

TREMEC[®]

Torque Transfer Solutions™

TR-TO-10 Series
**10-Speed
Twin Counter Shaft
Manual Transmission**

Parts List

PL_TR-TO-10_0915



Table of Contents

Specifications	4
Lubrications	6
Notes	7
Main Shaft Gear Group	8
Countershaft Gear Group	10
Range Case Gear Group.....	12
Output Shaft Group	15
Main Case and Clutch Housing	17
Additional Main Case Components	19
Fork and Rail Group	21
Range Case.....	23
Shift Tower.....	25
Air Line	26
Main Case; Opti-Lube™	27
Major Overhaul Kit for TR-TO-10S	28
Minor Overhaul Kit for TR-TO-10S	28
Gasket Kit for TR-TO-10S	29
O-Ring Kit for TR-TO-10S	29
Shim Kit for TR-TO-10S	29

Specifications

Specifications	
Direct/Overdrive/Vocational	
Torque Capacity	860 to 1,850 lb.-ft.
Length	28.96 in. (736 mm)
Weight	523 lbs (237 kg)
Input Shaft	2-inch 10-Spline
Output Shaft	2.5-inch 10-Spline
Clutch Housing	Aluminum SAE #1 or #2
Lube Capacity	18 pints (8.5 liters)
Lube Type	CD50 Synthetic

Gear Ratios												
Model No.	Overall Ratio	R1	1	2	3	4	5	6	7	8	9	10
TR-T-10D (Direct Drive)	14.95	16.71	14.95	11.01	7.96	5.98	4.50	3.32	2.45	1.77	1.33	1.00
% Step				36	38	33	33	36	36	38	33	33
TR-TO-10S (Overdrive)	16.72	14.02	12.54	9.24	6.68	4.80	3.60	2.61	1.92	1.39	1.00	0.75
% Step				36	38	39	33	38	36	38	39	33
TR-T-10V (Vocational Direct Drive)	19.02	21.27	19.02	14.02	10.13	7.28	5.20	3.66	2.70	1.95	1.40	1.00
% Step				36	38	39	40	42	36	38	39	40
TR-TO-10V (Vocational Overdrive)	18.88	15.19	13.59	10.01	7.24	5.20	3.71	2.61	1.92	1.39	1.00	0.72
% Step				36	38	39	40	42	36	38	39	41

Power Take-Off Applications		
	Direct Drive	Overdrive
PTO Gear Data	66.7% Engine Speed 45 Tooth, 6 Pitch	85% Engine Speed 45 Tooth, 6 Pitch
Positions	6 Bolt Right, 8 Bolt Left	6 Bolt Right, 8 Bolt Left

End Fitting Reference	
End Yoke	Part Number
1710	6-4-6611-1
1760 & 1760HD	6.3-4-651-1
1810	6.5-4-3451-1
SPL 250	250-4-561-1
RPL 25	25WYS40-2

Specifications

Torque Specification for Nuts and Cap Screws						
Part Name	Nominal Thread Size		Wrench Toque (lb-ft)			
			Non-Locking Type		Locking Type (Bonded nylon patch)	
Cap Bolt or Nut	Inch	mm	Min.	Max	Min.	Max.
	.250	6	7	10	10	13
	.312		13	17	20	24
	.375	10	25	32	34	41
	.438		40	50	52	62
		12			60	80
	.500		60	80	78	98
		14			80	100
	.562		90	115	112	137
	.625		120	150	150	180
	.750		200	250	240	290
Nut	1.250				400	450
	1.375				550	600
	1.750				550	600
PTO Aperture Cover Cap Bolt	.375		10	15	16	24
PTO Aperture Cover Cap Bolt with Gasket 97-324-2	.438		20	25	36	41
PTO Aperture Cover Cap bolt with Gasket 22P22	.438		20	25	29	34

Lubrications



CAUTION: To ensure proper lubrication and operating temperatures in this unit, the proper lubricants must be used.

Correct oil levels must be maintained. TREMEC recommends using only lubricants produced by reputable, well-known suppliers. If you want to use a lubricant not specified below, please contact your local truck dealer to determine whether the lubricant is suitable for your purposes.

Recommended Lubricants

The lubricants listed below are recommended for use in TREMEC commercial vehicle mechanical transmissions, and auxiliary transmissions.

Lubricant Specifications		
For TREMEC mechanical transmissions and auxiliaries used in commercial vehicles, the following lubricants are recommended.		
Description	Grade	Type
All Temperature	CD 50	Synthetic oil meeting MIL-L-2104 D or MIL-L-46152B, API-SF or API-CD
Oil Cooler		See OEM application requirements

Oil Changes

Many factors influence oil change periods.

Changes should be scheduled at three years or 250,000 miles with synthetic oil for normal over-the-highway operations. Off-highway use usually requires an oil change every 1,000 hours.



The oil level in the transmission should be checked every 5,000 miles (8,045 km) on-highway, or every 40 hours in off-highway operation.

When it is necessary to add oil, TREMEC does not recommend mixing oil types or oil brands. The correct oil level in this transmission is established by the fill plug opening.

Refill

First, remove all dirt around the fill plug. Then refill the transmission with the recommended lubricant. The lubricant should be level with the oil fill plug located on the left side (driver side) of the transmission case.

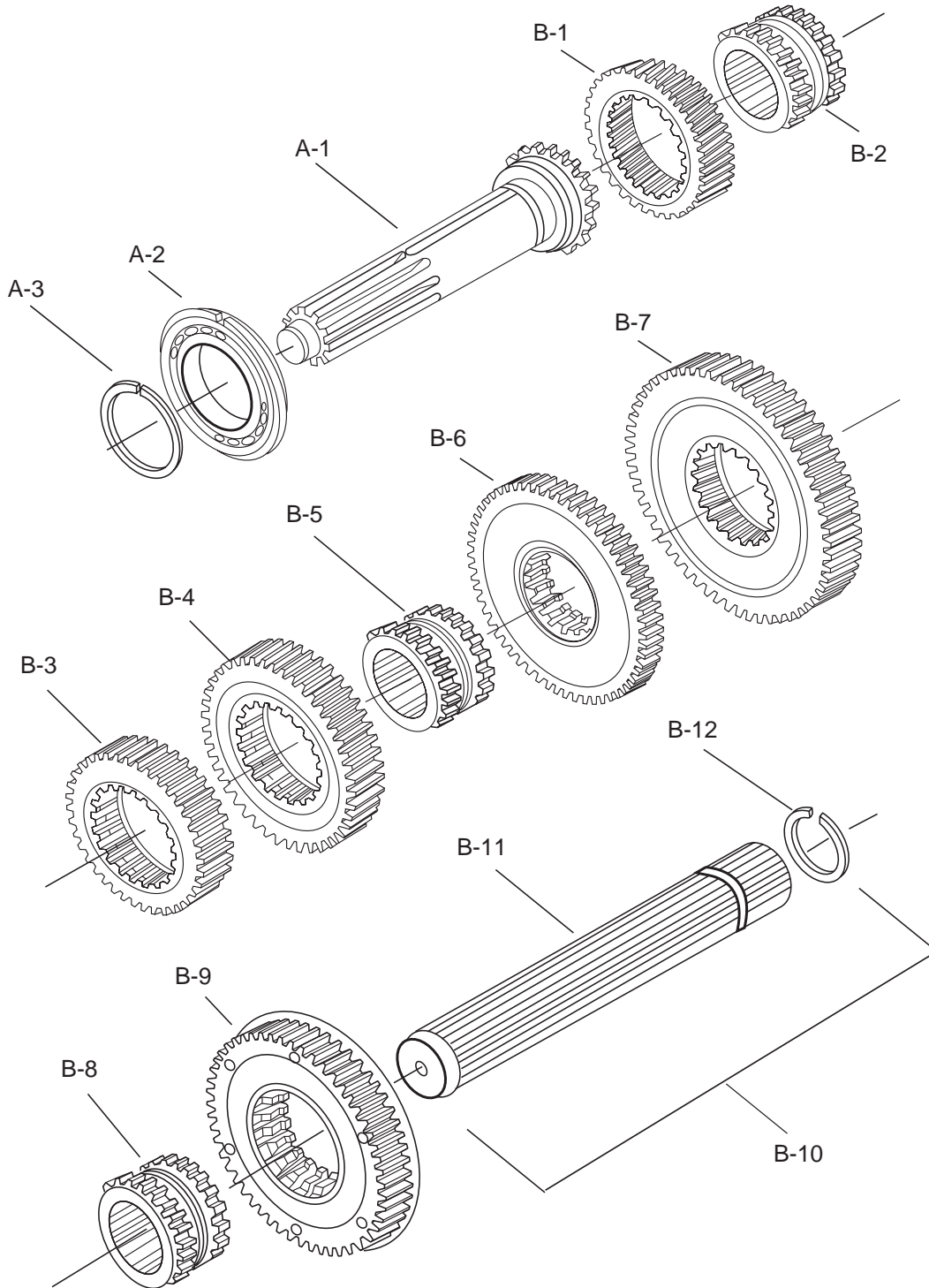


Overfilling

CAUTION: Do not overfill the transmission. This usually results in oil breakdown due to excessive heat and aeration from the churning action of the gears. Early breakdown of the oil will result in heavy varnish and sludge deposits that plug up oil ports and build up on splines and bearings.

Main Shaft Gear Group

Note:
Exploded parts view is for an overdrive transmission.



Main Shaft Gear Group

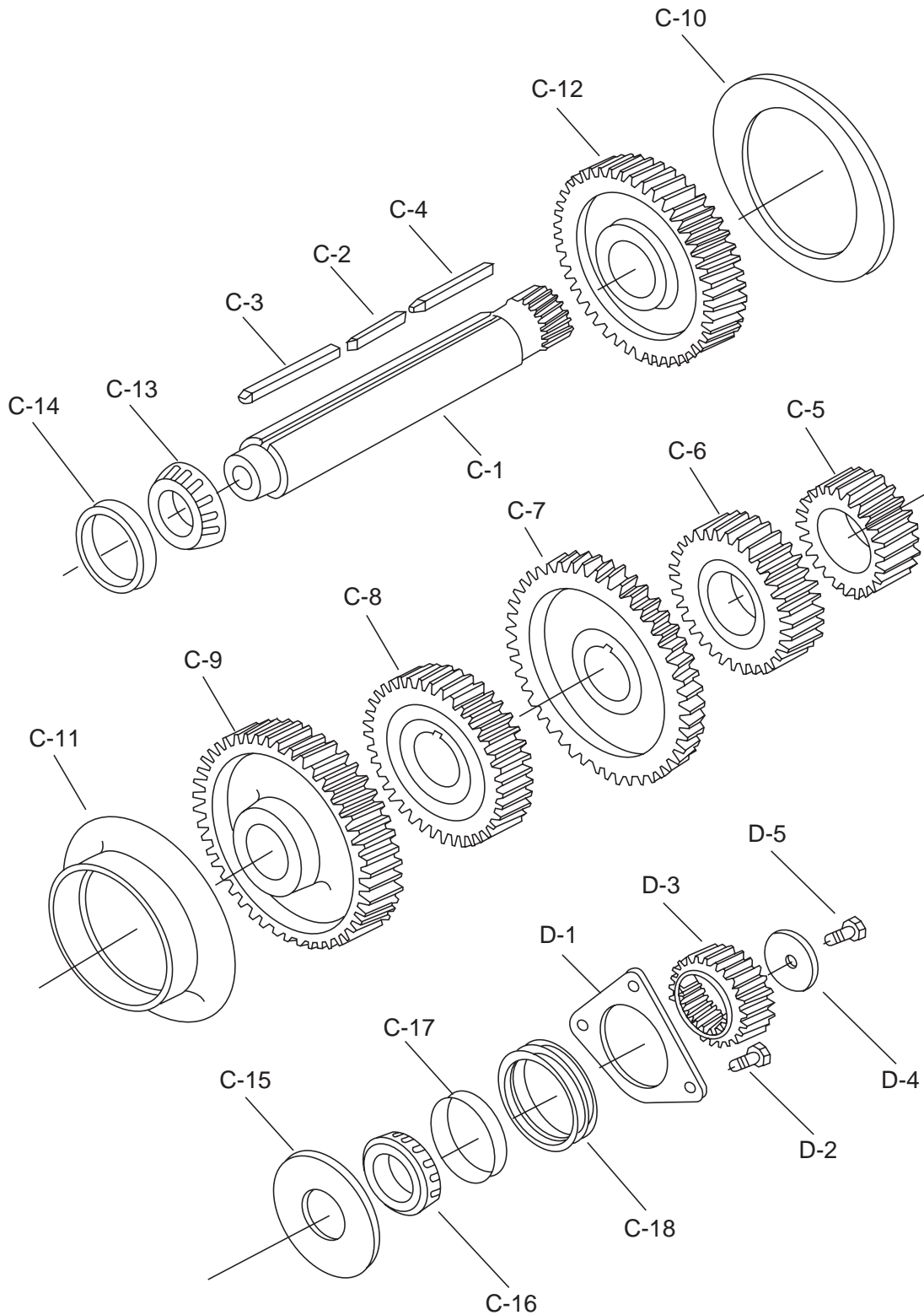
Item	Qty.	Description	Part Number
A-1	1	Input Shaft: 2.00" Diameter; 10 spline (1.180" pilot diameter)	201-35-2
A-2	1	Input Bearing Assembly: Bearing and Belleville Snap Ring	313645X
A-3	1	Snap Ring: Input Shaft	201-381-1
B-1	1	Drive Gear; 4th and 9th (50T) for Overdrive Models	201-8-74
B-2	1	Clutch Collar - Mainshaft; 4th, 5th, 9th and 10th for Overdrive Models	201-465-5
B-3	1	Gear - Mainshaft; 5th and 10th (40T) for Overdrive Models	201-8-73
B-4	1	Gear - Mainshaft; 3rd and 8th (46T)	201-8-72
B-5	1	Clutch Collar - Mainshaft; 2nd, 3rd, 7th and 8th	201-465-2
B-6	1	Gear - Mainshaft; 2nd and 7th (62T)	201-8-71
B-7	1	Gear - Mainshaft; 1st and 6th (62T)	201-8-70
B-8	1	Clutch Collar - Mainshaft; 1st, 6th and Reverse	201-465-2
B-9	1	Mainshaft Reverse Gear (with Snap Ring and Thrust Ring)	201-8-10-1X
B-10	1	Mainshaft Kit (includes B-11 and B-12)	201-362-7-1X
B-11	1	Mainshaft	NSS
B-12	1	Snap Ring: Mainshaft Range Drive Gear	201-381-3

NSS = Not Sold Separately

Countershaft Gear Group

Note:

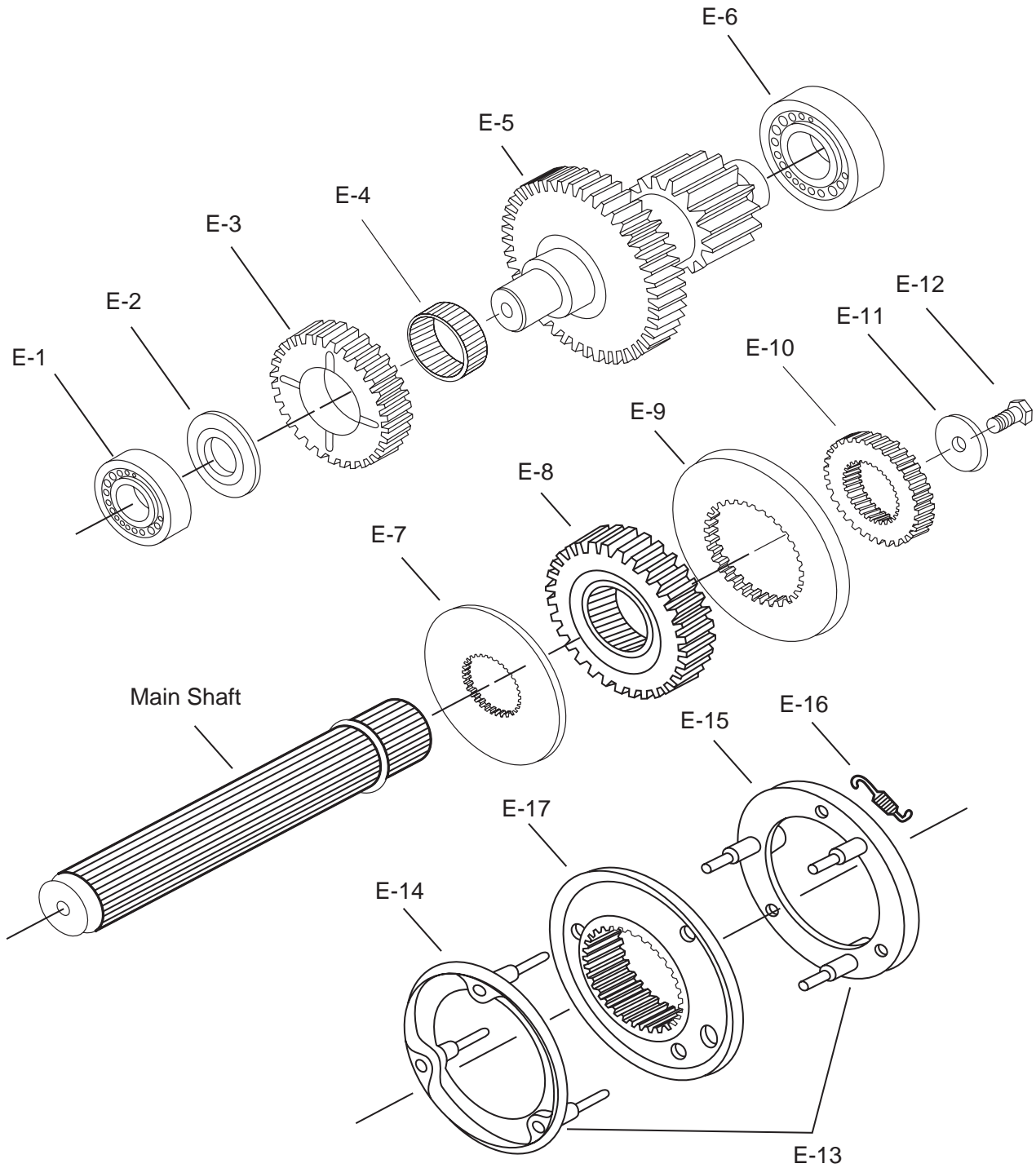
Exploded parts view is for an overdrive transmission.



Countershaft Gear Group

Item	Qty.	Description	Part Number
C-1	2	Countershaft - Main Case	201-30-14
C-2	2	Key: Countershaft Gear - Middle	201-210-4-2
C-3	2	Key: Countershaft Gear - Front	201-210-4-3
C-4	2	Key: Countershaft Gear - Rear	201-210-4-1
C-5	2	Gear - Countershaft; 1st and 6th (28T)	201-196-57
C-6	2	Gear - Countershaft; 2nd and 7th (38T)	201-196-58
C-7	2	PTO Drive Gear - Countershaft	201-312-3
C-8	2	Gear - Countershaft; 3rd and 8th (39T)	201-196-60
C-9	2	Gear - Countershaft; 5th and 10th (63T) for Overdrive Models	201-196-59
C-10	2	Countershaft Thrust Ring (Flat)	201-47-2
C-11	2	Countershaft Thrust Ring, Head End Gear	201-47-5
C-12	2	Gear - Countershaft; 4th and 9th (59T) for Overdrive Models	201-1-8
C-13	2	Bearing - Front Countershaft	551013
C-14	2	Bearing - Race; Front Countershaft	550375
C-15	2	Thrust Ring - Countershaft; 1st Gear	201-47-3
C-16	2	Bearing - Rear Countershaft	550182
C-17	2	Race - Rear Countershaft Bearing	550375
C-18	1	Countershaft Shim Kit	313667X
D-1	1	Retainer Plate - Countershaft	201-360-1
D-2	3	Bolt - Countershaft Retainer Plate (0.375" - 16 x 0.875")	545002-1
D-3	2	Reverse Gear - Range Countershaft (21T)	201-196-12
D-4	2	Retainer Washer - Countershaft Reverse Drive Gear	330952
D-5	2	Bolt - Countershaft Reverse Drive Gear Retaining Washer	545001

Range Case Gear Group

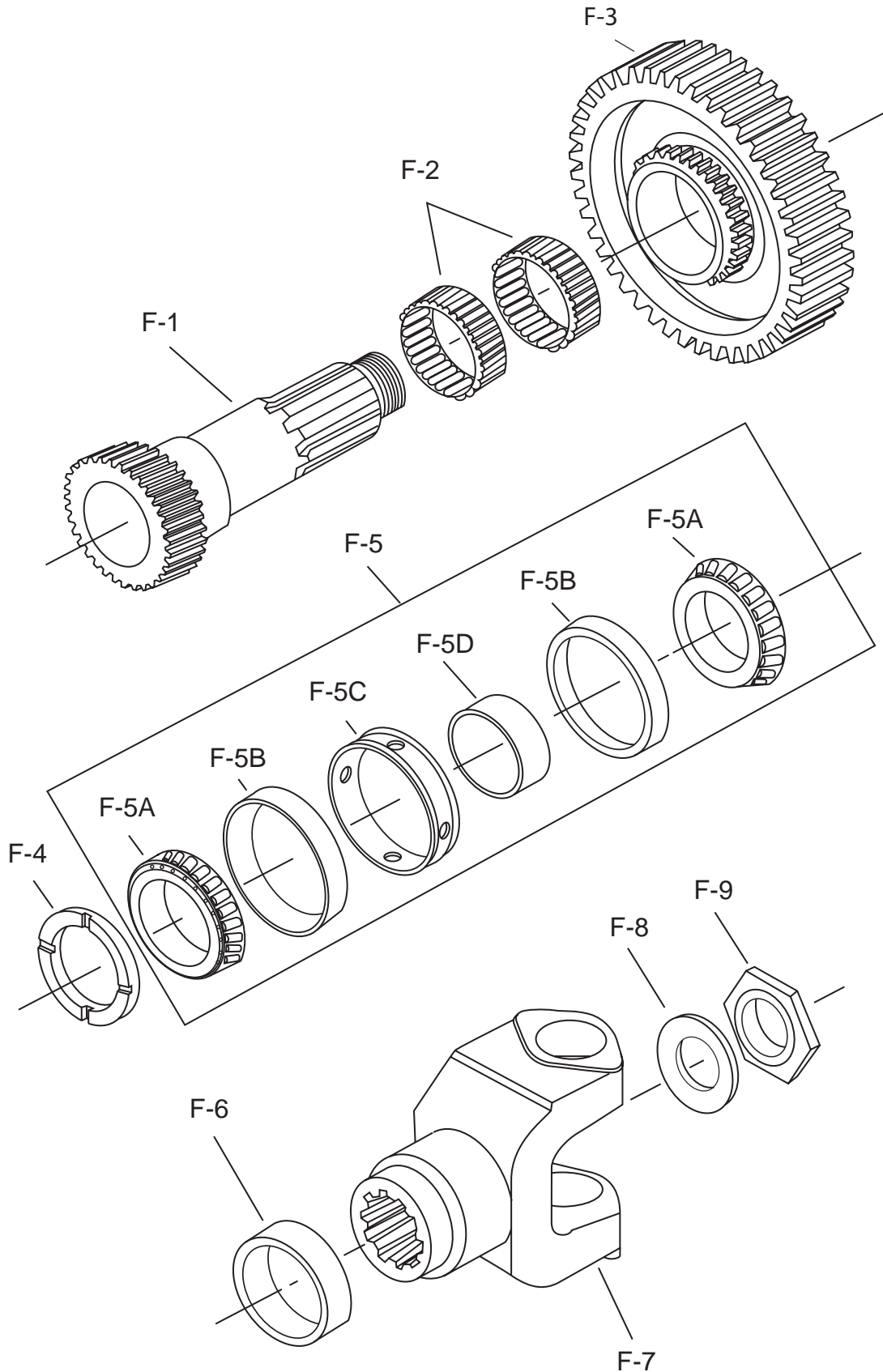


Range Case Gear Group

Item	Qty.	Description	Part Number
E-1	2	Bearing - Countershaft Front	550996
E-2	2	Thrust Washer - Countershaft Reverse Idler	330955
E-3	2	Gear - Countershaft Reverse Idler	201-5-2
E-4	2	Needle Bearing - Reverse Idler	550997
E-5	2	Range Countershaft Assembly (20T/48T)	201-30-20
E-6	2	Bearing - Range Countershaft	550998
E-7	1	Thrust Ring - Mainshaft Drive Gear	201-47-6
E-8	1	High Range Drive Gear - Mainshaft Head End (26T)	201-8-75
E-9	1	Outer Race - Range Synchronizer	201-494-1
E-10	1	High Range Clutch Gear	201-466-2
E-11	1	Retaining Washer - High Range Clutch Gear	330954
E-12	1	Bolt - Retaining Washer High Range Clutch Gear	545001
E-13	1	Range Synchronizer Assembly (E-14 through E-17)	201-563-1X
E-14	1	High Range Synchronizer (201-494-6-1X)	NSS
E-15	1	Low Range Synchronizer (201-494-7-1X)	NSS
E-16	3	Spring - Range Synchronizer (201-72-9)	NSS
E-17	1	High/Low Range Clutch Collar	201-465-4

NSS = Not Sold Separately

Output Shaft Group

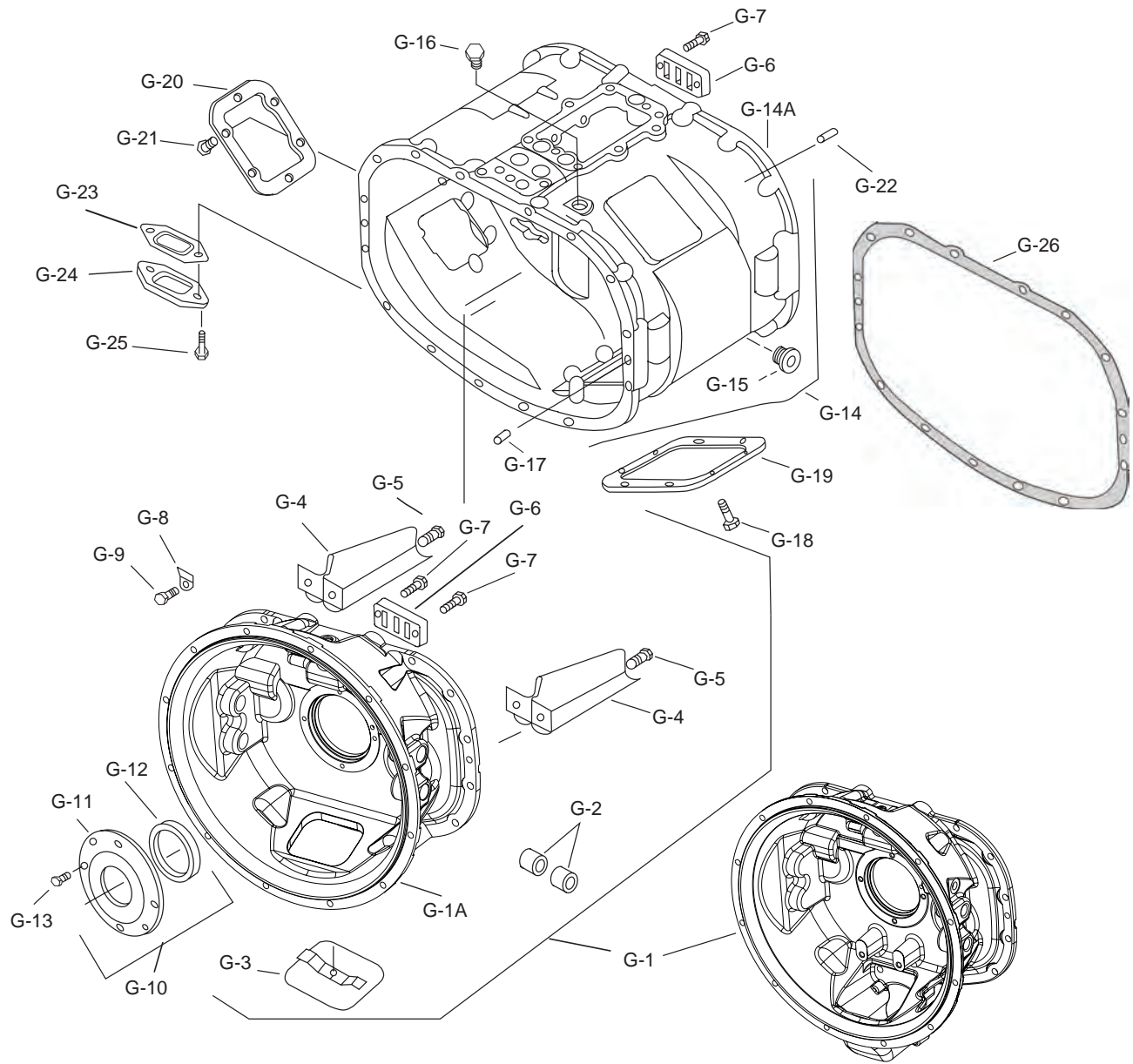


Output Shaft Group

Item	Qty.	Description	Part Number
F-1	1	Output Shaft	201-362-8
F-2	2	Needle Bearing Kit - Output Shaft	313668X
F-3	1	Output Gear - Low Range (52T)	201-8-69
F-4	1	Thrust Washer - Output Shaft	201-47-4
F-5	1	Output Shaft Bearing Kit	313628X
F-5A	2	Bearing - Output Shaft	NSS
F-5B	2	Race - Output Shaft	NSS
F-5C	1	Race Spacer - Output Shaft	NSS
F-5D	1	Spacer - Output Shaft Bearing	NSS
F-6	1	Speedo Gear (16T)	201-452-1
F-7	1	End Yoke - Half Round (SPL250 Series)	250-4-561-1
F-7	1	End Yoke - Half Round (RPL25 Series)	25WYS40-2A
F-7	1	End Yoke - Half Round (1810 Series)	6.5-4-3451-1
F-8	1	Washer - Output Shaft	330734
F-9	1	Nut - Output Shaft (1-3/4" - 16 S.A.E. Thread)	545065

NSS = Not Sold Separately

Main Case and Clutch Housing



Mechanical Clutch Housing

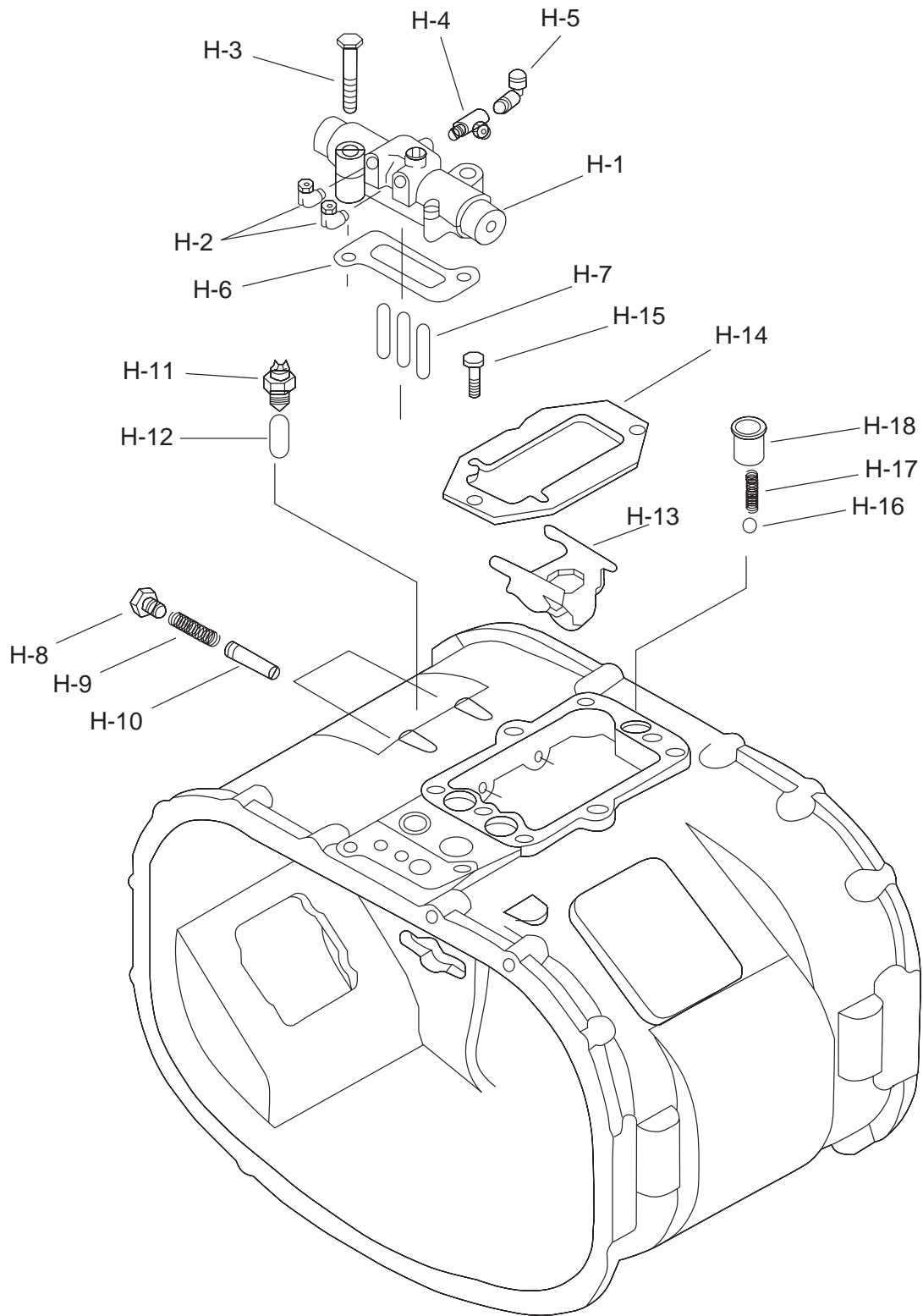
Hydraulic Clutch Housing

Main Case and Clutch Housing

Item	Qty.	Description	Part Number
G-1	1	Mechanical Clutch Housing Assembly	201-518-31-3X
G-1	1	Hydraulic Clutch Housing Assembly	201-518-29-3X
G-1A	1	Clutch Housing	NSS
G-2	4	Bushing - Clutch Release Shaft	97-24-8
G-3	1	Hand Hole Cover Assembly (Mechanical Clutch Housing)	97-96-18-1X
G-3A	1	Hand Hole Cover (Hydraulic Clutch Housing)	201-96-7
G-3B	1	Bolt - Hand Hole Cover	545037
G-3C	1	Leaf Spring - Hand Hole Cover	330863
G-4	2	Oil Through - Countershaft	201-468-1
G-5	4	Bolt - Oil Through (0.375"-16 x .500")	545002-13
G-6	2	Support - Shaft Rail (Front and Rear)	40-477-1
G-7	3	Bolt - Support Bar (0.375"-16 x 1.50")	545002-7
G-7A	1	Bolt - Support Bar (0.375"-16 x 1.75")	545002-5
G-8	2	Lift Hook	330969
G-9	16	Bolt - Clutch Housing (1/2"-13 x 1.375")	545001-1
G-10	1	Front Bearing Retainer Cap and Oil Seal Assembly (G-11 & G-12)	201-19-2-1X
G-11	1	Front Bearing Retainer	NSS
G-12	1	Oil Seal Kit - Front Bearing Retainer	97-463-36-1X
G-13	4	Bolt - Front Bearing Retainer (0.375"-16 x 0.875")	545002-1
G-14	1	Main Case Assembly (G-14 through G-16 and G-22 through G-25)	201-15-10-1X
G-14A	1	Main Case	NSS
G-15	2	Fill Plug (1.06 2 - 12UN - 2A)	545123
G-16	1	Plug - Pressure Port Hole (.125-27NPT)	201-39-4
G-17	4	Dowel Pin - Main Case	201-438-3
G-18	8	Bolt - PTO Aperture Cover (8 Hole)	545012
G-19	1	PTO Cover (8 Hole)	73-267-1
G-20	1	PTO Cover (6 Hole)	50-267-2
G-21	6	Bolt - PTO Aperture Cover (6 Hole)	2606352
G-22	2	Alignment Pin - Opti-Lube Mounting Plate	500597-14
G-23	1	Gasket - Oil Outlet	201-118-4
G-24	1	Cover - Oil Outlet	201-96-5
G-25	2	Bolt - Oil Outlet Cover (0.375"-16 x 1.375")	545002-2
G-26	1	Gasket	201-352-1
G-27	1	Hydraulic Release Fork Assmebly	105C-1567-1X
G-28	2	Bolt - Hydraulic Release Fork	500565-1
G-29	2	Bolt - Hydraulic Clutch Housing	545001-13
NS	2	Magnet	330934

NS = Not Shown
 NSS = Not Sold Separately

Additional Main Case Components

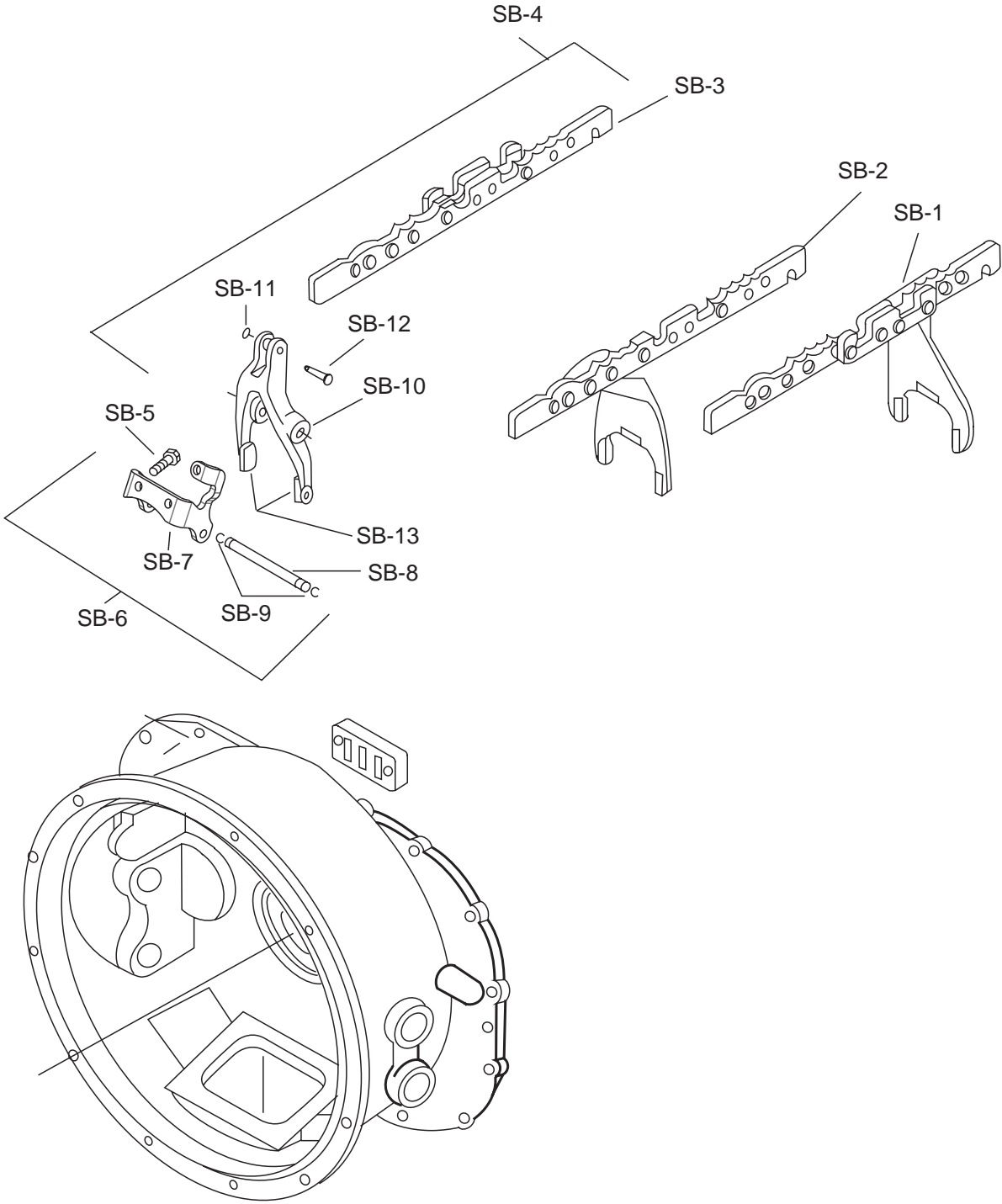


Additional Main Case Components

Item	Qty.	Description	Part Number
H-1	1	Williams Control Valve Assembly	313630X
H-2	2	90 Degree Elbow - Williams Control Valve	545025-2
H-3	2	Bolt - Williams Control Valve (0.436"-14 x 2.250")	545028-6
H-4	1	Adapter Tee - Williams Control Valve	545109
H-5	1	Fitting - Elbow Swivel Air (1/8 NPT x 3/16)	201-449-1
H-6	1	Gasket - Williams Control Valve	201-118-1
H-7	3	Pin - Williams Control Valve (Use Kit #313429-23X)	NSS
H-8	2	Plug - 1st and Reverse Spring Plunger	545128
H-9	2	Spring - 1st and Reverse Plunger (Use Kit #313429-23X)	NSS
H-10	2	Pin - 1st and Reverse Plunger (Use Kit #313429-23X)	NSS
H-11	1	Back Up Light Switch	M-556-5X
H-12	1	Actuating Pin - Back Up Light Switch (Use Kit #313429-23X)	NSS
H-13	1	Interlock - Shift Rail	201-200-1
H-14	1	Plate - Interlock Retainer	201-200-2
H-15	2	Bolt - Interlock Retaining Plate (0.438"-14 x .875")	330801-1
H-16	3	Poppet Ball (Use Kit #313429-23X)	NSS
H-17	3	Poppet Spring - Shift Rail (Use Kit #313429-23X)	NSS
H-18	3	Insert - Poppet Spring and Ball (Use Kit #313429-23X)	NSS
NS	1	Small Parts Kit (Includes H7, H9, H10, H12, H-16, H-17, H-18)	313429-23X

NSS = Not Sold Separately

Fork and Rail Group



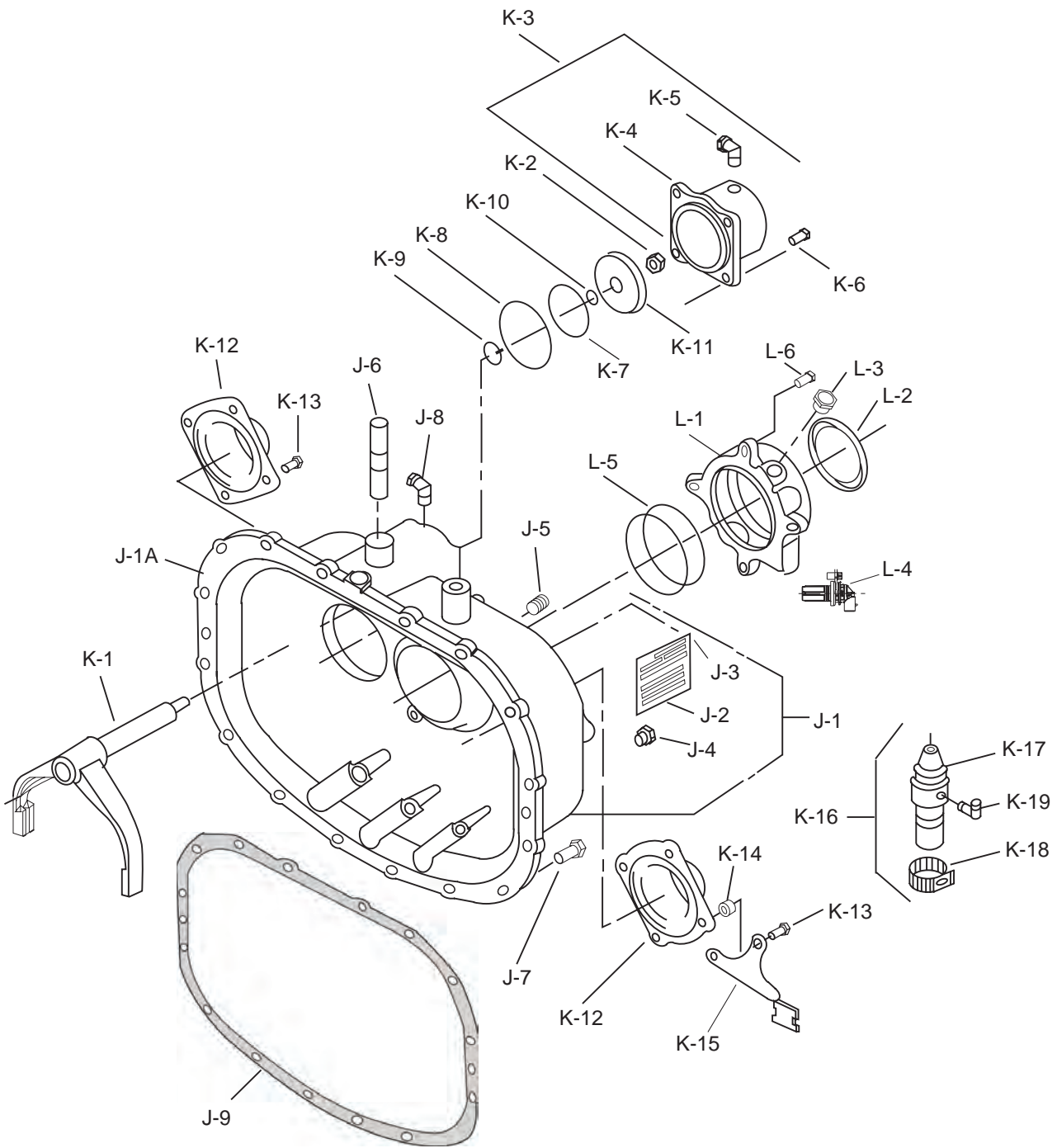
Fork and Rail Group

Item	Qty.	Description	Part Number
SB-1	1	1st and Reverse Shift Fork and Bar	313696X
SB-2	1	2nd and 3rd Shift Fork and Bar	313694X
SB-3	1	4th and 5th Shift Bar (313642X)	NSS
SB-4	1	Overdrive Shift Fork Kit (includes SB-3, SB-8, SB-9, SB-11 & SB-12)	313642-1X
SB-5	2	Bolt - Overdrive Support Bracket (3/8 - 16 x 1.00)	545002
SB-6	1	Kit - Overdrive Shift Fork (includes G-7A, SB-5, SB-7, SB-8, SB-9)	201-411-5-1X
SB-7	1	Overdrive Support Bracket (201-411-5)	NSS
SB-8	1	Mounting Bracket Pin (201-438-7)	NSS
SB-9	2	Snap Ring - Mounting Bracket Pin (97-381-7)	NSS
SB-10	1	4th and 5th Shift Fork (Overdrive Model) (201-66-18-3X)	NSS
SB-11	1	Snap Ring - Clevis Pin	NSS
SB-12	1	Clevis Pin - Shift Fork	NSS
SB-13	2	Shoe - Overdrive Shift Fork	201-486-1
NS	1	Lock Strap	201-200-8
NS	1	Bolt - Overdrive Support Bracket	545002-5
		Other Service Kits	
NS	1	Kit - Overdrive Shift Fork Mounting Pin and Snap Ring (SB-11 and SB-12)	201-438-6-1X
NS	1	Kit - Overdrive Shift Fork Mounting Pin and Snap Ring (SB-8 and SB-9)	201-438-7-1X
NS	1	Kit - Overdrive Shift Fork & Pin (includes SB-8 through SB-13)	201-66-18-3X

NS = Not Shown

NSS = Not Sold Separately

Range Case



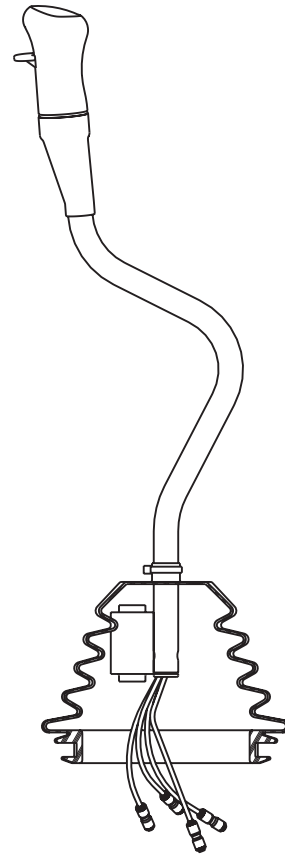
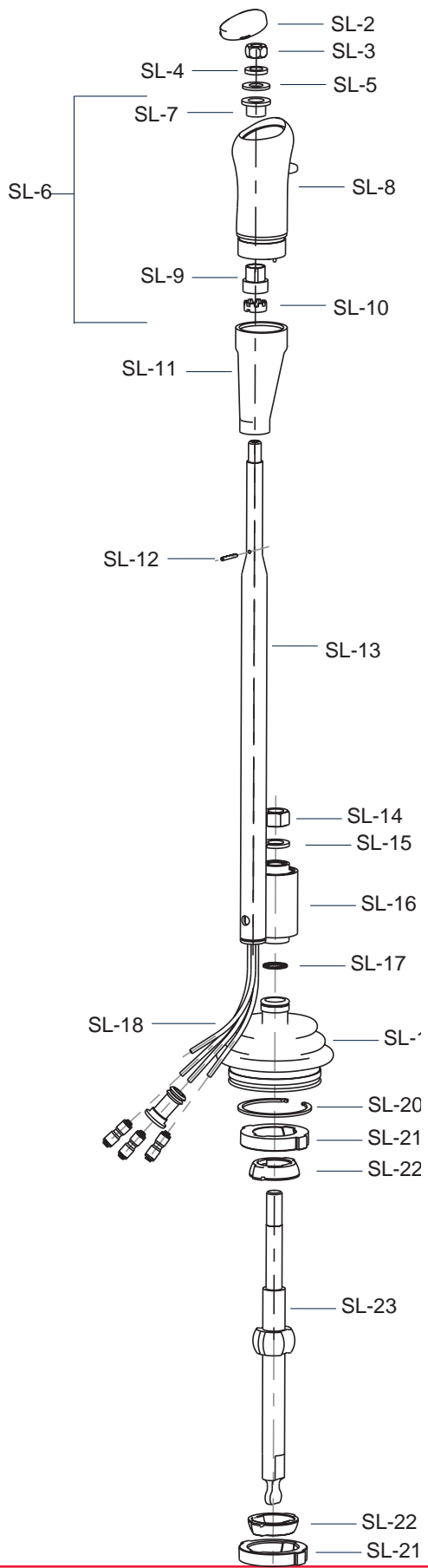
Range Case

Item	Qty.	Description	Part Number
J-1	1	Range Case Assembly (J-1 through J-5)	201-15-19-1X
J-1A	1	Range Case	NSS
J-2	1	Name Plate	NP-97
NS	1	Patent Plate (NP-196)	NSS
J-3	4	Pin - Name Plate	252-SP
J-4	2	Drain Plug	545123
J-5	1	Temperature Sensor Plug	201-39-1
J-6	2	Rear Stud (0.625"-18NF x 2.375")	330360-7
J-7	16	Bolts - Range Case (.5"-13 x 1.375")	545001-1
J-8	1	90 Degree Elbow - Piston Housing	545025-1
J-9	1	Gasket	201-352-1
K-1	1	Range Fork with Pads and Nut	201-66-23-3X
K-2	1	Nut - Range Piston	545170
K-3	1	Range Piston Housing Assembly (K-4 through K-6)	201-501-2-1X
K-4	1	Range Piston Housing	NSS
K-5	2	90 Degree Elbow - Piston Housing	545025-1
K-6	4	Bolts - Range Piston Housing (0.375"-16 x 0.875")	545002-1
K-7	1	O-Ring - Range Piston Housing (Use Kit #313669X)	NSS
K-8	1	O-Ring - Range Piston Housing (Use Kit #313669X)	NSS
K-9	1	O-Ring - Range Piston Housing (Use Kit #313669X)	NSS
K-10	1	O-Ring - Range Piston to Range Piston Shaft (Use Kit #313669X)	NSS
NS	1	Clamp - Air Line Tubing (Included in K-3)	330970
K-11	1	Range Piston	201-136-7
K-12	2	Rear Bearing Cap - Countershaft	201-22-3
K-13	6	Bolt - Bearing Cap (0.375"-16 x 0.875")	545002-1
K-13	2	Bolt - Bearing Cap (0.375"-16 x 1.5")	545002-7
NS	1	Lifting Eye	330969
K-14	4	Nut (Spacer) - Filter Regulator	500381-4
K-15	1	Filter Regulator Bracket	201-411-1
K-16	1	Kit - Filter Regulator (K-17 through K-19)	313644X
K-17	1	Filter Regulator	313042
K-18	1	Clamp - Filter Regulator	330831
K-19	1	90 Degree Elbow - Air Filter Regulator	545025-1
L-1	1	Rear Bearing Retainer Assembly (Includes L-1 through L-3)	201-19-15-1X
L-2	1	Output Shaft Seal	201-463-8
L-3	2	Plug - Electronic Speedometer (Plastic)	500897-17
L-4	1	Speedometer Sensor (Push-In)	201-620-5X
L-5	1	Shim Kit	313667X
L-6	4	Bolt - Rear Bearing Retainer (0.375"-16 x 1.250")	545002-6

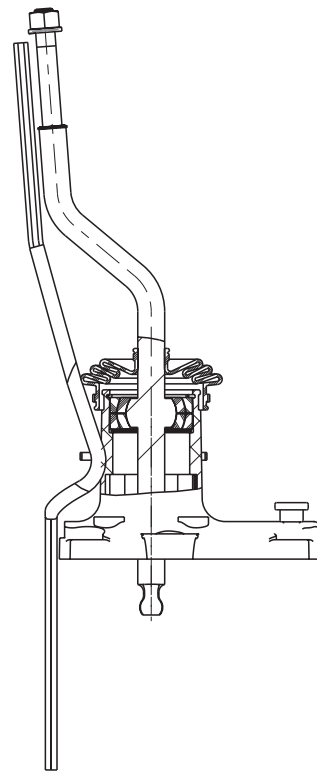
NS = Not Shown

NSS = Not Sold Separately

Shift Tower



Upper Assembly

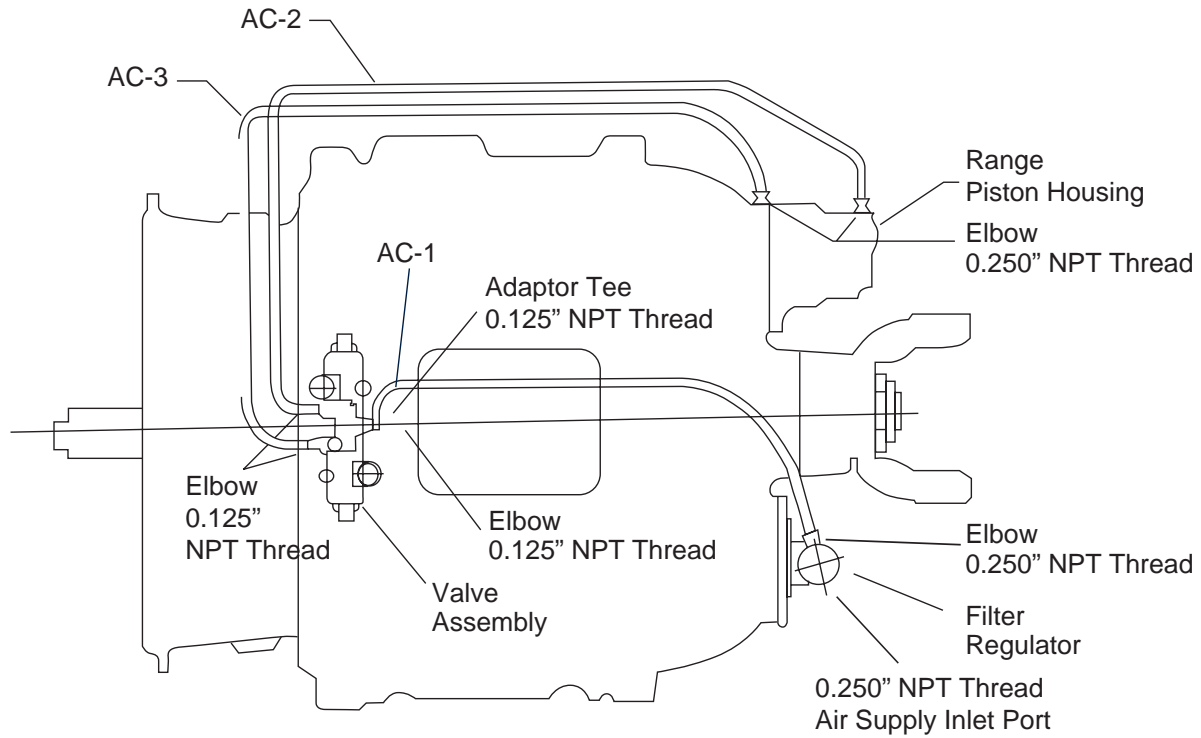


Lower Assembly

Shift Tower

Item	Qty.	Description	Part Number
SL-2	1	Bezel	205-20-18
SL-3	1	Nut - Knob	500370-5
SL-4	1	Lock Washer - Knob	500357-13
SL-5	1	Spiral Washer	201-451-2
SL-6	1	Shift Knob (includes SL-7, SL-8, SL-9 & SL-10)	39Q-38-3
SL-7	1	Upper Isolator (plastic)	NSS
SL-8	1	Shift Knob	NSS
SL-9	1	Lower Isolator (plastic)	NSS
SL-10	1	Castellated Nut (201-205-1)	NSS
SL-11	1	Boot - Knob	205-483-10
SL12	1	Roll Pin	201-438-8
SL-13	1	Upper Shift Lever	25T-5X
SL-14	1	Hex Nut	500371-7
SL-15	1	Lock Washer	500356-15
SL-16	1	Isolator Bushing	313709
SL-17	1	Spiral Lock Washer	25-205-1
SL-18	1	Air Lines	201-420-5
SL-19	1	Boot - Lever	101-483-2
SL-20	4	Quick Disconnect Fitting (Airlines)	201-999-5
SL-21	1	Snap Ring	97-381-11
SL-22	2	Outer Ring	34Q-8
SL-23	2	Inner Ring	34Q-7
SL-24	1	Lower Shift Lever	25Q-3246X
SL-25	2	Opposing Disk Springs	201-72-3
SL-26	1	Breather	312268
SL-27	6	Shift Tower Retaining Bolt	545028-2
SL-28	1	Shift Tower	201-17-2X
SL-29	1	Gasket	201-118-2
	1	Upper Shift Tower Assembly for ProStar Truck	TMEC13819
	1	Lower Shift Tower Assembly for ProStar Truck	TMEC13822

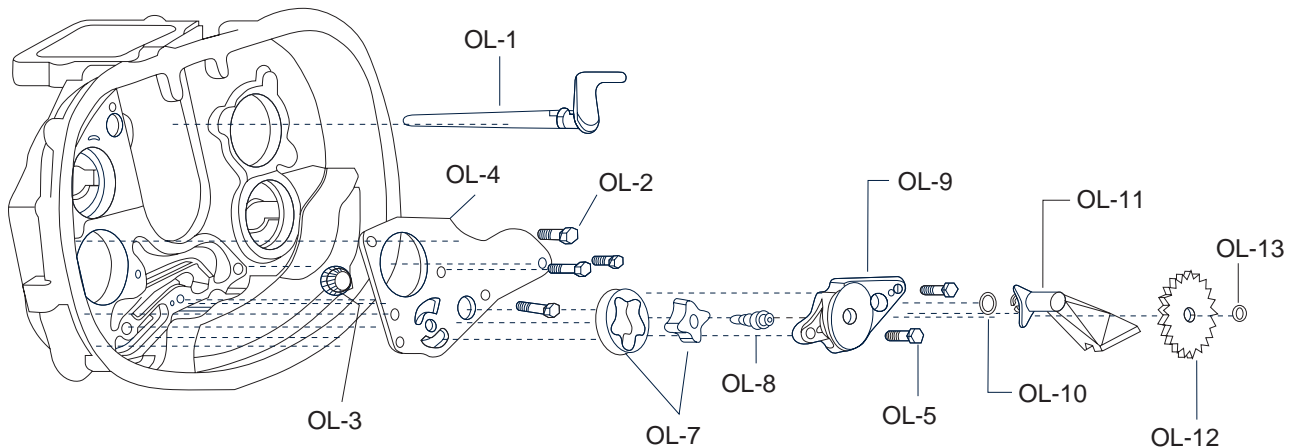
Air Line



Item	Qty.	Description	Part Number
AC-1	1	Air Tubing - 0.250" OD (Red)	201-420-2-3
AC-2	1	Air Tubing - 0.250" OD (Green)	201-420-3-3
AC-3	1	Air Tubing - 0.250" OD (Black)	201-420-4-3
NS	1	Tubing - Convolute Conduit	201-420-9

NS = Not Shown

Main Case; Opti-Lube™



Item	Qty.	Description	Part Number
Kit - Opti-Lube Pump (OL-1 through OL-13)			201-501-11-2X
OL-1	1	Discharge Tube Assembly	201-420-13X
OL-2	3	Bolt - Mounting Plate (o.375"-16 x 0.875")	545002-1
OL-3	1	Oil Bypass Valve Assembly	201-501-13X
OL-4	1	Opti-Lube Mounting Plate	201-360-2
OL-5	2	Bolt - Opti-Lube Housing	545002-2
OL-6	1	Opti-Lube Pump Assembly (includes OL-7 through OL-13)	201-501-11-1X
OL-7	1	Gerotor Element (201-999-2)	NSS
OL-8	1	Opti-Lube Pump Shaft (201-187-1)	NSS
OL-9	1	Opti-Lube Pump Housing (201-501-11)	NSS
OL-10	1	O-Ring (201-463-24)	NSS
OL-11	1	Inlet Tube (201-420-12X)	NSS
OL-12	1	Opti-Lube Drive Gear(201-152-1)	NSS
OL-13	1	Snap Ring (201-381-10)	NSS

NSS = Not Sold Separately

Major Overhaul Kit for TR-TO-10S

Qty.	Rev.	Description	Part Number
Major Overhaul Kit for TR-TO-10; includes items listed below:			201-400-3X
2	-	Key - Countershaft Gear, Rear	201-210-4-1
2	-	Key - Countershaft Gear, Middle	201-210-4-2
2	-	Key - Countershaft Gear, Front	201-210-4-3
1	-	Kit - Overdrive Shift Fork Mounting Pin & Snap Rings	201-438-6-1X
1	-	Kit - Overdrive Shift Fork Bracket Pin & Snap Ring	201-438-7-1X
1	E	Thrust Washer - Output Shaft	201-47-4
1	G	Ring - Range Main Shaft Drive Gear Thrust	201-47-6
1	-	Kit - Shifter Small Parts	313429-23X
1	A	Kit - Minor Overhaul (TR-TO-T0S)	313432-47X
1	C	Kit - Range Piston Housing Repair	313669X
2	G	Washer - Countershaft Reverse Idler/Thrust (Range)	330955
2	-	Key - PTO Gear Woodruff	50-00007-24
1	T	Nut - Mainshaft (1-3/4"-16 THD S.A.E.)	545065

Minor Overhaul Kit for TR-TO-10S

Qty.	Rev.	Description	Part Number
Minor Overhaul Kit for TR-TO-10; includes items listed below:			313432-47X
1	A	Lock Strap	201-200-8
1	E	Snap Ring - Input Shaft	201-381-1
1	A	Snap Ring - Main Shaft Range Drive Gear	201-381-3
6	A	O-Ring - Countershaft Front	201-463-26
1	M	Seal - Output Shaft Rear Bearing Cap	201-463-8
1	-	Bulletin - Main Shaft Nut (Loctite Application)	2783
1	-	O-Ring Installation Instructions	2863
1	-	Bulletin - Electronic Service Manuals	2879
1	-	Bulletin - Overdrive Fork Bracket & Lock Strap	2881
1	-	Kit - Gasket (TR-TO-10S)	312475-48X
1	A	Sub Assembly - Bearing & Belleville Snap Ring (Input Shaft)	313645X
1	E	Kit - Shim	313667X
1	-	Kit - Output Gear Needle Bearing	313668X
1	D	Adhesive - Main Shaft Nut Anaerobic Sealant (0.5 CC Vial)	545080-1
2	A	Rear Bearing - Auxiliary Countershaft	551015
2	A	Front Bearing - Countershaft	551018
2	A	Tapared Roller Bearing	551027
4	B	Tapared Roller Bearing Cup	551028
2	A	Tapared Roller Bearing	551034
2	A	Needle Roller Bearing	551036
2	A	Taper Roller Bearing Cone	551068
2	A	Taper Roller Bearing Cup	551069
1	A	Taper Roller Bearing	551071
1	-	Sub Assembly - Oil Seal & Installation Sleeve	97-463-36-1X

Gasket Kit for TR-TO-10S

Qty.	Rev.	Description	Part Number
Gasket Kit for TR-TO-10S; includes items listed below:			312475-48X
1	A	Gasket - Williams Air Control Valve	201-118-1
1	-	Gasket - Shift Tower Housing	201-118-2
1	A	Gasket - Outlet Cover	201-118-4
1	-	Bulletin - Liquid Gasket (PS9 & 10)	2824
1	T	Anaerobic Sealant	545056-10
2	A	Gasket - Main Case	201-352-1

O-Ring Kit for TR-TO-10S

Qty.	Rev.	Description	Part Number
O-Ring Kit for TR-TO-10S; includes items listed below:			313669X
1	H	O-Ring - Range Piston to Rod	183-463-6
1	C	O-Ring - Range Shift Piston	201-463-1
1	D	O-Ring - Range Piston Housing	201-463-2
1	A	O-Ring - Range Piston Rod	201-463-3
1	A	Service Bulletin	2901

Shim Kit for TR-TO-10S

Qty.	Rev.	Description	Part Number
Shim Kit for TR-TO-10S; includes items listed below:			313667X
5	-	Shim - Countershaft Rear Bearing (.020 Thick)	201-228-1-4
4	-	Shim - Countershaft Rear Bearing (.030 Thick)	201-228-1-5
2	-	Shim - Countershaft Rear Bearing (.0465/.0435 Thick)	201-228-1-8
4	-	Shim - Countershaft Rear Bearing (.0515/.0485 Thick)	201-228-1-9
1	-	Shim - Output Shaft (.005 Thick)	201-228-2-1
1	-	Shim - Output Shaft (.010 Thick)	201-228-2-2
1	-	Shim - Output Shaft (.015 Thick)	201-228-2-3
1	-	Shim - Output Shaft (.020 Thick)	201-228-2-4
1	-	Shim - Output Shaft (.030 Thick)	201-228-2-5
1	-	Bulletin - Countershaft Shim Kit	2825

TREMEC[®]

Torque Transfer Solutions[™]

14700 Helm Ct. | Plymouth, MI 48170 U.S.A.
U.S. Toll Free: (800) 401-9866
Outside of U.S. (734) 456-3700
Fax: (734) 456-3739
www.tremec.com