

MODEL 7148 POWER FOLLOW-UP

If performance, simplicity and durability are important, this unit incorporates it all. Castings are made in silicon bronze die-cast with all hardware in stainless steel that will provide years of trouble-free service. The basic unit provides the same function on a marine craft as a power steering does on a car. Turning the rudder by hand on larger and high speed vessels could be quite a physical challenge to the operator. This unit, in conjunction with a hydraulic power source of a pressure compensated pump, will provide fingertip control over the rudder. The solenoid attached to this unit can be used for either autopilot or jog lever remote control. A patented, flexible linkage arrangement between follow-up unit and the rudder stock is installed to make up for any differences in motion. In case of hydraulic pressure failure, a changeover valve will direct the hydraulic fluid from the helm pump directly into the steering cylinders, enabling the ship's personnel to steer the boat safely in a manual mode.

SPECIFICATIONS

Hydraulic power source: Pressure compensated pump

Max. supply pressure: 1500 psi (103 bar)

Max. output flow rate: 20 gal/min. (75 l/min.)

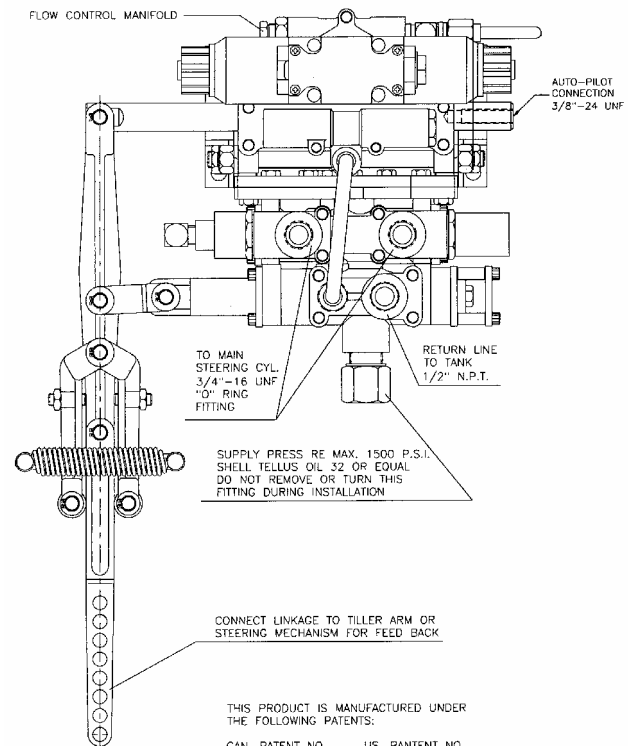
Servo cylinder displacement: 13.2 in. (216 cm)

Pipe ports: Helm lines ¼" NPT. All other ports are ½" NPT

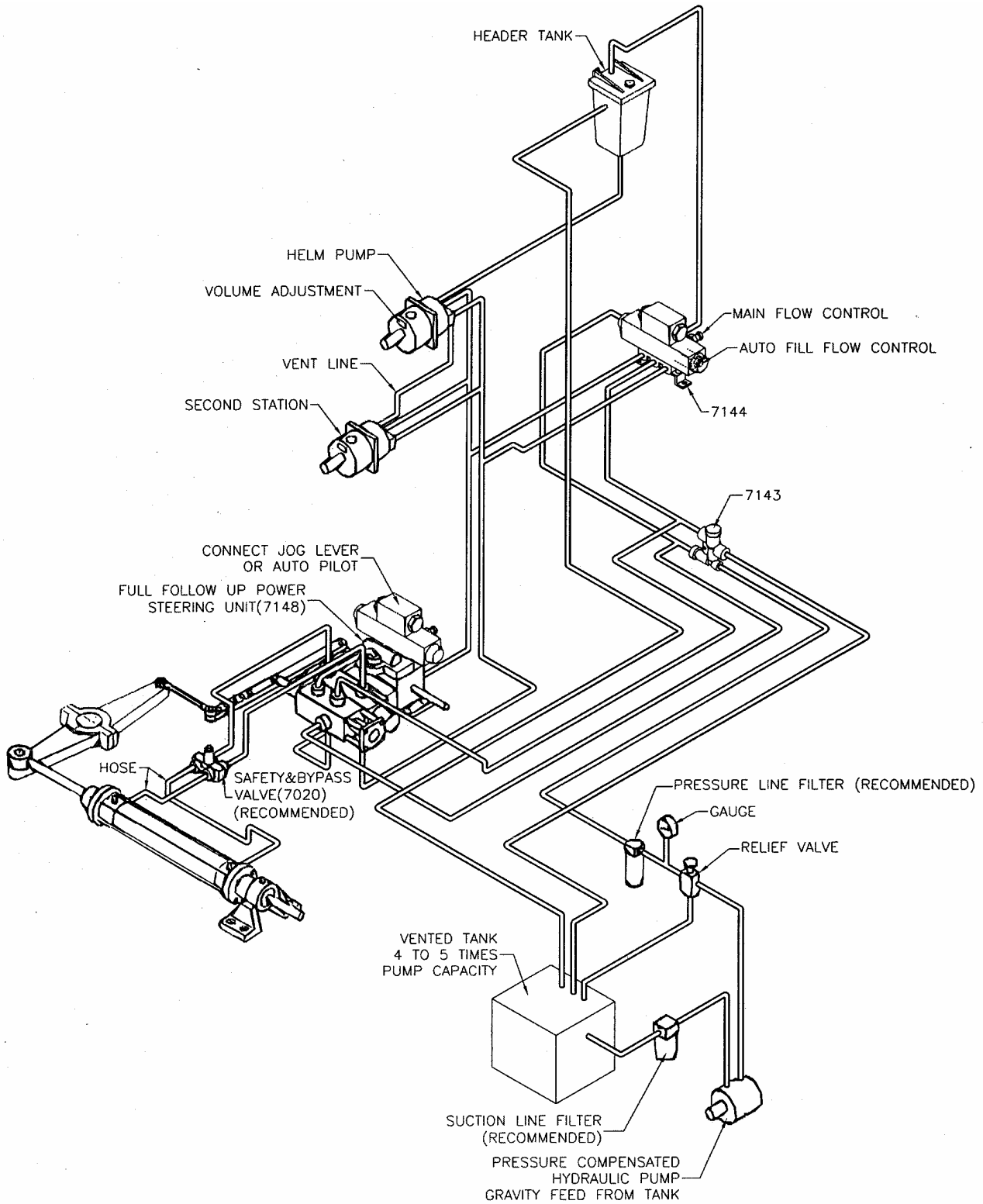
Weight: 30 lb. (13.5 kg) without solenoid
35 lb. (16 kg) with solenoid

ORDERING INFORMATION

7148	without solenoid
7148-AC120	with 120 VAC solenoid
7148-DC12	with 12 VDC solenoid
7148-DC24	with 24 VDC solenoid
7148-DC32	with 32 VDC solenoid

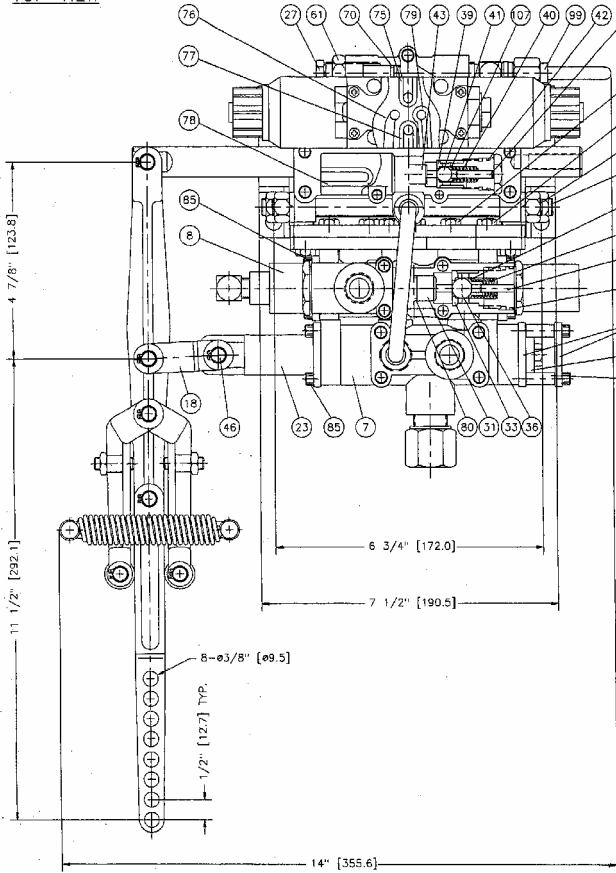


Typical System Arrangement with 7148 Power Follow Up Unit

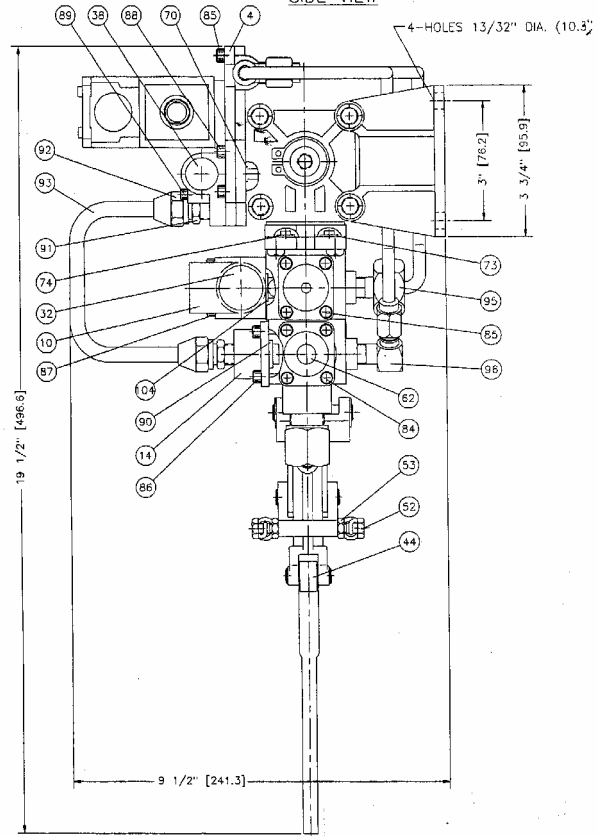


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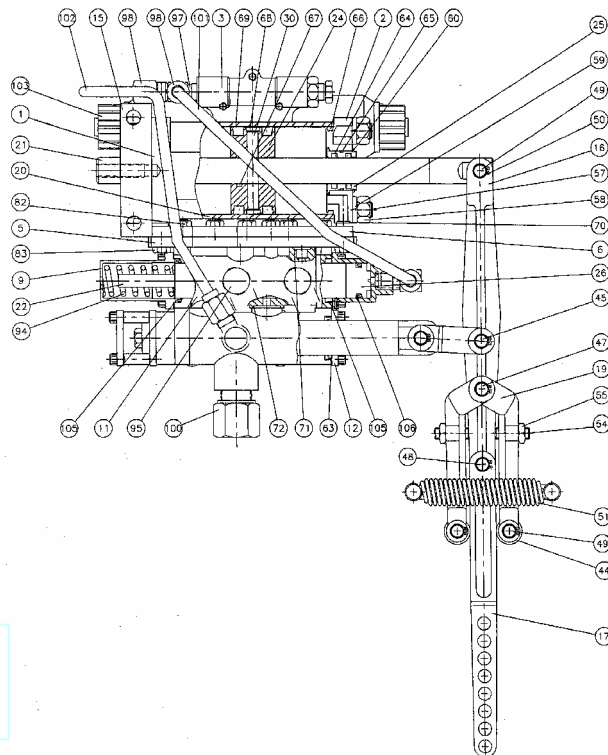
TOP VIEW



SIDE VIEW



BACK VIEW



THIS PRODUCT IS MANUFACTURED
UNDER THE FOLLOWING PATENT:
CAN PATENT US PATENT
1180958 4375771

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ITEM	QTY	PART NUMBER	DESCRIPTION	ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	7148-0001	Cylinder End Cap LH	56	2	7148-0056	Lower Tie Rod (long)
2	1	7148-0002	Cylinder End Cap RH	57	2	7148-0057	Lower Tie Rod (short)
3	1	7148-0003	Flow Control Manifold	58	8	1022-0163	Nut
4	1	7148-0004	Solenoid Lock Valve Housing	59	8	1023-0313	Lock washer
5	1	7148-0005	Manifold Cover Plate	60	2	1029-1112	Snap Ring
6	1	7148-0006	Manifold Plate	61	1	1022-0264	Jam Nut
7	1	7148-0007	Spool Valve Housing	62	1	1001-1110	Hex Hd Cap Screw
8	1	7148-0008	ChangeOver Piston Cap	63	2	1102-2009	U-Cup
9	1	7148-0009	ChangeOver Spring Cap	64	4	1102-0007	U-Cup
10	1	7148-0010	Main Lock Valve Housing	65	2	1101-0022	O-Ring
11	1	7148-0011	ChangeOver Valve Housing	66	2	1101-0228	O-Ring
12	3	7148-0012	End Plate	67	1	1101-0116	O-Ring
14	1	7148-0014	Oil Return Manifold	68	1	7148-0068	Wear Ring
15	2	7148-0015	Mounting Foot	69	2	1102-0057	U-Cup
16	1	7148-0016	Feed Back Lever Rod End	70	5	1101-0010	O-Ring
17	1	7148-0017	Output Feed Back Lever	71	2	1101-0012	O-Ring
18	1	7148-0018	Link	72	2	1101-0016	O-Ring
19	2	7148-0019	Toggle Link	73	1	7148-0073	Channel Gasket (long)
20	1	7148-0020	Cylinder Tube	74	1	7148-0074	Channel Gasket (short)
21	1	7148-0021	Piston rod	75	1	7148-0075	Solenoid Supply Gasket
22	1	7148-0022	ChangeOver Spool	76	1	7148-0076	Return Oil Gasket
23	1	7148-0023	Main Valve Spool	77	1	7148-0077	Left Channel Gasket
24	1	7148-0024	Servo Piston	78	2	7148-0078	Servo Piston Gasket
25	2	7148-0025	Piston Rod Bushing	79	1	7148-0079	Right Channel Gasket
26	1	7148-0026	ChangeOver Piston	80	1	1101-0014	O-Ring
27	1	7148-0027	Flow Control Needle	81	4	1001-1026	Hex Hd Cap Screw
28	1	7148-0028	Stop Washer	82	4	1001-1044	Hex Hd Cap Screw
29	4	7148-0029	Spacer	83	4	1001-1016	Hex Hd Cap Screw
30	1	7148-0030	Piston Pin	84	4	1002-0822	Socket Hd Cap Screw
31	1	7148-0031	Main Shuttle	85	13	1002-0808	Socket Hd Cap Screw
32	2	7012-0025	Lock Valve End Cap	86	4	1002-1008	Socket Hd Cap Screw
33	2	7012-0026	Ball Seat	87	4	1002-1024	Socket Hd Cap Screw
34	4	7005-0024	Pin	88	4	1002-1014	Socket Hd Cap Screw
35	2	1201-0169	Spring	89	2	1002-0824	Socket Hd Cap Screw
36	2	1301-0116	Ball	90	1	7148-0090	Return Oil Channel Gasket
37	2	1101-0021	O-Ring	91	2	7148-0091	Brass Fitting
38	2	7005-0025	Lock Valve End Cap	92	2	7148-0092	Tubing Nut
39	2	7005-0026	Ball Seat	93	1	7148-0093	Return Oil Tube
40	2	1201-0165	Spring	94	1	1201-0169	Spool Return Spring
41	2	1301-0112	Ball	95	2	7148-0095	Male To Female Elbow
42	2	1101-0017	O-Ring	96	2	7148-0096	Tube To Male Fitting
43	1	7148-0043	Shuttle	97	1	7148-0097	Tee Pipe To Tube
44	2	7148-0044	Roller	98	4	7148-0098	Steel Tubing Nut
45	1	1025-0330	Clevis Pin	99	45	7148-0099	Nut Sleeve
46	1	1025-0322	Link Pin	100	1	7148-0100	Pipe Connector
47	1	1025-0339	Toggle Pin	101	1	7148-0101	Supply Tube ChangeOver Piston
48	1	1025-0326	Hinge Pin	102	1	7148-0102	Supply tube solenoid Valve
49	3	1025-0318	Roller Pin	103	1*	7148-SOL12	12V Solenoid Valve
50	14	1029-1037	Snap Ring	103	1*	7148-SOL24	24V Solenoid Valve
51	2	1202-1007	Centering Spring	104	2	1101-0015	O-Ring
52	4	1001-1020	Hex Hd Cap Screw	105	2	1102-2009	U-Cup
53	4	1022-0110	Nut	106	1	1102-3007	U-Cup
54	2	1016-1116	Set Screw	107	2	7005-0031	Spring Seat
55	2	1022-0211	Nut	108	2	7012-0031	Spring Seat

* with options