

CARCO®

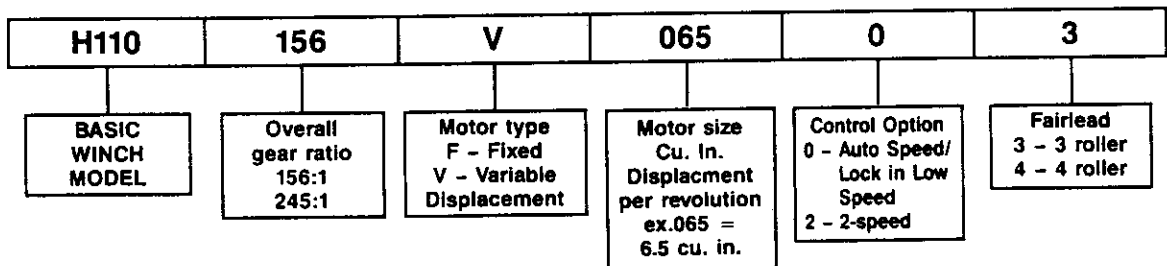
PARTS & INSTALLATION INSTRUCTIONS MANUAL MODEL H110 FOR

CATERPILLAR D8N S/N 5TJ1-UP

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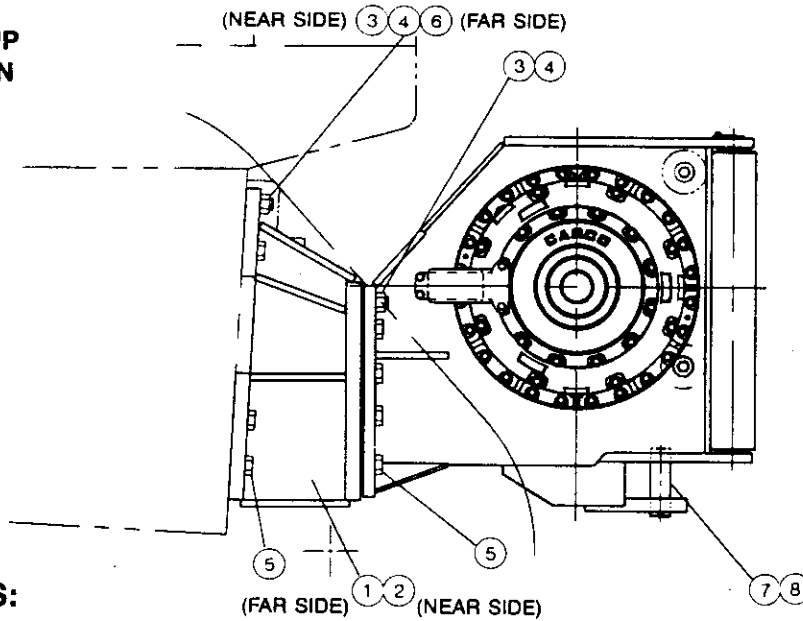
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MODEL NUMBER DESCRIPTION



PACCAR WINCH DIVISIONS

**MODEL H110
MOUNTING GROUP
CATERPILLAR D8N**



INSTRUCTIONS:

⚠ CAUTION

Cleanliness is of utmost importance when working on hydraulic equipment. Contamination may cause damage to close tolerances of the hydraulic components which may result in erratic operation and reduced service life.

NOTE: Refer to the appropriate Caterpillar service manuals for additional information regarding steps 1 & 2.

1. Drain hydraulic oil into a suitable container. Recycle or dispose of drain oil in an environmentally responsible manner. Securely install hydraulic reservoir drain plug after oil has drained.
2. Remove and discard the ripper hose junction block (if so equipped) from rear of tractor.
3. Clean all paint, oil, grease, rust and dirt from the mounting surfaces of the winch adapter brackets and tractor.
4. Apply Loc-tite 271 to the threads and install studs, items 3 & 6, into the top four locations on the rear face of the tractor and into the top location in each winch adapter. The longer studs, item 6, must be installed in the top; RH location on the tractor rear

face. Install the winch adapters onto the studs on the rear of the tractor. Do not install nuts, item 4, to upper RH studs at this time.

5. Apply Loc-tite 242 to the threads of the studs & nuts, items 3 & 4, and cap screws, item 5, then tighten to 1,100 lb·ft (1,490 N·m) torque.

⚠ WARNING

Winch weighs approximately 4,050 lb (1,890 kg). Make certain that lifting equipment has adequate capacity. Failure to use adequate lifting equipment may result in property damage, personal injury or death.

6. Install winch onto studs on adapters.
7. Apply Loc-tite 242 to threads of studs, item 6, and cap screws, item 5, then tighten to 1,110 lb·ft (1,490 N·m) torque.

⚠ CAUTION

Fill winch to proper level with recommended oil **BEFORE** operating. Component damage may occur if winch is operated without oil.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	29752	MACHINE ADAPTER, RH	1
2	29753	MACHINE ADAPTER, LH	1
3	33458	STUD (1-1/4 - 7 x 4-1/4 - 1-1/4 LG THD G8)	4
4	70176	NUT (1-1/4 7)	6
5	31039	CAPSCREW, HEX HEAD (1-1/4 - 7 x 3-1/4 G8)	18
6	33460	STUD (1-1/4 7 x 4-1/2 G8)	2
7	29961	DRAWBAR PIN	1
8	70148	COTTER PIN (3/8 x 3)	2
	29427	CABLE FERRULE 1 in. (25 mm)	1
	29428	CABLE FERRULE 1-1/8 in. (28 mm)	1
	29429	CABLE FERRULE 1-1/4 in. (32 mm)	1

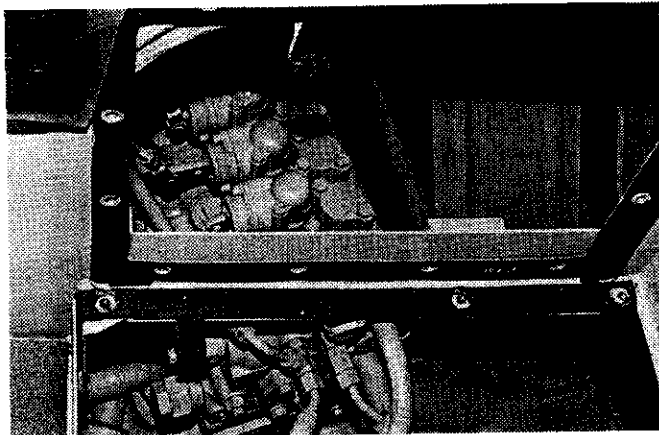
INSTRUCTIONS:

⚠ CAUTION

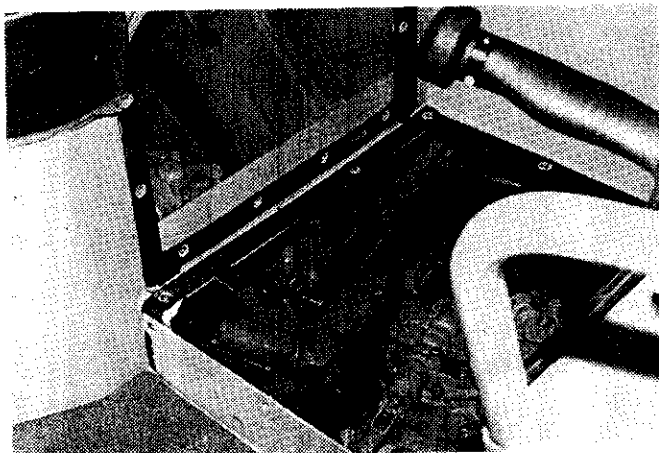
Cleanliness is of the utmost importance when working on hydraulic equipment. Contamination may cause damage to close tolerances of the hydraulic components which may result in erratic operation and reduced service life.

NOTE: Refer to the appropriate Caterpillar service manuals for additional information regarding steps 1, 2, 3, and 4.

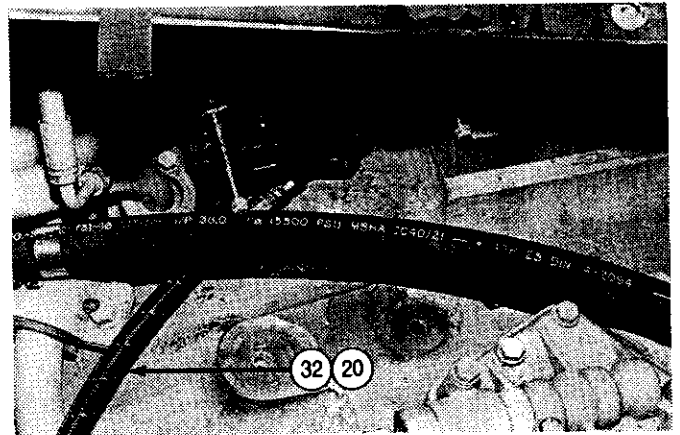
1. Remove the operator's seat & cab floor plate and RH console top & side coverplates to gain access to hydraulic piping.



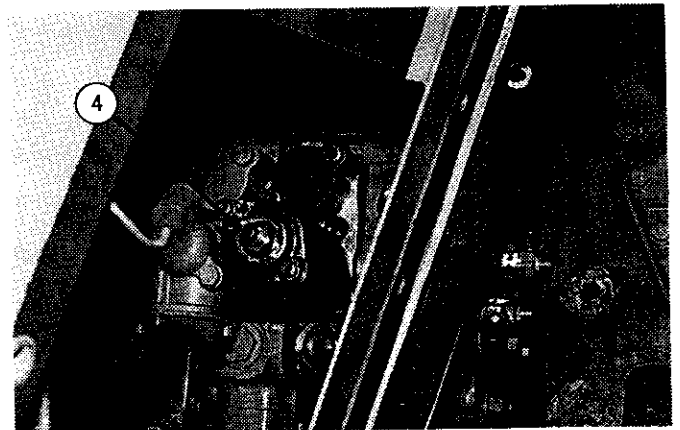
2. Remove and cap all hoses attached to the two inboard sections of the implement valve.
3. Remove the nuts from the through-studs on the implement valve. Slide the two inboard sections off of the through-studs.



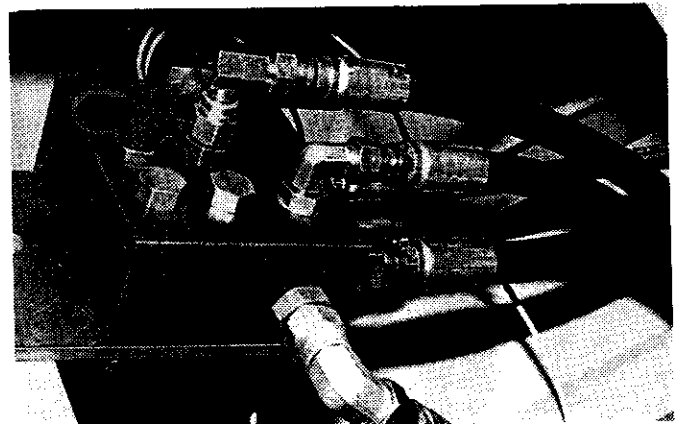
4. Install a -6 JIC to -6 ORB 90° adapter, item 32, to the short end cap. Attach hose, item 20, to the adapter oriented toward the center of the tractor. Install a -6 JIC to -6 ORB straight adapter, item 4, to the long end cap.



5. Install the inlet section back onto the through-studs and tighten nuts in accordance with Caterpillar service instructions.



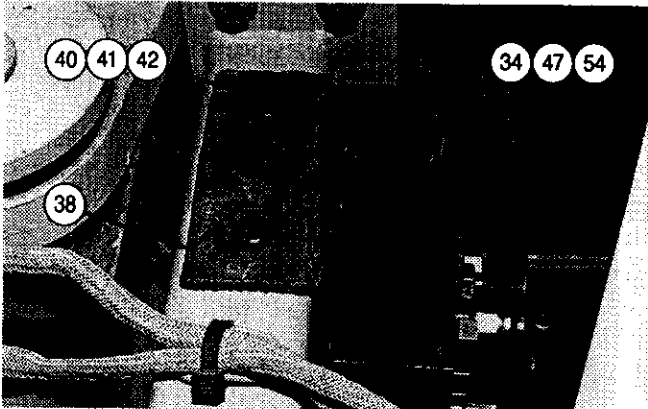
6. Install fittings in logic block, item 34, as follows (also refer to Figure 1, page 6).
 Port J: -6 ORB to -6 JIC adapter, item 4
 -6 to -6 JIC 90° union, item 12
 Port T: -6 ORB to -6 JIC adapter, item 4
 -6 to -6 JIC elbow, item 3
 Port P: -6 ORB to -6 ORFES 90° adapter, item 21
 Port T: -6 JIC to -8 ORB 90° adapter, item 31
 Port X: -6 ORB to -4 JIC straight adapter, item 5



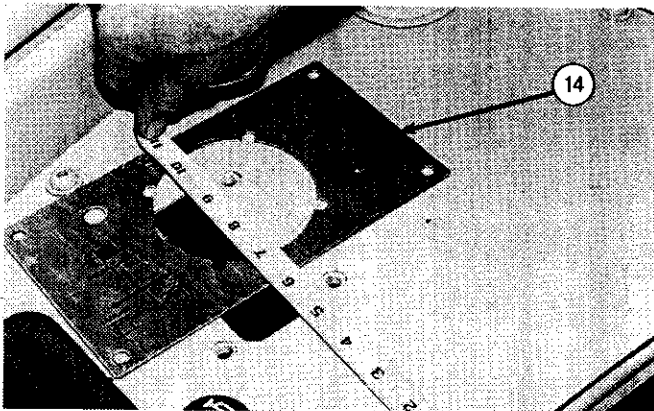
7. Attach logic block, item 34, to bracket, item 38, with fasteners, items 47 & 54.

**MODEL H110
MOUNTING GROUP
CATERPILLAR D8N**

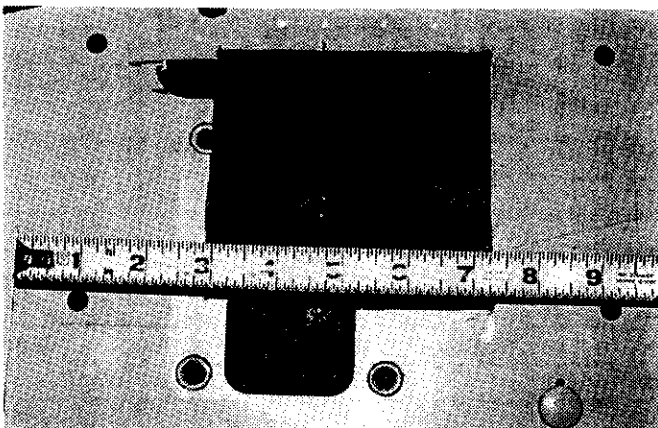
8. Drill crossmember below RH console, next to RH cab mounting pad. Use logic block bracket as a template.
9. Install logic block/bracket, using fasteners, items 40, 41, & 42.



10. Using the console instruction plate, item 14, as a template, mark the RH console cover as shown. This will locate the inside edge of the data plate 6 in. (152 mm) from the inner edge of the console.



11. Cut and drill the console cover as marked. The opening must be 4 3/8 in. (111 mm) wide by 4 in. (102 mm) deep.

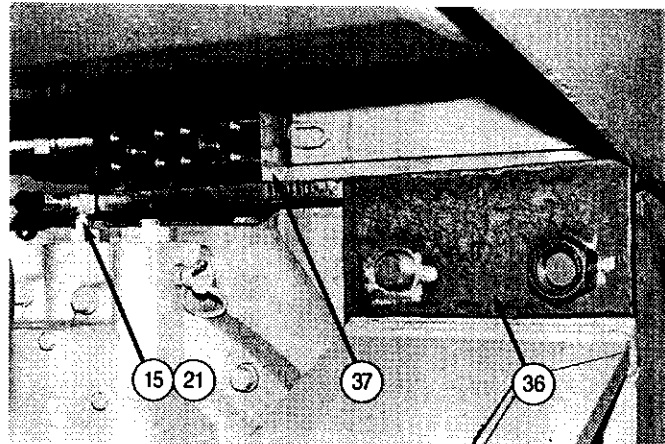


12. Utilizing scrap from the cut-out, weld a patch onto the panel to close the remaining ripper control opening.

13. Install four hose adapters, item 4, into joystick valve ports 1, 3, 4, and T, and one long straight adapter, item 10, into the center P port; also install a 45° elbow, item 11, in port 1. Port 2 is plugged. Refer to Figure 2 on page 6.
14. Install console cover. Attach joystick, item 8, to console instruction plate, item 14, utilizing fasteners 1, 52, and 2. Install joystick/console instruction plate on console cover, attach with fasteners, items 8, 52, and 53. Install low-lock lamp assembly, item 9.



15. Attach manifold block, item 37, to bracket, item 36, with fasteners, items 41, 42, and 43. Attach to RH winch bracket studs. Apply Loc-tite 242 to stud threads and torque nuts (item 4 from mounting group section) to 1,100 lb·ft (1,490 N·m).
16. Install transmission test port, items 21 & 15.

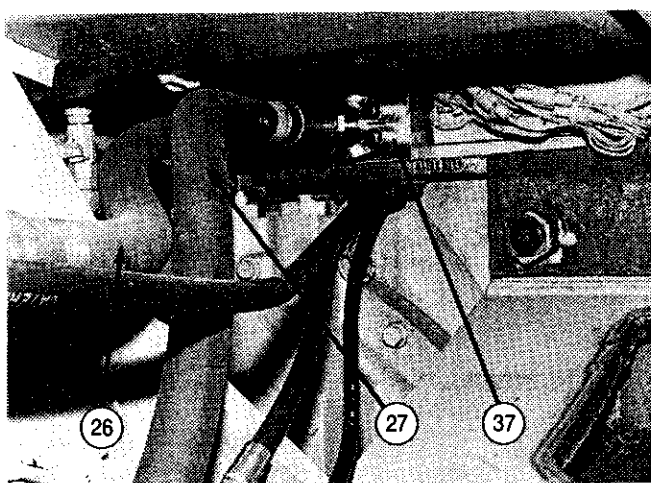
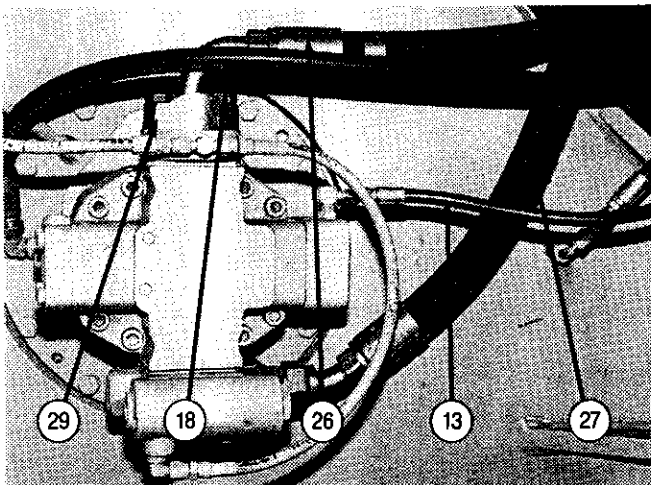


17. Remove the pump pressure tap from the pump discharge elbow and install a -6 ORFS tee, item 22, with a run directed toward the center of the tractor. Install hose, item 19, from the pump pressure port to the load sense logic block pressure port P. Install quick disconnect pressure tap, item 23, to the remaining run of the tee.
18. Install hose, item 7, from the logic block port J to the joystick valve pressure port P adapter, located in the center of the valve. Install hose, item 16 from

**MODEL H110
MOUNTING GROUP
CATERPILLAR D8N**

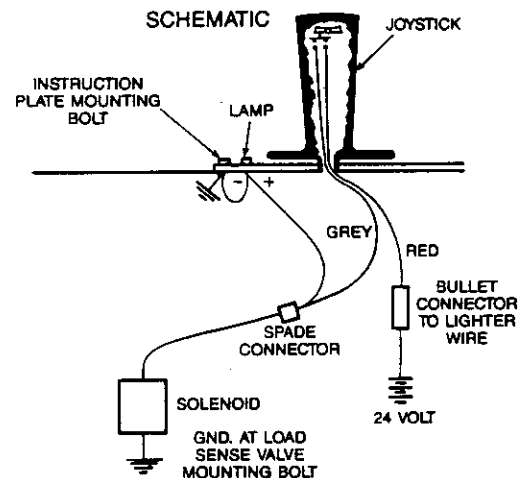
joystick valve port 4 to the drum clutch release hose using elbow, item 32, at the winch end when necessary to achieve safe hose routing that will not bind or chafe the hoses.

19. Install hose, item 33, from the long pilot port of the new implement valve section to joystick valve port 3 (pay-out).
20. Attach hose, item 20, running from the short pilot port of the new implement valve section, to joystick valve port 1 (haul-in).
21. Install hose, item 7, from the logic block port T port elbow adapter, item 3, to the T port of the joystick valve.
22. Install spacer block, item 25, in the charge and case drain port of the tractor reservoir. Install hose, item 17, between spacer block and -8 port on the logic block. Use fasteners, o-ring, and elbow, items 55, 56, and 57.
23. Install hose, item 18, from the winch hydraulic motor case drain port to the remaining -8 port adapter on the load sense logic block.



24. Install hose, item 13, from logic block port X adapter, item 5, to the winch motor X port.

25. Install hose, item 26, from the top port on the winch motor (pay-out) to the LH port of the union block, item 37, using hardware, items 29 and 35.
26. Install hose, item 27, from the bottom port on the winch motor (haul-in) to the RH port of the union block, item 37, using hardware, item 29.
27. Install hose, item 24, from the bottom port of the winch control section (haul-in) to the LH port of the union block, item 37, using hardware, items 29 & 30.
28. Install hose, item 24, from the top port of the winch control section (pay-out) to the RH port of the union block, item 37, using hardware, items 29 & 30.
29. Insure that the tractor master switch is in the off position. Locate the cigarette lighter wire in the RH console and, utilizing 14 to 16 guage wire, produce the circuit shown in the schematic below.

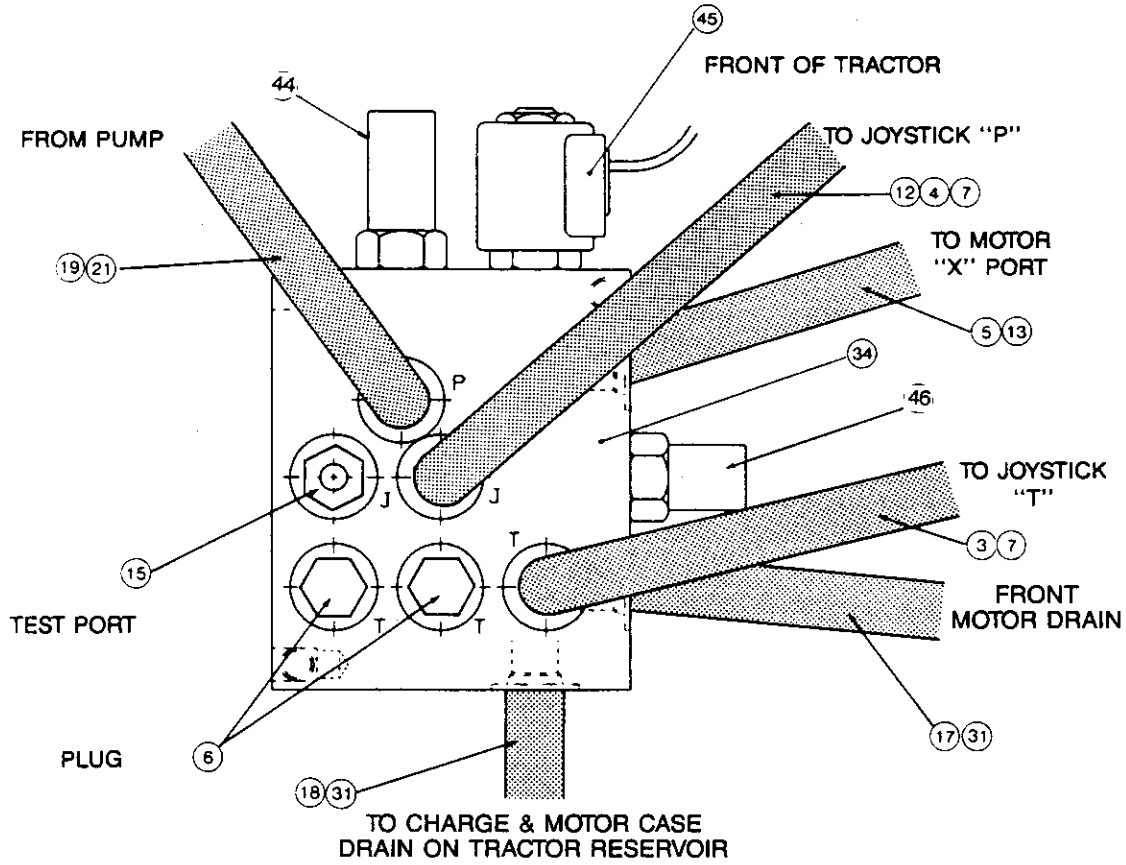


30. Turn on the tractor master switch. Turn the starter key switch on (**DO NOT START ENGINE**). Pressing the rocker switch should cause the indicator lamp and the solenoid valve to activate.
31. Check all hydraulic connections for tightness. Make certain all hoses and wires are routed and secured to avoid chaffing.
32. Fill the hydraulic reservoir to the proper level with recommended oil. Refer to the Caterpillar oil specifications.
33. Start the engine and operate at low throttle to purge air from lines. Operate winch in all functions and refill hydraulic reservoir as required. Check for leaks and take corrective action as required. Install floor & console covers and operator's seat.
34. Record winch and tractor serial numbers on delivery report form(s). Conduct winch operator training as required.

MODEL H110
 HYDRAULIC CONTROL GROUP
 CATERPILLAR D7H - SERIES II - SINGLE PUMP

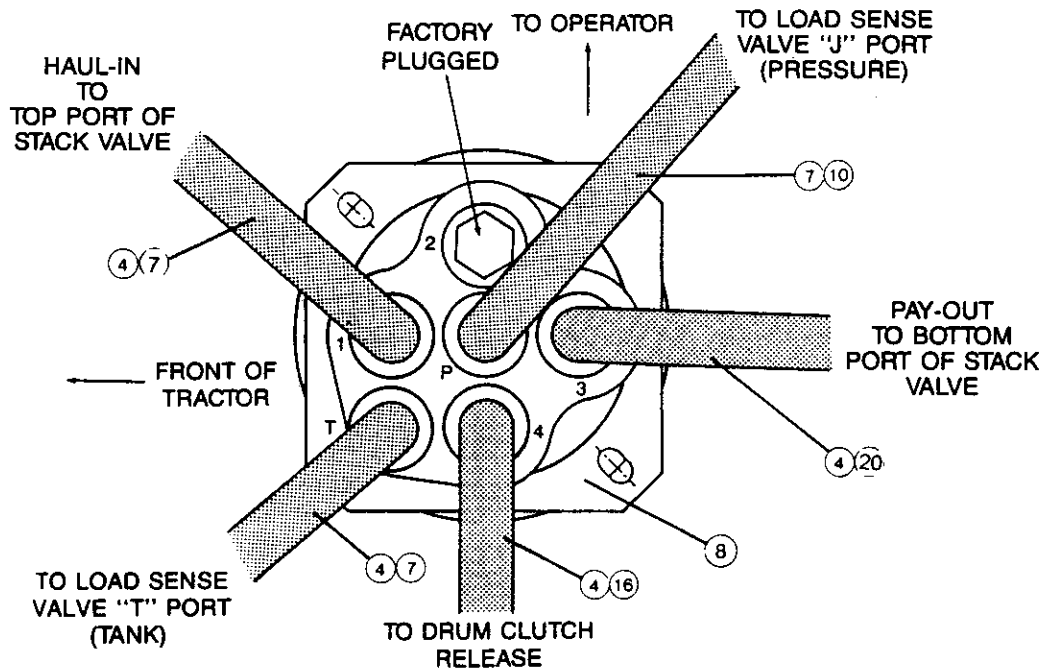
LOAD SENSE VALVE ASSEMBLY

Figure 1



JOYSTICK VALVE

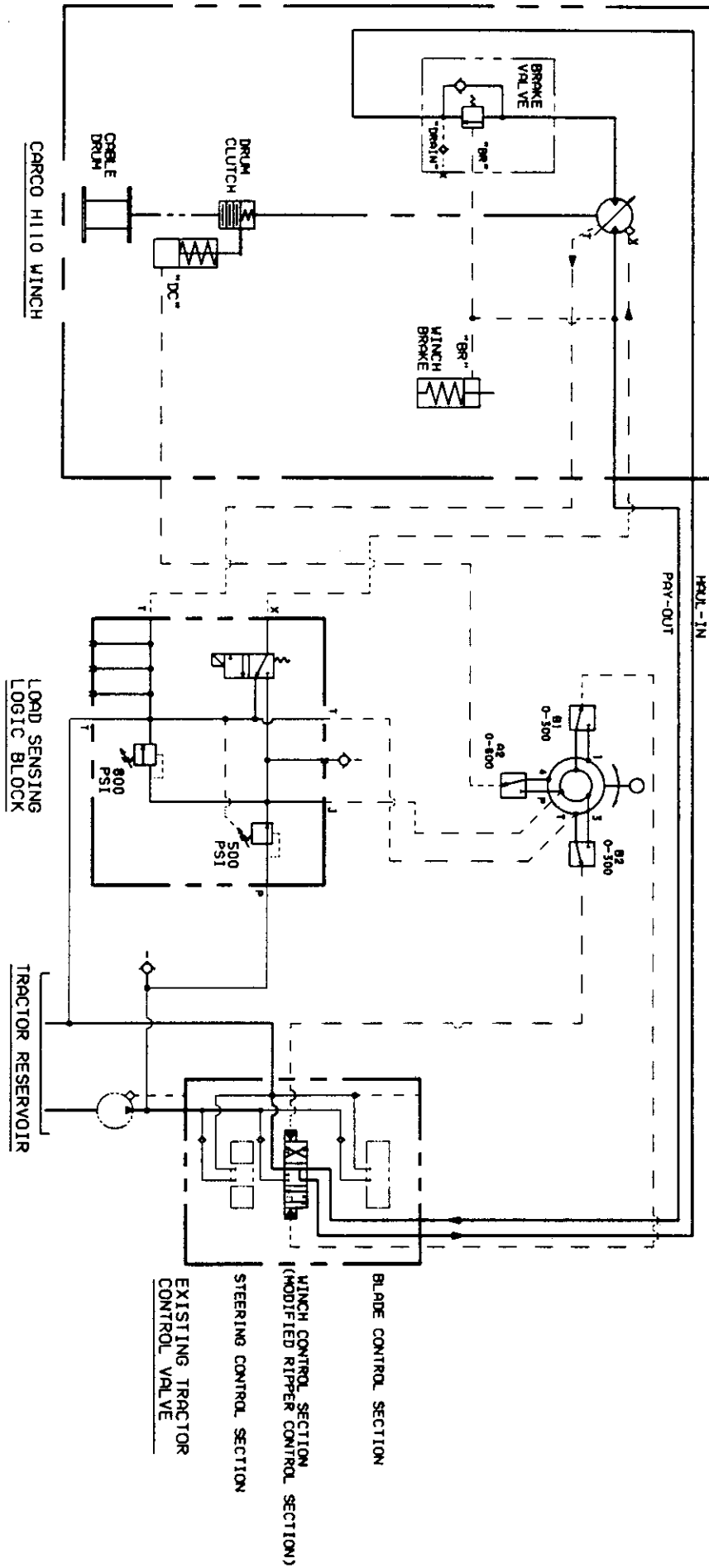
Figure 2



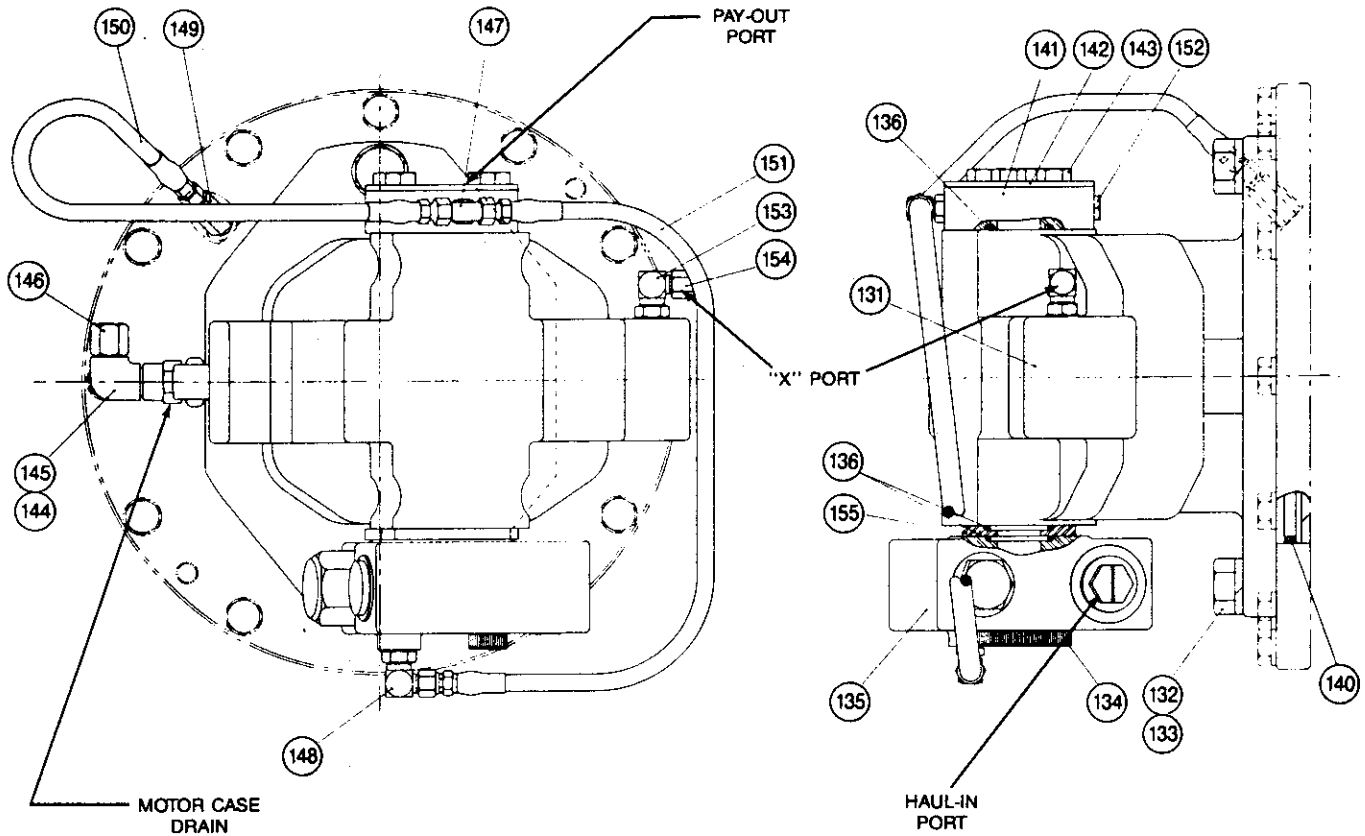
**MODEL H110
HYDRAULIC CONTROL GROUP
CATERPILLAR D8N - S/N 5TJ1-UP**

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	11759	CAPSCREW, HEX HEAD (1/4 - 20 x 1 G5)	4
2	11761	NUT, HEX (1/4 - 20)	8
3	25856	ELBOW, 90° -6 -6 JIC	2
4	25863	ADAPTER, -6 ORB TO -6 JIC	6
5	31284	ADAPTER, -6 ORB TO -4 JIC	1
6	26686	PLUG, -6 ORB	2
7	29657	HOSE, -6 JIC 23 in. (584 mm) HAUL-IN JOYSTICK TO TOP PORT OF STACK VALVE	1
8	29809	JOYSTICK VALVE ASSEMBLY	1
	40168	ROCKER SWITCH/SWITCH COVER BOOT FOR 29809	1
	40170	BOOT, HANDLE FOR 29809	1
	40169	HANDLE ASSEMBLY FOR 29809	1
9	29846	INDICATOR LIGHT, GREEN LED	1
10	29847	ADAPTER, LONG, STRAIGHT, -6 JIC	1
11	27149	ELBOW, 45°, -6 -6 JIC	1
12	31426	UNION, 90°, -6 -6 JIC	1
13	34200	HOSE, -6 -4 JIC 60 in. (1,524 mm) LOAD SENSE X TO MOTOR X	1
14	40018	INSTRUCTION PLATE	1
15	40034	ADAPTER, QUICK DISCONNECT	1
16	40028	HOSE, -6 JIC 66 in. (1,930 mm) JOYSTICK DRUM CLUTCH TO DRUM CLUTCH RELEASE	1
17	27980	HOSE, -8 JIC 21 in. (533 mm) LOAD SENSE T TO CHARGE & MOTOR CASE DRAIN PORT ON TRACTOR RES.	1
18	40029	HOSE, -8 JIC 75 in. (1,905 mm) MOTOR CASE DRAIN TO LOAD SENSE T	1
19	40251	HOSE, -6 JIC 21 in. (533 mm) PUMP TEST PORT TO LOAD SENSE P	1
20	29648	HOSE, -6 JIC 34 in. (864 mm) PAY-OUT JOYSTICK TO BOTTOM PORT OF STACK VALVE	1
21	40107	ELBOW, 90° -6 ORFS	3
22	40202	TEE, -6 ORFS, AT PUMP PRESSURE TAP	1
23	40109	TEST PORT, -6 ORFS	3
24	40250	HOSE, -16 SPLIT FLANGE, HP 44 in. (1,118 mm) WINCH SEC. V PO AND HI TO UNION BLOCK	2
25	40206	SPACER BLOCK, CHARGE AND MOTOR CASE DRAIN PORT	1
26	40112	HOSE, -16 SPLIT FLANGE, HP 37.5 in. (953 mm) UNION BLOCK TO MOTOR HI	1
27	40113	HOSE, -16 SPLIT FLANGE, HP 39 in. (991 mm) UNION BLOCK TO MOTOR BRAKE PO	1
28	40115	ADAPTER, -16 ORFS, MOTOR BRAKE VALVE HI PORT	1
29	40116	SPLIT FLANGE KIT, -16 CODE 62	5
30	40254	SPLIT FLANGE KIT, -16 CODE 61	2
31	70100	ADAPTER -8 JIC, LOAD SENSE T PORTS	3
32	70109	MALE ELBOW	
33	40251	HOSE -6 JIC 21 in. (1,143 mm) JOYSTICK PO TO LONG WINCH SECTION (PO)	1
34	82139	LOGIC BLOCK ASSEMBLY (INCLUDES ITEMS 44, 45, AND 46)	1
35	40118	CAPSCREW, HEX HEAD (7/16 - 14 x 2 3/4 G8) FOR PAY-OUT MOTOR PORT	4
36	40119	MOTOR HOSE UNION BLOCK, MOUNTING BRACKET	1
37	40089	UNION BLOCK	1
38	40244	LOAD SENSE VALVE MOUNTING PLATE	1
39	29937	CONTROL VALVE SECTION - MODIFIED FOR WINCH	1
40	29530	CAPSCREW, HEX HEAD (1/2 - 13 x 4 1/4 G5)	2
41	11788	NUT, HEX (1/2 - 13)	2
42	11026	LOCKWASHER (1/2)	2
43	11073	WASHER, NARROW (1/2)	2
44	29853	PRESSURE REDUCING VALVE ASSEMBLY	1
	29874	SEAL KIT FOR 29853	1
45	29820	SOLENOID VALVE CARTRIDGE ASSEMBLY	1
	29821	SEAL KIT FOR 29820	1
	29822	SOLENOID COIL FOR 29820	1
46	29851	RELIEF VALVE CARTRIDGE	1
47	11767	CAPSCREW, HEX HEAD (5/16 - 18 x 1 G5)	2
49	22704	CAPSCREW, HEX HEAD (3/8 NC x 2 G5)	4
50	18003	LOCKWASHER (3/8)	4
51	31136	CAPSCREW, HEX HEAD (3/8 NC x 7/8 G5)	4
52	23195	LOCKWASHER - CAD (1/4)	8
53	40240	CAPSCREW, BUTTON HEAD (3/8 NC x 1 G5)	4
54	11024	LOCKWASHER (5/16)	2
55	25266	CAPSCREW, HEX HEAD (3/8 NC x 2 3/4 G8)	4
56	25366	O-RING	1
57	70124	ELBOW, -8 JIC	1

**MODEL H110
LOAD SENSE
HYDRAULICS**



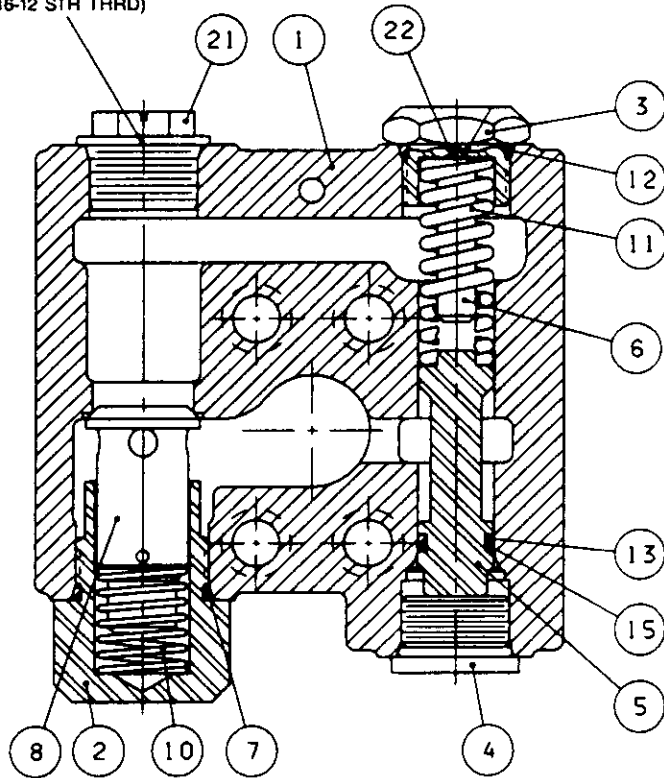
**MODEL H110
HYDRAULIC MOTOR GROUP**



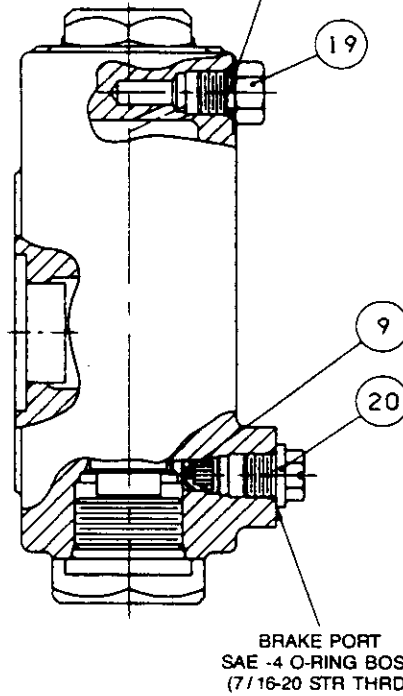
ITEM NO.	PART NO.	DESCRIPTION	QTY.
131	100065	HYDRAULIC MOTOR	1
132	31033	CAPSCREW, HEX HEAD (3/4 - 10 x 1 1/4 G8)	2
133	13435	LOCKWASHER (3/4)	2
134	29399	CAPSCREW, SOCKET HEAD (7/16 - 14 x 2 3/4 GD8)	4
135	82133	BRAKE VALVE ASSEMBLY (REFER TO PAGE 9)	1
136	25366	O-RING	2
138	29290	CAPSCREW, HEX HEAD (1/2 - 13 x 1 1/2 GD8)	11
139	11026	LOCKWASHER (1/2)	11
140	22358	O-RING, MOTOR PILOT	1
141	29395	ADAPTER BLOCK - PAY-OUT PORT	1
142	29679	SHIPPING COVER	1
143	22695	CAPSCREW, HEX HEAD (7/16 - 14 x 1 3/4 GD5)	4
144	29611	ADAPTER STRAIGHT - 10 TO - 18	1
145	29046	ELBOW, SWIVEL, 90° - 8	1
146	29908	SHIPPING CAP - 8	1
147	25554	TEE - 4	1
148	25302	ELBOW - 4	1
149	29720	ADAPTER - 4, EXTRA LONG	1
150	25935	HOSE - 14 in. (356 mm) PAY-OUT PORT TO BRAKE PORT	1
151	25952	HOSE - 20 in. (508 mm) PAY-OUT PORT TO BRAKE VALVE "BR" PORT	1
152	27675	PLUG - 4 ORB	1
153	25131	ELBOW - 6 - 4 ORB, MOTOR x PORT	1
154	70182	SHIPPING CAP - 4	1

**MODEL H110
BRAKE VALVE ASSEMBLY**

SAE -12 O-RING BOSS
(1 1/16-12 STR THRD)



SAE -4 O-RING BOSS
(7/16-20 STR THRD)



BRAKE PORT
SAE -4 O-RING BOSS
(7/16-20 STR THRD)

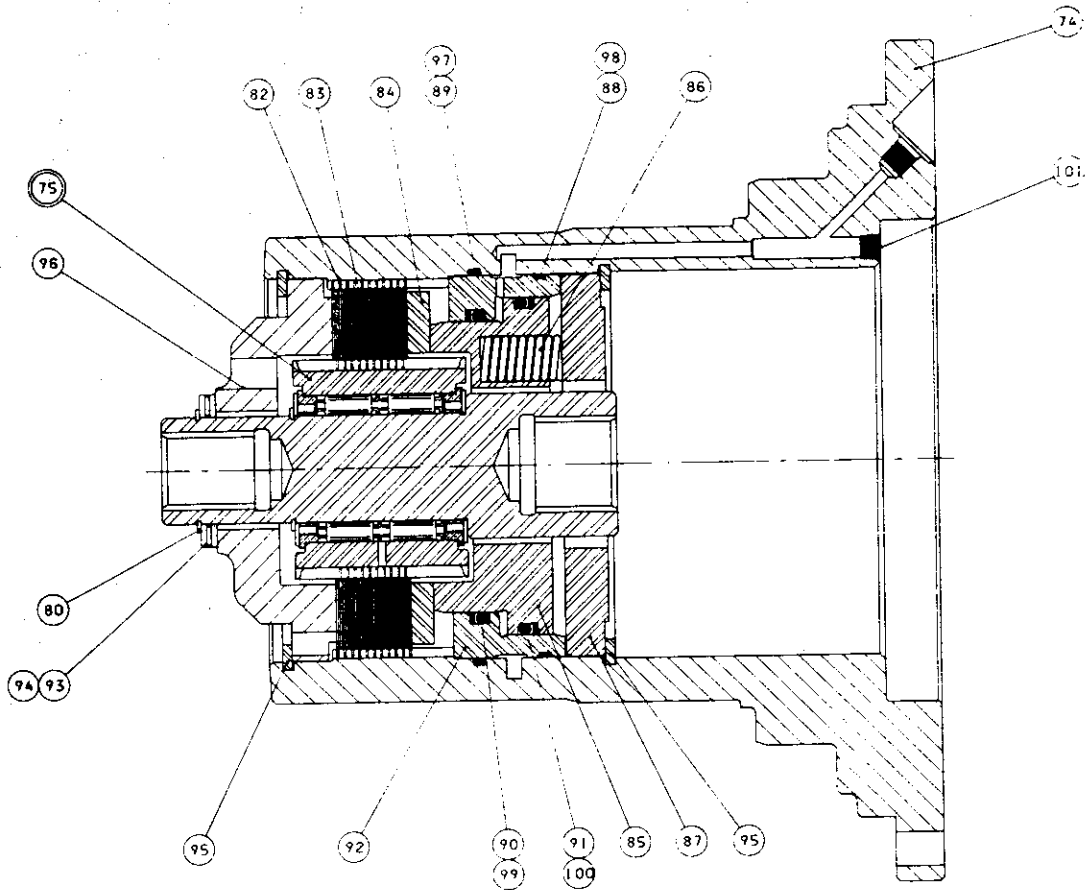
ASSEMBLY INSTRUCTIONS:

1. Tighten plug, item 19, to 25 lb•ft (34 N•m) torque.
2. Tighten plugs, items 2, 3 & 4, to 40 lb•ft (54 N•m) torque.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
	82133	BRAKE VALVE ASSEMBLY	
1	NSS	BRAKE VALVE HOUSING	1
2	29609	RELIEF VALVE RETAINER	1
3	24183	SPRING RETAINER	1
4	22450	PLUG	1
5	NSS	MAIN SPOOL	1
6	NSS	DAMPER PISTON	1
7	24186	O-RING	1
8	82132	CHECK POPPET/RELIEF VALVE 6000 psi (41,400 kPa)	1
9	24200	PILOT ORIFICE	1
10	24190	CHECK POPPET SPRING	1
11	24192	SPOOL SPRING	1
12	23601	O-RING	1
13	24193	O-RING	1
14	24194	O-RING	1
15	24195	BACK-UP RING	1
16	24196	BACK-UP RING	1
19	25663	PLUG - 4	1
20	25403	SHIPPING PLUG	1
21	75288	SHIPPING PLUG	1
22	25661	SHIM, MAIN SPOOL SPRING	AR

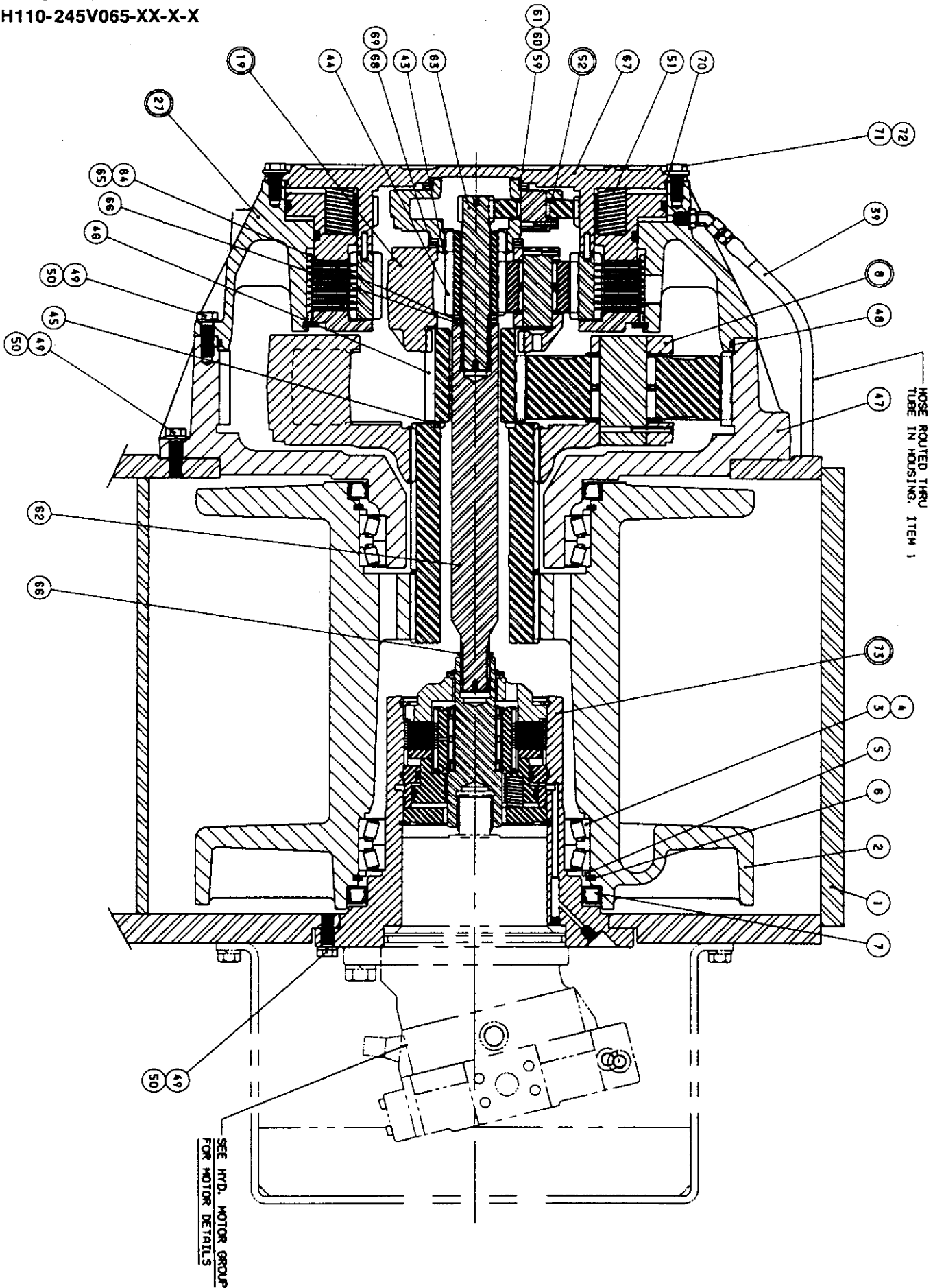
NSS - NOT SERVICED SEPARATELY
AR - AS REQUIRED

**MODEL H110
BRAKE HOUSING ASSEMBLY
REXROTH POCKET MOUNT MOTOR**



ITEM NO.	PART NO.	DESCRIPTION	QTY.
74	29342	BRAKE HOUSING	1
75	82138	OVERRUNNING BRAKE CLUTCH ASSEMBLY - REFER TO PAGE 14	1
80	12034	RETAINING RING	1
82	24490	DISC - STEEL	11
83	25530	DISC - FRICTION	10
84	24489	SPACER	1
85	29274	BRAKE PISTON	1
86	29301	SPRING	13
87	29344	SPRING RETAINER	1
88	27987	O-RING	1
89	10450	O-RING	1
90	72924	O-RING	1
91	29302	O-RING	1
92	29275	BRAKE CYLINDER	1
93	25760	THRUST BEARING RACE	2
94	29286	THRUST BEARING	1
95	21038	RETAINING RING	2
96	29345	BRAKE RETAINER	1
97	28828	BACK-UP RING	1
98	29368	BACK-UP RING	1
99	29369	BACK-UP RING	1
100	29370	BACK-UP RING	1
101	22374	PIPE PLUG (1/8 NPT)	1

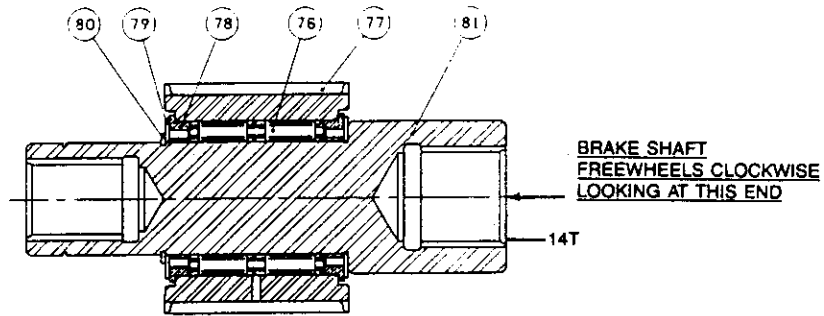
**MODEL H110
WINCH HOUSING GROUP
H110-245V065-XX-X-X**



**MODEL H110
WINCH HOUSING GROUP
H110-245V065-XX-X-X**

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	40207	WINCH HOUSING	1
2	29258	CABLE DRUM	1
3	29277	BEARING CONE	4
4	29278	BEARING CUP	4
5	29279	SPACER RING	2
6	29280	RETAINING RING	2
7	29281	OIL SEAL	2
8	82074	OUTPUT PLANET CARRIER ASSEMBLY (REFER TO PAGE 16)	1
19	82071	SECONDARY PLANET CARRIER ASSEMBLY (REFER TO PAGE 15)	1
27	82072	DRUM CLUTCH ASSEMBLY (REFER TO PAGE 17)	1
39	29648	HOSE - 34.5 in. (876 mm) DRUM CLUTCH RELEASE	1
43	13031	RETAINING RING	1
44	29293	SECONDARY SUN GEAR	1
45	29294	THRUST WASHER	1
46	29269	OUTPUT SUN GEAR	1
47	29336	OUTPUT RING GEAR	1
48	29296	O-RING	1
49	29290	CAPSCREW, HEX HEAD (1/2 - 13 x 1 1/2 G8)	46
50	11026	LOCKWASHER (1/2)	46
51	29305	SPRING	20
52	82130	PRIMARY PLANET CARRIER ASSEMBLY (REFER TO PAGE 14)	1
59	75024	THRUST BEARING RACE - .125 in. (3.17 mm) THICK, OUTER POSITION	1
60	18058	THRUST BEARING	1
61	26291	THRUST BEARING RACE - .062 in. (1.58 mm) THICK	1
62	29708	PRIMARY SUN GEAR INTERMEDIATE SHAFT	1
63	29763	PRIMARY SUN GEAR	1
64	73294	THRUST BEARING RACE - .125 in. (3.17 mm) THICK	2
65	24305	THRUST BEARING	1
66	29287	RETAINING RING	2
67	29764	PRIMARY PLANET RING GEAR/COVER 4.84:1	1
68	24485	THRUST BEARING RACE - .125 in. (3.17 mm) THICK	2
69	29559	THRUST BEARING	1
70	78307	O-RING	1
71	70793	CAPSCREW, HEX HEAD (1/2 - 13 x 1 1/4 G8)	10
72	27248	WASHER, HARDENED (1/2)	10
73	82137	BRAKE HOUSING ASSEMBLY (REFER TO PAGE 11)	1

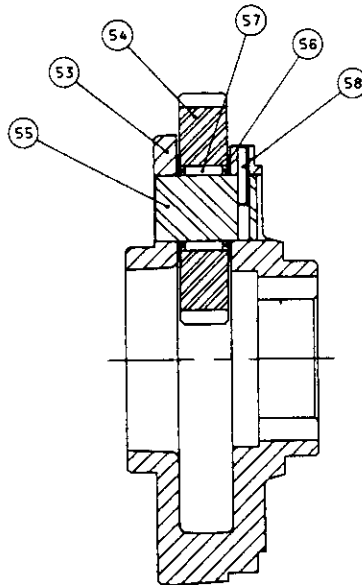
**MODEL H110
OVERRUNNING BRAKE
CLUTCH ASSEMBLY**



82138

ITEM NO.	PART NO.	DESCRIPTION	QTY.
	82138	BRAKE CLUTCH ASSEMBLY	1
76	24839	SPRAG CLUTCH	2
77	29283	OUTER BRAKE RACE	1
78	27684	SPRAG BEARING - BRONZE ALLOY	2
79	24581	THRUST WASHER	2
80	12034	RETAINING RING	1
81	29829	BRAKE SHAFT - METRIC - REXROTH	1

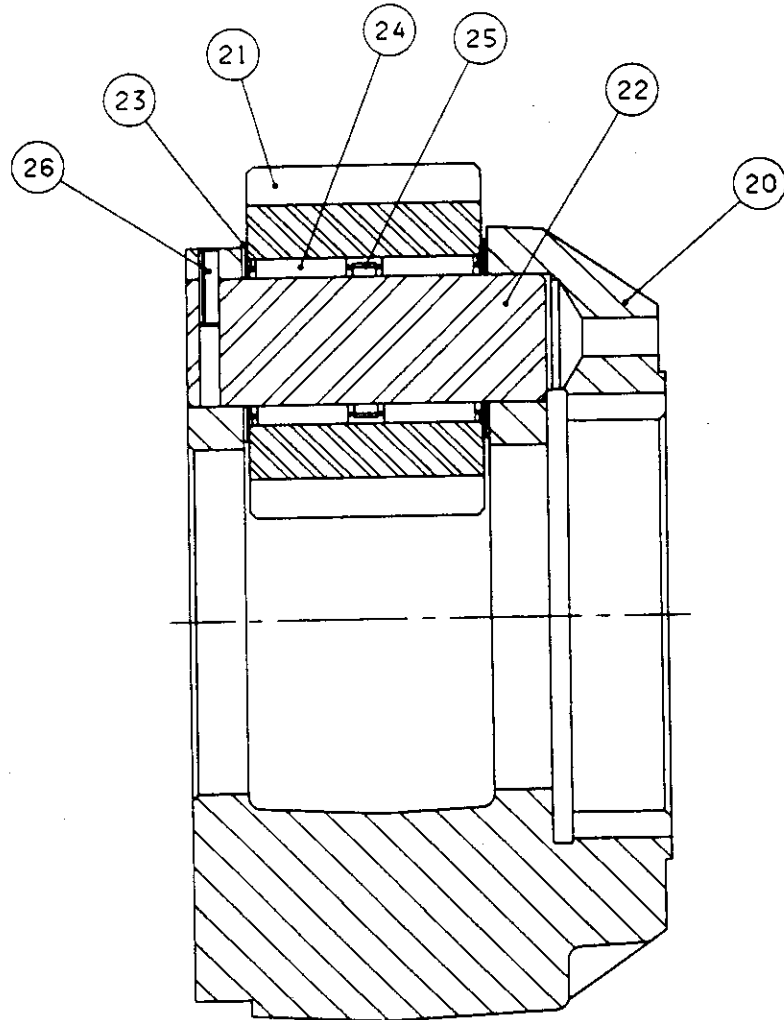
**MODEL H110
PRIMARY PLANET ASSEMBLY**



82130

ITEM NO.	PART NO.	DESCRIPTION	QTY.
52	82130	PRIMARY PLANET CARRIER ASSEMBLY - USED IN 245:1	1
53	29761	PRIMARY PLANET CARRIER - USED IN 245:1	1
54	29762	PRIMARY PLANET GEAR - 36T USED IN 245:1	3
55	26294	PRIMARY PLANET GEAR SHAFT	3
56	24479	THRUST WASHER	6
57	24480	ROLLER BEARING	3
58	21058	ROLL PIN - USED IN 245:1	3

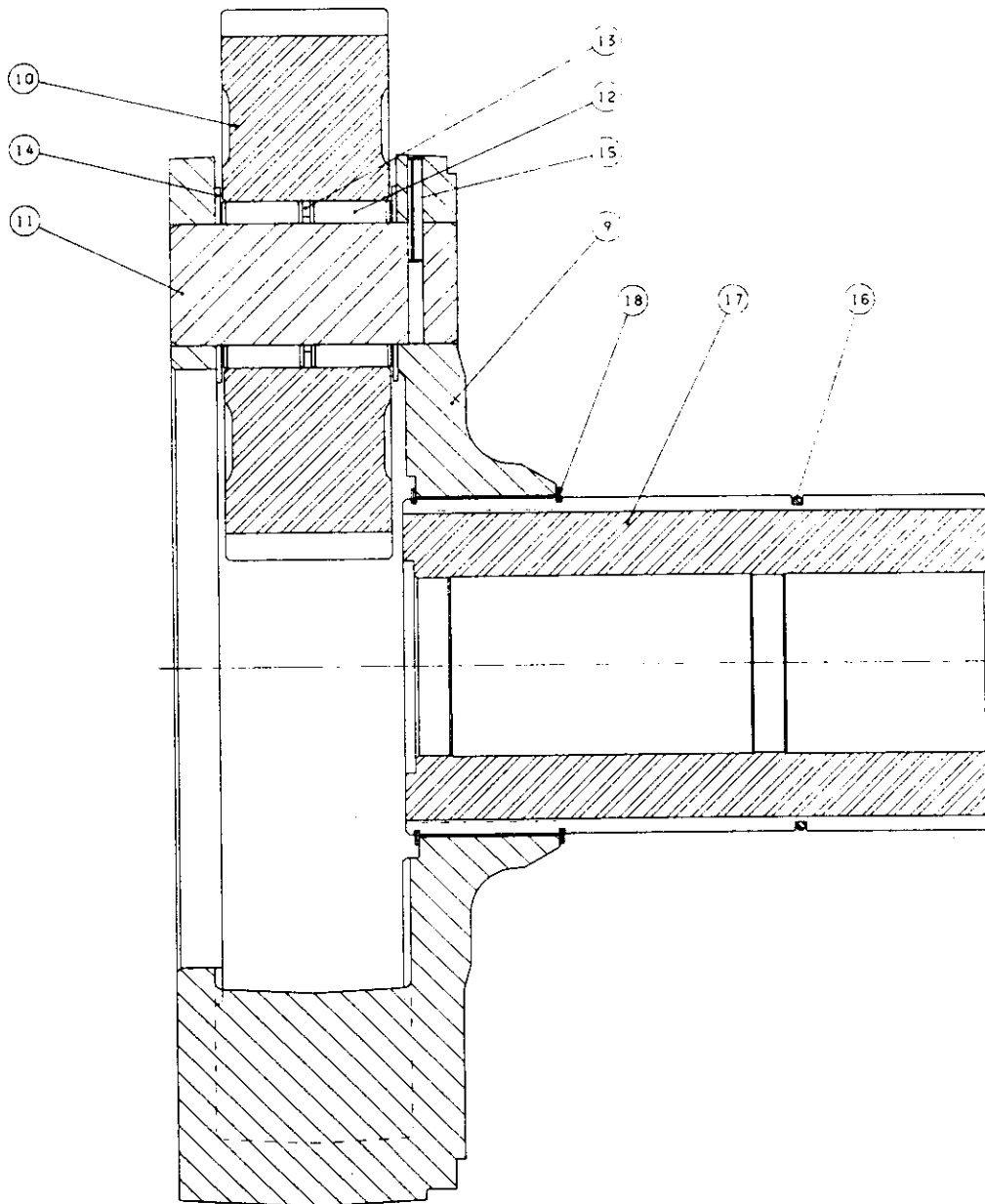
MODEL H110
SECONDARY PLANET ASSEMBLY



82071

ITEM NO.	PART NO.	DESCRIPTION	QTY.
	82071	SECONDARY PLANET CARRIER ASSEMBLY	1
20	29339	SECONDARY PLANET CARRIER	1
21	25288	SECONDARY PLANET GEAR, 18T	3
22	29364	SECONDARY PLANET GEAR SHAFT	3
23	11932	THRUST WASHER	6
24	25292	ROLLER BEARING	6
25	25290	BEARING SPACER	3
26	24113	ROLL PIN	3

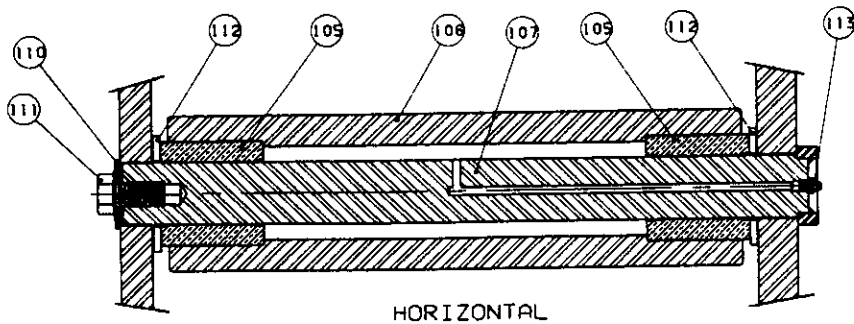
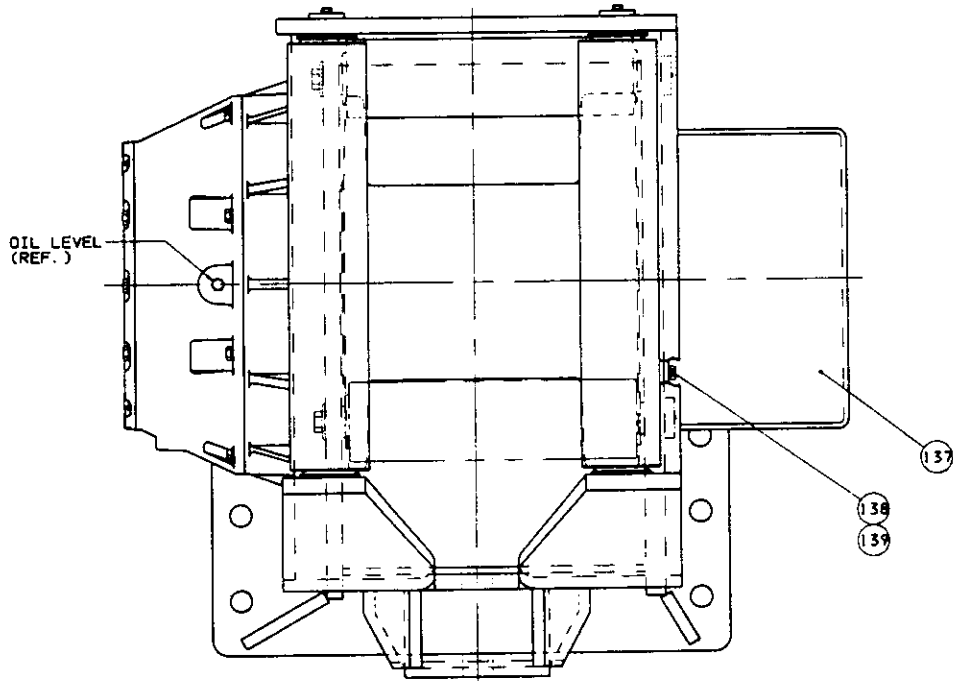
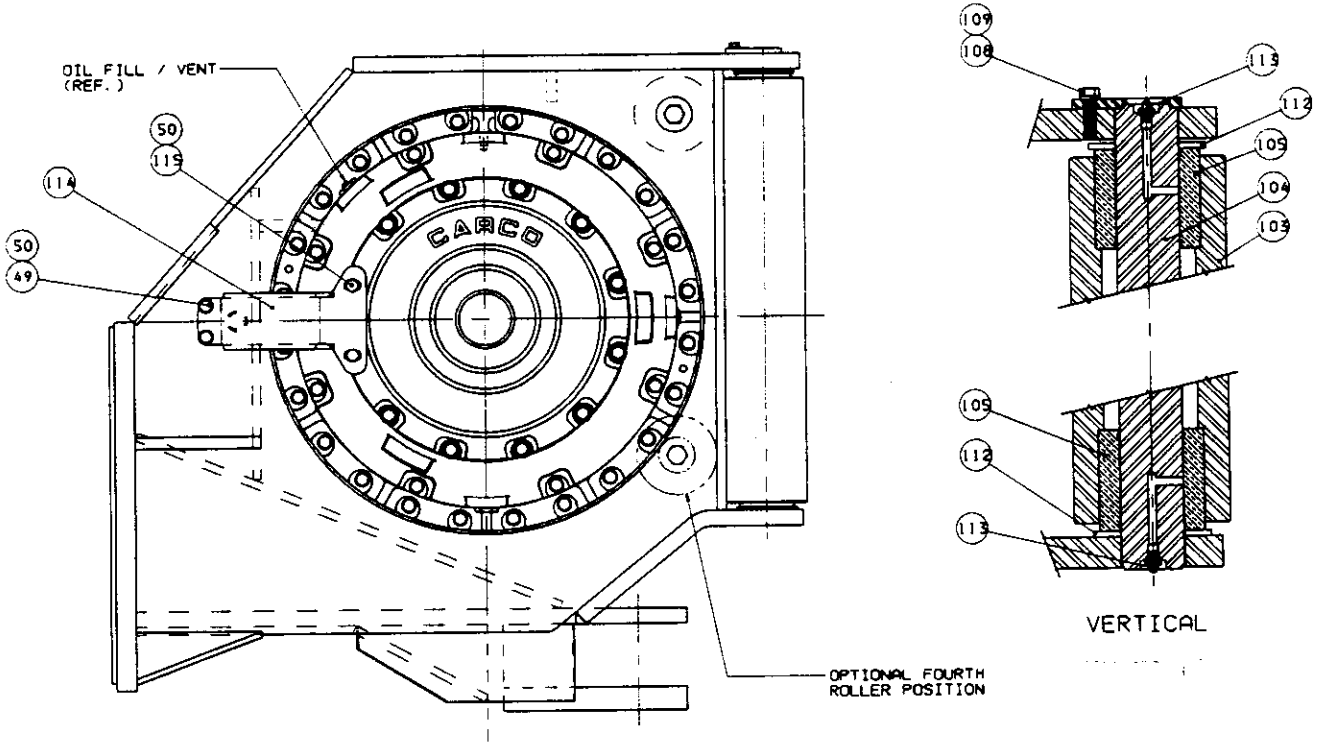
**MODEL H110
OUTPUT PLANET ASSEMBLY**



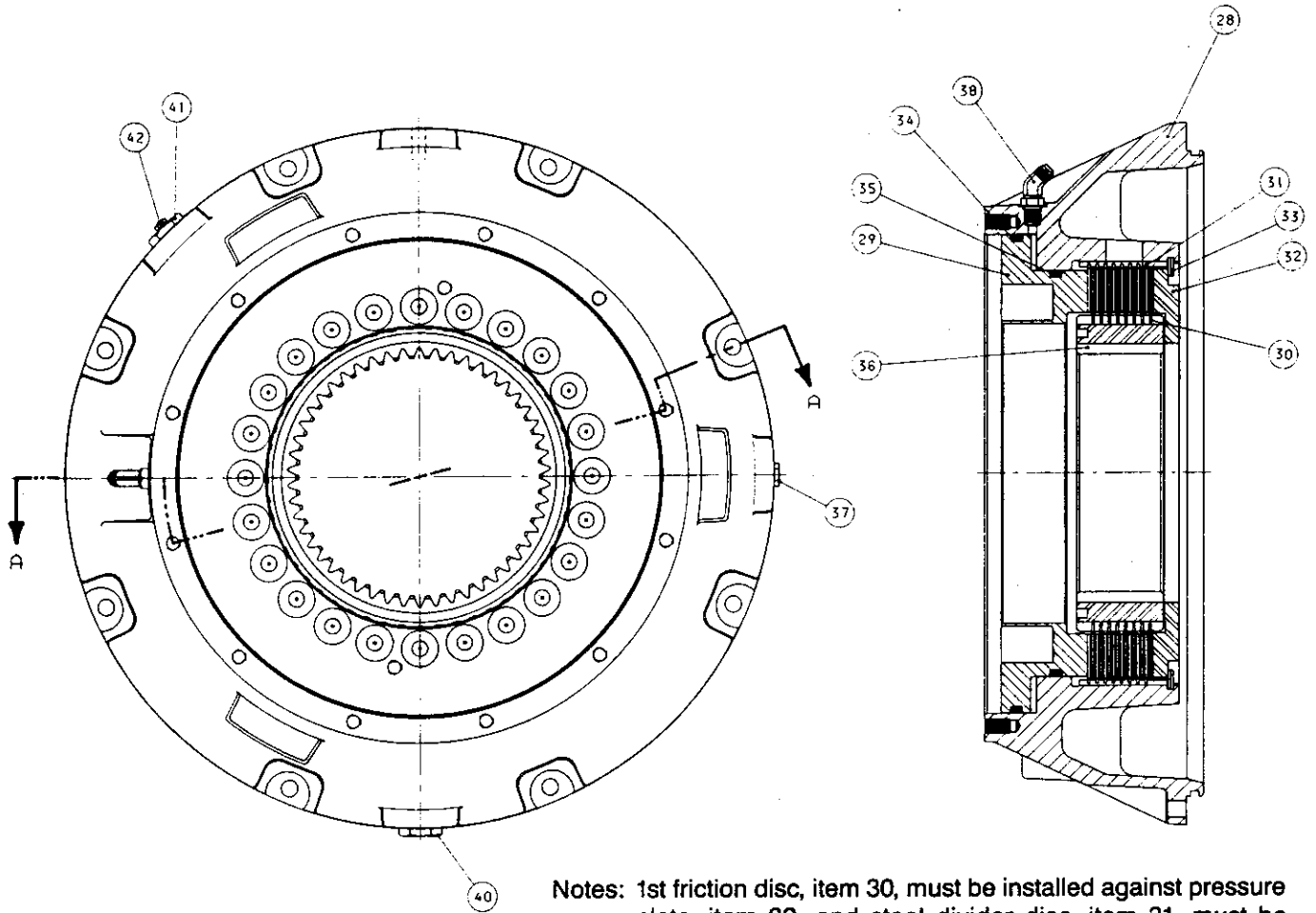
82074

ITEM NO.	PART NO.	DESCRIPTION	QTY.
	82074	OUTPUT PLANET CARRIER ASSEMBLY	1
9	29348	OUTPUT PLANET CARRIER	1
10	29266	OUTPUT PLANET GEAR, 43T	3
11	29262	OUTPUT PLANET GEAR SHAFT	3
12	27911	BEARING ROLLER (LOOSE)	120
13	29299	BEARING SPACER	3
14	29300	THRUST WASHER	6
15	13028	ROLL PIN	3
16	29291	RETAINING RING	1
17	29322	DRUM DRIVE SHAFT	1
18	29349	RETAINING RING	2

**MODEL H110
COVERS & FAIRLEAD GROUP**



**MODEL H110
DRUM CLUTCH ASSEMBLY**



Notes: 1st friction disc, item 30, must be installed against pressure plate, item 32, and steel divider disc, item 31, must be installed against brake piston.

Do not allow outer steel divider disc, item 31, to get caught in the spline relief groove when installing the piston, item 29.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
27	82072	DRUM CLUTCH ASSEMBLY	1
28	29340	DRUM CLUTCH HOUSING	1
29	29309	CLUTCH PISTON	1
30	72180	DISC - FRICTION	8
31	72204	DISC - STEEL DIVIDER	8
32	29292	PRESSURE PLATE	1
33	29303	RETAINING RING	1
34	24592	O-RING	1
35	29304	O-RING	1
36	29246	CLUTCH HUB/RING GEAR	1
37	26686	PLUG - OIL LEVEL	1
38	25868	ELBOW - 6 45°	1
40	70118	PLUG - OIL DRAIN	1
41	29678	PLUG - OIL FILL	1
42	10074	VENT PLUG	1

**MODEL H110
COVERS & FAIRLEAD GROUP**

ITEM NO.	PART NO.	DESCRIPTION	QTY.	
			3 ROLLER	4 ROLLER
49	29290	CAPSCREW (1/2 - 13 x 1 1/2 G8)	46	46
50	11026	LOCKWASHER (1/2)	57	57
103	29310	ROLLER - VERTICAL (EARLY 33.56 in. LONG)	2	2
	40208	ROLLER - VERTICAL (LATE 27.31 in. LONG)	—	—
104	29311	ROLLER SHAFT - VERTICAL (EARLY 36.69 in. LONG)	2	2
	40209	ROLLER SHAFT - VERTICAL (LATE 30.44 in. LONG)	2	—
105	29314	ROLLER BUSHING	6	8
106	29315	ROLLER - HORIZONTAL	1	2
107	29316	ROLLER SHAFT - HORIZONTAL	1	2
108	21961	CAPSCREW, HEX HEAD (3/8 - 16 x 1 G5)	2	2
109	18003	LOCKWASHER (3/8)	2	2
110	29680	SPRING WASHER	1	2
111	31032	CAPSCREW	1	2
112	29742	WASHER - ROLLER	6	8
113	18047	GREASE FITTING	5	6
114	29792	HOSE GUARD	1	1
115	29855	CAPSCREW, HEX HEAD (1/2 - 13 x 2 G8)	2	2
137	29682	MOTOR COVER	1	1
138	29290	CAPSCREW, HEX HEAD (1/2 - 13 x 1 1/2 G8)	11	11
—	62474	FOURTH ROLLER KIT, INCLUDES ITEMS 105, 106, 107, 110, 111, 112, 113		

Cable Ferrules: 1 in. (25 mm) 29427
 1 1/8 in. (28 mm) 29428
 1 1/4 in. (32 mm) 29429