

ENERPAC

Instructions & Repair Parts

Master Copy
EH-80-3, EH-84

INSTRUCTIONS

PRELIMINARY PROCEDURE

1. Place pump in vertical position (hose end down). Remove plug and dipstick (items 21A and 21B).
2. Oil should be visible on flat part of dipstick (with all cylinders retracted).
3. If necessary, add ENERPAC HOF-100 series hydraulic oil. DO NOT OVER-FILL.

CAUTION: The use of other fluids may cause extensive damage to the pump. Such damage is not covered by the ENERPAC Warranty.

4. Replace filler plug assembly and gasket.

INSTALLING GAGE (OPTIONAL EQUIPMENT)

1. (EH-80 ONLY) Remove pipe plug (item 63) from hose connection port.
(EH-84 ONLY) Remove pipe plug (item 63) from hose connection port marked "Cylinder Port #1".
2. Screw GCA-1 (or GCA-3) gage adaptor into hose connection port.

NOTE: The GCA-3 gage adaptor is used with gage GCF-813S only.

3. Screw gage into center port of gage adaptor.
4. Make sure all connections are tight. (Use a small amount of pipe dope on all threaded connections).

ADJUSTING RELIEF VALVE

1. Gage and gage adaptor must be installed.
2. Use a $\frac{3}{8}$ " pipe plug to block off oil flow from gage adaptor.
3. (EH-80 ONLY) Turn release valve (item 26A) to maximum clockwise "closed" position (finger tight).
(EH-84 ONLY) Position valve lever (item 46) over port in which gage adaptor is installed.
4. Operate pump until gage pointer reaches maximum reading (relief valve pressure setting).

5. Place pump in vertical position (gage end down). Remove filler plug assembly (item 21) and gasket (item 22).
6. Insert long $\frac{1}{2}$ " hex rod through filler plug hole and engage adjusting screw in relief valve assembly (item 36).
7. Turn adjusting screw counter-clockwise to reduce the relief valve setting; clockwise to increase relief valve setting (10,000 psi maximum).
8. (EH-80 ONLY) Turn release valve (item 26A) counter-clockwise ("open" position).
(EH-84 ONLY) Move valve lever (item 46) to center position.
9. Repeat steps 3, 4, 7 and 8 until desired relief valve pressure setting is obtained.

EH-80 ONLY

HOSE CONNECTION

1. Screw $\frac{3}{8}$ " N.P.T. hose end into gage adaptor or hose connection port.
2. Connect hose half of Spee-D-Coupler to cylinder half of coupler (JSS-cylinder series furnished with cylinder half coupler installed).

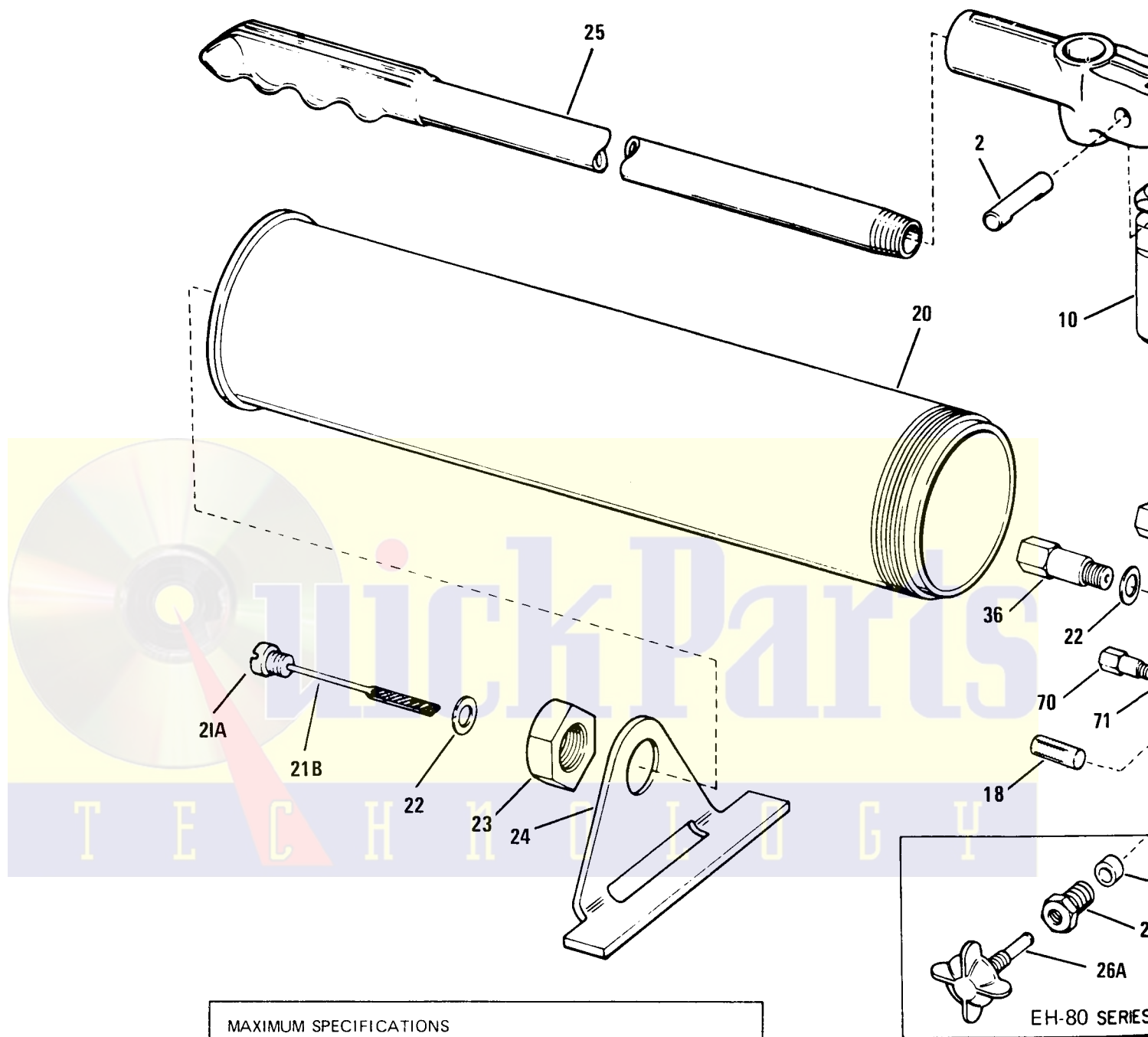
VALVE OPERATION

1. To extend cylinder plunger, turn release valve (item 26A) to maximum clockwise "closed" position (finger tight). Operate pump until work is completed.

WARNING: Do not exceed rated cylinder capacity or plunger stroke.

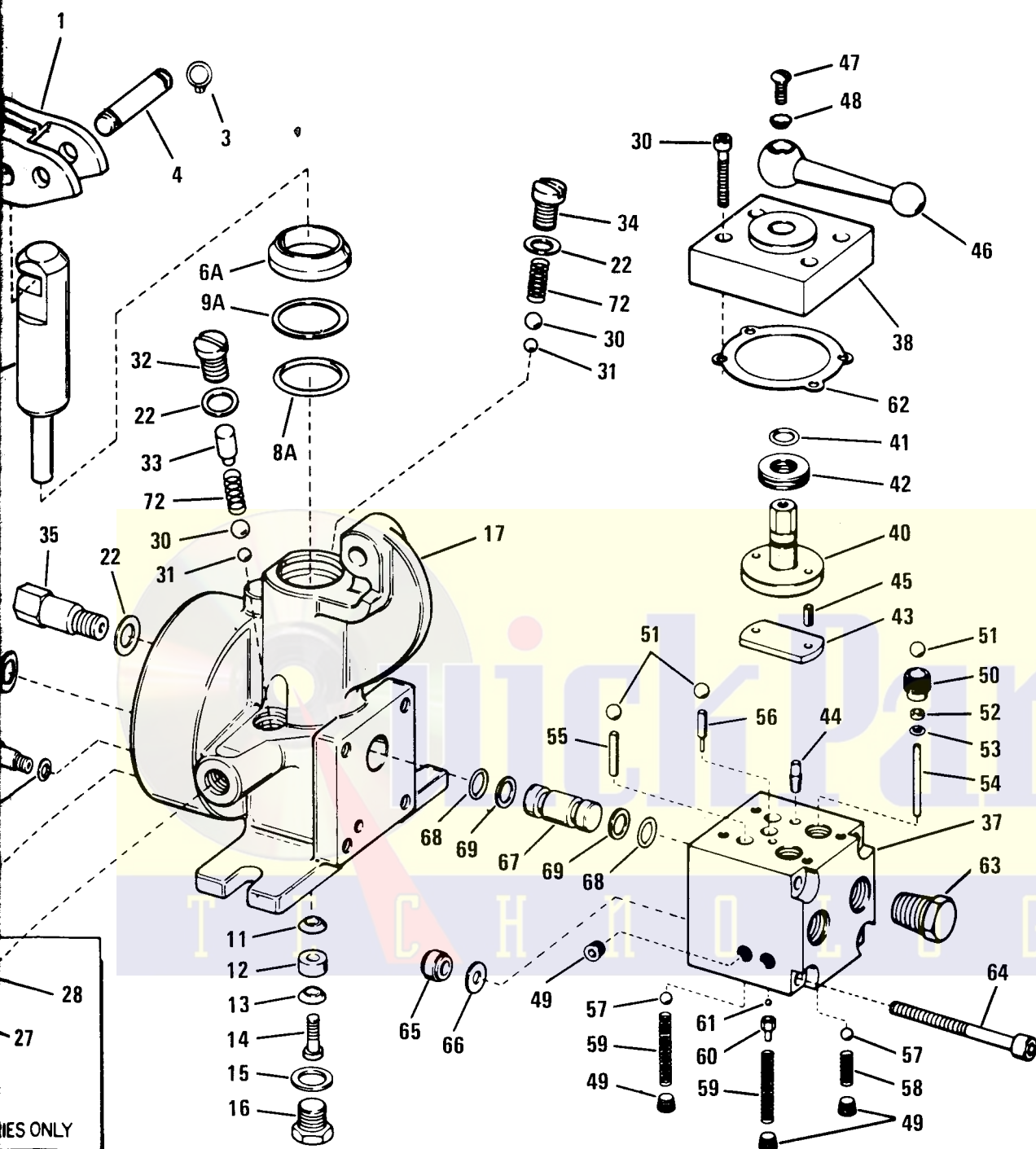
2. To retract cylinder plunger, turn release valve (item 26A) counter-clockwise ("open" position). Cylinder will retract without pump operation.
3. Extend cylinder plunger several times to purge air from system (cylinder should be lower than pump reservoir).

SEE BACK PAGE OF PART SHEET FOR BALANCE OF OPERATING INSTRUCTIONS.



MAXIMUM SPECIFICATIONS		
Operating Pressure	1st Stage	0-1,000 PSI
	2nd Stage	1,000 - 10,000 PSI
Oil Volume per Stroke	1st Stage	.9940 cu. in.
	2nd Stage	.1503 cu. in.
By-Pass Valve Setting	1st Stage	1,000 PSI
Relief Valve Setting	2nd Stage	10,000 PSI
Safety Valve Setting	Maximum	10,200 PSI
Reservoir Capacity		140 cu. in.

TO PROTECT YOUR WARRANTY, USE ONLY ENERPAC HYDRAULIC OIL.



NOTE:

Make sure couplers are wiped clean when making or breaking a connection. Spee-D-Coupler halves seal themselves against oil leakage when disconnected. Dust caps should be attached to prevent dirt from entering exposed ends of Spee-D-Coupler.

PARTS LIST

EH-80 Serial Numbers Begin with "O"; EH-84 Serial Numbers Begin with "O"

Item No.	Description	Qty.	Model No. EH - 80 - 3	Model No. EH - 84
1	Handle Beam	1	B113.060-1	B113.060-1
2	Pin	1	P75.57	P75.57
3	Retaining Ring	2	*	*
4	Pin	1	CB334.060	CB334.060
6A	Wiper Ring	1	*	*
8A	"O" Ring	1	*	*
9A	Back-Up Washer	1	*	*
10	Pump Plunger	1	C910.051	C910.051
11	Spreader	1	F11.52	F11.52
12	Pump Cup	1	*	*
13	Spreader	1	F11.52	F11.52
14	Cap Screw (Nylock)	1	B257.128	B257.128
15	Gasket	1	*	*
16	Plug	1	B247.185	B247.185
17	Base	1	C948.005	C919.005
18	Screen	1	P307.18	P307.18
20	Reservoir	1	B245.900	B245.900
21A	Plug	1	K1.006	K1.006
21B	Dipstick	1	A63.023	A63.023
22	Gasket	5	*	*
23	Jam Nut	1	S4.123	S4.123
24	Pump Rest	1	B242.267	B242.267
25	Pump Handle w/grip	1	C7900	C7900
26A	Spindle Assembly	1	J435.900	— — —
26B	Ball (not shown)	1	P208.16	— — —
27	R.V. Packing Nut	1	MJ11-1	— — —
28	R. V. Packing	2	*	— — —
30	Ball	2	*	*
31	Ball	2	*	*
32	Valve Plug	1	S4.185	S4.185
33	Spacer	1	B248.186	B248.186
34	Valve Plug	1	B249.185	B249.185
35	By-Pass Valve	1	C960.900	C960.900
36	Safety Valve	1	P181.190-2	P181.190-2
37	Valve Body	1	— — —	C828.190
38	Valve Body Cap	1	— — —	C934.162

PARTS LIST

EH80-3 Serial Numbers Begin with "C"; EH-84 Serial Numbers Begin with "O"

Item No.	Description	Qty.	Model No. EH-80-3	Model No. EH-84
39	Soc. Hd. Cap Screw	4	---	C942.087
40	Disc	1	---	C932.071
41	"O" Ring	1	---	*
42	Bearing	1	---	C940.155
43	Disc Bar	1	---	C933.561
44	Groove Pin	1	---	C939.153
45	Spring Pin	2	---	B1049.057
46	Valve Lever	1	---	P60.12
47	Screw	1	---	P45.138
48	Lock Washer	1	---	P45.139
49	Pipe Plug	6	---	A1004.006
50	Valve Body Insert	2	---	C861.439
51	Ball	5	---	*
52	Back-Up Washer	2	---	*
53	"O" Ring	2	---	*
54	Push Pin	2	---	C864.153
55	Push Pin	2	---	C863.153
56	Push Pin	1	---	C944.153
57	Ball	4	---	*
58	Spring	2	---	*
59	Spring	3	---	*
60	Ball Cap	1	---	F4.570
61	Ball	1	---	*
62	Gasket	1	---	*
63	Pipe Plug	1	R389.245	---
63	Pipe Plug	2	---	R389.245
64	Cap Screw	4	---	C953.128
65	Seal Ring	1	---	Z408-1
66	Washer	1	---	C950.108
67	Connector	1	---	C952.270
68	"O" Ring	2	---	*
69	Back-Up Washer	2	---	*
70	Relief Valve	1	C949.900	C949.900
71	Gasket	1	*	*
72	Spring	2	*	*
	Decal	1	*	*
*	Pump Packing Kit		P-80-K-2	P-84K
	Complete 4-Way Valve	1	---	C945.900

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INSTRUCTIONS

EH-84 ONLY

HOSE CONNECTION (SINGLE-ACTING CYLINDER)

1. Screw $\frac{3}{8}$ " N.P.T. hose end into gage adaptor or hose connection port.
2. Connect hose half of Spee-D-Coupler to cylinder half of coupler (JSS-cylinder series furnished with cylinder half coupler installed).
3. Second single-acting cylinder can be connected to remaining hose connection port (repeat steps #1 and #2).

VALVE OPERATION (SINGLE-ACTING CYLINDER)

1. To extend first cylinder plunger, place valve lever (item 46) in position marked "Cylinder Port #1" (second cylinder plunger will retract).
2. To extend second cylinder plunger - place valve lever (item 46) in position marked "Cylinder Port #2" (first cylinder plunger will retract).

NOTE: Both cylinder plungers will retract whenever the valve lever (item 46) is in center position.

3. Extend cylinder plunger several times to purge air from system (cylinder should be lower than pump reservoir).

HOSE CONNECTION (DOUBLE-ACTING CYLINDER)

1. Screw $\frac{3}{8}$ " N.P.T. hose end into gage adaptor or hose connection port marked "Cylinder Port #1".
2. Connect hose half of Spee-D-Coupler to cylinder half of coupler located near bottom of double-acting cylinder (JDS-cylinder series furnished with cylinder half couplers installed).

3. Remove pipe plug (item 63) from second hose connection port marked "Cylinder Port #2".
4. Screw second $\frac{3}{8}$ " N.P.T. hose end into hose connection port marked "Cylinder Port #2".
5. Connect hose half of Spee-D-Coupler to cylinder half of coupler located near the plunger end of double-acting cylinder.

IMPORTANT: MAKE SURE BOTH SPEE-D-COUPLES ARE FULLY ENGAGED.

VALVE OPERATION (DOUBLE-ACTING CYLINDER)

1. To extend cylinder plunger, place valve lever (item 46) in position marked "Cylinder Port #1". Operate pump until work is completed.

WARNING: Do not exceed rated cylinder capacity or plunger stroke.

2. To release load - move valve lever to center position.
3. To retract cylinder plunger - move valve lever to position marked "Cylinder Port #2". Operate pump until cylinder plunger is retracted.
4. To hold load - leave lever in operating position (Cylinder Port #1 or #2).
5. Extend cylinder plunger several times to purge air from system (cylinder should be lower than pump reservoir).

NOTE: Make sure couplers are wiped clean when making or breaking a connection. Spee-D-Coupler halves seal themselves against oil leakage when disconnected. Dust caps should be attached to prevent dirt from entering exposed ends of Spee-D-Coupler.

IMPORTANT – USER SAFETY AND PROTECTION

In setting up systems to fit your operations, care must be taken to select the proper components and design to insure appropriate integration with your operations and existing equipment and that all safety measures have been taken to avoid the risk of personal injury and property damage from your application or system.

ENERPAC CANNOT BE RESPONSIBLE FOR DAMAGE OR INJURY CAUSED BY UNSAFE USE, MAINTENANCE OR APPLICATION OF ITS PRODUCTS. Please contact ENERPAC for guidance when you are in doubt as to the proper safety precautions to be taken in designing and setting up your particular application.

NOTE: Orders for parts cannot be filled unless both model and serial number with prefix imprinted on nameplate are given.

PARTS AND SERVICE	WARRANTY	WARRANTY RETURN PROCEDURE
<p>For quality workmanship and genuine ENERPAC parts, select a Franchised ENERPAC Service Center for your repair needs.</p> <p>Only repairs performed by a Franchised Service Center displaying the official ENERPAC Franchised sign are backed with full factory warranty. The Classified Section in your Phone Book lists your nearest Franchised Service Center.</p>	<p>ENERPAC warrants its products against defects in workmanship and materials for 90 days from date of delivery to user. Chain is not warranted.</p> <p>Warranty does not cover ordinary wear and tear, abuse, misuse, overloading, altered products or use of improper fluid.</p>	<p>When question of warranty claim arises, the user should send his unit to the nearest ENERPAC Franchised Service Center for inspection, transportation to be prepaid and evidence of purchase date furnished. If the claim comes under the terms of our warranty, the Franchised Service Center will REPAIR OR REPLACE PARTS AFFECTED and return prepaid.</p>

ENERPAC®

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