

HOMELITE DIAPHRAGM PUMP
MODEL DP3-1A
FOR ELECTRIC MOTOR DRIVE

CAPACITY	3000 G. P. H.
PUMP FITTINGS	standard 3" straight pipe thread
TOTAL LIFT	25 feet
TOTAL HEAD	50 feet

RECOMMENDED MOTORS
(available on order)

Part No. 76969 — 60 cycle, A. C. , 220-440 volts, 1725 RPM, NEMA#182, three phase, 1HP, continuous duty

Part No. 76970 — 60 cycle, A. C. , 115-230 volts, 1725 RPM, NEMA#182 or #184, single phase, 1HP, continuous duty

Direction of electric motor rotation does not affect the operation of this type of pump.

ASSEMBLY

1. Remove packing bolts, washers, and nuts.
2. Fill gear case to filler spout level with SAE90 gear oil (#55291-B); maintain oil level close to "FULL". Lubricate grease fitting on top of pump rod at frequent intervals. Adequate lubrication will ease load on electric motor.
3. Place 3/16" square key in pump shaft keyway. Loosen set screws in coupling and sleeve assembly ends; slip one end onto pump drive shaft and key.
4. Place selected electric motor on mounting bracket and slip motor drive shaft and key into other end of coupling and sleeve assembly.
5. Line up motor mounting holes with slotted holes in mounting bracket. If drive shafts do not line up, shim up motor with necessary number of flat washers between motor and bracket holes. Insert four 3/8 - 16 x 1 1/2" screws, attach lockwashers and nuts and tighten motor to mounting bracket. Center the coupling and sleeve assembly between motor and pump, allow about 1/16" clearance between the couplings; tighten set screws in both couplings.

SUCTION HOSE

1. NEVER OPERATE PUMP WITHOUT A STRAINER.
Attach the strainer, furnished with the pump, to the end of the suction hose. The strainer will protect the unit.
2. Connect 3" suction hose to suction fitting using a good rubber gasket; tighten to obtain a perfect seal.
3. For lifts above 15 feet, 2 inch suction hose works better than 3 inch hose.

DISCHARGE HOSE

1. Never use discharge hose less than 3 inches in diameter when 3" suction hose is used. A 2" discharge hose can be used with 2" suction hose.
2. Run discharge hose without kinks or any shut off in the line to prevent overloading the electric motor. Do not pump more than 25 feet uphill and avoid using great lengths of discharge hose.
3. Even if you don't need a discharge hose to remove water from the job, we recommend the use of a short piece of discharge hose with the open end slightly higher than the discharge valve. Non-collapsible hose, such as an old piece of suction hose, works best.

PRIMING

The DP3-1A is self-priming (without water) up to 15 feet. For suction lifts over 15 feet, pour approximately one gallon of water into the standpipe. Tighten cap securely.

An overload protection device, such as a time delay fuse or a magnetic starter with overload protection, should be inserted into the line ahead of the motor to prevent motor burnouts which might result from misalignment, bearing failure or other overload producing factors. For optimum protection the fuse rating should closely approximate the nameplate rating of the driving motor, at the voltage used.

HOMELITE
A **textron** DIVISION
Port Chester, New York

HOMELITE DIAPHRAGM PUMP MODEL DP3-1A

Key	Part No.	Description	Qty.	Key	Part No.	Description	Qty.
1	62294	END-coupling, w/set screw	2	45	73856	WASHER-thrust	2
2	62264	SLEEVE-coupling	1	46	A-74339	PUMP ROD ASSEMBLY	1
3	80086	SCREW-hex hd., 5/16-18 x 1 1/8	4			Includes:	
4	76946-1	CAP-bearing	1	47	75614	PIN	1
5	50033	RING-snap	1	48	74121-S	BEARING-needle	2
6	76947-S	BEARING-ball	1	49	32409	FITTING-grease	1
7	71674	KEY-drive shaft	1	50	73857	WASHER	1
8	76945	SHAFT-drive	1	51	80171	SCREW-hex hd., 3/8-16 x 3/4	1
9	83002	WASHER-lock, 5/16	4	52	80272	SCREW-hex hd., 1/2-13 x 1 1/4	4
10	81162	NUT-hex, 5/16-18	8	53	74351	DIAPHRAGM	1
11	76948-S	BEARING-needle	1	54	73706-1	CAP-diaphragm	1
12	76927	SEAL-shaft	1	55	A-74313	PUMP BODY ASSEMBLY	1
13	74137	CAP-bearing	2			Includes:	
14	83009	WASHER-lock, 1/4	10		54890	PIN	1
15	80284	SCREW-hex hd., 1/4-20 x 1	9	56	80393	SCREW-fil. hd., 10-32 x 1/2	4
16	75882-2	COVER-gear case	1	57	74156	PLATE-valve	2
17	74251-S	BEARING-needle	2	58	74154	VALVE	2
18	73850	WASHER-thrust	2	59	74155-1	WEIGHT	2
19	80143	SCREW-flat hd., 8-32 x 1/2	4	60	18127-2	PLUG	1
20	74147	GASKET-cover	1	61	18108	GASKET	1
21	73866-1	GEAR-pump	1	62	74344-2	STANDPIPE, 3"	1
22	A-75672	SHAFT-gear	1	63	A-74348	SUCTION FITTING, 3"	1
		Includes:				Includes:	
23	27752	KEY	2		54890	PIN	1
24	73885	SPACER	1	64	74343-1	NIPPLE-3"	2
25	74352-1	GEAR-intermediate	1	65	76952-1	BASE-channel	2
26	A-75706	GEAR	1	66	80446	SCREW-hex hd., 1/2-13 x 1"	4
		Includes:		67	73874-2	FITTING-discharge, 3"	1
27	74353-1	KEY	1			FOLLOWING PARTS NOT SHOWN:	
28	A-74312	GEAR CASE ASSEMBLY	1		54847-1	SUPPORT-gear case	1
		Includes:			62450-1	HOLDER-spanner wrench	1
29	74252-S	BEARING-needle	1		80388	SCREW-hex cap	1
30	73855	WASHER-thrust	1		83077-1	WASHER-lock	1
31	80143	SCREW-flat hd., 8-32 x 1/2	4		20024-B	WRENCH-spanner	1
32	73850	WASHER-thrust	1		55291-C	OIL-gear, pint can	1
33	74251-S	BEARING-needle	1		74454-A	STRAINER	1
34	74137	CAP-bearing	1			FASTENING PARTS-electric motor:	
35	55140-A	CAP-oil filler	1		80097-2	SCREW-hex hd., 3/8-16 x 1 1/2	4
36	74333	SEAL-shaft	2		83018	WASHER-lock, 3/8	4
37	73858-2	CRANK-pump	1		84069-1	WASHER-flat, 3/8 (motor shim)	8
38	80423	SCREW-socket hd., 1/2-13 x 1 1/2	1		81043	NUT-hex hd., 3/8-16	4
39*	74118-8	BODY-pump (upper)	1			AVAILABLE ON ORDER	
40	80627	SCREW-hex hd., 1/2-13 x 1 3/4	12				
41	83020	WASHER-lock, 1/2"	20		76969	MOTOR-three phase, 1 HP	
42	80087	SCREW-hex hd., 5/16-18 x 1 1/2	2		76970	MOTOR-single phase, 1 HP	
42A	80288-1	SCREW-hex hd., 5/16-18 x 1 3/4 (thru Bracket & Support)	2		74354-A	STRAINER w/FOOT VALVE-use for solids	
43	83003	WASHER-lock, 5/16"	4		A-26799	VALVE FOOT-use for general pumping	
44	76949-2	BRACKET-motor mounting	1		74154-1	VALVE-oil & gas resistant	

* Service replacement; enlarge 4 holes (for motor mounting bracket) to 11/32" I. D.

** For service use either one of these decals: -
75986 CUT-OFF "4 cycle"
76823-1 CUT-OFF "2 cycle"

