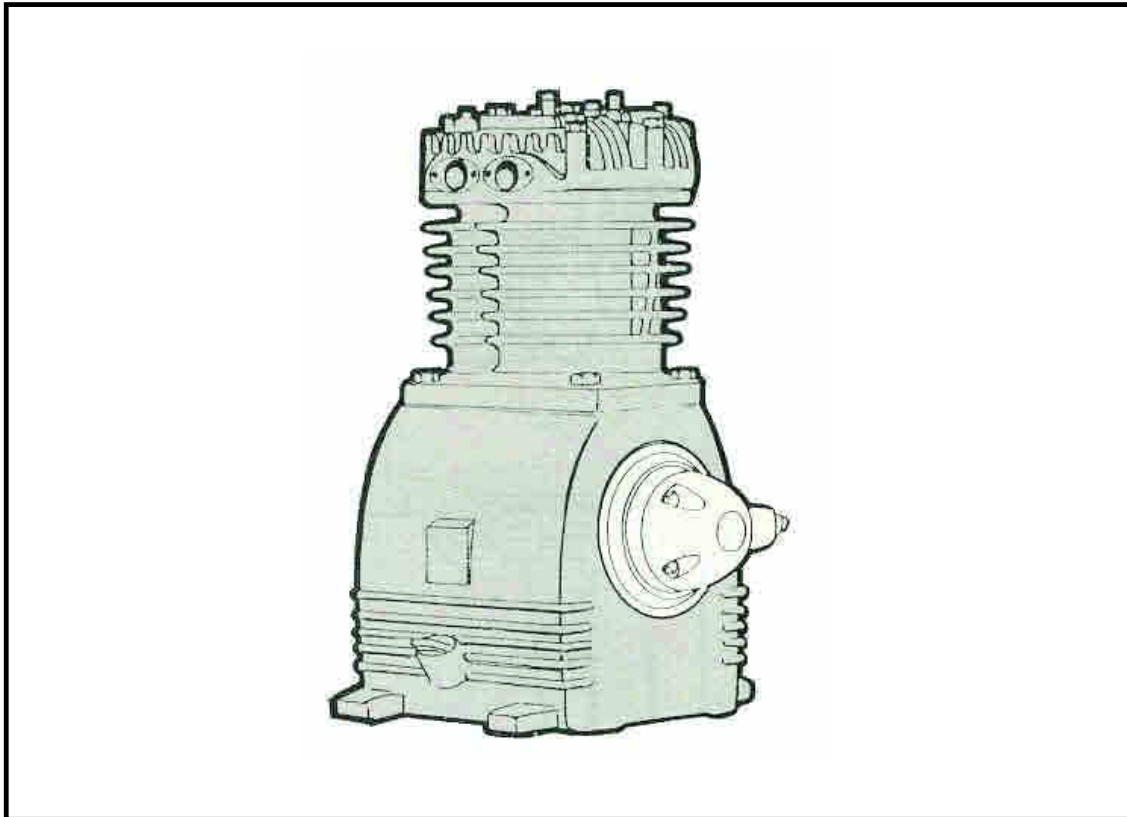


44643 Series Compressor Pump



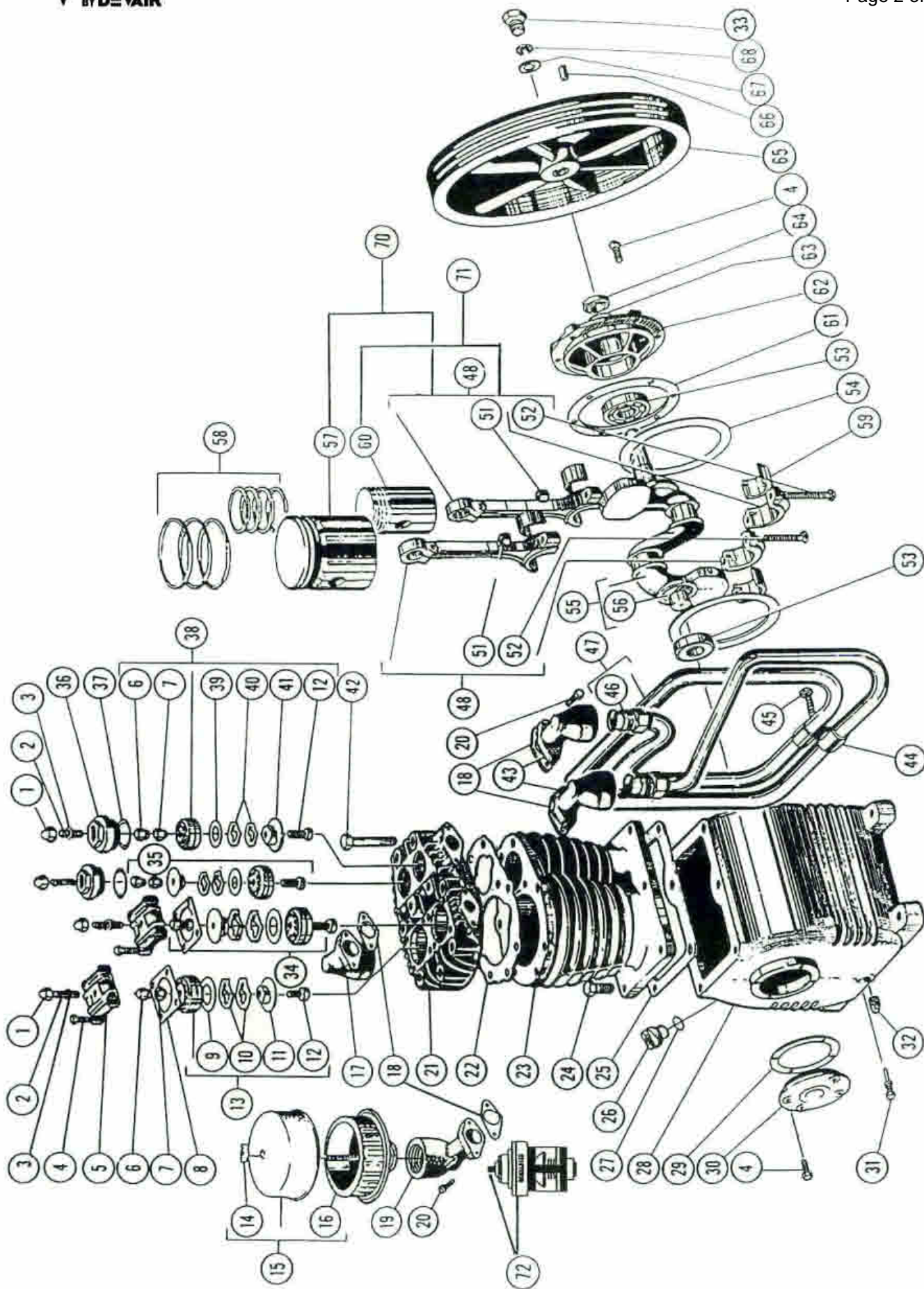
Warning: Check for proper oil level before using this equipment.

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

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

Specifications:

Crankcase Capacity:	112 Fluid Oz (2.8 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-6045	4	3/8-16 x 1-1/2" Set Screw
3	SS-01767	3	Gasket
4	SS-14	18	5/16-18 x 1" HHCS
5	445-88	2	Valve Cap
6	445-361A	3	Cap Nut
7	445-360A	3	Jam Nut
8	445-128	2	Gasket
9	235-25	2	LP Valve Disc
10	445-36	4	LP Valve Spring
11	445-29-1	2	LP Valve Guide
12	SS-10135	2	5/16-24 x 1" SHCS
13	445-417-1	1	LP Intake Valve Assembly
14	SS-2037	1	1/4-20 Wing Nut
15	357-9401	1	Air Intake Filter Assembly
16	357-9701	1	Air Intake Filter Element
17	41143-001	1	Exhaust Elbow
18	445-196	4	Gasket
19	37534-104	1	Intake Elbow (NLA)
20	SS-25	8	3/8-16 x 1" HHCS
21	445-24	1	Cylinder Head
22	445-26	1	Head Gasket
23	445-325	1	Cylinder
24	SS-48	6	1/2-13 x 1" HHCS
25	445-327	1	Cylinder to Crankcase Gasket
26	NCB-303-1	1	Oil Filler Plug
27	SS-2670	1	'O' Ring
28	37137-104	1	Crankcase
29	432-12	1	End Plate Gasket
30	37331-105	1	End Plate
31	225-6	2	Screw
32	SS-1229	1	3/8" Black Pipe Plug (NLA)
33	SS-6883	2	5/8-18 x 1-1/2" HHCS
34	445-405-1	1	LP Exhaust Valve Assembly
35	445-4205	1	HP Exhaust Valve Assembly
36	445-89	2	HP Valve Plug

Item:	Part Number	Qty	Description
37	225-28	2	Gasket
38	445-4217	1	HP Intake Valve Assembly
39	225-25-1	2	HP Valve Disc
40	447-236	4	HP Valve Spring
41	445-94	2	HP Valve Guide
42	SS-56	9	1/2-13 x 3" HHCS
43	41143-002	2	Intercooler Elbow
44	UAP-53	1	Intercooler Bracket
45	SS-01270	2	5/16-18 x 3" FHCS
46	34416-110	2	Nut
47	447-330	1	Intercooler Assy (See Note A)
48	445-4110-2	2	Rod & Cap Assembly
49	SS-3674	2	5/16" Shake Proof Lockwasher
50	21416-037	2	5/16-24 x 1-1/4 SHCS
51	SS-7982	4	3/8-24 Lock Nut
52	235-41	4	Bolt
53	235-23	2	Ball Bearing
54	445-5-1	2	Oil Throw Ring
55	45817-514	1	Crankshaft & Oil Cup Assy
56	235-43	2	Oil Cup
57	445-412-1	1	LP Piston & Pin Assy (Std)
58	KK-9805	1	Ring Kit (Std)
59	445-474	2	Connecting Rod Bearing (Std)
60	445-4112-1	1	HP Piston & Pin Assy (Std)
61	432-13	1	End Plate Gasket
62	37333-305	1	End Plate
63	342-160	1	Felt Washer
64	342-111	1	Oil Seal
65	432-2-1	1	Flywheel
66	SS-10482	1	3/8 x 2" Square Key
67	432-326	1	Flywheel Retaining Washer
68	SS-1508	1	5/8" Medium Lock Washer
69	SS-6883	1	5/8-18 x 1-1/2" HHCS
70	445-9402	1	LP Rod & Piston Assembly
71	445-9403	1	HP Rod & Piston Assembly
72	FM-500	1	Filter Monitor

Note A: The Existing aluminum Intercooler is no longer available. Order (1) '447-330' Intercooler, (2) '445-196' Gaskets, and (1) 'SB-247' Bracket Assembly.

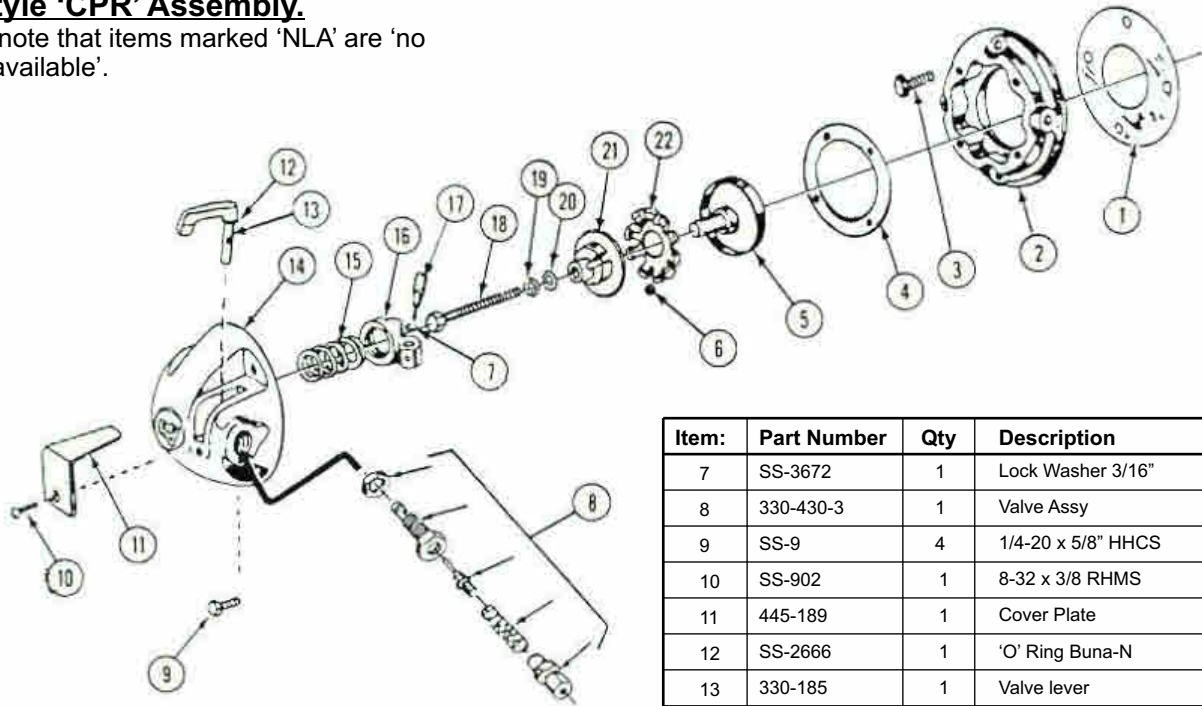
Kits Available for the '44643' Pump

Part Number	Qty	Description	Includes
45875-015	1	Complete Gasket Kit	# 3, 8, 18, 22, 25, 27, 29, 37, 61
VRK-643	1	Valve Repair Kit	# 3, 6, 7, 8, 9, 10, 12, 37, 39, 40
OK-643	1	Overhaul Kit	# 58, 59, 64 and (1) '45875-015', (1) 'VRK-643'
MK-247	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	432-12	1	End Plate Gasket
2	37333-306	1	Press. Release Housing
3	SS-25	4	3/8-16 x 7/8" HHCS
4	445-144	1	End Plate Gasket
5	230-433	1	Ball Cup Assy (NLA)
6	SS-1555	10	Hard Steel Ball 5/16" Dia

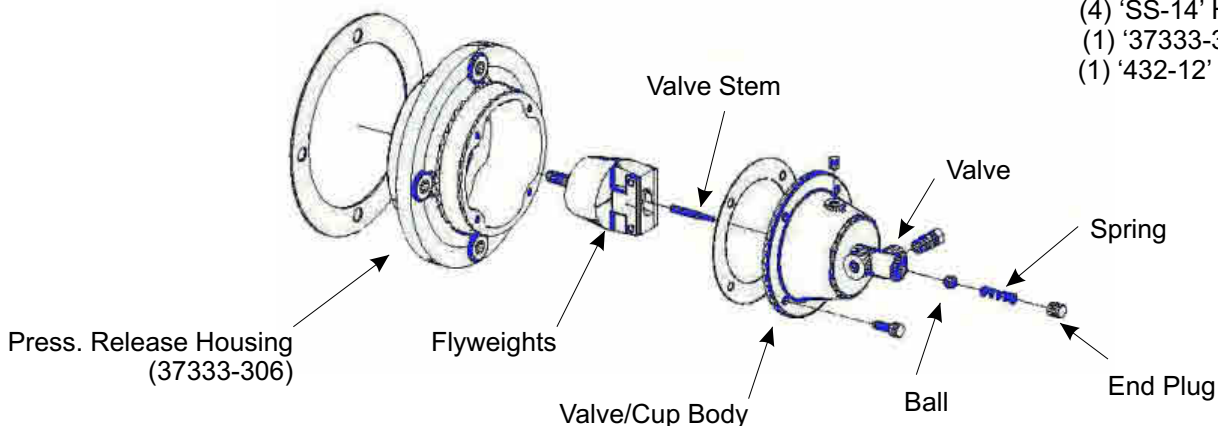
Item:	Part Number	Qty	Description
7	SS-3672	1	Lock Washer 3/16"
8	330-430-3	1	Valve Assy
9	SS-9	4	1/4-20 x 5/8" HHCS
10	SS-902	1	8-32 x 3/8 RHMS
11	445-189	1	Cover Plate
12	SS-2666	1	'O' Ring Buna-N
13	330-185	1	Valve lever
14	445-137	1	End Plate (NLA)
15	330-188	1	Return Spring
16	330-183	1	Cam
17	330-184	1	Screw (NLA)
18	SS-6914	1	5/16-18 x 2-3/4" HHCS
19	SS-1503	1	Lock Washer Med 5/16"
20	330-182	1	Snap Ring
21	330-419-1	1	Ball Cam Assy (NLA)
22	330-139-1	1	Ball Cage (NLA)

Note: 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 '44643' Series Pump. Order:

- (1) 'CPR-9700' Kit
- (4) 'SS-14' HHCS
- (1) '37333-306' CPR Housing
- (1) '432-12' Gasket



Compressor Torque Values

Item:	Description	In Lbs	Ft Lbs	Nm
2,7	Valve Set Screw	180	15	20.3
2	CPR Housing (See Page 4)	144	12	16.2
4	Valve Cap - Bolted	180	15	20.3
6	Cap Nuts	180	15	20.3
13	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
24	Cylinder to Crankcase	564	47	63.7
30	Small End Plate	144	12	16.2
33	Oil Ring Retainer	144	12	16.2
34	LP Exhaust Valve	180	15	20.3
35	HP Exhaust Valve	180	15	20.3
36	Valve Plug	-	125	169
38	HP Intake Valve	180	15	20.3
42	Head Bolts	564	47	63.7
50	Connecting Rod - Pin End	275	23	31.1
52	Connecting Rod - Crank End	408	34	46
63	Large End Plate	144	12	16.2
70	Flywheel Bolts	-	96	130

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	4.5000	.0065
	4.5005	.0085
High Pressure Cylinder	2.5000	.0025
	2.5005	.0045

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	2.2490	445-474
	2.2485	
.010	2.2390	445-474-010 (NLA)
	2.2385	
.020	2.2290	445-474-020
	2.2285	

'44643' Pump Specifications

Pump Model	HP	175 psi		125 psi		# of Cyl. Bore Stroke			Flywheel Dia. Groove		Pump Dimensions (Refer to drawing) A B C D E F						Weight (Pounds) (Approx)
		RPM	Del'y (CFM)	RPM	Del'y (CFM)												
44643	3	395	11.2	470	12.4	2	4.5" & 2.5"	4"	20"	2B	20"	26.25"	20.0625"	18"	10.5"	8.25"	260
	5	635	18.1	695	20												
	7½	785	22.5	880	24.3												

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

