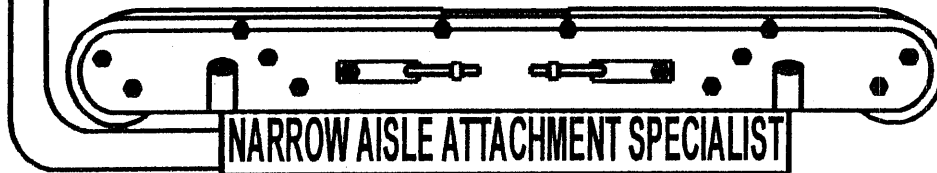


SUPERIOR ENGINEERING



1-800-359-3052

ROTATING ROLOADER
NON-ROTATING ROLOADER
ROSS SIDE SHIFTER
KRLO HYDRAULIC KITS
OPP HYDRAULIC KITS

PARTS AND INSTALLATION MANUAL

MODEL NUMBER _____

SERIAL NUMBER _____

CAUTION

PLEASE READ THE LIFT TRUCK OPERATORS MANUAL AND THE ROLOADER OPERATORS ATTACHMENT MANUAL BEFORE ATTEMPTING TO OPERATE THE ROLOADER.

WARNING

THE ROLOADER MUST BE SIDE SHIFTED TO WITHIN 1 INCH OF THE STORAGE RACK BEFORE REMOVING OR INSERTING THE LOAD. FAILURE TO COMPLY WITH THIS PROCEDURE COULD RESULT IN THE PREMATURE FAILURE OF THE MAST COMPONENTS AND OR THE TIPPING OF THE LIFT TRUCK.

CALL 1-800-359-3052 FOR AN OPERATOR INSTRUCTION MANUAL

SUPERIOR ENGINEERING, INC.

P.O. BOX 547 BELTON, SC 29627

!!WARNING!!

HYDRAULIC REQUIREMENTS

THE LIFT TRUCK MANUFACTURES HAVE CONTINUED TO INCREASE THE GALLONS PER MINUTE OF FLOW AND THE MAXIMUM PRESSURE OF THE HYDRAULIC SYSTEM FOR THE PAST FEW YEARS.

THIS ENABLES THE LIFT TRUCKS TO LIFT FASTER WITH SMALLER CYLINDER DIAMETERS, WHICH ALSO INCREASES THE OPERATOR'S VISIBILITY.

THE ROLOADER **DOES NOT REQUIRE** THIS MUCH FLOW OR PRESSURE AND CAN FAIL PREMATURELY IF OPERATED UNDER THESE CONDITIONS. PLEASE REFER TO THE ROLOADER HYDRAULIC REQUIREMENTS PAGE FOR THE CORRECT SPECIFICATIONS.

IF THE MANUFACTURE OF YOUR LIFT TRUCK DOES NOT OFFER AN ADJUSTABLE PSI AND FLOW CONTROL VALVE FOR EACH AUXILIARY FUNCTION OF THE HYDRAULIC SYSTEM, PLEASE CONTACT SUPERIOR ENGINEERING AT 1-800-359-3052 FOR TECHNICAL ASSISTANCE.

SUPERIOR ENGINEERING, INC.

P.O. BOX 547 BELTON, SC 29627

ROLOADER HYDRAULIC REQUIREMENTS

| Function | PSI | | GPM | | CAPACITY (Gal.)** |
|------------|-------|------|------|-------|----------------------|
| | Min. | Max. | Min. | Max. | |
| Conveyor | 1000* | 1800 | 3 | 12 | 0 |
| Rotation | 500 | 1800 | 3 | 12*** | 0 |
| Side Shift | 1000 | 1800 | 3 | 12*** | 0 |
| Aux. Lift | 1000 | 1800 | 3 | 12*** | 2 |

**Loads above 1000 lbs. may require more pressure.*

***If the Lift Truck Hydraulic System is used, The Auxiliary Lift requires this additional oil when raised. The Superior Hydraulic System includes this extra oil requirement.*

**** Inline Flow controls are standard for these functions. The ROSSA, ROSSB, and ROSSOP have Flow Restriction in the cylinder as a factory Standard.*

Hose Terminations on All Roloaders are #6 JIC Male

ELECTRICAL SOLENOID KITS

12V, 24V, 36V, and 48v coils are available as standard.

SUPERIOR ENGINEERING, INC.

TELE: (864) 226-8799 FAX: (864) 231-6718
TOLL FREE 1-800-359-3052

0928dp

INSTRUCTIONS FOR MOUNTING SUPERIOR ENGINEERING

ROTATING ROLOADER ATTACHMENT

1. ROLOADER WITH SIDE SHIFTER. CENTER ROLOADER ATTACHMENT ON CENTER OF FORK CARRIAGE OF TRUCK. MATCH CORRESPONDING ATTACHMENT CENTER LOCK WITH LIFT TRUCK CARRIAGE CENTER NOTCH. INSTALL 1/2" BOLTS AND LOCK IN THE BOTTOM HOOKS AND ADD OR REMOVE SHIMS TO THE DESIGNED CLEARANCE OF 0 TO 1/32 OF ONE INCH.

- 1A. ROLOADER WITHOUT SIDE SHIFTER. YOUR ROLOADER IS DESIGNED TO BE MOUNTED ON 1.75 x 4.00 x 48 INCH FORKS. USE WITH ANY OTHER FORKS IS NOT RECOMMENDED AS IT MAY RESULT IN PERSONAL INJURY OR EQUIPMENT FAILURE. TO MOUNT ROLOADER UNIT TO YOUR FORKS IT IS NECESSARY TO DRILL A 9/16 DIA. HOLE IN EACH FORK. THE HOLES MUST BE DRILLED 17" FROM FACE OF FORKS AND IN CENTER OF FORKS. (FOR 42,48,54" LONG UNITS) OR 19" (FOR 60,66,72" LONG UNITS). ADJUST FORK SPACING UNTIL HOLES ARE 16.75 INCHES APART. SLIDE FORKS INTO FORK POCKETS UNTIL LOCK PINS CAN BE INSERTED. LOCK PINS IN PLACE WITH HAIRPIN COTTERS.

2. INSTALL HYDRAULIC HOSE OR STEEL HYDRAULIC TUBING (WHICHEVER IS MOST CONVENIENT) FROM HYDRAULIC JUNCTION BLOCK ON TRUCK'S FORK CARRIAGE TO FITTINGS ON THE BACK OF THE SIDE SHIFT OR TO THE ROLOADER IF NO SIDE SHIFT IS USED.

IF YOU HAVE PURCHASED THE OPTIONAL KRL0100 KIT, PLACE THE ASSEMBLY ON THE FORKS BETWEEN THE ROLOADER AND THE CARRIAGE. ATTACH THE ASSEMBLY TO THE TRUCK BY INSERTING THE PINS IN THE FORKS. CONNECT HYDRAULIC LINES AS STATED IN THE PREVIOUS PARAGRAPH.

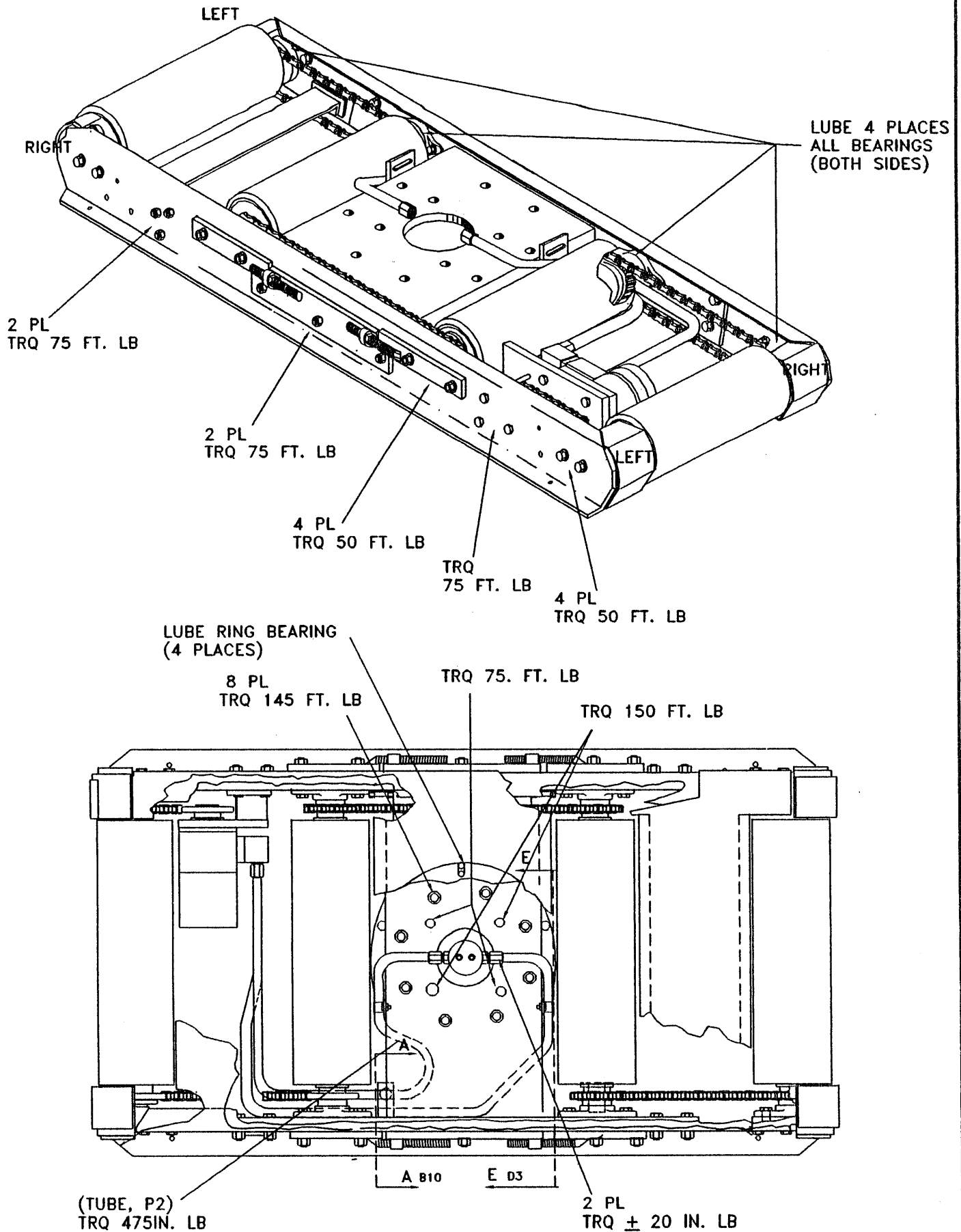
3. CONNECT ELECTRICAL WIRES FROM ROLOADER TO TRUCK'S ELECTRICAL SYSTEM AS PER THE WIRING SCHEMATIC IN THE HYDRAULIC KITS PARTS AND SERVICE MANUAL.

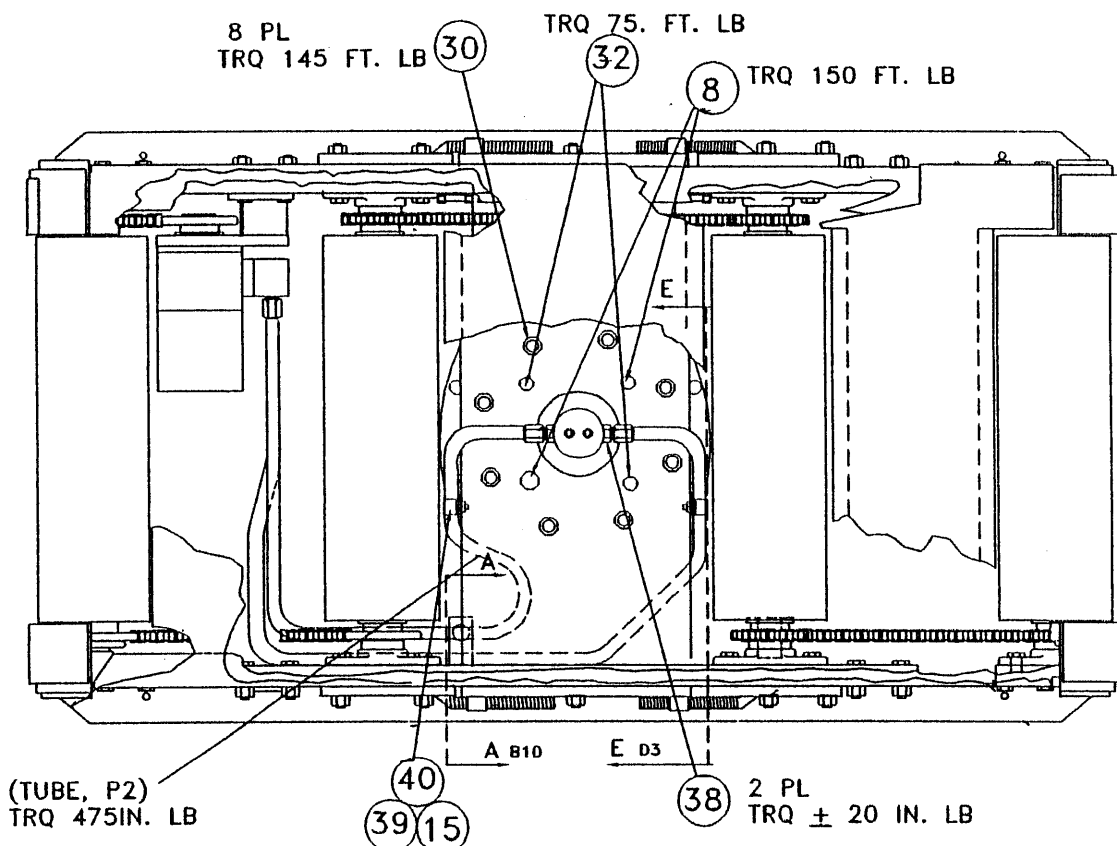
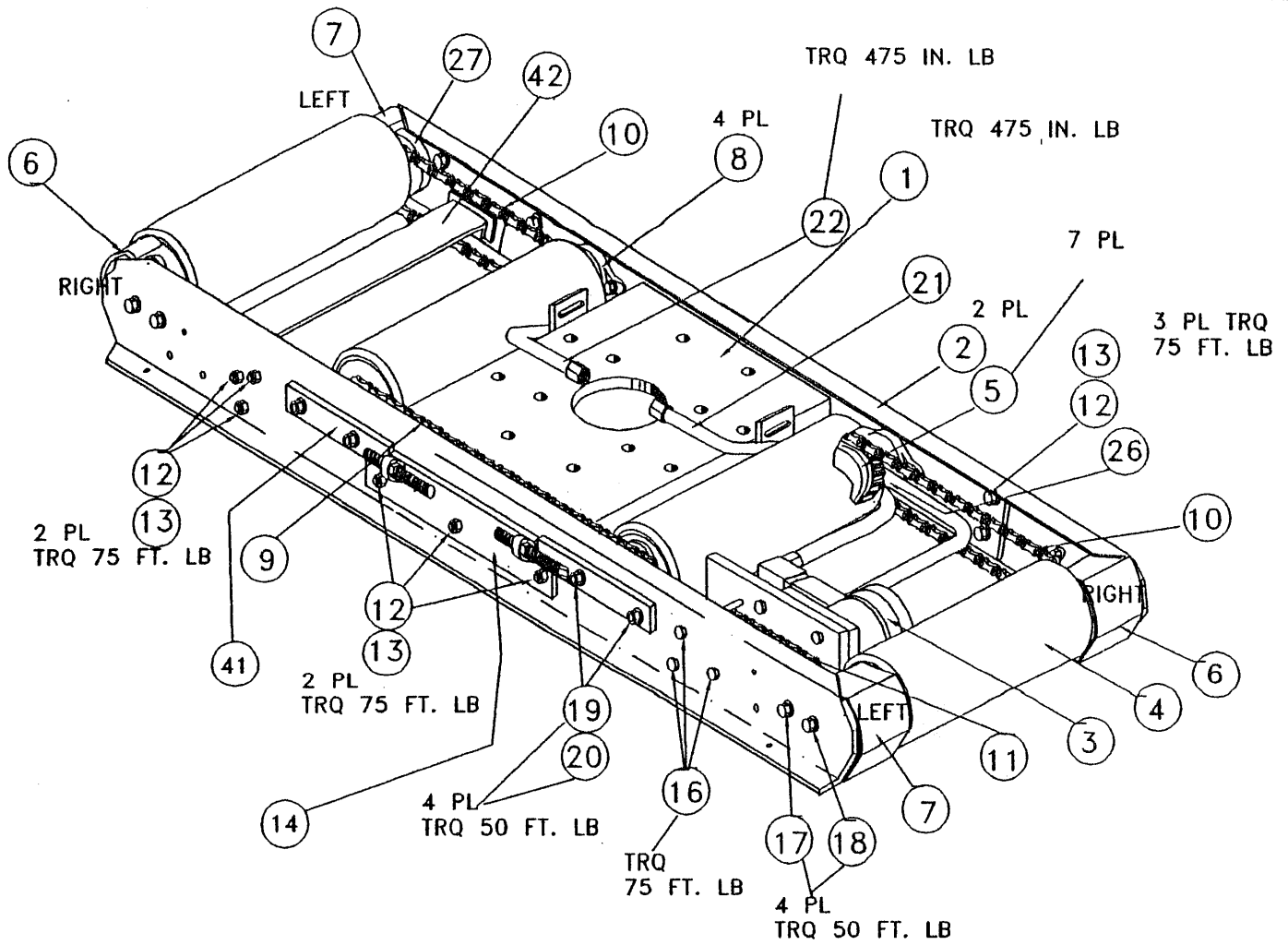
4. TAKE PLASTIC CONTROL HANDLE (IF PURCHASED FROM SUPERIOR ENGINEERING) AND THREAD ON THE TRUCKS MAIN CONTROL VALVE SECTION WHICH IS FOR THE ATTACHMENT. TIGHTEN THE LOCK SCREW IN THE THREADS OF HANDLE. INSTALL PUSH BUTTON INTO TOP OF HANDLE & CONNECT WIRES AS PER WIRING SCHEMATIC.

WARNING:

**HYDRAULIC PRESSURE MUST NOT EXCEED 1800 PSI AND 5 GPM.
CONTACT FACTORY FOR OPTIONAL VALVE.**

LUBRICATION AND TORQUE CHART





PARTS

| REF NO. | REQ'D | PART NO. | DESCRIPTION |
|---------|-------|----------|---|
| | 1 | 304441 | STR. 16" ROLLER FRAME |
| 1 | 1 | 305938 | STR. 18" ROLLER FRAME |
| | 1 | 305938H | STR. 18" ROLLER FRAME (HEAVY DUTY) |
| | 1 | 306928 | STR. 24" ROLLER FRAME |
| | 1 | 306928H | STR. 24" SIDE RAIL HEAVY DUTY |
| | 2 | 306422 | RAIL 42" SIDE RAIL |
| 2 | 2 | 306019 | RAIL 48" SIDE RAIL |
| | 2 | 306746 | RAIL 54" SIDE RAIL |
| | 2 | 306837 | RAIL 60" SIDE RAIL |
| | 2 | 06837H | RAIL 60" SIDE RAIL (HEAVY DUTY) |
| | 2 | 304443 | RAIL 66" SIDE RAIL |
| | 2 | 304443H | RAIL 66" SIDE RAIL (HEAVY DUTY) |
| | 2 | 304444 | RAIL 72" SIDE RAIL |
| | 2 | 304444H | RAIL 72" SIDE RAIL (HEAVY DUTY) |
| 3 | 1 | | RLR. POWER ASSY (PG. 9) |
| | | 304445 | ROLLER 16" COVERED |
| | 4 | 304445B | ROLLER 16" V-GUIDES |
| 4 | 4 | 306118 | ROLLER 18" COVERED |
| | 4 | 306118B | ROLLER 18" V-GUIDES |
| | 4 | 306118H | ROLLER 18" V-GUIDES (HEAVY DUTY) |
| | 4 | 306944 | ROLLER 24" COVERED |
| | 4 | 306944B | ROLLER 24" V-GUIDES |
| | 4 | 306944H | ROLLER 24" V-GUIDES (HEAVY DUTY) |
| | 4 | 306930 | ROLLER 30" COVERED |
| | 4 | 306930B | ROLLER 30" V-GUIDES |
| | 4 | 306936 | ROLLER 36" COVERED |
| | 4 | 306936B | ROLLER 36" V-GUIDES |
| | 4 | 306941 | ROLLER 44" COVERED |
| | 4 | 306941B | ROLLER 44" V-GUIDES |
| | 4 | 306948 | ROLLER 48" COVERED |
| | 4 | 306948B | ROLLER 48" V-GUIDES |
| 5 | 7 | 306084 | SPROCKET, ALL ARE THE SAME ON STD UNITS |
| | 7 | 306142 | KEY, WOODDRUFF (NOT SHOWN) |
| 5 | 7 | 306084H | SPROCKETS, FOR ROLLERS ON HD, MOTOR USES 306084 |
| 6 | 2 | 306175 | ST., BRG. SPACE "A" (NOT USED ON HD) |
| 7 | 2 | 306175H | STR., BRG. SPACER HD RIGHT AND LEFT THE SAME |
| | 2 | 306217 | STR., BRG. SPACER "B" (NOT USED ON HD) |
| | 2 | 306175H | STR., BRG. SPACER HD RIGHT AND LEFT THE SAME |
| 8 | 4 | 306167 | BEARING, INNER ROLLER |
| | 4 | 306167H | BEARING, ALL ROLLERS (HEAVY DUTY) |
| 9 | 1 | 306225 | CHAIN ASA #50 STD. X 48.12 |
| 10 | 2 | 306233 | CHAIN ASA #50 STD. X 29.37 |
| | 2 | 306753 | CHAIN ASA #50 STD. X 35.62 |
| | 2 | 306845 | CHAIN ASA #50 STD. X 41.87 |
| 11 | 1 | 306241 | CHAIN ASA #50 STD. X 15.62 |
| | 1 | 306761 | CHAIN ASA #50 STD. X 21.87 |
| | 1 | 306852 | CHAIN ASA #50 STD. X 28.12 |
| 12 | 19 | 010066 | HEX HD C/SCREW, 1/4-20NC X 1-1/4 |
| 13 | 15 | 011635 | HEX NUT, 1/2-13NC |
| 14 | 2 | 306435 | ADJUSTER PLATE (NOT USED ON HD) |
| 15 | 4 | 011015 | HEX NUT, 3/8-16NC |
| 16 | 3 | 038422 | HEX HD C/SCREW, 1/2-13NC X 1-1/4 |
| 17 | 8 | 011049 | HEX HD C/SCREW, 7/16-14NC X 3/4 |

FOR BELTS REFER TO PAGE 8

PARTS

| REF. NO. | REQ'D | PART NO. | DESCRIPTION |
|----------|-------|----------|---|
| 18 | 8 | 011031 | WASHER, FLAT 3/8 |
| 19 | 8 | 306258 | CAPSCREW, 7/16-20ONF HEX HD X 1.75 |
| 20 | 8 | 306266 | HEX NUT, FLANGE 7/16-20NF |
| 21 | 1 | 306274 | ASSY., 1/2" OD TUBE (18" WIDE) |
| | 1 | 309526 | ASSY., 1/2" OD TUBE (24" WIDE) |
| 22 | 1 | 306282 | ASSY., 1/2" OD TUBE (18" WIDE) |
| | 1 | 309534 | ASSY., 1/2" OD TUBE (24" WIDE) |
| 23 | 1 | 306514 | C/SCREW, 5/16-18NC HEX HD X 1.37 (NOT SHOWN) |
| 24 | 1 | 305995 | BLOCK, CLAMP (NOT SHOWN) |
| 25 | 1 | 306001 | PLATE, CAP (NOT SHOWN) |
| 26 | 8 | 033522 | LUBE FITTING, 1/8-NPT, 45 DEG. |
| 27R | 2 | 306159R | BEARING, MOD. FLANGE (RIGHT) |
| 27 | 2 | 306167H | BEARING, FLANGE (HEAVY DUTY) RIGHT AND LEFT THE SAME |
| 27L | 2 | 306159L | BEARING, MOD. FLANGE (LEFT) |
| 27 | 2 | 306167H | BEARING, FLANGE (HEAVY DUTY) RIGHT AND LEFT THE SAME |
| 28 | 1 | 305896 | ASSY., RING BEARING |
| 29 | 8 | 011338 | HEX HD. C/SCREW 1/2-12NC X 3/4 |
| 30 | 8 | 026401 | HEX NUT, 5/8-18NF |
| 31 | 1 | | MANIFOLD (SEE PG. 13) |
| 32 | 2 | 054874 | C/SCREW, 1/2-20NF X 1 |
| 33 | 2 | 012054 | HEX HD C/SCREW, 5/8-11NC X 2 |
| 34 | 4 | 305870 | BLOCK CLAMP |
| 35 | 2 | 305888 | PLATE, CAP |
| 36 | 1 | 306506 | COVER GEAR BOX |
| 37 | 2 | 306548 | SCREW, 1/4 SELF TAPPING |
| 38 | 2 | 035568 | ADAPTER STRAIGHT |
| 39 | 2 | 070516 | CLAMP 1/2 I.D. |
| 40 | 2 | 010322 | HEX HD. C/SCREW, 5/16-18NC X 3/4 |
| 41 | 4 | 306777 | SIDE ADJUSTER WITH NUTS |
| 41 | 4 | 306777H | SIDE ADJUSTER WITH NUTS |
| 42 | 2 | 306892 | 16" BELT SUPPORT (NOT USED ON HEAVY DUTY) |
| | 2 | 306783 | 18" BELT SUPPORT (NOT USED ON HEAVY DUTY) |
| | 2 | 306759 | 24" BELT SUPPORT (NOT USED ON HEAVY DUTY) |

FOR BELTS REFER TO PAGE 8

SIDE RAILS

| <u>ROLOADER LENGTH*</u> | <u>REQ'D</u> | <u>PART NO.</u> | <u>DESCRIPTION</u> |
|-------------------------|--------------|-----------------|---------------------------------|
| 42" | 2 | 3076422 | RAIL 42" SIDE RAIL |
| 48" | 2 | 306019 | RAIL 48" SIDE RAIL |
| 54" | 2 | 306746 | RAIL 54" SIDE RAIL |
| 60" | 2 | 306837 | RAIL 60" SIDE RAIL |
| 60" | 2 | 306837H | RAIL 60" SIDE RAIL (HEAVY DUTY) |
| 66" | 2 | 30443 | RAIL 66" SIDE RAIL |
| 66" | 2 | 304443H | RAIL 66" SIDE RAIL (HEAVY DUTY) |
| 72" | 2 | 304444 | RAIL 72" SIDE RAIL |
| 72" | 2 | 304444H | RAIL 72" SIDE RAIL (HEAVY DUTY) |

ROLLERS

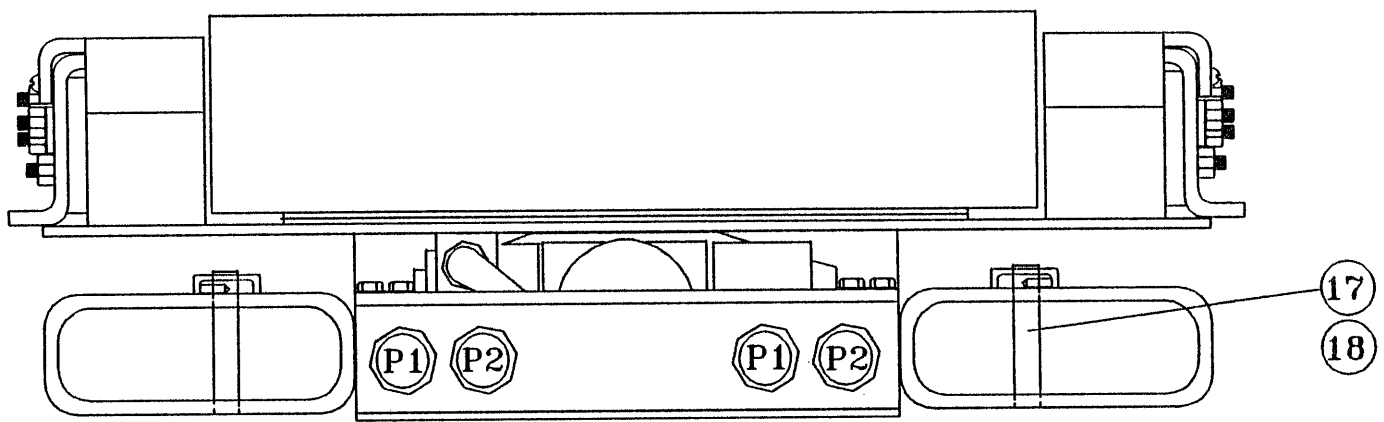
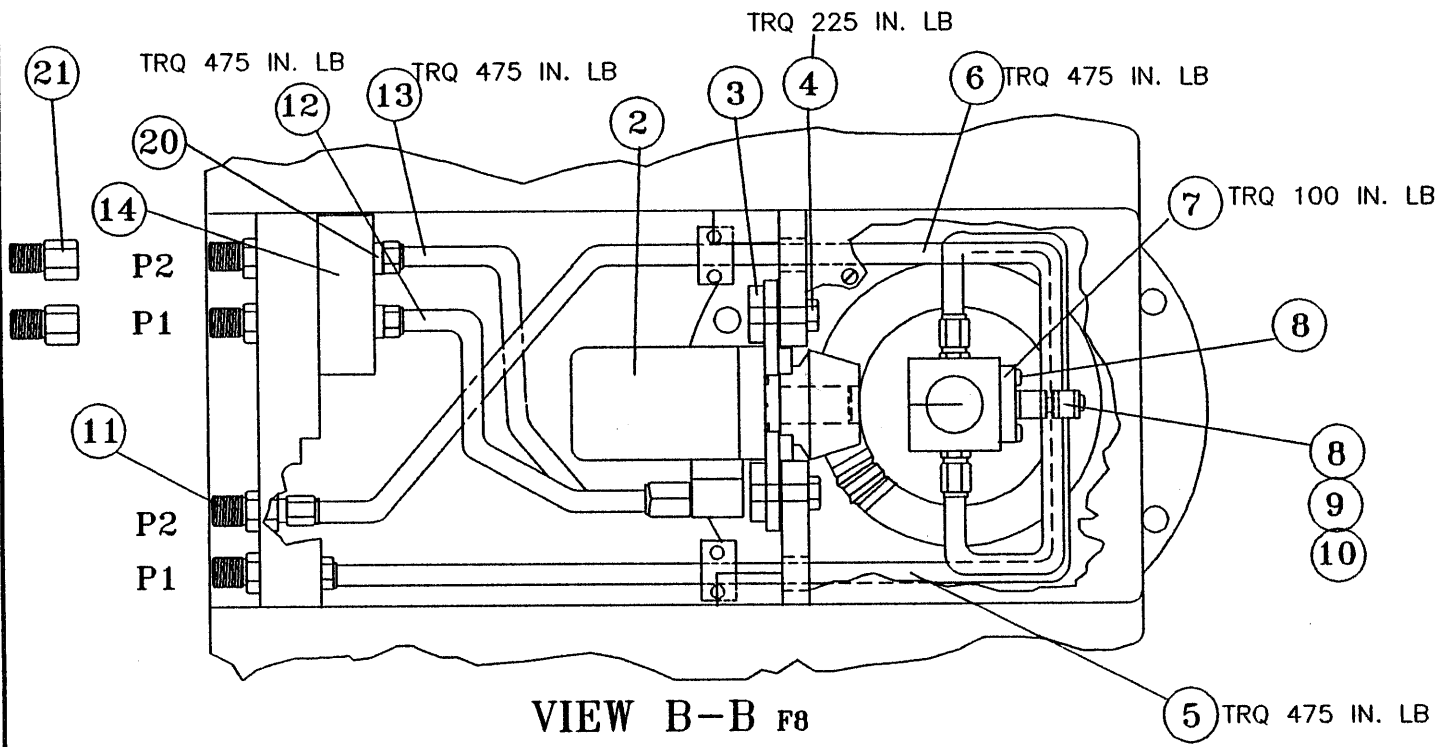
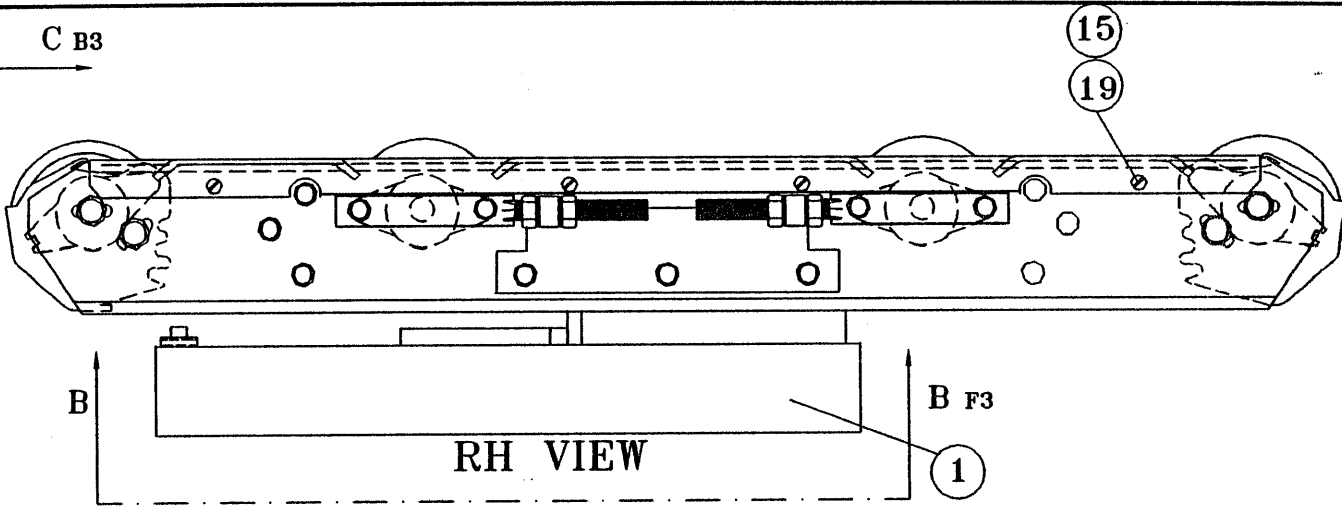
| <u>ROLOADER WIDTH**</u> | <u>REQ'D</u> | <u>PART NO.</u> | <u>DESCRIPTION</u> |
|-------------------------|--------------|-----------------|----------------------------------|
| 16" | 4 | 304445 | ROLLER 16" COVERED |
| 16" | 4 | 304445B | ROLLER 16" V-GUIDES |
| 18" | 4 | 306118 | ROLLER 18" COVERED |
| 18" | 4 | 306118B | ROLLER 18" V-GUIDES |
| 18" | 4 | 306118H | ROLLER 18" V-GUIDES (HEAVY DUTY) |
| 24" | 4 | 306944 | ROLLER 24" COVERED |
| 24" | 4 | 306944B | ROLLER 24" V-GUIDES |
| 24" | 4 | 306944H | ROLLER 24" V-GUIDES (HEAVY DUTY) |
| 30" | 4 | 306930 | ROLLER 30" COVERED |
| 30" | 4 | 306930B | ROLLER 30" V-GUIDES |
| 36" | 4 | 306936 | ROLLER 36" COVERED |
| 36" | 4 | 306936B | ROLLER 36" V-GUIDES |
| 44" | 4 | 306941 | ROLLER 44" COVERED |
| 44" | 4 | 306941B | ROLLER 44" V-GUIDES |
| 48" | 4 | 306948 | ROLLER 48" COVERED |
| 48" | 4 | 306948B | ROLLER 48" V-GUIDES |

BELTS

| <u>ROL. MODEL</u> | <u>STANDARD</u> | <u>NON-MARKING</u> | <u>HEAVY DUTY</u> |
|-------------------|-----------------|--------------------|-------------------|
| 1842 | B17.535 | PG17.535 | H17.535 |
| 1848 | B17.535 | PG17.535 | H17.535 |
| 1854 | B17.541 | PG17.541 | H17.541 |
| 1860 | B17.547 | PG17.547 | H17.547 |
| 1866 | B17.553 | PG17.553 | H17.553 |
| 1872 | B17.559 | PG17.559 | H17.559 |
| 2442 | B23.535 | PG23.535 | H23.535 |
| 2448 | B23.535 | PG23.535 | H23.535 |
| 2454 | B23.541 | PG23.541 | H23.541 |
| 2460 | B23.547 | PG23.547 | H23.541 |
| 2466 | B23.553 | PG23.553 | H23.553 |
| 2472 | B23.559 | PG23.559 | H23.559 |
| 3642 | B35.535 | PG35.535 | H23.535 |
| 3648 | B35.535 | PG35.535 | H23.535 |
| 3654 | B35.541 | PG35.541 | H35.541 |
| 3660 | B35.547 | PG35.547 | H35.547 |
| 3666 | B35.553 | PG35.553 | H35.553 |
| 3672 | B35.559 | PF35.559 | H35.559 |
| 4860P | | | H47.558.375 |

*ROLOADER LENGTH DETERMINED BY LAST 2 DIGITS OF MODEL NO.

**ROLOADER WIDTH DETERMINED BY FIRST 2 DIGITS OF MODEL NO.



PARTS

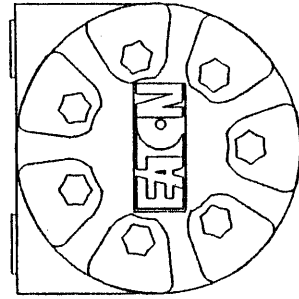
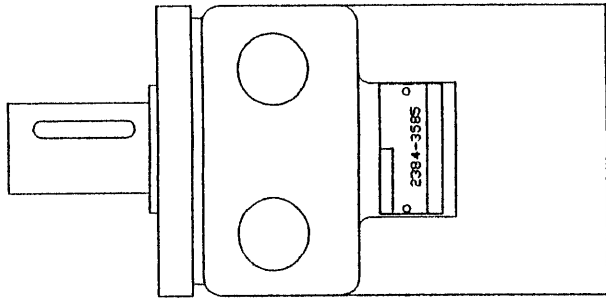
| REF. NO. | REQ'D | PART NO. | DESCRIPTION |
|----------|-------|----------|---|
| 1 | 1 | 305771 | STR., FORK MOUNTING FRAME |
| 1 | 1 | 305771H | STR., FORK MOUNTING FRAME 40 |
| 2 | 1 | | ROTATION PWER ASS'Y (PAGE 11) |
| 3 | 2 | 306456 | FLAT MOTOR ADJUSTMENT |
| 4 | 2 | 096263 | CAPSCREW, 5/8-11NC HEX HD. X 1.50 |
| 5 | 1 | 306464 | ASSY., 1/2" STAINLESS STEEL TUBE |
| 6 | 1 | 306472 | ASSY., 1/2" STAINLESS STEEL TUBE |
| 7 | 1 | 306480 | SPACER, CLAMP |
| 8 | 3 | 306514 | CAPSCREW, 5/16-18NC HEX HD. X 1.37* |
| 9 | 2 | 305995 | BLOCK, CLAMP* |
| 10 | 1 | 306001 | PLATE, CLAMP* |
| 11 | 4 | 070292 | ADAPTER, 3/4-16JIC STRAIGHT BULKHEAD UNION |
| 12 | 1 | 306522 | ASSY., 1/2" O.D. TUBE |
| 13 | 1 | 306530 | ASSY., 1/2" O.D. TUBE |
| 14 | 1 | 306035C | RELIEF VALVE |
| 15 | 1 | 306555 | STR., TOP COVER (18 X 48) |
| | 1 | 306779 | STR., TOP COVER (18 X 54) |
| | 1 | 306860 | STR., TOP COVER (18 X 60) |
| | 1 | 306977 | TOP COVER (24 X 48) |
| | 1 | 307033 | STR., TOP COVER (24 X 54) |
| | 1 | 307082 | STR., TOP COVER (24 X 60) |
| | 1 | 307082H | STR., TOP COVER (24 X 60) (HEAVY DUTY) |
| | 1 | 307083 | STR., TOP COVER (24 X 66) |
| | 1 | 307083H | STR., TOP COVER (24 X 66) (HEAVY DUTY) |
| | 1 | 307384 | STR., TOP COVER (24 X 72) |
| | 1 | 307084H | STR., TOP COVER (24 X 72) (HEAVY DUTY) |
| 16 | 2 | 306037 | STR., ADAPTERS |
| 17 | 2 | 306621 | PIN, 1/2 DIA. X 3.75 |
| 18 | 2 | 015180 | STEEL COTTER PIN, 1/8 X 2 1/2 |
| 19 | 8 | 306605 | SCREW, 1/4 SELF TAPPING HEAD .75 |
| 20 | 2 | 306037 | ADAPTERS |
| 21 | 2 | 305036** | ORFFICE CHECK VALVE - W/ADP. |
| * | 1 | 306515 | "NEW STYLE BRACKET" REPLACES 306514, 305995, AND 306001, COMES WITH BOLTS |

306399CK ROTATION MOTOR KIT REPLACE CHARLYNN MAN MOTOR TO DANFOSS MOTOR

306035C-K RELIEF VALVE KIT FOR ROLOADER W/O RELIEF VALVE

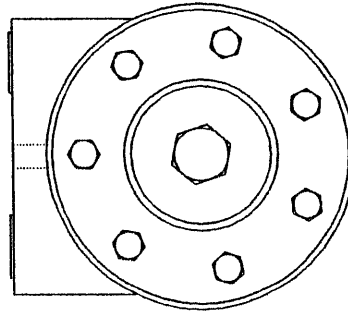
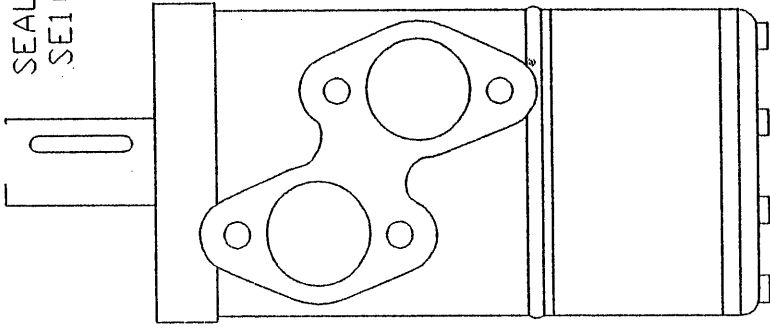
**ALL UNITS MAY NOT HAVE THESE VALVES. USAGE IS IN ACCORDANCE WITH THE APPLICATION, SIDE SHIFTER, AND HYDRAULIC KIT COMBINATIONS.

SEAL KIT:
SE1000



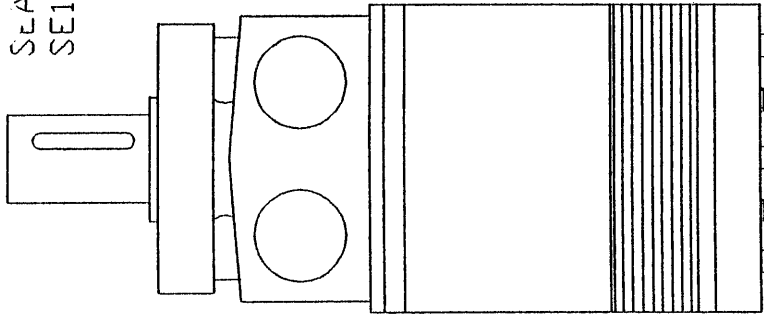
CHAR-LYNN

SEAL KIT:
SE1000A

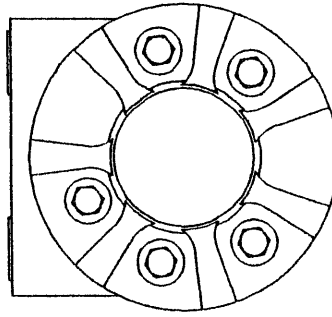


DANFOSS

SEAL KIT:
SE1000B



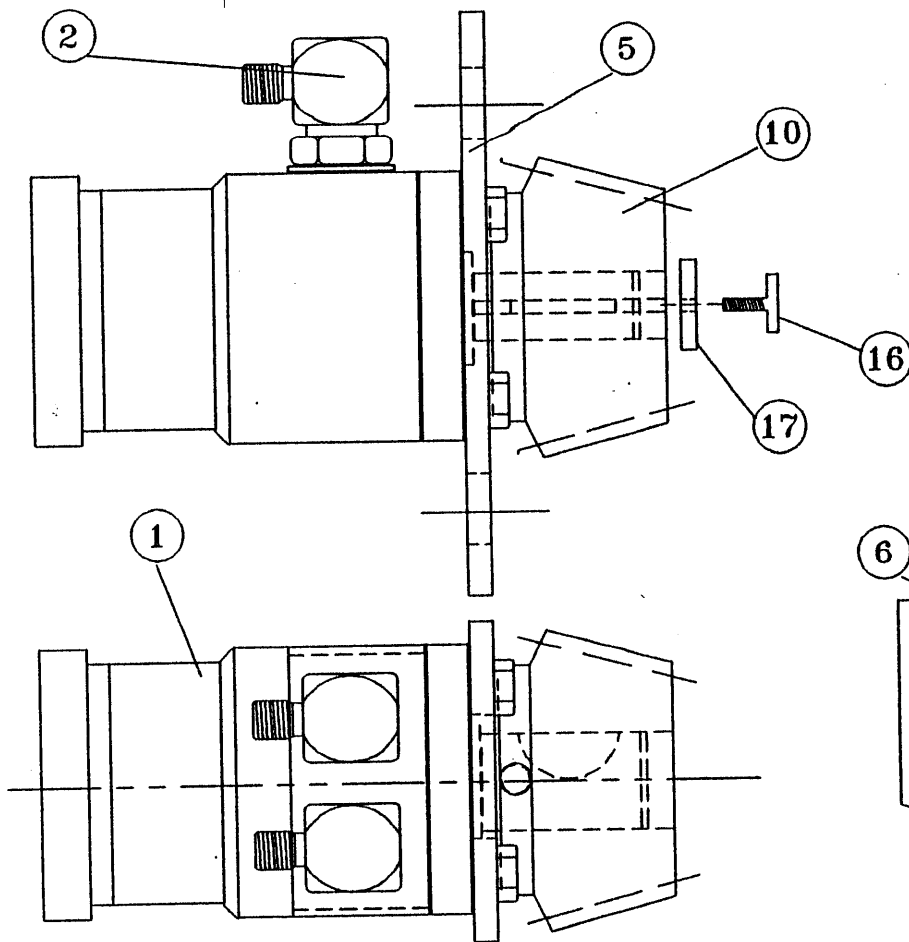
306399C - ROTATION
306027C - BELTS



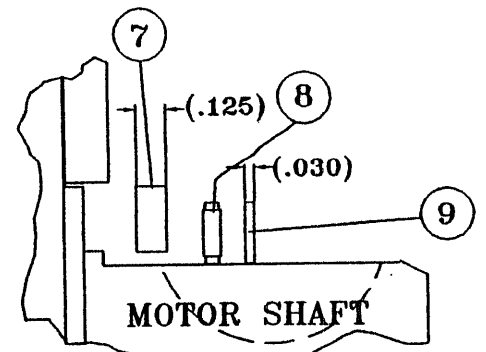
ROSS

Superior Engineering Inc.

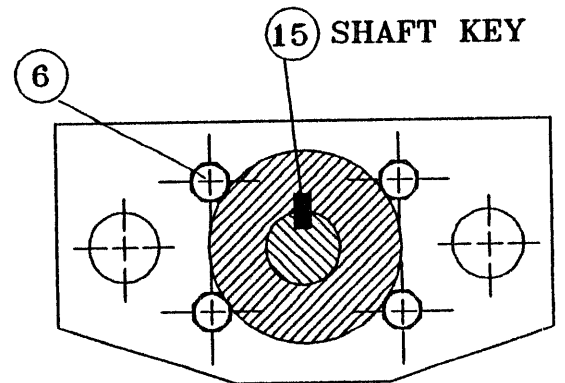
ROTATION MOTOR



THRUST BEARING SEQUENCE

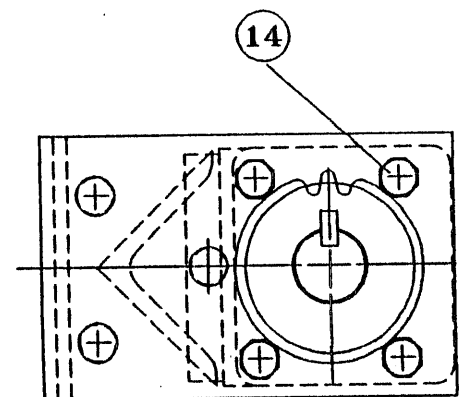
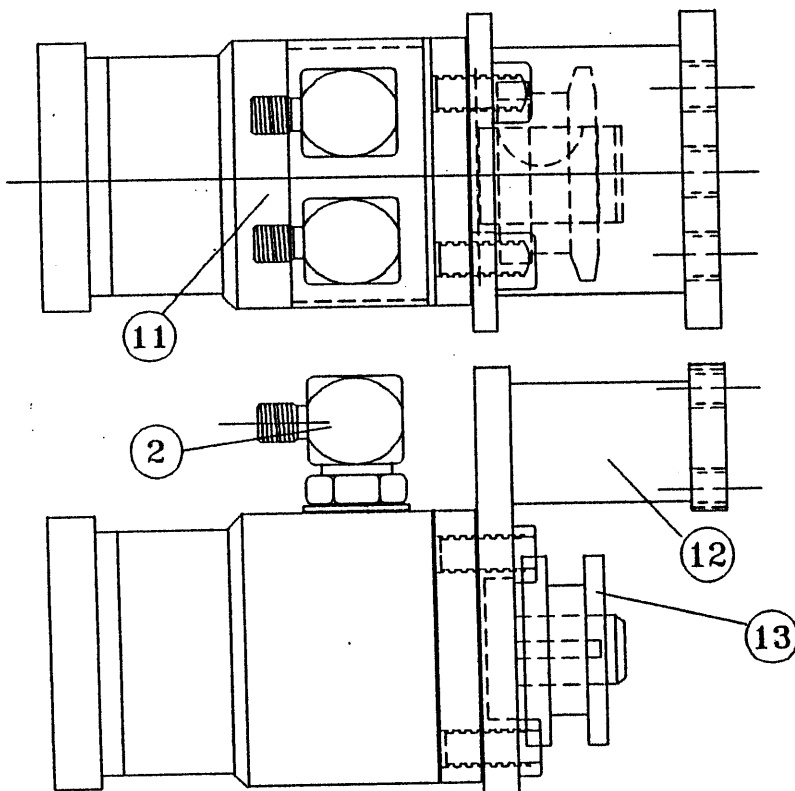


VIEW C



SECTION B-B

ROLLER MOTOR



DWG #
RL-PM4

PARTS

| REF. NO. | REQ'D | PART NO. | DESCRIPTION |
|-------------|-------|------------|-------------------------------|
| 1 | 1 | 306399** | ASSY, HYD. MOTOR (SEE NOTE 1) |
| 1 | 1 | 306399A** | ASSY, HYD. MOTOR (SEE NOTE 1) |
| 1 | 1 | 306399B*** | ASSY. HYD. MOTOR (SEE NOTE 1) |
| 2 | 2 | 306035B | 90 DEG. FITTINGS |
| 5 | 1 | 306407 | MOUNT, ROTATOR MTR. |
| 6 | 4 | 010603 | ALLEN HD. C/ SCREW 3/8-16NC |
| 7 | 1 | 306415* | WASHER, THRUST |
| 8 | 1 | 306423* | BEARING, THRUST |
| 9 | 1 | 306431* | WASHER, THRUST |
| 10 | 1 | 306449 | GEAR, BEVEL |
| 11 | 1 | 306027** | ASSY, HYD. MOTOR (SEE NOTE 1) |
| 11 | 1 | 306027A** | ASSY, HYD. MOTOR (SEE NOTE 1) |
| 11 | 1 | 306027B*** | ASSY, HYD. MOTOR (SEE NOTE 1) |
| 12 | 1 | 306043 | STR., MTR. MOUNT |
| 13 | 1 | 306084 | SPROCKET |
| 14 | 4 | 010629 | HEX HD. C/SCREW 3/8-16NC X 1 |
| 15 | 1 | 070715 | MOTOR SHAFT KEY |

*USE THRUST KIT NO. SE1002 (SEE INSTALLATION INSTRUCTION SHEET)

**USE SEAL KIT NO. SE1000; REPLACEMENT MOUNTING FLANGE NO. SE7464

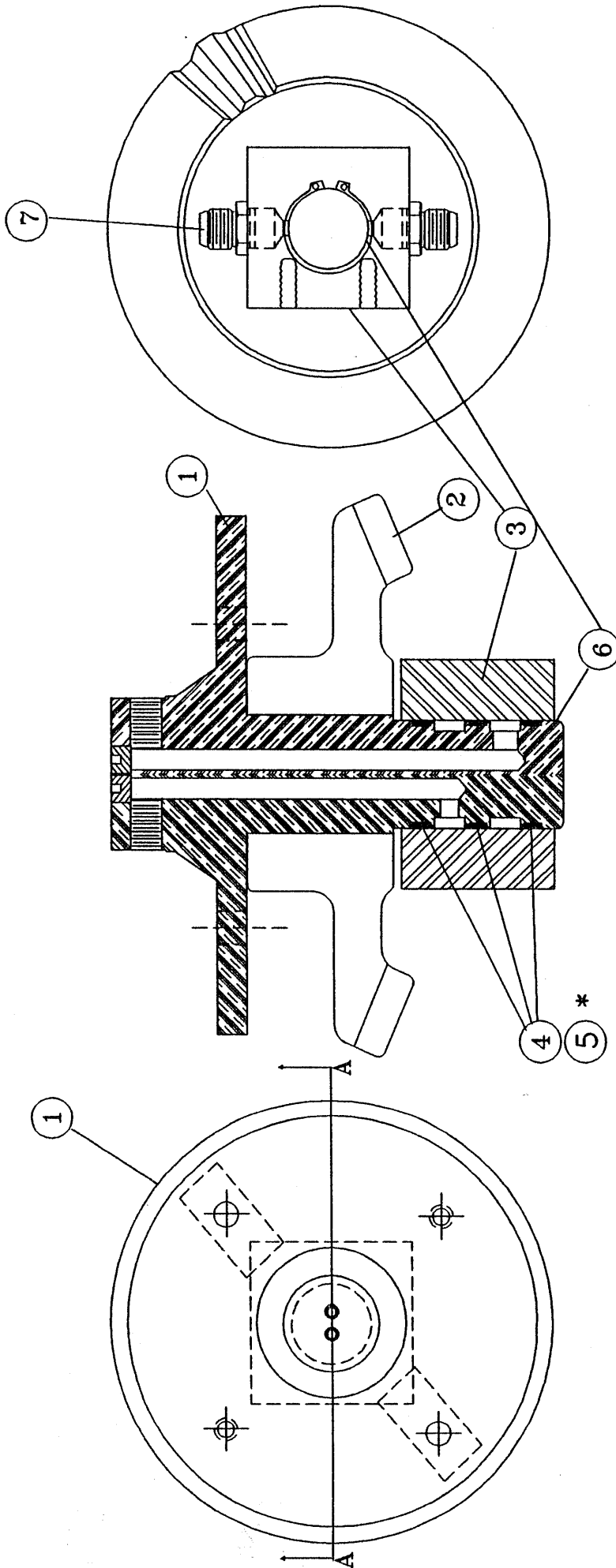
***USE SEAL KIT NO. SE1000A; NO REPLACEMENT FLANGE IS AVAILABLE

NOTE 1 SERIAL NUMBERS UP TO AND INCLUDING 8844 USED 306399 FOR THE ROTATION MOTOR AND 306027 FOR THE BELT MOTOR.

SERIAL NUMBERS 8845 TO 89176 USED 306399A FOR THE ROTATION MOTOR AND 306027A FOR THE ROLLER MOTOR.

SERIAL NUMBERS 89177 AND ABOVE USE 306399B FOR THE ROTATION MOTOR AND 306027B FOR THE ROLLER MOTOR.

SECTION A-A



NOTE:

SEE MANIFOLD ASSEMBLY
INSTRUCTION SHEET

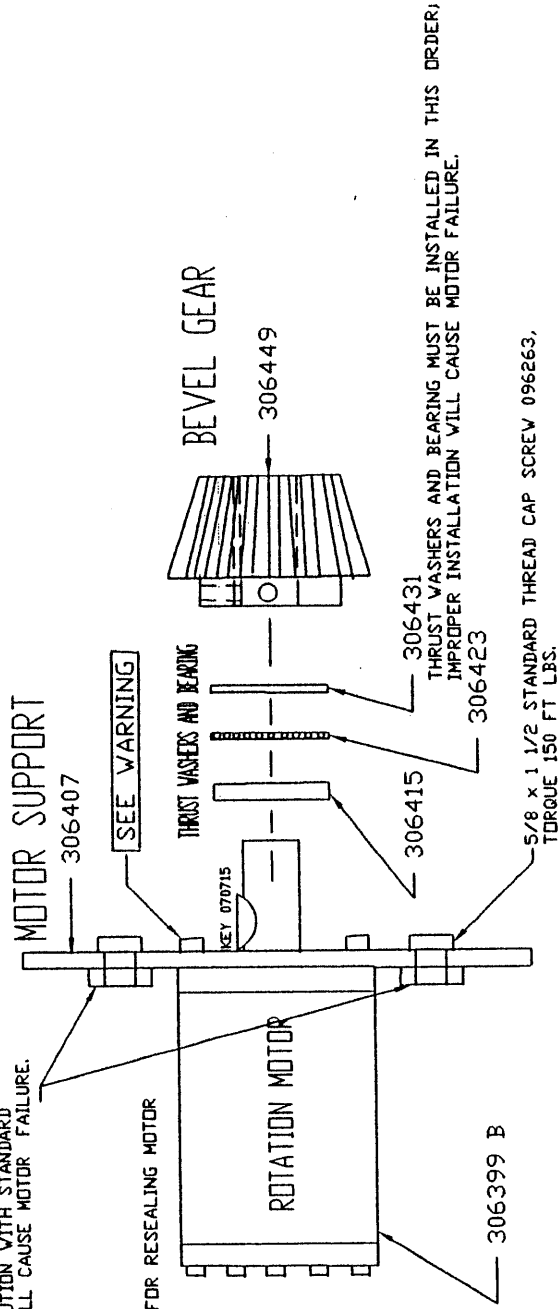
RL-PM2

| REF NO. | REQ'D | PART NO. | DESCRIPTION |
|---------|-------|----------|--|
| 1 | 1 | 306290 | SHAFT, MANIFOLD |
| 2 | 1 | 306332 | GEAR, MODIFIED BEVEL |
| 3 | 1 | 306365 | COLLAR, MANIFOLD |
| 4 | 3 | 306373Q | QUAD RINGS |
| 5 | 6 | 036381 | RING, BACK-UP |
| 6 | 1 | 051847 | RING, SNAP |
| 7 | 2 | 035568 | ADAPTER, STRAIGHT |
| * | 1 | SE1001 | SEAL KIT, MANIFOLD (CONSIST OF 3-306373Q, 6-036381, AND 1-051847) |

THRUST BEARING INSTRUCTION SHEET

FLAT MOTOR ADJUSTER 306456
THESE MUST BE USED.
SUBSTITUTION WITH STANDARD
NUTS WILL CAUSE MOTOR FAILURE.

SEE MOTOR REBUILD INSTRUCTIONS FOR RESEALING MOTOR



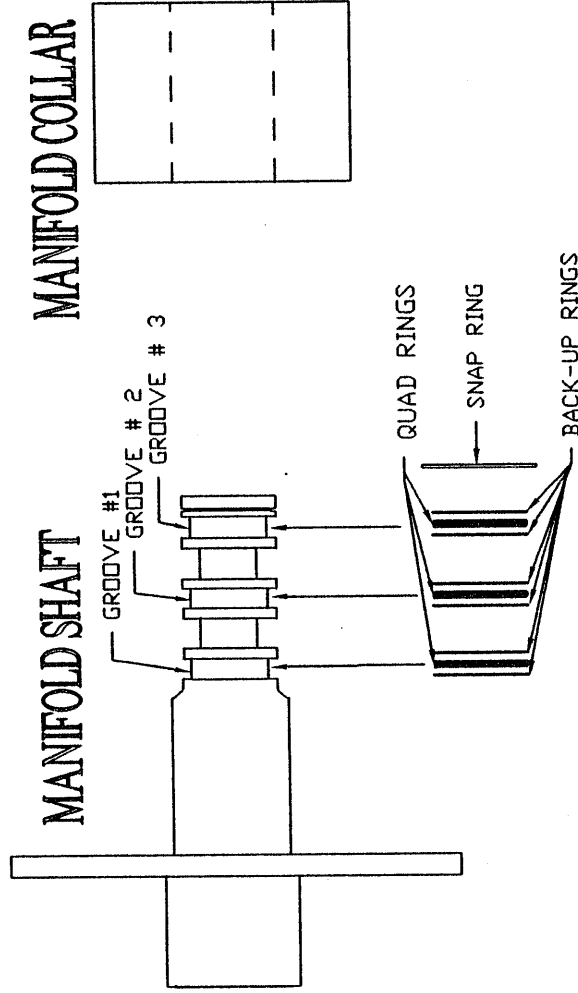
NOTE: KIT SE1002 CONTAINS 306415, 306423, AND 306431.

WARNING!!! IF THESE BOLTS ARE TOO LONG, THE MOTOR WILL FAIL PREMATURELY

USE 3/8 DIA STANDARD THREAD 1' LONG SOCKET HEAD SCREWS, TORQUE 35 FT LBS WITH LOCITE.

MANIFOLD SEAL KIT INSTALLATION

PART NO. SE1001



NOTES:

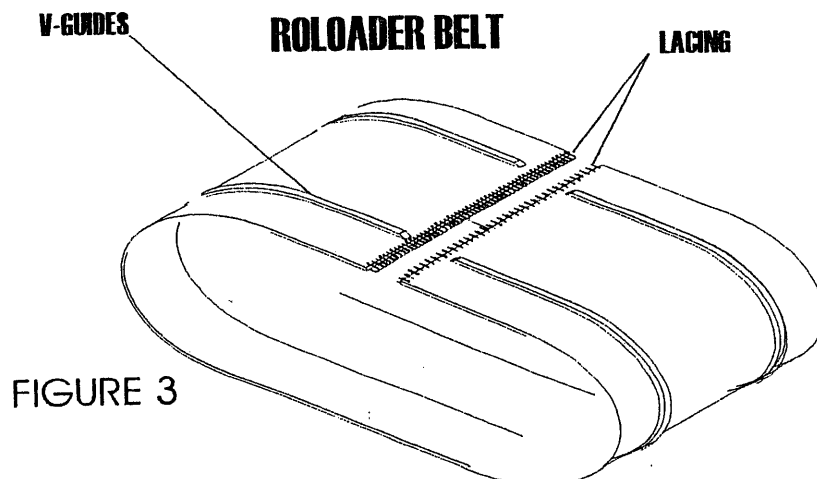
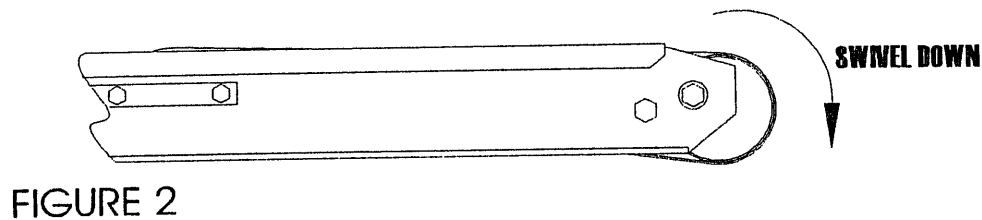
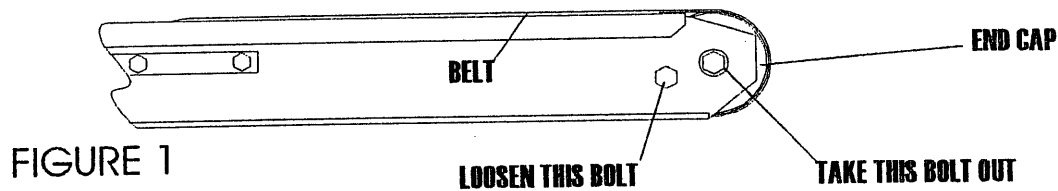
- * INSTALL BACK-UP RINGS AND QUAD RINGS IN GROOVE #1 FIRST, THEN GROOVE #2 LAST, GROOVE #3.
- * USE GREASE FOR LUBRICATING SEALS BEFORE INSTALLING MANIFOLD COLLAR

BELT INSTALLATION INSTRUCTIONS

DISCONNECT HYDRAULIC POWER SUPPLY BEFORE SERVICING

1. POSITION ROLOADER FOR ACCESSABILITY.
2. INNER CHAIN ADJUSTMENT SHOULD NOT BE REQUIRED.
3. REMOVE OUTERMOST BOLT IN EACH END CAP BEARING HOLDER. (SEE FIGURE 1)
4. LOOSEN ONLY REMAINING BOLT IN EACH END CAP.
5. SWIVEL EACH END CAP DOWN. THIS WILL RELIEVE THE TENSION ON THE BELT. (FIGURE 2)
6. REMOVE THE CONNECTING WIRE FROM THE LACING. REMOVE THE BELT.
7. BEFORE INSTALLING THE NEW BELT, PLACE THE BELT ON A FLAT SURFACE WITH THE GROOVES FACING DOWN. FOLD THE LEFT AND RIGHT SIDES UP AND ALIGN THE V-GUIDES. THE LACING CAN BE STAGGERED TO ACCOMPLISH THIS. (SEE FIGURE 3) MARK THE SIDE OF THE BELT THAT WILL BE ON THE OUTSIDE.
8. INSTALL THE NEW BELT BEING CAREFUL TO ALIGN THE LACING PROPERLY.
9. PULL THE END CAP UP INTO THE PROPER POSITION. REPLACE THE TWO BOLTS THAT WERE REMOVED, ONE FROM EACH SIDE. TIGHTEN THE REMAINING END CAP BOLTS.
10. CHECK BELT FOR PROPER TENSION. OPERATE THE ROLOADER IN BOTH DIRECTIONS.

ROLOADER SIDE VIEW



ROTATING ROLOADER
RECOMMENDED SPARE PARTS LIST

| <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY</u> |
|-----------------|-------------------------|------------|
| * | BELT | 1 |
| 306084 | SPROCKET | 2 |
| 306159L | MOD. FLANGE BRG., LEFT | 1 |
| 305159R | MOD. FLANGE BRG., RIGHT | 1 |
| 306621 | PIN | 2 |
| 015180 | STEEL COTTER PIN | 2 |
| SE1002 | THRUST BEARING KIT | 1 |
| 306449 | GEAR, BEVEL | 1 |
| * | ROLLER | 1 |
| 306175 | BEARING SPACER | 1 |
| 306217 | BEARING SPACER | 1 |
| 306167 | BEARING, FLANGE | 1 |
| * | SEAL KIT, MANIFOLD | 1 |
| 070715 | MOTOR SHAFT KEY | 1 |

*SEE PAGE 8 FOR CORRECT PART NUMBERS