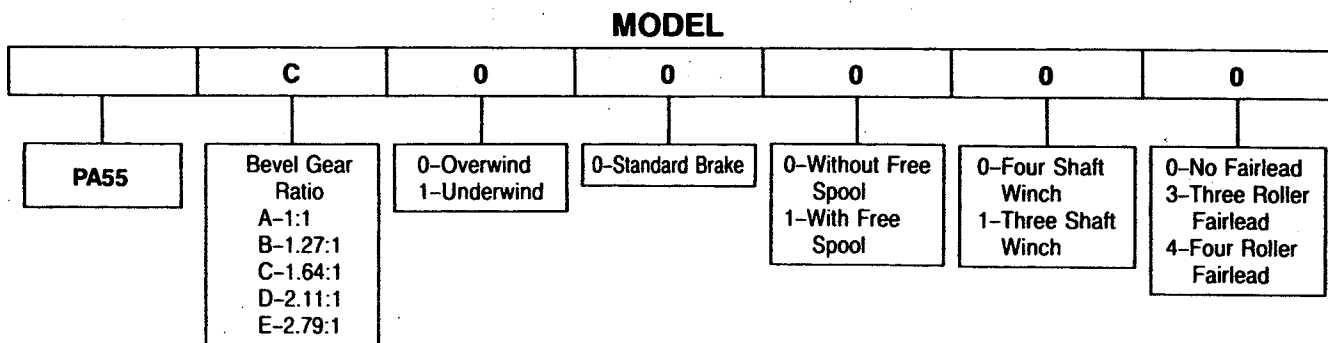


INSTALLATION AND PARTS MANUAL

MODEL PA55 FOR 561M PS PIPELAYER

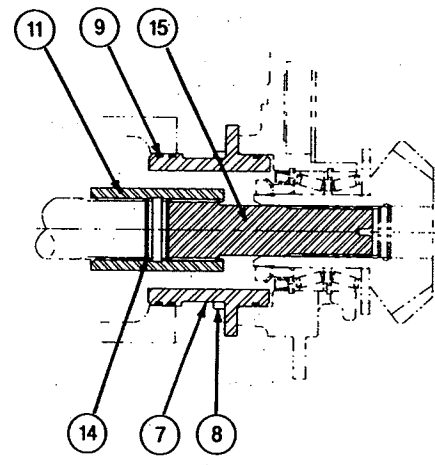
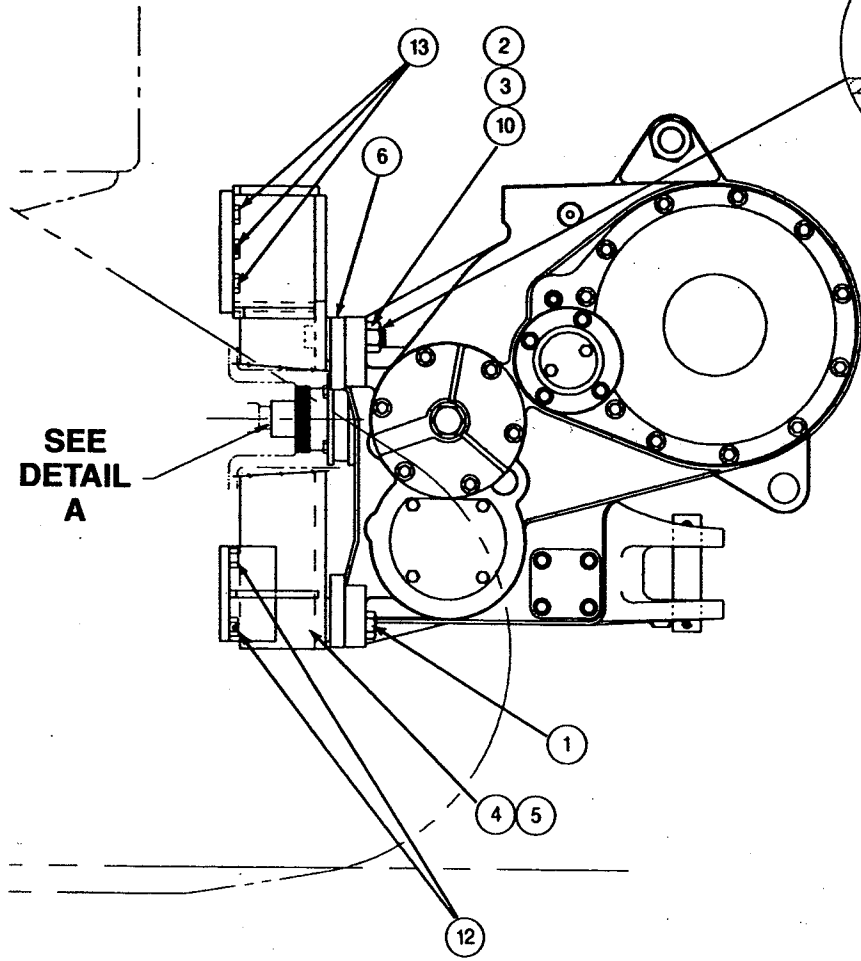
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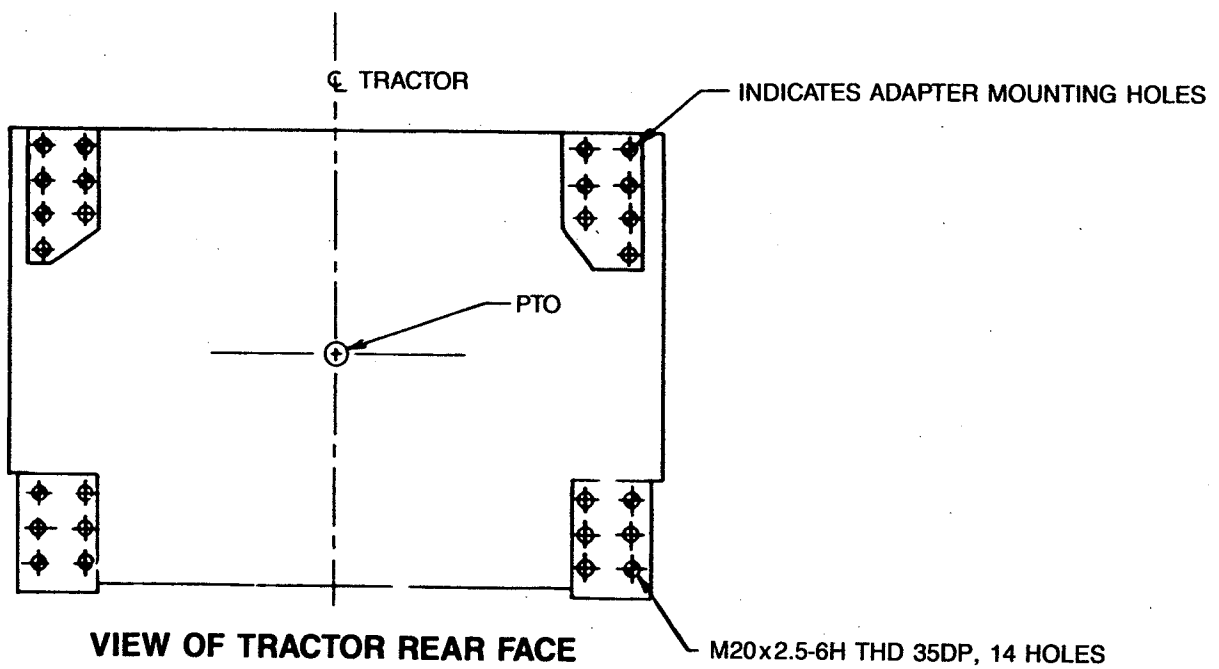


PACCAR WINCH DIVISIONS

**MODEL PA55
MOUNTING GROUP
561M**



SECTION A-A



INSTRUCTIONS

1. Apply Loctite 271 to threads of studs, item 3, and install into winch adapter brackets, items 4 and 5, to a height of 3.68 in. (94 mm).
Remove and discard the angle bracket, used for securing the winch to the shipping skid, from the lower winch/adapter mounting bolts.
2. PTO rotation is counterclockwise (CCW) as viewed from rear of tractor.
Remove and discard tractor PTO cover.
3. Remove paint, rust, dirt and grease from mounting surfaces of tractor, winch and winch adapters.
4. Coat splines of PTO shaft, Item 15, with multi-purpose grease and install into bevel pinion gear of winch.
5. Install retaining rings, Item 14, in coupling, Item 11. Place coupling over PTO shaft with beveled end away from winch.
6. Install o-rings, Item 9, onto PTO pilot Item 7. Note: As the same PTO pilot may be used on several adaptations, usually only one o-ring groove will engage and seal in the tractor PTO opening.
7. Remove winch top cover to gain access to the bevel gears.

8. Coat PTO pilot o-rings and splines of tractor PTO with multi-purpose grease and install winch on tractor while moving winch bevel gears to align the splines.
9. Apply Loc-tite 242 to threads of studs, Item 3 and capscrews, Items 1, 12 & 13 and tighten as follows:
 - A) Method 1 – Tighten nuts to 960 lb•ft (1300 N•m).
Method 2 – Nuts to be snugged up to approximately 100 lb•ft (136 N•m) then mark position of nut and tighten an additional 2½ flats.
 - B) Capscrews, Item 1, to be tightened to 680 lb•ft (900 N•m) torque.
 - C) Capscrews, Items 12 & 13 to be tightened to 340 lb•ft (460 N•m).

⚠ WARNING

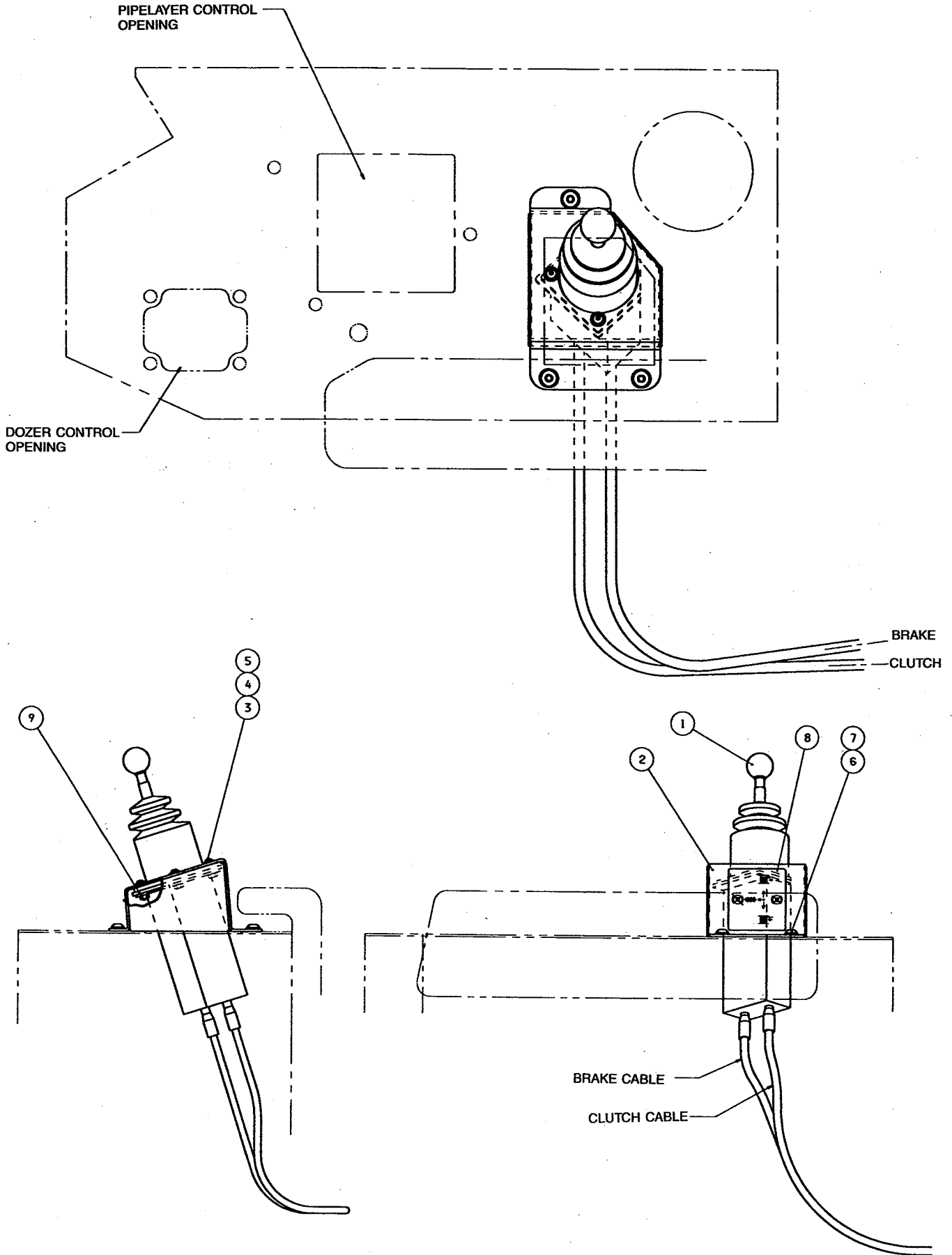
Winch and adapters weigh approximately 2,500 lb (1,135 kg). Make certain that lifting equipment has adequate capacity. Failure to use adequate lifting equipment may result in property damage, personal injury or death.

⚠ CAUTION

Fill winch to proper level with recommended oil BEFORE starting tractor. Winch bearing and gear damage may result if tractor is run without oil in winch.

| ITEM | PART NO. | DESCRIPTION | QTY. |
|------|----------|---|--------------------|
| | | | 561M POWERSHIFT |
| 1 | 7X-0408 | CAPSCREW, HEX HEAD (1 - 8 x 3½ G8) | 4 |
| 2 | 7X-0450 | NUT (1½ - 7) | 4 |
| 3 | 133-9225 | STUD (1½ - 7 x 5¾ G8) | 4 |
| 4 | 123-4428 | ADAPTER - RH | 1 |
| 5 | 123-4429 | ADAPTER - LH | 1 |
| 6 | 118-6553 | SPACER | 4 |
| 7 | 118-6537 | PILOT, PTO | 1 |
| 8 | 123-4407 | CAPSCREW, HEX HEAD (½ - 13 x 1 G5) | 4 |
| 9 | 8S-5654 | O-RING | 3 |
| 10 | 119-1551 | WASHER (1½ HARDENED) | 4 |
| 11 | 118-6539 | COUPLING | 1 |
| 12 | 7X-2562 | CAPSCREW, HEX HEAD (HM20 - 2.5 x 45 mm G8) | 4 |
| 13 | 6V-3531 | CAPSCREW, HEX HEAD (HM20 - 2.5 x 50 mm, G8) | 10 |
| 14 | 120-7671 | RETAINING RING | 2 |
| 15 | 118-6559 | PTO SHAFT | 1 |

**MODEL PA55
CONTROL GROUP
561M**



CONTROL INSTALLATION INSTRUCTION

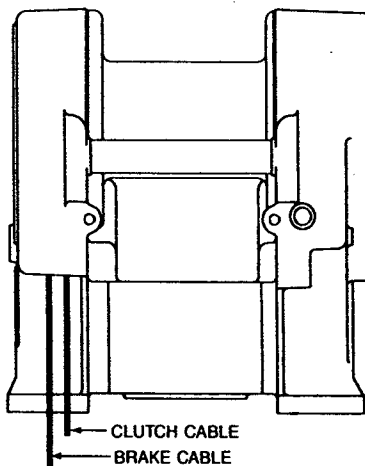
Note: These instructions are provided as a general guide. Tractor options, application requirements or local regulations may require deviation from these recommendations.

1. Carefully route the control cables from the winch to the underside of the right hand console. Pass the control cables up through the control bracket opening in the console.

⚠ CAUTION

Avoid routing cables near moving shafts or linkage which may cause damage to cables or restrict free movement of tractor components.

2. From the powershift control lever assembly, item 1, remove the six through-bolts, item 14, from the control stand and separate the two cable support housings, items 17 & 18. From each plunger, remove the sliding lock screw and threaded bushing, items 15 & 16.
3. Install the sliding lock screw, item 15, onto the control cables. Apply two drops of Loctite 242 to the cable threads and install the threaded bushing, item 16, onto the cable core until the end of the cable core is level with the end of the bushing.
4. Hold the controller in your left hand with the knob end up and the mounting bolts located at 6, 9 and 12 o'clock positions. Mark the plunger closest to the 6 o'clock position as the "clutch" control. Mark the plunger closest to the 12 o'clock position as the "brake" control. The "clipped" corner of the control will be installed toward the rear of the tractor.



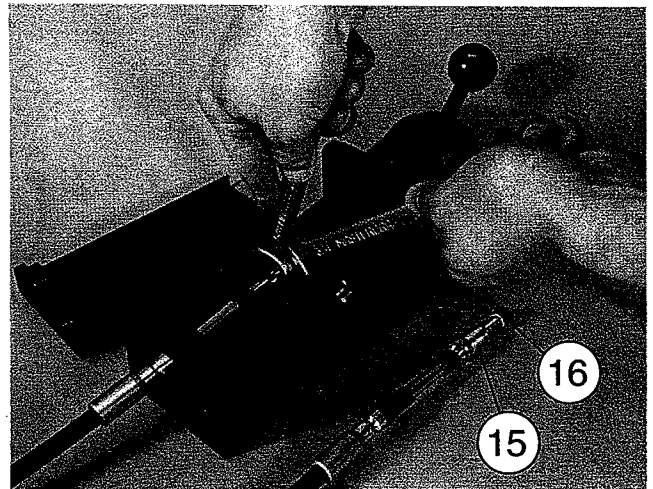
TOP VIEW OF WINCH

5. Move the control lever to extend the plungers far enough to expose the wrench flats. Moving the control lever forward into the Brake-Off detent spring

clip will extend only the brake plunger. Install the brake cable to the "brake" control plunger and the clutch cable into the "clutch" control plunger. With a wrench, hold the plunger as you tighten the sliding lock screw to 50 lb·ft (68 N·m) torque.

⚠ CAUTION

Tightening the sliding lock screw without holding the plunger with a wrench will result in damage to the control assembly.



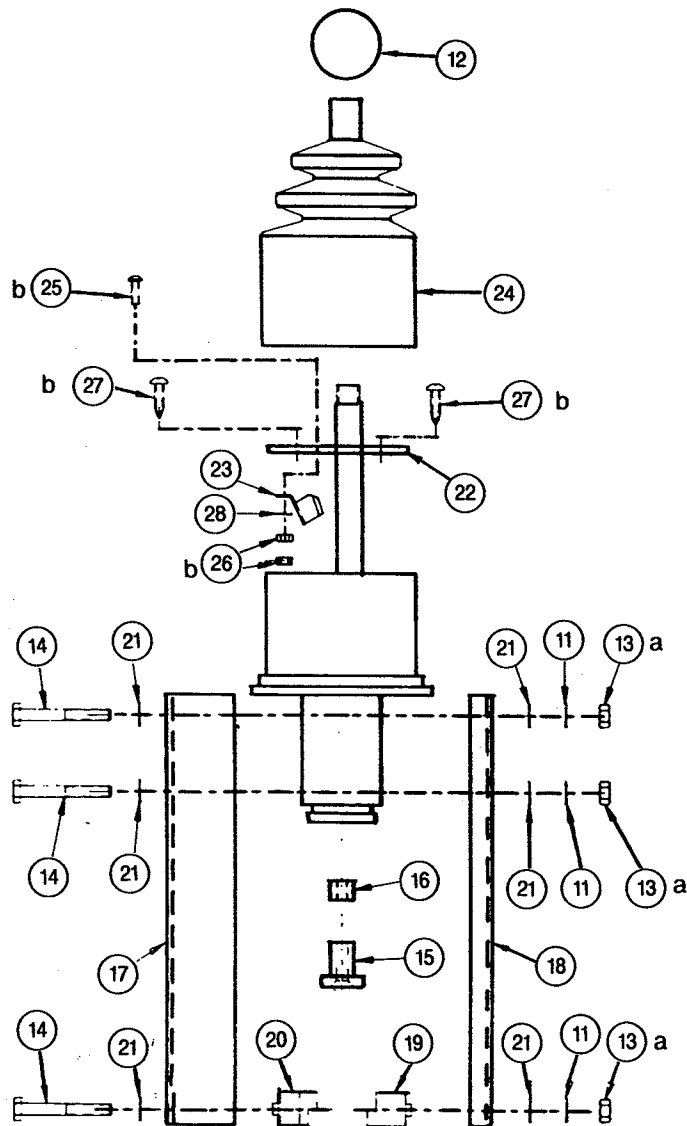
6. Install the cable support housings, items 17 & 18, onto the controller. Place the groove of the control cable housings into the saddle of the cable anchors, items 19 & 20. Install the six through-bolts, washers, lockwashers and nuts, items 11, 13, 14 & 21. Evenly tighten the bolts to 85 lb·in. (10 N·m) torque.
7. Insert the controller/cables sub-assembly from the bottom into the opening of the control bracket, item 2, and secure with three button, socket-head cap-screws, washers and nuts, items 3, 4 & 5. Install the control bracket sub-assembly onto the console using three button, socket-head cap-screws, and washers, items 6 and 7.

General Instructions

1. Install the control instruction self-adhesive decal, item 8, onto the control bracket, facing the operator.
2. Fill the winch to the proper level with recommended oil. Refer to the oil specifications found in the Operation and Preventive Maintenance Manual, publication SEBU 6884 (Paccar Winch PC-209).
3. Verify proper control cable and operating pressure adjustment by following the procedures found in the Operation and Preventive Maintenance Manual, publication SEBU 6884 (Paccar Winch PC-209) or the service manual, publication SENR 5358 (Paccar Winch PC-210).

**MODEL PA55
CONTROL GROUP
561M**

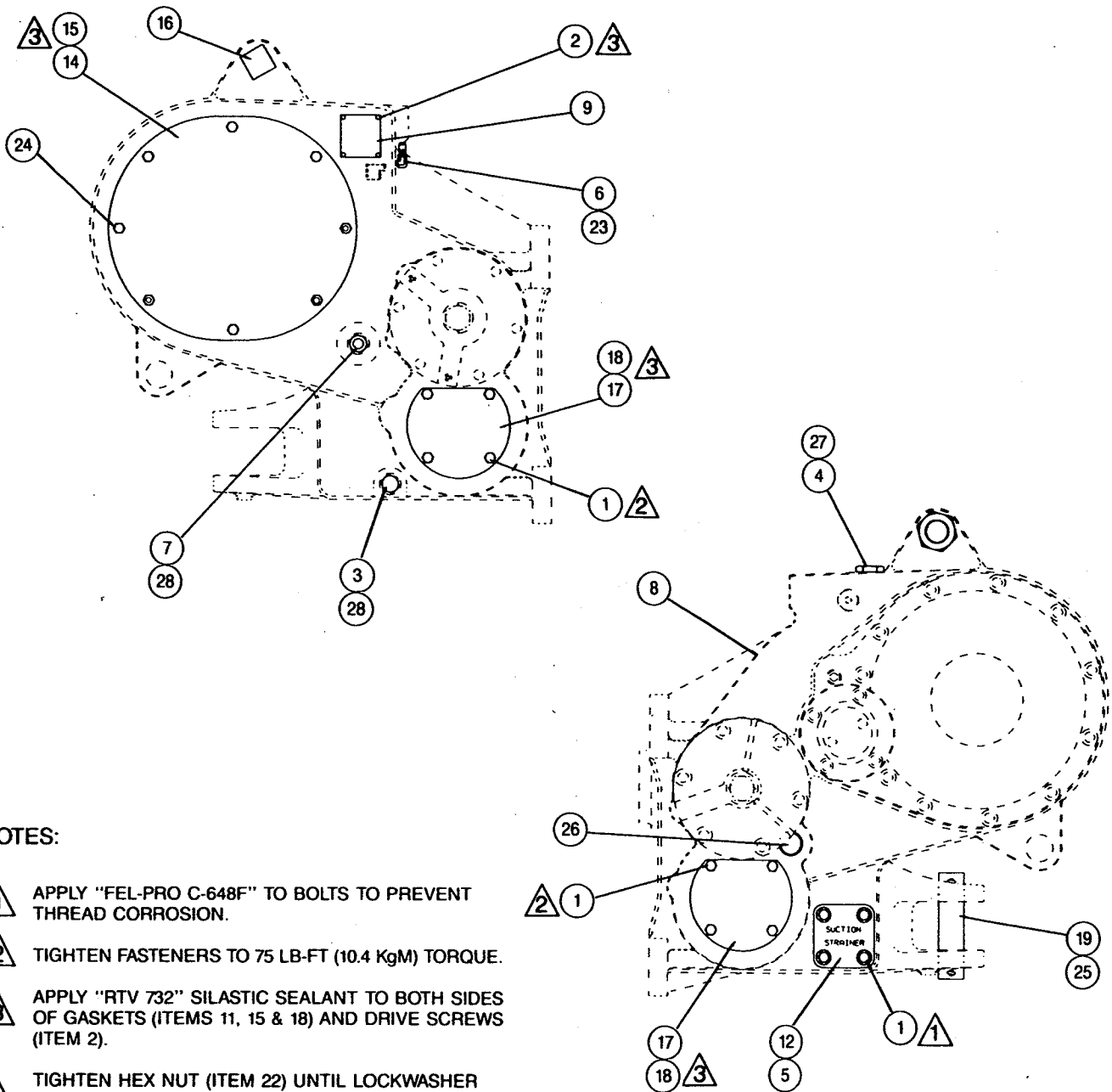
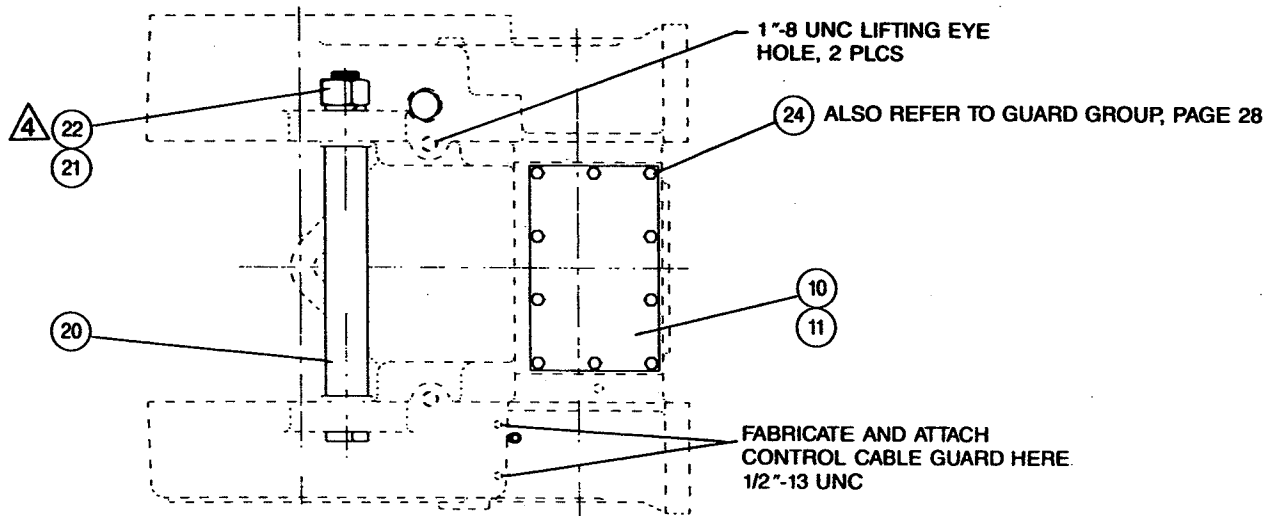
POWERSHIFT CONTROL, DUAL AXIS



TIGHTENING TORQUE: a) 85 lb•in. (10 N•m)
b) 20 lb•in. (2.5 N•m)

| ITEM | PART NO. | DESCRIPTION | QTY |
|------|----------|---|-----|
| 1 | 123-4432 | CONTROL, POWERSHIFT, DUAL-AXIS | 1 |
| 2 | 147-2724 | CONTROL BRACKET | 1 |
| 3 | 137-4398 | CAPSCREW, BUTTON HEAD (M6-1.0 × 25 mm) | 3 |
| 4 | 5C-2890 | NUT, HEX (M6-1.0) | 3 |
| 5 | 8T-4205 | WASHER, FLAT-THIN (1/4) | 3 |
| 6 | 137-4402 | CAPSCREW, BUTTON HEAD (M10-1.5 × 25 mm) | 3 |
| 7 | 8T-4895 | WASHER, FLAT-NARROW (3/8) | 3 |
| 8 | 123-4439 | DECAL, POWERSHIFT CONTROL | 1 |
| 9 | 147-2725 | CLAMP PLATE | 1 |
| 10 | 123-4424 | CONTROL CABLE - 90 in. (2286 mm) | 2 |
| 11 | 1H-3338 | LOCKWASHER, EXTERNAL TOOTH (1/4) | 6 |
| 12 | 7R-5874 | KNOB | 1 |
| 13 | 6V-8185 | NUT (1/4-20) | 6 |
| 14 | 8T-9367 | CAPSCREW, HEX HEAD (1/4-20 × 2 G5) | 6 |
| 15 | 126-2821 | SLIDING LOCKSCREW | 2 |
| 16 | 126-2822 | CABLE BUSHING | 2 |
| 17 | 126-2823 | CABLE SUPPORT HOUSING, OUTER | 1 |
| 18 | 126-2824 | CABLE SUPPORT HOUSING, INNER | 1 |
| 19 | 126-2818 | CABLE ANCHOR, OUTER | 1 |
| 20 | 126-2820 | CABLE ANCHOR, INNER | 1 |
| 21 | 8T-4205 | WASHER, FLAT-THIN (1/4) | 12 |
| 22 | 126-2806 | RESTRICTOR PLATE | 1 |
| 23 | 126-2805 | DETENT CLIP SPRING KIT (INCLUDES 23, 25, 26 & 28) | 1 |
| 24 | 126-2804 | BOOT | 1 |
| 25 | — | MACHINE SCREW (4-40 × 5/8) | 2 |
| 26 | — | NUT (4-40) | 2 |
| 27 | 126-5994 | SCREW, SELF TAPPING (10-9 × 3/4) | 4 |
| 28 | — | LOCKWASHER, EXTERNAL TOOTH (4) | 2 |

WINCH CASE & COVERS



NOTES:

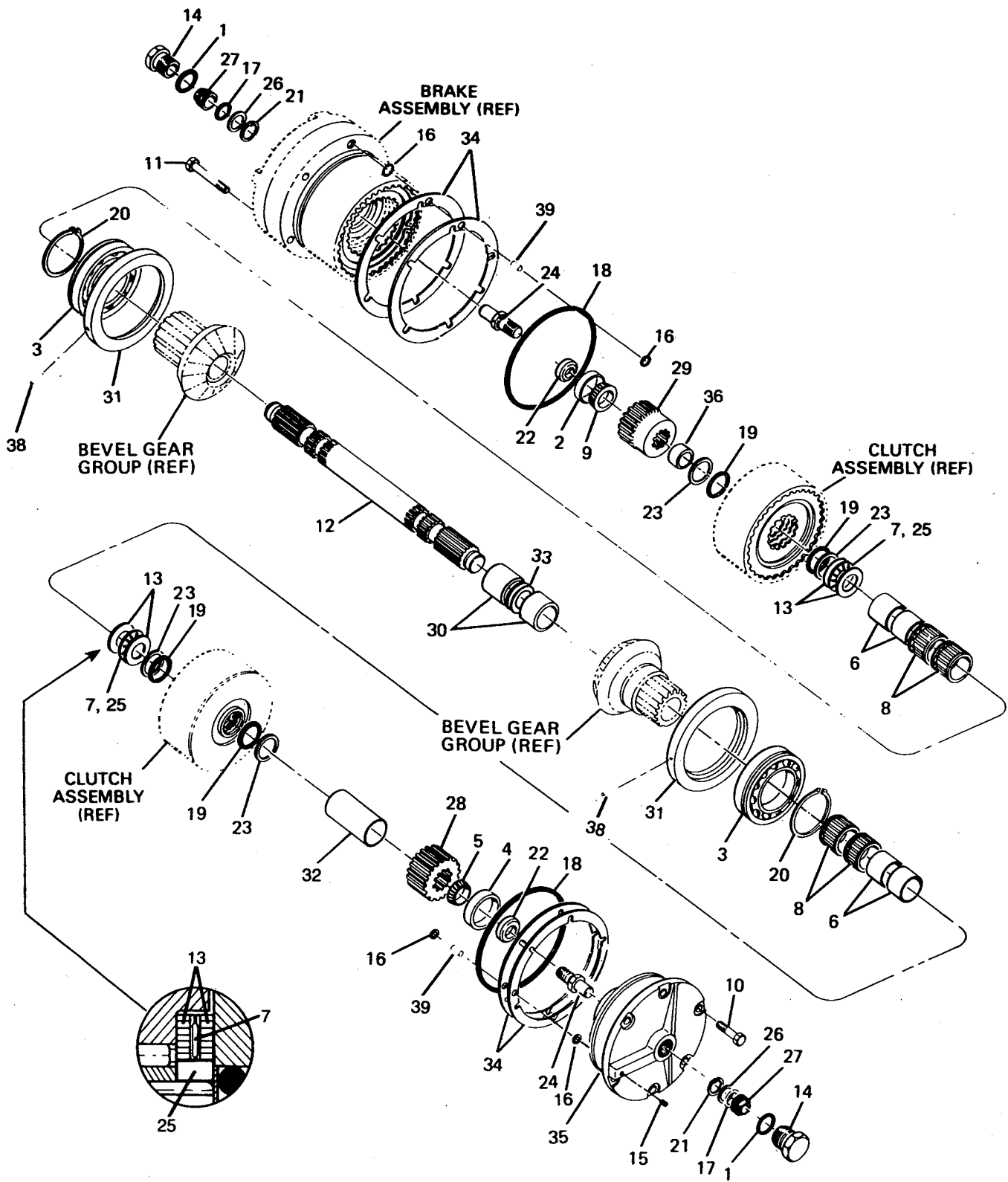
- 1 APPLY "FEL-PRO C-648F" TO BOLTS TO PREVENT THREAD CORROSION.
- 2 TIGHTEN FASTENERS TO 75 LB-FT (10.4 KgM) TORQUE.
- 3 APPLY "RTV 732" SILASTIC SEALANT TO BOTH SIDES OF GASKETS (ITEMS 11, 15 & 18) AND DRIVE SCREWS (ITEM 2).
- 4 TIGHTEN HEX NUT (ITEM 22) UNTIL LOCKWASHER (ITEM 21) IS FLATTENED AND THEN TURN ONE FLAT.

WINCH CASE & COVERS

| ITEM | PART NO. | DESCRIPTION | QTY |
|------|----------|---|-----|
| 1 | 123-4407 | CAPSCREW, HEX HEAD (1/2 - 13 NC x 1 G5) | 12 |
| 2 | 7H-4543 | DRIVE SCREW | 4 |
| 3 | 5P-9436 | PLUG, DRAIN (MAY BE SUBSTITUTED FOR ITEM 7) | 1 |
| 4 | 123-4441 | PLUG, OIL FILL (INCLUDES ITEM 27) | 1 |
| 5 | 6L-9965 | O-RING | 1 |
| 6 | 5F-5434 | VENT PLUG | 1 |
| 7 | 118-5783 | SIGHT GAUGE (INCLUDES ITEM 28) | 1 |
| 8 | 118-6973 | WINCH CASE - STANDARD PTO - SHOWN | 1 |
| 9 | 123-4417 | SERIAL NUMBER DATA PLATE | 1 |
| 10 | 118-6598 | COVER, TOP ACCESS | 1 |
| 11 | 118-6316 | GASKET | 1 |
| 12 | 120-7541 | STRAINER COVER | 1 |
| 14 | 118-6588 | COVER, SIDE ACCESS | 1 |
| 15 | 120-7543 | GASKET | 1 |
| 16 | 118-6298 | TIE BOLT | 1 |
| 17 | 118-6597 | COVER, LOWER ACCESS | 2 |
| 18 | 118-6317 | GASKET | 2 |
| 19 | 118-8382 | DRAW BAR PIN | 1 |
| 20 | 118-6314 | SPACER TUBE | 1 |
| 21 | 119-1623 | LOCKWASHER, 1 3/4 | 1 |
| 22 | 7F-0190 | NUT, HEX HEAD (1 3/4 NC) | 1 |
| 23 | 3B-8822 | ELBOW | 2 |
| 24 | 6K-7917 | CAPSCREW, HEX HEAD (1/2 - 13 NC x 1 G5 SS)* | 11 |
| 25 | 3B-5320 | COTTER PIN (3/8 x 3 in.) | 2 |
| 26 | 119-2165 | EXPANSION PLUG - 3 SHAFT WINCH ONLY | 1 |
| 27 | 6V-5065 | O-RING - FOR OIL FILL PLUG | 1 |
| 28 | 3D-2824 | O-RING - FOR OIL DRAIN & LEVEL PLUG (ITEMS 3 & 7) | 2 |

*SS = SELF SEALING MATERIAL PREAPPLIED TO THREADS

CLUTCH SHAFT GROUP

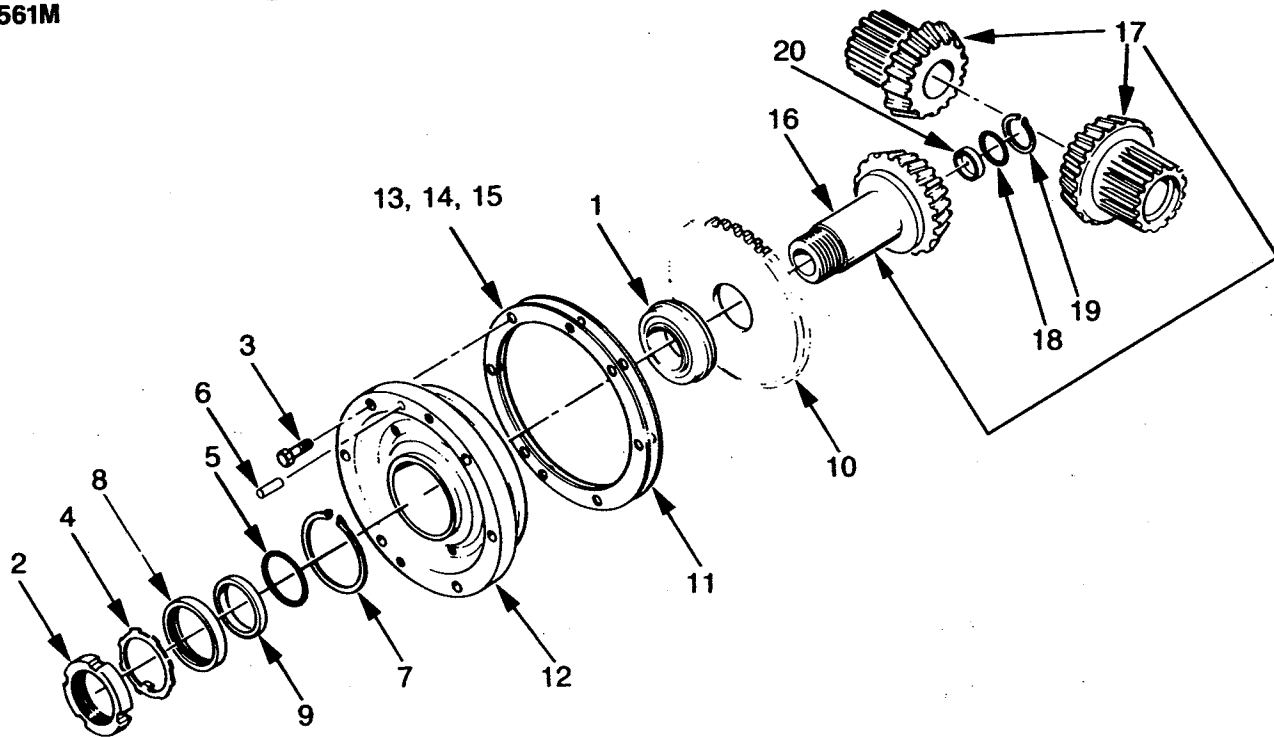


CLUTCH SHAFT GROUP

| ITEM | PART NO. | DESCRIPTION | QTY |
|------|----------|---|-----|
| 1 | 2S-4078 | O-RING (PART OF ITEM 14) | 2 |
| 2 | 120-7630 | BEARING CUP | 1 |
| 3 | 119-2138 | BALL BEARING — STD PTO | 2 |
| 4 | 119-2140 | BEARING CUP | 1 |
| 5 | 120-7635 | BEARING CONE | 1 |
| 6 | 119-2206 | NEEDLE BEARING — INNER RACE | 4 |
| 7 | 119-1606 | THRUST BEARING | 2 |
| 8 | 119-2208 | NEEDLE BEARING | 4 |
| 9 | 119-1593 | BEARING CONE | 1 |
| 10 | 123-4407 | CAPSCREW, HEX HEAD (½ - 13 NC x 1 G5) | 6 |
| 11 | 123-4409 | CAPSCREW, HEX HEAD (½ - 13 NC x 3 G5) | 6 |
| 12 | 118-7225 | CLUTCH SHAFT — 4 SHAFT WINCH | 1 |
| | 118-7217 | CLUTCH SHAFT — 3 SHAFT WINCH | 1 |
| 13 | 120-7633 | THRUST BEARING RACE | 4 |
| 14 | 5P-1403 | PLUG (CONTAINS ITEM 1) | 2 |
| 15 | 102-0883 | PLUG (¼ NPT) | 1 |
| 16 | 8M-4437 | O-RING | 8 |
| 17 | 120-7629 | O-RING | 2 |
| 18 | 119-1590 | O-RING | 2 |
| 19 | 119-1549 | O-RING | 4 |
| 20 | 119-1616 | RETAINING RING | 2 |
| 21 | 2D-6398 | RETAINING RING | 2 |
| 22 | 119-2171 | BEARING RETAINER | 2 |
| 23 | 119-1550 | BACK-UP RING | 4 |
| 24 | 118-6548 | ROTARY SEAL SHAFT | 2 |
| 25 | 118-5817 | THRUST BEARING SPACER | 2 |
| 26 | 119-1628 | BACK-UP WASHER | 2 |
| 27 | 119-2193 | ROTARY SEAL | 2 |
| 28 | 118-6582 | PINION GEAR — 18 TEETH - 4 SHAFT WINCH | 1 |
| | 118-6560 | PINION GEAR — 15 TEETH - 3 SHAFT WINCH | 1 |
| 29 | 118-6568 | BRAKE HUB | 1 |
| 30 | 118-5858 | BEVEL GEAR SPACER | 2 |
| 31 | 118-5844 | BEARING CARRIER | 2 |
| 32 | 118-5852 | PINION SPACER — 4 SHAFT WINCH | 1 |
| | 118-5845 | PINION SPACER — 3 SHAFT WINCH | 1 |
| 33 | 118-5848 | SHIM SET | 1 |
| 34 | 118-6647 | SHIM .005 in. (.13 mm) | AR |
| | 118-6599 | SHIM .007 in. (.18 mm) | AR |
| | 118-6600 | SHIM .020 in. (.51 mm) | AR |
| 35 | 118-6951 | CLUTCH SHAFT BEARING CAR. — 4 SHAFT WINCH | 1 |
| | 118-6969 | CLUTCH SHAFT BEARING CAR. — 3 SHAFT WINCH | 1 |
| 36 | 118-5864 | BRAKE HUB SPACER | 1 |
| 38 | 4H-1440 | ROLLPIN | 2 |
| 39 | 120-7663 | SLEEVE | 4 |

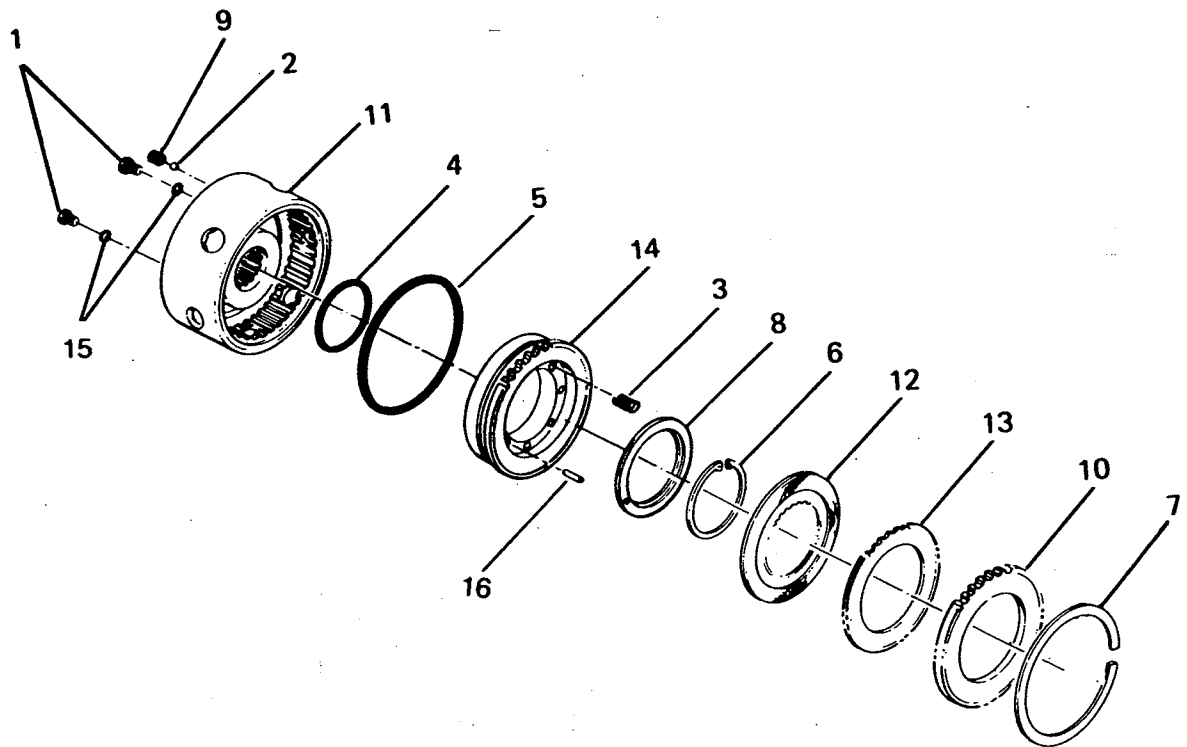
AR — AS REQUIRED

**MODEL PA55
BEVEL GEAR GROUP
561M**



| ITEM | PART NO. | DESCRIPTION | QTY. |
|------|----------|---|------|
| 1 | 119-2141 | BEARING ASSEMBLY | 1 |
| 2 | 119-1617 | BEARING, LOCK NUT | 1 |
| 3 | 123-4407 | CAPSCREW HEX HEAD | 6 |
| 4 | 119-1618 | LOCKWASHER | 1 |
| 5 | 118-5804 | O-RING | 1 |
| 6 | 123-4403 | DOWEL PIN | 1 |
| 7 | 119-2157 | RETAINING RING | 1 |
| 8 | 120-7638 | OIL SEAL | 1 |
| 9 | 118-8381 | SEAL SPACER | 1 |
| 10 | 118-6589 | PUMP DRIVE PINION | 1 |
| 11 | 118-5854 | SHIM GASKET | 1 |
| 12 | 118-7222 | CARRIER | 1 |
| 13 | 118-5855 | SHIM .005 in. (.13 mm) | 2-AR |
| 14 | 118-5856 | SHIM .007 in. (.18 mm) | 2-AR |
| 15 | 118-5857 | SHIM .020 in. (.51 mm) | 2-AR |
| 16 | 118-6971 | BEVEL PINION - 18T STANDARD SPEED - 3 SHAFT PS TRACTORS | 1 |
| | 119-0536 | BEVEL PINION - 14T SLOW SPEED - 4 SHAFT PS TRACTORS | 1 |
| 17 | 119-2218 | BEVEL GEAR SET - 18/38T | 1 |
| | 119-2219 | BEVEL GEAR SET - 14/39T | 1 |
| 18 | 9X-7545 | O-RING | 1 |
| 19 | 1L-3768 | RETAINING RING | 1 |
| 20 | 119-2190 | PLUG, BEVEL PINION | 1 |

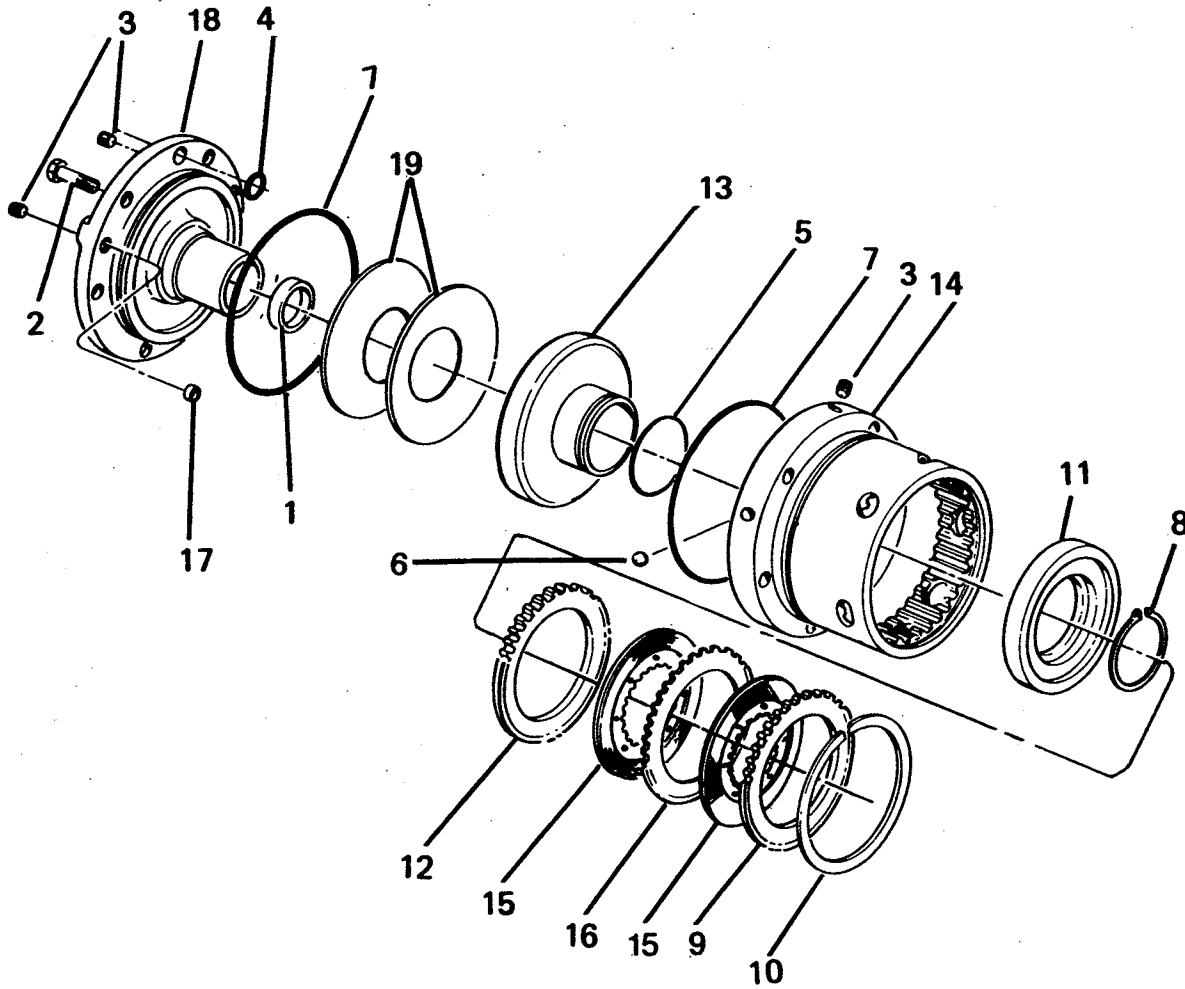
CLUTCH ASSEMBLY



| ITEM | PART NO. | DESCRIPTION | QTY |
|------|----------|---------------------------------------|-----|
| — | 118-7210 | CLUTCH ASSEMBLY — INCLUDES ITEMS 1-16 | |
| 1 | 9S-8007 | PLUG, O-RING FLUSH — INCLUDES ITEM 15 | 2 |
| 2 | 3Y-9267 | STEEL BALL | 1 |
| 3 | 118-5851 | SPRING | 8 |
| 4 | 5S-3676 | O-RING | 1 |
| 5 | 120-7669 | O-RING | 1 |
| 6 | 119-2195 | RETAINING RING | 1 |
| 7 | 119-1534 | RETAINING RING | 1 |
| 8 | 118-6566 | SPRING RETAINER | 1 |
| 9 | 118-5849 | CHECK VALVE SEAT | 1 |
| 10 | 118-6323 | PRESSURE PLATE | 1 |
| 11 | 118-8385 | CLUTCH HOUSING* | 1 |
| 12 | 118-6547 | DISC — FRICTION, BRONZE | 5 |
| 13 | 118-6302 | DISC — STEEL .093 in. (2.36 mm) | 4 |
| 14 | 118-6594 | CLUTCH PISTON | 1 |
| 15 | 119-2189 | O-RING | 2 |
| 16 | 5H-3182 | PIN | 1 |

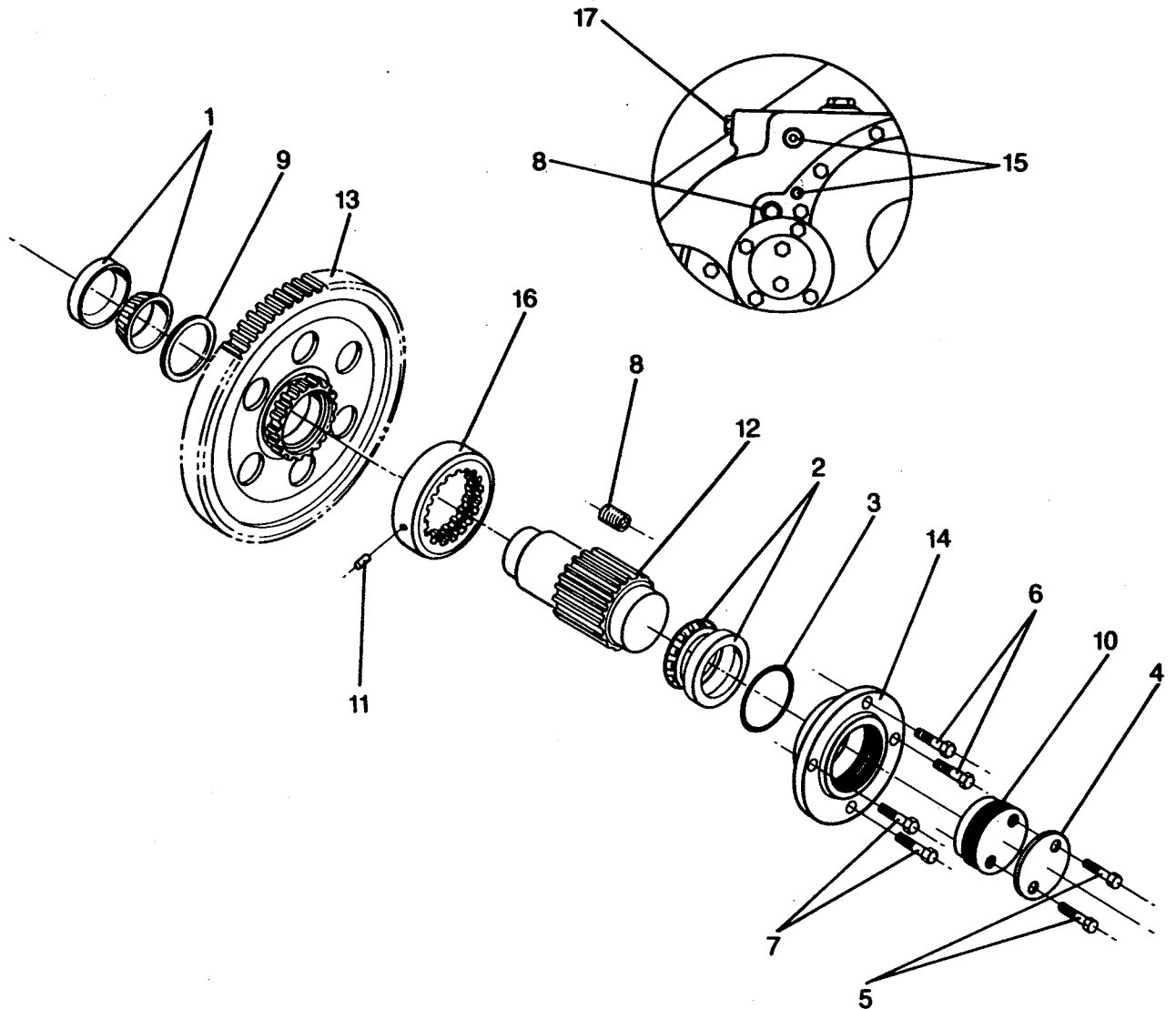
*Part No. 118-8385 includes Housing 120-7697 with two (2) steel balls 3Y-9267 driven into drilled passages.

BRAKE ASSEMBLY - STANDARD



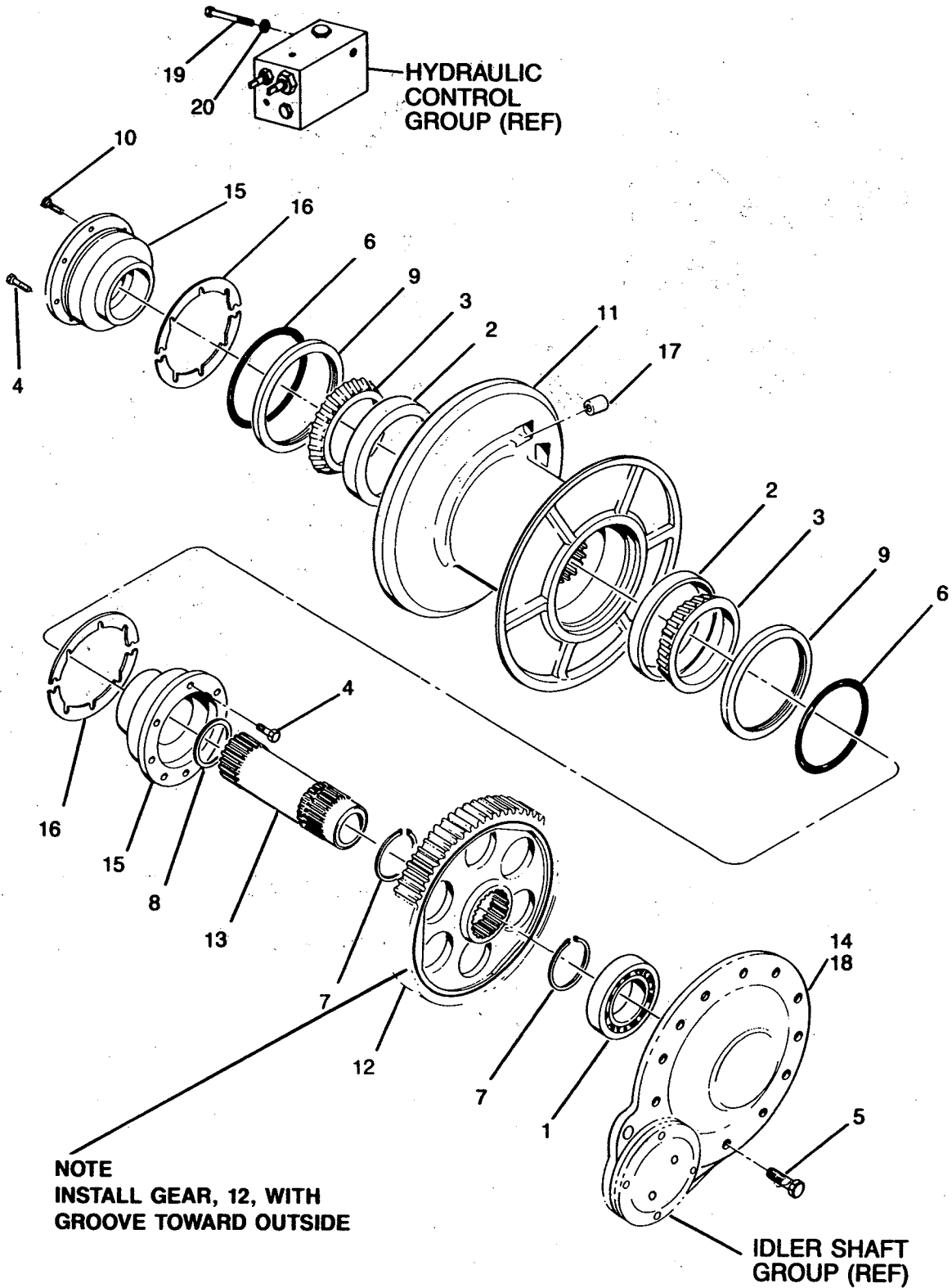
| ITEM | PART NO. | DESCRIPTION | QTY |
|------|----------|---|-----|
| — | 120-7698 | BRAKE ASSEMBLY, STD — INCLUDES ITEMS 1-20 | |
| 1 | 120-7630 | BEARING CUP | 1 |
| 2 | 0S-1594 | CAPSCREW, HEX HEAD ($\frac{3}{8}$ - 16 NC \times 1 G5) | 2 |
| 3 | 102-0883 | PLUG, HEX SOCKET ($\frac{1}{4}$ NPT) | 4 |
| 4 | 119-1577 | O-RING | 3 |
| 5 | 4S-5898 | O-RING | 1 |
| 6 | 3Y-9267 | STEEL BALL | 2 |
| 7 | 119-1586 | O-RING | 2 |
| 8 | 123-4415 | RETAINING RING | 1 |
| 9 | 118-6323 | PRESSURE PLATE — OUTER | 1 |
| 10 | 119-1534 | RETAINING RING | 1 |
| 11 | 118-6587 | PISTON RETAINER | 1 |
| 12 | 118-5846 | PRESSURE PLATE — INNER | 1 |
| 13 | 118-6593 | BRAKE PISTON | 1 |
| 14 | 118-6949 | BRAKE HOUSING (REQUIRES 2 OF ITEM 6) | 1 |
| 15 | 118-6547 | DISC — FRICTION BRONZE | 8 |
| 16 | 118-6302 | DISC STEEL — .093 in. (2.36 mm) | 7 |
| 17 | 118-0550 | INSERT | 1 |
| 18 | 118-7223 | BRAKE CARRIER | 1 |
| 19 | 119-2167 | BRAKE SPRING | 2 |

**IDLER SHAFT GROUP
WITHOUT FREESPOOL**



| ITEM | PART NO. | DESCRIPTION | QTY. |
|------|----------|---|------|
| 1 | 119-0160 | BEARING ASSEMBLY — INNER | 1 |
| 2 | 119-0162 | BEARING ASSEMBLY — OUTER | 1 |
| 3 | 119-1547 | O-RING | 1 |
| 4 | 118-5859 | LOCK PLATE | 1 |
| 5 | 123-4408 | CAPSCREW, HEX HEAD (1/2 - 13 x 3/4 G5) | 2 |
| 6 | 123-4407 | CAPSCREW, HEX HEAD (1/2 - 13 x 1 G5) | 2 |
| 7 | 1A-1460 | CAPSCREW, HEX HEAD (1/2 - 13 x 2 G5) | 2 |
| 8 | 038-7338 | PLUG, SOCKET HEAD | 1 |
| 9 | 120-7633 | THRUST WASHER | 1 |
| 10 | 118-6535 | ADJUSTER | 1 |
| 11 | 5H-3193 | ROLLPIN | 1 |
| 12 | 118-6584 | PINION, SECOND REDUCTION | 1 |
| 13 | 118-6976 | GEAR, FIRST REDUCTION | 1 |
| 14 | 118-6917 | CARRIER, IDLER SHAFT | 1 |
| 15 | 064-1609 | SCREW, SOCKET HEAD | 2 |
| 16 | 118-6586 | COLLAR | 1 |
| 17 | 123-4414 | CAPSCREW HEX HEAD (3/4 - 16 x 1 1/4 G5) | 1 |

CABLE DRUM GROUP



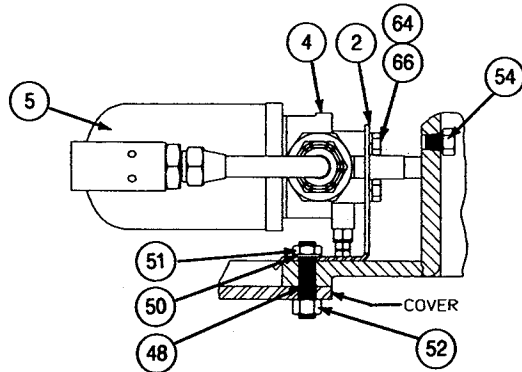
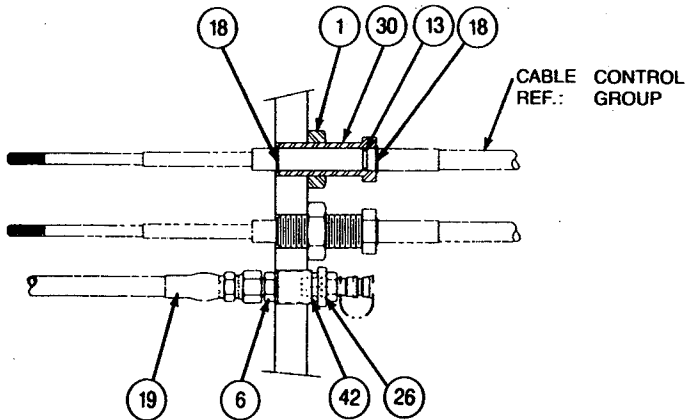
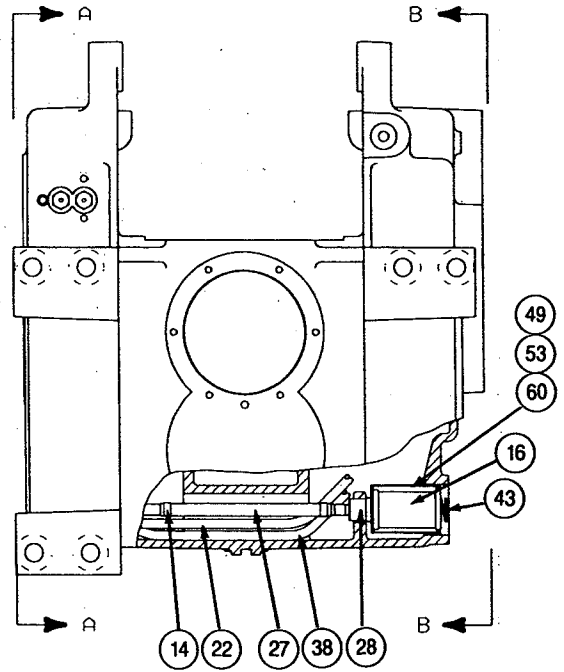
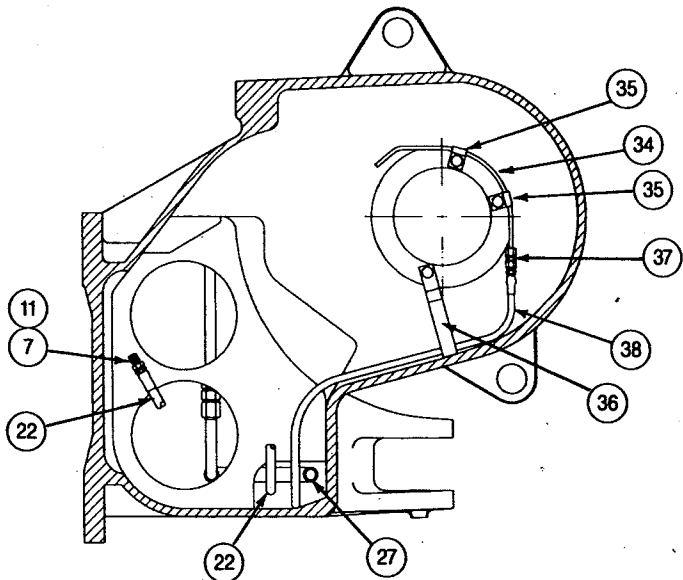
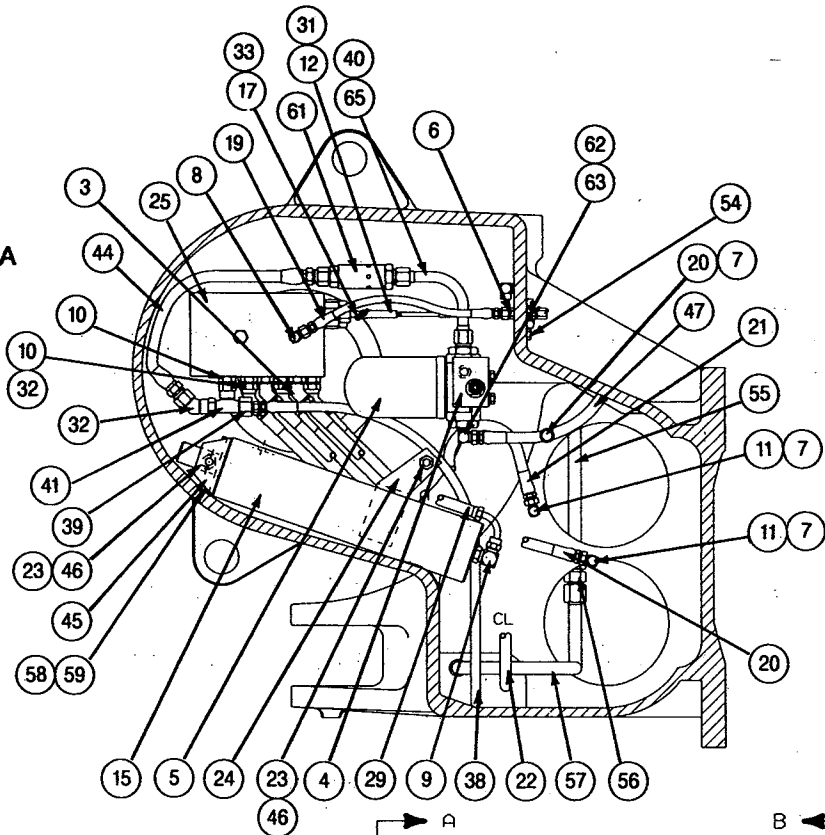
CABLE DRUM GROUP

CABLE DRUM GROUP

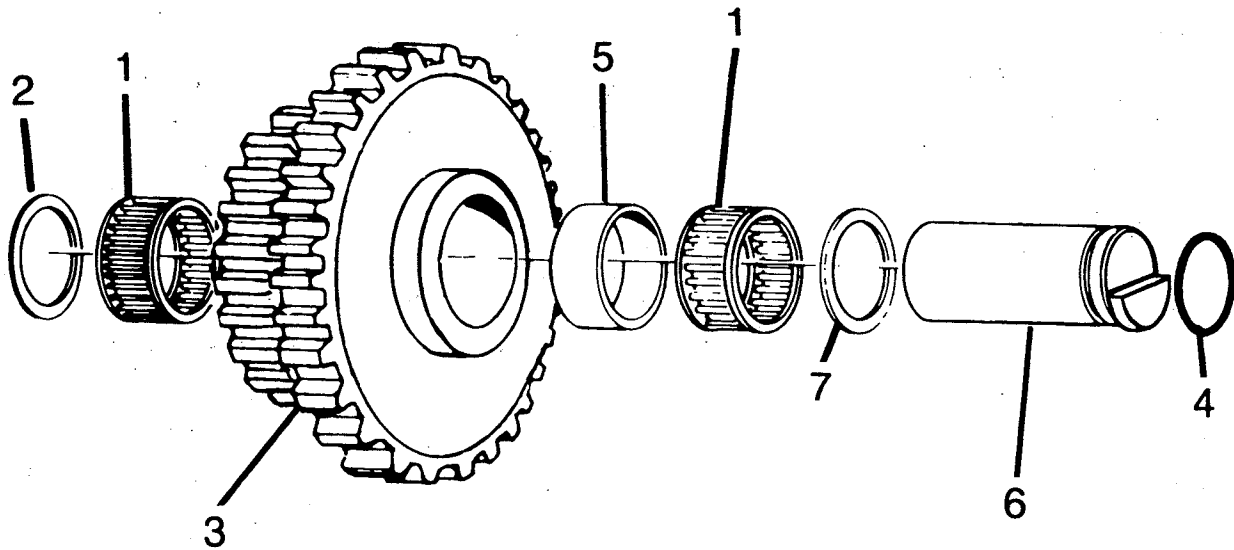
| ITEM | PART NO. | DESCRIPTION | QTY. |
|------|----------|--|------|
| 1 | 119-2137 | BALL BEARING | 1 |
| 2 | 119-2203 | BEARING CUP | 2 |
| 3 | 119-2204 | BEARING CONE | 2 |
| 4 | 0S-1621 | CAPSCREW, HEX HEAD (½ - 13 x 1 G5 - SS) | 10 |
| 5 | 123-4405 | CAPSCREW, HEX HEAD (½ - 13 x 1¼ G5) | 11 |
| 6 | 1S-6119 | O-RING | 2 |
| 7 | 123-4416 | RETAINING RING | 2 |
| 8 | 7M-2275 | RETAINING RING | 1 |
| 9 | 118-5866 | OIL SEAL | 2 |
| 10 | 119-0561 | CAPSCREW, SOCKET HEAD (½ - 13 x 1 G8 - SS) | 1 |
| 11 | 118-7229 | CABLE DRUM | 1 |
| 12 | 118-7215 | GEAR, 2ND REDUCTION | 1 |
| 13 | 118-6583 | SHAFT, 2ND REDUCTION | 1 |
| 14 | 118-6968 | BEARING CARRIER, COVER | 1 |
| 15 | 118-6975 | BEARING CARRIER, DRUM | 2 |
| 16 | 118-5847 | SHIM SET - 1 pair ea., .005 in., .007 in., .020 in. (.13 mm, .18 mm, .51 mm) | 1-2 |
| 17 | 118-6273 | FERRULE — ¾ in. (19 mm) WIRE ROPE | 1 |
| | 118-6275 | FERRULE — 7/8 in. (22 mm) WIRE ROPE | 1 |
| 18 | — | NO GASKET, USE DOW RTV 732 OR EQUIVALENT | — |
| 19 | 119-0562 | CAPSCREW, HEX HEAD (½ - 13 x 5 G5 - SS) | 1 |
| 20 | 8T-4223 | WASHER (½) | 1 |

**HYDRAULIC CONTROL GROUP
STANDARD PTO**

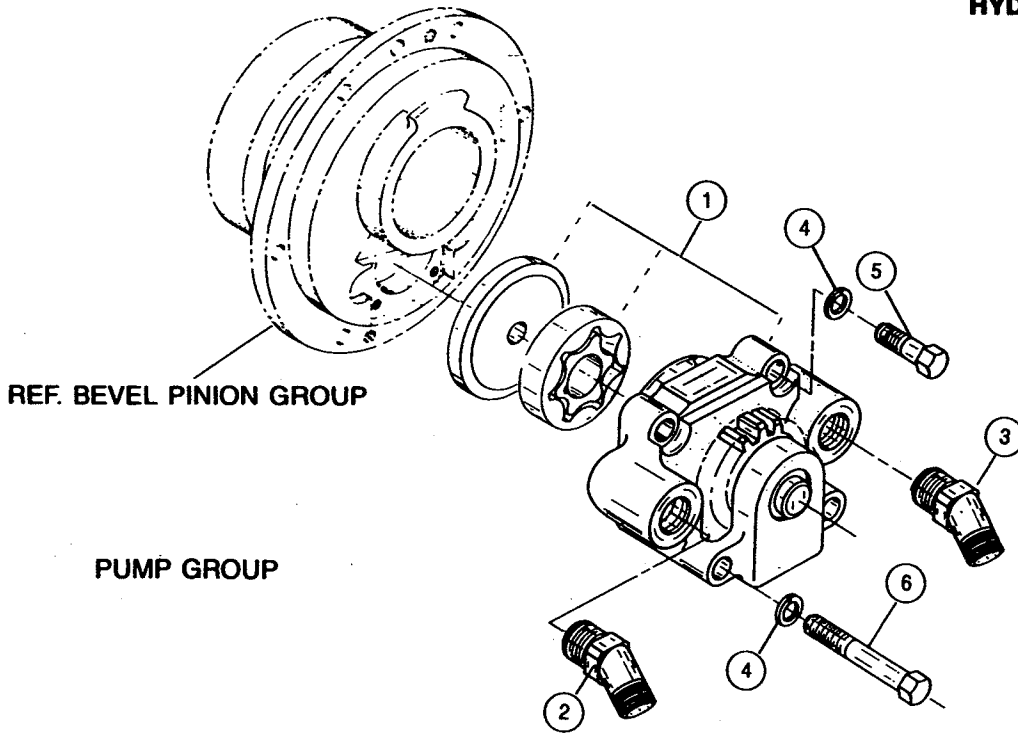
SECTION AA



FOURTH SHAFT GROUP

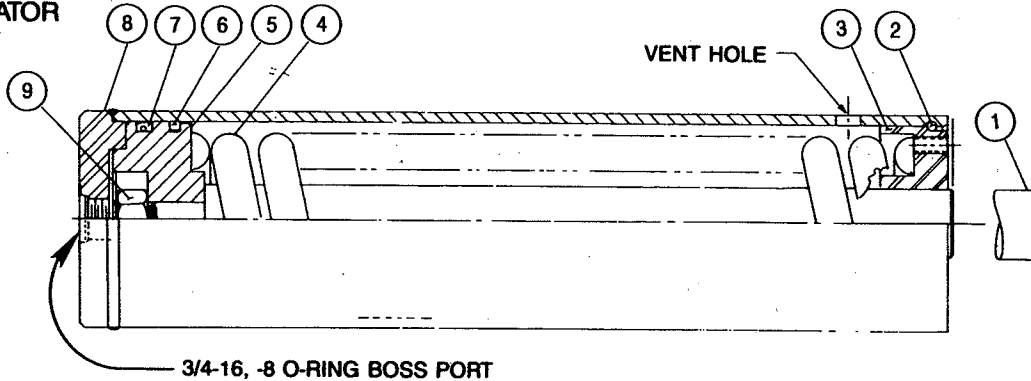


| ITEM | PART NO. | DESCRIPTION | QTY |
|------|----------|----------------------------------|-----|
| 1 | 119-2173 | ROLLER BEARING | 2 |
| 2 | 119-1572 | THRUST WASHER .062 in. (1.58 mm) | 1 |
| 3 | 118-6651 | CLUSTER GEAR 37/17 TEETH | 1 |
| 4 | 8M-4986 | O-RING | 1 |
| 5 | 118-6297 | SPACER | 1 |
| 6 | 118-6533 | COUNTERSHAFT PIN | 1 |
| 7 | 118-6287 | THRUST WASHER .217 in. (5.5 mm) | 1 |



| ITEM | PART NO. | DESCRIPTION | QTY |
|------|----------|--|-----|
| 1 | 118-6979 | PUMP ASSEMBLY | 1 |
| 2 | 123-4411 | ELBOW, 45° — 8 PRESSURE SIDE | 1 |
| 3 | 031-6303 | ELBOW, 45° SUCTION — STD PTO | 1 |
| 4 | 3B-4504 | LOCKWASHER — 1/4 | 4 |
| 5 | 7x-0264 | CAPSCREW, HEX HEAD 1/4 — 20 × 1 1/2 G8 | 2 |
| 6 | 7x-0266 | CAPSCREW, HEX HEAD 1/4 — 20 × 3 G8 | 2 |

ACCUMULATOR ASSEMBLY



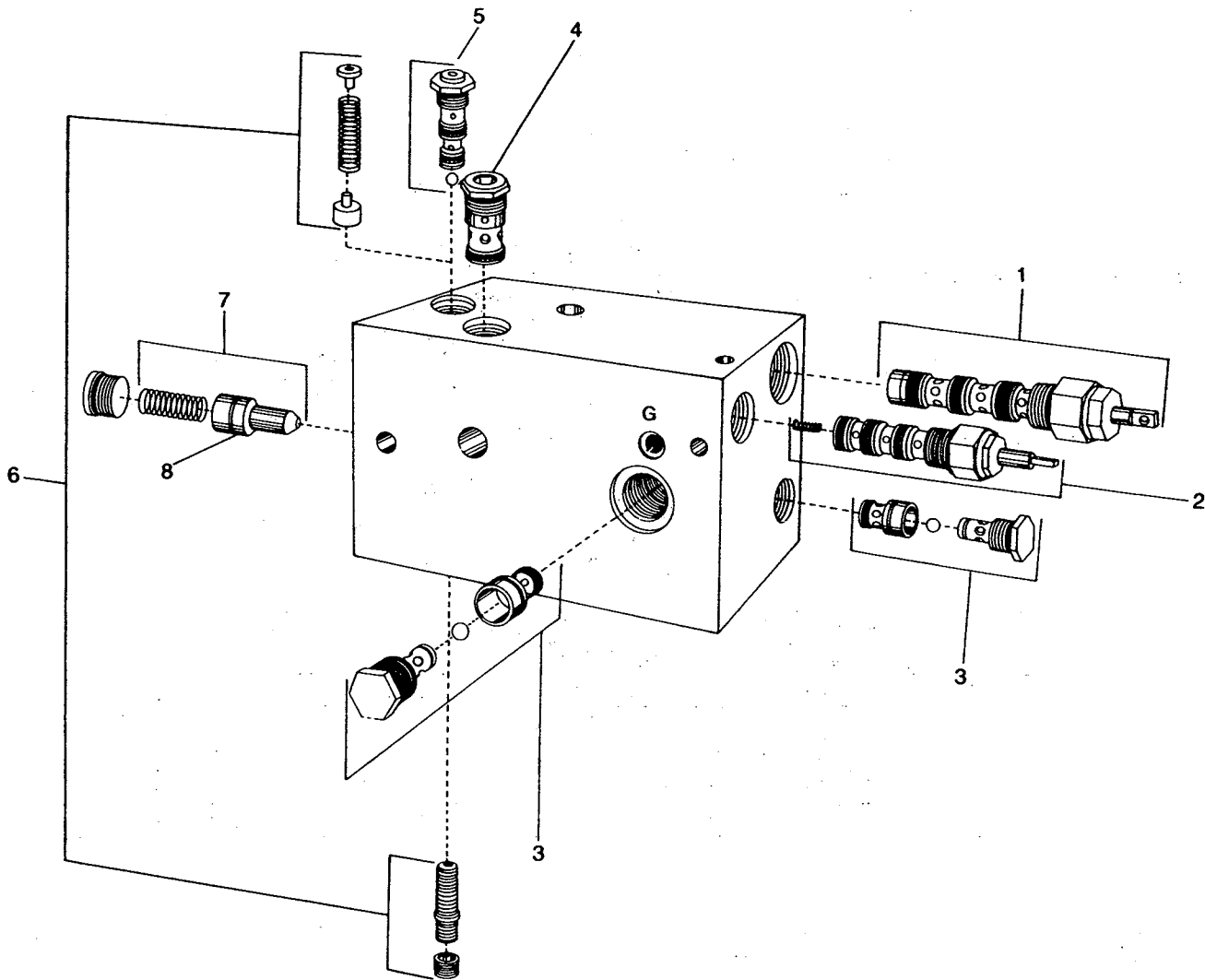
| ITEM | PART NO. | DESCRIPTION | QTY |
|------|----------|------------------------------------|-----|
| 1 | NSS | ROD | 1 |
| 2 | 096-8139 | RETAINING RING | 1 |
| 3 | NSS | ROD GUIDE | 1 |
| 4 | NSS | SPRING | 1 |
| 5 | NSS | PISTON | 1 |
| 6 | 119-0554 | CAST IRON PISTON RING | 1 |
| 7 | 118-0552 | SEAL ASSEMBLY | 1 |
| 8 | NSS | TUBE ASSEMBLY | 1 |
| 9 | NSS | NUT | 1 |
| — | 123-4413 | SEAL KIT (CONTAINS ITEMS 2, 6 & 7) | |

NSS — Not Serviced Separately.

! DANGER

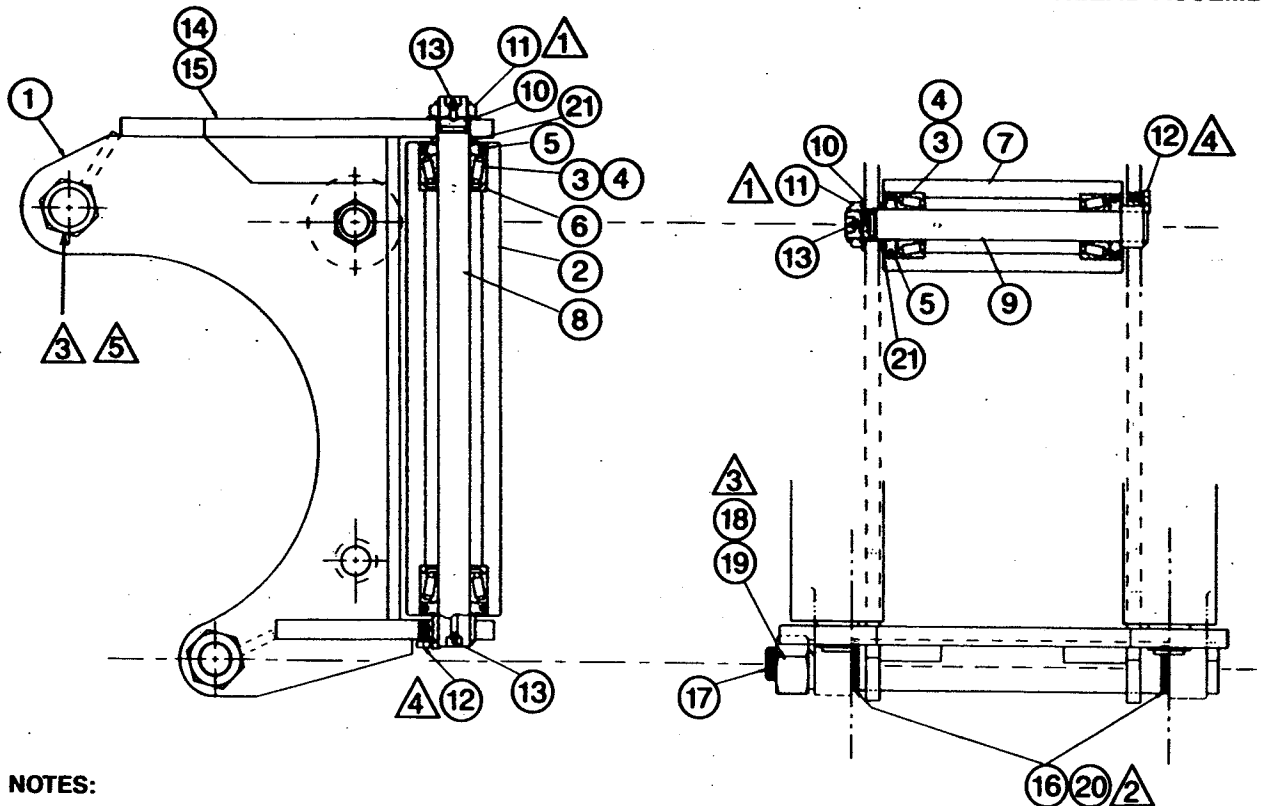
2,000 LB. (900 Kg) SPRING PRELOAD — USE PRESS FOR DISASSEMBLY PER SERVICE INSTRUCTIONS IN SERVICE MANUAL. PROPERTY DAMAGE, SEVERE PERSONAL INJURY OR DEATH MAY RESULT IF ROD GUIDE REMOVAL IS ATTEMPTED WITHOUT A PRESS.

CONTROL VALVE ASSEMBLY
27689



| ITEM | PART NO. | DESCRIPTION | QTY. |
|------|----------|--|------|
| 1 | 119-1522 | DIRECTIONAL CONTROL CARTRIDGE | 1 |
| | 119-2129 | SEAL KIT FOR ITEM 1 | 1 |
| 2 | 119-1523 | BRAKE CONTROL CARTRIDGE | 1 |
| | 119-2127 | SEAL KIT FOR ITEM 2 | 1 |
| 3 | 119-1525 | SHUTTLE VALVE ASSEMBLY | 2 |
| | 119-1631 | SEAL KIT FOR ITEM 3 | 2 |
| 4 | 119-0564 | CHECK VALVE CARTRIDGE | 1 |
| | 119-2126 | SEAL KIT FOR ITEM 4 | 1 |
| 5 | 119-1527 | DIFFERENTIAL UNLOADING PILOT VALVE CARTRIDGE | 1 |
| | 119-1630 | SEAL KIT FOR ITEM 5 | 1 |
| 6 | 119-0170 | DIF. UNLOADING VALVE REPAIR KIT, INCLUDES ITEM 5 | 1 |
| 7 | 119-0169 | UNLOADING POPPET ASSEMBLY | 1 |
| 8 | 119-1577 | O-RING | 1 |

FAIRLEAD ASSEMBLY



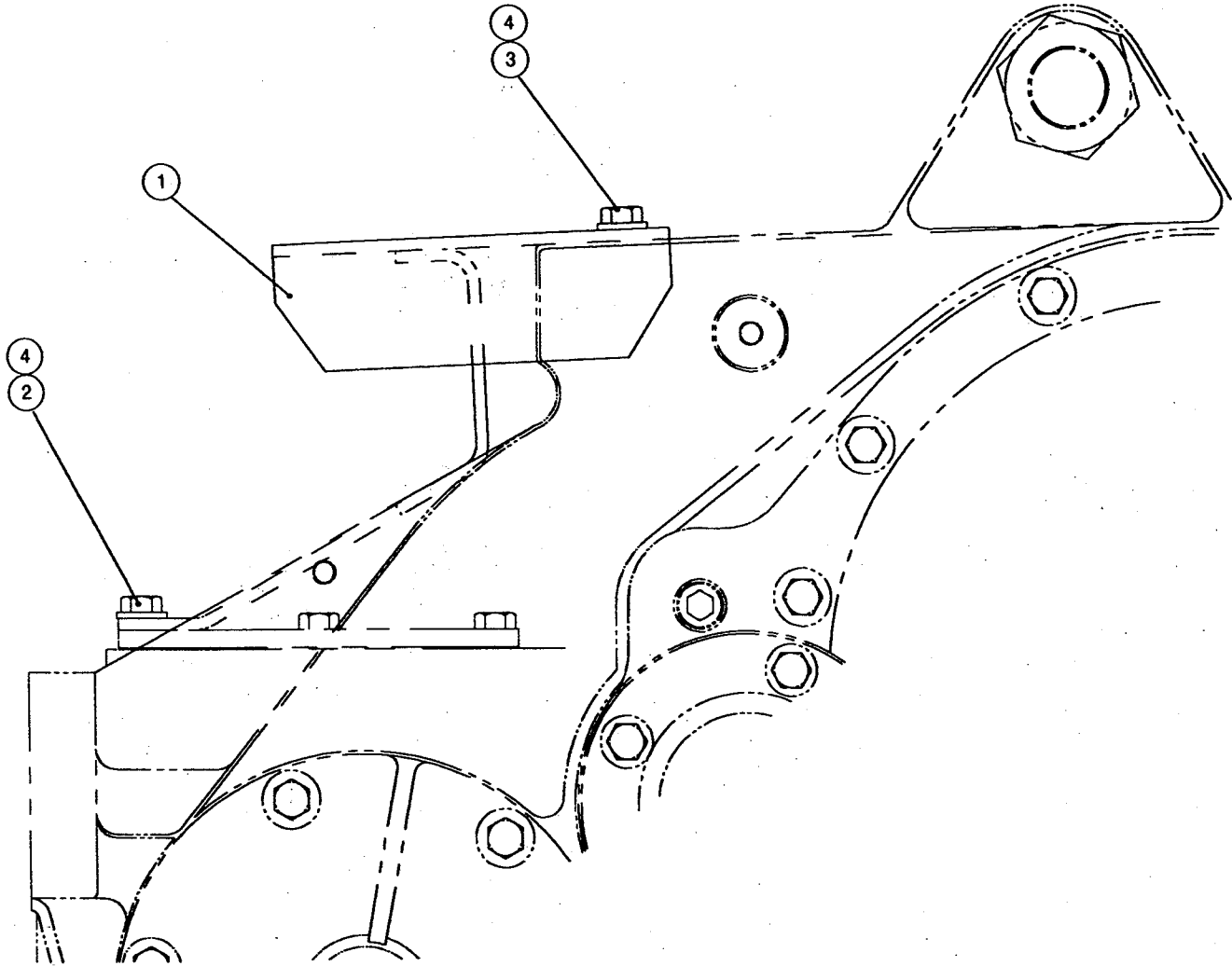
NOTES:

- 1** WHILE TURNING ROLLER, TIGHTEN NUT. WHEN ROLLER WILL TURN NO LONGER, BACK NUT OFF 1/8 TURN.
- 2** SHIM BOTH SIDES AS REQUIRED TO REDUCE END PLAY TO LESS THAN .030 in. (.8 mm).
- 3** TIGHTEN UNTIL WASHER IS FLATTENED. THEN TURN 1 FLAT.
- 4** APPLY "LOCTITE 242" AND INSTALL WITH FLAT TANGENT TO HOLE PRIOR TO INSTALLATION OF SHAFT.
- 5** WHEN INSTALLING FAIRLEAD ON WINCH IN FIELD, REMOVE ORIGINAL CABLE GUARD SPACER TUBE AND REUSE UPPER TIE BOLT 118-6298, LOCK-WASHER 119-1623 AND NUT 7F-0190.

| ITEM | PART NO. | DESCRIPTION | QUANTITY | |
|------|----------|--------------------------------------|----------|----------|
| | | | 3 ROLLER | 4 ROLLER |
| | 118-7211 | 3 ROLLER FAIRLEAD ASSEMBLY | | |
| | 118-7213 | 4 ROLLER FAIRLEAD ASSEMBLY | | |
| 1 | 118-6935 | FAIRLEAD FRAME | 1 | 1 |
| 2 | 118-6649 | ROLLER — VERTICAL | 2 | 2 |
| 3 | 119-2174 | BEARING CONE | 6 | 8 |
| 4 | 119-2175 | BEARING CUP | 6 | 8 |
| 5 | 118-5803 | DUST GUARD ASSEMBLY | 6 | 8 |
| 6 | 119-2186 | GREASE RETAINER | 4 | 4 |
| 7 | 124-0763 | ROLLER — HORIZONTAL | 1 | 2 |
| 8 | 118-6648 | SHAFT — VERTICAL | 2 | 2 |
| 9 | 118-6604 | SHAFT — HORIZONTAL | 1 | 2 |
| 10 | 119-2211 | WASHER | 3 | 4 |
| 11 | 5M-6667 | LOCK NUT | 3 | 4 |
| 12 | 123-4408 | CAPSCREW, HEXHEAD (1/2 NC x 3/4 GD5) | 3 | 4 |
| 13 | 3B-8489 | GREASE FITTING | 5 | 6 |
| 16 | 120-7634 | WASHER .030 in. (.8 mm) | 4-AR | 4-AR |
| 17 | 118-6298 | TIE BOLT | 1 | 1 |
| 18 | 119-1623 | LOCK WASHER | 1 | 1 |
| 19 | 7F-0190 | NUT, HEX HEAD | 1 | 1 |
| 20 | 123-4410 | WASHER .125 in. (3.18 mm) | 6-AR | 6-AR |
| 21 | 120-7536 | SPACER | 3 | 4 |

AR - AS REQUIRED

**MODEL PA55
CONTROL CABLE
GUARD GROUP
561M**



| ITEM | PART NO. | DESCRIPTION | QTY. |
|------|----------|--|------|
| 1 | 138-9294 | CABLE GUARD | 1 |
| 2 | 138-9291 | CAPSCREW, HEX HEAD (1/2 - 13 x 1 1/4 G5 SS*) | 4 |
| 3 | 123-4407 | CAPSCREW, HEX HEAD (1/2 - 13 x 1 G5) | 3 |
| 4 | 8M4791 | WASHER, HARDENED (1/2) | 7 |

*SS - SELF SEALING MATERIAL PREAPPLIED TO THREADS