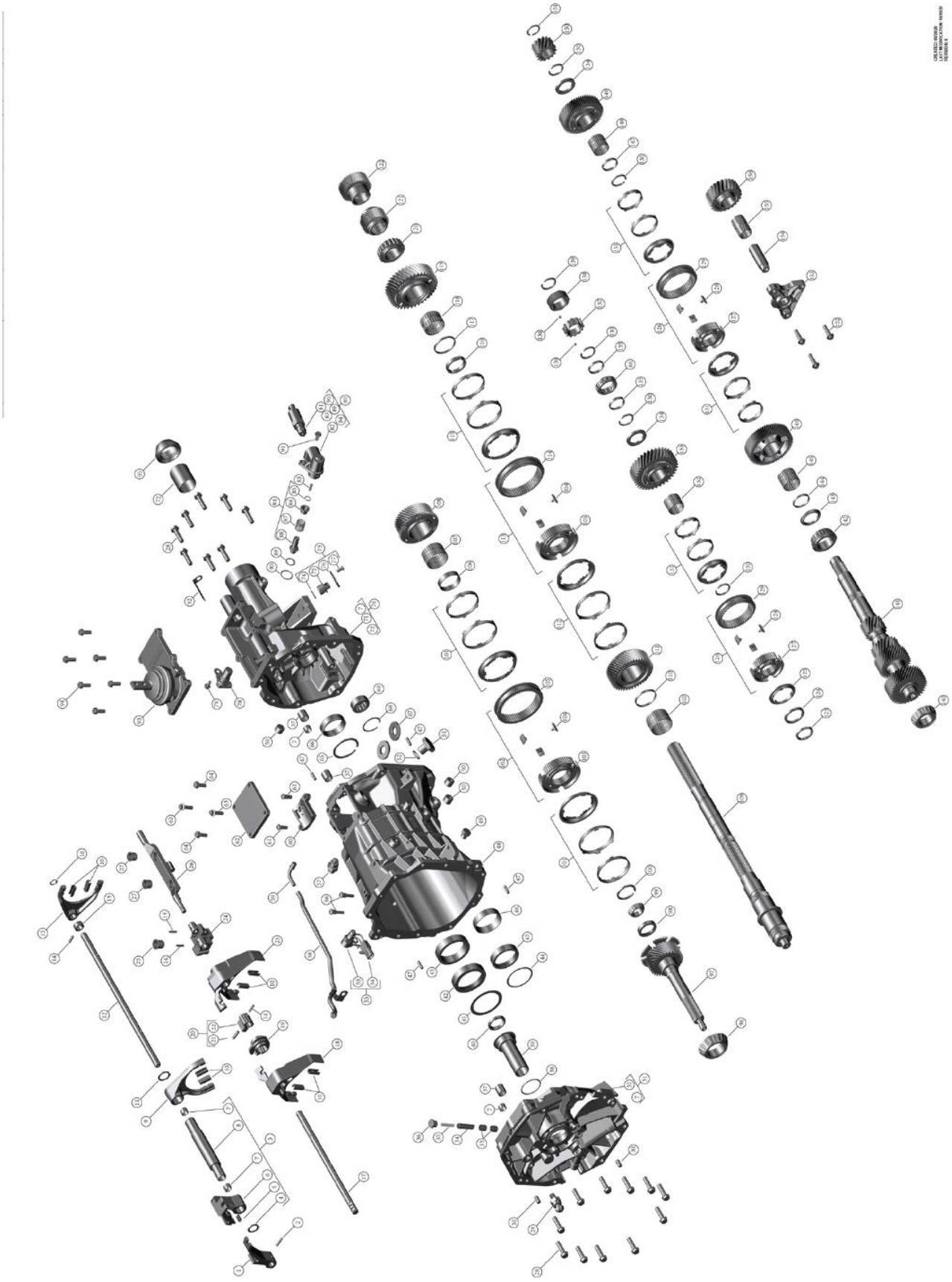
** See Disassembled Parts Illustration/Legend*

Shimming Specifications

Description	Shim to Attain
Input Shaft / Mainshaft Shim	Endplay of 0.001 to 0.005 inch (0.0127 to 0.0889 mm)
Countershaft Shim	Preload of 0.001 to 0.005 inch (0.0127 to 0.0889 mm)

Section 5: Magnum GM Specifications

Magnum GM Manual Transmission Disassembled View



Legend for Magnum GM Manual Transmission Disassembled View

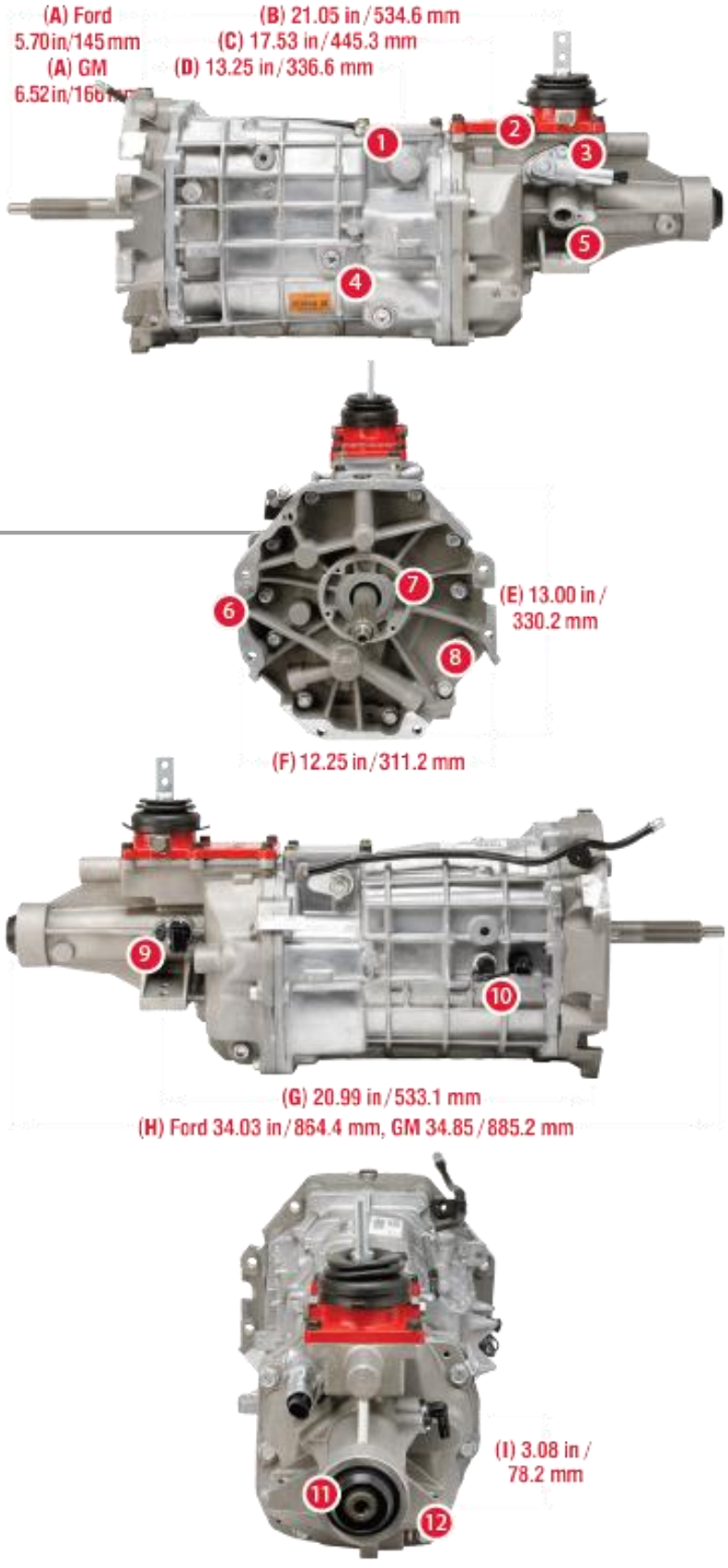
ITEM	QTY.	PART NAME	PART NUMBER
1	1	LEVER SHIFT (REVERSE)	TULE7572
2	1	PIN - SLOTTED SPRING	1000-043-016
3	1	5TH-6TH LEVER ASSY	TUEC6200
4	1	RING - RETAINING 5TH-6TH LEVER	1386-139-007
5	1	PAD - SHIFT FORK	1386-235-002
6	1	LEVER 5TH-6TH SHIFT	TULE6200
7	4	BUSHING - TOP SHIFT RAIL	1386-127-001
8	1	5TH FORK RAIL	TUTB6890
9	1	FORK 5TH-6TH SHIFT	TUHR6106
10	8	PAD - SHIFT FORK	1386-235-001
11	1	RING RETAINING	1300-139-001
12	1	RAIL REVERSE SHIFT	TUBR5842
13	1	COLLAR - REV SHIFT	1386-103-003
14	4	ROLL PIN	1332-043-004
15	1	FORK REVERSE SHIFT	TUHR6107
16	1	RING SNAP	1386-139-004
17	1	SHAFT - TOP SHIFTER	TUBR6671
18	1	FORK 3RD-4TH GEAR SHIFT	TUHR6058
19	1	INTERLOCK	TUTP16714
20	1	ASSY SHIFT SELECTOR	TUEC16713
21	1	PIN SELECTOR SHAFT	TUPE16712
22	1	BODY - SHIFT SELECTOR	TULE16713
23	1	FORK 1ST - 2ND GEAR SHIFT	TUHR7329
24	1	OFFSET LEVER	TUTP5799
25	1	SLEEVE - DAMPER	1352-127-009
26	1	SELECTOR SEAT	TUTP8543
27	2	SHIFT LEVER BUSHING	TUMS8545
28	19	BOLT HEX. WASHER HEAD	1386-183-001
30	2	DOWEL PIN	1300-043-009
33	2	BUSHING ROLLER DETENT	TUSP2040
34	1	ROLLER DETENT	TUPE2047
35	1	SPRING SHIFT DETENT	TURE2046
36	1	ROLLER DETENT BOLT	TUTN2096
37	3	LINEAR BEARING	TUBA7952
40	1	SEAL OIL (RETAINER)	TSCJ1428
41	A/R	SHIM FRONT BEARING RETAINER	TDMS1337
		TDMS1338, TDMS1339, TDMS1340,TDMS1366, TDMS1367, TDMS7440,	
		TDMS7441, TDMS7442, TDMS7443, TDMS7444	
42	1	CUP (INPUT SHAFT)	TUBA6772
43	1	CUP (M.S. INTERMEDIATE)	TUBA6774
44	A/R	BEARING SHIM	1386-037-005 THRU 37
45	1	RACE BEARING CLUSTER GEAR	TUBA6914
46	1	BEARING TAPERED ROLLER CUP	TUBA6967
47	4	DOWEL PIN	141199
48	1	CASE TRANSMISSION	TUCA6918
49	1	PLUG SCREW	TUTN7205
50	3	SOCKET HEAD PIPE PLUG	1300-052-007
51	1	SHIFT PLUG	1386-052-001
52	1	O'RING SOLENOIDE	1300-141-117
53	1	CLIP SWITCH ASSEMBLY	TCEM1728
54	1	CLIP	TCMS1727
55	1	SWICH BACK UP	1300-140-012
56	2	INTERLOCK BOLT	1386-183-003
57	1	ASSY SHIFT DETENT	1386-608-006
58	1	TRANS. VENT PIPE ASSY	TUMS5100
59	1	CONNECTOR VENT BODY	1300-072-004
60	1	PLATE - DETENT & GUIDE	TUPT7092
61	2	SHIFT GUIDE PLATE, BOLT	1386-183-002
62	1	COVER MAIN CASE	TUPT4311
63	2	HEX. M8-1.25X30 BOLT	W500425
64	6	BOLT - M8 THREAD ROLLING	1300-183-034
65	1	RING - RETAINING	1386-139-005
66	1	ASSY - ROLLER BEARING	1386-134-001
67	2	MAGNET	4915
68	1	RING-RETAINER	1300-139-043
69	1	ROLLER BEARING	TUBA6919
70	1	REAR EXTENSION ASSY	TUEP8522
71	1	REAR EXTENSION	TUEX8522
72	1	BUSHING EXTENSION	1386-127-003
73	1	PLUG KIT	30-360-1X.
74	1	O-RING	30-463-10.
75	1	SPEEDOMETER PLUG	30-39-1.
76	1	RETAINER	30-360-1.
77	2	SCREW	30-443-1
78	1	SPEED SENSOR	4400-640-019
79	1	SPEEDOMETER BOLT	1300-183-038
80	1	ASSY REVERSE LOCKOUT	TUSW7406
81	1	SOLENOID REVERSE LOCKOUT	TUSW6588
82	1	HOUSING REVERSE LOCKOUT	TUMS7369
83	1	SPRING-REVERSE BIAS RETURN	1386-156-010
84	1	ASSY REVERSE BIAS PLUNGER	TUSW7405
85	1	RING RETAINER	1386-139-003
86	1	COLLAR - REVERSE BIAS	1386-103-002
87	1	SPRING REVERSE BIAS	TURE6892
88	1	PLUNGER - REVERSE SHIFT BIAS	TUPE7370
89	1	SNAP - RING - REV LOCKOUT	1386-139-002
90	1	O - RING - REV LOCKOUT	1300-141-120
91	1	BOLT - HEX. HEAD	1300-183-002
92	1	TAG - IDENTIFICATION	2604737
93	1	SHIFTER ASSEMBLY	TUEP8542
94	6	CONTROL TOWER BOLT	2603968
95	1	OIL SEAL MAIN SHAFT	TCSJ1277
96	1	CONE BEARING (INPUT SHAFT)	TUBA6771
98	1	CUP (INPUT SHAFT)	1386-133-003
99	1	CONE BEARING (INPUT SHAFT)	1386-133-004
100	1	RETAINER SNAP RING	1300-139-015
101	2	DBL. CONE SYS. 89 mm (3RD-4TH)	TUES13931
102	1	3RD-4TH SYNCH. ASSY	TUES10700
103	2	HUB - TRANS. 1ST-2ND-3RD-4TH SYNC.	TUMZ10699
104	6	STRUT (1ST-2ND & 3RD-4TH)	TUNS7112
105	1	SLEEVE - SYNC. 3RD-4TH	TUCL10701
106	1	SPACER BEARING 3RD	TUMS7333
107	2	BEARING - ASSY NEEDLE 2ND & 3RD	1300-132-009
109	1	OUTPUT SHAFT	TUFP7308
110	1	SPACER BEARING 2ND GEAR	1386-053-006
112	1	CARBON TRIPLE CONE SYSTEM 89mm (2ND)	TUES11858
113	1	1ST - 2ND SYNC ASSY	TUES10698
114	1	SLEEVE-SYNC 1ST - 2ND	TUCL10223
115	1	BRONZE TRIPLE CONE SYSTEM 89mm (1ST)	TUES5779
116	2	SPLIT WASHER	TURA5203
117	1	SPLIT WASHER ENCLOSURE RING	TURA5202
118	1	BEARING FIRST GEAR	1386-132-002
120	1	CONE BEARING (M.S. INTERMEDIATE)	TUBA6773
123	2	SPLIT WASHER	TURA6056
124	1	SPLIT WASHER ENCLOSURE RING	TURA6057
125	1	INSERT RETAINER	TUMS6073
126	2	5TH-6TH& REV. SYNC. ASSY	TUES10696
127	2	HUB - TRANS 5TH-6TH-REV SYNCHRO.	TUMZ6059
128	6	STRUT (5TH-6TH-REV)	TUNS5793
129	2	SLEEVE-SYNC 5TH-6TH-REV	TUCL10697
130	5	SNAP RING (5TH-6TH-REV)	1386-139-001
131	3	DOUBLE CONE SYSTEM 67.5mm (5TH-6TH-REV)	TUES5787
132	1	BEARING - REV MAINSHAFT	1386-132-003
133	1	GEAR REVERSE DRIVEN ASSY	TUEE7697
134	2	WASHER - THRUST REVERSE	1386-193-004
135	2	WASHER (M.S. BEARING)	1386-193-006
136	2	BALL	10J000008
137	1	SPEEDOMETER GEAR	TUEV1276
138	1	GEAR SPEEDOMETER GEAR	TCEV4259
139	1	SPEEDOMETER GEAR RETAINING SNAP RING	2604502
140	1	TAPERED ROLLER BEARING FRONT	TUBA6913
142	1	ROLLER BEARING CONE ASSEMBLY	TUBA6966
143	1	WASHER THRUST SPACER	TURA6909
144	1	SPACER BEARING 6TH	TUMS7335
145	1	BEARING ASSY NEEDLE	1000-132-046
147	1	SPACER BEARING 5TH	TUMS7334
148	1	BEARING - 5TH GEAR NEEDLE	1386-132-005
150	1	REVERSE GEAR DRIVE	TUEN7698
151	1	RETAINER-SNAP RING (REVERSE)	AA20-139-011
152	3	BOLT SHOULDER	TUTN5894
153	1	BRACKET REV. IDLER SHAFT	TURB5933
154	1	SHAFT REVERSE IDLER	1386-068-002
155	1	BEARING REVERSE-IDLER	1386-132-006
156	1	REVERSE IDLER GEAR	TUEN7699

VARIABLE PARTS		TRANSMISSIO					
		TUET11009		TUET16885		TUET11012	
ITEM	PART NAME	QTY.	PART NUMBER	QTY.	PART NUMBER	QTY.	PART NUMBER
29	STUD-CLUTCH RELEASE LEVER	N/A	NOT USED	N/A	NOT USED	N/A	NOT USED
31	FRONT ADAPTER ASSY	1	TUEP7311	1	TUEP7311	1	TUEP7311
32	FRONT ADAPTER	1	TUCM7311	1	TUCM7311	1	TUCM7311
38	O-RING (GUIDE TUBE)	N/A	NOT USED	N/A	NOT USED	N/A	NOT USED
39	GUIDE TUBE	N/A	NOT USED	N/A	NOT USED	N/A	NOT USED
97	INPUT SHAFT	1	TUFM8203	1	TUFM8203	1	TUFM8203
108	3RD SPEED GEAR ASSY	1	TUEE8292	1	TUEE7581	1	TUEE7581
111	2ND SPEED GEAR ASSY	1	TUEE10227	1	TUEE10098	1	TUEE10098
119	1ST SPEED GEAR ASSY	1	TUEE10024	1	TUEE10100	1	TUEE10100
121	6TH SPEED GEAR DRIVEN	1	TUEN7119	1	TUEN7119	1	TUEN10299
122	5TH SPEED GEAR DRIVEN	1	TUEN7118	1	TUEN7118	1	TUEN10298
141	GEAR CLUSTER	1	TUCF10228	1	TUCF10289	1	TUCF10289
146	6TH SPEED GEAR ASSY	1	TUEE11215	1	TUEE11215	1	TUEE8144
149	5TH SPEED GEAR ASSY	1	TUEE16454	1	TUEE16454	1	TUEE13524

Features and Dimensions

1 Forward shift provision[1]
2 Standard reversible rear shifter[2]
3 Reverse inhibitor solenoid
4 Fluid drain and fill ports
5 Mechanical speedometer output
6 Common ‘T-56’ style bolt pattern
7 Mounted pad for OEM style hydraulic slave or aftermarket guide tube
8 Clutch fork exit window
9 Electronic speedometer output
10 Reverse light switch
11 Slip yoke output
12 Transmission mount location.

A. Input shaft length from front face of transmission
B. Standard shifter location from front face of transmission.
C. Optional shifter location from front face of transmission.
D. Optional shifter location from front face of transmission[1]
E. Height at transmission face.
F. Width at transmission face.
G. Trans mount pad from front face of transmission.
H. Overall length.
I. Trans mount pad to main shaft centerline.



Quick Specs

Forward Gears	6
Shifter Positions	2
Torque Capacity	Up to 700 lb-ft / 949 N-m
Max Rated RPM	7800
Overdrive	Double
Output Splines	31
Release Type	Hydraulic
Speedo Output	Electronic (17 tooth)
Dry Weight	150 lbs / 68 kg
Fluid Capacity	3.66 quart / 3.46 liter

Available Models

Part Number	Style	Torque Rating	Input Spline	Gear Ratios						
				1st	2nd	3rd	4th	5th	6th	R
TUET18131	GM	700 lb-ft	26	2.66	1.78	1.30	1.00	0.80	0.63	2.90
TUET18132	GM	700 lb-ft	26	2.97	2.10	1.46	1.00	0.80	0.63	2.90

Lubrication Specifications

For all MAGNUM 6-speed models, TREMEC recommends TREMEC High Performance Manual Transmission Fluid (HP-MTF™), Dexron-III or Mobil 1 Synthetic ATF. Fluid capacity is 3.66 quart / 3.46 liter.

California Proposition 65 Warning

This product can expose you to chemicals, including 2-Ethoxyethanol, Methyl 1 Isobutyl Ketone, and Ethyl Acrylate which are known to the State of California to cause cancer, birth defects or other reproductive harm.
For more information, visit the California Office of Environmental Health Hazard Assessment website at: California proposition 65 (https://www.p65warnings.ca.gov/)

Fastener Tightening Specifications

Bolt Torque (Dry Thread)				
No.*	**Bolt**	**Description**	**Torque**	
28	M10X1.5x40	Front adapter-case/ Extension Case	31-40 ft. lbs	43-54n-m
49	9/16"-18UNF-2A	Case plug-oil return	11-18 ft. lbs	15-24n-m
50	1/2-14 NPTF socket head	Fill/ drain plug	15-25 ft. lbs	20-34n-m
91	M8X1.25x20	Inhibitor housing-case	11-15 ft. lbs	15-20n-m
54	NA	Rail detent, Guide	25-29 ft lbs	34-47nm
77	NA	Mechanical speedo bolt	7.5 ft lbs	10nm
51	M20X1.5-6g	Solenoid-Rev. Inhibitor	25-35 ft. lbs	34-47n-m
79	M6X1.0x14.6 hex flange	Elect. Speedo	6-9 ft. lbs	8-12n-m
61	M8X1.25x30	Fwd cover (FNT Driver/Rear Pass	18-22 ft. lbs	24-30n-m
28	NA	Front Cover bolts	31-35 ft. lbs	43-54nm
60	M8X1.25X30	Fwd cover(fnt pass / rear driver)	12-24 ft. lbs	16-32n-m
55	NA	Back-up switch	15-25 ft. lbs	20-34n-m
36	M20X1.5-6g	Detent capsule	25-35 ft. lbs	34-47n-m
153	M8X1.25-6g flange/18.25 shoulder	Rev idler plate 35L	19-25 ft. lbs	26-34n-m
58	M8X1.25 -12.3 shoulder/12 thd	Guideplate T40 Torx	12-20 ft. lbs	16-27n-m
56	M10X1.5-6g Special stud end	Interlock pin T40 Torx	15-25 ft. lbs	20-34n-m

** See Disassembled Parts Illustration/Legend*

Shimming Specifications

Description	Shim to Attain
Input Shaft / Mainshaft Shim	Endplay of 0.001 to 0.005 inch (0.0127 to 0.0889 mm)
Countershaft Shim	Preload of 0.001 to 0.005 inch (0.0127 to 0.0889 mm)

TREMEC Limited Warranty

WHAT IS COVERED:

TREMEC components and equipment (the “Product”) are covered under a Limited Warranty for 12 months from date of invoice purchase with unlimited mileage allowed during those 12 months. TREMEC will repair or replace, at its sole option, any TREMEC Product that upon inspection is found to have defective materials or workmanship. TREMEC may use new or refurbished parts for replacement. TREMEC Warranty is valid to the original End User and may be transferred to subsequent owners.

WHAT IS NOT COVERED:

TREMEC Warranty does not cover any components or equipment that are not produced or sold by TREMEC. Examples include but are not limited to clutch, flywheel, non-TREMEC shifter, and driveshaft. This warranty also does not cover the costs of any work or repairs that might be caused by use or installation of any parts from any manufacturer besides TREMEC.

TREMEC Warranty does not cover the costs of damage or conditions caused by fire or accident; by abuse, negligence, or misuse (including but not limited to: overloading or racing the vehicle); by improper installation, modifications not authorized by TREMEC, insufficient maintenance; or damage caused by road salt or other corrosive materials.

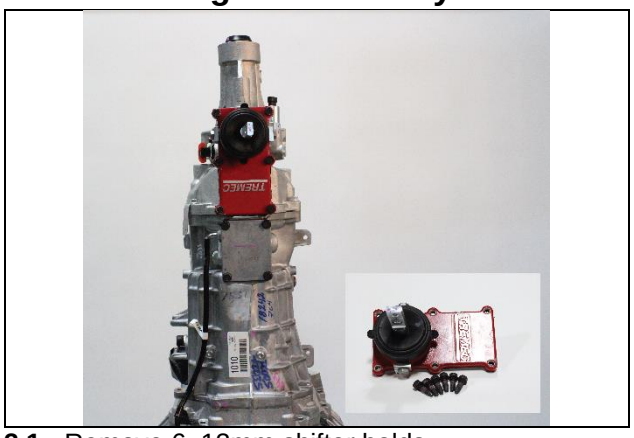
TREMEC Warranty does not cover Product installed on a vehicle used for racing or competition, nor does it cover repairs of any damage or conditions caused by racing or competition. TREMEC Warranty does not cover the costs of repairing or replacing any Product or part due to damage caused by poor or improper maintenance, or the use of oils, lubricants or fluids of a type other than those recommended by TREMEC for your specific model of Transmission.

TREMEC Warranty does not cover the costs of repairing damage caused by environmental factors or Acts of God. “Environmental factors” include, but are not limited to, chemicals, salt, and road hazards. “Acts of God” include, but are not limited to, floods, lightning, tornadoes, sandstorms and earthquakes.

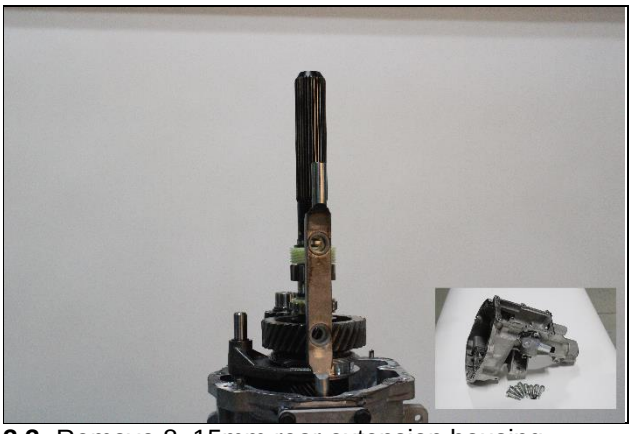
To the extent allowed under applicable law, TREMEC Warranty does NOT cover any incidental or consequential damages connected with the failure of the TREMEC Product under warranty. Such damages include but are not limited to lost time; inconvenience; loss of the use of your vehicle; cost of rental vehicles; fuel; telephone; travel or lodging; loss of personal or commercial property; or the loss of revenue.

Section 6 Main Housing Disassembly

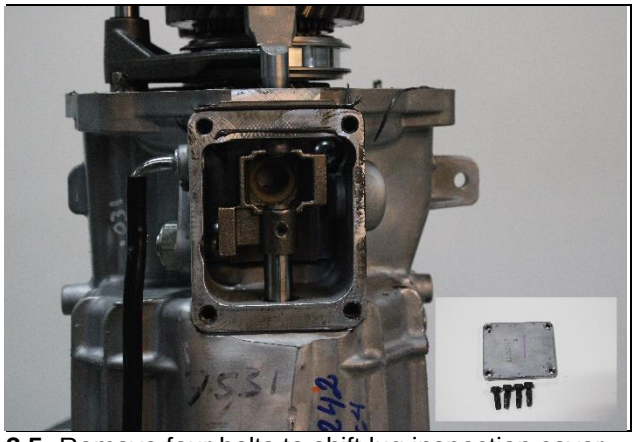
Main Housing Disassembly



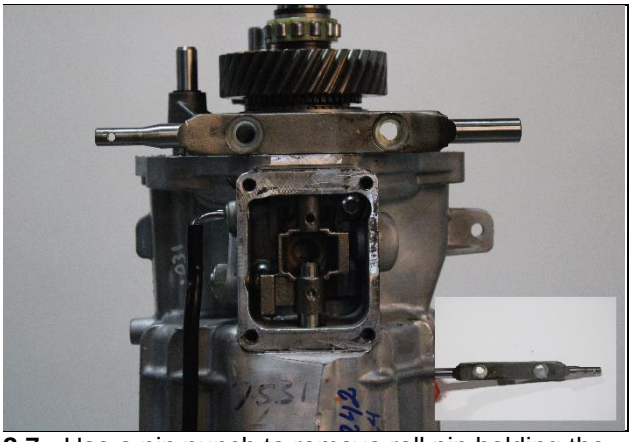
3.1: Remove 6, 13mm shifter bolds.
3.2: Remove Shifter Housing**.**



3.3: Remove 8, 15mm rear extension housing bolts.
3.4: Remove rear housing**.**

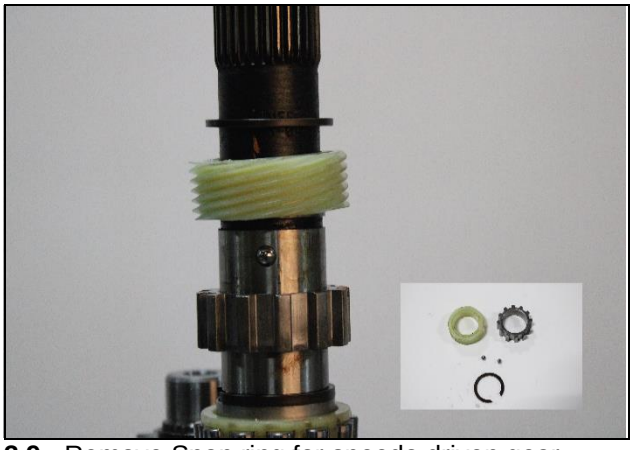


3.5: Remove four bolts to shift lug inspection cover.
3.6: Remove shift lug inspection cover.



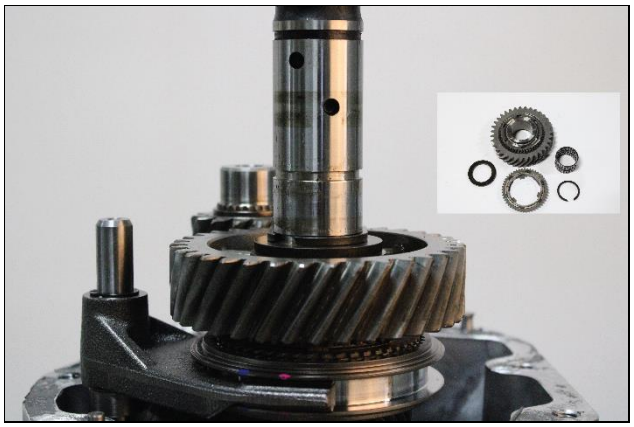
3.7: Use a pin punch to remove roll pin holding the shift lug on shift rail.

3.8: Remove shift selector.



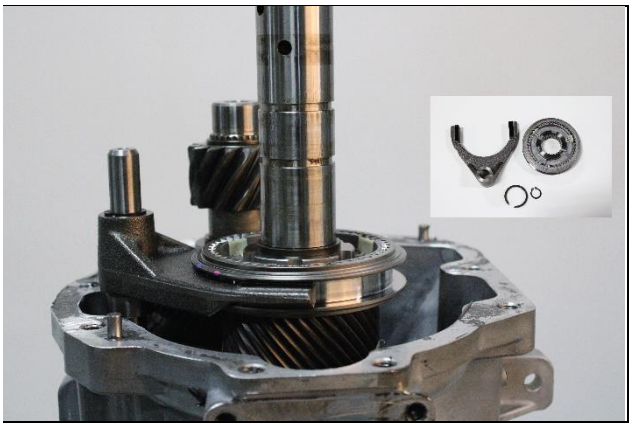
3.9: Remove Snap ring for speedo driven gear both mechanical and electric tone ring.

3.10: Remove snap ring.
3.11: Remove roller bearing & Two thrust washers.



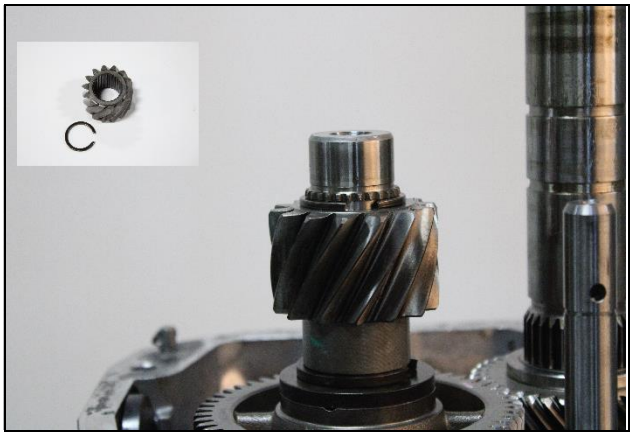
3.12: Remove reverse gear snap ring.

3.13 Remove thrust washer, reverse gear, bearing and reverse blocking rings.

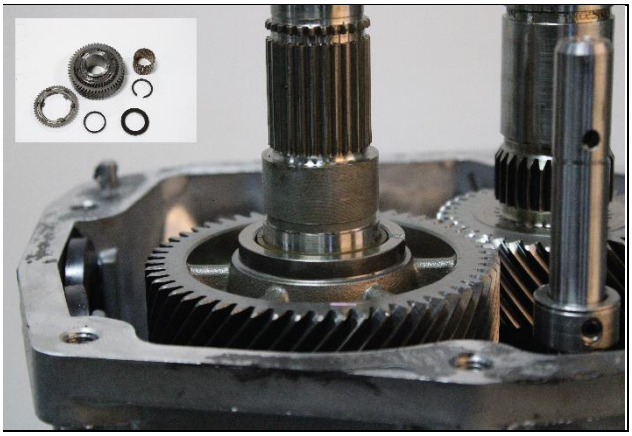


3.14: Remove reverse synchronizer snap ring.

3.15: Remove reverse synchronizer and fork and snap ring.

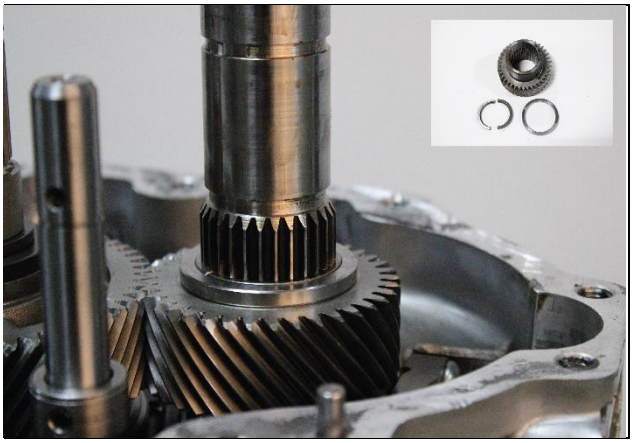


3.16: Remove reverse drive gear snap ring & reverse gear drive gear.

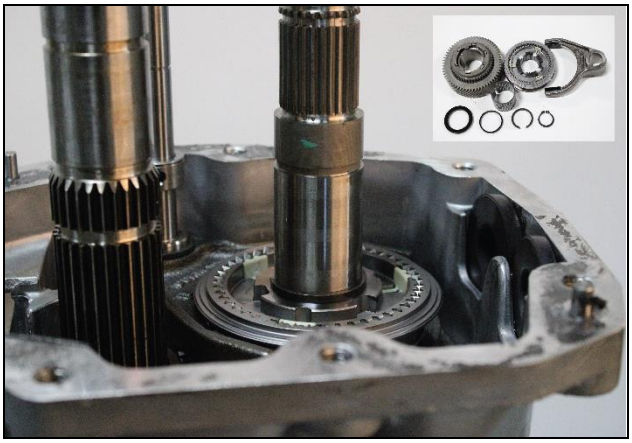


3.17: Remove 5th gear snap ring.

3.18: Remove 5th gear thrust washer, 5th gear bearing and blocking rings.



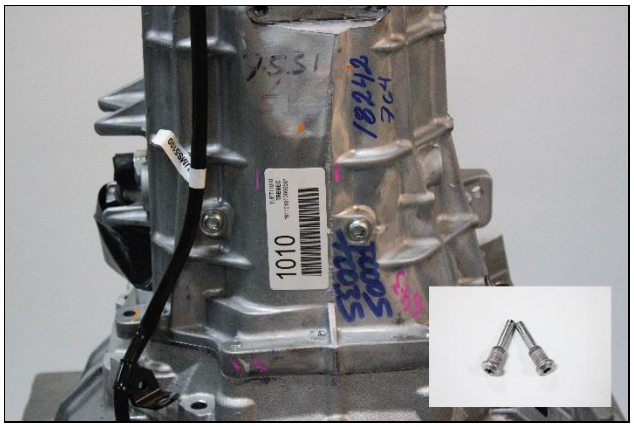
3.19: Remove 5th gear locking ring and clips using a gear puller remove 5th driven gear.



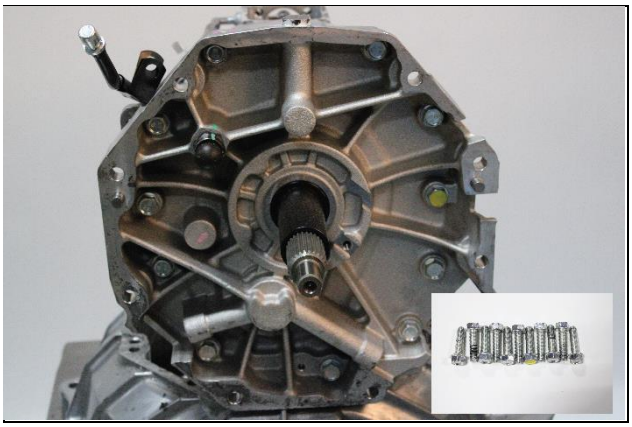
3.20: Remove 5/6 fork snap ring.

3.21: Remove 5/6 fork and synchronizer.

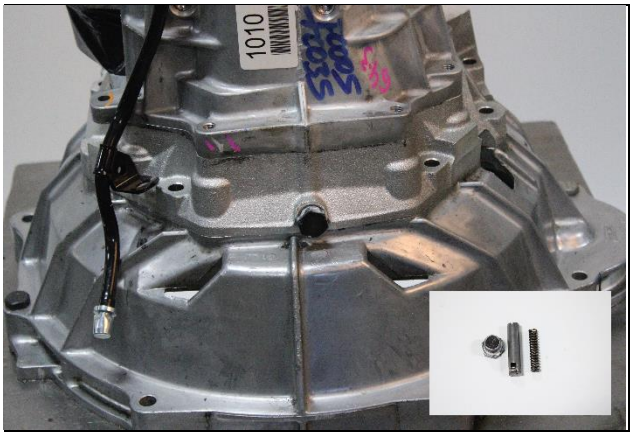
3.22: Remove 6th gear, bearing and blocking rings.



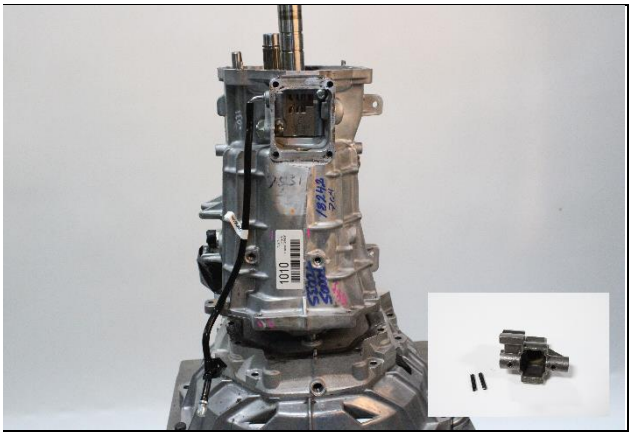
3.23: Using T40 Torque bit, Remove two shift rail alignment pins.



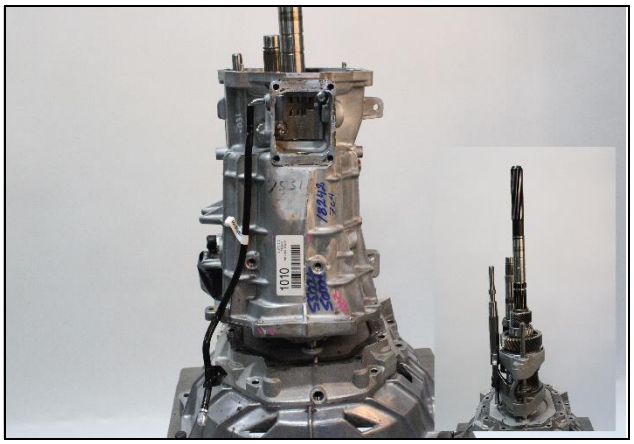
3.24: Remove 11 15MM adaptor plate bolts.



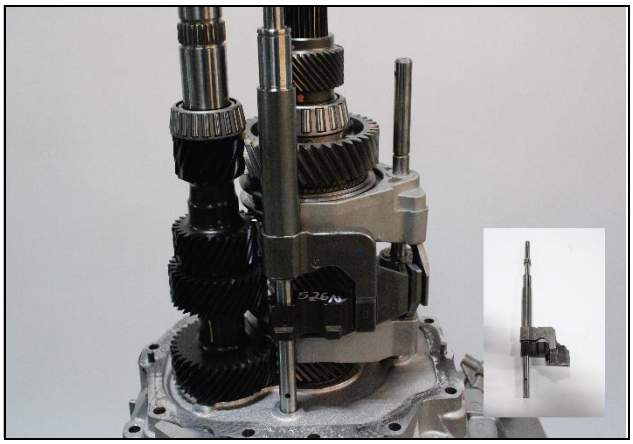
3.25: Remove 9/16 shift rail detent bolt, Spring, and plunger.



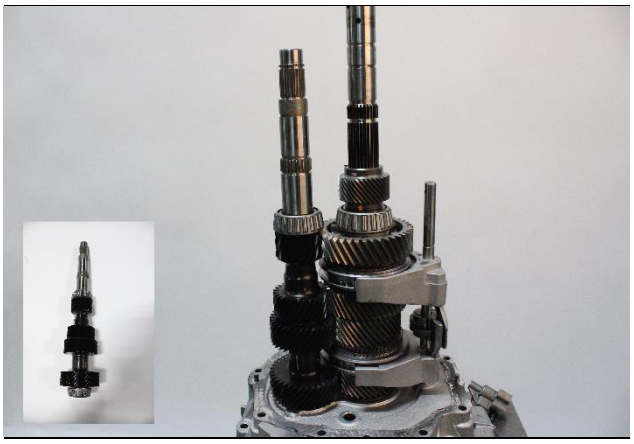
3.26: Remove roll pins from shift selector and rail, while lifting on Main case remove shift selector.



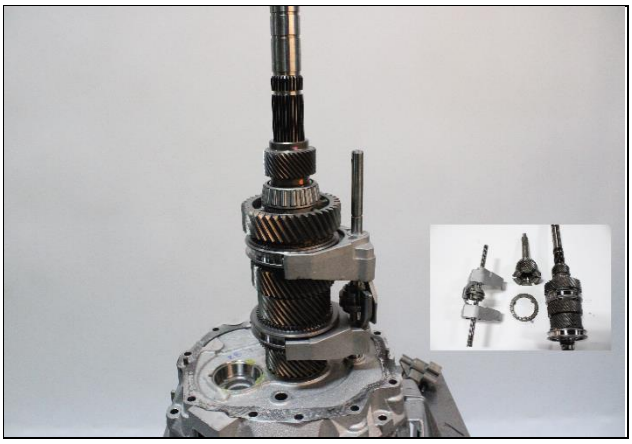
3.27: Remove main case.



3.28: Remove 5th 6th reverse shift rail.

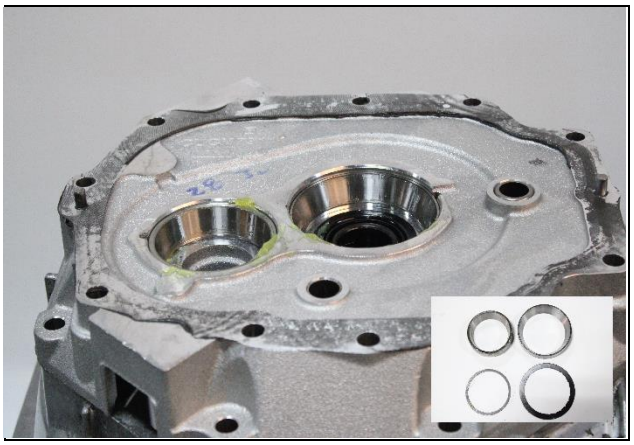


3.29: Remove Cluster gearset from mid plate



3.30: Remove main shaft gearset, ½ & 3/4 shift fork assembly from Mid plate.

3.31: Remove 4th gear "input shaft" From Mid plate.

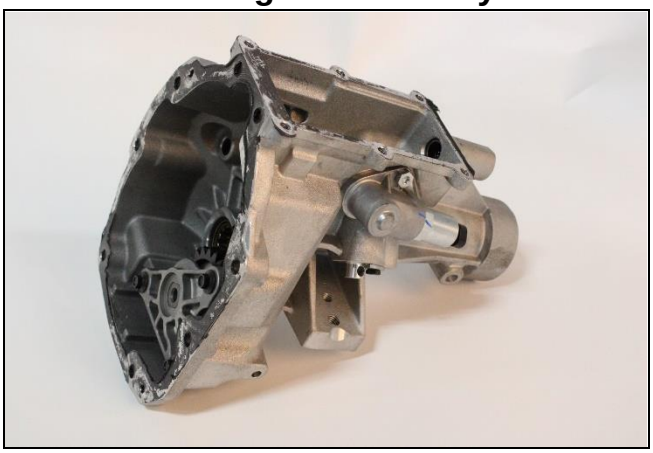


3.32: Remove input shaft & cluster shaft bearing races and shims from Mid plate.

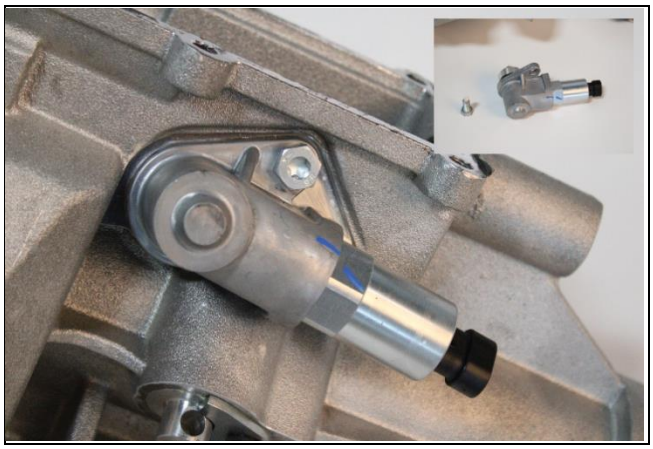
3.33: Remove 4th gear "Input shaft" transmission seal from Mid plate.

Section 7: Rear Housing Disassembly

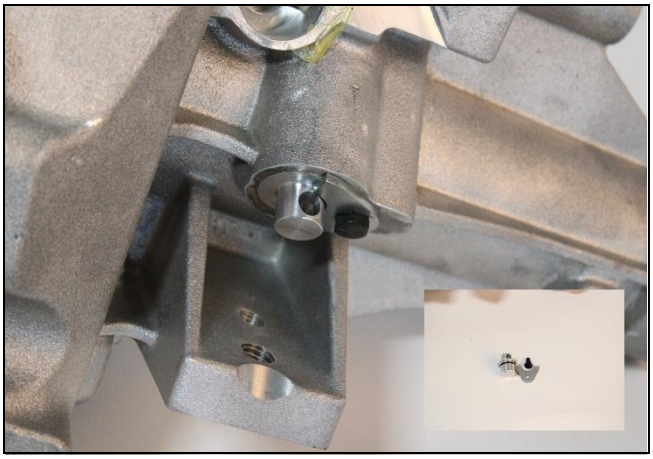
Rear Housing Disassembly



4.1: Rear housing assembly.

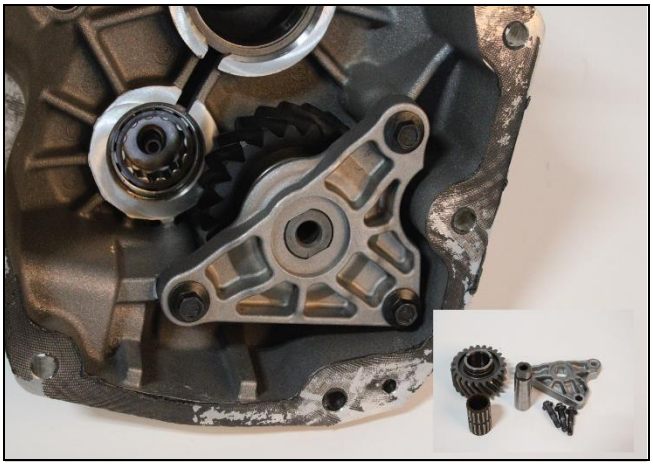


4.2: Remove 13mm Bolt from rear housing.
4.3: Remove reverse lockout solenoid.

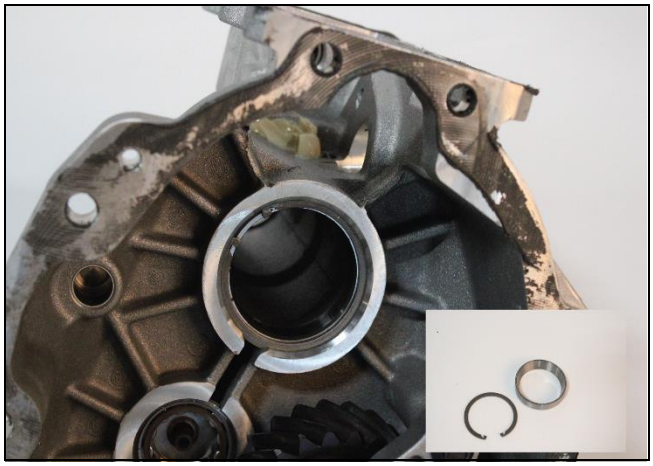


4.4: Remove 7/16 bolt clip and speedo plug from rear housing.

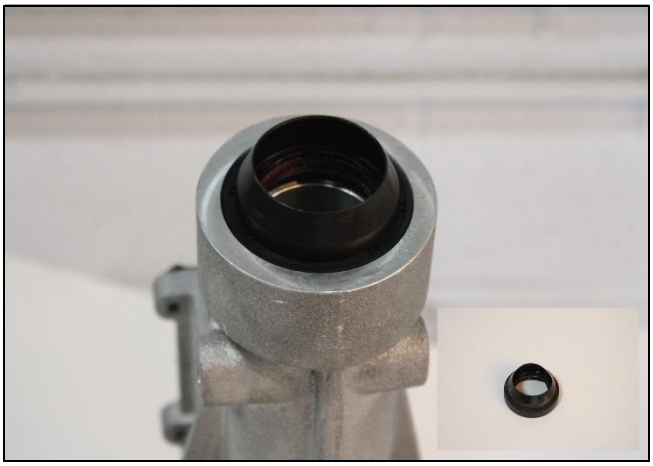
4.5: Remove 7/16 bolt from rear housing.
4.6: Remove electronic Vehicle speed sensor and clip from rear housing.



4.7: Remove 3, 10 MM from reverse idler bracket
4.8: Remove Reverse idler gear bearing & shaft



4.9: Remove snap ring and rear main shaft bearing race.



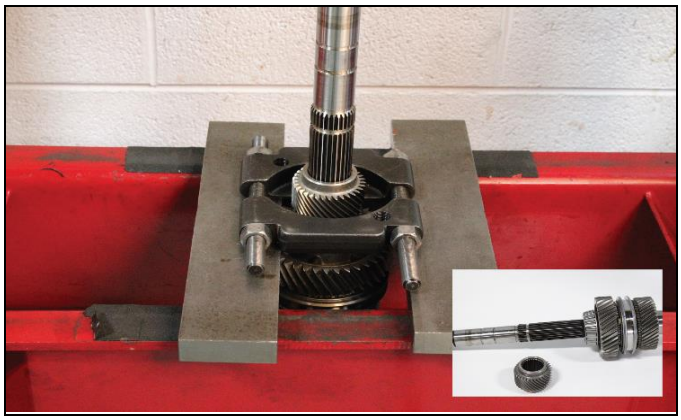
4.10: Remove rear seal.

Section 8: Main Shaft Disassembly

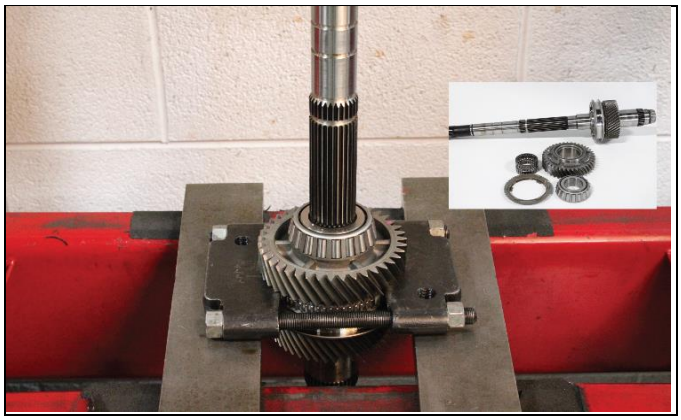
5.1: Remove snap ring from 3-4 synchronizer.

5.2: Using a press & Press plate remove 3-4 synchronizer while supporting 3rd gear.

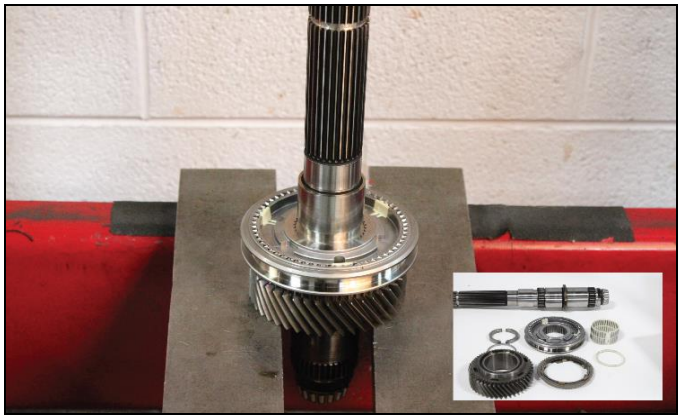
5.3 Remove 3rd gear, bearing and blocking rings.



5.4: Using a press & bearing separator remove 6th drive gear from Main shaft.



5.5: Using a press and bearing separator remove 1st gear & main shaft roller bearing.



5.6: using and press and main shaft support remove 2nd gear 1-2 synchronizer, bearing and blocking ring assembly.

5.7: With main shaft disassembled clean all components for inspection.

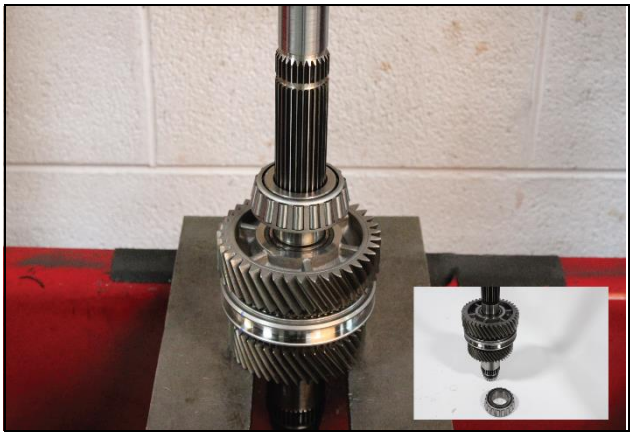
Section 9: Main Shaft Assembly

Main Shaft Assembly

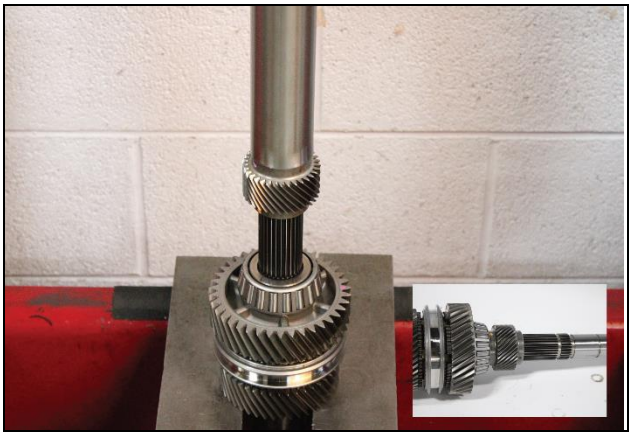
6.1: Install 2nd gear, bearing, blocking rings and 1-2 synchronizer onto main shaft.

6.2: Using a press install 2nd gear carful to line up blocking ring tabs into 1-2 synchronizer.

6.3: Install 1st gear bearing, Gear and blocking rings onto main shaft. Careful to line up blocking ring tabs into 1-2 synchronizer.

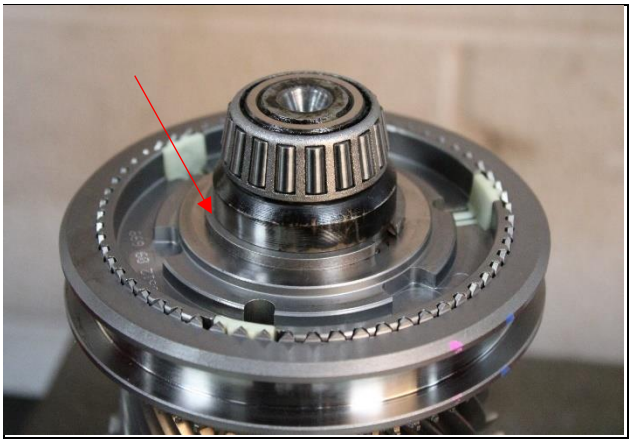


6.4: Using a press install main shaft Roller bearing.



6.5: Using a bearing press install 6th drive gear to the main shaft.

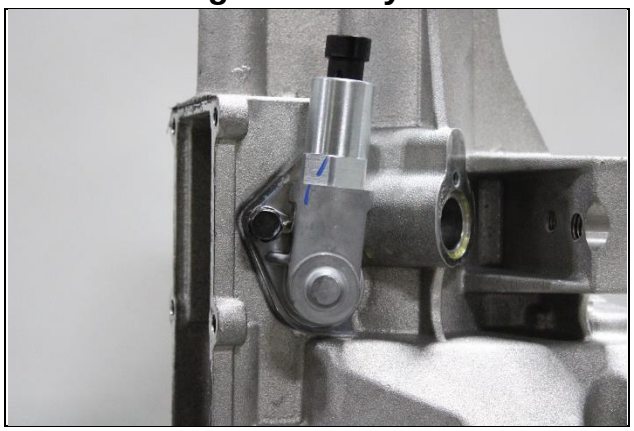
6.6: Using a press install 3rd gear blocking rings, bearing and gear onto main shaft, Carful to align blocking rings into synchronizer as you press onto main shaft.



6.7: Install 3-4 synchronizer snap ring onto main shaft.

Section 10: Rear Housing Assembly

Rear Housing Assembly

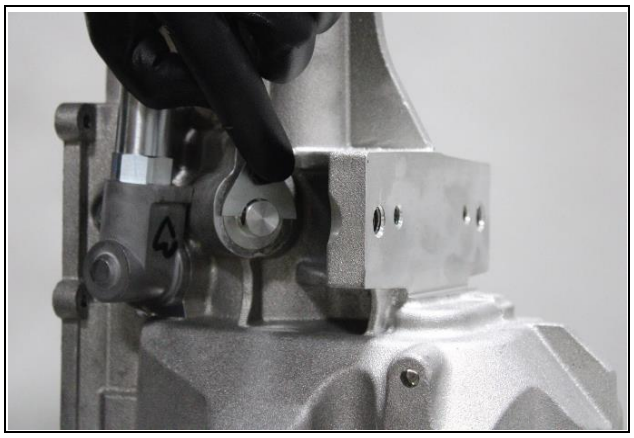


7.1: Install reverse lock out selenide into rear housing.

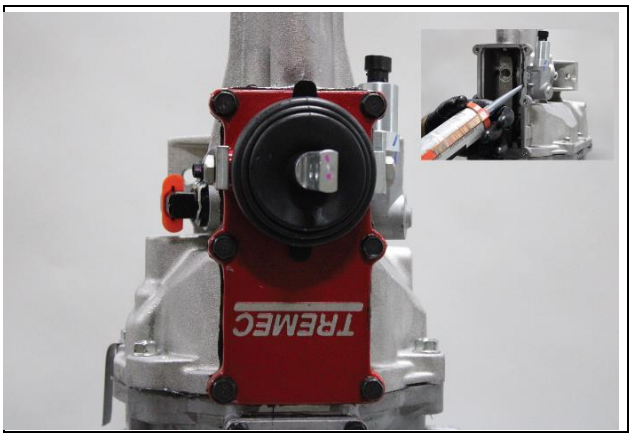
7.2 Install 13 MM bolt into rehousing retaining reverse lockout.

7.3: Install Vehicle speed sensor int rear housing.

7.4: Install 7/16 bolt into VSS Bracket.



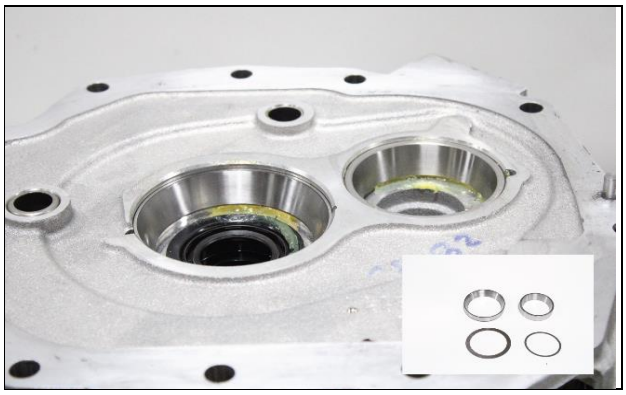
7.5: Install mechanical speedometer plug if not using, 7/16 bolt to retain plug.



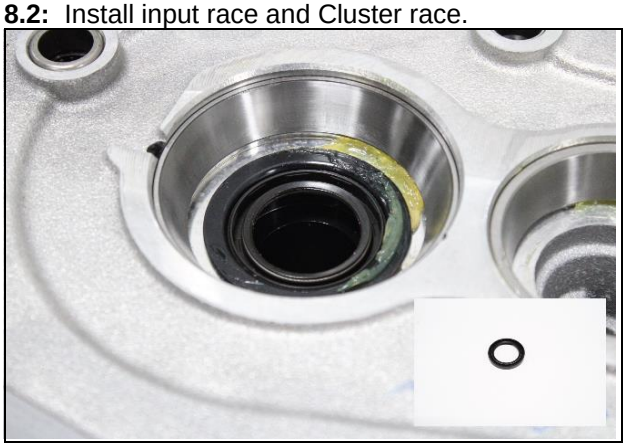
7.6: Install Shifter housing assembly

Section 11: Main Housing Assembly

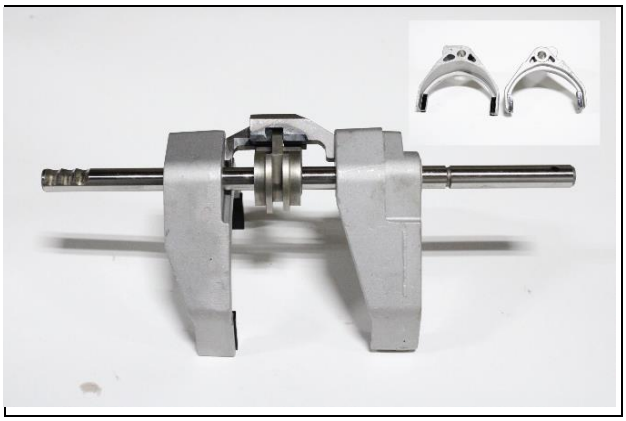
Main Housing Assembly



8.1: Install input and cluster shims.
8.2: Install input race and Cluster race.

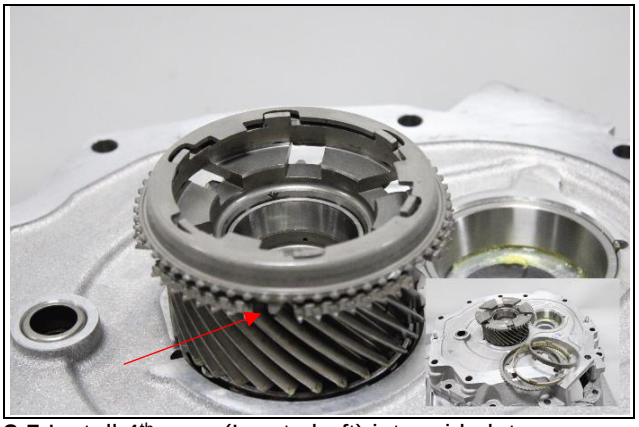


8.4 Install Input shaft seal into mid plate.

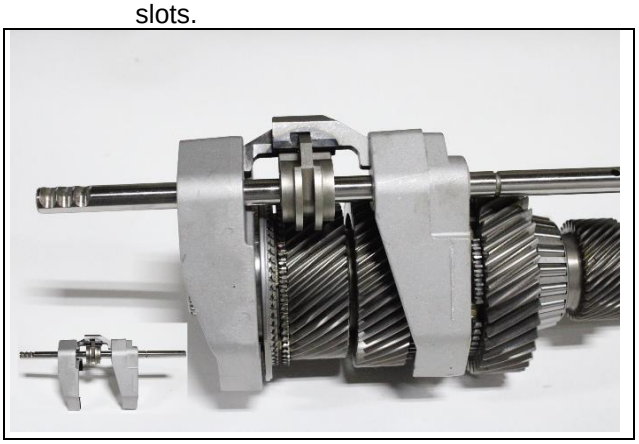


8.7 Install 1-2 Shift fork onto shift rail Assembly.
8.8 Install 3-4 shift fork onto shift rail assembly.
8.9 Install new fork pads onto fork.

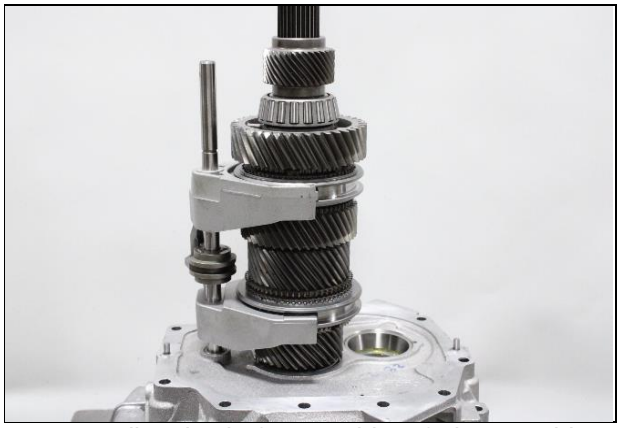
8.3 Using a press, install new Roller bearing onto input shaft.



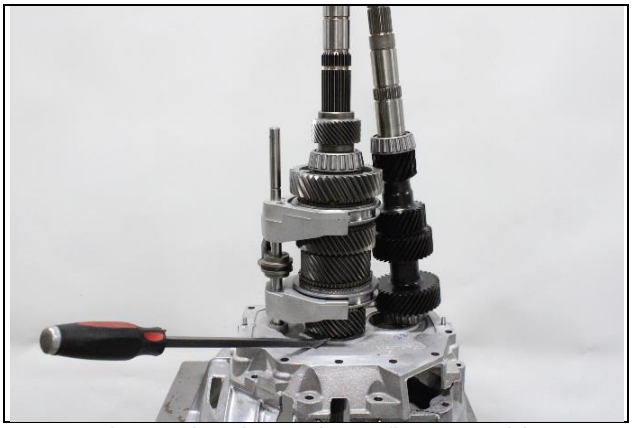
8.5 Install 4th gear (Input shaft) into mid plate,
8.6: Install blocking rings carful to align tabs into gear slots.



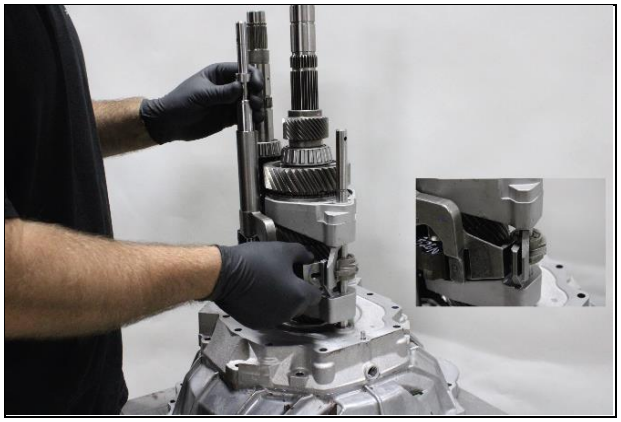
8.10 On a flat bench install shift fork assembly onto Main shaft assembly for installation into mid plate.



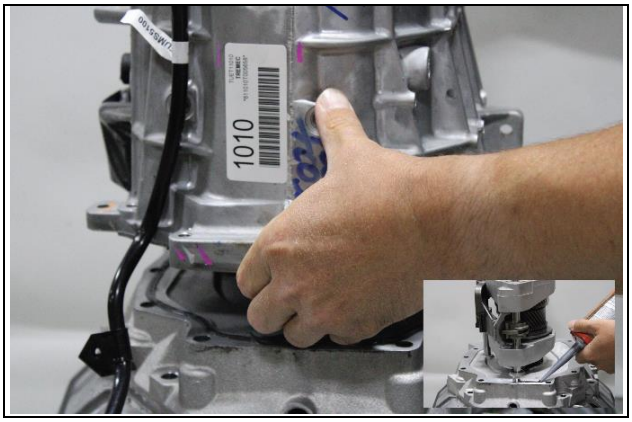
8.11: Install Main shaft assembly & fork assembly onto mid plate, it is important to keep synchronizers on main shaft in the neutral position for alignment of shift rail locating bolts.



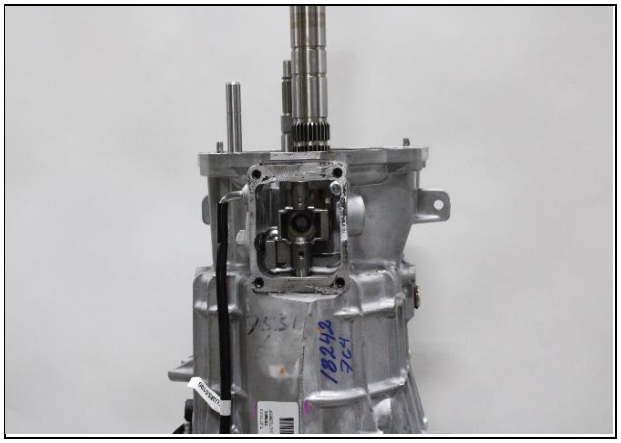
8.12: Using and prybar or large flat screwdriver gently lift main shaft assembly upwards to allow counter shaft room to fall not midpalate bearing race.



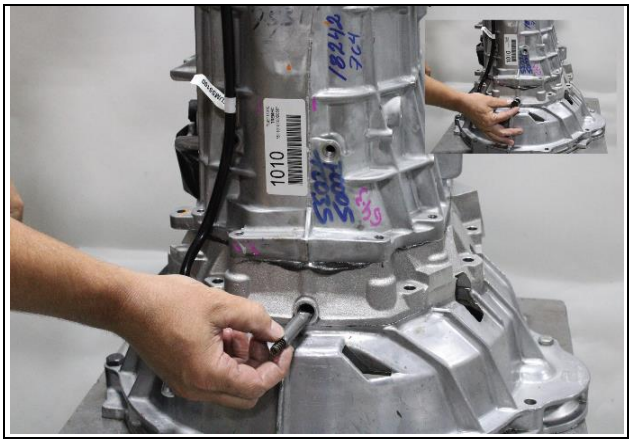
8.13: Install 5-6 & Reverse shift linkage into midpalate. Align fork into interlock on main shaft.



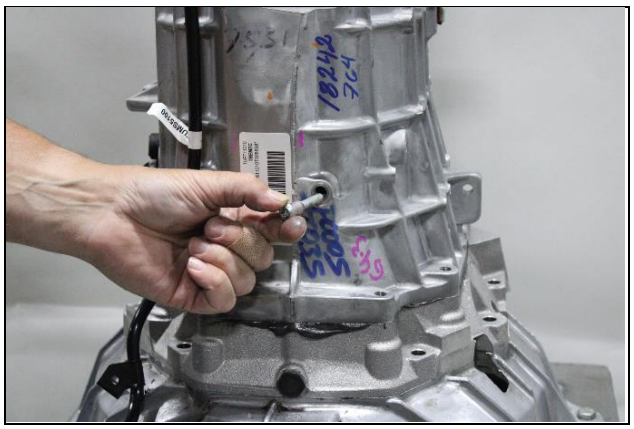
8.14: Install RTV to Midpalate.
8.15: Lower case onto shift rail & Midpalate.



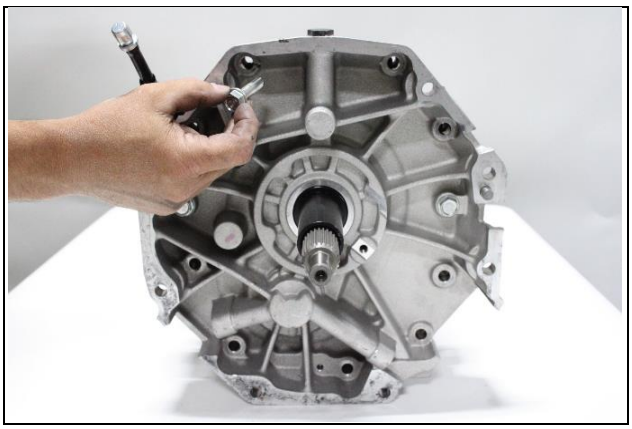
8.16: Install shift Lug onto shift rail as you lower the case carefully down to mid plate.



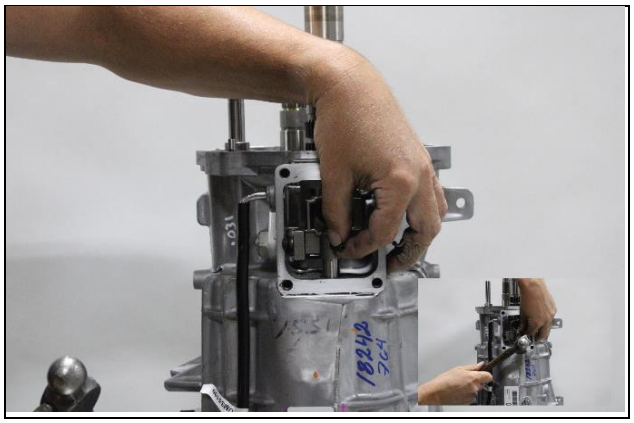
8.17: Install detent spring and plunger into case.



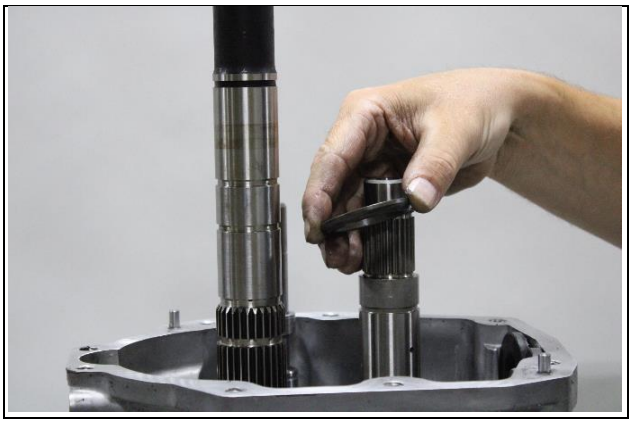
8.18: Install 2 shift linkage locating bolts into case using a T 40 bit.



8.19: Install 11, 15 MM Bolts into mid plate.

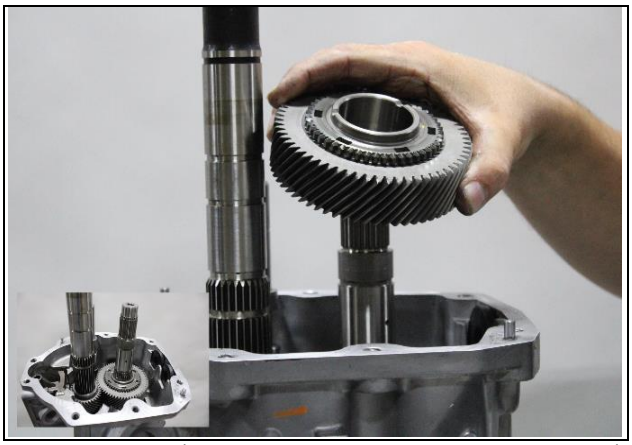


8.20: Install roll pin into shift lug.

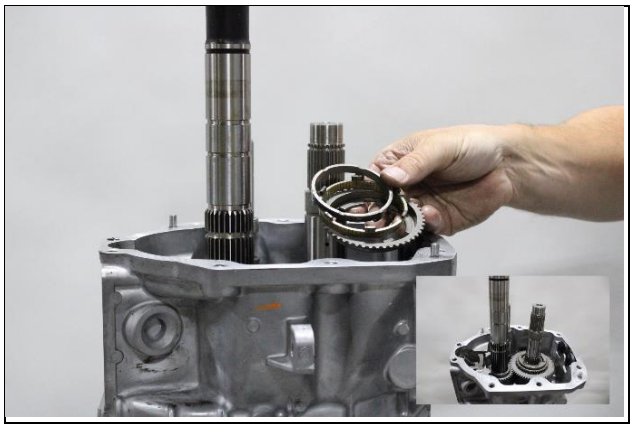


8.21: Install 5-6 counter shaft thrust washer onto countershaft.

8.22: Install 6th gear needle bearing onto countershaft

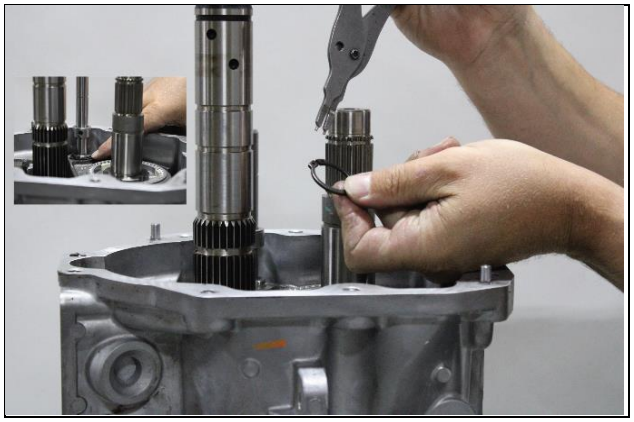


8.23: Install 6th gear onto countershaft slide over 6th gear bearing.

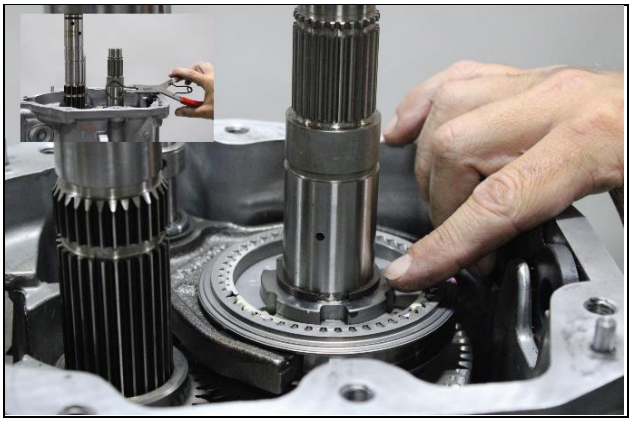


8.24: Install 6th gear Blocking rings onto 6th gear carful to align tabs into gear tabs.

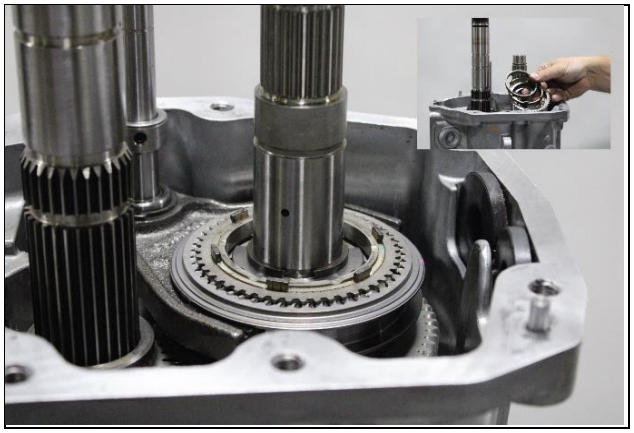
8.25: Install 5-6 synchronizer and fork on to main shaft.



8.26: Install 5-6 fork snap ring onto rail.

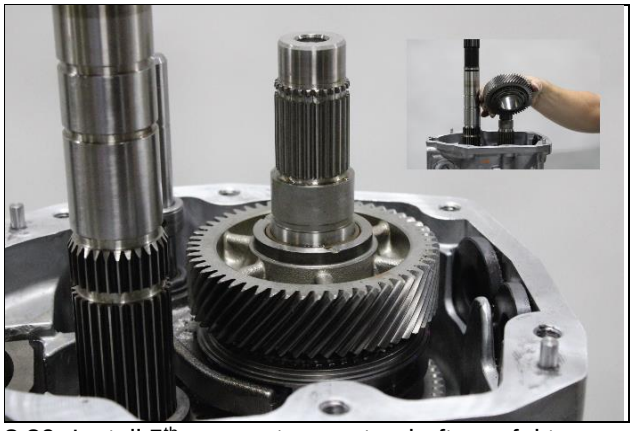


8.27: Install 5-6 synchronizer snap ring onto cluster shaft.

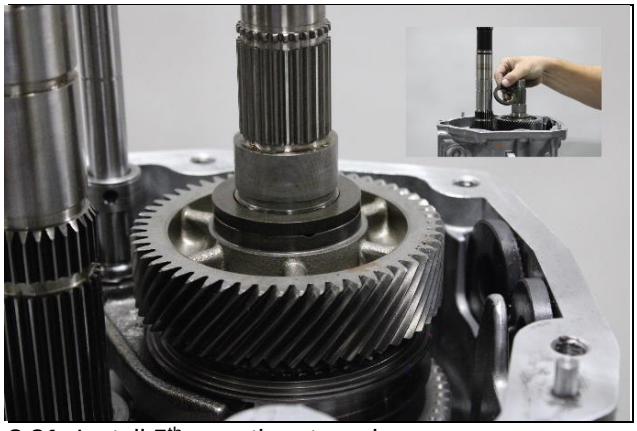


8.28: Install 5th gear blocking rings onto synchronizer careful to align tabs.

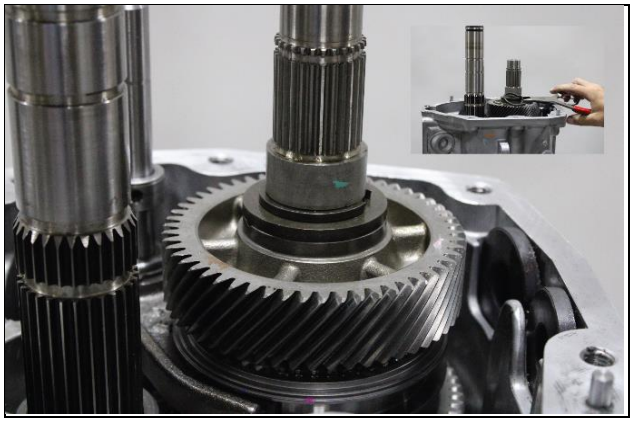
8.29: Install 5th gear thrust washer and roller bearing onto counter shaft.



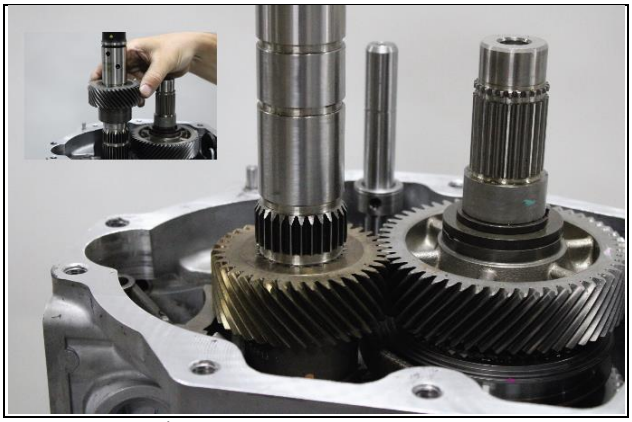
8.30: Install 5th gear onto countershaft careful to align gear tabs into blocking ring tabs.



8.31: Install 5th gear thrust washer.

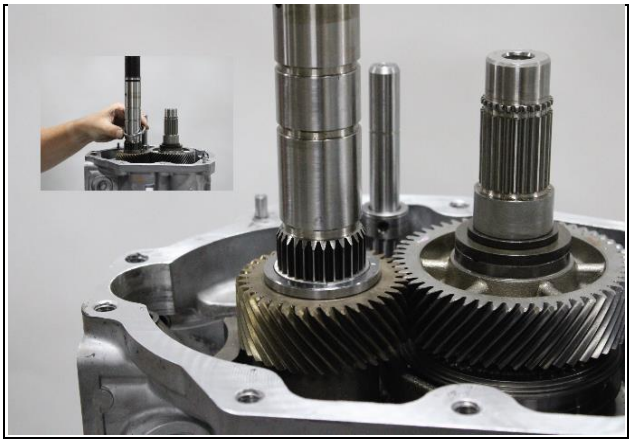


8.32: Install rear housing and shift lugs together on transmission



8.33: Install 5th drive gear onto main shaft.

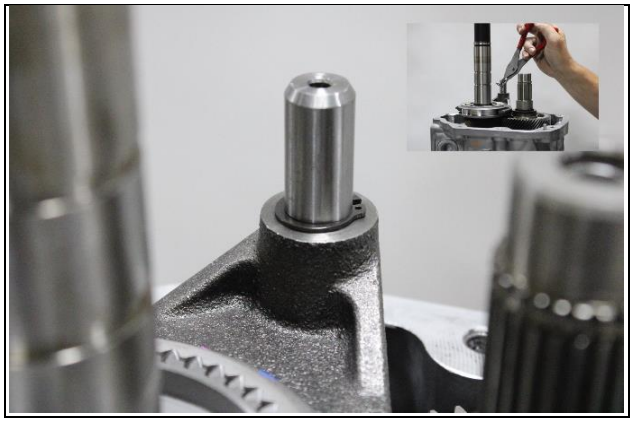
8.34: Install 5th drive gear split washers onto main shaft.



8.35: Install Locking ring onto main shaft.

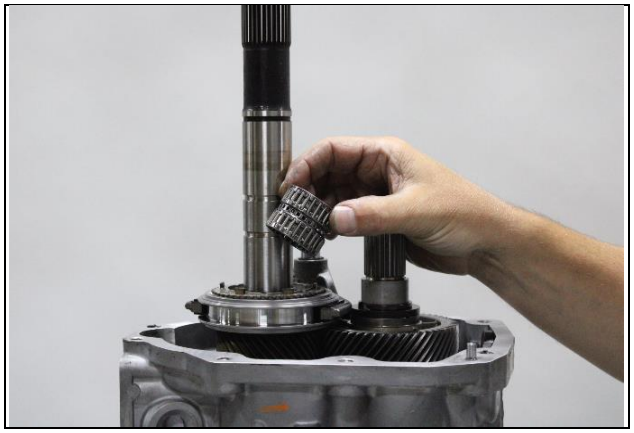
8.36: Install Reverse gear synchronizer and fork assembly onto main shaft.

8.37: Install Reverse synchronizer snap ring onto main shaft.

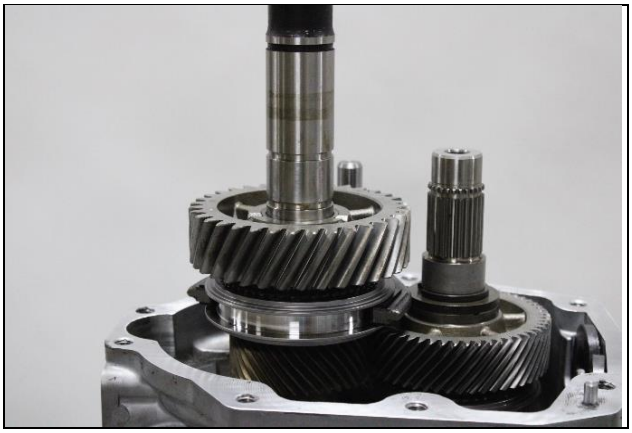


8.38: Install reverse gear fork snap ring onto shift rail, careful to seat snap ring into rail fully.

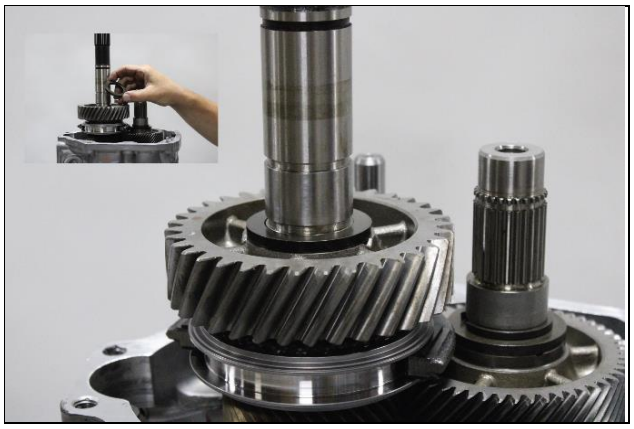
8.39: Install Reverse gear blocking rings into synchronizer, Careful to align tabs into synchronizer.



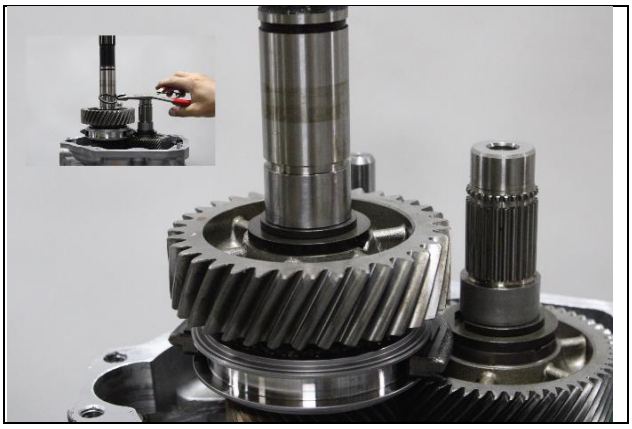
8.40: Install reverse gear roller bearing.



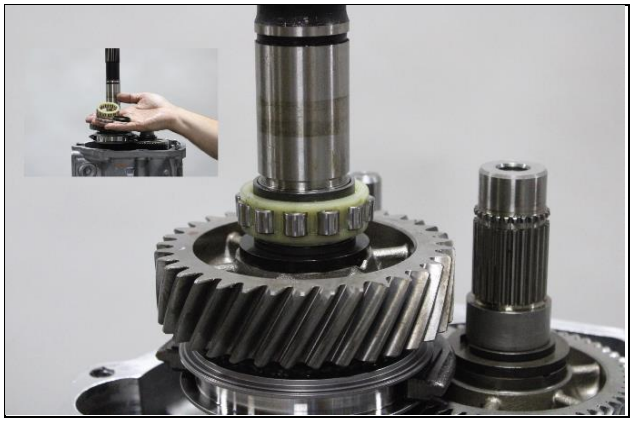
8.41: Install reverse Gear. Careful to align gear tabs with blocking ring tabs.



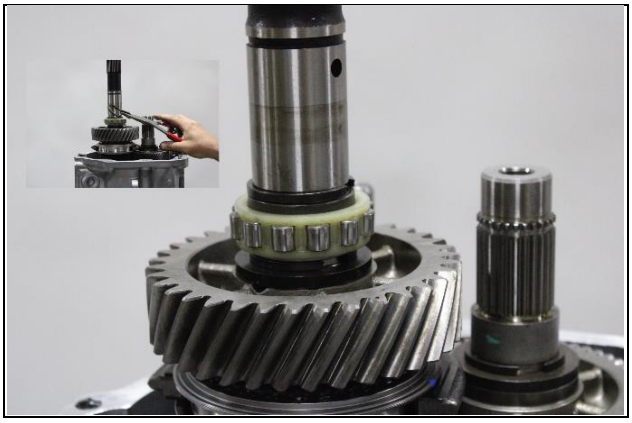
8.42: Install Reverse gear thrust washer.



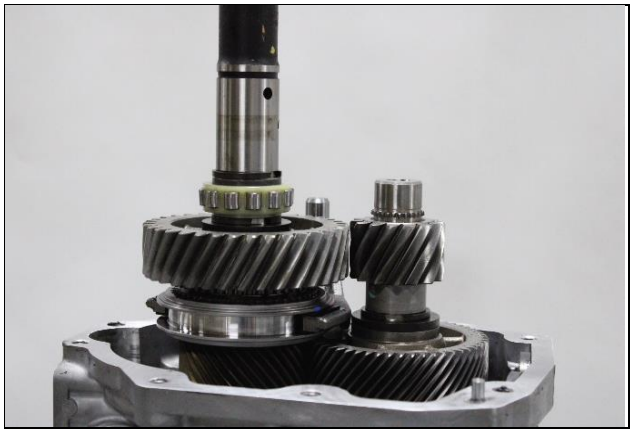
8.43: Install reverse gear snap ring.



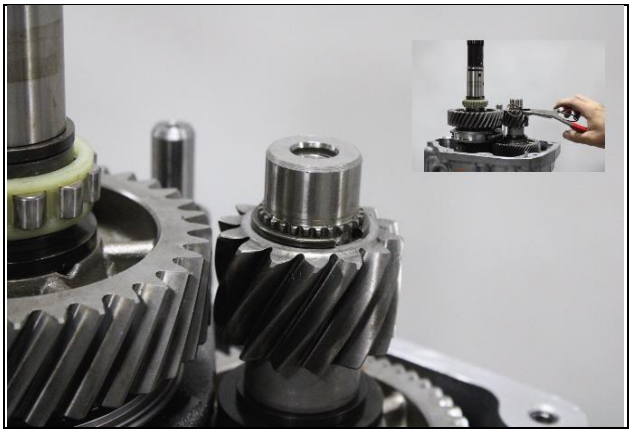
8.44: Install 2 thrust washers and main shaft bearing.



8.45: Install Snap ring onto main shaft.



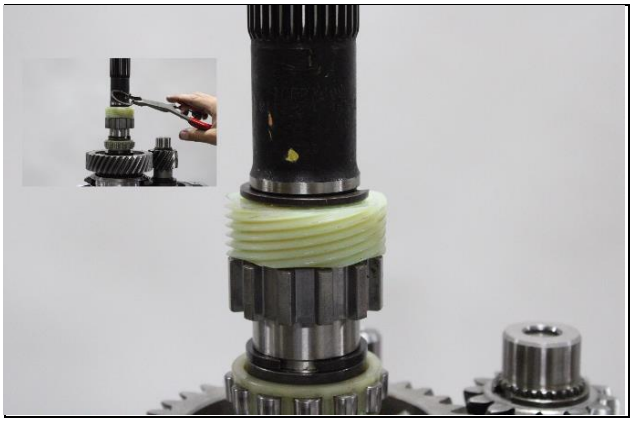
8.46: Install Reverse idler gear onto countershaft.



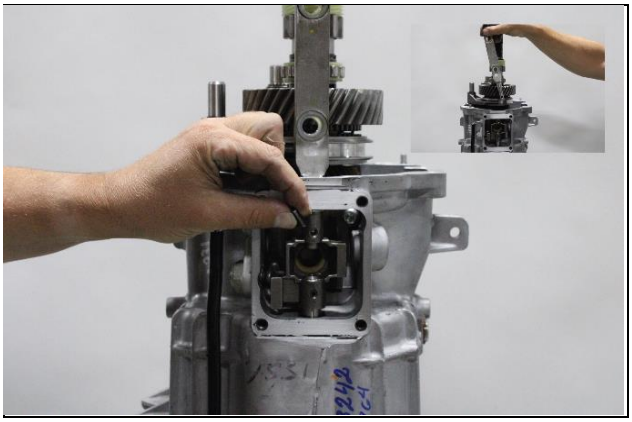
8.47: Install Reverse idler snap ring onto countershaft.

8.48: Install main shaft retaining ball and electronic speedo gear onto main shaft. 12 Tooth gear for Ford,17 tooth for GM Models.

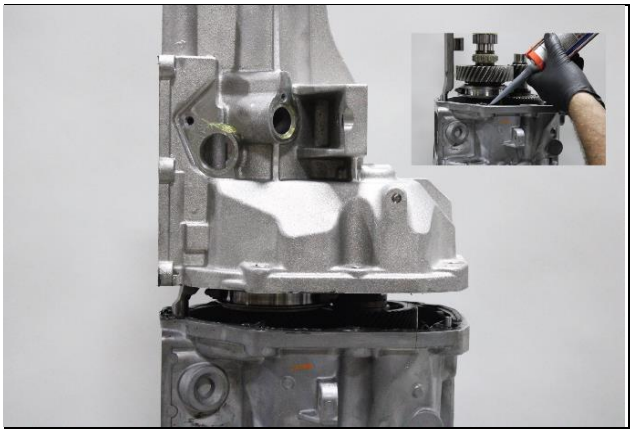
8.49: Install retaining ball into shaft and Mechanical speedo gear onto Main shaft.



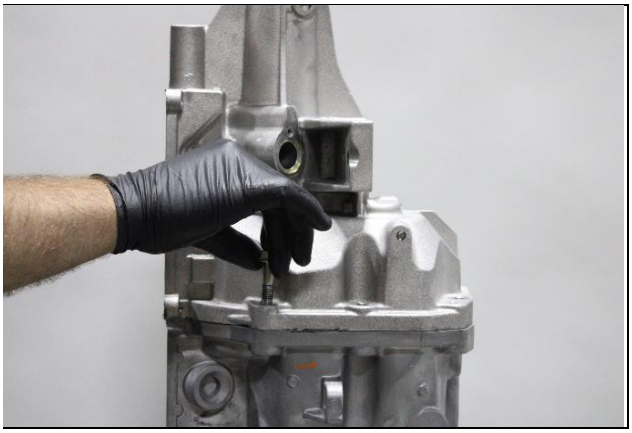
8.50: Install Speedometer gear snap ring onto main shaft.



8.51: Install Shift selector into shifter lug socket, Install shift lug Roll pin.



8.52: Install RTV silicone to rear main case.
8.53: Install Rear housing over shift rail.



8.54: Install 8, 15MM Bolts into rear housing.

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