



Eaton Fuller FO-22E318B-MXP Transmission Parts Manual

This is Eaton Fuller FO-22E318B-MXP 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

FO-22E318B-MXP

November 2012

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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**



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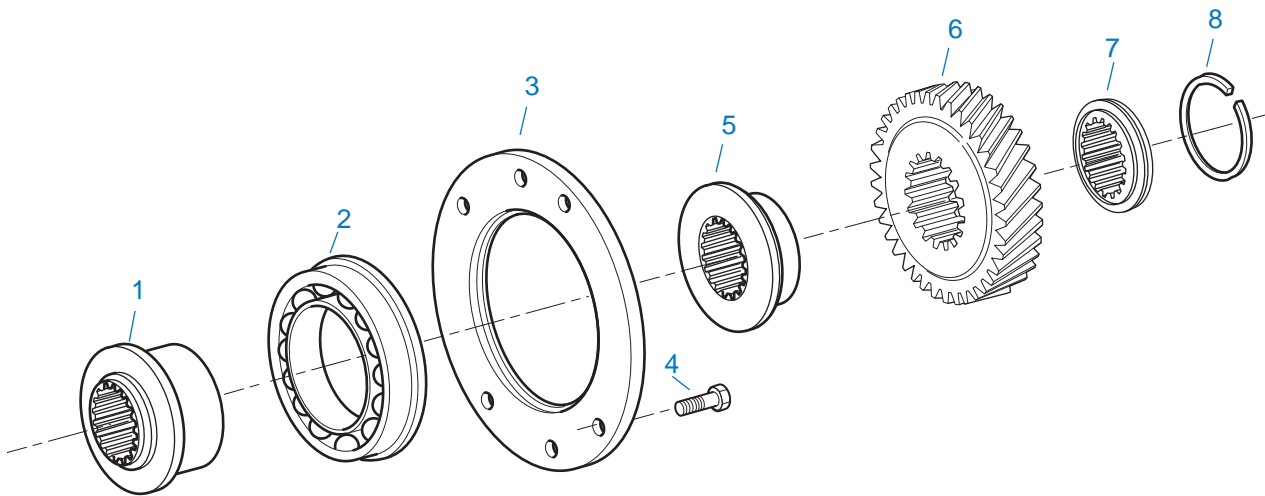
UltraShift Plus Transmission

AFTMKT 09U-12

Generic Illustration - Not specific to part numbers listed below

AFTERMARKET TRANSMISSIONS

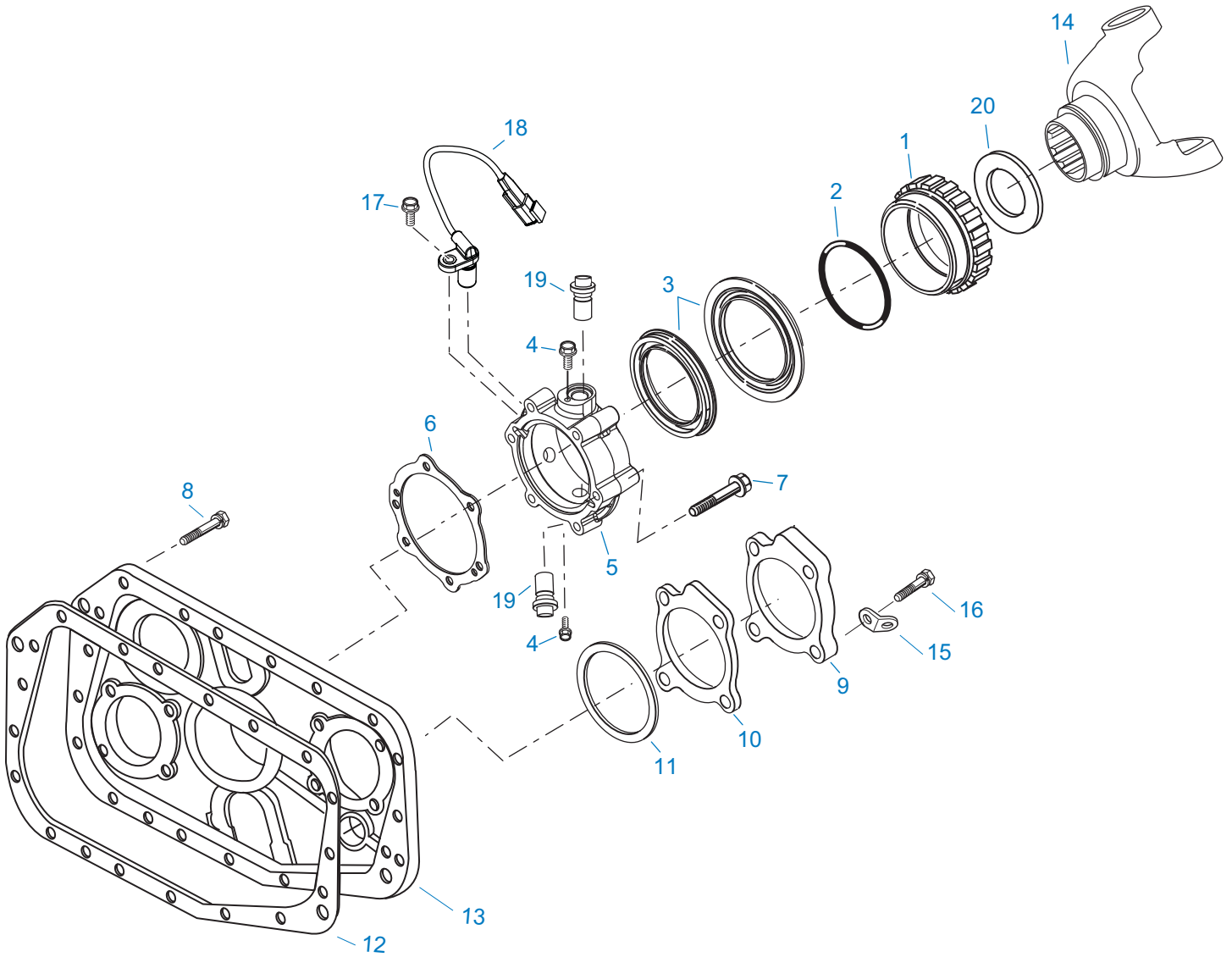
| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|------------------------------|---------------|------|--|-------------------------|
| | TA-G41-12X | FO-22E318B-MXP EXCHANGE UNIT | | 1 | WITH INTERNAL PUMP - NO CLUTCH HOUSING | |
| | TN-G41-12R | FO-22E318B-MXP REMAN TRANS | | 1 | WITH INTERNAL PUMP | |
| | TN-G41-12X | FO-22E318B-MXP EXCHANGE UNIT | | 1 | WITH INTERNAL PUMP - NO CLUTCH HOUSING | |



10484-6-93

AUXILIARY DRIVE GEAR

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|----------------------|---------------|------|----------------|-------------------------|
| 1 | 4306314 | SPACER | | 1 | | |
| 2 | 5566510-BOX | BEARING | 5566510 | 1 | | K-3941 |
| 3 | 4304497 | RETAINER | | 1 | | |
| 4 | X-8-680 | CAPSCREW | | 6 | 3/8"-16X1-1/2" | |
| 5 | 4304500 | SPACER | | 1 | | |
| 6 | 4304801 | AUXILIARY DRIVE GEAR | | 1 | | |
| 7 | 4303185 | WASHER | 4300901 | 1 | | |
| 8 | 4301254 | SNAP RING | | 1 | | K-3941,K-4140 |

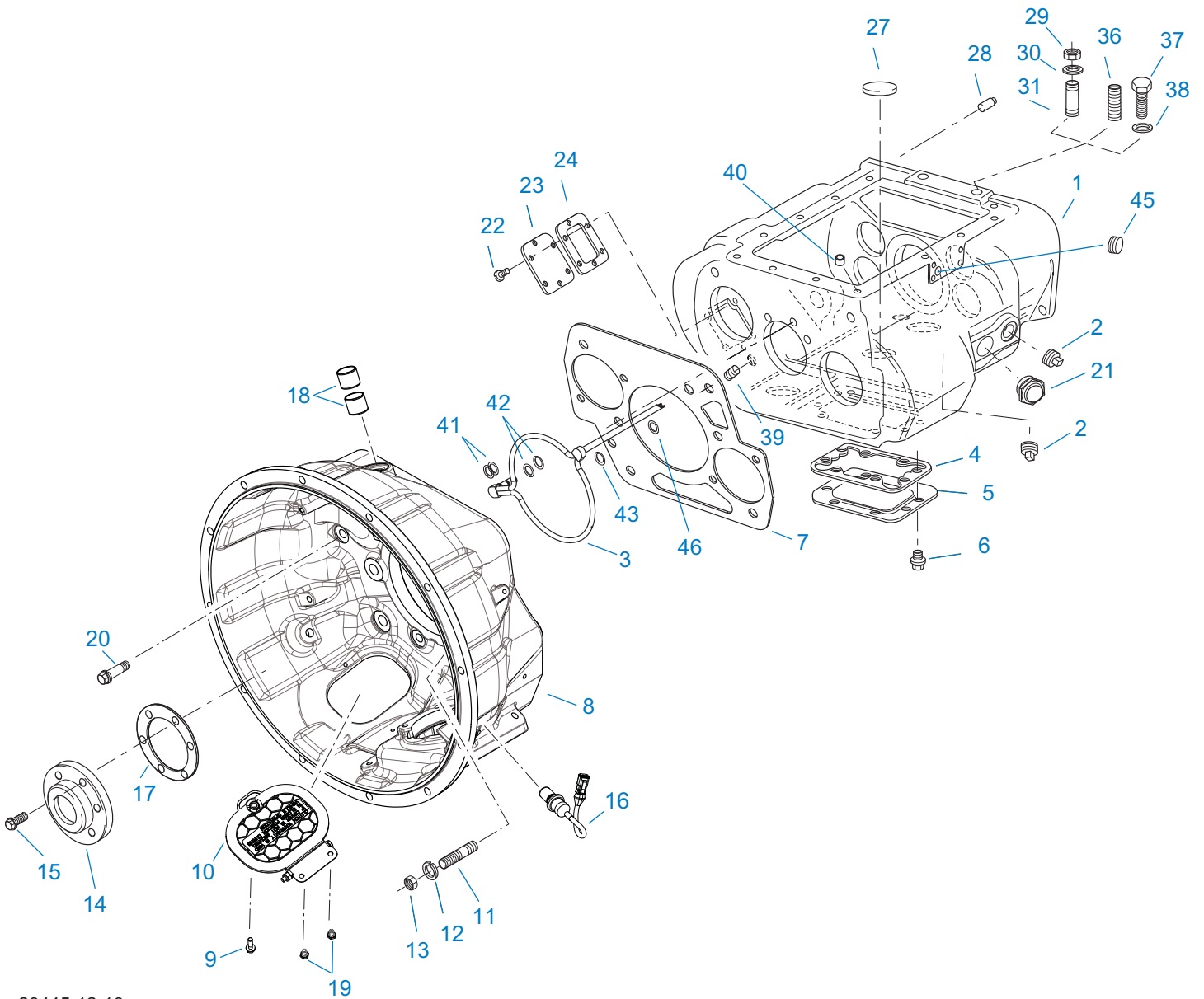


11407-11-10

CASE (AUX)

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|--------------------------|-----------------|------|----------------------|-------------------------|
| 1 | S-2501 | SPEEDO ROTOR ASSY | 4302242 | 1 | MAGNETIC | |
| 2 | 5568511 | -O- RING | | 1 | | K-2918,S-2501,S-3106 |
| 3 | K-2918 | OIL SEAL KIT | 4302322 4302323 | 1 | "FOR MAGNETIC COVER" | K-3941 |
| 4 | X-8-0801M | CAPSCREW | | 2 | M8 X 1.25 X 12MM | S-3106 |
| 5 | S-3106 | REAR BEARING COVER ASSY | 4306498 | 1 | | |
| 6 | 1009551 | GASKET - RED EDGE MOLDED | | 1 | | K-2918,K-3939,S-3106 |

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|------------------------------|----------------|------|----------------|------------------------------------|
| 7 | X-8L-611 | CAPSCREW | | 4 | 3/8"-16X3-1/4" | S-3106 |
| 7 | X-8L-614 | CAPSCREW | | 2 | 3/8"-16X2" | S-3106 |
| 8 | X-8L-602 | CAPSCREW | | 16 | 3/8"-16X1-1/2" | |
| 8 | X-8L-614 | CAPSCREW | | 2 | 3/8"-16X2" | S-3106 |
| 8 | X-8L-616 | CAPSCREW | X 8 616 | 1 | 3/8"-16X2-3/4" | |
| 9 | 4302320 | COVER | 21346 | 2 | | |
| 10 | 4305978 | GASKET | 4302246 | 2 | | K-3547,K-3939 |
| 11 | K-2805 | SHIM KIT | 21452 K - 2106 | 1 | | K-3941 |
| 12 | 14335 | GASKET | | 1 | | K-3939 |
| 13 | 4306307 | REAR HOUSING | | 1 | | |
| 14 | 5505543 | YOKE-1710 HALF ROUND | | 1 | | |
| 15 | 20815 | LIFTING EYE | 17105 | 2 | | |
| 16 | X-8L-600 | CAPSCREW | | 8 | 3/8"-16X1" | K-4012 |
| 17 | X-8C-409 | CAPSCREW | | 1 | 1/4"-20X5/8" | K-3938,K-3947,K-4060,K-4061,S-3111 |
| 18 | K-3947 | DIRECTIONAL SPEED SENSOR KIT | 4306497 | 1 | | |
| 19 | K-3523 | SPEEDO PLUG KIT | 4302707 | 2 | | |
| 20 | 4304653 | SHIELD | | 1 | | S-3106 |



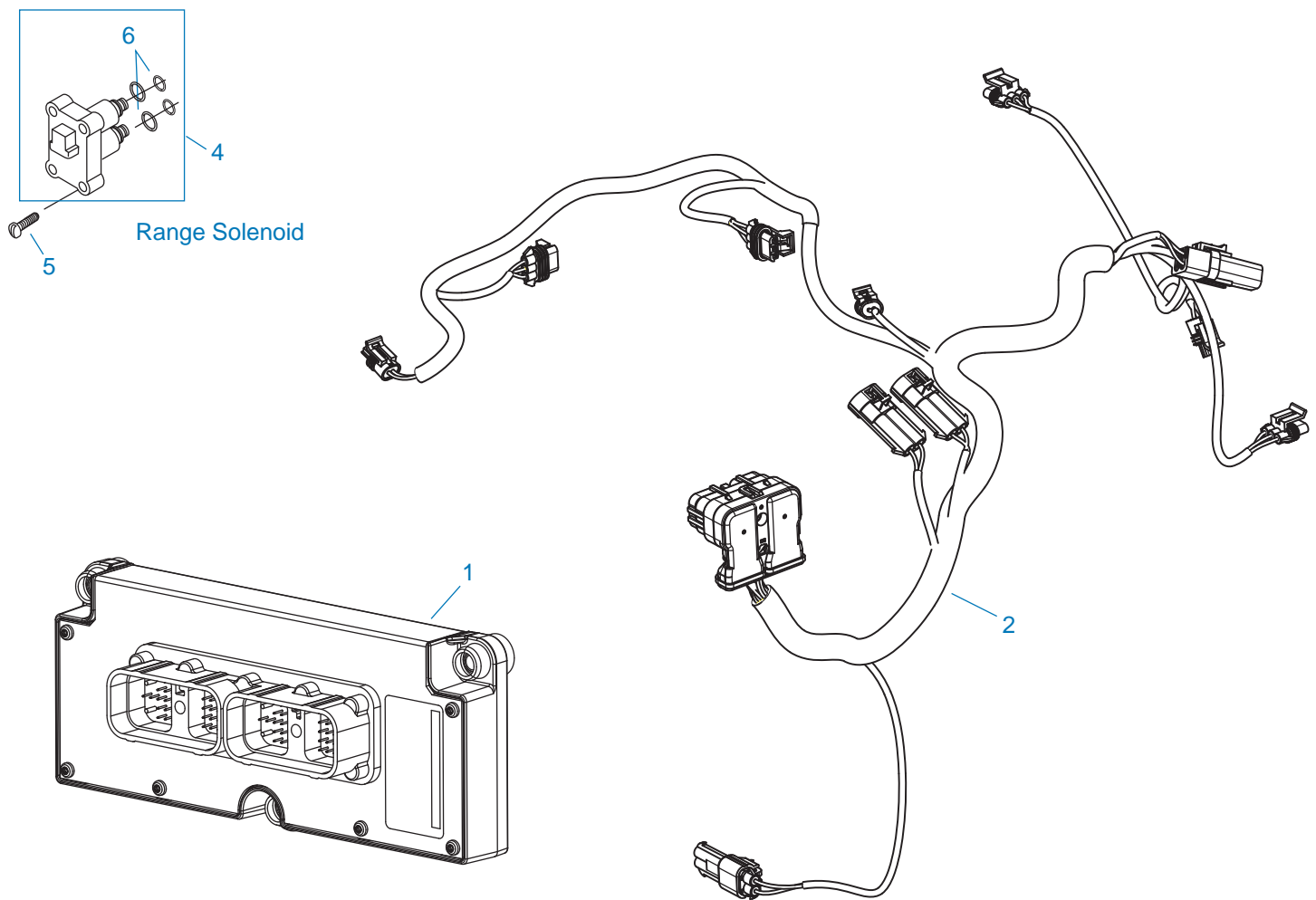
20445-12-10

CASE (FRONT)

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|-------------------------|----------------|------|-----------------------------------|-------------------------|
| 1 | S-3121 | CASE ASSY | 4306036 | 1 | | |
| 2 | 4304023 | PLUG | 4303747 | 2 | 1-1/16" MAGNETIC, O-RING INCLUDED | |
| 3 | A-7471 | EXTENDED LUBE TUBE ASSY | 4305393 | 1 | | |
| 4 | 4305310 | GASKET | 4302810 | 1 | | K-3939 |
| 5 | 4302809 | PTO COVER | 16596 ,4300571 | 1 | | |
| 6 | X-8-725 | CAPSCREW | X 8 724 | 8 | 7/16"-14X7/8" | |

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|--|------------------------------|------|---|-------------------------|
| 7 | 4306584 | CLUTCH HOUSING GASKET | 4304815,4305668 | 1 | | K-3939,K-4145 |
| 8 | A-8117 | CLUTCH HOUSING ASSY | 4307000 | 1 | STANDARD | K-4060 |
| 8 | A-8118 | CLUTCH HOUSING ASSY, NODAL | 4306906 | 1 | NODAL | K-4061 |
| 8 | K-4060 | CLUTCH HOUSING REPLACEMENT KIT, STANDARD | A-7965 | 1 | REPLACES OLD STYLE ULTRASHIFT PLUS STANDARD CLUTCH HOUSING | |
| 8 | K-4061 | CLUTCH HOUSING REPLACEMENT KIT, NODAL | A-7872 | 1 | REPLACES OLD STYLE ULTRASHIFT PLUS NODAL MOUNT CLUTCH HOUSING | |
| 9 | X-8C-401 | CAPSCREW | | 1 | 1/4"-20X1-1/8" | K-4088 |
| 10 | K-4088 | HAND HOLE COVER KIT | 4306459 | 1 | | |
| 11 | 4306583 | STUD | 5966 | 4 | FOR CLUTCH HOUSING | |
| 11 | 5577005 | STUD | | 2 | (.625 X 3.75), FOR LCIB | |
| 12 | X-10-1005 | WASHER | X 3 1000 ,X10 1000 ,X10 1004 | 6 | 1.23 X 6.60 | K-4134 |
| 13 | X-1-1012 | HEX NUT | X-1-1005 | 6 | .625-18 | K-4134 |
| 14 | 4308012 | FRONT BEARING COVER | | 1 | MUST BE USED WITH 4308011 INPUT SHAFT | K-4144,K-4145 |
| 14 | K-4144 | INPUT SHAFT REPLACEMENT KIT | 4306466 | 1 | | |
| 15 | X-8L-604 | CAPSCREW | | 6 | 3/8"-16X1-1/4" | K-3547 |
| 16 | K-3938 | SPEED SENSOR KIT | | 1 | | |
| 17 | 14311 | GASKET | | 1 | | K-3939,K-4142 |
| 18 | 12815 | BUSHING | | 2 | | K-4036 |
| 19 | X-8-423 | CAPSCREW | | 2 | 1/4"-20X1/2" | K-4088 |
| 20 | X-8C-830 | HEX HEAD SCREW/WASHER ASSY | X-8C-826 | 6 | .500-13 X 1.490 | |
| 21 | 4305550 | SIGHT PLUG (1-5/8) | 4304123 | 1 | | |
| 22 | X-8-686 | CAPSCREW | | 6 | 3/8"-16X3/4" | |
| 23 | 14575 | PTO COVER | 4302254 | 1 | | |
| 24 | 4305309 | GASKET | 1684 | 1 | | K-3939 |
| 27 | 14373 | MAGNET | | 3 | | S-3121 |
| 28 | 18128 | PIN | | 2 | | |
| 29 | X-1-1012 | HEX NUT | | 2 | .625-18 | K-4134 |
| 30 | X-10-1005 | WASHER | X 3 1000 ,X10 1000 ,X10 1004 | 2 | 1.23 X 6.60 | K-4134 |

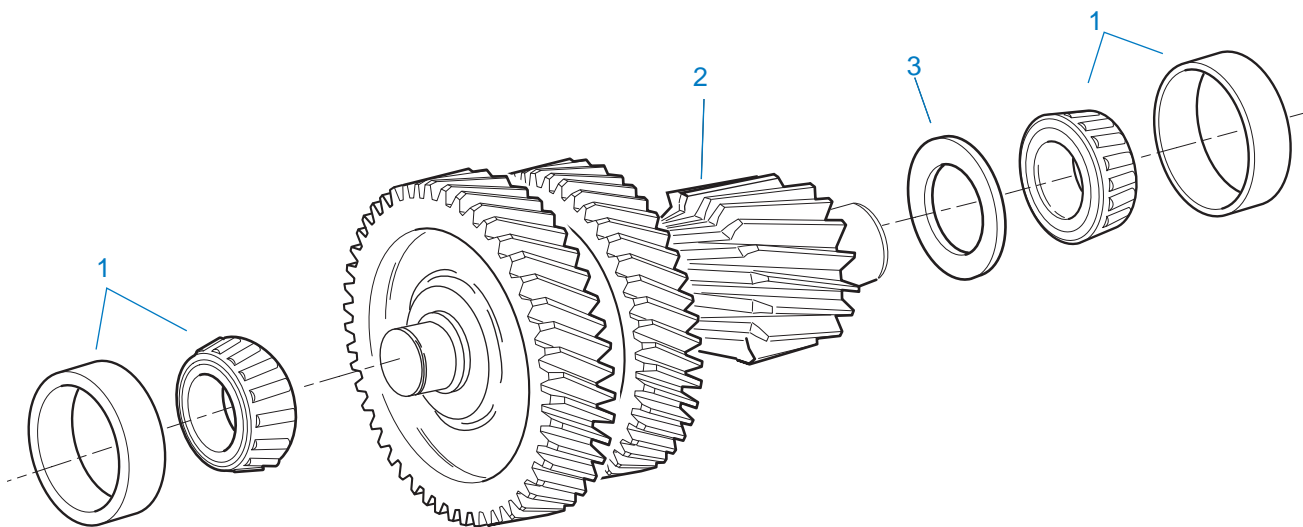
| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|-------------|---------------|------|----------------|-------------------------|
| 31 | 14554 | STUD | 1632 ,6579 | 2 | 5/8" X 2-3/16" | |
| 36 | 23104 | PLUG | 1712 | 2 | | |
| 37 | 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" | |
| 40 | 691447 | PIN | | 1 | | |
| 41 | 13835 | -O- RING | | 2 | | |
| 42 | 13653 | -O- RING | | 2 | | K-2908,K-4005 |
| 43 | 5568544 | -O- RING | | 1 | | |
| 45 | X-12-1212 | PIPE PLUG | | 1 | | |
| 46 | 13834 | -O- RING | | 1 | | |



20322-10-05

CONTROLLER ECU & HARNESS

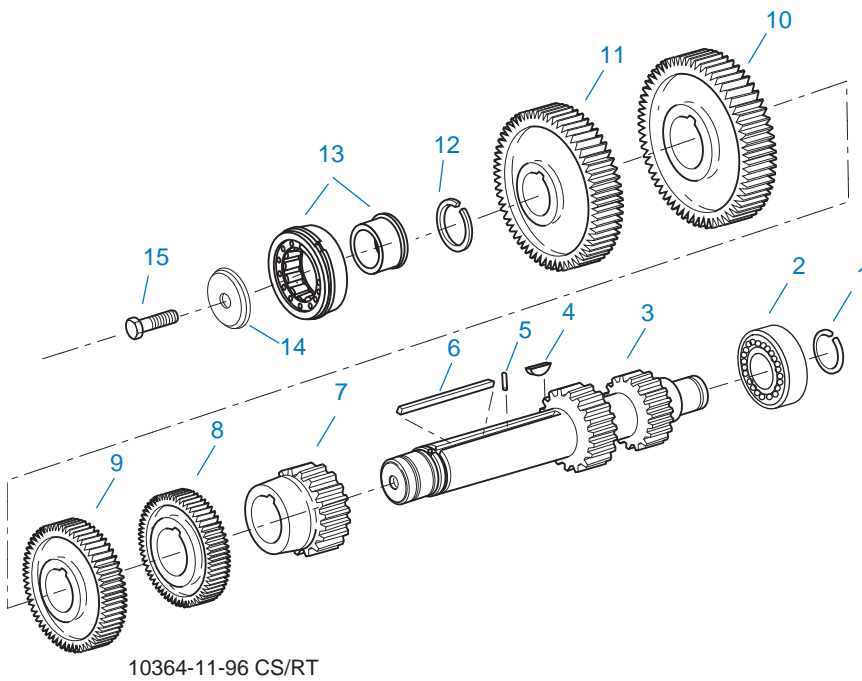
| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|--------------------------|----------------------------|------|--------------------|-------------------------|
| 1 | K-3933 | ECU ASSEMBLY KIT (MXP) | | 1 | | |
| 2 | K-3984 | TRANSMISSION HARNESS KIT | | 1 | | |
| 4 | K-3682 | RANGE/SPLITTER VALVE KIT | 5561801 ,5561804 ,K - 2907 | 1 | | |
| 5 | X-8-264 | HEX FLANGE HEAD SCREW | X 8 259 | 4 | #10-24 X 1 1/4 | |
| 6 | K-2908 | -O- RING KIT | | 1 | FOR SOLENOID VALVE | |



10444-5/93 CS Helical

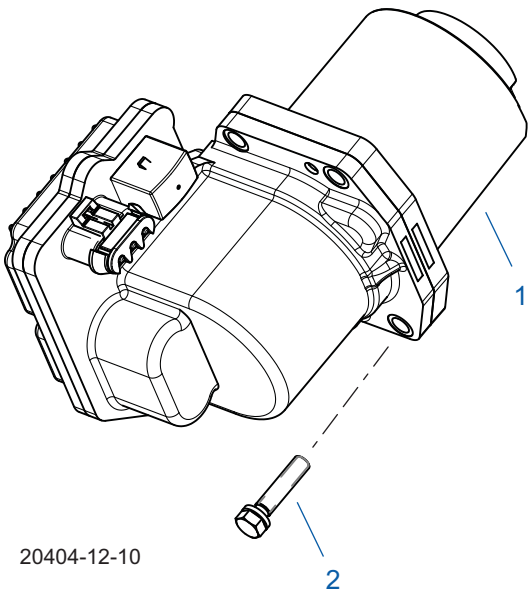
COUNTERSHAFT & BRGS(AUX)

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|----------------------|---------------|------|---------------------------------------|-------------------------|
| 1 | 4301851-BOX | BEARING | 4301851 | 4 | | K-3941 |
| 2 | A-7062 | WELDED CNTRSHFT ASSY | | 2 | C/S 4303143 - D/G 4304787 S/G 4304789 | |
| 3 | 4303124 | SPACER | | 2 | | |



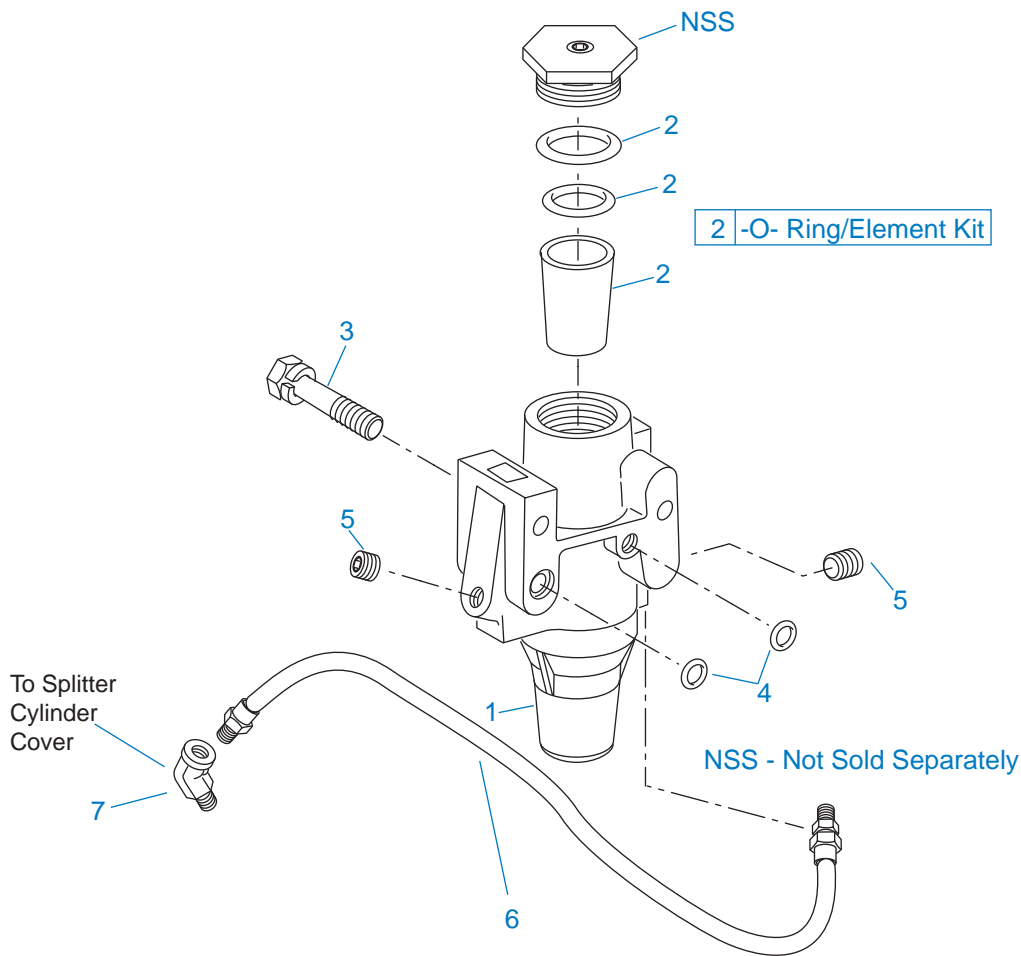
COUNTERSHAFT ASSY

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|---------------------|------------------------------|------|----------------|-------------------------|
| 1 | 4302082 | SNAP RING | | 2 | | K-3941,K-4140 |
| 2 | 4302712 | BEARING | | 2 | | K-3941 |
| 3 | K-2947 | CNTRSHFT-W/REV & LO | 4302652 | 2 | | |
| 4 | X-6-E | KEY | | 2 | | |
| 5 | 62511 | ROLL PIN | | 2 | | |
| 6 | 4304840 | KEY | 19673 | 2 | | |
| 7 | 4304802 | 1ST GEAR-CNTRSHFT | | 2 | | |
| 8 | 4304518 | 2ND GEAR-CNTRSHFT | 4303700 | 2 | | |
| 9 | 4304790 | OD GEAR-CNTRSHFT | | 2 | | |
| 10 | 15953 | PTO GEAR - LOWER | | 1 | | |
| 10 | 20840 | PTO GEAR - UPPER | 15952 | 1 | | |
| 11 | 4304792 | DRIVE GEAR-CNTRSHFT | | 2 | | |
| 12 | 19198 | SNAP RING | | 2 | | K-3941,K-4140 |
| 13 | 4304599 | BEARING | 4302677, 4304598, 4306332 | 2 | | K-3941 |
| 14 | 4304605 | RETAINER | 19548 | 2 | | |
| 15 | X-7-1005 | CAPSCREW | | 2 | 5/8"-18X1-3/4" | |



ELECTRIC CLUTCH ACTUATOR

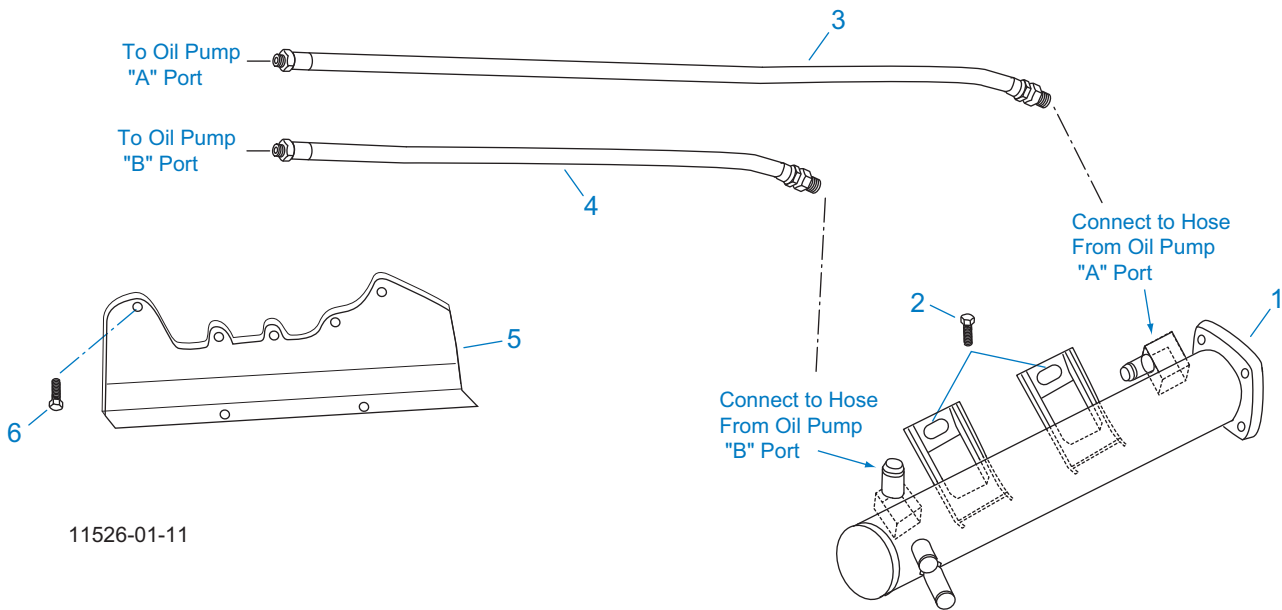
| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|----------------|----------------|------|--------------|-------------------------|
| 0 | K-4103 | ECA SHIELD KIT | A-8155, A-8602 | 1 | NOT PICTURED | |
| 1 | K-3936 | ECA INLINE KIT | | 1 | | |
| 2 | X-8L-609 | CAPSCREW | | 4 | | K-3936,K-4036 |



10131A-08-01

FILTER REGULATOR

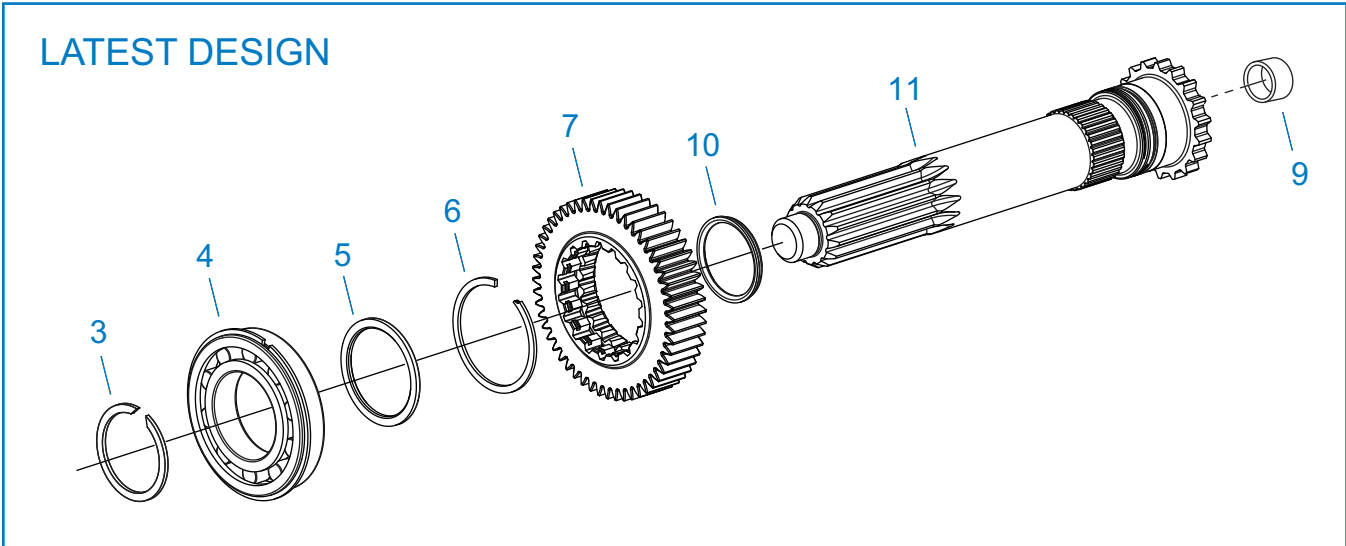
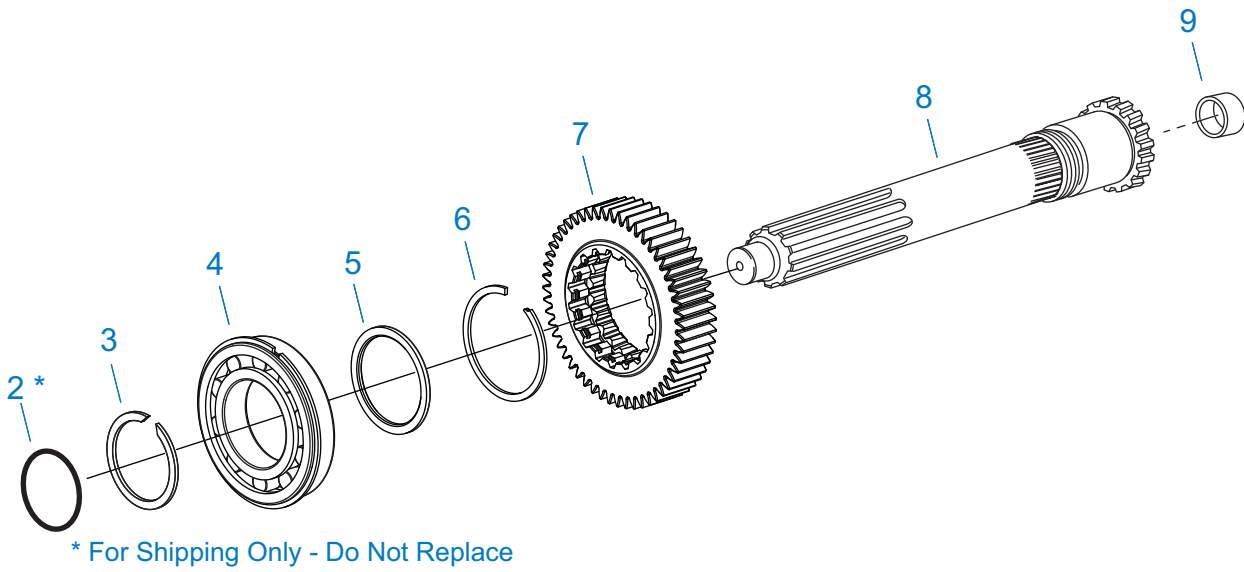
| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|----------------------|---------------|------|----------------------|-------------------------|
| 1 | K-2170 | FILTER REG KIT | A - 5454 | 1 | | |
| 2 | K-1698 | -O- RING/ELEMENT KIT | | 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-3365 |
| 5 | X-12-208 | PIPE PLUG | | 2 | 1/8" NPT | |
| 6 | 55505 | HOSE ASSY | | 1 | 16" | |
| 7 | 12845 | ELBOW | | 1 | 1/8" | K-3366 |



11526-01-11

HEAT EXCHANGER

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|-------------------|---------------|------|------------------|-------------------------|
| 1 | 5586645 | HEAT EXCHANGER | | 1 | | |
| 2 | X-8C-604 | CAPSCREW | | 2 | 3/8"-16X1-1/4" | |
| 3 | 5588110 | OIL HOSE ASSEMBLY | | 1 | 57.5" | |
| 4 | 5588111 | OIL HOSE ASSEMBLY | | 1 | 50" | |
| 5 | K-3902 | MOUNTING BRACKET | 4306412 | 1 | | |
| 6 | X-8C-609 | SCREW | | 5 | 3/8 - 16 X 1-3/4 | K-3902 |

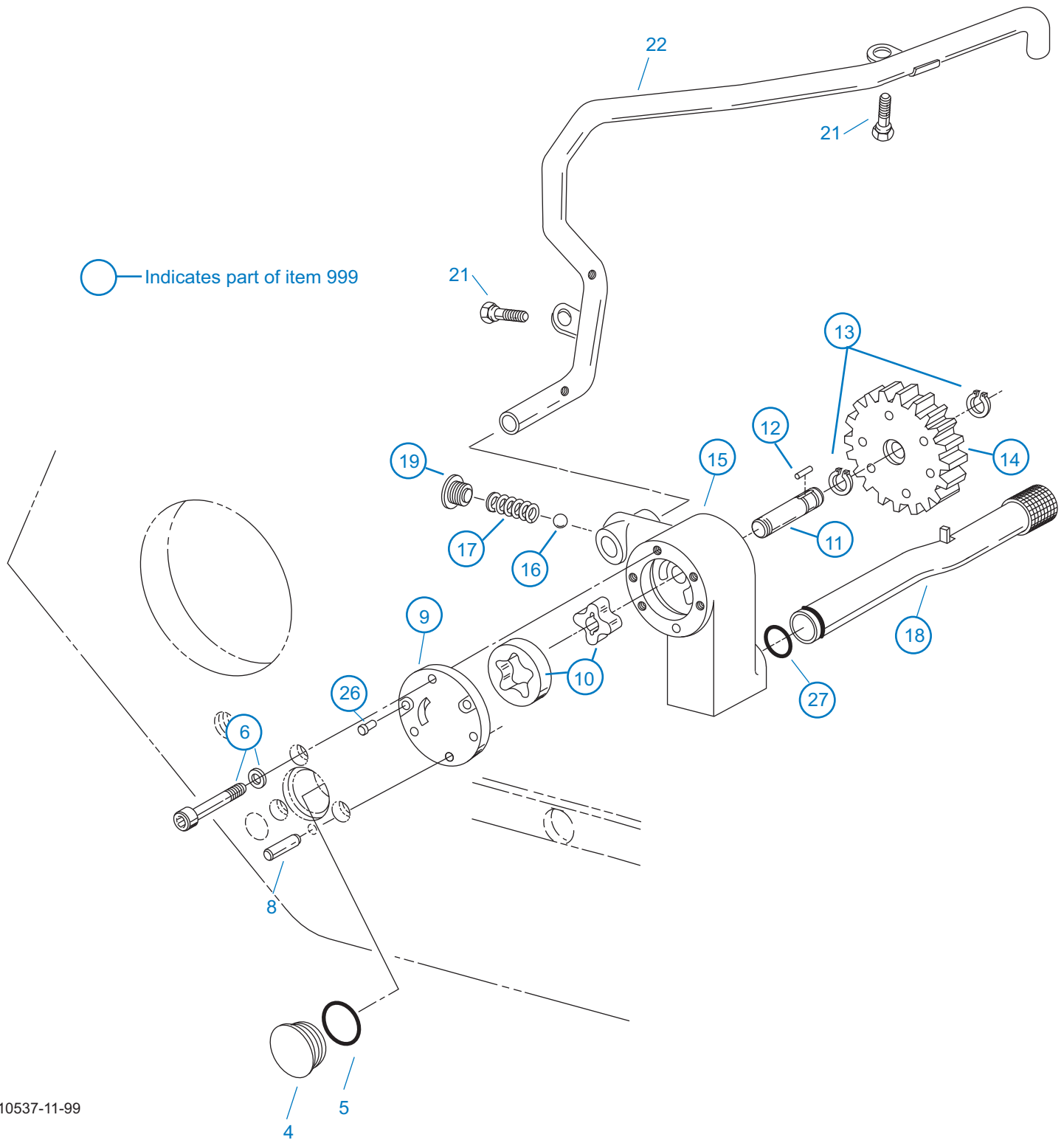


10370C-01-11

INPUT SHAFT & DRIVE GEAR

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|-----------------|---------------|------|----------------------|-----------------------------|
| 2 | 5568554 | O-RING | | 1 | NOT SOLD FOR SERVICE | |
| 3 | 16980 | SNAP RING | | 1 | | K-3941,K-4140,K-4143,K-4145 |
| 4 | 4301417 | BEARING | | 1 | | K-3941,K-4145 |
| 5 | 16463 | SPACER | | 1 | | |
| 6 | 14750 | SNAP RING | | 1 | | K-3941,K-4140,K-4145 |
| 7 | 4304793 | MAIN DRIVE GEAR | | 1 | | |

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|-----------------------------|----------------|------|---|-------------------------|
| 8 | K-4144 | INPUT SHAFT REPLACEMENT KIT | 4306467,S-3078 | 1 | | |
| 9 | 16566 | BUSHING | | 1 | | K-3941 |
| 10 | K-4142 | SEAL KIT | 23559 | 1 | | K-4143,K-4145 |
| 11 | K-4143 | INPUT SHAFT KIT | 4308011,S-3127 | 1 | MUST BE USED WITH 4308012 FRONT BEARING COVER | K-4144 |



10537-11-99

INTEGRAL OIL PUMP

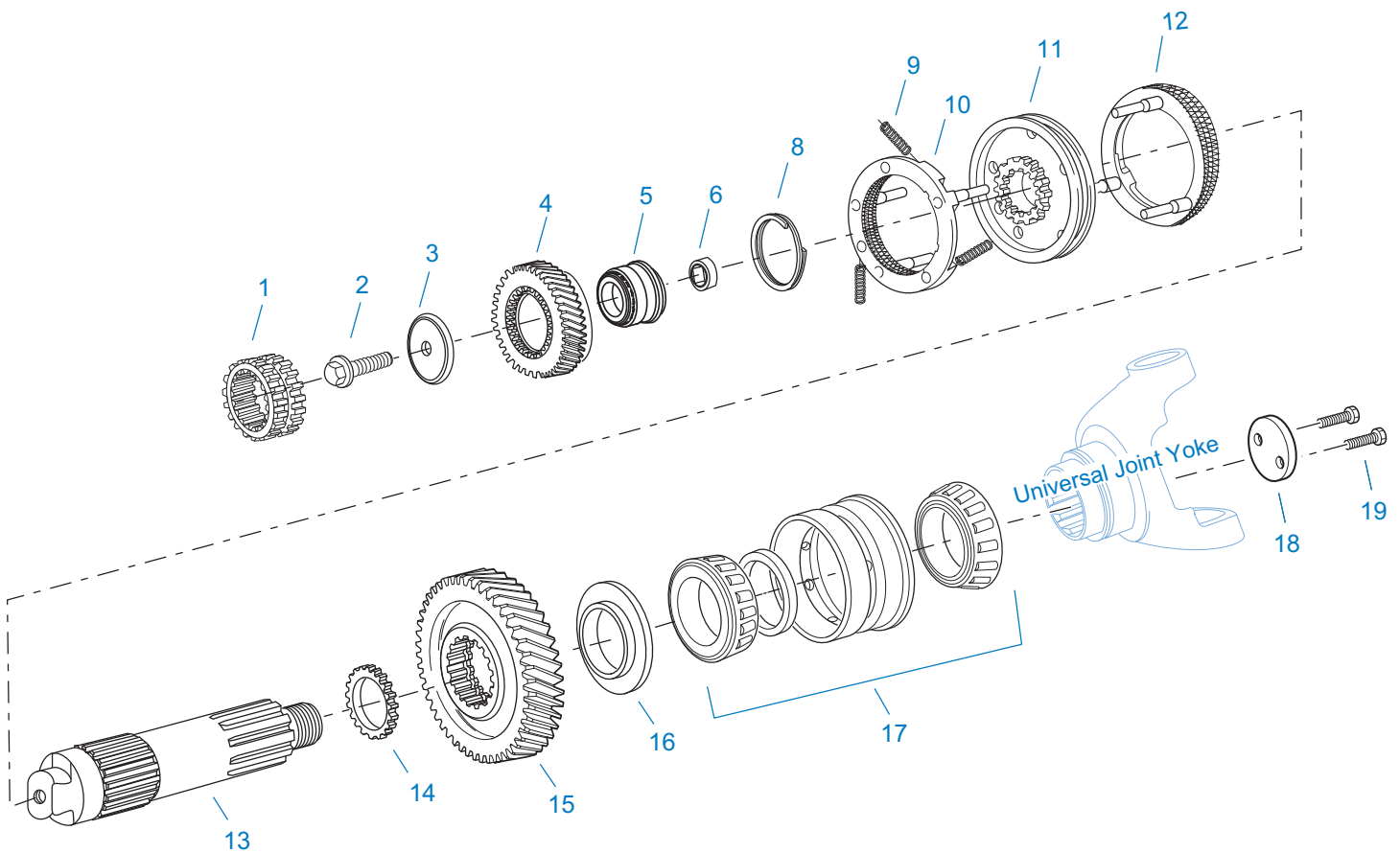
| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|-------------|---------------|------|-------|-------------------------|
| 4 | 20823 | PLUG | | 1 | | |

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|--------------------|--|------|--|-------------------------|
| 5 | 14765 | -O- RING | | 1 | | |
| 6 | K-4126 | FASTENER KIT | 20824, X-8-448 | 1 | KIT CONTAINS 3 FASTENERS AND 3 WASHERS | K-3367 |
| 8 | 20825 | DOWEL PIN | | 1 | | |
| 9 | 4303773 | RETAINER | | 1 | | |
| 10 | K-3367 | OIL PUMP KIT | 4301829 ,4301948 ,4303776 ,4304529 ,4304572 A - 6963 ,A - 7173 | 1 | | |
| 11 | K-3367 | OIL PUMP KIT | 4301829 ,4301948 ,4303776 ,4304529 ,4304572 A - 6963 ,A - 7173 | 1 | | |
| 12 | 20509 | KEY | | 1 | | |
| 13 | 14853 | SNAP RING | | 2 | | |
| 14 | 4303774 | PUMP DRIVE GEAR | 4304880 | 1 | | |
| 15 | K-3367 | OIL PUMP KIT | 4301829 ,4301948 ,4303776 ,4304529 ,4304572 A - 6963 ,A - 7173 | 1 | | |
| 16 | X-14-700 | STEEL BALL | | 1 | 7/16" | |
| 17 | 4303775 | SPRING | | 1 | | |
| 18 | 4305713 | SUCTION TUBE | 4304628 | 1 | O-RING INCLUDED ON SUCTION TUBE | K-3367 |
| 19 | 4304629 | PLUG | | 1 | | |
| 21 | X-8-686 | CAPSCREW | | 2 | 3/8"-16X3/4" | |
| 22 | 4305715 | SPLITTER LUBE TUBE | A - 7197 | 1 | | |
| 26 | X-8-447 | SCREW | | 2 | | |
| 27 | 20225 | -O- RING | | 1 | | |
| 999 | K-3367 | OIL PUMP KIT | 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 | | |
| | K-2170 | FILTER REG KIT | | 1 | | |
| | K-2805 | SHIM KIT | | 1 | | K-3941 |
| | K-2908 | -O- RING KIT | | 1 | | |
| | K-2918 | OIL SEAL KIT | | 1 | | K-3941 |
| | K-2947 | COUNTERSHAFT REPL KIT | | 1 | | |
| | K-3365 | RANGE CYL COVER KIT | | 1 | | |
| | K-3366 | SPLT CYL COVER KIT | | 1 | | |
| | K-3367 | OIL PUMP KIT | | 1 | | |
| | K-3438 | POSITION SENSOR KIT | | 1 | | |
| | K-3441 | OIL FILTER/ADAPTER KIT | | 1 | | |
| | K-3492 | SYNCHRONIZER KIT | | 1 | | |
| | K-3523 | SPEEDO PLUG KIT | | 1 | | |
| | K-3682 | RANGE/SPLITTER VALVE KIT | | 1 | | |
| | K-3734 | TRANS CONTROLLER MOUNTING KIT | | 1 | | |
| | K-3784RX | REMAN EXCH GEN 3 X-Y SHIFTER KIT | | 1 | | |
| | K-3902 | HEAT EXCHANGER MOUNTING BRACKET KIT | | 1 | | |
| | K-3933 | ECU ASSEMBLY KIT (MXP) | | 1 | | |
| | K-3936 | ECA INLINE KIT | | 1 | | |
| | K-3938 | SPEED SENSOR KIT | | 1 | FOR USE AT INPUT SHAFT, MAINSHAFT AND CLUTCH LOCATIONS | |
| | K-3939 | GASKET KIT | | 1 | | K-3941 |
| | K-3941 | BASIC REBUILD KIT | | 1 | | |
| | K-3947 | DIRECTIONAL SPEED SENSOR KIT | | 1 | USED IN OUTPUT SHAFT LOCATION | |
| | K-3984 | TRANSMISSION HARNESS KIT | | 1 | | |

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|--|---------------|------|---|-------------------------|
| | K-4005 | SPLITTER CYLINDER REPAIR KIT | | 1 | | |
| | K-4009 | XY SHIFTER REPAIR KIT | | 1 | | |
| | K-4012 | PTO BRACKET KIT | | 1 | | |
| | K-4035 | OUTPUT YOKE / FLANGE RETAINER KIT | 4306303 | 1 | | K-4140 |
| | K-4036 | CROSS-SHAFT ASSEMBLY KIT | | 1 | | K-4145 |
| | K-4037 | ECA CLUTCH GREASE LINE KIT | | 1 | | K-4060,K-4061 |
| | K-4058 | ECA SPEED SENSOR JUMPER HARNESS KIT | | 1 | | |
| | K-4060 | CLUTCH HOUSING REPLACEMENT KIT, STANDARD | A-7965 | 1 | REPLACES OLD STYLE ULTRASHIFT PLUS STANDARD CLUTCH HOUSING | |
| | K-4061 | CLUTCH HOUSING REPLACEMENT KIT, NODAL | A-7872 | 1 | REPLACES OLD STYLE ULTRASHIFT PLUS NODAL MOUNT CLUTCH HOUSING | |
| | K-4088 | HAND HOLE COVER KIT | | 1 | | |
| | K-4103 | ECA SHIELD KIT | A-8155 | 1 | | |
| | K-4134 | LCIB BRAKE ASSY KIT | 1271043 | 1 | | |
| | K-4140 | SMALL PARTS KIT | | 1 | | |
| | K-4142 | SEAL KIT | | 1 | | K-4143,K-4145 |
| | K-4143 | INPUT SHAFT KIT | | 1 | | K-4144 |
| | K-4144 | INPUT SHAFT REPLACEMENT KIT | S-3078 | 1 | | |
| | K-4145 | CLUTCH INSTALLATION KIT | K-4059 | 1 | | |
| | S-2501 | SPEEDO ROTOR ASSY | 4302242 | 1 | MAGNETIC | |
| | S-3022 | SHIFT BAR HOUSING ASSY | | 1 | HOUSING ONLY | |
| | S-3106 | REAR BEARING COVER ASSY | | 1 | | |
| | S-3111 | SHIFT BAR HOUSING ASSY | | 1 | COMPLETE | |
| | S-3120 | MAINSHAFT ASSY | 4306316 | 1 | | |
| | S-3121 | CASE ASSY | 4306036 | 1 | | |

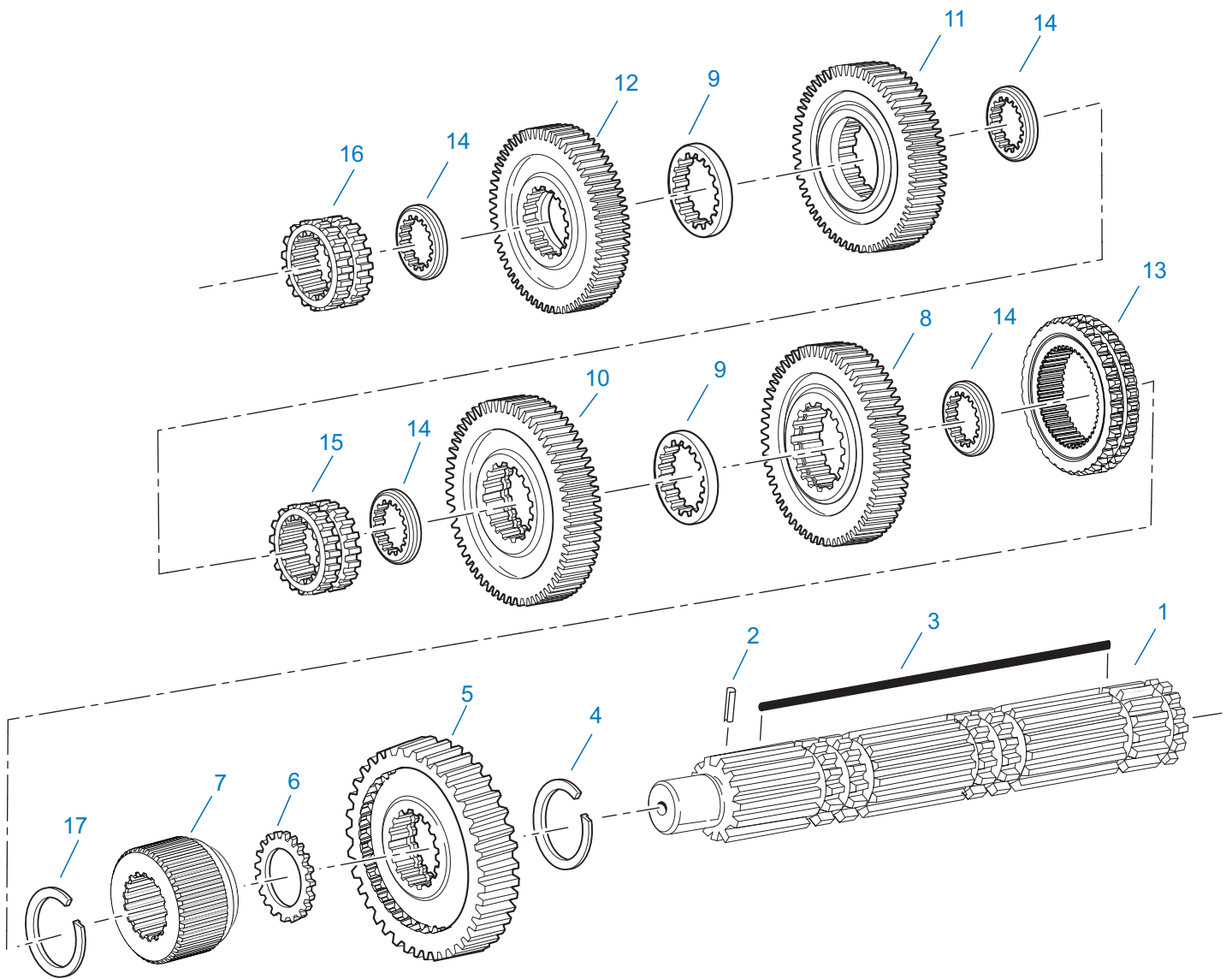


10438B-06-11

MAINSHAFT & SYNCHRO(AUX)

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|-------------------------|----------------------------|------|----------------|-------------------------|
| 1 | 691934 | SLIDING CLUTCH-SPLITTER | 4303822 | 1 | | |
| 2 | X-7-1007 | SCREW | | 1 | 5/8"-18X1-3/4" | |
| 3 | 4301843 | RETAINER | | 1 | | |
| 4 | 4304800 | SPLITTER GEAR | | 1 | | |
| 5 | 4300902-BOX | TAPERED ROLLER BRG | 4300902 | 1 | | K-3941 |
| 6 | 4301844 | BEARING SLEEVE | | 1 | | K-3941 |
| 8 | 4303424 | SNAP RING | | 1 | | |
| 9 | 14897 | SPRING | | 3 | | K-3492,K-3941,K-4140 |
| 10 | A-7331 | SYNCHRONIZER ASSY | 4304396 ,4304397 ,A - 5917 | 1 | HI RANGE | K-3492 |
| 11 | 4301840 | SLIDING CLUTCH | 4303386 | 1 | | |

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|-----------------------------------|--------------------|------|-------------|-------------------------|
| 12 | A-7254 | SYNCHRONIZER ASSEMBLY | A - 4937 ,A - 5876 | 1 | LO RANGE | K-3492 |
| 13 | 4306305 | MAINSHAFT | | 1 | | |
| 14 | 4301842 | WASHER | | 1 | | |
| 15 | 4301795 | REDUCTION GEAR | 4301794 | 1 | | |
| 16 | 4300912 | SPACER | | 1 | | |
| 17 | 5556507 | TAPERED ROLLER BEARING | | 1 | | K-3941 |
| 18 | K-4035 | OUTPUT YOKE / FLANGE RETAINER KIT | | 1 | | K-4140 |
| 19 | X-8-1209M | HEX FLANGE HEAD SCREW | | 2 | M12X1.25X60 | K-4035 |



11322-11-10

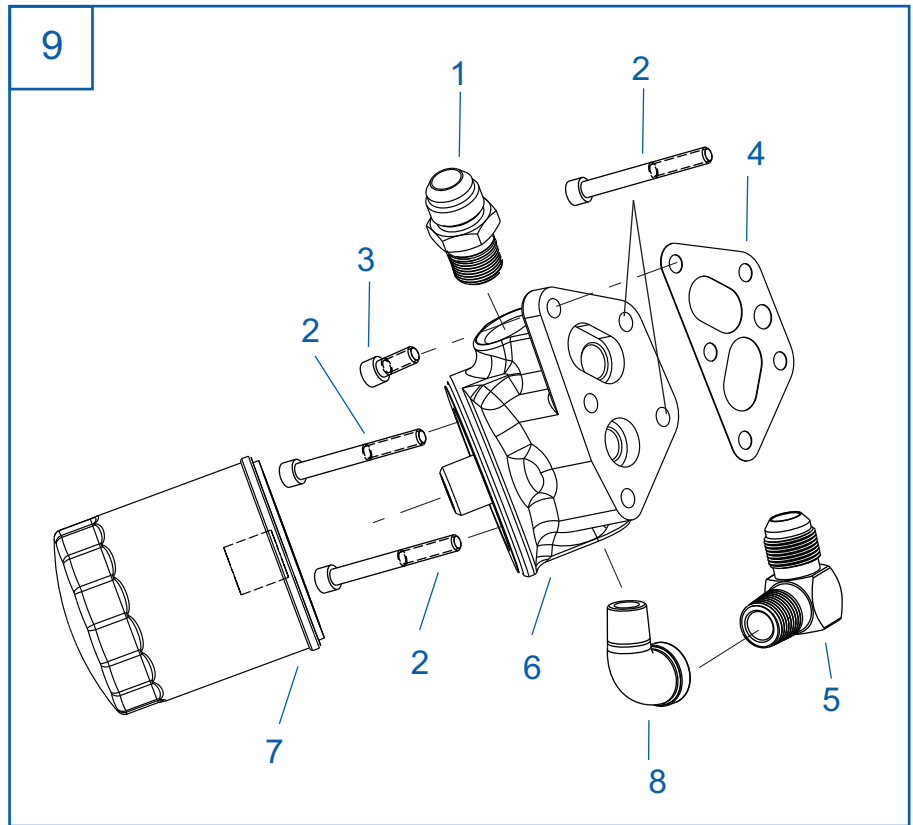
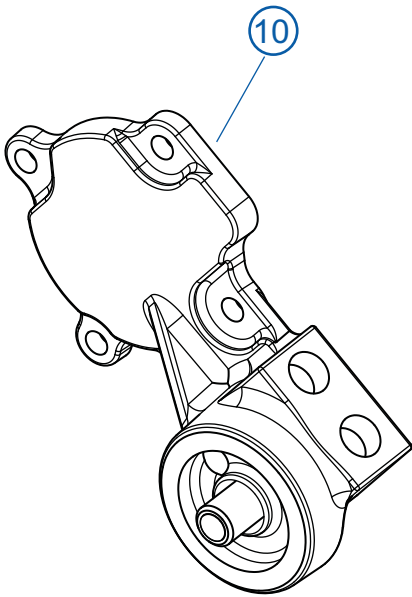
MAINSHAFT ASSY

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|--------------------------|---------------|------|-------|-------------------------|
| 1 | S-3120 | MAINSHAFT ASSY | 4306316 | 1 | | |
| 2 | 62504 | ROLL PIN | | 1 | | S-3120 |
| 3 | 4306293 | KEY, MAINSHAFT (SPECIAL) | | 1 | | |
| 4 | 4306308 | SNAP RING | | 1 | | K-3941,K-4140 |
| 5 | 4306282 | REVERSE GEAR-MAINSHAFT | | 1 | | |
| 6 | 4306292 | SPACER | | 1 | | K-4140 |

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|--------------------|---------------|------|--------------|-------------------------|
| 7 | 4306541 | MAINSHAFT SLEEVE | | 1 | | |
| 8 | 4306284 | LO GEAR-MAINSHAFT | | 1 | | |
| 9 | 4303603 | WASHER | | 2 | | K-4140 |
| 10 | 4304803 | 1ST GEAR-MAINSHAFT | | 1 | | |
| 11 | 4304516 | 2ND GEAR-MAINSHAFT | | 1 | | |
| 12 | 4304791 | OD GEAR-MAINSHAFT | | 1 | | |
| 13 | 4306540 | SLIDING CLUTCH | | 1 | LO / REVERSE | |
| 14 | 4302398 | WASHER | | 4 | | K-4140 |
| 15 | 4305997 | SLIDING CLUTCH | | 1 | 1ST / 2ND | |
| 16 | 4305996 | SLIDING CLUTCH | | 1 | OD / DIRECT | |
| 17 | 4301254 | SNAP RING | | 1 | | K-3941,K-4140 |

11 Oil Filter Cover Kit
(not pictured)

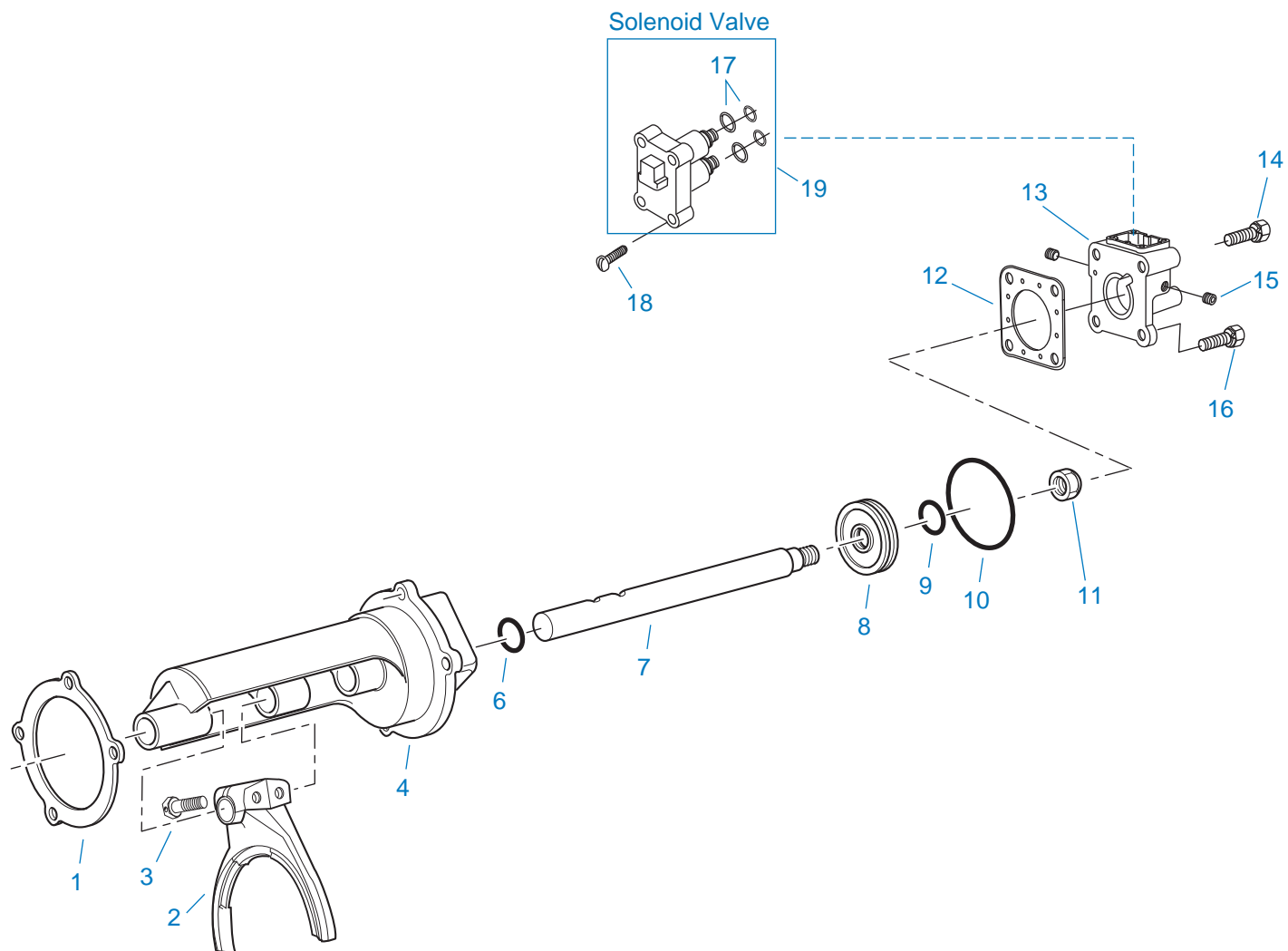
○ - Contained in Item #11



10539-3-00

OIL FILTER

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|-----------------------------|---------------|------|-----------------|-------------------------|
| 1 | 19419 | CONNECTOR | | 1 | | K-3441,K-3547 |
| 2 | X-8-453 | SCREW | | 4 | | K-3441 |
| 3 | X-8-452 | SCREW | | 1 | | K-3441 |
| 4 | 4304820 | GASKET | | 1 | | K-3441,K-3939 |
| 5 | 4301123 | ELBOW | | 1 | | K-3441 |
| 6 | K-3441 | OIL FILTER/ADAPTER KIT | A - 7174 | 1 | | |
| 7 | 4304827 | OIL FILTER ELEMENT | | 1 | | K-3441,K-3547 |
| 8 | 17007 | ELBOW | | 1 | | K-3441 |
| 9 | K-3441 | OIL FILTER/ADAPTER KIT | | 1 | | |
| 10 | A-7300 | AUX COUNTERSHAFT COVER ASSY | | 1 | | K-3547 |
| 11 | K-3547 | OIL FILTER COVER KIT | | 1 | CONTAINS A-7300 | |

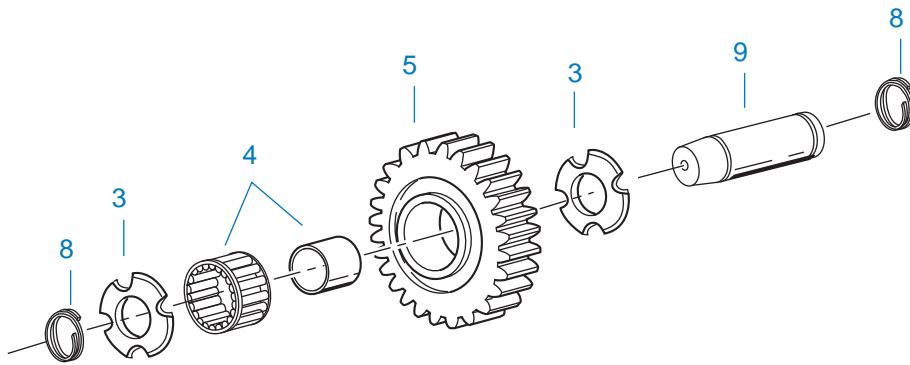


12461-08-01

RANGE CYLINDER

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|---------------------|------------------|------|----------------|-------------------------|
| 1 | 14347 | GASKET | | 1 | | K-3939 |
| 2 | 22823 | SHIFT YOKE | 16775 | 1 | | |
| 3 | X-7-809 | BOLT | X 7 810 ,X 7 811 | 2 | 1/2"-20X1-3/4" | |
| 4 | A-6690 | RANGE CYLINDER ASSY | 4303595 | 1 | | |
| 6 | 14765 | -O- RING | | 1 | | |
| 7 | 4303596 | YOKE BAR | | 1 | | |
| 8 | 14341 | PISTON | 23353 | 1 | | |
| 9 | 14345 | -O- RING | | 1 | | |
| 10 | 14344 | -O- RING | | 1 | | |

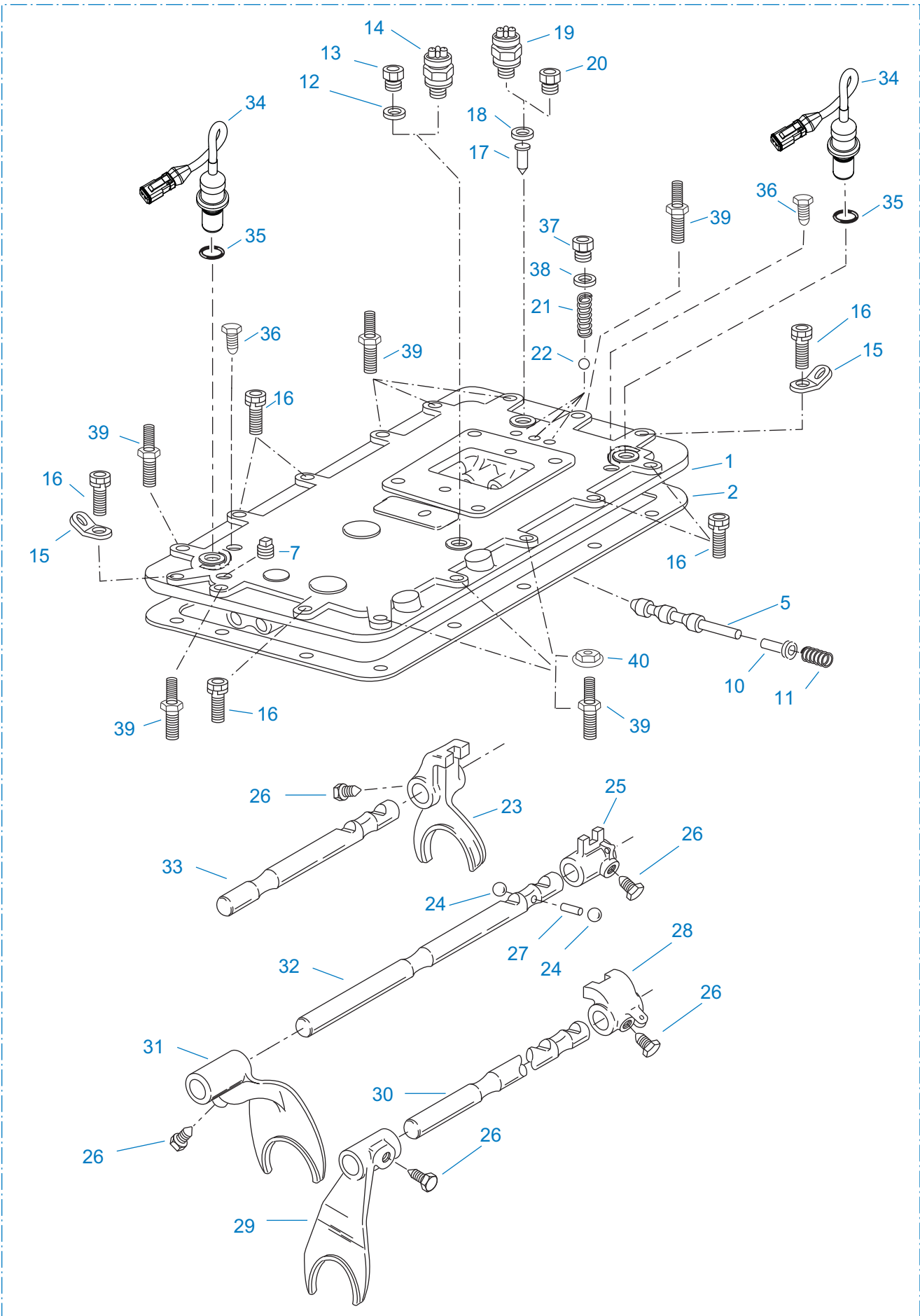
| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|--------------------------|----------------------------|------|--------------------|-------------------------|
| 11 | X-1-1010 | NUT | | 1 | 5/8"-18 | |
| 12 | 691955 | GASKET | 691440 | 1 | | K-3365,K-3939 |
| 13 | K-3365 | RANGE CYL COVER KIT | 691442 | 1 | | |
| 14 | X-8L-636 | CAPSCREW | | 2 | 3/8"-16X3-3/4" | |
| 15 | X-12-208 | PIPE PLUG | | 3 | 1/8" NPT | |
| 16 | X-8L-607 | CAPSCREW | | 2 | 3/8"-16X2-1/4" | |
| 17 | K-2908 | -O- RING KIT | | 1 | FOR SOLENOID VALVE | |
| 18 | X-8-264 | HEX FLANGE HEAD SCREW | X 8 259 | 4 | #10-24 X 1 1/4 | |
| 19 | K-3682 | RANGE/SPLITTER VALVE KIT | 5561801 ,5561804 ,K - 2907 | 1 | | |



11382A-10-04

REVERSE IDLER

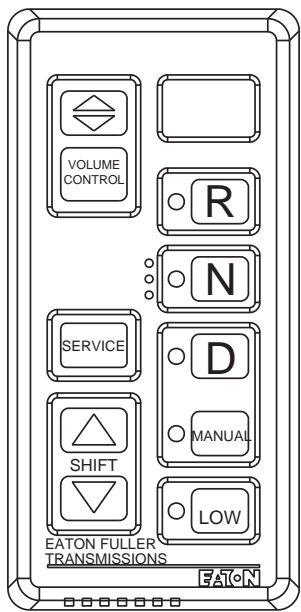
| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|--------------------|---------------|------|-------|-------------------------|
| 3 | 4302982 | WASHER | 14282 | 4 | | |
| 4 | 14287 | BEARING | 4305020 | 2 | | K-3941 |
| 5 | 16757 | REVERSE IDLER GEAR | 22409 | 2 | | |
| 8 | 4303336 | RETAINING RING | | 4 | | |
| 9 | 4305513 | IDLER SHAFT | | 2 | | |



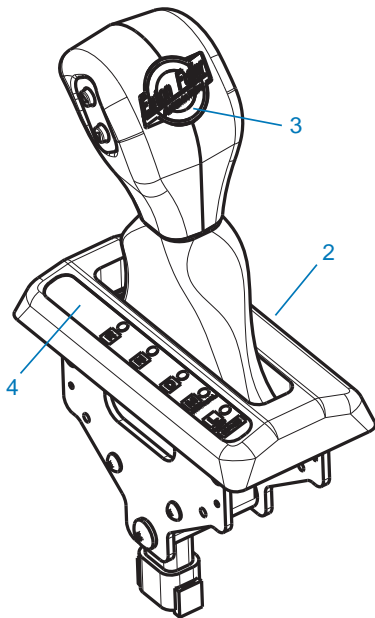
SHIFT BAR HOUSING

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|------------------------|---------------|------|---|-------------------------|
| 1 | S-3022 | SHIFT BAR HOUSING ASSY | 4305895 | 1 | HOUSING ONLY | |
| 2 | 4302676 | GASKET | 14918 | 1 | | K-3939,S-3022,S-3111 |
| 5 | 20332 | AIR VALVE SHAFT | 17177 | 1 | | S-3111 |
| 7 | X-12-603 | PIPE PLUG | X12 602 | 1 | 3/8" NPT | S-3111 |
| 10 | 21966 | PLUNGER | | 1 | | |
| 11 | 4301372 | SPRING | | 1 | | |
| 12 | 17179 | GASKET | | 1 | | K-3939,S-3022,S-3111 |
| 13 | 4303655 | PLUG | 17178 | 1 | | S-3022,S-3111 |
| 14 | 22941 | NEUTRAL LIGHT SWITCH | 12639 | 1 | SWITCH NORMALLY CLOSED | |
| 15 | 20815 | LIFTING EYE | 17105 | 2 | | |
| 16 | X-8L-602 | CAPSCREW | | 5 | 3/8"-16X1-1/2"- TWO FOR LIFTING EYES, 2 FOR HARNESS BRACKET AND 1 FOR STRAIN RELIEF VALVE | |
| 16 | X-8L-604 | CAPSCREW | | 2 | 3/8"-16X1-1/4" | K-3547 |
| 17 | 15899 | PIN | | 1 | | |
| 18 | 15900 | GASKET | | 1 | | K-3939,S-3022,S-3111 |
| 19 | 22940 | REVERSE LIGHT SWITCH | 16830 | 1 | SWITCH NORMALLY OPEN | |
| 20 | 4303656 | PLUG | 15917 | 1 | | S-3022,S-3111 |
| 21 | 691661 | COMPRESSION SPRING | | 3 | | K-4140,S-3111 |
| 22 | X-14-800 | STEEL BALL | | 3 | 1/2" | K-4140,S-3111 |
| 23 | 4306286 | SHIFT YOKE | | 1 | REVERSE/1ST | S-3111 |
| 24 | X-14-1200 | STEEL BALL | | 2 | 3/4" | S-3111 |
| 25 | 14658 | SHIFT BLOCK | | 1 | 2ND/3RD | S-3111 |
| 26 | 3220 | LOCKSCREW | | 5 | | S-3111 |
| 27 | 1634 | INTERLOCK PIN | | 1 | | K-4140,S-3111 |
| 28 | 14659 | SHIFT BLOCK | | 1 | 4TH/5TH | S-3111 |
| 29 | 691601 | SHIFT YOKE | 4302212 | 1 | 4TH/5TH | S-3111 |
| 30 | 4301366 | YOKE BAR | | 1 | 4TH/5TH | S-3111 |
| 31 | 691600 | SHIFT YOKE | 4302994 | 1 | 2ND/3RD | S-3111 |
| 32 | 4301365 | YOKE BAR | | 1 | 2ND/3RD | S-3111 |

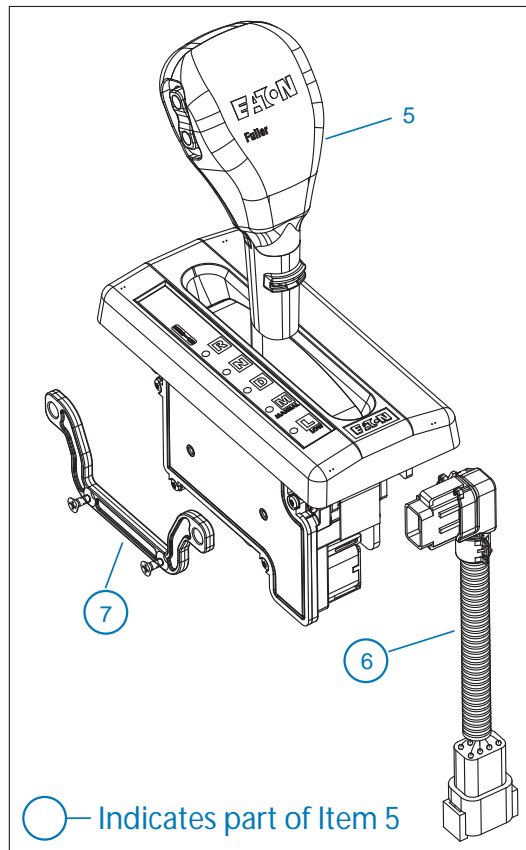
| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|------------------------|---------------|------|------------------------|------------------------------------|
| 33 | 4301364 | YOKE BAR | | 1 | REVERSE/1ST | S-3111 |
| 34 | K-3938 | SPEED SENSOR KIT | | 2 | SINGLE PICK-UP (2 PIN) | |
| 35 | 14142 | -O- RING | | 2 | | S-3111 |
| 36 | X-8C-409 | CAPSCREW | | 2 | 1/4"-20X5/8" | K-3938,K-3947,K-4060,K-4061,S-3111 |
| 37 | 4303656 | PLUG | 15917 | 3 | | S-3022,S-3111 |
| 38 | 15900 | GASKET | | 3 | | K-3939,S-3022,S-3111 |
| 39 | 4305869 | SCREW | | 9 | 3/8 & 5/16 | |
| 40 | 4305870 | NUT ASSEMBLY | | 3 | 5/16-18 | K-3734,K-3933 |
| 999 | S-3111 | SHIFT BAR HOUSING ASSY | | 1 | COMPLETE | |



PUSHBUTTON ASSEMBLY



COBRA LEVER - only for use with 10MY559M Mack Swing Arm Bracket



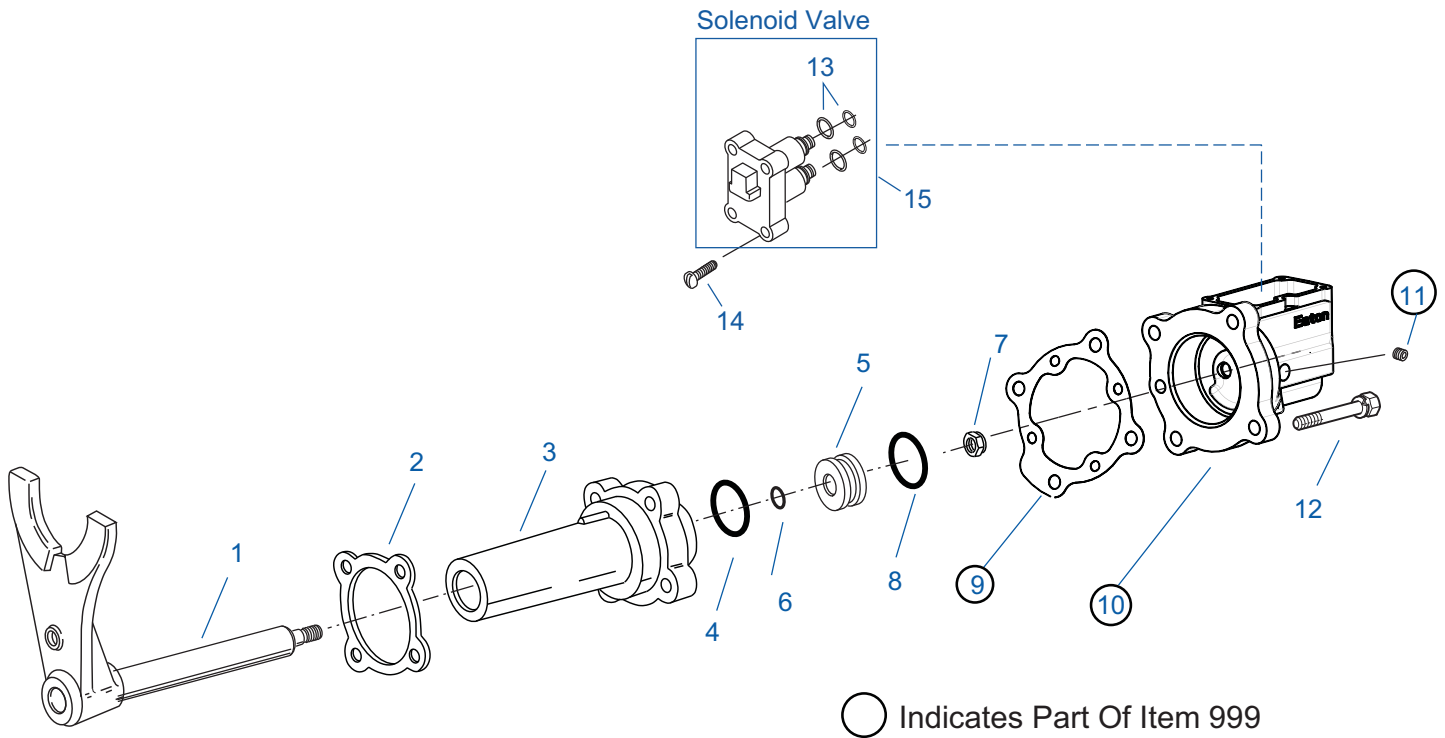
COBRA LEVER - Latest Design - for all applications with the exception of units using the 10MY559M Mack Swing Arm Bracket (see illustration to the left)

10209-06-09

SHIFT CONTROLS

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|--|-----------------|------|---|-------------------------|
| 1 | 4306043 | PUSHBUTTON ASSY | A - 7466,S-3007 | 1 | | |
| 2 | K-3997 | COBRA SHIFT LEVER KIT (RHO) W/MACK SWING ARM | 4305447,K-3680 | 1 | (LEFT HAND DRIVE), ALSO KNOWN AS (RHO) RIGHT HAND OPERATION - FOR UNITS USING THE MACK 10MY559M SWING ARM BRACKET | |
| 3 | 5505111 | SHIFT LEVER KNOB DECAL | | 1 | | |
| 4 | 5505110 | SHIFT LEVER POSITION STRIP | | 1 | | |
| 5 | K-3980 | COBRA SHIFT LEVER KIT (RHO) | K-3680 | 1 | (LEFT HAND DRIVE), ALSO KNOWN AS (RHO) RIGHT HAND OPERATION | |
| 6 | A-7982 | JUMPER HARNESS ASSY | | 1 | | |

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|-------------|---------------|------|-------------------------------------|-------------------------|
| 7 | K-3979 | SPACER KIT | | 1 | INCLUDES (4) SPACER MOUNTING SCREWS | |

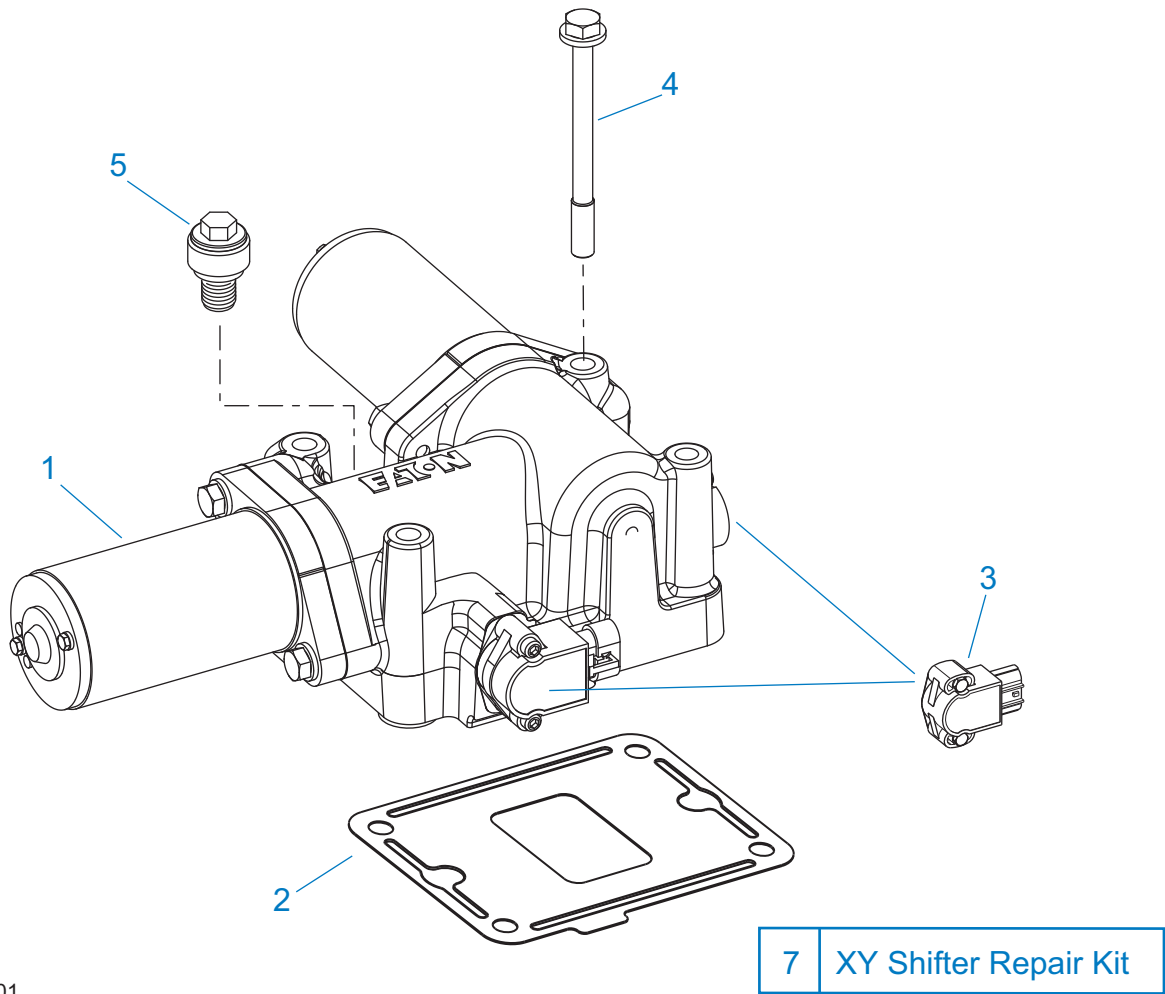


12462-08-01

SPLITTER CYLINDER

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|------------------------------|--------------------|------|---------------------|-------------------------|
| 1 | A-7012 | SPLITTER YOKE ASSY | A - 6304 ,A - 6892 | 1 | | |
| 2 | 4303583 | GASKET | | 1 | | K-3939,K-4005 |
| 3 | 4306632 | SPLITTER CYLINDER | | 1 | | K-4005 |
| 3 | K-4005 | SPLITTER CYLINDER REPAIR KIT | 4303582 | 1 | COMPLETE REPAIR KIT | |
| 4 | 21208 | -O- RING | | 1 | | K-4005 |
| 5 | 4306631 | PISTON | 4301964 | 1 | | K-4005 |
| 6 | 13653 | -O- RING | | 1 | | K-2908,K-4005 |
| 7 | X-1-805 | NUT | | 1 | | K-4005 |
| 8 | 21209 | -O- RING | | 1 | | K-4005 |
| 9 | 17073 | GASKET | | 1 | | K-3366,K-3939,K-4005 |
| 10 | K-3366 | SPLT CYL COVER KIT | 691444 | 1 | | |
| 11 | X-12-208 | PIPE PLUG | | 3 | 1/8" NPT | |
| 12 | X-8L-540 | CAPSCREW | | 4 | 5/16"-18X1-7/8" | |
| 13 | K-2908 | -O- RING KIT | | 1 | FOR SOLENOID VALVE | |

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|--------------------------|----------------------------|------|----------------|-------------------------|
| 14 | X-8-264 | HEX FLANGE HEAD SCREW | X 8 259 | 4 | #10-24 X 1 1/4 | |
| 15 | K-3682 | RANGE/SPLITTER VALVE KIT | 5561801 ,5561804 ,K - 2907 | 1 | | |
| 999 | K-3366 | SPLT CYL COVER KIT | 691444 | 1 | | |



20230-09-01

X-Y SHIFTER MODULE

| Item | Current Part | Description | Replaced Part | Qty. | Notes | Kits/Assys Where Needed |
|------|--------------|----------------------------------|------------------------|------|----------|-------------------------|
| 1 | K-3784RX | REMAN EXCH GEN 3 X-Y SHIFTER KIT | A - 7670,K-3665,K-3784 | 1 | | |
| 2 | 4305452 | GASKET | 4301958 | 1 | | K-3939,K-4009 |
| 3 | K-3438 | POSITION SENSOR KIT | 691551 ,691926 | 2 | | |
| 4 | X-8C-615 | CAPSCREW | | 4 | | |
| 5 | 4304602 | BREATHER | 23605 | 1 | 1/4" NPT | |
| 7 | K-4009 | XY SHIFTER REPAIR KIT | | 1 | | |

