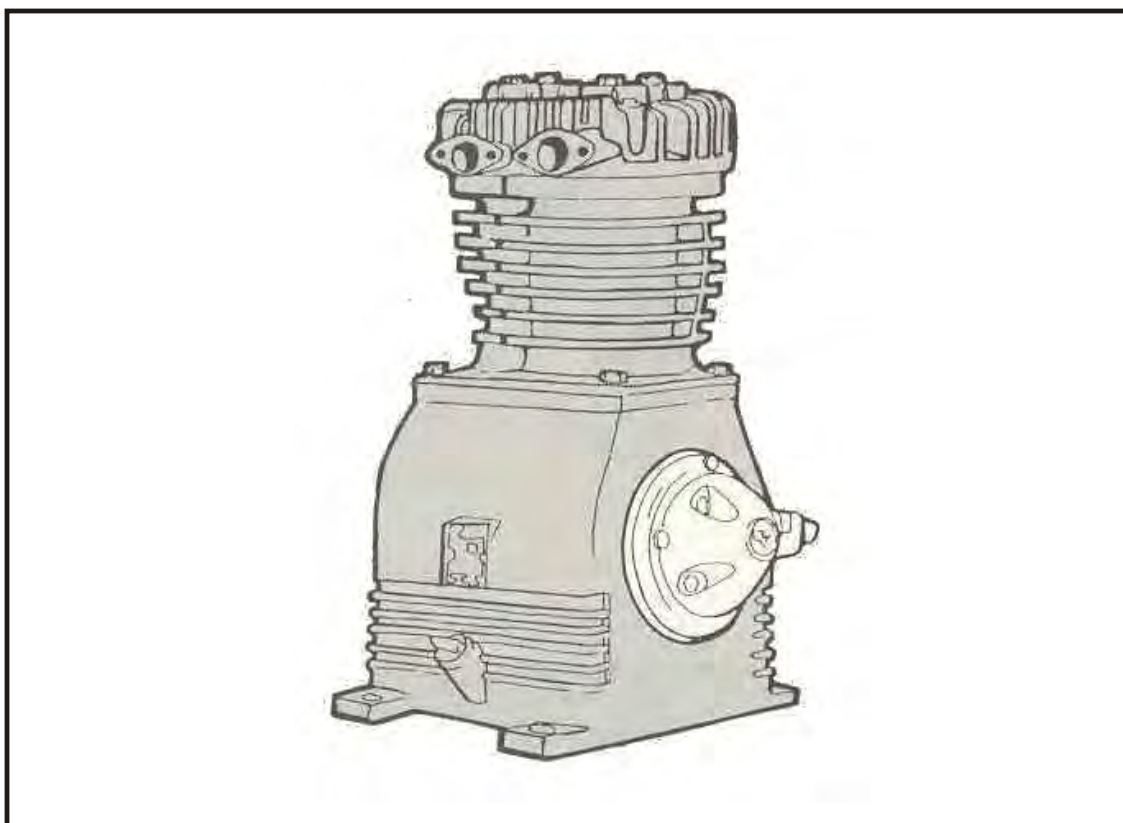




44642 Series Compressor Pump

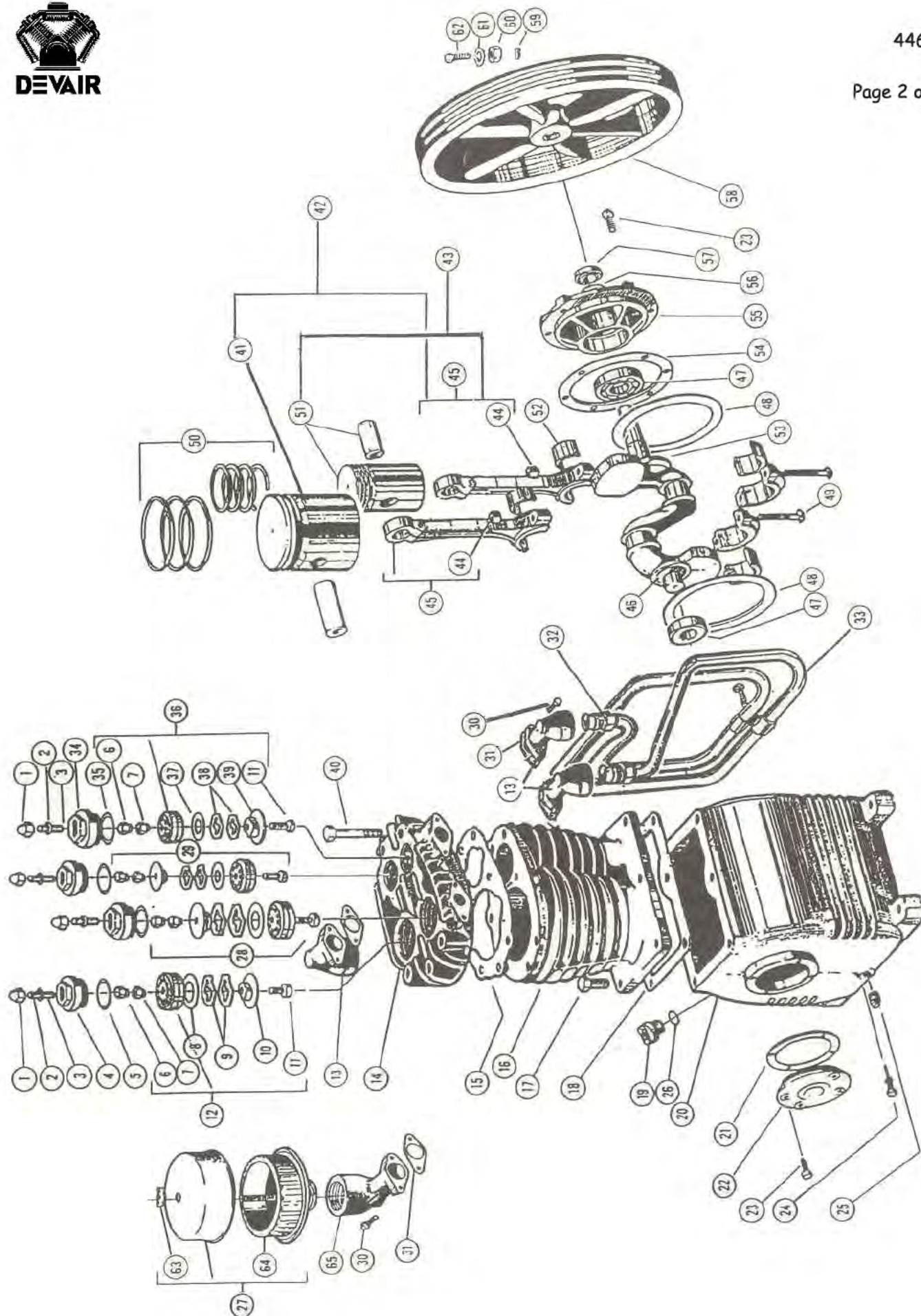


Warning: Check for proper oil level before using this equipment.

Use 20 weight non-detergent oil for ambient temperatures below 40°F.

Use 30 weight non-detergent oil for ambient temperatures between 40°F and 90°F.

Specifications:	Crankcase Capacity:	76 Fluid Oz (1.9 litres)
	Minimum RPM:	300
	Maximum RPM:	900
	Max. Intermittent Working Press.:	300 psi
	Max. Continuous Working Press.:	200 psi





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

Item:	Part Number	Qty	Description
1	SS 7424 ZN	4	3/8 16 x 7/16" Cap Nut
2	SS 01767	4	Gasket
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
15	432 26	1	Head Gasket
16	432 325	1	Cylinder
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
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)
42	432 9402	1	LP Rod & Piston Assembly
43	432 9403	1	HP Rod & Piston Assembly
44	SS 7982	4	3/8 24 Lock Nut
45	45856 137 1	2	Rod & Cap Assembly
46	235 43	2	Oil Cup
47	130 23	2	Ball Bearing
48	235 5 1	2	Oil Throw Ring
49	432 41	4	Bolt
50	KK 9824	1	Ring Kit (Std)
51	432 4112 1	1	HP Piston & Pin Assy (Std)
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)
59	SS 3484	1	3/16 x 2 1/8" Key #26 (NLS)
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
64	357 9701	1	Air Intake Filter Element
65	37534 107	1	Intake Elbow (NLA)

Kits Available for the '44642' Pump

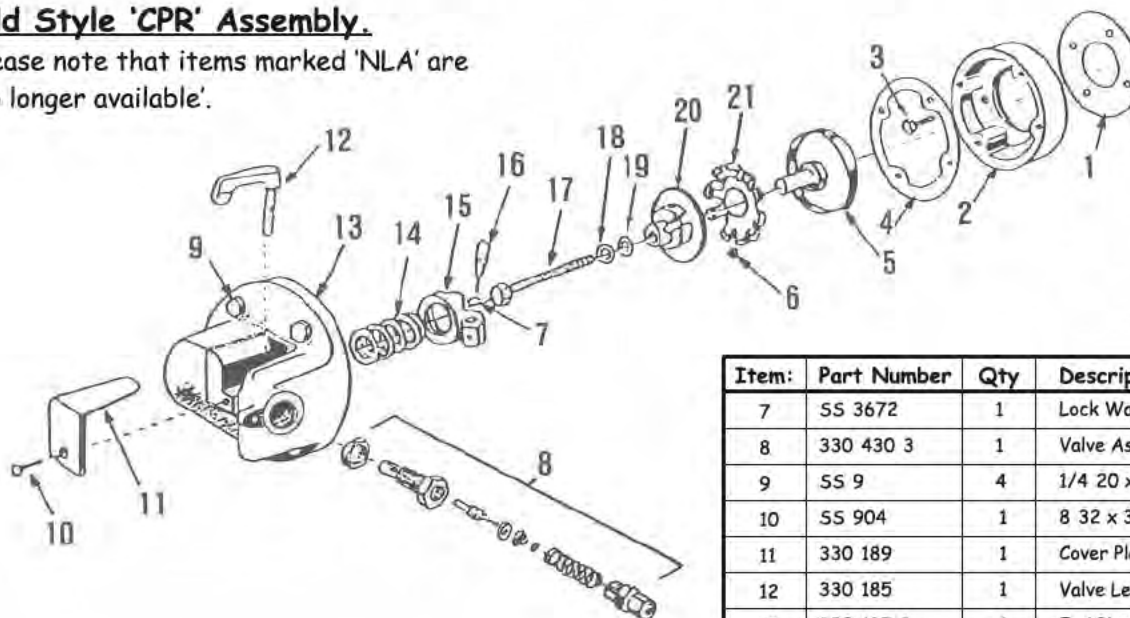
Part Number	Qty	Description	Includes
45875 014	1	Complete Gasket Kit	# 2, 5, 15, 18, 21, 26, 31, 35, 54
VRK 642	1	Valve Repair Kit	# 2, 5, 6, 7, 8, 9, 11, 35, 37, 38
OK 642	1	Overhaul Kit	# 50, 52, 57 and (1) '45875 014', (1) 'VRK 642'
MK 236	1	Maintenance Kit	20 Weight Oil + Filter (for 1 change)



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

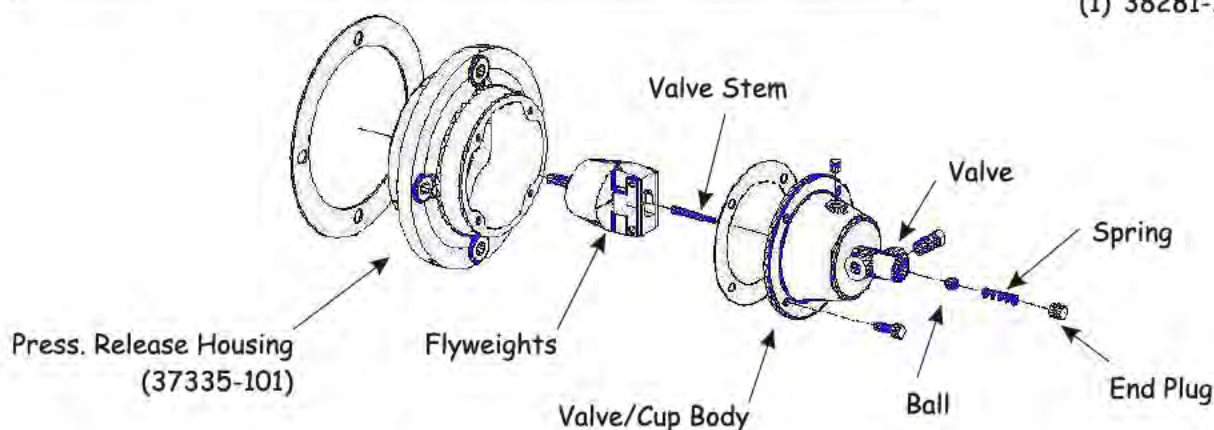
Item:	Part Number	Qty	Description
7	SS 3672	1	Lock Washer 3/16"
8	330 430 3	1	Valve Assy
9	SS 9	4	1/4 20 x 5/8" HHCS
10	SS 904	1	8 32 x 3/8 RHMS
11	330 189	1	Cover Plate (NLA)
12	330 185	1	Valve Lever
13	330 137 3	1	End Plate (NLA)
14	330 188	1	Return Spring
15	330 183	1	Cam
16	330 184	1	Screw (NLA)
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)

- 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.

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





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

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.

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	

'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.

