

CHAMPION		R-Series Diesel Engine Drive				Eng. Data Sheet: CP-ENGR3-V1			
		Engineering Data Sheet				Date: 6/22/2022			
		Air Cooled				Supercedes: NEW			
Model Number		BDR5K	HDR5-3K	HDR5-8K	BDR5Y	HDR5-3Y	HDR5-8Y	BDR13Y	HDR13-8Y
Description	Units	Product Data							
Compressor Pump									
Pump Model	na	R-15B							R-30D
Number of Cylinders	na	2							4
Bore & Stroke	in.	4-5/8 & 2-1/2 x 2							4-5/8 (2) & 2-1/2 (2) x 3
Flywheel	OD in.	16.5							18.875
Pulley 175 PSIG	OD in.	4.35							7.35
Lubrication	na	Splash Lubricated							
Oil Capacity	qt.	2							4
Oil Type	na	CHAMPLUB, ISO 100 Non-Detergent Industrial Lubricant							
Number of Belt Grooves	na	1							
Belt Section	na	2BX							
Crankcase	na	Cast Iron							
Bearings	na	Tapered Roller							
Cylinder	na	Aluminum with Cast Iron Liner							
Piston 1st Stage	na	Aluminum Alloy							
Piston 2nd Stage	na	Cast Iron							
Valves	na	Disc Valves							
Intake Filter	na	5 Micron							
Diesel Engine Drive									
Engine Power	hp (kw)	9.1 (6.8)				9.3 (6.9)		23.9 (17.8)	
Engine Manufacturer/Model	na	Kohler KD440				Yanmar L100W		Yanmar 3TNM74F	
Number of Cylinders	na	1				1		3	
Bore & Stroke	in.	3-1/3 x 3				3-1/3 x 3		2-9/10 x 3	
Engine Fuel Tank Capacity (1)	gal..	1.3				1.2		8	
Fuel Consumption Per Hour @ 3600 RPM	gal./hr	0.53				0.56		1.3	
Oil Capacity	qt.	1.7				1.7		3.6	

1.) Engine driven pacakages with R-30 compressor pump come with the 8 gallon fuel tank as standard with fuel tank tray

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Description	Units	Product Data							
Performance Data (5)									
CFM Delivery @ 175 PSIG (6)	acfm	20.1			21.7			44.0	
CFM Displacement @ 175 PSIG	icfm	25.3			27.4			55.0	
Maximum Pressure	psig	175							
Working Pressure Differential	psig	35							
Pump Operating Speed @ 175 PSIG	rpm	870			940			940	
Minimum Speed	rpm	375						400	
Maximum Speed	rpm	1050							
Cooling Air Flow @ 175 PSIG	cfm	1020			1130			1370	
Aftercooler Approach Temp (8)	°F	N/A						10	
Min/Max Operating Temp	°F	32/104							
Dimensions and Weight									
Tank Size	gal	na	30	80	na	30	80	na	80
Tank Configuration	na	na	Horizontal		na	Horizontal		na	Horizontal
Tank Capacity @ 175 PSIG	ft³	na	51.8	138.0	na	51.8	138.0	na	138.0
Tank Pumping Time @ 175 PSIG (9)	min	na	2.6	6.9	na	2.2	5.9	na	3.3
Package Length	in.	41.2	41.6	67.5	41.2	42.7	67.5	64.7	74.9
Package Width	in.	20.6	20.5	21.3	20.6	20.5	21.3	36.1	36.1
Package Height	in.	29.3	45.5	49.1	29.3	45.5	49.1	36.9	62.9
Total Package Weight	lbs.	400	570	680	440	570	680	763	1057
Pump Length	in.	20.0						21.1	
Pump Width	in.	16.5						25.4	
Pump Height	in.	23.3						23.6	
Pump Weight	lbs.	109.0						220.0	
Parts Manual ID	na	CQF3454						CQF3504	
Operating Manual ID	na	CQF3474						CQF3500	

5) All units tested in accordance with CAGI/PNEUROP Acceptance Test Code PN2CPTC2.

6) acfm is actual cubic feet per minute at inlet conditions.

7) Sound levels are based off estimated dB(A) .

8) Approach temperature is the temperature above the discharge air and above the ambient air of the aftercooler.

9) Tank pumping time is based off 0 PSIG to fully pressurized.