



## Eaton Fuller RTXF-16709B Transmission Parts Manual

This is Eaton Fuller RTXF-16709B Transmission parts manual brought to you by Pro Gear and Transmission to assist you identifying the parts for your Eaton / Fuller transmission unit.

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# Illustrated Parts List

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**RTXF-16709B**  
**July 2011**

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## How To Use The Illustrated Parts List

The information contained in this document is subject to frequent updates. Therefore, for the latest information available, please visit the interactive Electronic Parts Catalog at [www.roadranger.com/epc](http://www.roadranger.com/epc).

### Model Designation or Nomenclature

- For information regarding Model Designation and Nomenclature, visit [www.roadranger.com](http://www.roadranger.com).

### Kits and Assemblies (K/A's)

- Kits and Assemblies contain groups of individual or assembled parts developed for optimal replacement or repair of a service problem.
- Kits and Assemblies are shown with applicable parts groupings in the parts listings.

### Identifying Kits and Assemblies

A- Part numbers beginning with the letter 'A' are pre-assembled Production Assemblies

K- Part numbers beginning with the letter 'K' are kits that are not assembled

S- Part numbers beginning with the letter 'S' are pre-assembled Service Assemblies

- Note: Some Production Assemblies do not begin with a letter prefix (Midrange only).

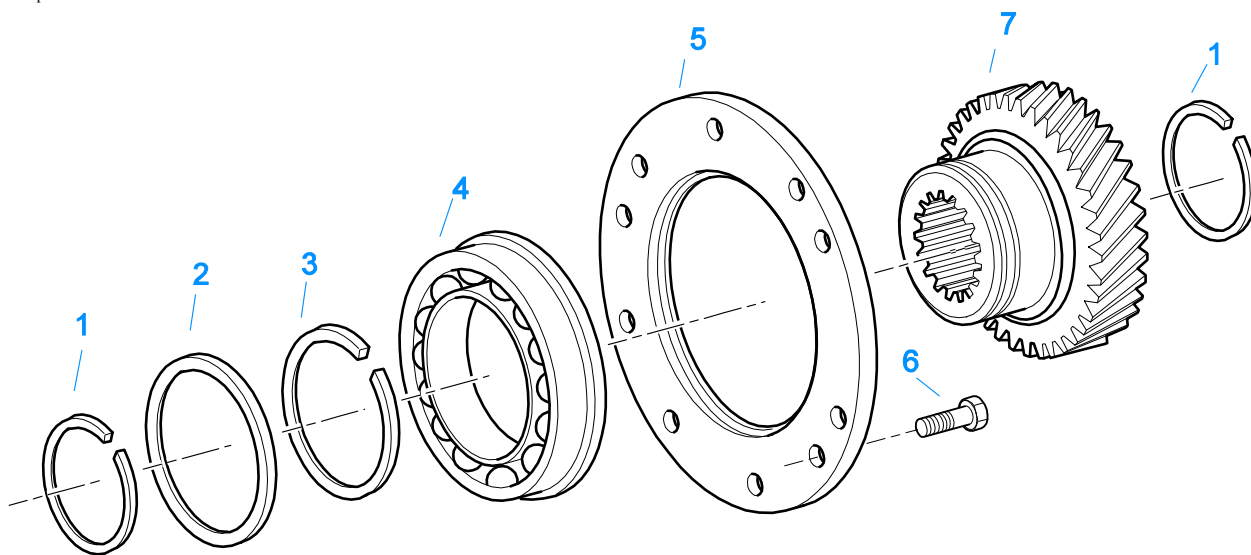
### Illustrations

- Illustrations show parts in assembly groups.
- Item numbers on illustrations correspond with parts listings on pages adjacent to the illustration.
- Notes are included on illustrations where additional information is needed.

### Parts Listing

Parts listings are defined by parts groupings and are broken down by service assemblies. Parts listings identify a part for servicing with the following categories

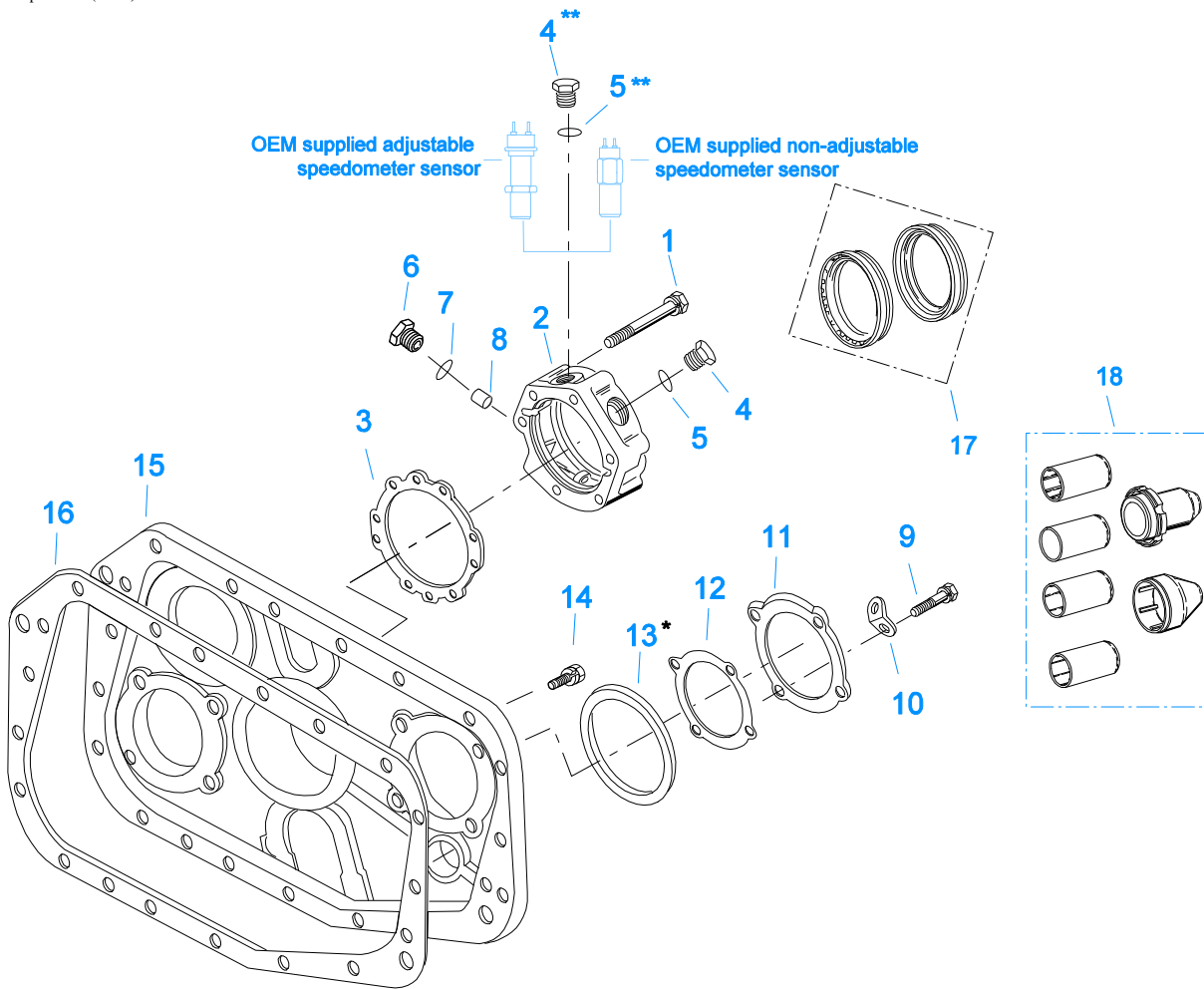
- **Item Number** - corresponding with numbers on illustrations for part identification.
- **Current Part** - identifies part as it is available for service.
- **Description** - specifies part name or description.
- **Replaced Part** - quantity quantity required for assembly.
- **Quantity** - defines unique characteristics or requirements.
- **Notes** - indicates Kits or Assemblies that contain a particular part.
- **Kits/Assy's Where Used**



10480-12/92 Aux DG

## AUXILIARY DRIVE GEAR

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	16763	SNAP RING		2		K-1999,K-2275,K-2410,K-3157,K-3166
2	21320	SNAP RING RETAINER		1		K-2410
3	16628	SNAP RING		1		K-2410
4	5566507-BOX	BEARING	5566504,5566507	1		K-1999,K-2275
5	16138	BEARING RETAINER		1		
6	X-8-645	CAPSCREW	X 8 612	6	3/8"-16X1"	
7	23159	AUXILIARY DRIVE GEAR	21321	1		



**\*\* Note — Items 4 & 5 / Magnetic Speedometer Openings:**

Use 13679 "O" ring w/ OEM supplied adjustable speedometer sensor

and 20225 "O" ring w/ OEM supplied non-adjustable speedometer sensor or Eaton part #20224 Plug

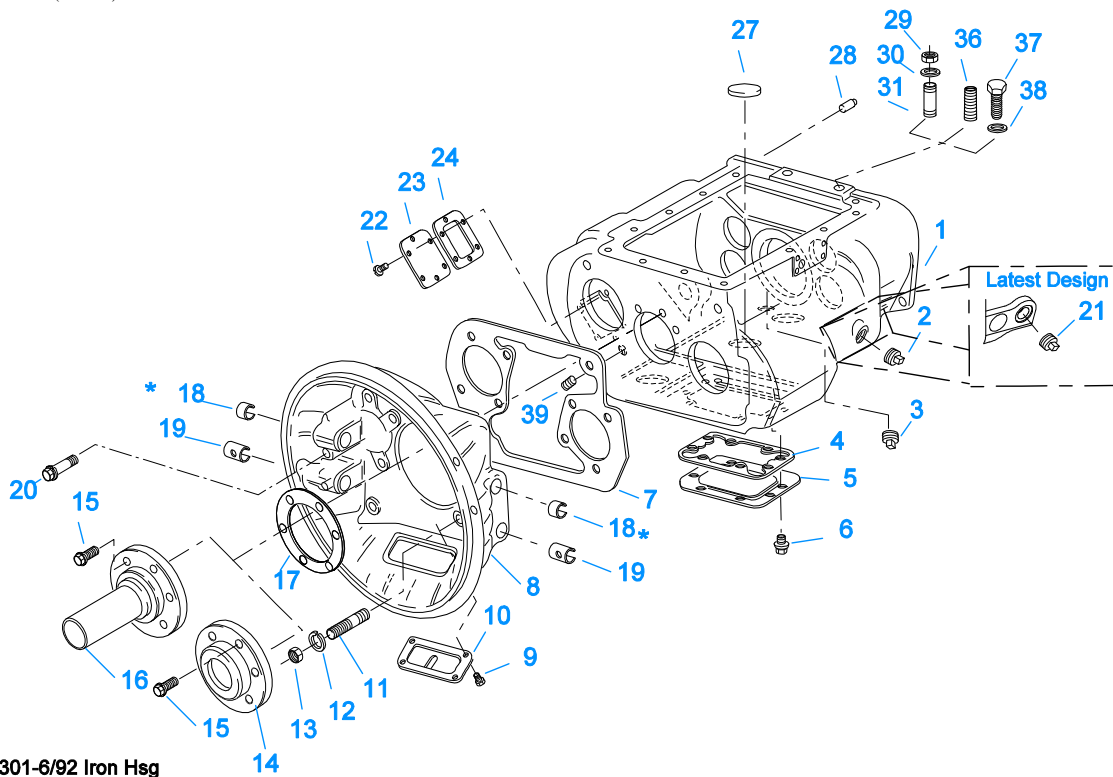
\* See Service Manual for Proper Shimming Procedure

10400-1/92 Aux Case

## CASE (AUX)

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	X-8L-631	CAPSCREW	X 8 631	6	3/8"-16X3-1/2"	
2	S-2159	REAR BRG COVER ASSY	S - 1760	1		
3	21364	GASKET		1		K-2061,K-2262,S-2159
4	20224	PLUG-MAGNETIC		2		S-1901,S-2159
5	13679	-O- RING		1	USE W/ OEM SUPPLIED ADJUSTABLE SPEEDOMETER SENSOR	
5	20225	-O- RING		2	USE W/20224 PLUG OR OEM SUPPLIED NON-ADJUSTABLE SPEEDOMETER SENSOR	
6	20226	PLUG-MECHANICAL	2237	1		S-1901,S-2159
7	14142	-O- RING		1	USE W/20226 PLUG	S-1901,S-2159
8	7992	BUSHING		1		S-2159
9	X-8L-600	CAPSCREW		8	3/8"-16X1"	
10	20815	LIFTING EYE	17105	2		S-1901
11	4302320	COVER	21346	2		S-1901
12	4305978	GASKET	4302246	2		K-2061,S-1901
13	K-2805	SHIM KIT	21452 K - 2106	1		K-1999,K-2275,S-1901
14	X-8L-602	CAPSCREW		16	3/8"-16X1-1/2"	
14	X-8L-614	CAPSCREW		2	3/8"-16X2"	
14	X-8L-616	CAPSCREW	X 8 616	1	3/8"-16X2-3/4"	

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
15	22900	REAR HOUSING		1		
16	14335	GASKET		1		K-2061,S-1901
17	K-2262	OIL SEAL W/SLINGER	19109 20807 20808	1	"FOR MECHANICAL COVER"	K-1999,K-2275
18	K-3651	OIL SEAL TOOL KIT		1		



10301-6/92 Iron Hsg

\* Bushing quantity requirements: #1 Housing – Upper bore use 4 #12815 / Lower bore use 2 #8677.

#2 Housing – Upper bore use 2 #12815 and 1 #8677 / Lower bore use 2 #8677.

Note: Some part requirements are specific to #1 or #2 Clutch Housings and Push or Pull type Clutch.

**CASE (FRONT)**

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	S-1545	CASE ASSY	21528	1	FOR USE W/INTEGRAL PUMP	
2	X-12-2007	PIPE PLUG	X12 2006	1		
3	X-12-1207	PIPE PLUG	X12 1202 ,X12 1206	1	3/4" MAGNETIC	
4	4305310	GASKET	4302810	1		K-2061
5	4302809	PTO COVER	16596 ,4300571	1		
6	X-8-725	CAPSCREW	X 8 724	8	7/16"-14X7/8"	
7	4306584	CLUTCH HOUSING GASKET	4304815,4305668	1		K-2061
8	A-3713	CLUTCH HOUSING ASSY	A - 3700	1	#1 PUSH-PULL IRON	
8	A-3723	CLUTCH HOUSING ASSY	A - 3721 ,A - 3722	1	#2 PUSH-PULL IRON	
9	239614	SCREW	X-8L-509	4	5/16-18X.81 QUANTITY DEPENDENT ON DESIGN	
10	14506	HAND HOLE COVER		1	#2 PUSH	
10	14507	HAND HOLE COVER		1	#2 PULL	
10	4305230	HAND HOLE COVER	11453	1	#1 PULL	
10	4305231	HAND HOLE COVER	1565	1	#1 PUSH	
11	4306583	STUD	5966	6		
12	X-10-1005	WASHER	X 3 1000 ,X10 1000 ,X10 1004	6	1.23 X 6.60	
13	X-1-1012	HEX NUT		6	.625-18	
14	20550	FRONT BRG COVER		1	2" PULL	K-2468,K-4125
15	X-8L-604	CAPSCREW		6	3/8"-16X1-1/4"	
16	20549	FRONT BRG COVER		1	2" PUSH	
17	14311	GASKET		1		K-2061
18	12815	BUSHING		4	FOR #1 HOUSING UPPER	A-3713,A-3723,K-2468
18	12815	BUSHING		2	FOR #2 HOUSING UPPER	A-3713,A-3723,K-2468
18	8677	BUSHING		1	FOR #2 HOUSING UPPER	A-3713,A-3723
19	8677	BUSHING		1	FOR #1 AND #2 HOUSING LOWER	A-3713,A-3723
20	X-8C-830	HEX HEAD SCREW/WASHER ASSY	X-8C-826	2	.500-13 X 1.490, FOR IRON HOUSING	
20	X-8C-831	HEX HEAD SCREW/WASHER ASSY	X-8C-822	2	.500-13 X 3.460, FOR IRON HOUSING	



Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
21	4304023	PLUG	4303747	1	1-1/16" MAGNETIC, O-RING INCLUDED	S-1545,S-1826
22	X-8-686	CAPSCREW		6	3/8"-16X3/4"	
23	14575	PTO COVER	4302254	1		
24	4305309	GASKET	1684	1		K-2061
27	14373	MAGNET		3		S-1545,S-1826
28	18128	PIN		2		
29	X-1-1012	HEX NUT		2	.625-18	
30	X-10-1005	WASHER	X 3 1000 ,X10 1000 ,X10 1004	2	1.23 X 6.60	
31	14554	STUD	1632 ,6579	2	5/8" X 2-3/16"	
36	23104	PLUG	1712	2		
37	X-8-1005	CAPSCREW		2	5/8"-11X1-1/4"	
38	20814	SPACER		2		
39	X-12-802	PIPE PLUG	X12 800	1	1/2"	



10440-1/92 Aux CS Helical

### COUNTERSHAFT & BRGS(AUX)

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	4302074-BOX	BEARING	21343,4302074	4		K-1999,K-2275
2	A-5669	WELDED COUNTERSHAFT ASSY	A - 5667 ,A - 5668	2	C/S 4300037 - D/G 23160	
3	22903	SPACER		2		K-2410

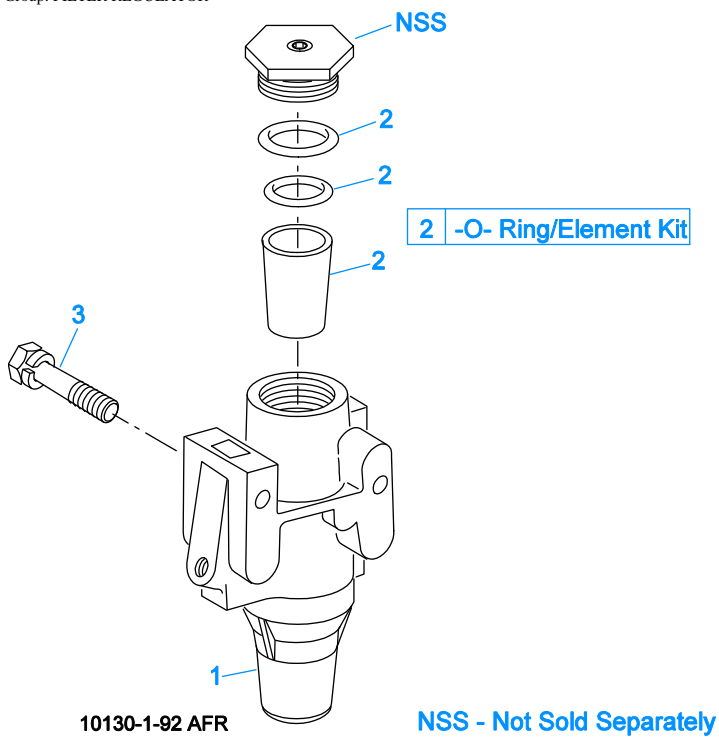


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## COUNTERSHAFT ASSY

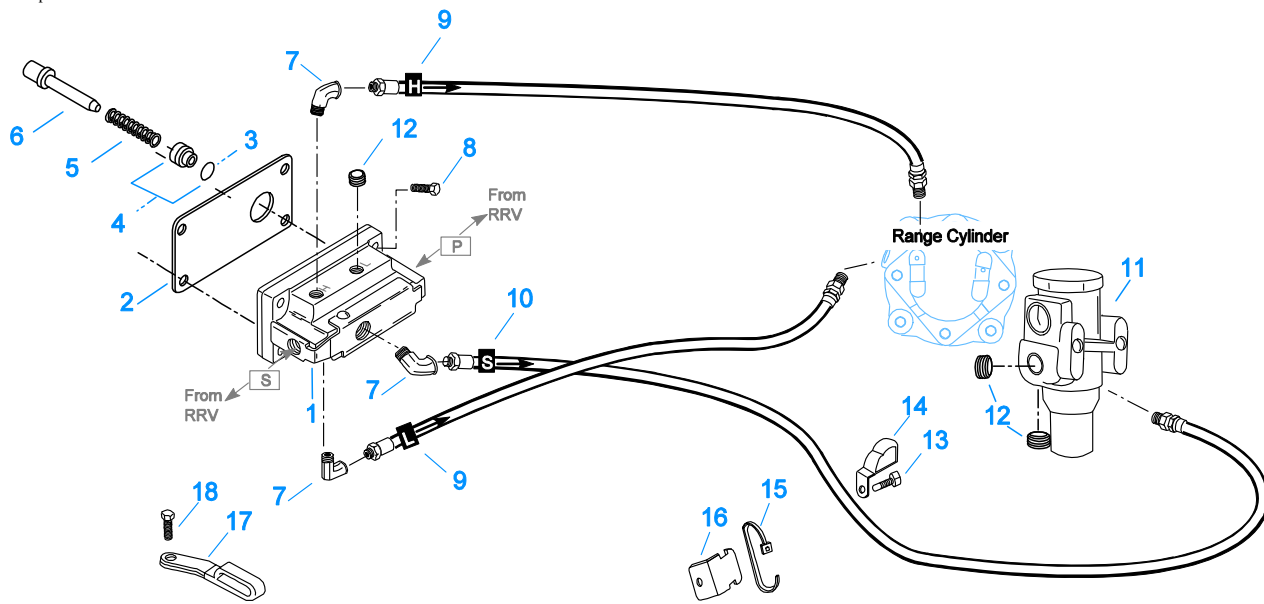
Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	14317	SNAP RING		2		K-1999,K-2275,K-2410
2	14366	BEARING		2		K-1999,K-2275
3	K-2937	COUNTERSHAFT-W/REV & LOW	4300244	2		
4	X-6-E	KEY		2		
5	62511	ROLL PIN		4		
6	4304840	KEY	19673	2		
7	4300241	1ST GEAR-CNTRSHFT		2		
8	4300247	2ND GEAR-CNTRSHFT		2		
9	4300191	OD GEAR-CNTRSHFT	4305071	2		
10	15953	PTO GEAR - LOWER		1		
10	20840	PTO GEAR - UPPER		1		
11	4305665	DRIVE GEAR-CNTRSHFT	21018,4305069	2		
12	19198	SNAP RING		2		
13	4304599	BEARING	4302677 4304598	2		K-1999,K-2275
14	4304605	RETAINER	19548	2	ROLL PIN NO LONGER REQUIRED	
15	X-7-1005	CAPSCREW		2	5/8"-18X1-3/4"	

Group: FILTER REGULATOR



## FILTER REGULATOR

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	A-4740	FILTER/REGULATOR	19600	1		
2	K-1698	-O- RING/ELEMENT KIT		1	FOR FILTER REGULATOR	
3	X-8C-412	CAPSCREW	X 8S 412	2	1/4"-20X2-1/4"	



10111-1/92 19470 HC

## H & C W/19470 VALVE

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	K-2424	VALVE REPLACEMENT KIT	19470	1		
2	19481	GASKET		1		K-2061,K-2424
3	19462	-O- RING	14033	1		K-1969
4	K-1969	SLEEVE KIT	14362 ,19460 ,21446	1	FOR SLAVE VALVES	
5	21268	SPRING	19572	1		
6	20490	PIN	19459	1		
7	12845	ELBOW		3	1/8"	
8	X-8C-401	CAPSCREW		4	1/4"-20X1-1/8"	
9	55508	HOSE ASSY		2	30"	
10	55518	HOSE ASSY		1	32"	
11	A-4740	FILTER/REGULATOR	19600	1		
12	X-12-208	PIPE PLUG		3	1/8" NPT	
13	X-8L-600	CAPSCREW		1	3/8"-16X1"	
14	21427	HOSE CLAMP		1		
15	21425	STRAP		1		
16	21426	BRACKET		1		
17	21428	HOSE CLAMP		1		
18	X-8L-604	CAPSCREW		1	3/8"-16X1-1/4"	

Group: H & C W/A-5000 VALVE



10110-1/92 A-5000 HC

### H & C W/A-5000 VALVE

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	A-5000	SLAVE VALVE ASSY	20850	1		K-2424
2	19481	GASKET		1		K-2061,K-2424
3	19462	-O- RING	14033	1		K-1969
4	K-1969	SLEEVE KIT	14362 ,19460 ,21446	1	FOR SLAVE VALVES	
5	21268	SPRING	19572	1		
6	20490	PIN	19459	1		
7	12845	ELBOW		3	1/8"	
8	X-8C-411	CAPSCREW		4	1/4"-20X1-3/4"	
9	55508	HOSE ASSY		2	30"	
10	55518	HOSE ASSY		1	32"	
11	A-4740	FILTER/REGULATOR	19600	1		
12	X-12-208	PIPE PLUG		3	1/8" NPT	
13	X-8L-600	CAPSCREW		1	3/8"-16X1"	
14	21427	HOSE CLAMP		1		
15	21425	STRAP		1		
16	21426	BRACKET		1		
17	21428	HOSE CLAMP		1		
18	X-8L-604	CAPSCREW		1	3/8"-16X1-1/4"	



\* For Shipping Only -- Do Not Replace

\*

10370-1/92 IS

### INPUT SHAFT & DRIVE GEAR

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	23559	SHIPPING SEAL		1	NOT SOLD FOR SERVICE	
2	16980	SNAP RING		1		K-1999,K-2275,K-2410,K-2468,K-4125
3	81504	BEARING		1		K-1999,K-2275,K-2468,K-4125
4	16463	SPACER		1		
5	14750	SNAP RING		1		K-1999,K-2275,K-2410,K-2468,K-4125
6	22961	MAIN DRIVE GEAR	4300238, 4305068,4305910	1		
8	S-1659	INPUT SHAFT	20535 23566 4302661	1	2" PULL - USE W/FBC 20550	K-1999,K-2468,K-4125
8	S-1660	INPUT SHAFT	20536 ,23567	1	2" PUSH - USE W/FBC 20549	
9	16566	BUSHING		1		K-2275,S-1659,S-1660



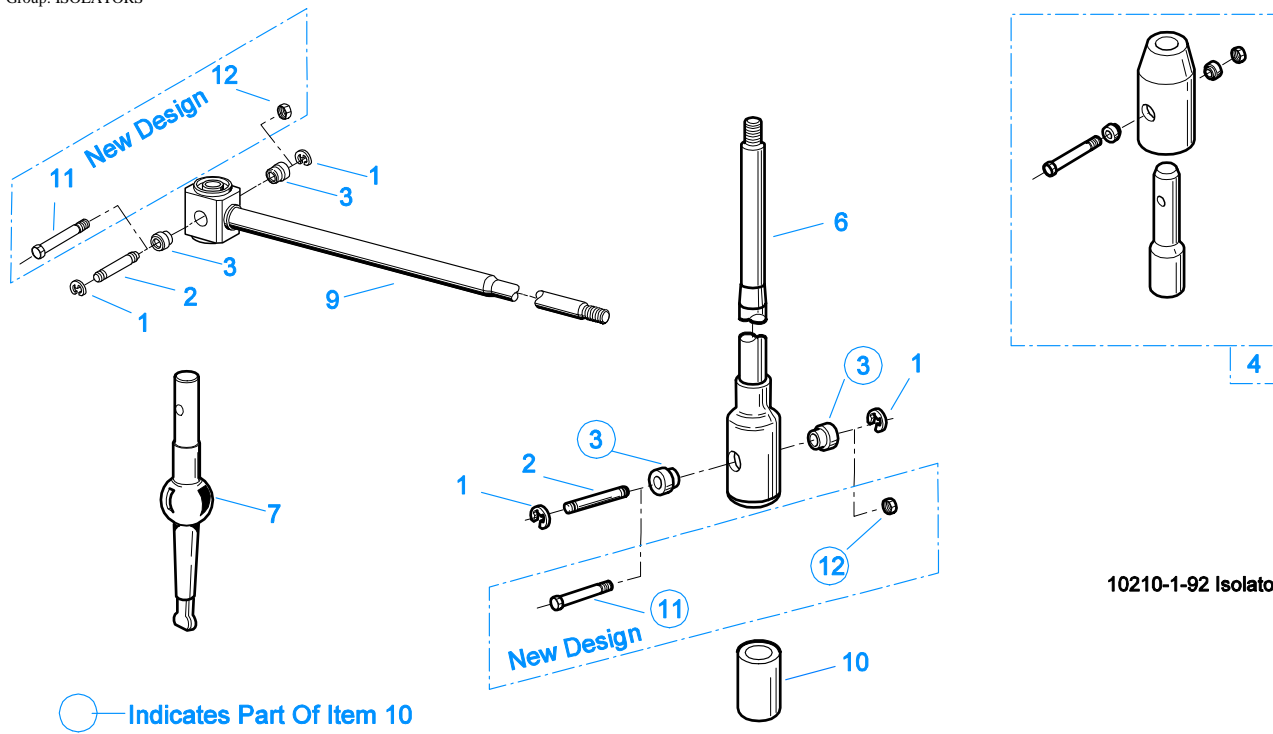
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### INTEGRAL OIL PUMP

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	X-8C-409	CAPSCREW		5	1/4"-20X5/8" - USE WITH 4300751 COVER	
1	X-8C-430	CAPSCREW		5	1/4"-20X7/8" - USE WITH 20513 COVER	
2	K-2402	COVER & SCREW KIT	20513 ,4300751	1		K-2061,K-2402
3	20514	GASKET		1		
4	20823	PLUG		1		
5	14765	-O- RING		1		K-1431,K-1450
6	X-8-448	SCREW	X 8 445	3	1/4"-20X1-1/4"	
7	20824	WASHER		3		K-3367
8	20825	DOWEL PIN		1		
9	4303107	RETAINER	20510	1		S-1545,S-1826
10	K-3367	OIL PUMP KIT	4301829 ,4301948 ,4303776 ,4304529 ,4304572 A - 6963 ,A - 7173	1		
11	20518	CRESCENT RING		1		
12	62516	ROLL PIN	62521	1		
13	62514	ROLL PIN		1		
14	K-3367	OIL PUMP KIT	4301829 ,4301948 ,4303776 ,4304529 ,4304572 A - 6963 ,A - 7173	1		
15	X-14-700	STEEL BALL		1	7/16"	
17	20225	-O- RING		1		
18	4305713	SUCTION TUBE	4304628	1	O-RING INCLUDED ON SUCTION TUBE	K-3367
19	20508	DRIVE SHAFT		1		
20	20509	KEY		2		
21	14853	SNAP RING		2		
22	20511	DRIVE GEAR		1		
23	4306584	CLUTCH HOUSING GASKET	4304815,4305668	1		K-2061
24	S-1545	CASE ASSY	21528	1	FOR USE W/INTEGRAL PUMP	
24	S-1826	CASE ASSY	23650	1	FOR USE W/INTEGRAL PUMP	
25	14373	MAGNET ELEMENT		3		S-1545,S-1826
26	20507	ELEMENT		1		
27	K-3367	OIL PUMP KIT	4301829 ,4301948 ,4303776 ,4304529	1		



Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
999	K-3367	OIL PUMP KIT	,4304572 A - 6963 ,A - 7173 4301829 ,4301948 ,4303776 ,4304529 ,4304572 A - 6963 ,A - 7173	1		



10210-1-92 Isolator

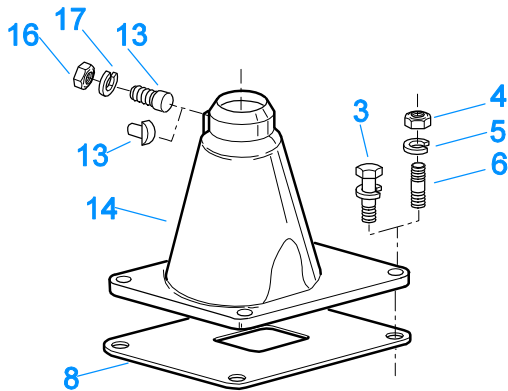
## ISOLATORS

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	19124	-E- RING		2		
2	K-3467	PIN REPLACEMENT KIT	21245	1		
3	21246	BUSHING		2		K-2003,K-2428,K-2429,K-2978,K-3399,S-2129,S-2130,S-2519
4	S-1794	ISOLATOR ASSY		1		
6	21247	LEVER		1	STRAIGHT 18.67"	
7	21235	STUB LEVER		1	LOW TOWER	K-2428,S-1677
7	21236	STUB LEVER		1	HIGH TOWER	K-2429,S-1579,S-2130
7	4301168	STUB LEVER		1	MID TOWER	K-2978
9	21767	90 DEG LEVER		1	STRAIGHT 33"	
10	K-3399	ISOLATOR BUSHING KIT	21244 ,23311	1		
11	X-8-560	SCREW		1		
12	X-9-503	NUT		1		

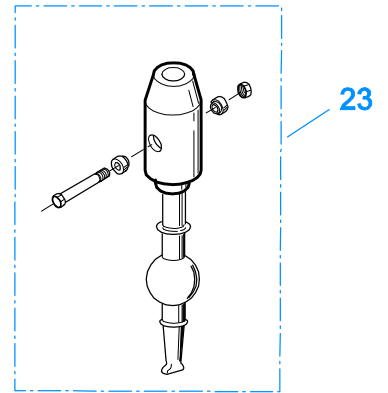
## KITS & ASSEMBLIES

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
K-1431		RANGE CYL-KIT		1		
K-1450		-O- RING KIT-RANGE		1		K-1999,K-2275
K-1698		-O- RING/ELEMENT KIT		1	FOR FILTER REGULATOR	
K-1921		MASTER VALVE REPAIR KIT		1	FOR A-6909 & A-5010 VALVES	
K-1935		REPAIR KIT-SLAVE VALVE		1	FOR A-5000 VALVE	
K-1956		COOLER INSTLN KIT		1		
K-1969		SLEEVE KIT	14362 ,19460 ,21446	1	FOR SLAVE VALVES	
K-1999		OVERHAUL KIT		1		
K-2003		PIN & BUSHING KIT		1		
K-2061		GASKET KIT		1		K-1999,K-2275
K-2262		OIL SEAL W/SLINGER	19109 20807 20808	1	"FOR MECHANICAL COVER"	K-1999,K-2275
K-2275		REBUILD KIT		1		
K-2366		KEY & WASHER KIT	21326 ,4300763 ,4304614	1	CONTAINS 3-SIDED KEY	
K-2394		AIR SYSTEMS TOOL KIT		1		
K-2410		SMALL PARTS KIT		1		
K-2468		CLUTCH INSTALLATION KIT		1	FOR USE WITH S-1659 INPUT SHAFT ASSY AND 81504 INPUT SHAFT BEARING	
K-2805		SHIM KIT	21452 K - 2106	1		K-1999,K-2275,S-1901
K-2937		COUNTERSHAFT REPL KIT	4300244	1		
K-2958		COUNTERSHAFT REPL KIT	4300032 ,4300243	1		
K-2977		SHIFT LEVER HSG KIT	4301167 ,4304907 ,A - 6040	1	MID TOWER	
K-2978		LEVER REPLACEMENT KIT		1	MID TOWER	
K-3157		WASHER UPDATE KIT		1	RTX/F-16709B	
K-3166		WASHER UPDATE KIT		1	RTX/F-16709H	
K-3209		IDLER SHAFT REPL KIT	16405 ,4302981 ,4305513	1		
K-3367		OIL PUMP KIT	4301829 ,4301948 ,4303776 ,4304529 ,4304572 A - 6963 ,A - 7173	1		
K-3399		ISOLATOR BUSHING KIT	21244 ,23311	1		
K-3467		PIN REPLACEMENT KIT	21245	1		
K-3492		SYNCHRONIZER KIT	K - 2446	1		
K-3494		SYNCHRONIZER REPLACEMENT KIT	K - 2448	1	SLIDING CLUTCH INCLUDED IN KIT	
K-4125		CLUTCH INSTALLATION KIT (RT), HYDRAULIC RELEASE		1	STANDARD RT INPUT SHAFT AND YOKE FOR HYDRAULIC CLUTCH RELEASE	
S-1219		YOKE ASSY LOW-REV		1		
S-1404		OIL FILTER	17238	1		
S-1445		SHIFT BAR HSG (X)	18920 ,20135 ,20214 ,20215 ,20487 21135 ,4302452	1	HOUSING ONLY (X)	
S-1446		SHIFT BAR HSG (XF)	20217 ,21136	1	(XF)	
S-1516		CAP ASSY	20851 ,20853	1		
S-1527		SHIFT BAR HSG ASSY (X)	20215 ,21135 ,4302452	1	COMPLETE (X)	
S-1528		SHIFT BAR HSG ASSY (XF)	20217 ,21136	1	COMPLETE (XF)	
S-1545		CASE ASSY	21528	1	FOR USE W/INTEGRAL PUMP - RTX-16709B	
S-1659		INPUT SHAFT	20535 23566 4302661	1	2" PULL - USE W/FBC 20550	K-1999,K-2468,K-4125
S-1660		INPUT SHAFT	20536 ,23567	1	2" PUSH	
S-1826		CASE ASSY	23650	1	FOR USE W/INTEGRAL PUMP - RTX-16709H	
S-1901		RANGE SECTION ASSY		1		
S-2129		SHIFT LEVER HSG ASSY		1	LOW TOWER	
S-2130		SHIFT LEVER HSG ASSY	S - 2053	1	HIGH TOWER	
S-2159		REAR BRG COVER ASSY	S - 1760	1		
S-2519		SHIFT LEVER HSG ASSY	S - 2919	1	MID TOWER	
S-2540		ROADRANGER VALVE	A - 5037	1	RT - W/SHIFT DIAGRAM	

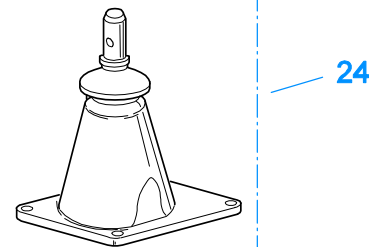
Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
		ASSY			MEDALLION	
	S-2688	MAINSHAFT ASSY	4303404 4303913	1		K-3157,K-3166



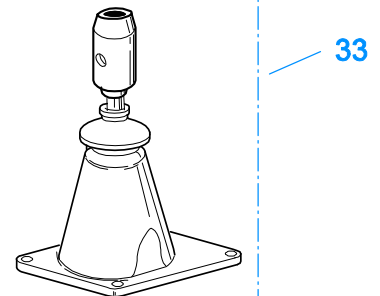
10207-9-95



K-2428 - Low  
K-2978 - Mid  
K-2429 - High



S-1677 - Low  
S-1967 - Mid  
S-1579 - High

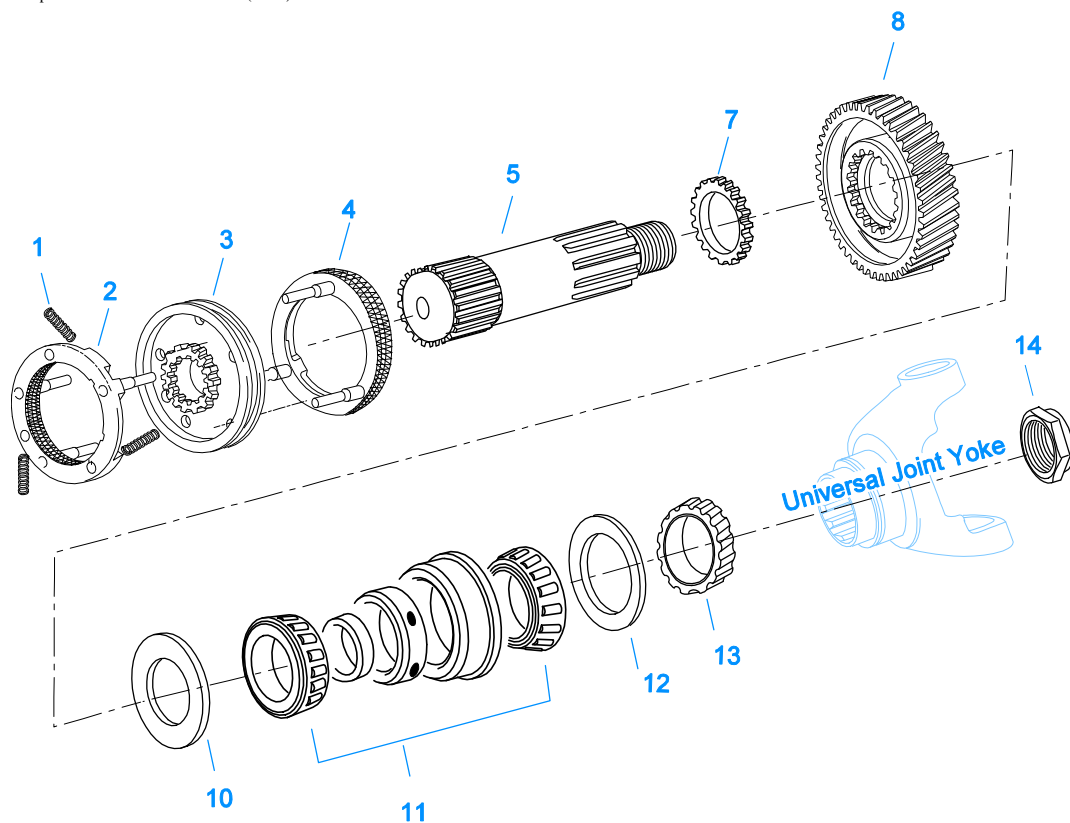


S-2129 - Low  
S-2519 - Mid  
S-2130 - High

## LEVERS/HOUSINGS

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	K-3376	O-RING & WASHER KIT	4301211	1		
2	18299	PIN		1		K-1476,K-2977,S-1677
3	X-8C-604	CAPSCREW		4	3/8"-16X1-1/4"	S-1445,S-1446,S-1527,S-1528
4	X-1-600	NUT		4	3/8"-24-N.F.PLAIN	
5	X-3-600	LOCKWASHER		4	3/8"	
6	11934	STUD	7467	4		
7	K-1476	SHIFT LEVER HSG	4530 ,17163 ,18298 ,4304905 ,A - 4437	1	LOW TOWER	
8	4305294	GASKET	4303431	1		K-1476,K-2061,K-2428,K-2429,K-

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
						2973,K-2977,K-2978,S-1527,S-1528,S-1579,S-1677,S-1967,S-2129,S-2130,S-2519
9	K-2977	SHIFT LEVER HSG KIT	4301167 ,4304907 ,A - 6040	1	MID TOWER	
13	4303030	PIN		1		K-2973,S-1579,S-2130
13	6541	PIN		1	3/8" - USED W/17167 ONLY	
14	K-2973	SHIFT LEVER HSG KIT	17166 ,17167 ,4303050 ,4304910 ,K - 1630 K - 1941	1	HIGH TOWER	
15	10427	BOOT		1		K-1476,K-2973,K-2977,S-1579,S-1677,S-2130
16	X-1-600	NUT		1	3/8"-24-N.F.PLAIN	
17	X-3-600	LOCKWASHER		1	3/8"	
20	17600	GEAR SHIFT LEVER		1	STRAIGHT - LOW 21-1/2"	
20	18482	GEAR SHIFT LEVER		1	STRAIGHT - HIGH 35"	
21	2538	RETAINER		1		K-1476,K-2973,K-2977,S-1579,S-1677,S-2130
22	2536	SPRING		1		K-1476,K-2973,K-2977,S-1579,S-1677,S-2130
23	K-2428	LEVER REPLACEMENT KIT		1	LOW TOWER	
23	K-2429	LEVER REPLACEMENT KIT		1	HIGH TOWER	
23	K-2978	LEVER REPLACEMENT KIT		1	MID TOWER	
24	S-1579	SHIFT TOWER ASSY		1	HIGH TOWER	
24	S-1677	SHIFT TOWER ASSY		1	LOW TOWER	
24	S-1967	SHIFT TOWER ASSY		1	MID TOWER	
33	S-2129	SHIFT LEVER HSG ASSY		1	LOW TOWER	
33	S-2130	SHIFT LEVER HSG ASSY	S - 2053	1	HIGH TOWER	
33	S-2519	SHIFT LEVER HSG ASSY	S - 2919	1	MID TOWER	



10421-12-93

**MAINSHAFT & SYNCHRO(AUX)**

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	14897	SPRING		3		K-1999,K-2275,K-2410,K-3492,K-3494
2	A-7331	SYNCHRONIZER ASSY	4304396 4304397 A - 5917	1	HI RANGE	K-3492,K-3494
3	20323	SLIDING CLUTCH		1		K-3494
4	A-7254	SYNCHRONIZER ASSEMBLY	A - 4937 A - 5876	1	LO RANGE	K-3492,K-3494
5	4300312	AUXILIARY MAINSHAFT	22970	1		
7	22899	WASHER		1		K-2410
8	4300035	GEAR-MAINSHAFT	4300034	1		
10	22898	SPACER		1		K-2410
11	21356-BOX	BEARING	21356	1		K-1999,K-2275
12	22969	SPACER		1		
13	20191	ROTOR		1		
14	22254	NUT	11956	1		S-1901



10320A-3-94 MS w/ OD

 3-Sided Key Design

 Hex (6-Sided) Key Design

**\* Updating to 3-Sided Key is Recommended.**  
**When Updating to 3-Sided Key Replace all Washers to Match Key Design**  
**Always Use Matching Key and Washer Sets (See Appendix - Mainshaft Washers)**

### MAINSHAFT ASSY

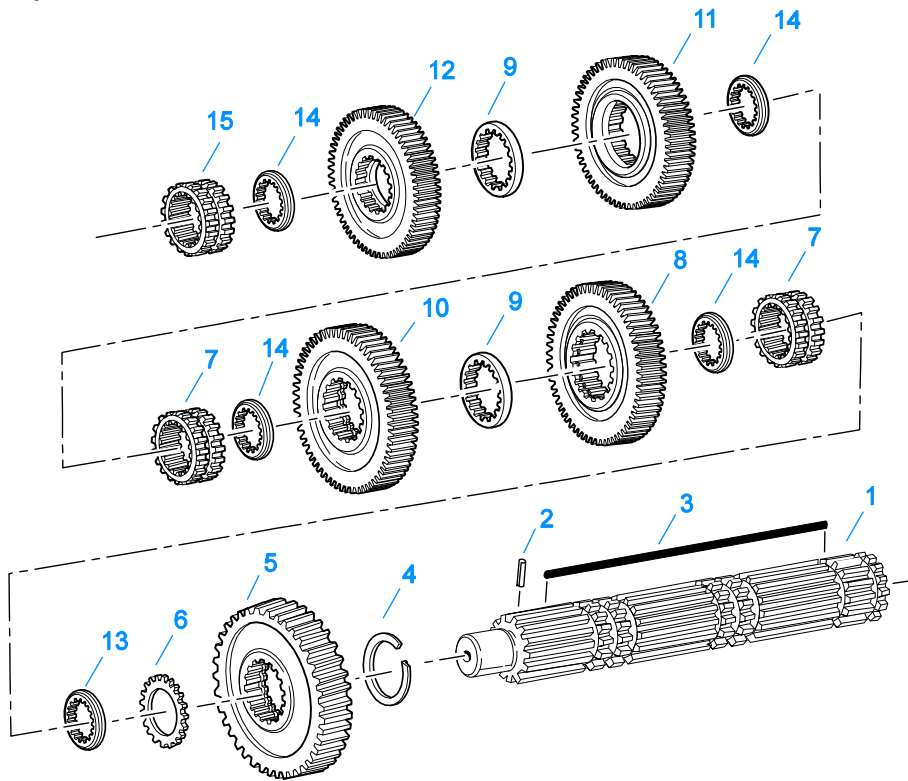
Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	4304614	3-SIDED KEY	4300890	1		K-2366,K-2410,K-3157,K-3166
1	K-2366	KEY & WASHER KIT	21326 ,4300763 ,4304614	1	CONTAINS 3-SIDED KEY	
2	S-2688	MAINSHAFT ASSY	4303404 4303913	1		K-3157,K-3166
3	62504	ROLL PIN		1		S-2688
4	14750	SNAP RING		5		K-1999,K-2275,K-2410,K-2468,K-4125
5	16756	REVERSE GEAR-MAINSHAFT	22408	1		
6	14749	SPACER		4		K-2410
7	14711	WASHER .248-.250 WHITE	18701	5	OPTIONAL 14711-14716 USE ANY 5 WASHERS USE WITH 21326 KEY	



Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
7	14712	WASHER .253-.255 GREEN	18702	5	OPTIONAL 14711-14716 USE ANY 5 WASHERS USE WITH 21326 KEY	
7	14713	WASHER .258-.260 ORANGE	18703	5	OPTIONAL 14711-14716 USE ANY 5 WASHERS USE WITH 21326 KEY	
7	14714	WASHER .263-.265 PURPLE	18704	5	OPTIONAL 14711-14716 USE ANY 5 WASHERS USE WITH 21326 KEY	
7	14715	WASHER .268-.270 YELLOW	18705	5	OPTIONAL 14711-14716 USE ANY 5 WASHERS USE WITH 21326 KEY	
7	14716	WASHER .273-.275 BLACK	18706	5	OPTIONAL 14711-14716 USE ANY 5 WASHERS USE WITH 21326 KEY	
7	4300382	WASHER .249-WHITE		5		K-2366,K-2410
7	4300383	WASHER .254-GREEN		5	OPTIONAL 4300382-4300387 OR 4300830 USE ANY 5 WASHERS. USE WITH 3-SIDED KEY	K-2366,K-2410
7	4300384	WASHER .259-ORANGE		5	OPTIONAL 4300382-4300387 OR 4300830 USE ANY 5 WASHERS. USE WITH 3-SIDED KEY	K-2366,K-2410
7	4300385	WASHER .264-PURPLE		5	OPTIONAL 4300382-4300387 OR 4300830 USE ANY 5 WASHERS. USE WITH 3-SIDED KEY	
7	4300386	WASHER .269-YELLOW		5	OPTIONAL 4300382-4300387 OR 4300830 USE ANY 5 WASHERS. USE WITH 3-SIDED KEY	
7	4300387	WASHER .274-BLACK		5	OPTIONAL 4300382-4300387 OR 4300830 USE ANY 5 WASHERS. USE WITH 3-SIDED KEY	
7	4300830	WASHER .244-BLUE		5		K-2366,K-2410
8	16118	SLIDING CLUTCH		2		
9	21502	LOW GEAR-MAINSHAFT		1		
10	21024	1ST GEAR-MAINSHAFT	19628 ,4300240	1		
11	19622	2ND GEAR-MAINSHAFT	21263 ,4300246	1		
12	23102	OD GEAR-MAINSHAFT	22960 ,4300190	1		
13	22032	SPACER		1	BACK TAPERED CLUTCHING TEETH	K-2410
14	4304317	SLIDING CLUTCH	22026	1	BACK TAPERED CLUTCHING TEETH	K-1999
16	4303603	WASHER	4302397	1		K-3157,K-3166
17	4302398	WASHER		2	USE 3-SIDED KEY ONLY	K-3157,K-3166
18	4302393	OD GEAR-MAINSHAFT	4305070	1	USE 3-SIDED KEY ONLY	K-3157,K-3166
19	4302396	2ND GEAR-MAINSHAFT		1	USE 3-SIDED KEY ONLY	K-3157,K-3166

## MISCELLANEOUS

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
20398		SHIFT DIAGRAM LABEL	19675	1	WITH A-5010 VALVE RTX/RTXF-16709B & H	
71203		SILICONE LUBE		1	8 OZ (236.59 CC)-FLEET SIZE	
71204		ADHESIVE SEALANT		1	0.5 CC (SINGLE APPLICATION SIZE)	
71205		SEALANT		1	2 CC (SINGLE APPLICATION SIZE)	K-1999
71206		SILICONE LUBE		1	4 CC (SINGLE APPLICATION SIZE)	K-1431,K-1450,K-2428,K-2429,K-2978

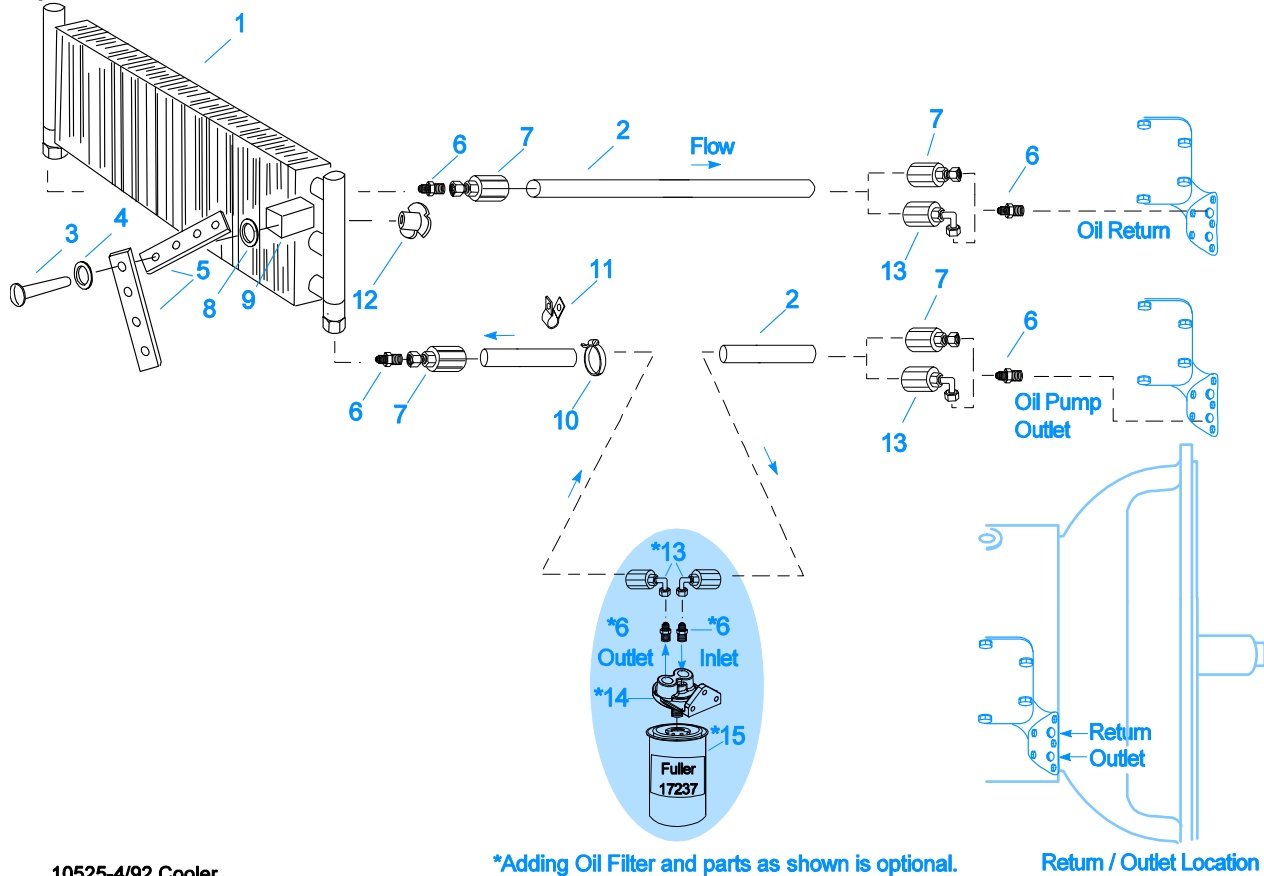


10337B-10-96

### NON-SELECTIVE M/S ASSY

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	S-2688	MAINSHAFT ASSY	4303404 4303913	1		K-3157,K-3166
2	62504	ROLL PIN		1		S-2688
3	4304614	3-SIDED KEY	4300890	1		K-2366,K-2410,K-3157,K-3166
4	14750	SNAP RING		1		K-1999,K-2275,K-2410,K-2468,K-4125
5	16756	REVERSE GEAR-MAINSHAFT	22408	1		
6	14749	SPACER		1		K-2410
7	16118	SLIDING CLUTCH		2		
8	4303409	LO GEAR-MAINSHAFT	4303407	1		K-3157
9	4303603	WASHER	4302397	2		K-3157,K-3166
10	4303406	1ST GEAR-MAINSHAFT		1		K-3157,K-3166
11	4302396	2ND GEAR-MAINSHAFT		1		K-3157,K-3166
12	4302393	OD GEAR-MAINSHAFT	4305070	1		K-3157,K-3166
13	4300830	WASHER .244-BLUE		1		K-2366,K-2410
14	4302398	WASHER		4		K-3157,K-3166
15	4304317	SLIDING CLUTCH	22026	1		K-1999

Group: OIL COOLER



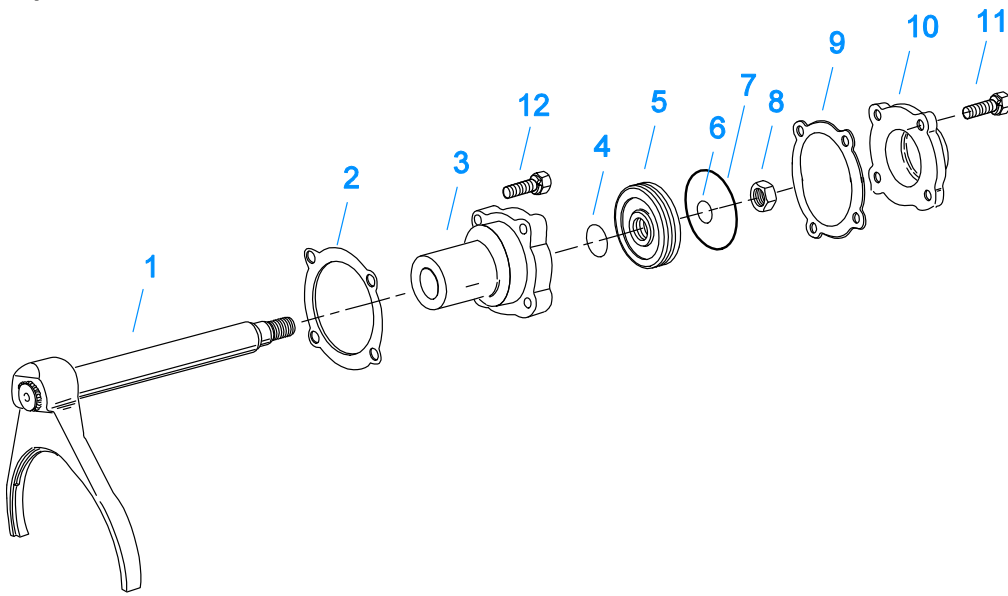
10525-4/92 Cooler

\*Adding Oil Filter and parts as shown is optional.

Return / Outlet Location

## OIL COOLER

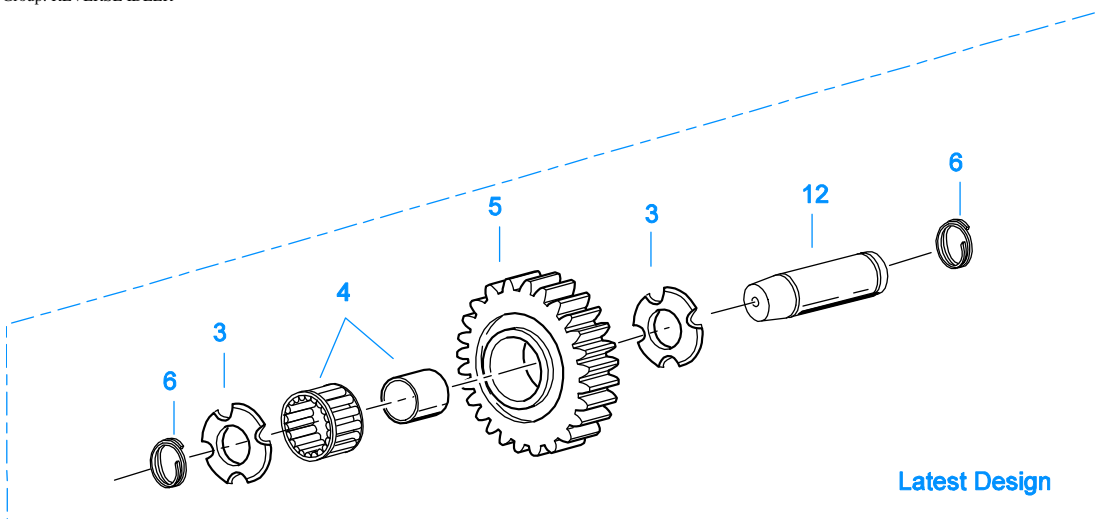
Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	18025	OIL COOLER		1		K-1956
2	19424	HOSE		1	25 FEET	K-1956
3	X-8-535	CAPSCREW		2	5/16"-16X2-1/2"	
4	X-3-506	LOCKWASHER		2	5/16"	
5	18211	BRACKET		4		K-1956
6	19419	CONNECTOR		6		K-1956,S-1404
7	19415	SWIVEL		4		K-1956
8	X-10-501	WASHER		2	5/16"	
9	18209	PLUG-RUBBER MOUNT		2		K-1956
10	17190	STRAP		8		K-1956
11	19423	CLAMP		5		K-1956
12	18210	NUT		2		K-1956
13	19422	ELBOW		4		K-1956
14	S-1404	OIL FILTER	17238	1		
15	17237	FILTER ELEMENT		1		S-1404



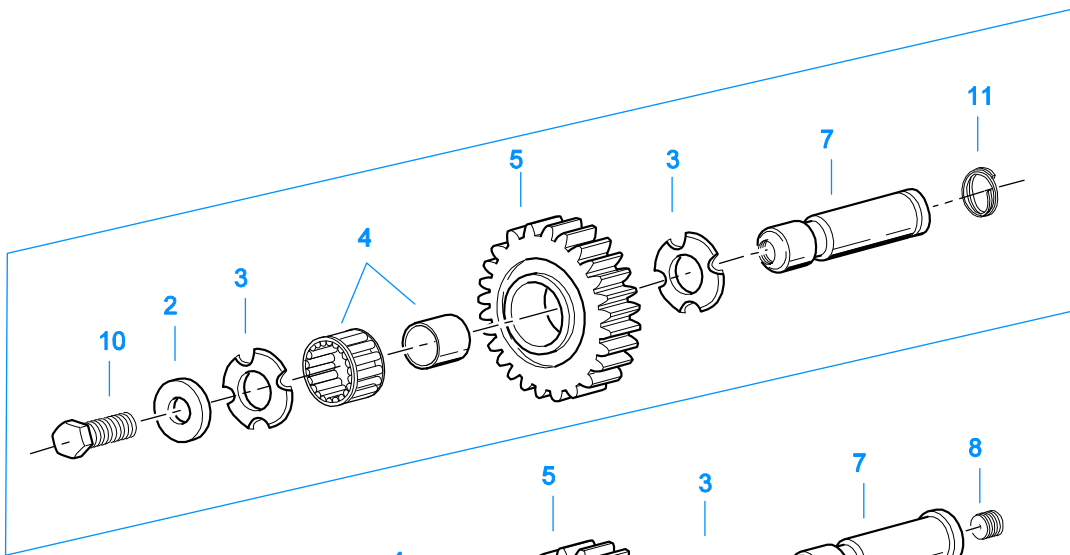
10461-2/92 Rng Cyl

## RANGE CYLINDER

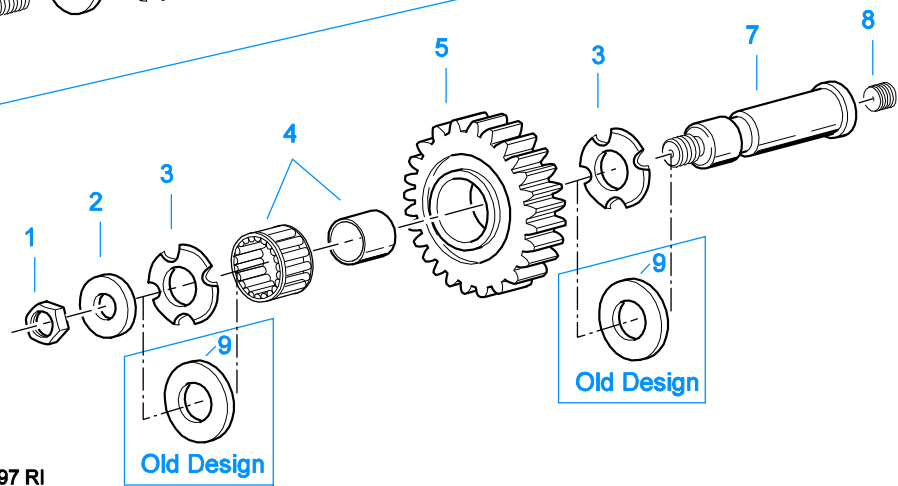
Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	A-5474	SHIFT YOKE ASSY		1		
2	14347	GASKET		1		K-1431,K-2061
3	16778	AUXILIARY CYLINDER		1		K-1431
4	14765	-O- RING		1		K-1431,K-1450
5	14341	PISTON	23353	1		K-1431
6	14345	-O- RING		1		K-1431,K-1450
7	14344	-O- RING		1		K-1431,K-1450
8	X-1-1010	NUT		1	5/8"-18	
9	14349	GASKET		1		K-1431,K-1450,K-2061
10	19690	CYLINDER COVER		1		
11	X-8L-604	CAPSCREW		4	3/8" - 16X1-1/4"	
12	X-8L-600	CAPSCREW		4	3/8"-16X1"	



Latest Design



Old Design



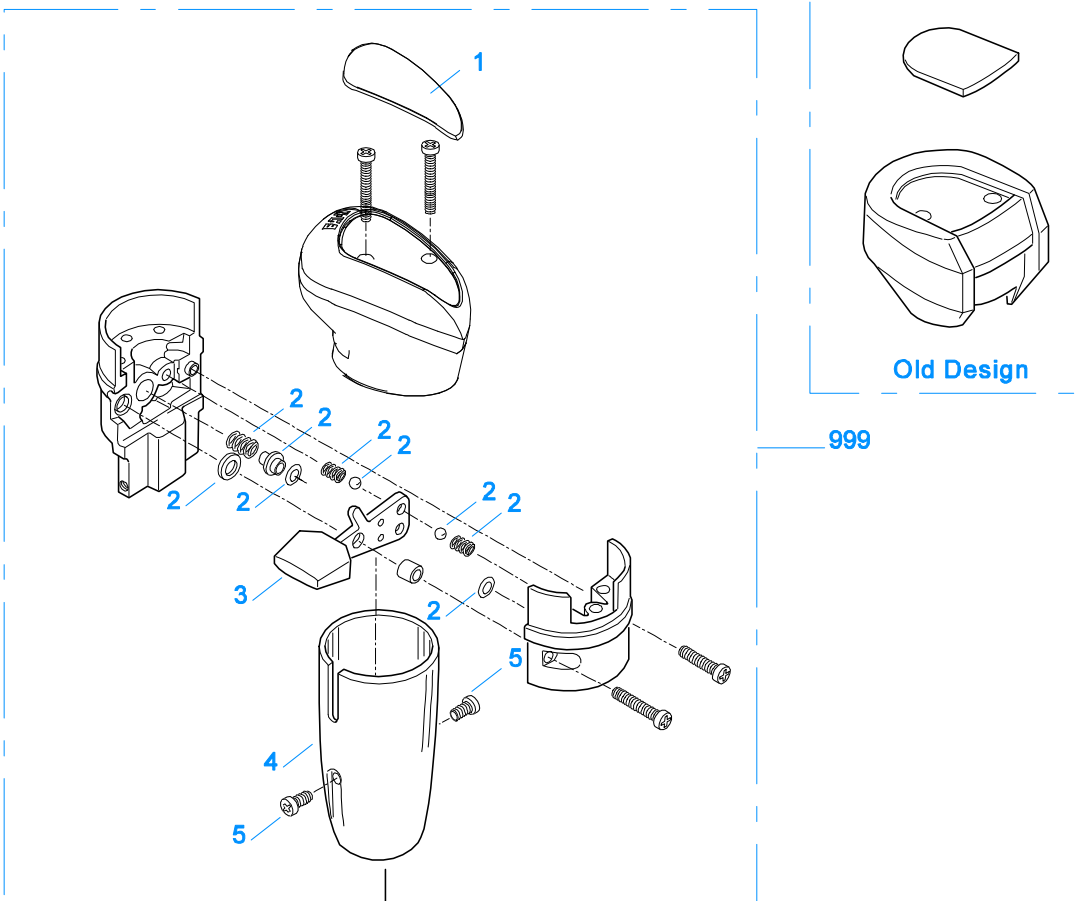
Old Design

11383-5-97 RI

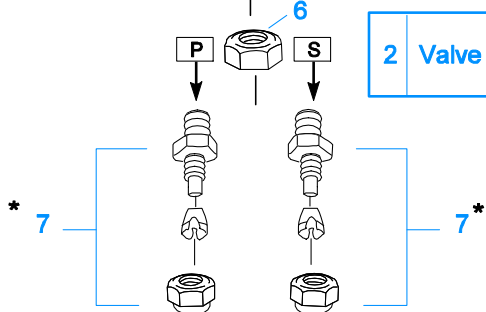
**REVERSE IDLER**

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	X-1-1008	NUT		2	5/8"-18	
2	14283	WASHER		2		
3	4302982	WASHER	14282	4		K-3209,S-1545,S-1826
4	14287	BEARING	4305020	2		K-1999,K-2275
5	16757	REVERSE IDLER GEAR	22409	2		
6	4303336	RETAINING RING		4		K-3209
7	K-3209	IDLER SHAFT REPL KIT	16405 ,4302981 ,4305513	2		
8	5202	PLUG		2		

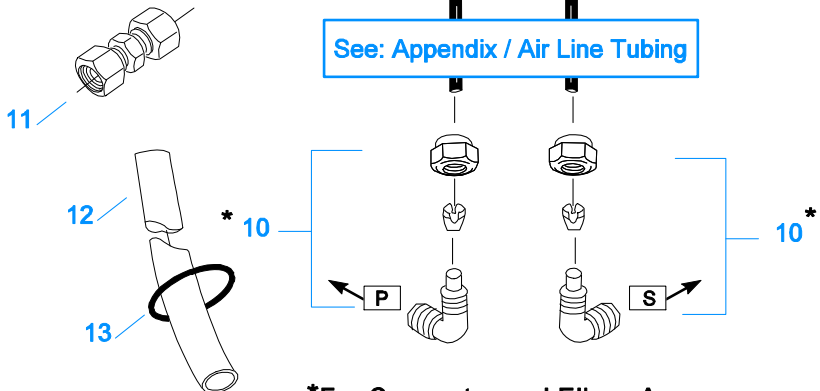
Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
9	14282	NO LONGER AVAILABLE		4		
10	X-7-1008	CAPSCREW		2	5/8"-18X1-1/4	
11	4303336	RETAINING RING		2		K-3209
12	4305513	IDLER SHAFT		2		K-3209



**2 Valve Repair Kit**



**See: Appendix / Air Line Tubing**



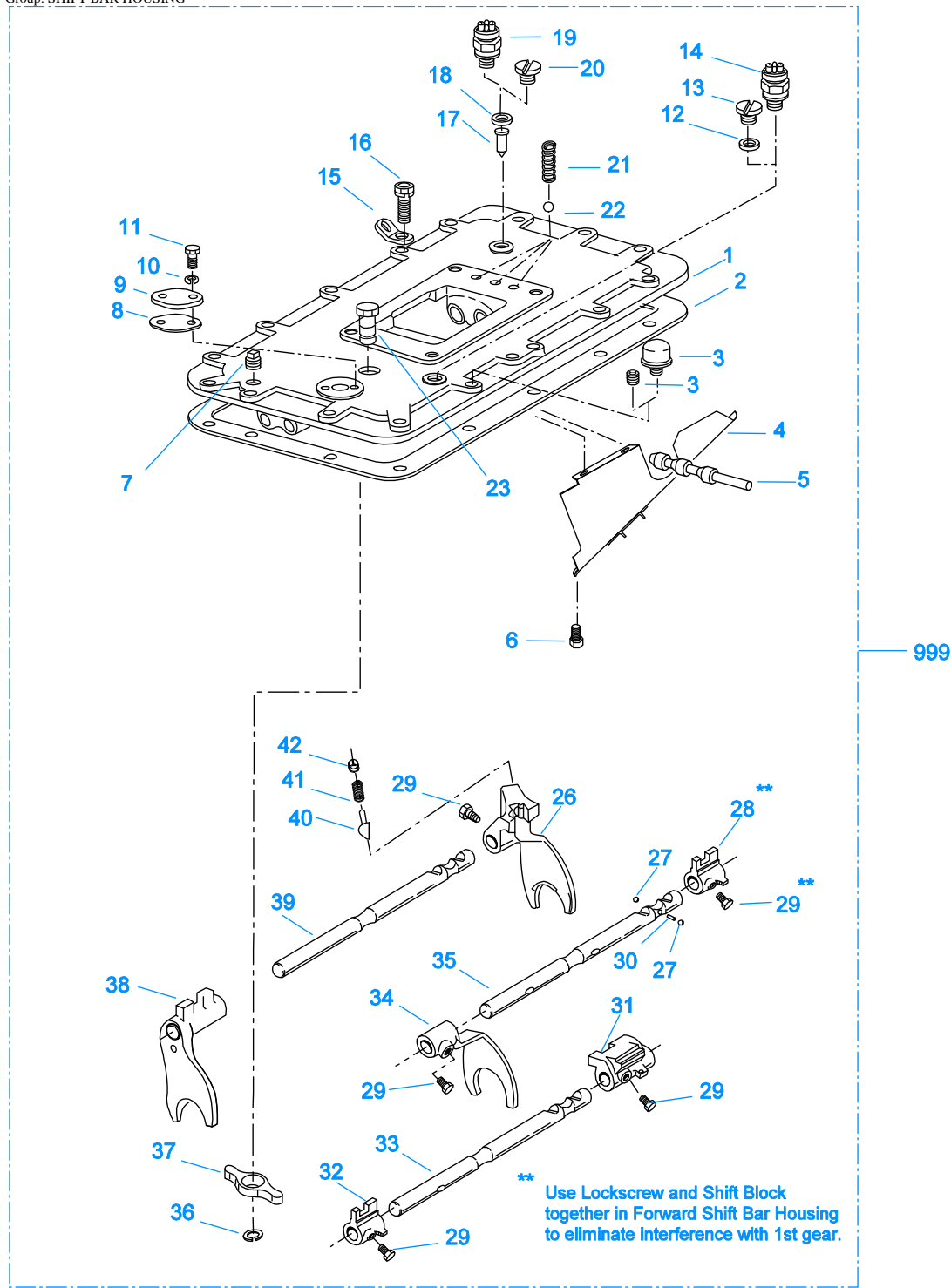
**\*For Connector and Elbow Assy component information see Appendix.**

10100A-3-97 RRV-2



## ROADRANGER VALVE

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	20107	MEDALLION, LOGO		1	(OLD DESIGN) FULLER LOGO ONLY	
1	5586100	MEDALLION, LOGO		1	(LATEST DESIGN) FULLER LOGO ONLY	A-6909
1	5586104	SHIFT DIAGRAM MEDALLION		1	RT	S-2540
2	K-1921	MASTER VALVE REPAIR KIT		1	FOR A-6909 & A-5010 VALVES	
3	20495	LEVER		1		A-6909
4	20112	COVER		1		A-6909
5	X-8-213	SCREW	X 8 202	2	8-32X3/8"	
6	X-9-802	NUT		1	1/2"-13	
7	84001	CONNECTOR ASSY	82501	2	1/8" TUBE-1/16" NPTF	
7	84003	CONNECTOR ASSY	82503	2	5/32" TUBE-1/16" NPTF	
7	84005	CONNECTOR ASSY		2	"PUSH-TO-CONNECT" 5/32" TUBE-1/16" NPTF	
10	85001	ELBOW ASSY	84501	2	5/32" TUBE-1/8" NPTF	
10	85002	ELBOW ASSY	84502	2	1/8" TUBE-1/8" NPTF	K-1999
10	85003	ELBOW ASSY		2	"PUSH-TO-CONNECT" 5/32" TUBE-1/8" NPTF	
11	84101	UNION ASSY		1	1/8" TUBING	
11	84102	UNION ASSY		1	5/32" TUBING	
11	84103	UNION ASSY		1	"PUSH-TO-CONNECT" 5/32" TUBING	
12	80120	SHEATHING (50 FT ROLL)		1	5/32" - BLACK 50'	
13	13571	-O- RING CLAMP		1		
999	A-6909	ROADRANGER VALVE ASSY	A - 5010 ,A - 5310	1	STANDARD-W/LOGO	
999	S-2540	ROADRANGER VALVE ASSY	A - 5037	1	RT - W/SHIFT DIAGRAM MEDALLION	



10253-11-96 X-Forward

## SHIFT BAR HOUSING

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	S-1446	SHIFT BAR HSG	18925 ,20136 ,20216 ,20217 ,20488 21136 ,S - 1361	1	HOUSING ONLY (XF)	
2	4302676	GASKET	14918	1		K-2061,S-1527,S-1528
3	4304602	BREATHER	23605	1	1/4" NPT	
3	X-12-404	PIPE PLUG		1	1/4" NPT	
4	20070	OIL TROUGH		1		S-1527,S-1528

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
5	20332	AIR VALVE SHAFT	17177	1		S-1527,S-1528
6	X-8-423	CAPSCREW		2	1/4"-20X1/2"	
7	X-12-603	PIPE PLUG	X12 602	1	3/8" NPT	
8	20209	GASKET		1		K-2061,S-1445,S-1446,S-1527,S-1528
9	20199	PLATE	18724	1		S-1445,S-1446,S-1527,S-1528
10	X-3-400	LOCKWASHER		2	1/4"	
11	X-8-406	CAPSCREW		2	1/4"-20X3/4"	
12	17179	GASKET		1		S-1445,S-1446,S-1527,S-1528
13	4303655	PLUG	17178	1		S-1445,S-1446,S-1527,S-1528
14	22941	NEUTRAL LIGHT SWITCH	12639	1	SWITCH NORMALLY CLOSED	
15	20815	LIFTING EYE	17105	2		S-1901
16	X-8L-602	CAPSCREW		2	3/8"-16X1-1/2"	
16	X-8L-604	CAPSCREW		16	3/8"-16X1-1/4"- OR USE 14 PCS OF X-8L-604 WITH 2 PCS OF X-8L-602	
17	15899	PIN		1		S-1445,S-1446,S-1527,S-1528
18	15900	GASKET		1		S-1445,S-1446,S-1527,S-1528
19	22940	REVERSE LIGHT SWITCH	16830	1	SWITCH NORMALLY OPEN	
20	4303656	PLUG	15917	1		S-1445,S-1446,S-1527,S-1528
21	15918	SPRING		3		K-1999,K-2410,S-1527,S-1528
22	X-14-800	STEEL BALL		3	1/2"	
23	K-3104	ACTUATOR PIN KIT	4303287	1		
26	16338	SHIFT YOKE		1	REVERSE/LO	S-1528
27	X-14-1200	STEEL BALL		2	3/4"	
28	15770	SHIFT BLOCK		1	1ST/2ND	S-1528
29	22943	LOCKSCREW		1	USE W/15770 SHIFT BLOCK	S-1528
29	3220	LOCKSCREW		4		S-1527,S-1528
30	1634	INTERLOCK PIN		1		K-2410,S-1527,S-1528
31	19062	SHIFT BLOCK		1	3RD/OD	S-1528
32	20120	SHIFT BLOCK	18924	1	3RD/OD	S-1527,S-1528
33	18931	YOKE BAR	4302759	1	3RD/OD	S-1528
34	18922	SHIFT YOKE		1	1ST/2ND	S-1527,S-1528
35	18930	YOKE BAR		1	1ST/2ND	S-1528
36	4302070	SNAP RING		1		K-3104,S-1527,S-1528
37	4303225	ACTUATOR		1		S-1527,S-1528
38	4305575	SHIFT YOKE	20450	1	3RD/OD	S-1527,S-1528
39	18929	YOKE BAR		1	REVERSE/LO	S-1528
40	10019	PLUNGER		1		S-1219,S-1527,S-1528
41	6392	SPRING		1		K-2410,S-1219,S-1527,S-1528
42	8968	PLUG		1		S-1219,S-1527,S-1528
999	S-1528	SHIFT BAR HSG ASSY	20217 ,21136	1	COMPLETE (XF)	

Group: SLAVE VALVE - 19470



10121-1/92 19470 SV

## SLAVE VALVE - 19470

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	K-2424	VALVE REPLACEMENT KIT	19470	1		



**2** Repair Kit

10120-10-97 A-5000 SV

### SLAVE VALVE - A-5000

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	A-5000	SLAVE VALVE ASSY	20850	1		K-2424
2	K-1935	REPAIR KIT-SLAVE VALVE		1	FOR A-5000 VALVE	
3	20855	PLUG		1		A-5000
4	20854	PISTON		1		A-5000
5	20849	CAP	15131	1		A-5000
7	S-1516	CAP ASSY	20851 ,20853	1		
8	X-8C-413	CAPSCREW		3	1/4"-20X1-1/2"	

