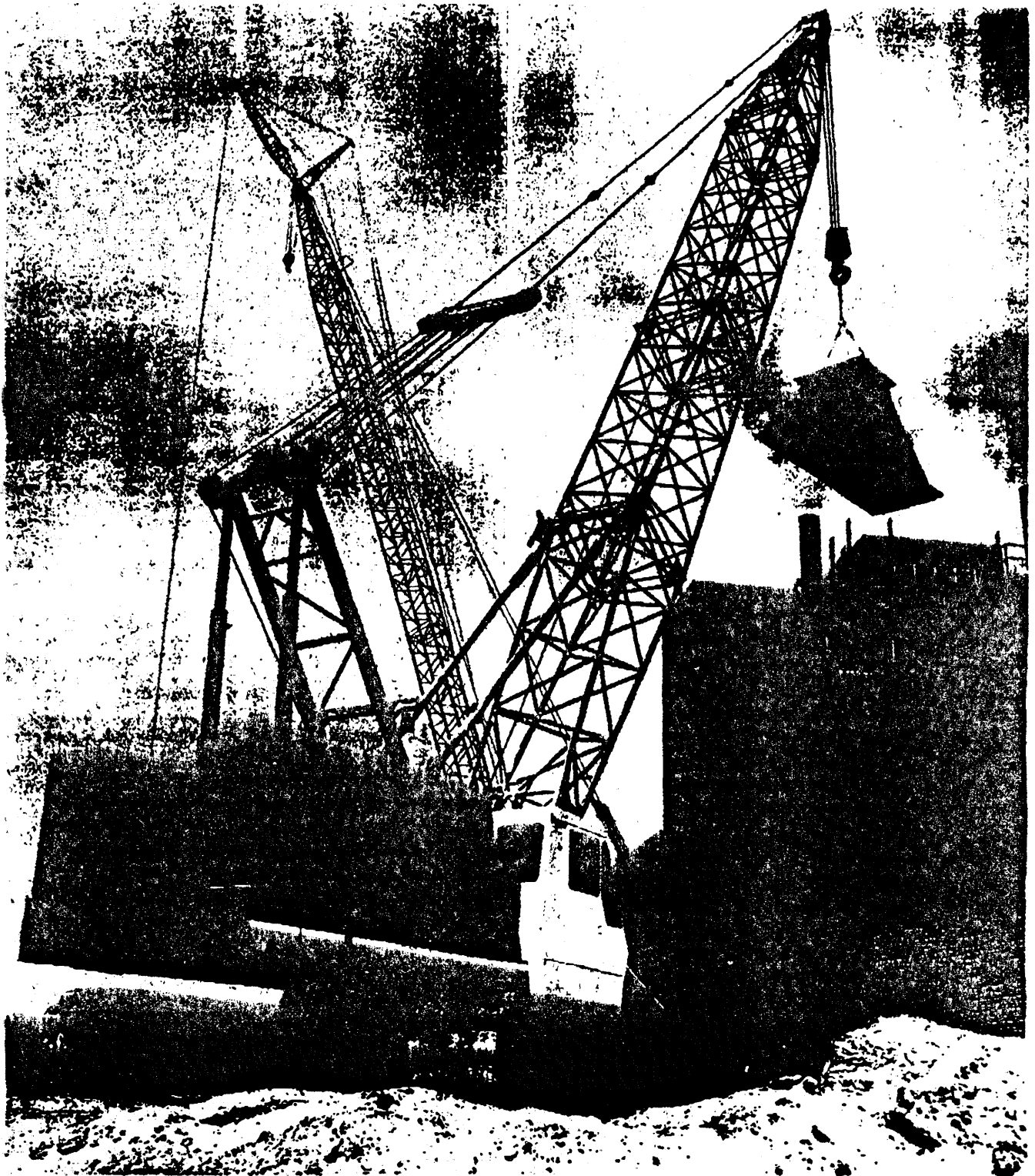


P&H[®] 5100

100-ton Crawler Crane



- Hydraulically Retractable Crawlers
- Torque Converter Transmission
- Longest Boom In Class
- Hydrostatic Propel
- Short Lever Controls
- Super-Quiet Modular Cab

Specifications

Jib Ratings For LIFT CRANE SERVICE 22" x 24" Jib

rated jib loads in pounds

Offset Angle of Jib to Boom Under Full Load	20 Foot Jib	30 foot Jib	40 Foot Jib	50 Foot Jib	60 Foot Jib
10°	22,000*	20,000	16,000	12,000	8,000
20°	16,000	14,500	12,000	9,500	7,000
30°	13,000	11,000	8,500	7,000	6,000

Standard Wire Rope — 7/8 inch dia. Type 25

* Use 2 part of line for loads above 20,000 lbs.

Optional Wire Rope — 7/8 inch dia. Type 11 (Non-Rotating)



Use only 1 part of line. Loads not to exceed 11,800 lbs.

Use of swivel is not approved with this rope.

RAISED LOADS
CLAMSHELL SERVICE
ONE COUNTERWEIGHT

Jib Ratings For CONCRETE BUCKET SERVICE 22" x 24" Jib

rated jib loads in pounds

Offset Angle of Jib to Boom Under Full Load	20 Foot Jib	30 Foot Jib	40 Foot Jib	50 Foot Jib	60 Foot Jib
10°	16,000	16,000	12,800	9,600	6,400
20°	12,800	11,600	9,600	7,600	5,600
30°	10,400	8,800	6,800	5,600	4,800

Standard Wire Rope — 7/8 inch dia. Type 25

Use 1 part of line.

Optional Wire Rope — 7/8 inch dia. Type 11 (Non-Rotating)



Use only 1 part of line. Loads not to exceed 11,800 lbs.

Use of swivel is not approved with this rope.

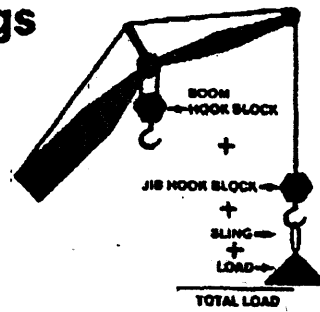
RAISED LOADS
DRAGLINE SERVICE
ONE COUNTERWEIGHT

WARNING



Do not attempt to lift more than rated loads shown in shaded areas — a machine failure may occur.

Jib ratings



Jib ratings


The total load that can be lifted over a jib is limited by either the rated jib loads or by the rated boom loads on which the jib is mounted.


Follow these steps to determine the total load that can be lifted over the jib:

- Step 1. Measure the jib load radius. The load radius must not be longer than the longest radius in the rated boom load chart for the length of boom on which the jib is mounted.
- Step 2. Determine the load rating of the boom at the jib load radius by using the rated boom load chart for the counterweight, crawler extension, work area and length of boom (without jib) being used.
- Step 3. Determine jib rating for the length and offset of the jib from the rated jib load chart.
- Step 4. The total load that can be lifted is the lower of the two ratings determined in Steps 2 and 3.

WARNINGS

- Do not attempt to lift more with the jib (at any radius) than the rated load for the boom at that radius, as crane may tip or collapse.
- Do not attempt to lift more than rated jib loads shown in shaded areas — jib may collapse before crane tips.
- When lifting over jib point with hook block suspended from boom point, include the weight of the boom hook block as a part of the total load.

Jib Ratings For LIFT CRANE SERVICE					
rated jib loads in pounds					
Offset Angle of Jib to Boom Under Full Load	20 Foot Jib	30 foot Jib	40 Foot Jib	50 Foot Jib	60 Foot Jib
10°	22,000	20,000	18,000	16,000	14,000
20°	18,000	16,000	14,000	12,000	10,000
30°	14,000	12,000	10,000	8,000	6,000
Standard Wire Rope — 7/8 inch dia. Type 25 * Use 2 part of line for loads above 20,000 lbs.					
Optional Wire Rope — 7/8 inch dia. Type 11 (Non-Rotating) Use only 1 part of line. Loads not to exceed 11,800 lbs.  Use of swivel is not approved with this rope.					

Jib Ratings For CONCRETE BUCKET SERVICE					
rated jib loads in pounds					
Offset Angle of Jib to Boom Under Full Load	20 Foot Jib	30 Foot Jib	40 Foot Jib	50 Foot Jib	60 Foot Jib
10°	18,000	16,000	14,000	12,000	10,000
20°	14,000	12,000	10,000	8,000	6,000
30°	10,000	8,000	6,000	4,000	2,000
Standard Wire Rope — 7/8 inch dia. Type 25 Use 1 part of line.					
Optional Wire Rope — 7/8 inch dia. Type 11 (Non-Rotating) Use only 1 part of line. Loads not to exceed 11,800 lbs.  Use of swivel is not approved with this rope.					

229849-A

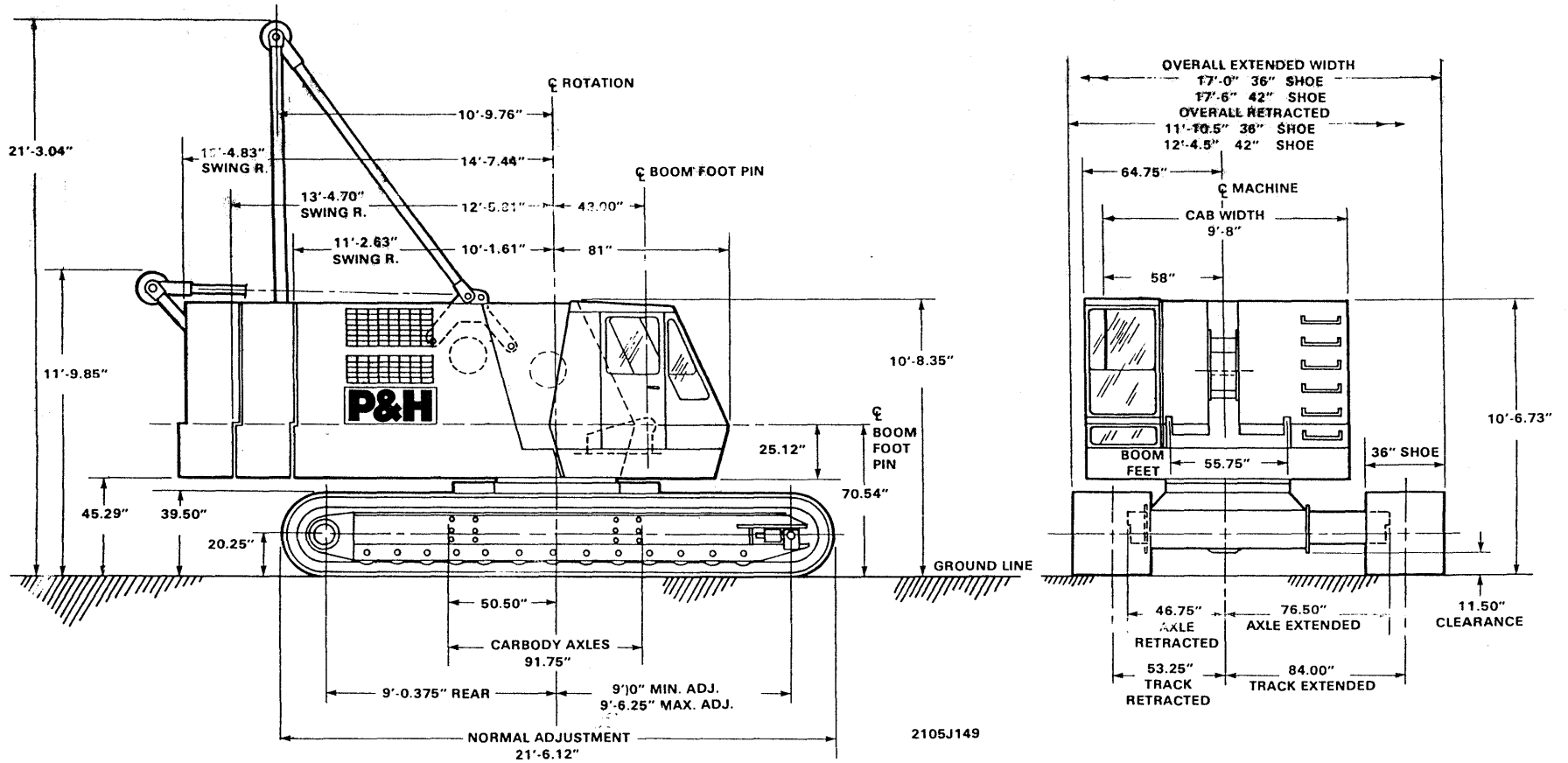


Figure 1-3. General Dimensions (2105J149)

UNDERCARRIAGE



CAR BODY: Car body of Alloy Steel welded construction with double axle housing integral and hydraulic swivel for crawler drive. Crawler frames shear mounted and bolted to end of extendible axles.

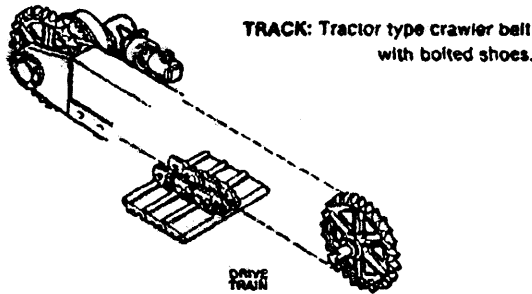
CRAWLER:

Crawler side frames are extendible and retractable by means of hydraulic cylinders to convert from wide track operating condition to a narrower overall width for travel and transportation. Two banks of valves, one on each end of the car body, control the extension cylinders to each side frame. A valve in the upper diverts fluid from the upper control system to the extension cylinders. Jacks are not needed to extend or retract crawlers. Crawlers designed with quick hydraulic line disconnect feature for individual removal as a unit from axles. Crawler belt tension maintained by shims between track adjusting bearing block and frame. 13 lower rollers in each frame, with double rolling surfaces, 11.5" (279 mm) dia.

CRAWLER DRIVE: Independent hydraulic propel drive built into each crawler side frame. Each drive consists of a piston type motor propelling a driving sprocket (wheel) through a planetary gear box. Self-contained system eliminates gear and chain drives in carbody and shaft extensions when axles are extended.

CRAWLER BRAKES: Spring set, hydraulically released parking brakes are built into each propel drive.

STEERING MECHANISM: The hydraulic propel system provides both differential speed steering (driving one track faster than the other) and counter-rotating steering (driving each track in opposite direction) with single joystick control.



TRACK: Tractor type crawler belt with bolted shoes.

CRAWLER SHOES: Total number 118 both sides. 36" (914 mm) flat forged shoes, 42" (1067 mm) flat forged optional extra.

OPTIONAL EQUIPMENT: Load moment device, load indicating device, anti-two block device, spreader control, magnet and controls, two-speed hoist, hydraulic boom foot pin assembly, automatic brakes, dead-man controls, light and generating package (either automotive or 110V-AC), dragline bucket, and clamshell bucket.

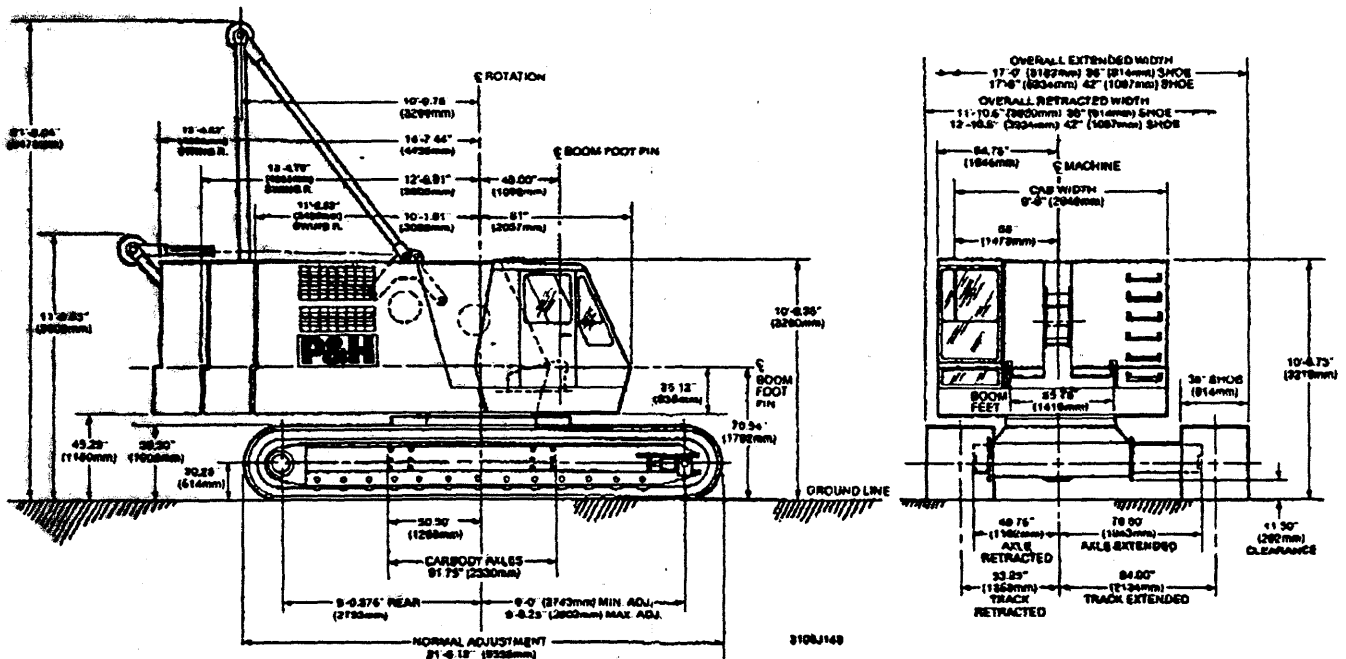
WEIGHTS:

Basic machine, with 50 gallons fuel, two counterweights, 36" shoes, 50 foot boom, 3 part hoist rope, 30 ton hook block	172,786 lbs.	(78,376 Kg)
Basic machine with one counterweight	142,286 lbs.	(64,541 Kg)
Upper structure (basic machine) with 50 gallons fuel, 3 part hoist rope, gantry, backstops, cab but less counterweight	39,389 lbs.	(17,867 Kg)
Lower machine with crawlers, 36" shoes	65,286 lbs.	(29,614 Kg)
Carbody with Swing Circle®, cylinders, axles	19,010 lbs.	(8,623 Kg)
Crawler side frame with 36" shoes	23,813 lbs.	(10,802 Kg)
Crawler side frame with 42" shoes	28,238 lbs.	(12,809 Kg)
Counterweight (each)	30,500 lbs.	(13,835 Kg)
Boom Weights:		
Boom Base with pins	2,700 lbs.	(1,225 Kg)
Boom tip with pendants, pins	3,161 lbs.	(1,434 Kg)
10 foot insert with pendants, pins	960 lbs.	(435 Kg)
20 foot insert with pendants, pins	1,480 lbs.	(671 Kg)
30 foot insert with pendants, pins	2,010 lbs.	(912 Kg)
50 foot insert with pendants, pins	3,000 lbs.	(1,361 Kg)
Jib weights:		
Jib Base with pins	330 lbs.	(150 Kg)
Jib Tip with pins	404 lbs.	(183 Kg)
Jib Strut with pins	415 lbs.	(188 Kg)
10 foot insert with pins	178 lbs.	(81 Kg)
20 foot insert with pins	320 lbs.	(145 Kg)

AVERAGE GROUND BEARING PRESSURE

BASIC MACHINE:	PSI	Kg/cm ²
with 2 counterweights, 36" shoes	10.24	0.72
42" shoes	9.23	0.66
with 1 counterweight, 36" shoes	8.43	0.59
42" shoes	7.88	0.54

TRAVEL SPEED: 1.09 mph (1.75 km/h) approximate
Maximum grade recommended for travel is 20%.





RATINGS LIFT CRANE SERVICE



two counterweights

62" x 62" boom

crawlers fully extended

75% stability					rated boom loads in pounds									
Boom Length (ft)	Load Radius (ft)	Boom Angle Δ°	Boom Point Elev (ft)	360° Rated Load (lbs)	Boom Length (ft)	Load Radius (ft)	Boom Angle Δ°	Boom Point Elev (ft)	360° Rated Load (lbs)	Boom Length (ft)	Load Radius (ft)	Boom Angle Δ°	Boom Point Elev (ft)	360° Rated Load (lbs)
50	11	82	56.9	79,900	110	20	82	116.2	79,900	150	30	80	155.1	48,600
	12	81	56.7	79,900		25	79	115.4	79,900		35	78	154.2	48,600
	15	78	56.2	79,900		30	77	114.4	61,300		40	76	153.1	40,900
	20	72	54.9	113,900		35	74	113.1	49,400		45	74	151.8	34,300
	25	66	53.0	80,800		40	71	111.5	41,200		50	72	150.3	29,700
	30	59	50.5	62,300		45	68	109.7	35,100		60	68	146.8	23,900
	35	52	47.0	50,400		50	65	107.6	30,500		70	64	142.8	18,900
	40	44	42.5	42,300		60	60	102.4	23,800		80	60	137.5	15,500
	45	35	36.3	36,200		70	54	96.4	19,700		90	56	131.2	13,000
	50	23	26.8	31,600		80	47	88.0	16,300		100	51	123.7	11,000
60	15	80	66.4	113,800	120	20	80	125.6	79,800	160	30	81	165.3	48,400
	20	75	65.3	113,800		30	78	124.6	61,200		35	79	164.4	48,400
	25	70	62.8	80,700		35	75	123.4	49,300		40	77	163.4	40,200
	30	65	61.8	62,200		40	73	122.0	41,100		45	75	162.2	34,700
	35	59	59.1	50,300		45	70	120.4	35,000		50	73	160.8	29,400
	40	53	55.8	42,100		50	68	118.5	30,300		60	70	157.5	22,700
	45	47	51.6	36,000		60	62	113.9	23,700		70	68	153.8	18,600
	50	40	46.3	31,400		70	57	108.5	18,800		80	62	148.9	15,300
60	21	28.6	24,700	80	51	101.3	16,200	90	58	143.2	12,700			
70	15	81	76.5	113,700	130	25	81	135.7	79,800	170	30	81	175.4	48,200
	20	77	75.6	113,700		30	79	134.8	61,000		35	80	174.6	48,200
	25	73	74.9	80,600		35	76	133.7	49,000		40	78	173.6	40,100
	30	68	72.6	62,100		40	74	132.5	40,900		45	76	172.5	35,900
	35	64	70.5	50,200		45	72	130.9	34,800		50	74	171.2	29,200
	40	59	67.8	42,000		50	69	129.2	30,100		60	71	168.1	22,500
	45	54	64.5	35,900		60	65	125.0	23,400		70	68	164.6	18,500
	50	49	60.8	31,300		70	60	120.2	19,300		80	64	160.2	15,100
	60	37	49.7	24,600		80	55	113.8	15,900		90	60	154.8	12,500
	70	21	32.5	20,500		90	49	106.0	13,300		100	56	149.6	10,300
80	20	79	85.8	113,600	140	25	82	145.8	79,400	170	35	80	174.6	48,200
	25	75	84.7	80,500		30	79	145.0	60,800		40	78	173.6	40,100
	30	71	83.2	61,900		35	77	144.0	48,800		45	76	172.5	35,900
	35	67	81.4	50,000		40	75	142.8	40,700		50	74	171.2	29,200
	40	64	79.1	41,900		45	73	141.4	34,600		60	71	168.1	22,500
	45	59	76.4	35,800		50	71	139.8	29,900		70	68	164.6	18,500
	50	55	73.2	31,100		60	67	136.0	23,200		80	64	160.2	15,100
	60	46	64.9	24,500		70	62	131.6	19,100		90	60	154.8	12,500
	70	35	54.0	20,300		80	58	125.8	15,700		100	52	141.3	9,900
	80	20	34.3	16,800		90	53	118.9	13,200		110	47	132.8	7,500
90	20	80	98.0	113,500	140	30	79	145.0	60,800	170	40	78	173.6	40,100
	25	77	95.0	80,300		35	77	144.0	48,800		45	76	172.5	35,900
	30	73	93.7	61,700		40	75	142.8	40,700		50	74	171.2	29,200
	35	70	92.1	49,800		45	73	141.4	34,600		60	71	168.1	22,500
	40	67	90.1	41,800		50	71	139.8	29,900		70	68	164.6	18,500
	45	63	87.8	35,500		60	67	136.0	23,200		80	64	160.2	15,100
	50	59	85.1	30,900		70	62	131.6	19,100		90	60	154.8	12,500
	60	52	78.2	24,200		80	58	125.8	15,700		100	52	141.3	9,900
	70	44	69.8	20,100		90	53	118.9	13,200		110	47	132.8	7,500
	80	33	57.0	16,700		100	47	110.4	11,200		120	43	122.7	6,400
100	20	81	106.1	80,100	140	110	41	100.1	9,500	170	50	74	171.2	29,200
	25	78	105.2	80,100		120	35	87.2	8,200		60	71	168.1	22,500
	30	75	104.1	61,600		130	27	70.0	7,100		70	68	164.6	18,500
	35	72	102.6	49,600		140	15	42.8	6,200		80	64	160.2	15,100
	40	69	100.9	41,500							90	60	154.8	12,500
	45	66	98.9	35,400							100	56	149.6	10,300
	50	63	96.5	30,700							110	52	141.3	9,900
	60	56	90.6	24,000							120	47	132.8	7,500
	70	49	83.6	19,900							130	43	122.7	6,400
	80	41	73.6	16,500							140	37	110.7	5,500
90	32	59.9	14,000					150	31	95.9	4,700			
100	17	37.4	12,000					160	24	76.6	4,000			

DEDUCTION FROM RATED BOOM LOADS WHEN LIFTING OVER BOOM POINT WITH JIB ATTACHED

JIB LENGTH	20 FT.	30 FT.	40 FT.	50 FT.	60 FT.
DEDUCT ~ LBS.	2100	2300	2800	3300	3800

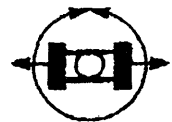
WARNING

Do not attempt to lift more than rated load at load radius shown, or lift where no radius or load is listed, as crane may tip or collapse.

Do not attempt to lift more than rated loads shown in shaded areas — a machine failure may occur.



RATINGS LIFT CRANE SERVICE



two counterweights

62" x 62" boom

crawlers fully extended

75% stability					rated boom loads in pounds									
Boom Length (ft)	Load Radius (ft)	Boom Angle (°)	Boom Point Elev (ft)	360° Rated Load (lbs)	Boom Length (ft)	Load Radius (ft)	Boom Angle (°)	Boom Point Elev (ft)	360° Rated Load (lbs)	Boom Length (ft)	Load Radius (ft)	Boom Angle (°)	Boom Point Elev (ft)	360° Rated Load (lbs)
180	30	82	185.5	27,100	200	35	81	205.0	27,100	220	35	82	225.2	21,300
	35	80	184.7	47,900		40	80	204.1	27,100		40	81	224.4	21,300
	40	79	183.8	39,800		45	78	203.2	33,200		45	79	223.6	21,300
	45	77	182.7	35,700		50	77	202.1	28,500		50	78	222.6	21,300
	50	75	181.5	29,000		60	74	199.8	21,400		60	76	220.5	21,300
	60	72	178.6	22,300		70	71	196.7	17,600		70	73	217.7	17,400
	70	69	175.4	18,300		80	68	193.0	14,400		80	70	214.4	14,000
	80	65	171.2	14,900		90	65	188.6	11,800		90	67	210.5	11,400
	90	62	166.3	12,300		100	62	183.6	9,800		100	64	206.0	8,300
	100	58	160.5	10,300		110	58	177.8	8,200		110	62	200.9	7,700
	110	54	153.8	8,600		120	55	171.3	6,800		120	59	195.2	6,400
	120	50	146.1	7,300		130	51	163.7	5,700		130	55	188.7	5,300
	130	46	137.1	6,200		140	48	155.2	4,800		140	52	181.3	4,300
	140	41	128.6	5,300		150	44	145.3	4,000		150	49	173.1	3,500
	150	36	114.0	4,400		160	39	133.8	3,300		160	45	163.7	2,800
	160	30	98.7	3,800		170	34	120.3	2,700		170	41	153.0	2,200
170	23	78.7	3,200	180	29	103.9	2,200	230	35	82	235.3	17,100		
180	13	47.5	2,600	190	22	82.6	1,700		40	81	234.6	17,100		
190	35	81	194.8	29,600	210	35	82		215.1	29,600	45	80	233.7	17,100
	40	79	194.0	39,600		40	80		214.3	29,600	50	79	232.8	17,100
	45	78	193.0	33,500		45	79		213.4	29,600	60	76	230.8	17,100
	50	76	191.8	28,800		50	77		212.4	28,300	70	74	228.1	17,100
	60	73	189.1	22,000		60	75		210.1	21,400	80	71	224.9	13,700
	70	70	185.1	18,000		70	72		207.2	17,600	90	68	221.3	11,100
	80	67	182.1	14,600		80	69		203.7	14,200	100	66	217.0	9,100
	90	63	177.5	12,100		90	66		199.6	11,600	110	63	212.2	7,500
	100	60	172.2	10,000		100	63		194.9	9,600	120	60	206.8	6,100
	110	56	166.0	8,400		110	60		189.5	8,000	130	57	200.7	5,000
	120	53	158.9	7,100		120	57		183.3	6,600	140	54	193.8	4,100
	130	49	150.7	6,000		130	54		176.4	5,500	150	51	186.1	3,300
	140	45	141.3	5,000		140	50		168.5	4,600	160	48	177.5	2,800
	150	40	130.3	4,200		150	46		159.5	3,800	170	44	167.8	1,900
	160	36	117.2	3,500		160	42	149.2	3,100					
	170	30	101.3	2,900		170	38	137.3	2,600					
180	23	80.7	2,400	180	33	123.4	1,800							
190	13	48.6	1,900											

DEDUCTION FROM RATED BOOM LOADS WHEN LIFTING OVER BOOM POINT WITH JIB ATTACHED

JIB LENGTH	20 FT.	30 FT.	40 FT.	50 FT.	60 FT.
DEDUCT — LBS	2100	2300	2800	3300	3800

WARNING

Do not attempt to lift more than rated load at load radius shown, or lift where no radius or load is listed, as crane may tip or collapse.

Do not attempt to lift more than rated loads shown in shaded areas — a machine failure may occur.

left — move backward to swing right. Console mounted equipment includes hourmeter, optional tachometer and switches for ignition, cold weather starting aid, panel light dimmer, engine clutch (with signal light), boom hoist override, rear drum pawl, front drum pawl, rear drum holding brake and front drum holding brake. Other switches and gauges located above and alongside left side window include windshield wipers (top and front), heater (opt.), defroster fan (opt.), overhoist safety light and buzzer (opt.), engine fault warning light and buzzer (opt.), engine oil pressure gauge, water temperature gauge, voltmeter, fuel gauge, torque converter oil temperature gauge, converter charge pressure gauge and hydraulic system pressure gauge. Gauges have both English and Metric scales and International symbols.

On the left side console wall behind the operator is the electrical system circuit breaker panel protecting the various upper circuits. Mounted on the lower right side of operator's seat are the propel control joystick and the propel holding brake switch. Forward or backward movement of the joystick controls speed and direction of both crawlers. Movement to right or left controls steering (both skid and counter-rotational steering.)

HYDRAULIC SYSTEM: Full flow hydraulic system provides power to front and rear drum clutches and boom hoist brakes and clutches. Front and rear drum brakes are power-assisted providing smooth, positive feel (similar to power brakes on automobiles). Full flow system operates at 1500 psi (105 Kg/cm) line pressure. Response is instant, positive and smooth. Pumped fluid is filtered, stored in an accumulator under pressure, cooled in 15 gal. (57 liter) reservoir and filtered again before returning to pump.



POWER PLANT:

ENGINE:

Make	Cummins
Model	VT-555
Type	Diesel
No. of Cylinders	8
Bore x Stroke, In.	4.825 x 4.125
mm	117.5 x 104.8
Displacement, In. ³	555
liters	9.1
Cycles	4
Air Induction	Turbo-Charged

TRANSMISSION:

Make	Twin Disc
Model	4-SDO-1622-1, type 4-MS305
Type	Torque converter, stationary housing type with integral drives for propel, control and converter charging pumps. Has dump valve as disconnect clutch.

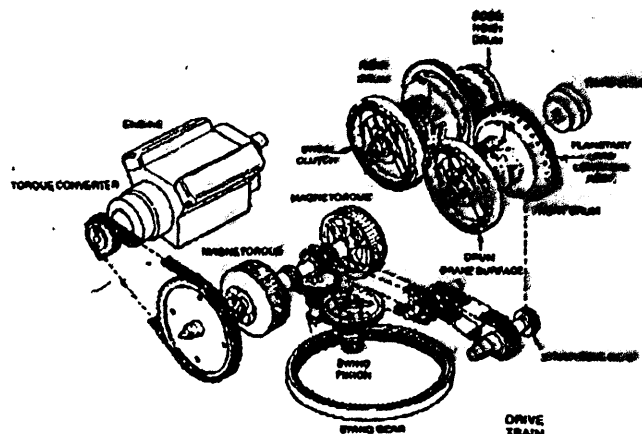
RATINGS:

NET HP @ RPM (Flywheel)	188 @ 3000
Net HP @ RPM (Converter Output Shaft)	133 @ 1800 (O.P.S. Gov. Full Load)
Altitude Range	0-7500' (0-2286 M)
Temp. Range in F. (C.)	30° to 115° w/o starting aid (-1.1° to 46°)

ACCESSORIES:

Cooling Radiator	Liquid, recirculating bypass Tube and fin type, thermostat controlled, rubber mounted
Fan	8 blade, 28 inch (660 mm) diameter suction type
Starting	24 volt motor Cold weather starting aid
Electrical System	24 volt 50 amp. alternator and 2-215 amp. hr @ 20 hour rate batteries, 12 volt series connected

Fuel Tank	100 gal (379 liters) Meets FHWA requirements, siphon-proof.
Air Cleaner	Panel type, two stage dry
Lube oil filter	Remote mounted - replaceable. Full flow and by-pass.
Fuel filter	Dual spin-on - replaceable.
Lube oil capacity	Engine - 5 gallons (19 liters). Filter - 2.9 gallons (11 liters).
Coolant capacity	Engine - 4 gallons (15.1 liters). Radiator 5.95 gallons (21.7 liters)
Converter charging hydraulic system	Gear type pump charges converter. Oil to water heater exchanger cools fluid. Filtered with full flow pressure filters with replaceable paper elements. Reservoir holds 25 gals. (95 L).
Propel pumps	All driven from heavy duty 2-station pump drive
Propel pumps	two variable displacement piston type pumps, one for each crawler drive.
Propel (crawler) drive	Closed loop system. Maximum pressure rating 5500 PSI (387 kg/cm ²). Oil to air heat exchanger cools fluid. Filtered with full flow pressure filters with replaceable paper elements. Reservoir with cool weather by-pass holds 25 gal. (94 L) to provide make-up oil.



LOAD HOIST SYSTEM



Independent work-motion system consisting of two drums in tandem, powered by enclosed chain transmission and gearing from engine driven torque converter. Front drum underwinds and rear drum overwinds. Each drum is a one-piece fabrication consisting of brake/clutch drum (left) load drum (center) and planetary lowering (or optional brake) drum (right) mounted on a drum shaft and supported by grease lubricated roller bearings.

CRANE LOAD DRUMS (FRONT & REAR): 18.375" (467 mm) P.D. x 13.62" (346 mm) long Lebus style grooved lagging bolted to drum. For .875" (22 mm) dia. wire rope (21:1 rope ratio). Rope capacity is 625' (193.5 M) storage, 526' (160.3 M) working length. Supplied with 230' (70 M) or 3 parts of wire rope for basic boom.

CLAMSHELL LOAD DRUMS (FRONT & REAR): 18.375" (467 mm) P.D. x 13.875" (352 mm) long spiral grooved lagging bolted to drum. For .875" (22 mm) dia. wire rope (21:1 rope ratio). First layer rope capacity is 62' (18.9 M). Supplied with 166' (50.3 M) closing line and 135' (41.1 M) holding line for basic boom.

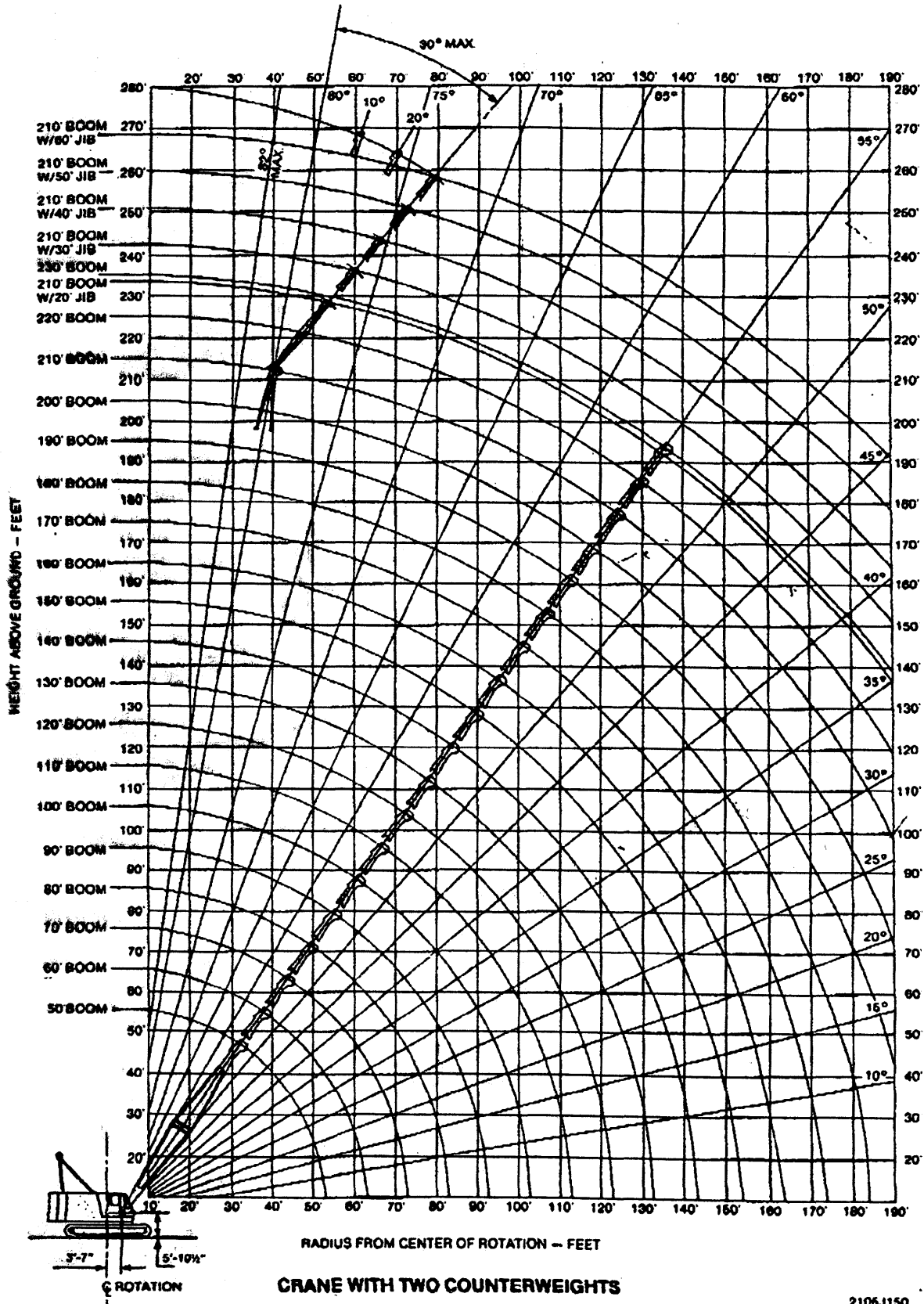
DRAGLINE LOAD DRUMS (FRONT): 18.5" (470 mm) P.D. x 13.625" (352 mm) long spiral grooved lagging bolted to drum. For 1.0" (25 mm) dia. wire rope (18.5:1 rope ratio). First layer rope capacity is 55' (16.8 M). Supplied with 70' (21.3 M) digging line for basic boom. In-haul max. speed is 166 FPM (50.6 MPM), available line pull is 23,633 lbs. (10,726 kg.).

(REAR): 18.375" (467 mm) P.D. x 13.875" (352 mm) long spiral grooved lagging bolted to drum. For .875" (22 mm) dia. wire rope (21:1 rope ratio). First layer rope capacity is 62' (18.9 M). Supplied with 130' (39.6 M) hoist line for basic boom.



DRUM CLUTCHES: 28" (711 mm) dia. x 4" (102 mm) wide. Internal expanding full band type, involute splined on shaft. Hydraulically actuated by clutch lever.

working ranges



Basic length	12.19 m (40')
Jib base section	6.10 m (20')
Jib tip section	6.10 m (20')

JIB INSERT SECTIONS (OPTIONAL):

Jib insert available for extension, tubular lattice type, high tensile steel chords, all welded, pin connections.
Available in only 6.10 m (20').

HOOK BLOCKS:

- 100 metric ton block with five sheaves, swivel hook and safety latch — standard.
- 65 metric ton block with three sheaves, swivel hook and safety latch — optional.
- 25 metric ton block with single sheave, swivel hook and safety latch — optional.
- 12 metric ton weighted ball hook with safety latch for jib — optional.

DIAMETER OF WIRE ROPE:

Hoist wire rope — std.	28 mm (1.10")
Jib hoist wire rope — opt.	24 mm (0.94")
Boom hoist wire rope (12 part line) — std.	20 mm (0.79")
Boom suspension wire rope (4 part line) — std.	28 mm (1.10")
Jib suspension wire rope (2 part line) — opt.	22 mm (0.87")

Length in four sections	21.34 m (70')
Jib base section	6.10 m (20')
1 — jib insert	6.10 m (20')
1 — jib insert	3.05 m (10')
Jib tip section	6.10 m (20')

JIB INSERT SECTIONS (OPTIONAL):

Jib insert available for extension. Available in 6.10 m (20') and 9.14 m (30') long.

HOOK BLOCK:

25 metric ton block with single sheave, swivel hook and safety latch.

DIAMETER OF WIRE ROPE:

Hoist wire	28 mm (1.10")
Tower hoist wire rope	20 mm (0.79")
Jib boom hoist wire rope	24 mm (0.94")
Tower suspension wire rope	28 mm (1.10")
Jib suspension wire rope (upper)	32 mm (1.26")
Jib suspension wire rope (lower)	38 mm (1.50")

TOWER CRANE ATTACHMENTS



TOWER BOOM:

Lattice type tubular boom consisting of tapered base section, three inserts and cap section.
Sections are pin connected. High tensile steel chords all welded. Tower extendible to 45.72 m (150').

Length in five sections	33.53 m (110')
Base section	7.62 m (25')
1 — insert	3.05 m (10')
1 — insert	6.10 m (20')
1 — insert	9.14 m (30')
Cap section	7.62 m (25')

TOWER INSERT SECTIONS (OPTIONAL):

Tower insert available for extension. Available in 3.05 m (10') and 9.14 m (30') long.

JIB:

Lattice type tubular boom consisting of two equal tapered base sections and two inserts, high tensile steel chords all welded, pin connections. Jib extendible to 36.58 m (120').

CLAMSHELL ATTACHMENT



BASIC BOOM:

Two piece, open throat lattice type tubular boom consisting of tapered base section and tapered tip section, high tensile steel chords all welded, pin connections. Boom extendible to 27.43 m (90').

Basic length	15.24 m (50')
Boom base section	7.62 m (25')
Boom tip section	7.62 m (25')

BOOM INSERT SECTIONS (OPTIONAL):

Tubular lattice type, high tensile steel chords, all welded, pin connections. Available in 3.05 m (10') and 6.10 m (20') long.

TAGLINE WINDER:

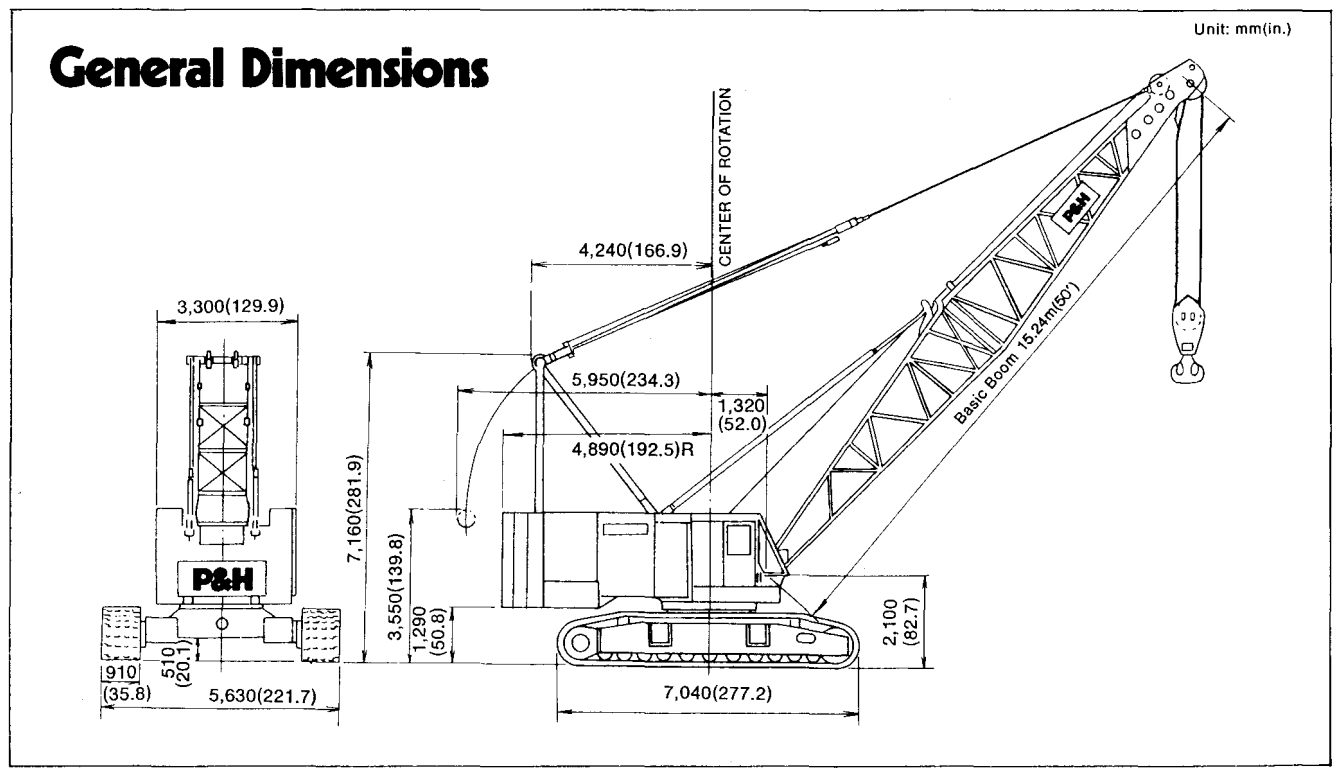
Spring type.

BUCKET:

Max. allowable bucket size 3.0 m³ (3.9 cu. yd.)
Max. allowable bucket weight (approx.) 5,500 kg (12,100 lbs.)

DIAMETER OF WIRE ROPE:

Boom hoist wire rope	20 mm (0.79")
Holding wire rope	28 mm (1.10")
Closing wire rope	28 mm (1.10")
Boom suspension wire rope (4 part line)	28 mm (1.10")

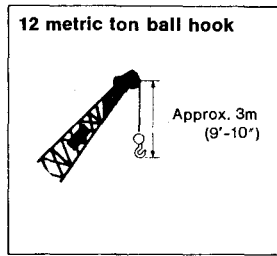
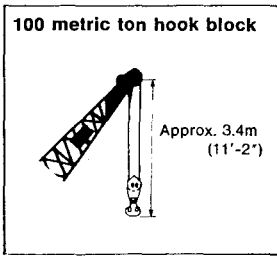
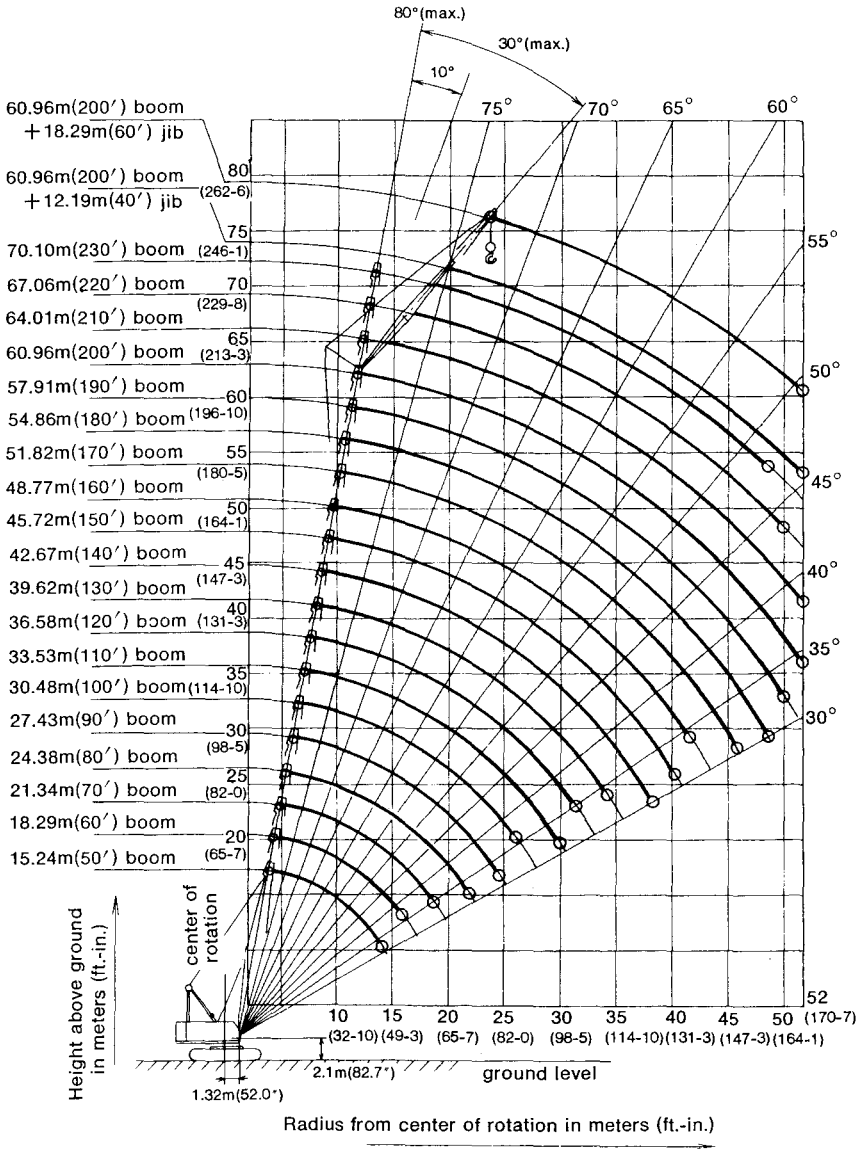


100-M ton Crawler Crane

70.10m Boom

60.96m Boom + 18.29m Jib

Working Ranges



Lifting Capacities

RATED CRANE LOADS IN KGS (LBS.) – MAIN BOOM IN 360° WORK AREAS

Operating Radius in Meters (Ft.-In.)	15.24 m (50') Boom	18.29 m (60') Boom	21.34 m (70') Boom	24.38 m (80') Boom	27.43 m (90') Boom	30.48 m (100') Boom	33.53 m (110') Boom	36.58 m (120') Boom	39.62 m (130') Boom	42.67 m (140') Boom
4.5 (14-9)	100,000 (220,000)									
5.0 (16-5)	100,000 (220,000)	100,000 (220,000)								
5.3 (17-5)	100,000 (220,000)	92,000 (202,800)								
6.0 (19-8)	76,000 (167,600)	76,400 (168,400)	73,800 (162,700)	69,600 (153,400)						
7.0 (23-0)	59,700 (131,600)	59,500 (131,200)	59,500 (131,200)	59,300 (130,700)	58,800 (129,600)	50,600 (111,600)				
8.0 (26-3)	48,800 (107,600)	48,600 (107,100)	48,500 (106,900)	48,400 (106,700)	48,300 (106,500)	48,300 (106,500)	45,600 (100,500)	41,100 (90,600)		
9.0 (29-6)	41,100 (90,600)	40,900 (90,200)	40,900 (90,200)	40,700 (89,700)	40,700 (89,700)	40,600 (89,500)	40,400 (89,100)	39,500 (87,100)	35,500 (78,300)	32,700 (72,100)
10.0 (32-10)	35,500 (78,300)	35,300 (77,800)	35,200 (77,600)	35,100 (77,400)	35,000 (77,200)	35,000 (77,200)	34,800 (76,700)	34,700 (76,500)	34,400 (75,800)	31,600 (69,700)
12.0 (39-4)	27,800 (61,300)	27,600 (60,800)	27,500 (60,600)	27,300 (60,200)	27,200 (60,000)	27,200 (60,000)	27,000 (59,500)	26,900 (59,300)	26,800 (59,100)	26,600 (58,600)
14.0 (45-11)	22,800 (50,300)	22,500 (49,600)	22,400 (49,400)	22,200 (48,900)	22,200 (48,900)	22,100 (48,700)	21,900 (48,300)	21,800 (48,100)	21,700 (47,800)	21,500 (47,400)
16.0 (52-6)		19,000 (41,900)	18,800 (41,400)	18,700 (41,200)	18,600 (41,000)	18,500 (40,800)	18,300 (40,300)	18,200 (40,100)	18,100 (39,900)	17,900 (39,500)
18.0 (59-1)			16,200 (35,700)	16,000 (35,300)	15,900 (35,100)	15,800 (34,800)	15,600 (34,400)	15,500 (34,200)	15,400 (34,000)	15,200 (33,500)
20.0 (65-7)				14,000 (30,900)	13,800 (30,400)	13,700 (30,200)	13,500 (29,800)	13,500 (29,800)	13,300 (29,300)	13,100 (28,900)
22.0 (72-2)				12,400 (27,300)	12,200 (26,900)	12,100 (26,700)	11,900 (26,200)	11,800 (26,000)	11,700 (25,800)	11,500 (25,400)
24.0 (78-9)					10,900 (24,000)	10,800 (23,800)	10,600 (23,400)	10,500 (23,100)	10,400 (22,900)	10,200 (22,500)
26.0 (85-4)						9,700 (21,400)	9,500 (20,900)	9,400 (20,700)	9,200 (20,300)	9,100 (20,100)
28.0 (91-10)							8,600 (19,000)	8,500 (18,700)	8,300 (18,300)	8,100 (17,900)
30.0 (98-5)							7,800 (17,200)	7,700 (17,000)	7,500 (16,500)	7,300 (16,500)
32.0 (105-0)								7,000 (15,400)	6,900 (15,200)	6,600 (14,600)
34.0 (111-7)									6,300 (13,900)	6,100 (13,400)
36.0 (118-1)										5,500 (12,100)
38.0 (124-8)										5,100 (11,200)
40.0 (131-3)										
42.0 (137-10)										
44.0 (144-4)										
46.0 (150-11)										
48.0 (157-6)										
50.0 (164-1)										
52.0 (170-7)										

NOTE: Ratings inside of box are limited by strength of materials.

OPERATION OF THIS EQUIPMENT IN EXCESS OF RATED LOADS AND DISREGARD OF INSTRUCTIONS VOIDS THE WARRANTY.

45.72 m (150') Boom	48.77 m (160') Boom	51.82 m (170') Boom	54.86 m (180') Boom	57.91 m (190') Boom	60.96 m (200') Boom	64.01 m (210') Boom	67.06 m (220') Boom	70.10 m (230') Boom	Operating Radius in Meters (Ft.-In.)
									4.5 (14.9)
									5.0 (16.5)
									5.3 (17.5)
									6.0 (19.8)
									7.0 (23.0)
									8.0 (26.3)
									9.0 (29.6)
28,300 (62,400)	25,500 (56,200)								10.0 (32.10)
26,500 (58,400)	24,100 (53,100)	21,900 (48,300)	19,400 (42,800)	19,100 (42,100)					12.0 (39.4)
21,500 (47,400)	21,400 (47,200)	20,600 (45,400)	18,300 (40,300)	18,100 (39,900)	16,800 (37,000)	15,200 (33,500)	13,500 (29,800)	12,200 (26,900)	14.0 (45.11)
17,900 (39,500)	17,700 (39,000)	17,600 (38,800)	17,300 (38,100)	17,100 (37,700)	16,100 (35,500)	14,600 (32,200)	12,900 (28,400)	11,600 (25,600)	16.0 (52.6)
15,200 (33,500)	15,100 (33,300)	14,900 (32,800)	14,900 (32,800)	14,700 (32,400)	14,600 (32,200)	14,000 (30,900)	12,400 (27,300)	11,100 (24,500)	18.0 (59.1)
13,100 (28,900)	13,000 (28,700)	12,800 (28,200)	12,800 (28,200)	12,600 (27,800)	12,500 (27,600)	12,400 (27,300)	11,900 (26,200)	10,500 (23,100)	20.0 (65.7)
11,500 (25,400)	11,300 (24,900)	11,100 (24,500)	11,100 (24,500)	11,000 (24,300)	10,800 (23,800)	10,700 (23,600)	10,600 (23,400)	10,100 (22,300)	22.0 (72.2)
10,100 (22,300)	10,000 (22,000)	9,800 (21,600)	9,800 (21,600)	9,600 (21,200)	9,500 (20,900)	9,300 (20,500)	9,200 (20,300)	9,000 (19,800)	24.0 (78.9)
9,000 (19,800)	8,900 (19,600)	8,700 (19,200)	8,700 (19,200)	8,500 (18,700)	8,300 (18,300)	8,200 (18,100)	8,100 (17,900)	7,900 (17,400)	26.0 (85.4)
8,100 (17,900)	7,900 (17,400)	7,700 (17,000)	7,700 (17,000)	7,600 (16,800)	7,400 (16,300)	7,300 (16,100)	7,100 (15,700)	7,000 (15,400)	28.0 (91.10)
7,300 (16,100)	7,100 (15,700)	6,900 (15,200)	6,900 (15,200)	6,800 (15,000)	6,600 (14,600)	6,500 (14,300)	6,300 (13,900)	6,200 (13,700)	30.0 (98.5)
6,600 (14,600)	6,400 (14,100)	6,300 (13,900)	6,200 (13,700)	6,100 (13,400)	5,900 (13,000)	5,800 (12,800)	5,600 (12,300)	5,500 (12,100)	32.0 (105.0)
6,000 (13,200)	5,800 (12,800)	5,700 (12,600)	5,600 (12,300)	5,500 (12,100)	5,300 (11,700)	5,200 (11,500)	5,000 (11,000)	4,800 (10,600)	34.0 (111.7)
5,500 (12,100)	5,300 (11,700)	5,100 (11,200)	5,100 (11,200)	4,900 (10,800)	4,700 (10,400)	4,600 (10,100)	4,500 (9,900)	4,300 (9,500)	36.0 (118.1)
5,000 (11,000)	4,800 (10,600)	4,700 (10,400)	4,600 (10,100)	4,500 (9,900)	4,300 (9,500)	4,100 (9,000)	4,000 (8,800)	3,700 (8,200)	38.0 (124.8)
4,600 (10,100)	4,400 (9,700)	4,200 (9,300)	4,200 (9,300)	4,000 (8,800)	3,800 (8,400)	3,700 (8,200)	3,500 (7,700)	3,200 (7,100)	40.0 (131.3)
	4,100 (9,000)	3,900 (8,600)	3,800 (8,400)	3,600 (7,900)	3,400 (7,500)	3,200 (7,100)	3,000 (6,600)	2,800 (6,200)	42.0 (137.10)
		3,600 (7,900)	3,500 (7,700)	3,200 (7,100)	3,000 (6,600)	2,800 (6,200)	2,600 (5,700)	2,400 (5,300)	44.0 (144.4)
		3,200 (7,100)	3,100 (6,800)	2,900 (6,400)	2,600 (5,700)	2,500 (5,500)	2,300 (5,100)	2,000 (4,400)	46.0 (150.11)
			2,800 (6,200)	2,600 (5,700)	2,300 (5,100)	2,200 (4,900)	2,000 (4,400)	1,700 (3,700)	48.0 (157.6)
				2,300 (5,100)	2,000 (4,400)	1,900 (4,200)	1,700 (3,700)		50.0 (164.1)
					1,800 (4,000)	1,600 (3,500)			52.0 (170.7)