



Eaton Fuller RTAO-14710C-AS Transmission Parts Manual

This is Eaton Fuller RTAO-14710C-AS 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

RTAO-14710C-AS
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.

Model Designation or Nomenclature

- For information regarding Model Designation and Nomenclature, visit 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

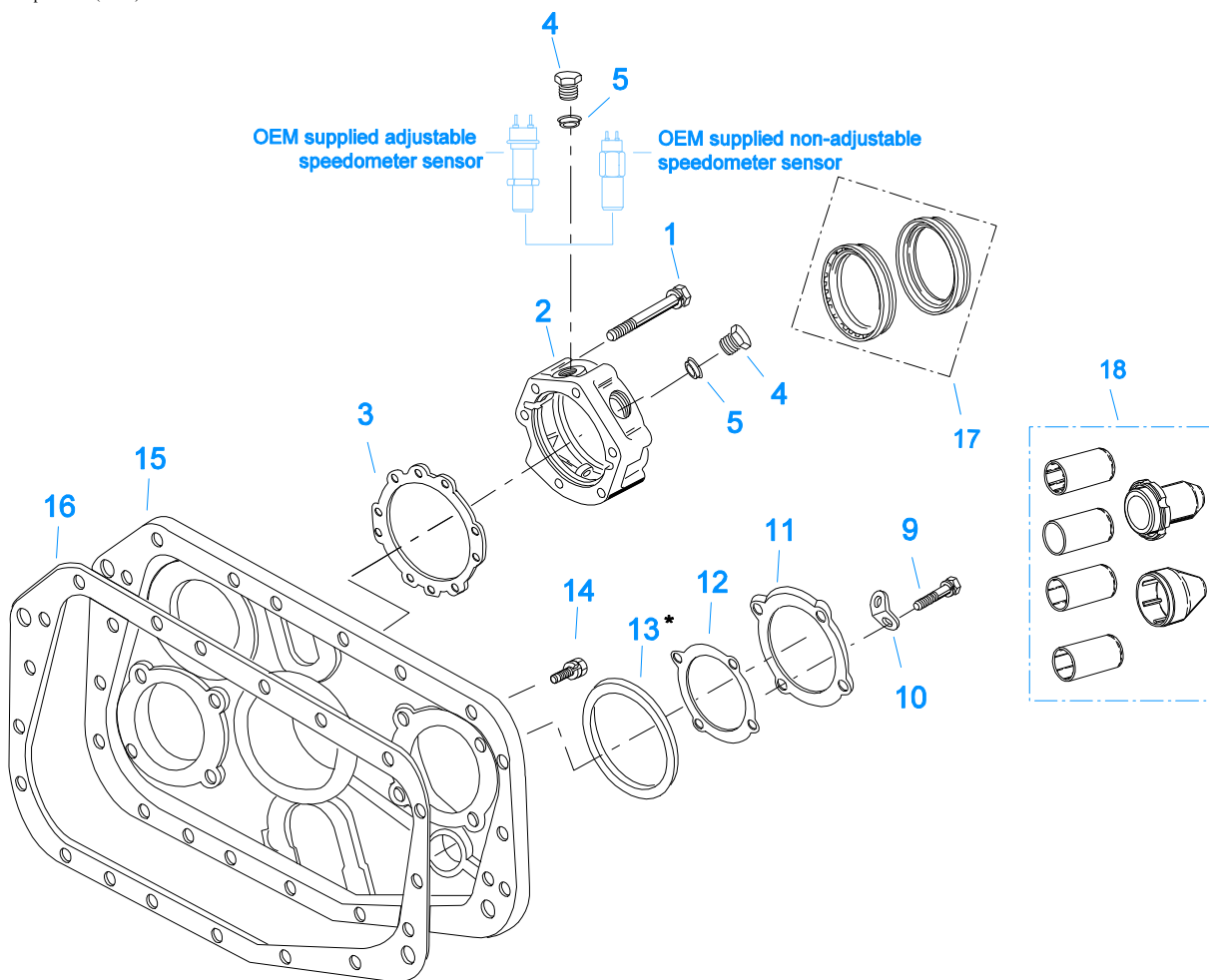
- **Item Number** - corresponding with numbers on illustrations for part identification.
- **Current Part** - identifies part as it is available for service.
- **Description** - specifies part name or description.
- **Replaced Part** - quantity quantity required for assembly.
- **Quantity** - defines 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

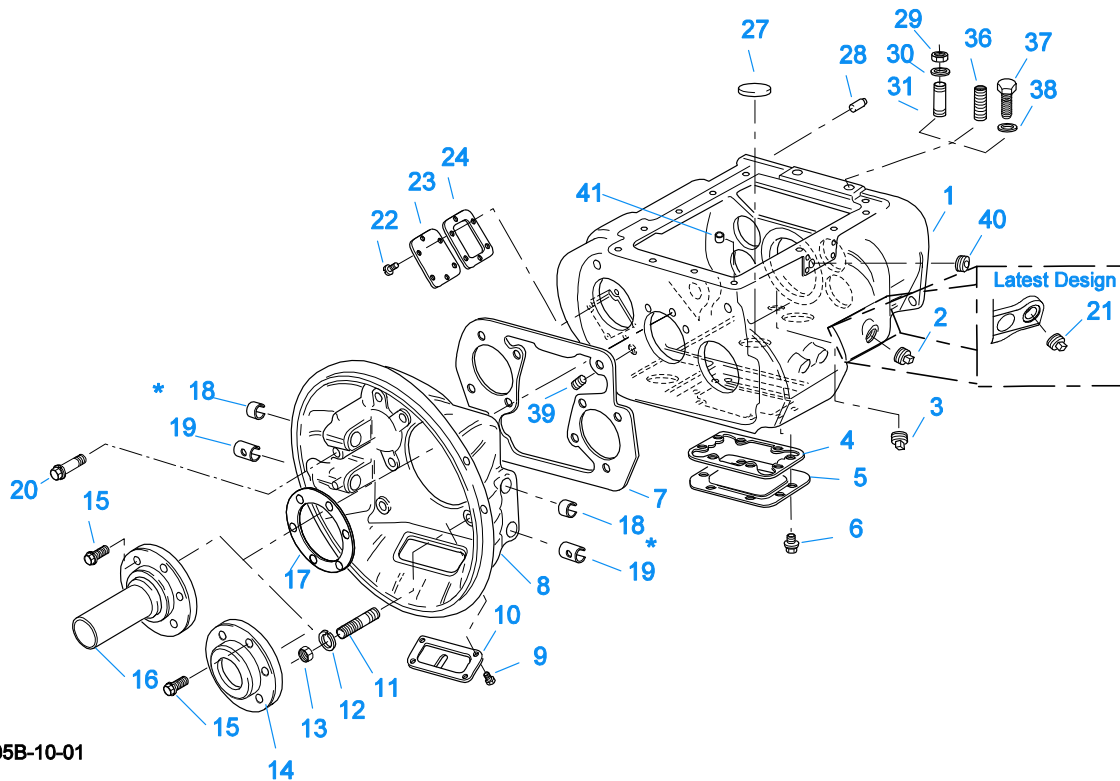
| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|----------------------|-----------------|------|------------|-------------------------|
| 1 | 16763 | SNAP RING | | 2 | | K-2837,K-2838,K-3388 |
| 2 | 21320 | SNAP RING RETAINER | | 1 | | K-2837,K-2838,K-3388 |
| 3 | 16628 | SNAP RING | | 1 | | K-3388 |
| 4 | 5566507-BOX | BEARING | 5566504,5566507 | 1 | | K-2837,K-2838 |
| 5 | 16138 | BEARING RETAINER | | 1 | | |
| 6 | X-8-645 | CAPSCREW | X 8 612 | 6 | 3/8"-16X1" | |
| 7 | 23159 | AUXILIARY DRIVE GEAR | 21321 | 1 | | |



* See Service Manual for Proper Shimming Procedure
10406-12-93 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-1992 | REAR BRG COVER ASSY | 4302036 | 1 | | |
| 3 | 21364 | GASKET | | 1 | | K-2061,K-2262,S-1992 |
| 4 | 20224 | PLUG-MAGNETIC | | 2 | | S-1992,S-2674 |
| 5 | 4301954 | SENSOR SEAL | | 2 | | S-1992 |
| 9 | X-8L-600 | CAPSCREW | | 8 | 3/8"-16X1" | |
| 10 | 20815 | LIFTING EYE | | 2 | | |
| 11 | 4302320 | COVER | 21346 | 2 | | S-2674 |
| 12 | 4305978 | GASKET | 4302246 | 2 | | K-2061,S-2674 |
| 13 | K-2805 | SHIM KIT | 21452 K - 2106 | 1 | | K-2837,K-2838,S-2674 |
| 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 | | 1 | 3/8"-16X2-3/4" | |
| 15 | 22900 | REAR HOUSING | | 1 | | |
| 16 | 14335 | GASKET | | 1 | | K-2061,S-2674 |
| 17 | K-2262 | OIL SEAL W/SLINGER | 19109 20807 20808 | 1 | "FOR MECHANICAL COVER" | K-2837,K-2838 |
| 18 | K-3651 | OIL SEAL TOOL KIT | | 1 | | |



10305B-10-01

* 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.

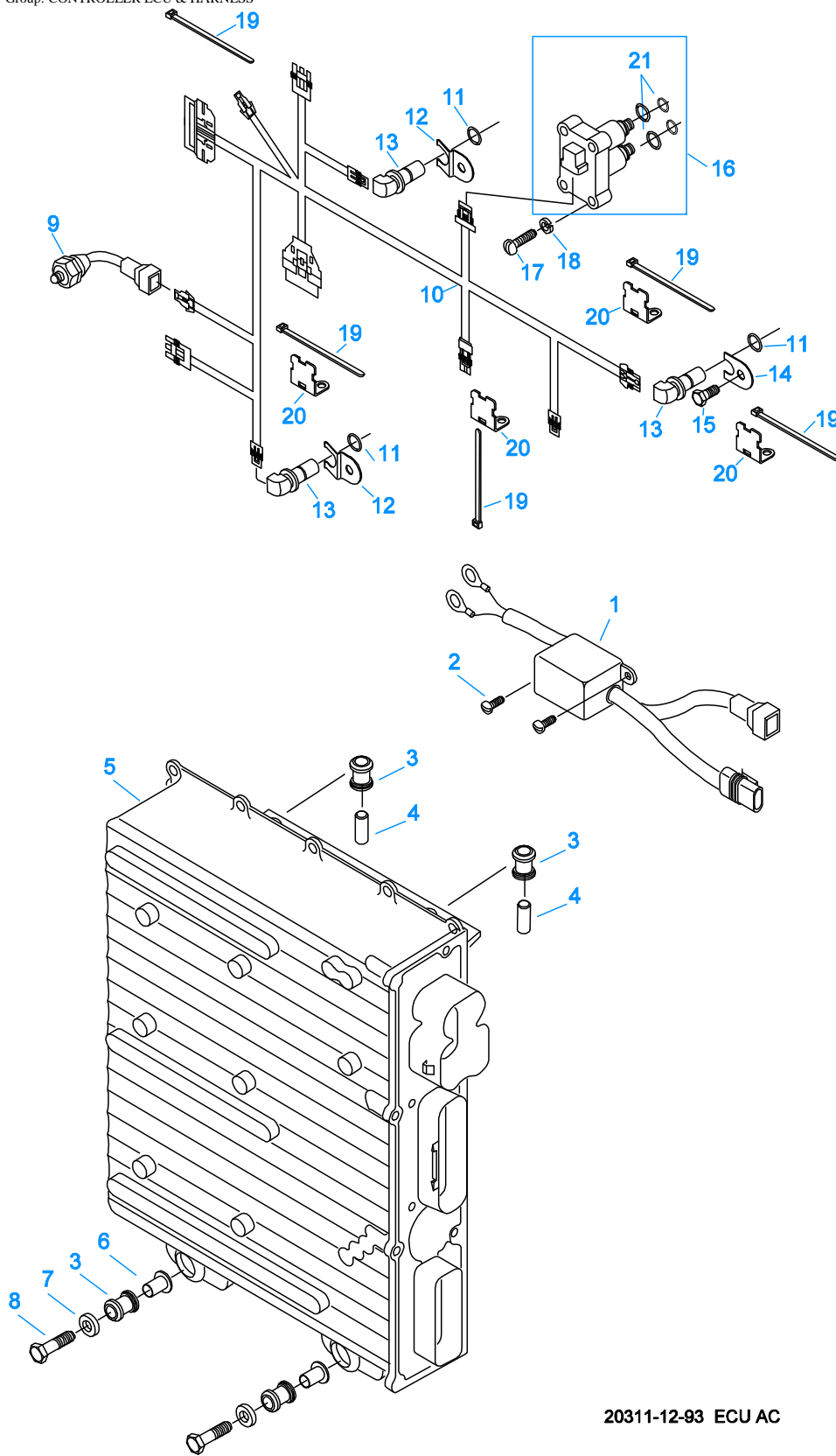
Note: Some part requirements are specific to #1 or #2 Aluminum or Iron Clutch Housings and Push or Pull type Clutch.

CASE (FRONT)

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|-----------------------|--|------|--|-------------------------|
| 1 | S-2996 | CASE ASSY | 4301355 ,4305766 ,S - 1989 | 1 | | |
| 1 | S-2998 | CASE ASSY | 4302218 ,4305765 ,S - 2075 | 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 | | 8 | 7/16"-14X7/8" | |
| 7 | 4306584 | CLUTCH HOUSING GASKET | 4304815,4305668 | 1 | | K-2061,K-4051 |
| 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 | |
| 8 | A-4772 | CLUTCH HOUSING ASSY | A - 4344 ,A - 4771 | 1 | #2 PUSH-PULL ALUM. | |
| 8 | A-6064 | CLUTCH HOUSING ASSY | A - 4342 ,A - 4770 ,A - 6062 ,A - 6063 ,A - 6065 | 1 | #1 PUSH-PULL ALUM. | |
| 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 | K-4051 |
| 13 | X-1-1012 | HEX NUT | X-1-1005 | 6 | .625-18 | K-4051 |
| 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 |

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|----------------------------|------------------------------|------|---|------------------------------------|
| 18 | 12815 | BUSHING | | 2 | FOR #2 HOUSING UPPER | A-3713,A-3723,A-4772,A-6064,K-2468 |
| 18 | 12815 | BUSHING | | 4 | FOR #1 HOUSING UPPER | A-3713,A-3723,A-4772,A-6064,K-2468 |
| 18 | 8677 | BUSHING | | 1 | FOR #2 HOUSING UPPER | A-3713,A-3723,A-4772,A-6064 |
| 19 | 8677 | BUSHING | | 2 | FOR #1 AND #2 HOUSING LOWER | A-3713,A-3723,A-4772,A-6064 |
| 20 | X-8C-830 | HEX HEAD SCREW/WASHER ASSY | X-8C-826 | 4 | .500-13 X 1.490, USE 2 PCS FOR IRON HOUSING, USE 4 PCS FOR ALUMINUM HOUSING | K-4051 |
| 20 | X-8C-831 | HEX HEAD SCREW/WASHER ASSY | X-8C-822 | 2 | .500-13 X 3.460, FOR IRON HOUSING | K-4051 |
| 21 | 4304023 | PLUG | 4303747 | 1 | 1-1/16" MAGNETIC, O-RING INCLUDED | S-2996,S-2998 |
| 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-2996,S-2998 |
| 28 | 18128 | PIN | | 2 | | |
| 29 | X-1-1012 | HEX NUT | | 2 | .625-18 | K-4051 |
| 30 | X-10-1005 | WASHER | X 3 1000 ,X10 1000 ,X10 1004 | 2 | 1.23 X 6.60 | K-4051 |
| 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 | | 1 | 1/2" | |
| 40 | X-12-1207 | PIPE PLUG | X12 1202 ,X12 1206 | 1 | 3/4" MAGNETIC | |
| 41 | 691447 | PIN | | 1 | | S-2996,S-2998 |

Group: CONTROLLER ECU & HARNESS



20311-12-93 ECU AC

CONTROLLER ECU & HARNESS

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|------------------------|---------------|------|-------|-------------------------|
| 1 | K-3281 | P.I.M. REPLACEMENT KIT | 4301645 | 1 | | |

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 906 West Gore St, Orlando, FL, 32805 | +1 (877)-776-4600 | +1 (407)-872191 | parts@eprogear.com

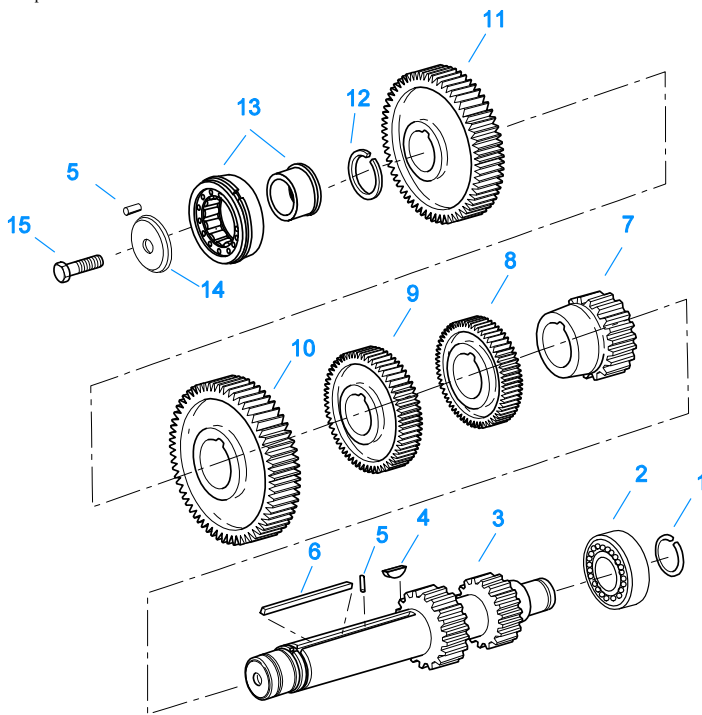
| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|--|----------------------------|------|------------------------|-------------------------|
| 2 | X-13-206 | SELF-TAPPING SCREW | X13 229 | 2 | 5/16" | |
| 3 | 4301367 | MOUNTING PAD | | 4 | | |
| 4 | 4301378 | DOWEL PIN | | 2 | | S-2612 |
| 5 | K-2856RX | REMAN EXCHANGE TRANSMISSION CONTROLLER KIT | K-2856, K-2856R | 1 | | |
| 6 | 4301369 | SLEEVE | | 2 | | |
| 7 | 4302114 | WASHER | | 2 | | |
| 8 | X-8-552 | SCREW | | 2 | 5/16"-18X1-1/2" | |
| 9 | K-2604 | SHIFT SENSOR KIT | 691743 ,4301668 ,4302725 | 1 | | |
| 10 | K-3352 | ECU HARNESS KIT | 691301 ,691439 | 1 | | |
| 11 | 14142 | -O- RING | | 3 | | S-1992,S-2612 |
| 12 | 4302746 | SPRING CLIP | | 2 | | K-3231,S-2612 |
| 13 | K-3231 | SPEED SENSOR KIT | A - 6398 ,A - 6724 | 3 | SINGLE PICK-UP (2 PIN) | |
| 14 | 4302746 | SPRING CLIP | | 1 | | K-3231,S-2612 |
| 15 | X-8C-409 | CAPSCREW | | 1 | 1/4"-20X5/8" | |
| 16 | K-3682 | RANGE/SPLITTER VALVE KIT | 5561801 ,5561804 ,K - 2907 | 1 | | |
| 17 | X-8-264 | HEX FLANGE HEAD SCREW | X 8 259 | 4 | #10-24 X 1 1/4 | |
| 18 | X-3-301 | LOCKWASHER | | 4 | #10 PLAIN | |
| 19 | 5559348 | TY-RAP | | 5 | | K-3352,K-3682 |
| 20 | 4301302 | BRACKET | | 4 | | |
| 21 | K-2908 | -O- RING KIT | | 1 | FOR SOLENOID VALVE | |



10440-1/92 Aux CS Helical

COUNTERSHAFT & BRGS(AUX)

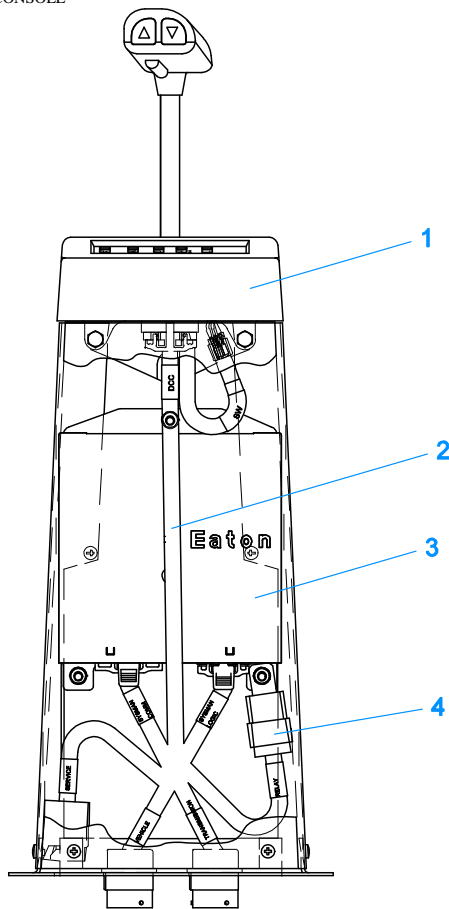
| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|--------------------------|---------------|------|-------------------------|-------------------------|
| 1 | 4302074-BOX | BEARING | 21343,4302074 | 4 | | K-2837,K-2838 |
| 2 | A-6339 | WELDED COUNTERSHAFT ASSY | A - 6073 | 2 | C/S 4302091 - D/G 23160 | |
| 3 | 22903 | SPACER | | 2 | | K-3388 |



10341-1/92 CS/RT

COUNTERSHAFT ASSY

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|----------------------|----------------------------|------|-----------------------------|-------------------------|
| 1 | 14317 | SNAP RING | | 2 | | K-2837,K-2838,K-3388 |
| 2 | 14366 | BEARING | | 2 | | K-2837,K-2838 |
| 3 | K-2942 | CNTRSHFT-W/REV & 1ST | 4301224 ,4301225 | 2 | | |
| 4 | X-6-E | KEY | | 2 | | |
| 5 | 62511 | ROLL PIN | | 4 | | |
| 6 | 4304840 | KEY | 19673 | 2 | | |
| 7 | 20382 | 2ND GEAR-CNTRSHFT | 19269 ,4302103 ,4303512 | 2 | | |
| 8 | 21264 | 3RD GEAR-CNTRSHFT | 19623 | 2 | | |
| 9 | 4300191 | OD GEAR-CNTRSHFT | 4305071 | 2 | | |
| 10 | 15953 | PTO GEAR - LOWER | | 1 | | |
| 10 | 20840 | PTO GEAR - UPPER | 15952 | 1 | | |
| 11 | 4305665 | DRIVE GEAR-CNTRSHFT | 21018,4305069 | 2 | | |
| 12 | 19198 | SNAP RING | | 2 | | |
| 13 | 4304599 | BEARING | 4302677 4304598 | 2 | | K-2837,K-2838 |
| 14 | 4304605 | RETAINER | 19548 | 2 | ROLL PIN NO LONGER REQUIRED | |
| 15 | X-7-1005 | CAPSCREW | | 2 | 5/8"-18X1-3/4" | |

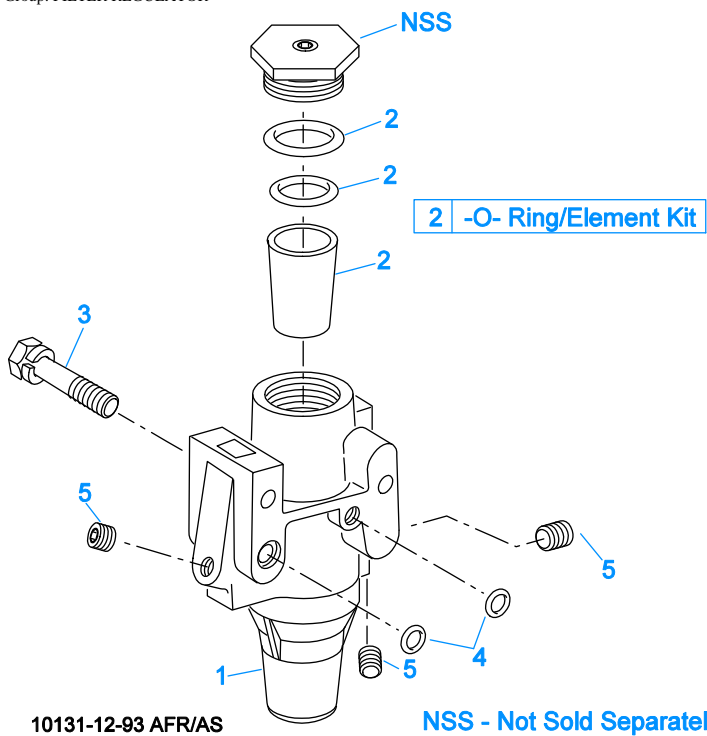


20312-12-93 DCC AC

DRIVER COMMAND CONSOLE

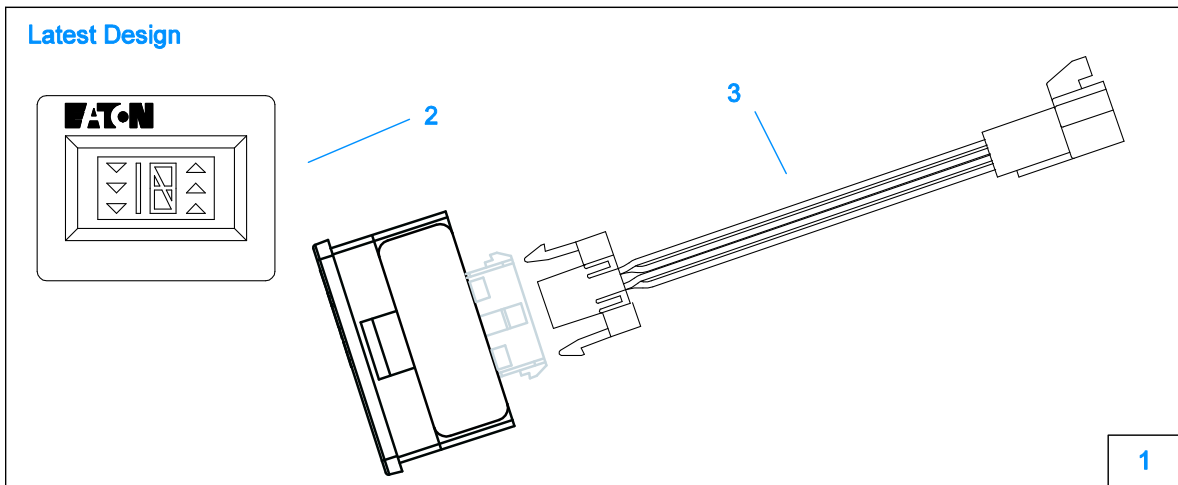
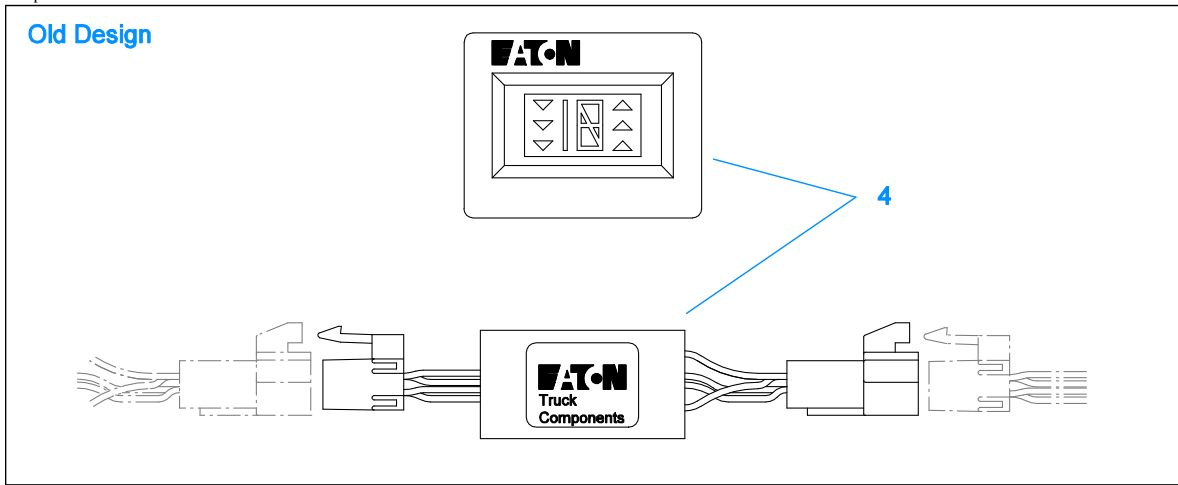
| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|----------------------------|----------------|------|-------|-------------------------|
| 1 | K-3794 | NO LONGER AVAILABLE | A-6133 | 1 | | |
| 2 | K-3318 | TOWER HARNESS KIT | 691302 ,691539 | 1 | | |
| 3 | B-100012250 | SYSTEM MANAGER ASSY, REMAN | B-1000122501 | 1 | | |
| | 1RX | EXCHANGE | | | | |
| 4 | X-210-002 | POWER CONNECT RELAY | | 1 | | |

Group: FILTER REGULATOR



FILTER REGULATOR

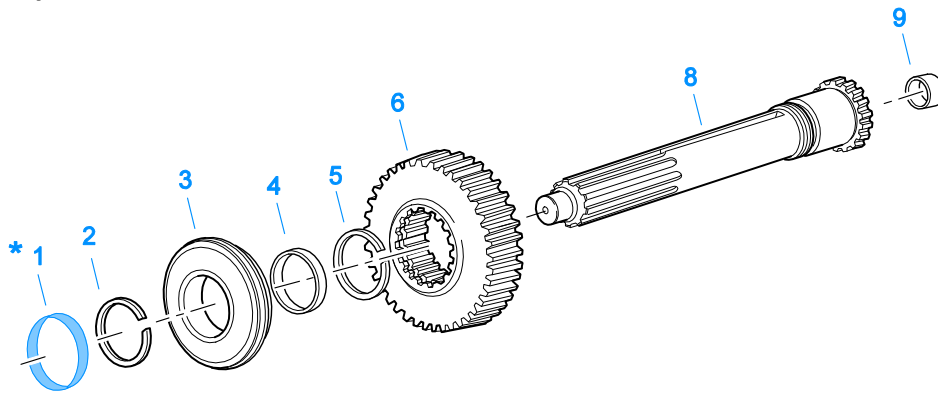
| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|----------------------|---------------|------|----------------------|-------------------------|
| 1 | K-2170 | FILTER REG KIT | A - 5454 | 1 | | |
| 2 | K-1698 | -O- RING/ELEMENT KIT | | 1 | FOR FILTER REGULATOR | |
| 3 | X-8C-412 | CAPSCREW | X 8S 412 | 2 | 1/4"-20X2-1/4" | |
| 4 | 15114 | -O- RING | | 2 | | K-2170,K-2909 |
| 5 | X-12-208 | PIPE PLUG | | 3 | 1/8" NPT | |



20313-02-01

GEAR DISPLAY MODULE

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|-----------------------|-------------------|------|-------|-------------------------|
| 1 | K-3199 | GEAR DISPLAY KIT | 4301944 ,A - 6416 | 1 | | |
| 1 | K-3199 | DRIVER DISPLAY MODULE | 4302640 | 1 | | |
| 3 | 4303654 | ADAPTER HARNESS | | 1 | | K-3199 |
| 4 | K-3199 | GEAR DISPLAY KIT | 4301944 ,A - 6416 | 1 | | |



* 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-2468,K-2837,K-3388,K-4125 |
| 3 | 81504 | BEARING | | 1 | | K-2468,K-2837,K-2838,K-4125 |
| 4 | 16463 | SPACER | | 1 | | |
| 5 | 14750 | SNAP RING | | 1 | | K-2468,K-2837,K-2838,K-3388,K-4125 |
| 6 | 22961 | MAIN DRIVE GEAR | 22959 | 1 | | |
| 8 | S-1659 | INPUT SHAFT | 23566 | 1 | 2" PULL | K-2468,K-2837,K-4125 |
| 8 | S-1660 | INPUT SHAFT | 23567 | 1 | 2" PUSH | |
| 9 | 16566 | BUSHING | | 1 | | K-2838,S-1659,S-1660 |



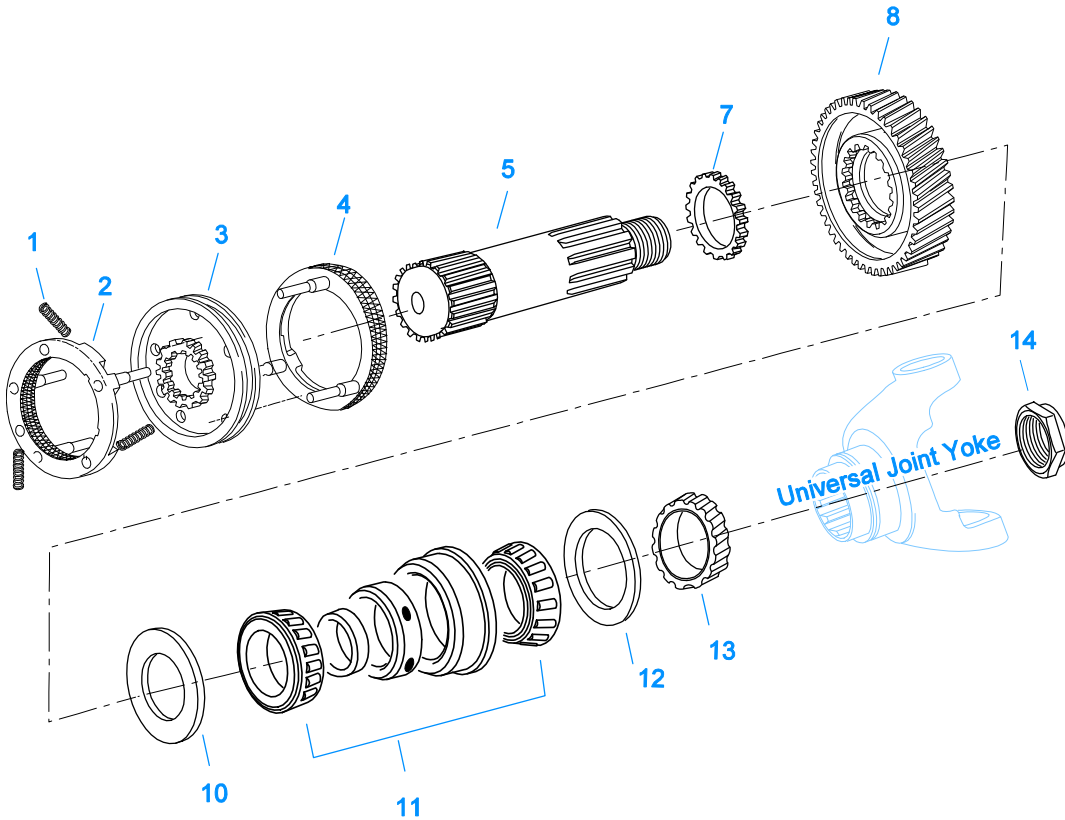
INTEGRAL OIL PUMP

| 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-2839 |
| 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-2998 |
| 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,K-4051 |
| 24 | S-2998 | CASE ASSY | 4302218 ,4305765 ,S - 2075 | 1 | FOR USE W/INTEGRAL PUMP | |
| 25 | 14373 | MAGNET | | 3 | | S-2996,S-2998 |
| 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 | | |

KITS & ASSEMBLIES

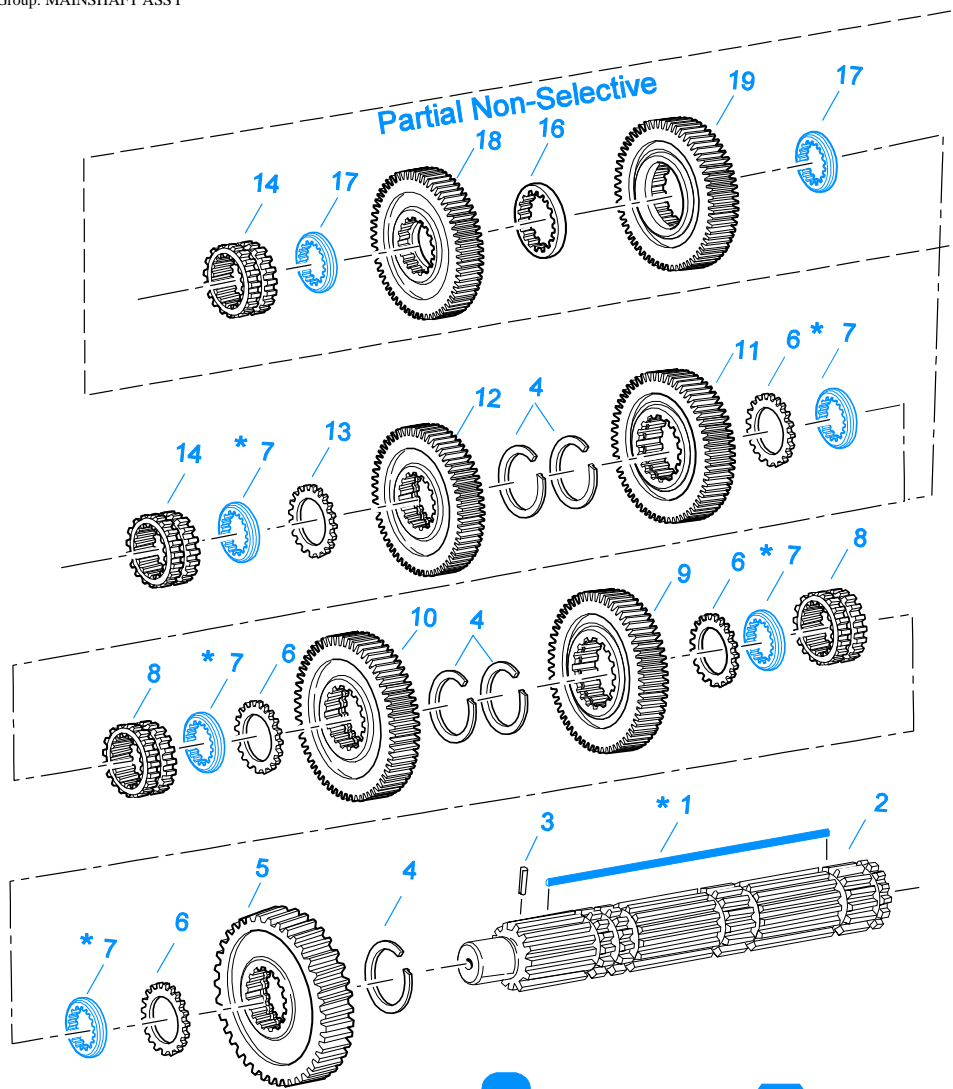
| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|----------|--------------|---|--|------|--|-------------------------|
| K-1698 | | -O- RING/ELEMENT KIT | | 1 | FOR FILTER REGULATOR | |
| K-1956 | | COOLER INSTLN KIT | | 1 | | |
| K-2061 | | GASKET KIT | | 1 | | |
| K-2170 | | FILTER REG KIT | A - 5454 | 1 | | |
| K-2262 | | OIL SEAL W/SLINGER | 19109 20807 20808 | 1 | "FOR MECHANICAL COVER" | K-2837,K-2838 |
| K-2366 | | KEY & WASHER KIT | 21326 ,4300763 ,4304614 | 1 | CONTAINS 3-SIDED KEY | |
| K-2468 | | CLUTCH INSTALLATION KIT | | 1 | FOR USE WITH S-1659 INPUT SHAFT ASSY AND 81504 INPUT SHAFT BEARING | |
| K-2604 | | SHIFT SENSOR KIT | 691743 ,4301668 ,4302725 | 1 | | |
| K-2805 | | SHIM KIT | 21452 K - 2106 | 1 | | K-2837,K-2838,S-2674 |
| K-2837 | | BASIC OVERHAUL KIT | | 1 | | |
| K-2838 | | BASIC REBUILD KIT | | 1 | | |
| K-2839 | | -O- RING KIT | | 1 | | K-2837,K-2838 |
| K-2856RX | | REMAN EXCHANGE TRANSMISSION CONTROLLER KIT | K-2856, K-2856R | 1 | | |
| K-2908 | | -O- RING KIT | | 1 | FOR SOLENOID VALVE | |
| K-2909 | | RANGE CYL COVER KIT | 4301361 | 1 | | |
| K-2942 | | COUNTERSHAFT REPL KIT | 4301224 ,4301225 | 1 | | |
| K-3209 | | IDLER SHAFT REPL KIT | 16405 ,4302981 ,4305513 | 1 | | |
| K-3281 | | P.I.M. REPLACEMENT KIT | 4301645 | 1 | | |
| K-3367 | | OIL PUMP KIT | 4301829 ,4301948 ,4303776 ,4304529 ,4304572 A - 6963 ,A - 7173 | 1 | | |
| K-3388 | | SMALL PARTS KIT | | 1 | | |
| K-3492 | | SYNCHRONIZER KIT | K - 2446 | 1 | | |
| K-3494 | | SYNCHRONIZER REPLACEMENT KIT | K - 2448 | 1 | SLIDING CLUTCH INCLUDED IN KIT | |
| K-3651 | | OIL SEAL TOOL KIT | | 1 | | |
| K-3682 | | RANGE/SPLITTER VALVE KIT | 5561801 ,5561804 ,K - 2907 | 1 | | |
| K-4051 | | RT CLUTCH HOUSING SERVICE KIT | | 1 | | |
| K-4125 | | CLUTCH INSTALLATION KIT (RT), HYDRAULIC RELEASE | | 1 | STANDARD RT INPUT SHAFT AND YOKE FOR HYDRAULIC CLUTCH RELEASE | |
| S-1404 | | OIL FILTER | 17238 | 1 | | |
| S-1659 | | INPUT SHAFT | 20535 23566 4302661 | 1 | 2" PULL - USE W/FBC 20550 | K-2468,K-2837,K-4125 |
| S-1660 | | INPUT SHAFT | 23567 | 1 | 2" PUSH - USE W/FBC 20549 | |
| S-1992 | | REAR BRG COVER ASSY | 4302036 | 1 | | |
| S-2612 | | SHIFT BAR HSG ASSY | 4301357 ,4302747 ,S - 1990 | 1 | COMPLETE | |
| S-2616 | | SHIFT BAR HSG ASSY | 4301357 ,4302747 ,S - 1991 | 1 | HOUSING ONLY (DOES NOT INCLUDE SPEED SENSORS) | |
| S-2674 | | RANGE SECTION ASSY | | 1 | | |
| S-2688 | | MAINSHAFT ASSY | 4303404 ,4303913 | 1 | | |
| S-2745R | | REMAN XY SHIFTER ASSY | 691365 ,691366 ,691381 ,A - 6859 ,A - 7332 | 1 | COMPONENT PARTS NOT SOLD SEPARATELY | |
| S-2996 | | CASE ASSY | 4301355 ,4305766 ,S - 1989 | 1 | | |
| S-2998 | | CASE ASSY | 4302218 ,4305765 ,S - 2075 | 1 | FOR USE W/INTEGRAL PUMP | |



10421-12-93

MAINSHAFT & SYNCHRO(AUX)

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|-----------------------|--------------------------|------|----------|------------------------------------|
| 1 | 14897 | SPRING | | 3 | | K-2837,K-2838,K-3388,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-3388 |
| 8 | 4302090 | REDUCTION GEAR | 4301227 | 1 | | |
| 10 | 22898 | SPACER | | 1 | | K-3388 |
| 11 | 21356-BOX | BEARING | 21356 | 1 | | K-2837,K-2838 |
| 12 | 22969 | SPACER | | 1 | | |
| 13 | 20191 | ROTOR | | 1 | | |
| 14 | 22254 | NUT | | 1 | | S-2674 |



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

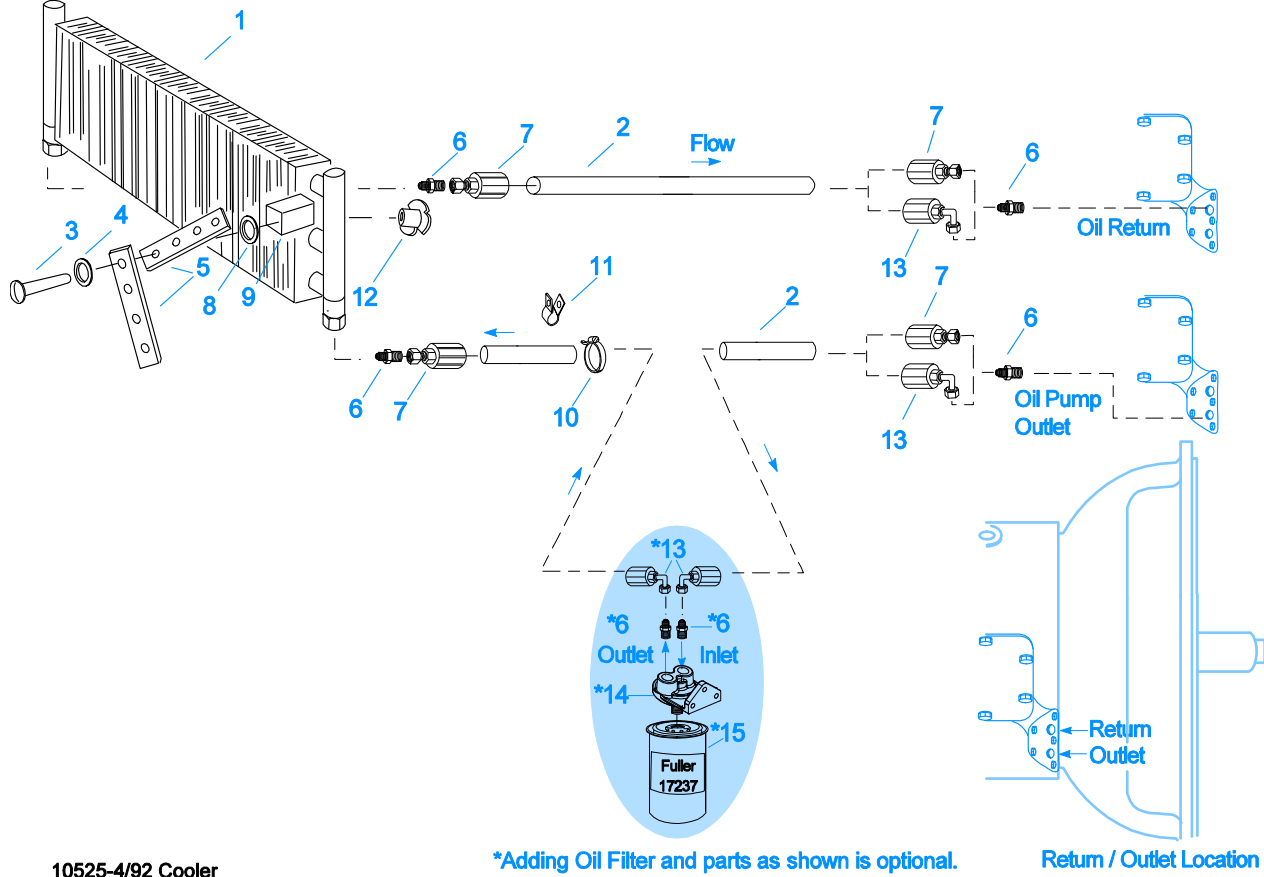
| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|----------------------------|----------------------------|------|---|------------------------------------|
| 1 | 4304614 | 3-SIDED KEY | 4300890 | 1 | | K-2366,K-3388 |
| 1 | K-2366 | KEY & WASHER KIT | 21326 ,4300763 ,4304614 | 1 | CONTAINS 3-SIDED KEY | |
| 2 | S-2688 | MAINSHAFT ASSY | 4303404 ,4303913 | 1 | | S-2688 |
| 3 | 62504 | ROLL PIN | | 1 | | K-2468,K-2837,K-2838,K-3388,K-4125 |
| 4 | 14750 | SNAP RING | | 5 | | |
| 5 | 4301222 | REVERSE GEAR- MAINSHAFT | | 1 | | |
| 6 | 14749 | SPACER | | 4 | | K-3388 |
| 7 | 4300382 | WASHER .249-WHITE | | 5 | | K-2366,K-3388 |
| 7 | 4300383 | WASHER .254-GREEN | | 5 | OPTIONAL 4300382-4300387 OR 4300830 USE ANY 5 WASHERS. USE | K-2366,K-3388 |

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|--------------------|----------------|------|---|-------------------------|
| 7 | 4300384 | WASHER .259-ORANGE | | 5 | WITH 3-SIDED KEY OPTIONAL 4300382-4300387 OR 4300830 USE ANY 5 WASHERS. USE WITH 3-SIDED KEY | K-2366,K-3388 |
| 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-3388 |
| 8 | 4305997 | SLIDING CLUTCH | 4301407 | 2 | | |
| 9 | 4303497 | 1ST GEAR-MAINSHAFT | 4303498 | 1 | | |
| 10 | 19622 | 2ND GEAR-MAINSHAFT | 21263 ,4300246 | 1 | | |
| 11 | 20381 | 3RD GEAR-MAINSHAFT | 19268 ,4302104 | 1 | | |
| 12 | 23102 | OD GEAR-MAINSHAFT | 22960 ,4300190 | 1 | | |
| 13 | 22032 | SPACER | | 1 | | K-3388 |
| 14 | 4305996 | SLIDING CLUTCH | 691922 | 1 | | K-2837 |
| 16 | 4303603 | WASHER | 4302397 | 1 | | |
| 17 | 4302398 | WASHER | | 2 | USE 3-SIDED KEY ONLY | |
| 18 | 4302393 | OD GEAR-MAINSHAFT | 4305070 | 1 | USE 3-SIDED KEY ONLY | |
| 19 | 4302394 | 2ND GEAR-MAINSHAFT | 4302395 | 1 | USE 3-SIDED KEY ONLY | |

MISCELLANEOUS

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|---------|--------------|---------------------|---------------|------|----------------------------------|-------------------------|
| 4302639 | | SHIFT DIAGRAM LABEL | | 1 | | |
| 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-2837 |
| 71206 | | SILICONE LUBE | | 1 | 4 CC (SINGLE APPLICATION SIZE) | K-2839 |

Group: OIL COOLER



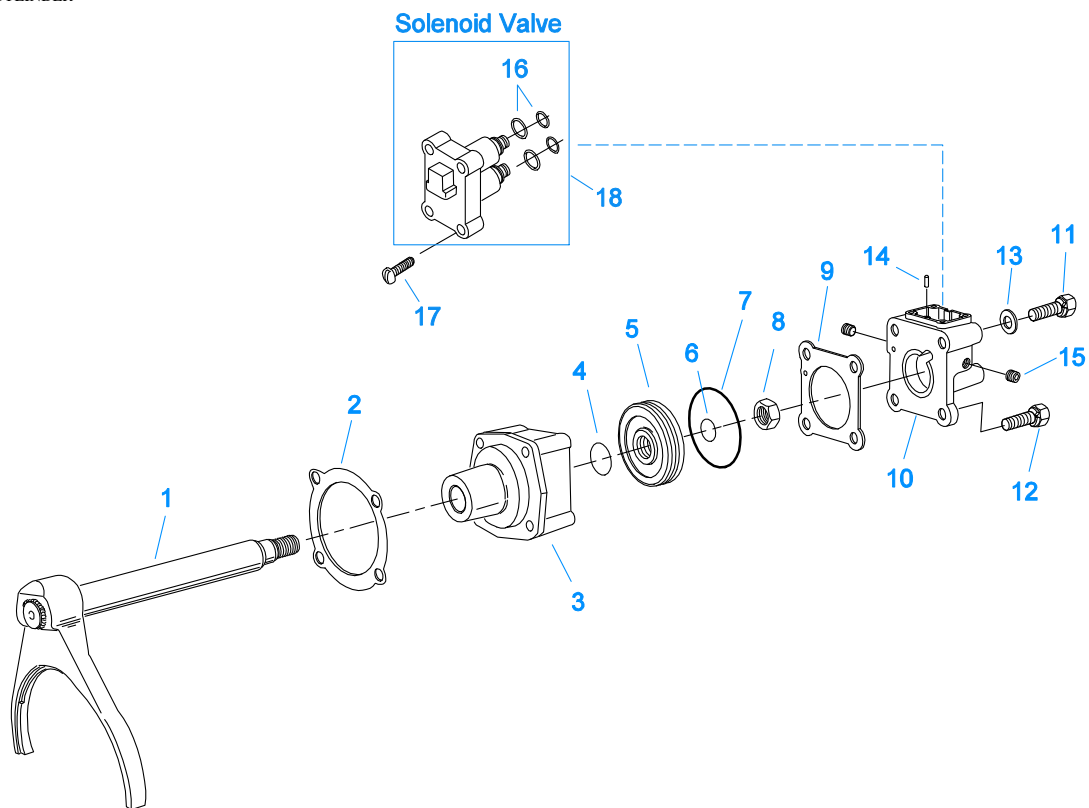
10525-4/92 Cooler

*Adding Oil Filter and parts as shown is optional.

Return / Outlet Location

OIL COOLER

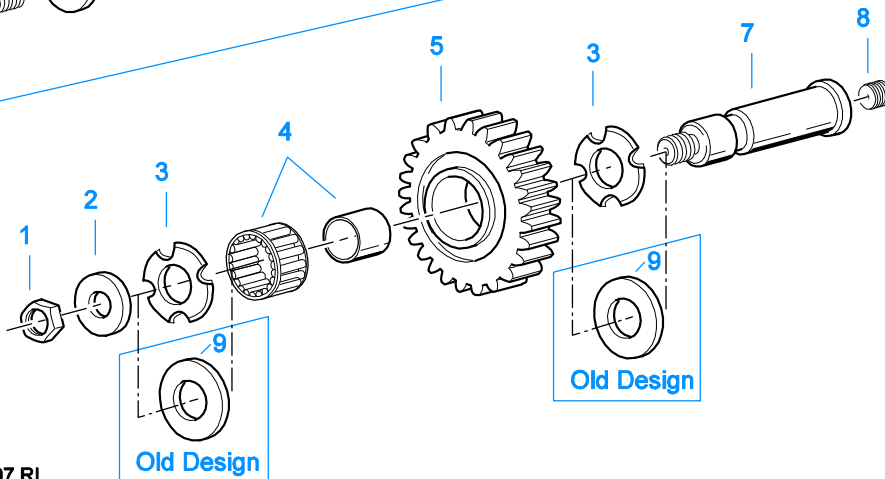
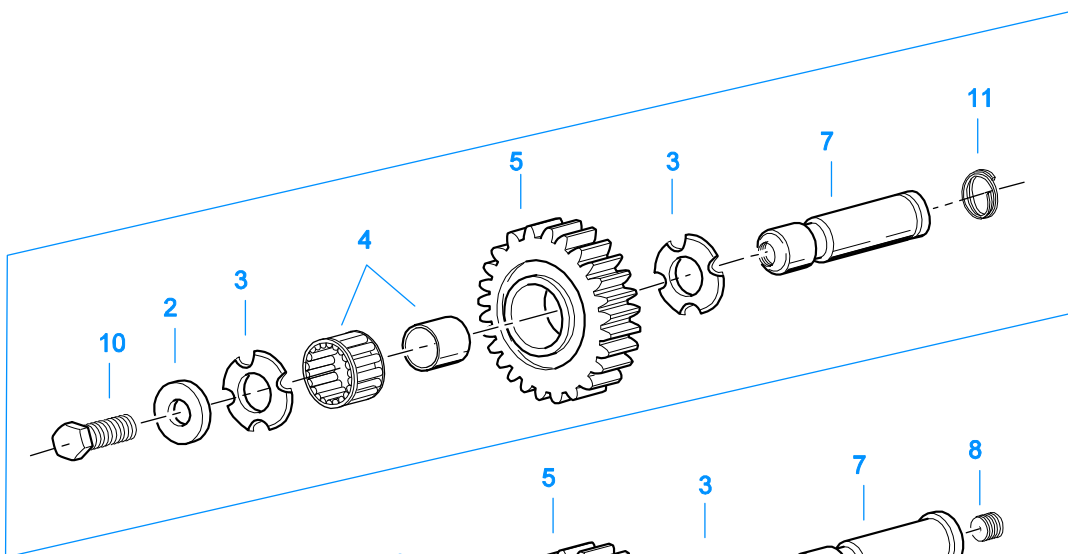
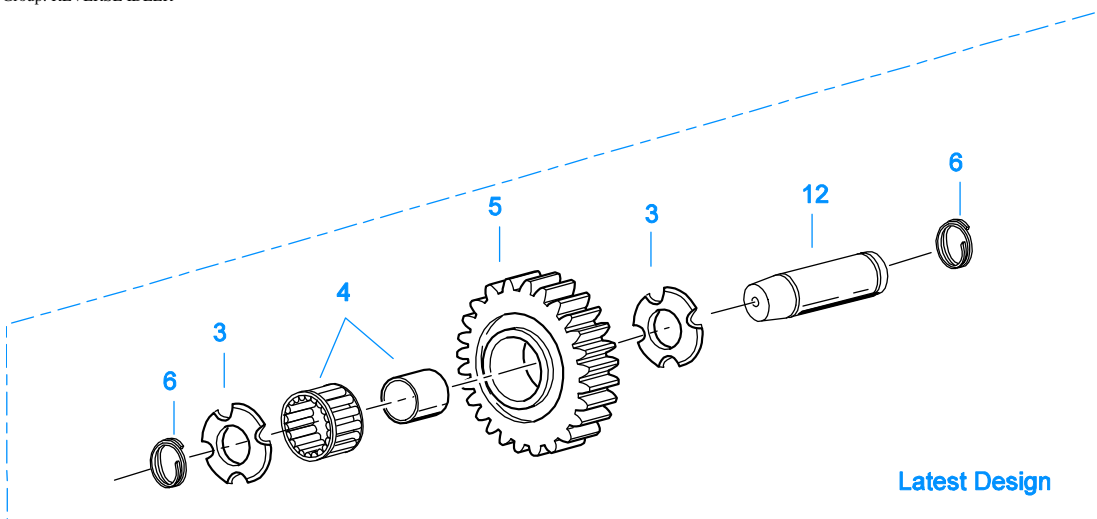
| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|-------------------|---------------|------|-----------------|-------------------------|
| 1 | 18025 | OIL COOLER | | 1 | | K-1956 |
| 2 | 19424 | HOSE | | 1 | 25 FEET | K-1956 |
| 3 | 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 |



20537-12-93 AC

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-2061 |
| 3 | 4301363 | CYLINDER | | 1 | | |
| 4 | 14765 | -O- RING | | 1 | | K-2839 |
| 5 | 14341 | PISTON | 23353 | 1 | | |
| 6 | 14345 | -O- RING | | 1 | | K-2839 |
| 7 | 14344 | -O- RING | | 1 | | K-2839 |
| 8 | X-1-1010 | NUT | | 1 | 5/8"-18 | |
| 9 | 4301377 | GASKET | | 1 | | K-2839,K-2909 |
| 10 | K-2909 | RANGE CYL COVER KIT | 4301361 | 1 | | |
| 11 | X-8-647 | CAPSCREW | | 2 | 3/8"-16X4-3/4" | |
| 12 | X-8L-605 | CAPSCREW | | 2 | 3/8"-16X3" | |
| 13 | X-3-600 | LOCKWASHER | | 2 | 3/8" | |
| 14 | 4301373 | PIN | | 1 | | |
| 15 | X-12-208 | PIPE PLUG | | 2 | 1/8" NPT | |
| 16 | K-2908 | -O- RING KIT | | 1 | FOR SOLENOID VALVE | |
| 17 | X-8-264 | HEX FLANGE HEAD SCREW | X 8 259 | 4 | #10-24 X 1 1/4 | |
| 18 | K-3682 | RANGE/SPLITTER VALVE KIT | 5561801 ,5561804 ,K - 2907 | 1 | | |

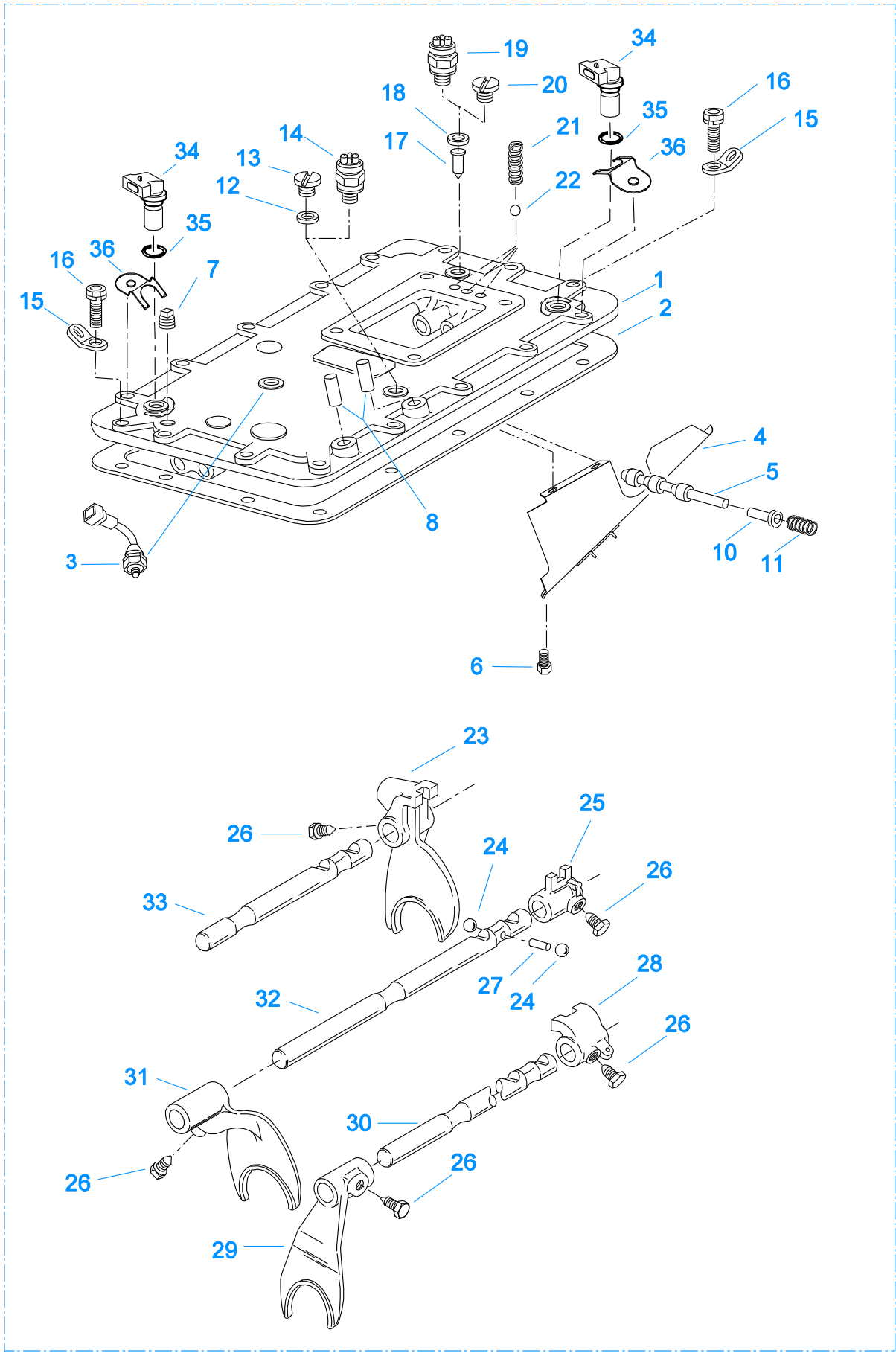


11383-5-97 RI

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-2996,S-2998 |
| 4 | 14287 | BEARING | 4305020 | 2 | | K-2837,K-2838 |
| 5 | 4301229 | REVERSE IDLER GEAR | | 2 | | |
| 6 | 4303336 | RETAINING RING | | 4 | | K-3209 |
| 7 | K-3209 | IDLER SHAFT REPL KIT | 16405 ,4302981 ,4305513 | 2 | | |
| 8 | 5202 | PLUG | | 2 | | |

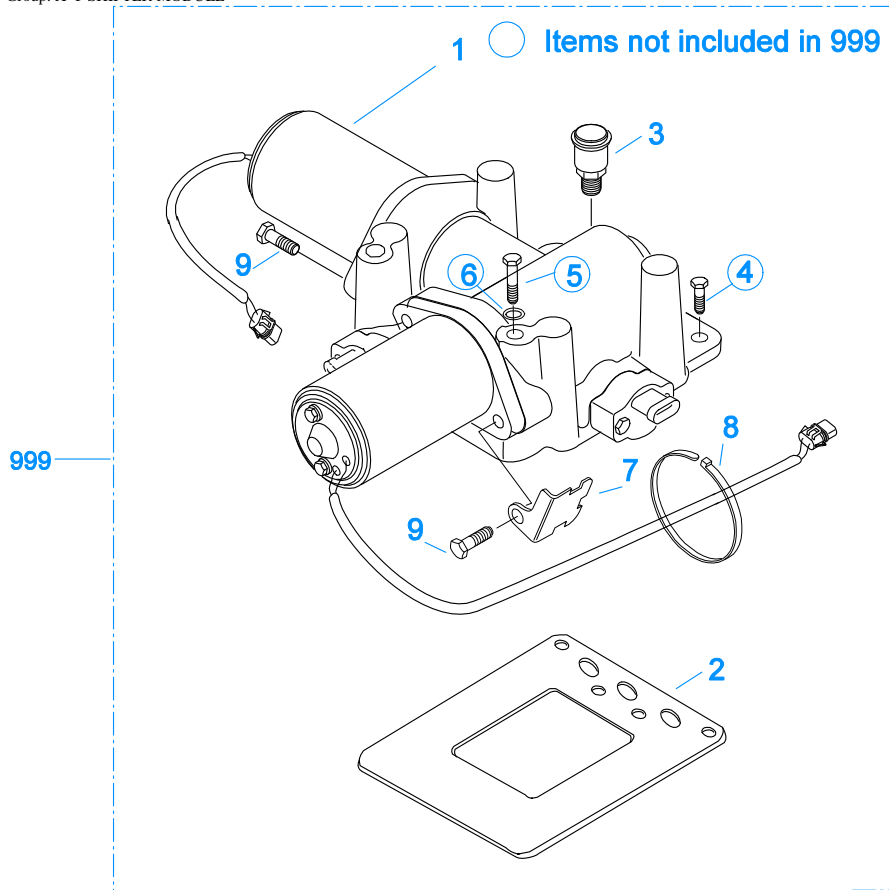
| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|---------------------|---------------|------|---------------|-------------------------|
| 9 | 14282 | NO LONGER AVAILABLE | | 4 | | |
| 10 | X-7-1008 | CAPSCREW | | 2 | 5/8"-18X1-1/4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



999

SHIFT BAR HOUSING

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|----------------------|----------------------------|------|--|-------------------------|
| 1 | S-2616 | SHIFT BAR HSG ASSY | 4301357 ,4302747 ,S - 1991 | 1 | HOUSING ONLY (DOES NOT INCLUDE SPEED SENSORS) | |
| 2 | 4302676 | GASKET | 14918 | 1 | | K-2061,S-2612,S-2616 |
| 3 | K-2604 | SHIFT SENSOR KIT | | 1 | NOT INCLUDED IN COMPLETE SHIFT BAR HOUSING ASSEMBLY (999) | |
| 4 | 20070 | OIL TROUGH | | 1 | | S-2612 |
| 5 | 20332 | AIR VALVE SHAFT | 17177 | 1 | | S-2612 |
| 6 | X-8-423 | CAPSCREW | | 2 | 1/4"-20X1/2" | |
| 7 | X-12-603 | PIPE PLUG | X12 602 | 1 | 3/8" NPT | |
| 8 | 4301378 | DOWEL PIN | | 2 | | S-2612 |
| 10 | 21966 | PLUNGER | | 1 | | |
| 11 | 4301372 | SPRING | | 1 | | |
| 12 | 17179 | GASKET | | 1 | | S-2612,S-2616 |
| 13 | 4303655 | PLUG | 17178 | 1 | | S-2612,S-2616 |
| 14 | 22941 | NEUTRAL LIGHT SWITCH | 12639 | 1 | SWITCH NORMALLY CLOSED | |
| 15 | 20815 | LIFTING EYE | 17105 | 2 | | |
| 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 | | |
| 18 | 15900 | GASKET | | 1 | | K-2604,S-2612,S-2616 |
| 19 | 22940 | REVERSE LIGHT SWITCH | 16830 | 1 | SWITCH NORMALLY OPEN | |
| 20 | 4303656 | PLUG | 15917 | 1 | | S-2612,S-2616 |
| 21 | 1069 | SPRING | | 3 | | K-2837,K-3388,S-2612 |
| 22 | X-14-800 | STEEL BALL | | 3 | 1/2" | |
| 23 | 691712 | SHIFT YOKE | 4301376 | 1 | REVERSE/LO | S-2612 |
| 24 | X-14-1200 | STEEL BALL | | 2 | 3/4" | |
| 25 | 14658 | SHIFT BLOCK | | 1 | 1ST/2ND | S-2612 |
| 26 | 3220 | LOCKSCREW | | 5 | | S-2612 |
| 27 | 1634 | INTERLOCK PIN | | 1 | | K-3388,S-2612 |
| 28 | 14659 | SHIFT BLOCK | | 1 | 3RD/OD | S-2612 |
| 29 | 691601 | SHIFT YOKE | 4302212 | 1 | 3RD/OD | S-2612 |
| 30 | 4301366 | YOKE BAR | | 1 | 3RD/OD | S-2612 |
| 31 | 691600 | SHIFT YOKE | 4302994 | 1 | 1ST/2ND | S-2612 |
| 32 | 4301365 | YOKE BAR | | 1 | 1ST/2ND | S-2612 |
| 33 | 4301364 | YOKE BAR | | 1 | REVERSE/LO | S-2612 |
| 34 | K-3231 | SPEED SENSOR KIT | A - 6398 ,A - 6724 | 2 | SINGLE PICK-UP (2 PIN) | |
| 35 | 14142 | -O- RING | | 2 | | S-1992,S-2612 |
| 36 | 4302746 | SPRING CLIP | | 2 | | K-3231,S-2612 |
| 999 | S-2612 | SHIFT BAR HSG ASSY | 4301357 ,4302747 ,S - 1990 | 1 | COMPLETE | |



20228-11-99 XY Shf

X-Y SHIFTER MODULE

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|-----------------------|--|------|-------------------------------------|-------------------------|
| 1 | S-2745R | REMAN XY SHIFTER ASSY | 691365 ,691366 ,691381 ,A - 6859 ,A - 7332 | 1 | COMPONENT PARTS NOT SOLD SEPARATELY | |
| 2 | 4305294 | GASKET | 4303431 | 1 | | K-2061 |
| 3 | 4304602 | BREATHER | 23605 | 1 | 1/4" NPT | |
| 4 | X-8L-600 | CAPSCREW | | 2 | 3/8"-16X1" | |
| 5 | X-8-624 | CAPSCREW | | 2 | 3/8"-16X4" | |
| 6 | X-3-600 | LOCKWASHER | | 2 | 3/8" | |
| 7 | 4301302 | BRACKET | | 1 | | |
| 8 | 5559348 | TY-RAP | | 1 | | K-3352,K-3682 |
| 9 | X-8C-500 | CAPSCREW | | 4 | 18X1-1/4" | |
| 999 | S-2745R | REMAN XY SHIFTER ASSY | 691365 ,691366 ,691381 ,A - 6859 ,A - 7332 | 1 | COMPONENT PARTS NOT SOLD SEPARATELY | |

