

P&H® 670-WLC

70-ton Crawler Crane

UPPER MACHINERY



POWER PLANT:

ENGINE	STANDARD	OPTIONAL
Make	Cummins	Detroit Diesel
Model	N-855P	6-71 (6-71N with Converter)
Type	Diesel	Diesel
No. of Cylinders	6	6
Bore x Stroke, In.	5.50 x 6.00	4.25 x 5.00
cm	139.7 x 152.4	107.9 x 127
Displacement, In.	855	426
liters	14.011	6.981
Cycles	4	2
Air Induction	Nat. Aspirated	Super-Charged (Roots Blower)
Cooling	Liquid	Liquid
Starter	24 V.	24 V.
Alternator	24 V. - 50 A.	24 V. - 50 A.

TRANSMISSION:	STANDARD	OPTIONAL
Make	Cotta	Cotta
Model	T3U-1771	T3U-1771
Type	3-Speed Manual (2nd Gear Normal)	3-Speed Manual (2nd Gear Normal)

RATINGS:

Net HP@ RPM (at Flywheel)	160@ 2000	162@ 2000
Net HP@ RPM (at Trans. Output Shaft)	154@ 1000	156@ 1000
Altitude Range, Ft.	0-6500 ft. , M. (0-1981.2)	0-7000 ft. (0-2133.6)
Temp. Range in F.	-20° to 110°	-20° to 110°
in C.	(-28° to 43°)	(-28° to 43°)

TORQUE CONVERTER: OPTIONAL

Make	Twin Disc	Allison
Model	CO-10066	TCDOA-475
Type	3-Stage	1-Stage

RATINGS:

Net HP@ RPM (at Flywheel)	198@ 2100	189@ 2100
Net HP@ RPM (at Trans. Output Shaft)	160@ 1090	160@ 1640
Altitude Range, Ft.	0-3000 ft. , M. (0 to 914.4)	0-5000 ft. (0 to 1524)
Temp. Range in F.	-20° to 110°	-20° to 110°
in C.	(-28° to 43°)	(-28° to 43°)

Input disconnect clutch — Transmission: Double plate dry type mechanically engaged. 11.5" dia.
Torque converter: Twin Disc - 3 stage (opt. with Cummins engines only), or Allison - single stage (opt. with D.D.A. engines only).

Converter charging hydraulic system — Gear type pump charges converter. Oil to water heat exchanger cools fluid. Filtered with full flow pressure filters with replaceable paper elements.

Governor control — Twist grip (standard) — Twist grip and foot pedal (optional).

Fuel tank capacity — 75 gallons (283.9 liters).

	Cummins N-855P	Detroit 6-71
Lube Oil Capacity	Engine-24 qts. (22.7 liters) Filter-16 qts. (15 liters)	Engine-18 qts. (17.4 liters) Filter-2 qts. (1.9 liters)
Coolant Capacity	Engine-5 gal. (18.9 liters) Radiator-12 gal. (45 liters)	Engine-5.5 gal. (21.3 liters) Radiator-3.25 gal. (12.6 liters)
Air Cleaner	Farr, 2 stage dry type	Donaldson, 2 stage dry type
Lube Oil Filter	Full flow - replaceable By-pass - replaceable	Full flow - replaceable By-pass - none
Fuel Filter	Primary - none Secondary - replaceable spin on	Primary - replaceable Secondary - replaceable

Starting aid — Required below 14°F (-10°C.) ether-measured shot standard equipment for all power plants.

Hydraulic pump — Flange mounted, constant displacement in-line piston pump. 3000 psi (210 kg/cm²), 5 GPM (19 liters per minute).

Batteries — (2) - 12 volt H.D. rated, series connected. Disconnect switch prevents start-up while servicing. 215 amp. hours @ 20 hour rate.

FRAME: All welded frame and power box constructed of heavy steel plate. Shaft mountings are line bored to insure precise alignment of all parts. Gearing (except swing) is sealed and splash lubricated. Involute splined shafts are used, turn in roller and ball bearings. Gears and roller chains are hardened, sealed in oil bath for long, trouble free operation.

MACHINERY CAB: All steel construction, access panels on both sides and roof. Removable panels for main drum brake access. No lines pass through cab. Low profile, recessed center roof. Deck covered with non-skid floor plate. Deck machinery is in compact arrangement, easy to maintain and repair.

GANTRY: Three position telescopic gantry. Power raise and lowering — 6 sheaves — 12.875" (32.7 cm) P.D.

OPERATORS CAB: Totally enclosed from weather. Full vision cab has safety glass throughout, sliding front window and door. Operators four-way adjustable seat is standard. Cab heater — defroster, signal horn, windshield wiper, drum turn indicator, boom angle indicator and boom hoist kick-out limit switch available.



CONTROLS:

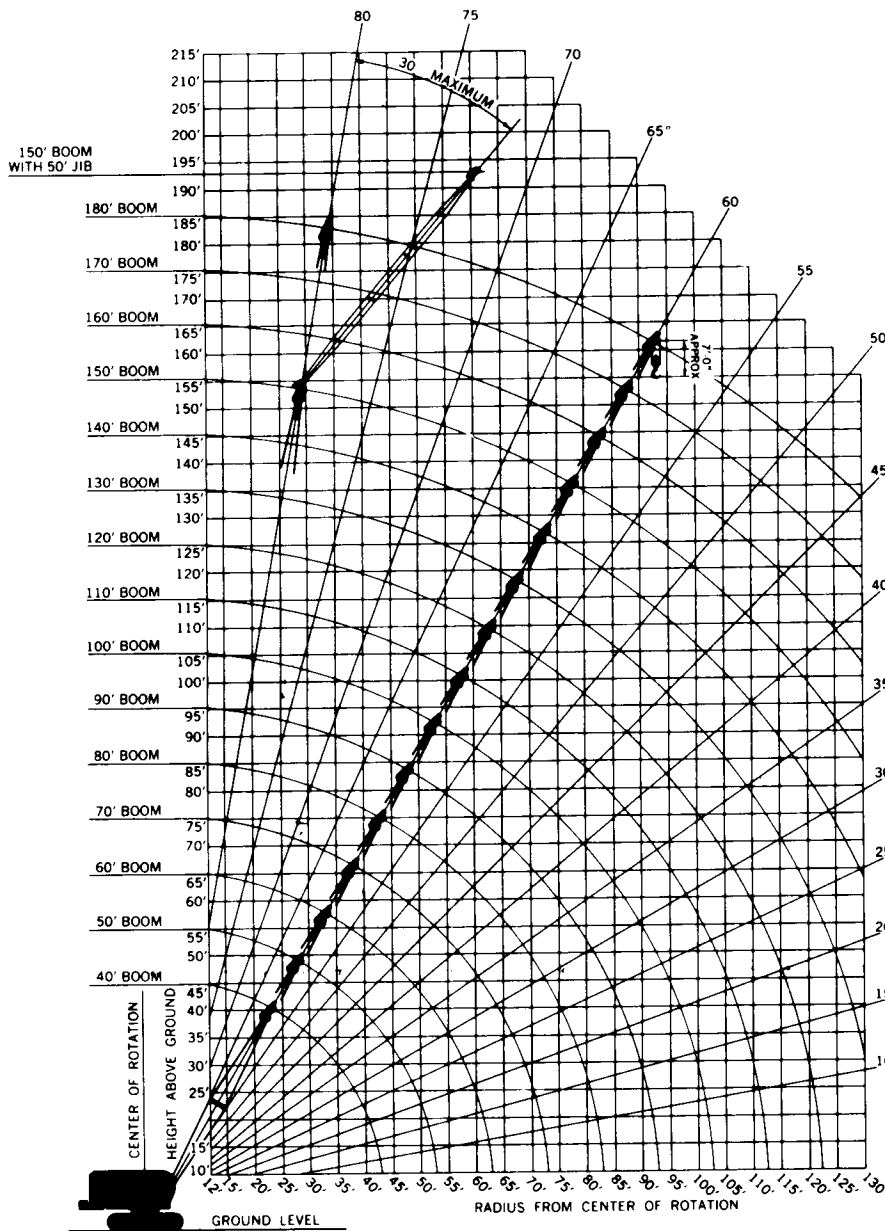
In front of operator are foot pedals for front and rear drum brakes, hand levers for swing control, front and rear drum controls, boom hoist control, swing brake and engine speed control. At operators left are console mounted switches for front and rear drum pawls and brake locks, master switch, engine start, starting aid and lights, included are gauges for upper hydraulic oil pressure, fuel level, engine water temperature, oil pressure, ammeter, hourmeter, drum brake pressure, converter oil charging pressure and temperature (on torque converter equipped machines only), engine clutch hand lever, trouble light receptacle and drum turn indicators (opt.).

HYDRAULIC SYSTEM: Full flow hydraulic system for infinitely variable pressure to front and rear drums and boom hoist brakes and clutches. System at 1400 psi (98 kg/cm²) line pressure. Response is instant, positive and smooth to operators touch. Pumped fluid is filtered, stored in an accumulator under pressure, cooled in 15 gal. (57 liter) reservoir and filtered again before returning to pump.

Specifications

P&H® 670-WLC

70-ton Crawler Crane 150' Boom plus 50' Jib 180' boom



Your versatile P & H 670-WLC adapts readily to your special operating needs. This brochure contains these crane rating charts:

Standard Boom:

- 1 • 30,000 lbs. counterweight
• Crawlers extended
• 40 to 180 foot booms
- 2 • 30,000 lbs. counterweight
• Crawlers retracted
• 40 to 150 foot booms

Jib Ratings

**THIS P&H MODEL
670-WLC MEETS THE
REQUIREMENTS OF
ANSI B30.5-1968.
BOOM STRUCTURE HAS
BEEN TESTED PER
SAE J987. MACHINE
STABILITY HAS BEEN
TESTED PER SAE J765.**

**Standard
50" wide x 50" deep
Boom**

**crane lifting capacities
working ranges**

PCSA CLASS 12-271

1 rated crane loads in pounds — main boom (50" w. x 50" d.) in

Oper. Rad. Ft.	Angle	40 Ft. Boom		Angle	50 Ft. Boom		Angle	60 Ft. Boom		Angle	70 Ft. Boom		Angle	80 Ft. Boom		Angle	90 Ft. Boom		Angle	100 Ft. Boom		Angle	110 Ft. Boom	
		Boom Pt. El.	Rating Lbs.		Boom Pt. El.	Rating Lbs.		Boom Pt. El.	Rating Lbs.		Boom Pt. El.	Rating Lbs.		Boom Pt. El.	Rating Lbs.		Boom Pt. El.	Rating Lbs.		Boom Pt. El.	Rating Lbs.		Boom Pt. El.	Rating Lbs.
12	78	46.4	140,000																					
15	74	45.6	106,000	77	55.9	105,700																		
20	66	43.9	74,300	71	54.6	74,300	74	65.0	74,300	77	75.3	74,300	78	85.5	74,200									
25	58	41.2	52,500	65	52.6	52,500	69	63.4	52,400	72	74.0	52,400	75	84.4	52,200	76	94.7	52,100	78	104.9	52,000	79	115.1	51,800
30	49	37.4	40,300	58	49.9	40,300	64	61.3	40,200	68	72.2	40,100	71	82.9	40,000	73	93.4	39,800	75	103.7	39,700	76	114.1	39,500
35	38	32.0	32,600	51	46.3	32,500	59	58.5	32,400	64	69.9	32,300	67	80.9	32,100	70	91.7	31,900	72	102.3	31,800	74	112.7	31,600
40	24	23.3	27,200	43	41.6	27,100	53	55.1	27,000	59	67.2	26,900	63	78.6	26,700	66	89.7	26,500	69	100.5	26,400	71	111.2	26,200
45				34	35.1	23,200	47	50.8	23,000	54	63.8	22,900	59	75.9	22,700	63	87.3	22,500	66	98.4	22,400	68	109.3	22,200
50				21	25.2	20,200	39	45.3	20,000	49	59.8	19,800	55	72.6	19,600	59	84.5	19,400	63	96.0	19,300	65	107.1	19,100
60							19	26.8	15,700	36	48.6	15,500	45	64.1	15,300	51	77.5	15,100	56	90.0	14,900	59	101.9	14,700
70										18	24.4	12,600	34	51.7	12,300	43	68.0	12,100	48	82.1	11,900	53	95.1	11,700
80													17	29.9	10,200	32	54.6	10,000	40	71.8	9,800	46	86.5	9,600
90	WARNING:															16	31.2	8,400	30	57.3	8,200	38	75.3	8,000
100	WHEN BOOM IS EQUIPPED WITH JIB, MAIN HOOK RATING MUST BE REDUCED TO COMPENSATE FOR JIB ATTACHMENT WEIGHT.																	15	32.5	6,950	29	59.9	6,750	
110	Jib Length		20 Ft.		30 Ft.		40 Ft.		50 Ft.												14	33.8	5,750	
120	Deduct — Lbs.		1,500		1,500		2,000		2,500															

WARNING: Welding or other repair to tubular steel booms may weaken the structure. See your P & H dealer for authorized boom repair service. Unauthorized repair will void all warranties.

2 rated crane loads in pounds — main boom (50" w. x 50" d.) in.

Oper. Rad. Ft.	40 Ft. Boom		50 Ft. Boom		60 Ft. Boom		70 Ft. Boom		80 Ft. Boom		90 Ft. Boom		100 Ft. Boom		110 Ft. Boom		120 Ft. Boom		130 Ft. Boom	
	Angle	Rating Lbs.	Angle	Rating Lbs.	Angle	Rating Lbs.	Angle	Rating Lbs.	Angle	Rating Lbs.	Angle	Rating Lbs.	Angle	Rating Lbs.	Angle	Rating Lbs.	Angle	Rating Lbs.	Angle	Rating Lbs.
12	78	98,000																		
15	74	68,700	77	68,700																
20	66	45,400	71	45,400	74	45,300	77	45,200	78	45,000										
25	58	33,600	65	33,600	69	33,400	72	33,300	75	33,100	76	32,900	78	32,800	79	32,600				
30	49	26,400	58	26,400	64	26,200	68	26,100	71	25,900	73	25,700	75	25,500	76	25,400	77	25,100	78	25,000
35	38	21,700	51	21,600	59	21,400	64	21,300	67	21,100	70	20,800	72	20,700	74	20,500	75	20,300	76	20,200
40	24	18,200	43	18,100	53	18,000	59	17,800	63	17,600	66	17,400	69	17,200	71	17,000	72	16,800	74	16,700
45			34	15,600	47	15,400	54	15,200	59	15,000	63	14,800	66	14,600	68	14,400	70	14,200	72	14,100
50			21	13,600	39	13,400	49	13,200	55	13,000	59	12,700	63	12,600	65	12,400	67	12,200	69	12,100
60					19	10,500	36	10,300	45	10,000	51	9,800	56	9,650	59	9,450	62	9,200	64	9,100
70							18	8,300	34	8,000	43	7,750	48	7,600	53	7,400	57	7,150	59	7,050
80									17	6,600	32	6,300	40	6,100	46	5,900	51	5,650	54	5,550
90											16	5,250	30	5,000	38	4,750	44	4,550	48	4,400
100													15	4,150	29	3,900	37	3,650	42	3,500
110															14	3,250	27	2,950	35	2,750
120																	14	2,400	26	2,200

with 30,000 lbs. counterweight

... 360° work areas with crawlers fully extended

Oper. Rad. Ft.	Angle	120 Ft. Boom		Angle	130 Ft. Boom		Angle	140 Ft. Boom		Angle	150 Ft. Boom		Angle	160 Ft. Boom		Angle	170 Ft. Boom		Angle	180 Ft. Boom		Oper. Rad. Ft.
		Boom Pt. El.	Rating Lbs.		Boom Pt. El.	Rating Lbs.		Boom Pt. El.	Rating Lbs.		Boom Pt. El.	Rating Lbs.		Boom Pt. El.	Rating Lbs.		Boom Pt. El.	Rating Lbs.		Boom Pt. El.	Rating Lbs.	
12																	Midpoint suspension (center hitch) required. Attach 80 ft. up boom from boom foot pin.				12	
15				Boom lengths 80 ft. and above, locate jib backstay anchor at top end of second insert below boom tip section.																	15	
20																						20
25																						25
30	77	124.3	39,300	78	134.5	39,200																30
35	75	123.1	31,400	76	133.4	31,300	77	143.7	31,100	78	153.9	30,900										35
40	72	121.7	26,000	74	132.1	25,900	75	142.5	25,600	76	152.8	25,400	77	163.1	25,400	78	173.3	25,100				40
45	70	120.0	22,000	72	130.6	21,800	73	141.1	21,600	74	151.5	21,400	75	161.9	21,300	76	172.2	21,100	77	182.5	20,900	45
50	67	118.0	18,900	69	128.8	18,800	71	139.4	18,500	72	150.0	18,300	73	160.4	18,200	74	170.9	18,000	75	181.2	17,800	50
60	62	113.3	14,500	64	124.5	14,400	66	135.5	14,100	68	146.4	13,900	69	157.1	13,800	71	167.7	13,600	72	178.3	13,400	60
70	57	107.4	11,500	59	119.2	11,400	62	130.6	11,100	64	141.9	10,900	66	153.0	10,800	67	163.9	10,600	68	174.7	10,400	70
80	51	99.9	9,350	54	112.6	9,200	57	124.7	9,000	59	136.5	8,750	62	148.0	8,650	63	159.3	8,400	65	170.9	8,200	80
90	44	90.6	7,750	48	104.5	7,600	52	117.5	7,350	55	130.0	7,100	57	142.1	7,000	60	153.8	6,750	61	165.3	6,550	90
100	37	78.6	6,500	42	94.5	6,300	47	108.9	6,050	50	122.3	5,800	53	135.1	5,700	56	147.4	5,450	58	159.4	5,250	100
110	27	62.3	5,500	35	81.8	5,300	41	98.2	5,050	45	113.1	4,800	48	126.9	4,650	51	140.0	4,450	54	152.6	4,200	110
120	14	34.9	4,700	26	64.7	4,450	34	84.9	4,200	39	101.8	3,950	43	117.1	3,800	47	131.2	3,600	50	144.7	3,350	120

32R16

WARNING: OPERATION OF THIS EQUIPMENT IN EXCESS OF LOAD RATINGS AND DISREGARD OF INSTRUCTIONS VOIDS THE WARRANTY.

360° work areas with ... crawlers fully retracted

Oper. Rad. Ft.	140 Ft. Boom		Angle	150 Ft. Boom		Oper. Rad. Ft.
	Angle	Rating Lbs.		Angle	Rating Lbs.	
12						12
15						15
20						20
25						25
30						30
35	77	20,000	78	19,700		35
40	75	16,500	76	16,300		40
45	73	13,900	74	13,600		45
50	71	11,800	72	11,600		50
60	66	8,850	68	8,650		60
70	62	6,800	64	6,550		70
80	57	5,300	59	5,050		80
90	52	4,150	55	3,900		90
100	47	3,250	50	3,000		100
110	41	2,500	45	2,300		110
120	34	1,950	39	1,700		120

WARNING: When assembling boom inserts, do not cantilever more than 60 ft. of inserts past point of pendant rope attachment to boom. Relocate point of attachment out on boom as additional inserts are added.