

# CX-5 Forged Fluid End Duplex Plunger Pump

## SPECIFICATIONS:

**Max. Plunger Size, in. (mm):**  
2.000 (50.8)

**Stroke Length, in. (mm):**  
2.250 (57.2)

**Rated BHP at 450 rpm (kW):**  
11 (8)

**Rated plunger load, pounds (N):**  
2,000 (8,896)

**Maximum discharge working pressure:**  
**psi(kPa):**

- "M" model: 2,012 (13,872)
- "H" model: 8,500 (58,605)

**Crankshaft extension, in.(mm):**  
Diameter: 1.875 (47.6)  
Length: 2.500 (63.5)  
Key (width x depth): 1/2 X 1/2 (12.7 X 12.7)

**Oil Capacity, gallons (L):**  
Crankcase: 1.0 (3.8)

**Weight, pump w/ wood skids pounds (Kg):**

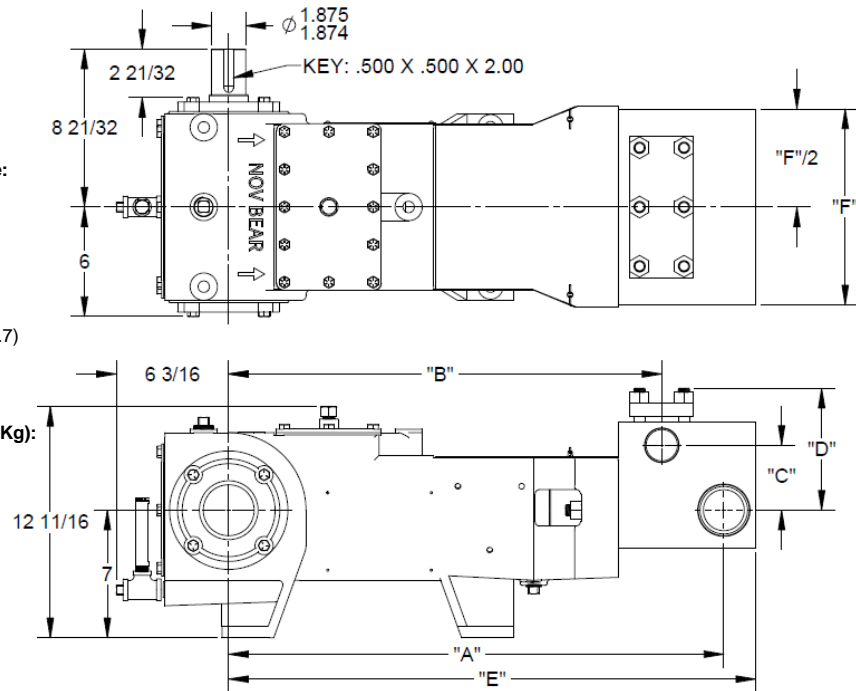
- "L": 380 (172.4)
- "M": 350 (158.8)
- "H": 320 (145.1)

**Standard Materials Fluid End:**

- Carbon Steel
- Stainless Steel

**Crankshaft Options:**

- Right Hand Drive
- Left Hand Drive
- Right Hand Drive w/ Aux
- Left Hand Drive w/ Aux



Pump Model	Fluid End Connections		Dimensions in inches (mm)					
	Discharge Connection	Suction Connection	A	B	C	D	E	F
CX-5L	1-1/2" NPT	2-1/2" NPT	27-3/16 (691)	23-25/32 (604)	3-9/16 (90)	6-11/16 (170)	28-15/16 (735)	10-3/4 (273)
CX-5M	1-1/4" NPT	2" NPT	25-27/32 (656)	23-1/8 (587)	2-13/16 (71)	5-13/16 (148)	27-1/4 (692)	10-3/4 (273)
CX-5H	3/4" NPT	1-1/2" NPT	25 (635)	22-7/8 (581)	2-5/32 (55)	4-29/32 (125)	26-1/4 (667)	10-3/4 (273)

# CX-5 Forged Fluid End Duplex Plunger Pump

## Performance Data:

Pump	English Units					100 RPM		200 RPM		300 RPM		350 RPM		400 RPM		450 RPM	
	Plunger Dia. In.	Plunger Area Sq. In.	BPD per RPM	GPM per RPM	Max Press. PSI	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM
CX-5L (2")	2.000	3.1416	2.0983	0.0612	637	210	6.12	420	12.24	629	18.36	734	21.42	839	24.48	944	27.54
	1.875	2.7612	1.8442	0.0538	724	184	5.38	369	10.76	553	16.14	645	18.83	738	21.52	830	24.20
	1.750	2.4053	1.6065	0.0469	832	161	4.69	321	9.37	482	14.06	562	16.40	643	18.74	723	21.09
CX-5M (1-1/2")	1.625	2.0739	1.3852	0.0404	964	139	4.04	277	8.08	416	12.12	485	14.14	554	16.16	623	18.18
	1.500	1.7671	1.1803	0.0344	1,132	118	3.44	236	6.88	354	10.33	413	12.05	472	13.77	531	15.49
	1.375	1.4849	0.9918	0.0289	1,347	99	2.89	198	5.79	298	8.68	347	10.12	397	11.57	446	13.02
	1.250	1.2272	0.8196	0.0239	1,630	82	2.39	164	4.78	246	7.17	287	8.37	328	9.56	369	10.76
	1.125	0.9940	0.6639	0.0194	2,012	66	1.94	133	3.87	199	5.81	232	6.78	266	7.75	299	8.71
CX-5H (1")	1.000	0.7854	0.5246	0.0153	2,546	52	1.53	105	3.06	157	4.59	184	5.35	210	6.12	236	6.88
	0.875	0.6013	0.4016	0.0117	3,326	40	1.17	80	2.34	120	3.51	141	4.10	161	4.69	181	5.27
	0.750	0.4418	0.2951	0.0086	4,527	30	0.86	59	1.72	89	2.58	103	3.01	118	3.44	133	3.87
	0.625	0.3068	0.2049	0.0060	6,519	20	0.60	41	1.20	61	1.79	72	2.09	82	2.39	92	2.69
	0.500	0.1963	0.1311	0.0038	8,500	13	0.38	26	0.76	39	1.15	46	1.34	52	1.53	59	1.72
Brake Horsepower Required						3		5		8		9		10		11	

Pump	Metric Units					100 RPM		200 RPM		300 RPM		350 RPM		400 RPM		450 RPM	
	Plunger Dia. cm	Plunger Area cm <sup>2</sup>	M <sup>3</sup> /Hr per RPM	L/Sec. Per RPM	Max Press. kPa	M <sup>3</sup> /Hr.	L/Sec.	M <sup>3</sup> /Hr.	L/Sec.	M <sup>3</sup> /Hr.	L/Sec.	M <sup>3</sup> /Hr.	L/Sec.	M <sup>3</sup> /Hr.	L/Sec.	M <sup>3</sup> /Hr.	L/Sec.
CX-5L (2")	51	20.2683	0.0138	0.0039	4,389	1.38	0.39	2.77	0.77	4.15	1.16	4.85	1.35	5.54	1.54	6.23	1.74
	48	17.8139	0.0122	0.0034	4,994	1.22	0.34	2.43	0.68	3.65	1.02	4.26	1.19	4.87	1.36	5.48	1.53
	44	15.5179	0.0106	0.0030	5,733	1.06	0.30	2.12	0.59	3.18	0.89	3.71	1.03	4.24	1.18	4.77	1.33
CX-5M (1-1/2")	41	13.3802	0.0091	0.0025	6,649	0.91	0.25	1.83	0.51	2.74	0.76	3.20	0.89	3.66	1.02	4.11	1.15
	38	11.4009	0.0078	0.0022	7,803	0.78	0.22	1.56	0.43	2.34	0.65	2.73	0.76	3.12	0.87	3.51	0.98
	35	9.5799	0.0065	0.0018	9,287	0.65	0.18	1.31	0.36	1.96	0.55	2.29	0.64	2.62	0.73	2.95	0.82
	32	7.9173	0.0054	0.0015	11,237	0.54	0.15	1.08	0.30	1.62	0.45	1.89	0.53	2.16	0.60	2.43	0.68
CX-5H (1")	29	6.4130	0.0044	0.0012	13,872	0.44	0.12	0.88	0.24	1.31	0.37	1.53	0.43	1.75	0.49	1.97	0.55
	25	5.0671	0.0035	0.0010	17,557	0.35	0.10	0.69	0.19	1.04	0.29	1.21	0.34	1.38	0.39	1.56	0.43
	22	3.8795	0.0027	0.0007	22,932	0.27	0.07	0.53	0.15	0.80	0.22	0.93	0.26	1.06	0.30	1.19	0.33
	19	2.8502	0.0019	0.0005	31,213	0.19	0.05	0.39	0.11	0.58	0.16	0.68	0.19	0.78	0.22	0.88	0.24
	16	1.9793	0.0014	0.0004	44,947	0.14	0.04	0.27	0.08	0.41	0.11	0.47	0.13	0.54	0.15	0.61	0.17
13	1.2668	0.0009	0.0002	58,605	0.09	0.02	0.17	0.05	0.26	0.07	0.30	0.08	0.35	0.10	0.39	0.11	
Kilowatts Required						2		4		6		7		7		8	

Volumetric Rate based on 100% Volumetric Efficiency. Brake Horsepower/Kilowatts Required is based on 90% mechanical Efficiency.

Volumetric Rate is based on 100% Volumetric Efficiency. Brake Horsepower/Kilowatts Required is based on 90% Mechanical Efficiency. For Operation below 100 RPM, an auxiliary lubrication system is required. Not all plunger sizes are shown. Contact National Oilwell Varco for additional information.

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Authorized Distributor:



6750 S 57<sup>th</sup> W Ave

Tulsa, OK 74131

Phone: 918-447-4600

# CX-5 Cast Fluid End Duplex Plunger Pump

## SPECIFICATIONS:

**Max. Plunger Size, in. (mm):**  
1.625 (41.3)

**Stroke Length, in. (mm):**  
2.250 (57.2)

**Rated BHP at 450 rpm (kW):**  
11 (8)

**Rated plunger load, pounds (N):**  
2,000 (8,896)

**Maximum discharge working pressure:  
psi(kPa):**

- "MC" model: 2,012 (13,872)

**Crankshaft extension, in.(mm):**  
Diameter: 1.875 (47.6)  
Length: 2.500 (63.5)  
Key (width x depth): 1/2 X 1/2 (12.7 X 12.7)

**Oil Capacity, gallons (L):**  
Crankcase: 1.0 (3.8)

**Weight, pump w/ wood skids pounds (Kg):**

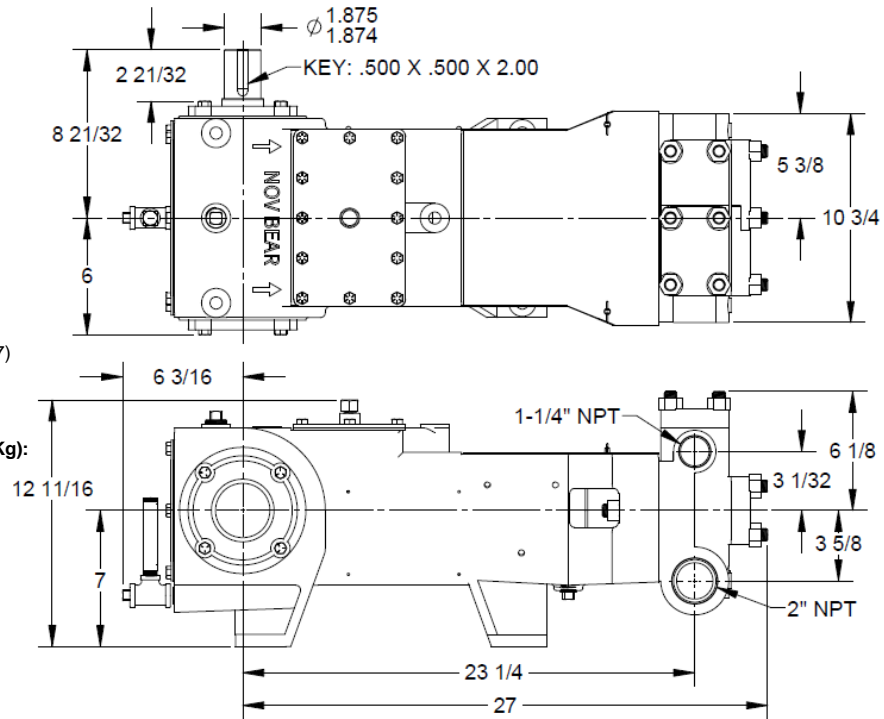
- "MC": 300 (136)

**Standard Materials Fluid End:**

- Alloy Steel
- Super Duplex Stainless Steel

**Crankshaft Options:**

- Right Hand Drive
- Left Hand Drive
- Right Hand Drive w/ Aux
- Left Hand Drive w/ Aux



# CX-5 Cast Fluid End Duplex Plunger Pump

## Performance Data:

Pump	English Units					100 RPM		200 RPM		300 RPM		350 RPM		400 RPM		450 RPM	
	Plunger Dia. In.	Plunger Area Sq. In.	BPD per RPM	GPM per RPM	Max Press. PSI	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM
CX-5MC (1-1/2")	1.625	2.0739	1.3852	0.0404	964	139	4.04	277	8.08	416	12.12	485	14.14	554	16.16	623	18.18
	1.500	1.7671	1.1803	0.0344	1,132	118	3.44	236	6.88	354	10.33	413	12.05	472	13.77	531	15.49
	1.375	1.4849	0.9918	0.0289	1,347	99	2.89	198	5.79	298	8.68	347	10.12	397	11.57	446	13.02
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	1.125	0.9940	0.6639	0.0194	2,012	66	1.94	133	3.87	199	5.81	232	6.78	266	7.75	299	8.71
Brake Horsepower Required						2.5		5.0		8		9		10		11	

Pump	Metric Units					100 RPM		200 RPM		300 RPM		350 RPM		400 RPM		450 RPM	
	Plunger Dia. cm	Plunger Area cm <sup>2</sup>	M <sup>3</sup> /Hr per RPM	L/Sec. Per RPM	Max Press. kPa	M <sup>3</sup> /Hr.	L/Sec.	M <sup>3</sup> /Hr.	L/Sec.	M <sup>3</sup> /Hr.	L/Sec.	M <sup>3</sup> /Hr.	L/Sec.	M <sup>3</sup> /Hr.	L/Sec.	M <sup>3</sup> /Hr.	L/Sec.
CX-5MC (1-1/2")	41	13.3802	0.0091	0.0025	6,649	0.91	0.25	1.83	0.51	2.74	0.76	3.20	0.89	3.66	1.02	4.11	1.15
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	29	6.4130	0.0044	0.0012	13,872	0.44	0.12	0.88	0.24	1.31	0.37	1.53	0.43	1.75	0.49	1.97	0.55
Kilowatts Required						1.9		3.7		6		7		7		8	

Volumetric Rate based on 100% Volumetric Efficiency. Brake Horsepower/Kilowatts Required is based on 90% mechanical Efficiency.

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