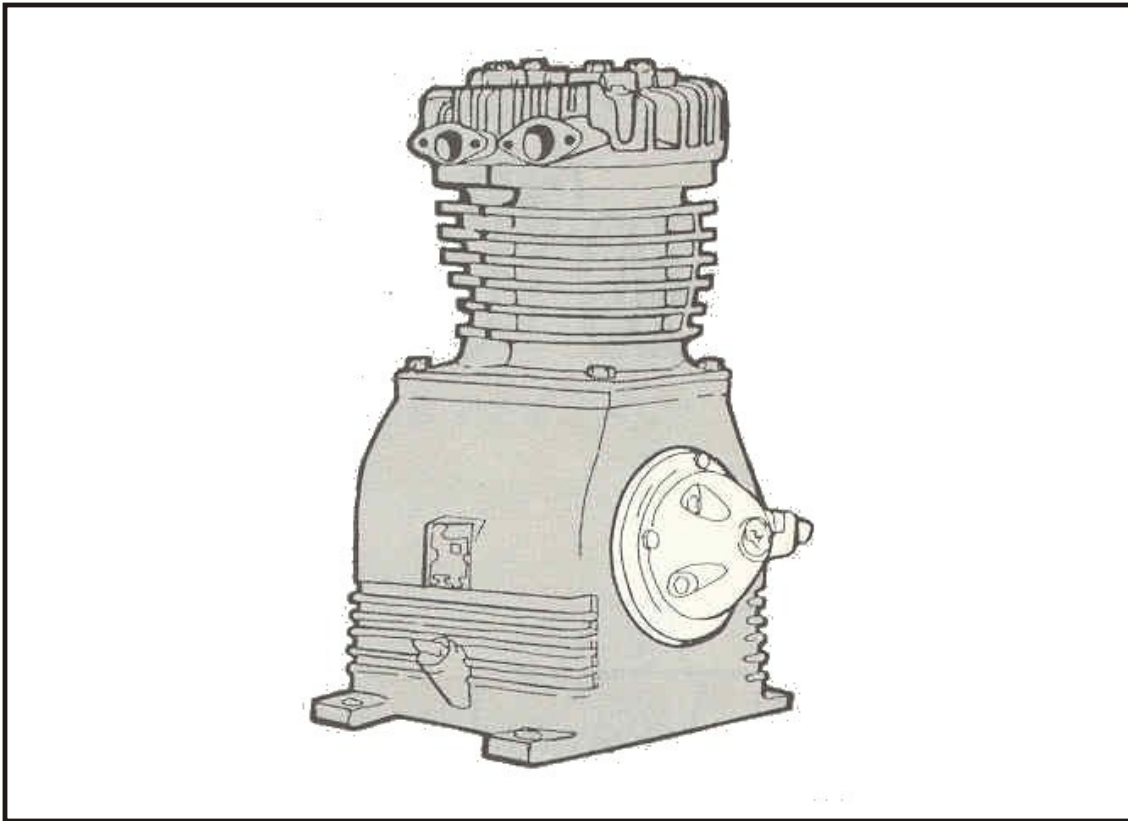


## 44642 Series Compressor Pump

**Note: This Pump is obsolete. Please contact your local DV Systems Distributor for Parts and/or a newer replacement Pump.**



**Warning: Check for proper oil level before using this equipment.**

Use 'PR20' 20 weight non-detergent oil for ambient temperatures between 40° and 90°F.

Use 'PR30' 30 weight non-detergent oil for ambient temperatures above 90°F.

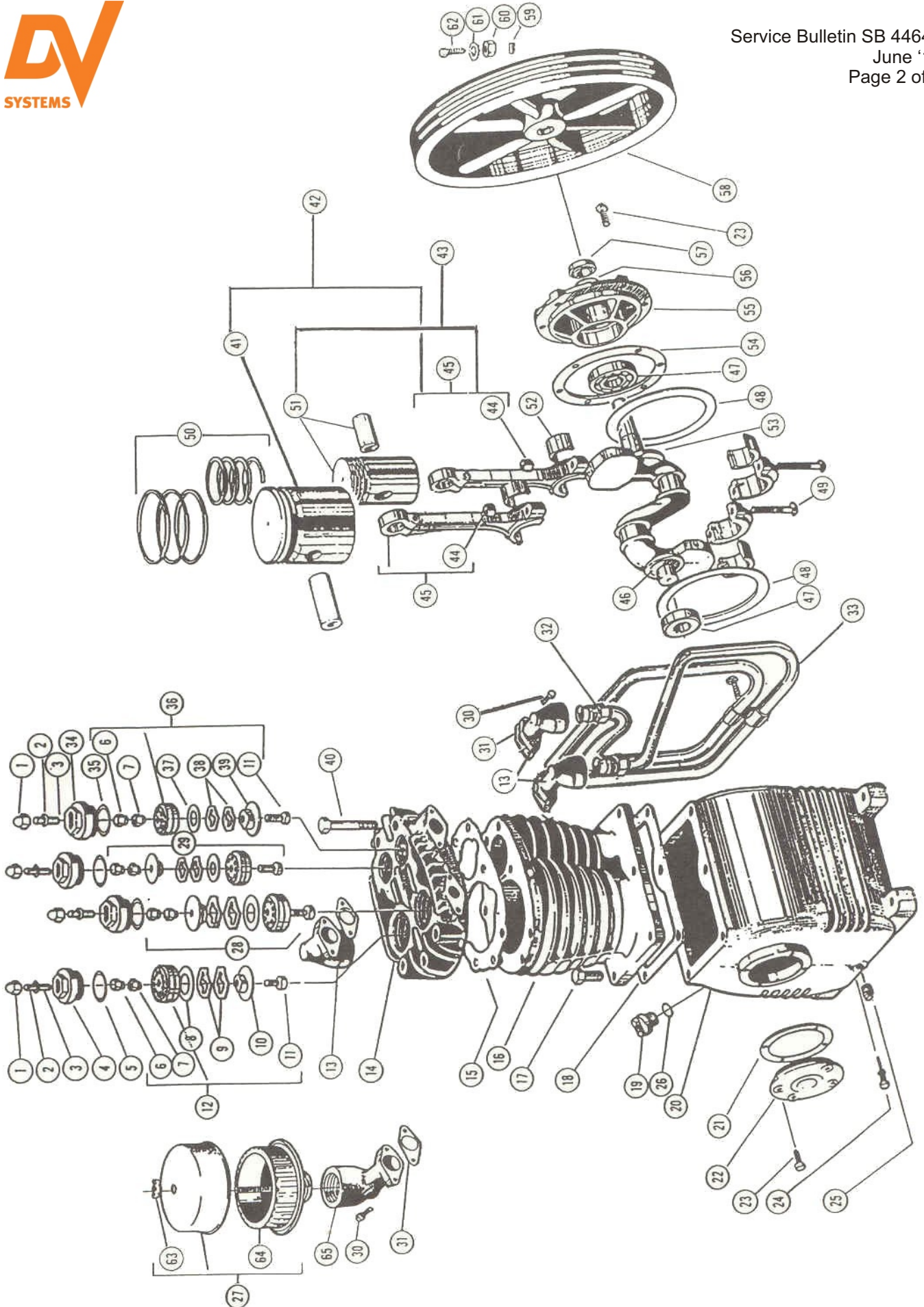
**Specifications:**

Crankcase Capacity (Approx):	76 Fluid Oz (1.9 litres)
Minimum RPM:	300
Maximum RPM:	1200
Max. Intermittent Working Press.:	300 psi

If you require assistance, contact your local DV Systems Distributor or Authorized Service Centre. If you wish to contact DV Systems directly or need to locate your closest Distributor, please reach us at :

Phone: (705) 728-5657  
Fax: (800) 561-1663

Website: [www.dvsystems.ca](http://www.dvsystems.ca)  
Email: [sales@dvsystems.ca](mailto:sales@dvsystems.ca)



The Item Numbers in the Chart(s) below refer to the Pump Breakdown on Page 2.

Item:	Part Number	Qty	Description
1	SS-7424	4	3/8-16 x 7/16" Cap Nut
2	SS-01767	4	Gasket (NLA) Use 'SS-7424'
3	SS-6044	4	3/8-16 x 1" Set Screw
4	445-89	2	LP Valve Plug
5	225-28	2	Gasket
6	445-361A	4	Cap Nut
7	445-360A	4	Jam Nut
8	225-25-1	2	LP Valve Disc
9	447-236	4	LP Valve Spring
10	445-94	2	LP Valve Guide
11	SS-10135	4	5/16-24 x 1" SHCS
12	445-4217	1	LP Intake Valve Assembly
13	41143-003	3	Elbow (NLA)
14	432-24	1	Cylinder Head (NLA)
15	432-26	1	Head Gasket
16	432-325	1	Cylinder (NLA)
17	SS-25	6	3/8-16 x 1" HHCS
18	432-327	1	Cylinder to Crankcase Gasket
19	NCB-303-1	1	Oil Filler Plug
20	37137-105	1	Crankcase (NLA)
21	225-12	1	End Plate Gasket
22	33122-120	1	End Plate
23	SS-13	4	5/16-18 x 7/8" HHCS
24	225-6	2	Screw
25	SS-1229	1	3/8" Black Pipe Plug (NLA)
26	SS-2670	1	'O' Ring
27	356-9404	1	Air Intake Filter Assembly
28	445-4205	1	LP Exhaust Valve Assembly
29	432-4205	1	HP Exhaust Valve Assembly
30	SS-14	8	5/16-18 x 1" HHCS
31	432-196	4	Gasket
32	UAO-11	2	Tube Nut
33	CT-9471	1	Intercooler Assembly (NLA)
Use	CT-9475	1	Intercooler Assembly
34	432-89	2	HP Valve Plug
35	342-128	2	Gasket

Item:	Part Number	Qty	Description
36	432-4217	1	HP Intake Valve
37	220-25	2	HP Valve Disc
38	432-236	4	HP Valve Spring
39	432-94	2	HP Valve Guide
40		7	HHCS
41	432-412-1	1	LP Piston & Pin Assy (Std)(NLA)
42	432-9402	1	LP Rod & Piston Assy (NLA)
43	432-9403	1	HP Rod & Piston Assy (NLA)
44	SS-7982	4	3/8-24 Lock Nut
45	45856-137-1	2	Rod & Cap Assy (NLA)
46	235-43	2	Oil Cup
47	130-23	2	Ball Bearing
48	235-5-1	2	Oil Throw Ring (NLA)
49	432-41	4	Bolt (NLA)
50	KK-9824	1	Ring Kit (Std) (NLA)
51	432-4112-1	1	HP Piston & Pin Assy (Std)(NLA)
52	432-474	2	Connecting Rod Bearing (Std)
53	45817-515	1	Crankshaft & Cup Assy (NLA)
54	38256-117	1	End Plate Gasket
55	37333-307	1	End Plate
56	330-160	1	Felt Washer
57	130-111	1	Oil Seal
58	330-457	1	Flywheel (Incl. 61,62 & 63)(NLA)
59	SS-3484	1	3/16 x 2-1/8" Key #26 (NLA)
60	SS-657	1	3/8-16 Hex Nut
61	SS-1508	1	3/8" Lock Washer
62	SS-155	1	3/8-16 x 3-1/2" HHCS
63	SS-2037	1	1/4-20 Wing Nut (NLA)
64	357-9701	1	Air Intake Filter Element
65	37534-107	1	Intake Elbow (NLA)

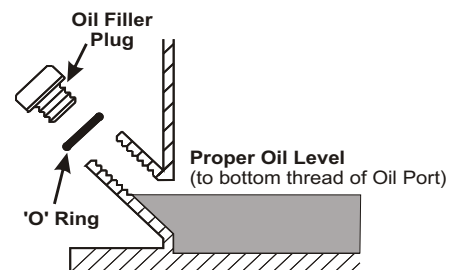
### Kits Available for the '44642' Pump

Part No.	Qty	Description	Includes
45875-014	1	Complete Gasket Kit	# 2, 5, 15, 18, 21, 26, 31, 35, 54
VRK-642	1	Valve Repair Kit	# 2, 5, 6, 7, 8, 9, 11, 35, 37, 38
OK-642	1	Overhaul Kit	(NLA)
MK-236	1	Maintenance Kit	20 Weight Oil + Filter (for 1 change)

### Lubrication:

Fill the Crankcase to the lowest thread at the Oil Fill Port Opening. **Do not under or overfill.** See drawing.

Tightly screw in Oil Fill Plug using a crescent wrench. Use only **DV Systems Premium Compressor Oil** for the Air Compressor, as it has been specially formulated for your Unit, and contains only two additives, a rust inhibitor and an anti foaming agent.

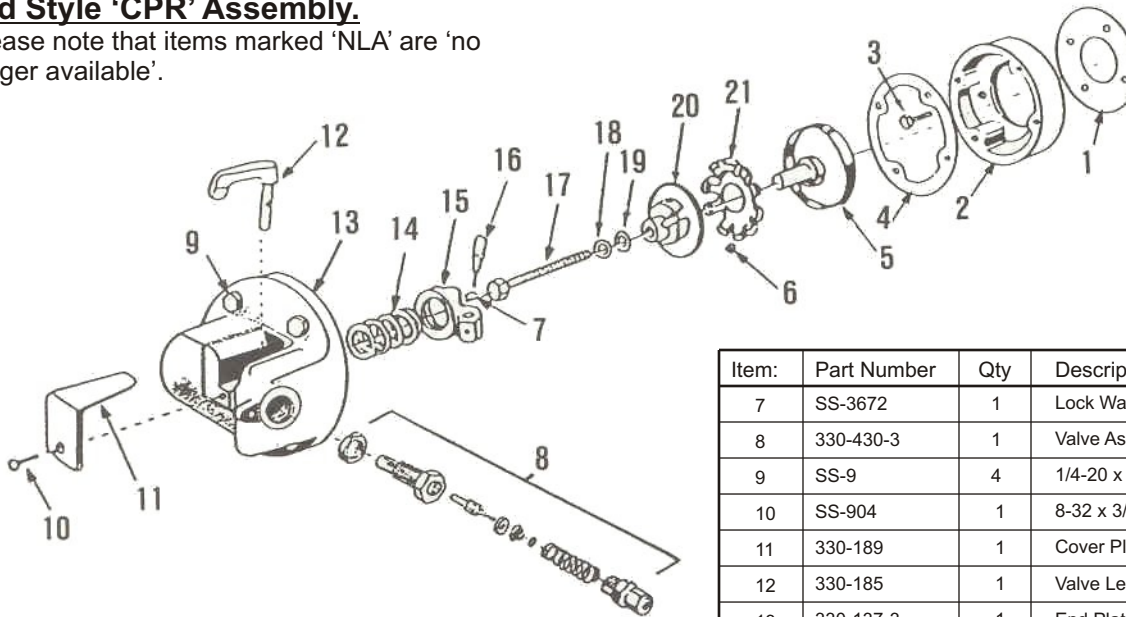


**Section Through CrankCase  
at Oil Fill Port**

## Centrifugal Pressure Release Assembly

### Old Style 'CPR' Assembly.

Please note that items marked 'NLA' are 'no longer available'.



Item:	Part Number	Qty	Description
1	225-12	1	End Plate Gasket
2	37335-101	1	Press. Release Housing (NLA)
3	SS-12	4	5/16-18 x 3/4" HHCS
4	330-144	1	End Plate Gasket
5	42862-005	1	Ball Cup Assy (NLA)
6	SS-1555	10	Hard Steel Ball 5/16" Dia

Item:	Part Number	Qty	Description
7	SS-3672	1	Lock Washer 3/16"
8	330-430-3	1	Valve Assy
9	SS-9	4	1/4-20 x 5/8" HHCS
10	SS-904	1	8-32 x 3/8 RHMS
11	330-189	1	Cover Plate (NLA)
12	330-185	1	Valve Lever
13	330-137-3	1	End Plate (NLA)
14	330-188	1	Return Spring
15	330-183	1	Cam
16	330-184	1	Screw (NLA)
17	SS-156	1	5/16-18 x 3" HHCS (NLA)
18	SS-1503	1	Lock Washer Med 5/16
19	330-182	1	Snap Ring
20	330-419-1	1	Ball Cam Assy (NLA)
21	330-139-1	1	Ball Cage (NLA)

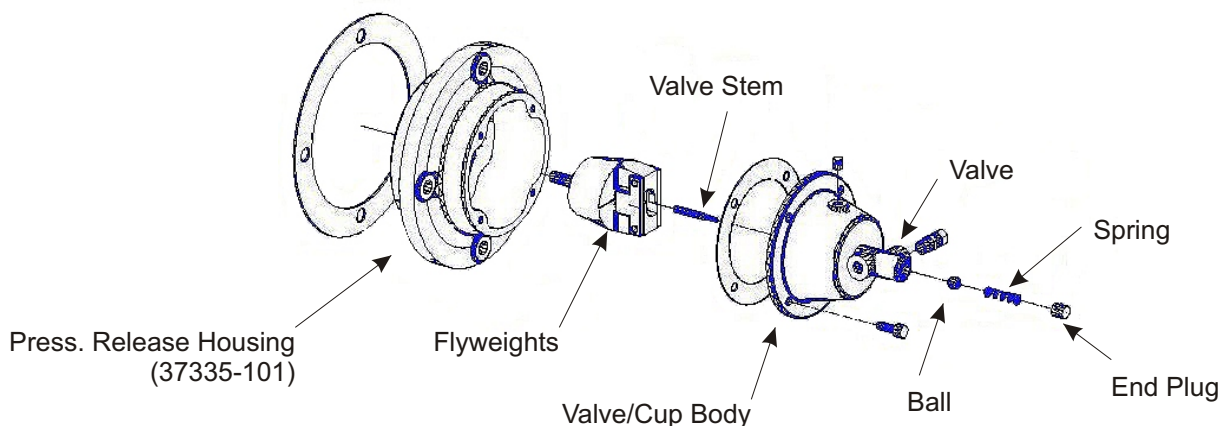
### New Style 'CPR' Assembly.

This CPR can be retro-fitted onto an existing '44642' Series Pump. Order:

- (1) 'CPR-9700' Kit
- (4) 'SS-7840' HHCS
- (1) '37335-106' CPR Housing
- (1) '38281-110' Gasket

**Note:**

1. The 'CPR-9700' Kit cannot be used on an existing '44642' Pump with an old style CPR assembled. Buy replacement parts for the existing assembly, or use a Pressure Switch with a side valve unloader.
2. This Kit can only be used on Pumps that operate at 500 rpm or more.



## Compressor Torque Values

Item:	Description	In Lbs	Ft Lbs	Nm
1	Cap Nuts	180	15	20.3
2	CPR Housing (See Page 4)	144	12	16.2
3,6	Set Screw, Cap Nut	180	15	20.3
4, 34	Valve Plug	-	125	169
12	LP Intake Valve	180	15	20.3
14	CPR End Plate (See Page 4)	72	6	8.1
21	Ball Cam Assembly (See Page 4)	144	12	16.2
22	Small End Plate	144	12	16.2
24	Oil Ring Retainer	144	12	16.2
28	LP Exhaust Valve	180	15	20.3
29	HP Exhaust Valve	180	15	20.3
30	Elbow Bolts	144	12	16.2
36	HP Intake Valve	180	15	20.3
40	Head Bolts	240	20	27.1
43	Connecting Rod - Pin End	120	10	13.5
49	Connecting Rod - Crank End	408	34	46
56	Large End Plate	144	12	16.2
63	Flywheel Bolt	360	30	40.6
70	Cylinder to Crankcase	240	20	27.1

## Honing Specifications

	Std. Cylinder Hone Diameter	Piston Skirt/ Cyl Dia Clear.
Low Pressure Cylinder	3.2500	.0050
	3.2505	.0070
High Pressure Cylinder	1.7500	.0015
	1.7505	.0035

1. Diametral Clearance of oversized Cylinders and Pistons is the same as standard Cylinders and Pistons.
2. Cylinders must be within diametral tolerance at all points, out of round or taper must not exceed .0005.
3. Hone 20 min to 35 max micro inches of surface roughness.
4. De-burr the sharp corners at the top of the Cylinder opening with a 1/64 to 1/32 x 30° chamfer.

## Connecting Rod Insert Bearings

Insert	Crank Throw Diameter	Part Number
Standard	2.0000	432-474
	1.9995	
.010	1.9900	432-474-010 (NLA)
	1.9895	
.020	1.9800	432-474-020
	1.9795	

**CAUTION.** Pre-lubricate all Crank Throws and Insert Bearing surfaces to prevent Compressor tie-ups during the first few minutes of operation. Pour oil on the outside of the Connecting Rod and Crank shoulders. Use the Crankcase oil, DO NOT USE GREASE.

## '44642' Pump Specifications

Pump Model	HP	175 psi		125 psi		# of Cyl.	Bore	Stroke	Flywheel		Pump Dimensions (Refer to drawing)						Weight (Pounds) (Approx)
		RPM	Del'y (CFM)	RPM	Del'y (CFM)				Dia.	Groove	A	B	C	D	E	F	
44642	1½	410	5.08	450	5.8	2	3.25" & 1.75"	3.5"	15"	2A	15"	22.75"	19"	15.375"	9.125"	8.125"	160
	2	550	6.9	550	6.9												
	3	825	10.1	890	11.5												

Note: Though the dimensions are correct, the Pump may not be exactly as shown.

