



P&H® 9125A-TC

140-ton Truck Crane

UPPER MACHINERY



POWER PLANT

ENGINE:	STANDARD	OPTIONAL
Make	Cummins	Cummins
Model	V 903	V 903
Type	Diesel	Diesel
No. of Cylinders	8	8
Bore x Stroke, In.	5.50 x 4.75	5.50 x 4.75
cm	14.0 x 12.1	14.0 x 12.1
Displacement, In. ³	903	903
liters	14.8	14.8
Cycles	4	4
Air Induction	Nat. Aspirated	Nat. Aspirated
Cooling	Liquid	Liquid
Starter	24 V.	24 V.
Alternator	24 V. - 35 A.	25 V. - 35 A.

TRANSMISSION:

	Cotta	Twin Disc
Make	T3U	CO-10066
Model	3 Speed	Torque
Type	Manual	Converter
	(2nd Gear Normal)	3 Stage

RATINGS:

Net HP @ RPM (Flywheel)	210 @ 2000	227 @ 2400
Net HP @ RPM (Trans. Output Shaft)	202 @ 1000 (Trans. in 2nd Gear)	179 @ 1285 (O.P.S. Gov. Full Load)
Altitude Range	0-3000	0-3000
In Ft. (m)	(0-914)	(0-914)
Temp. Range in F. (C.)	-20° to 110° (-28° to 43°)	-20° to 110° (-28° to 43°)

Input disconnect clutch — Transmission - double plate dry type mechanically engaged. 11.5" dia.
Torque converter - double plate dry type mechanically actuated.

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 — 110 gallons (416 liters).

Lube oil capacity — Engine - 20 quarts (19 liters). Filter - 19.6 quarts (18.5 liters).

Coolant capacity — Engine - 7 gallons (26.5 liters). Radiator 3.5 gallons (13.2 liters) sheet metal, tube & plate fin type.

Air cleaner — Farr - dry type.

Lube oil filter — Remote mounted - replaceable.

Fuel filter — Dual spin-on - replaceable.

Starting aid — Required below 14°F (-10°C.) ether-measured shot (optional).

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. rates, 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 — 7 sheaves — 13" (33 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.

HYDRAULIC SYSTEM: Full flow hydraulic system for infinitely variable pressure to front and rear drums, boom hoist brakes and clutches. System at 1500 psi (105 kg/cm²) line pressure. Response is instant, positive and smooth to operators light touch. Pumped fluid is filtered, stored in accumulator under pressure, cooled in 15 gallon (57 liter) reservoir and filtered again before returning to pump.



BOOM HOIST

Independent planetary gear type with external ratchets and automatic brakes provides for raising and lowering boom under power and locking boom.

TWIN DRUMS: 15.75" (40 cm) P.D. x 8.25" (20.9 cm) long. Total wire rope length per drum for 3/4" (19 mm) rope is 315.5 ft. (96 m) storage or 252 ft. (77 m) working length.

Transmission Range		Low	Normal	High
	Gear Ratio	3.217 to 1	2.000 to 1	1.000 to 1
HOISTING:	Line Speed	40.7 ft./min. (12.4 m/min.)	65.6 ft./min. (20 m/min.)	131.2 ft./min. (40 m/min.)
	Line Pull	70050 lb. (31732 kg)	43550 lb. (19728 kg)	21775 lb. (9864 kg)
LOWERING:	Line Speed	29.7 ft./min. (9.1 m/min.)	47.8 ft./min. (14.6 m/min.)	84.6 ft./min. (29.2 m/min.)
	Line Pull	38121 lb. (17269 kg)	23700 lb. (10736 kg)	11850 lb. (5368 kg)

Specifications



CLUTCH SIZE: 23" (58.4 cm) dia. x 5" (12.7 cm) wide, band type, internal expanding.



BRAKE SIZE: (2) - 30" (76.2 cm) dia. x 4" (10.2 cm) wide, band type, external contracting "full wrap" design.



LOAD DRUMS:

FRONT AND REAR: 21" (53.3 cm) P.D. x 17" long (43.2 cm). Smooth drum. Total wire rope length of 1" (25 mm) dia. rope is 1059 ft. (321.9 m) storage or 908.9 ft. (276.3 m) working length.

Transmission Range		Low	Normal	High
Gear Ratio		3.217 to 1	2.000 to 1	1.000 to 1
HOISTING:	Front crane & clam-shell	Line Speed	104 ft./min. (31.7 m/min.)	168 ft./min. (51.1 m/min.)
		Line Pull	55789 lb. (25271 kg)	17342 lb. (7855 kg)
	Front dragline	Line Speed	94.4 ft./min. (28.8 m/min.)	151.8 ft./min. (46.3 m/min.)
		Line Pull	61661.8 lb. (27969.8 kg)	38335 lb. (17388.8 kg)
Rear	Line Speed	104 ft./min. (31.7 m/min.)	168 ft./min. (51.1 m/min.)	336 ft./min. (102.2 m/min.)
		Line Pull	57029 lb. (25834 kg)	35455 lb. (16061 kg)
	Line Speed	174 ft./min. (52.9 m/min.)	280 ft./min. (85.1 m/min.)	560 ft./min. (170.2 m/min.)
		Line Pull	12868 lb. (5829.2 kg)	8000 lb. (3624 kg)



CLUTCH: (Front and rear) — 35" (88.9 cm) dia. x 4" (10.2 cm) wide, band type, internal expanding.



BRAKE: (Front and rear) — 40" (101.6 cm) dia. x 5" (12.7 cm) wide, band type, external contracting. Hydraulic set, with additional spring set hydraulically released brake lock and external ratchet for locking drum.



POWER CONTROLLED LOAD LOWERING: Rapid, safe lowering through reverse planetary gearing in drum, transmission and engine. External spider brake on drum engages planetary gears. (Optional for either drum).



THIRD DRUM:

Mounts on extension of front shaft to left of main drum. Does not interfere with any machine function or front end attachment. (Optional).

DRUM: 16.25" (41.3 cm) P.D. x 6" (15.2 cm) long. Total wire rope length of 3/4" (19 mm) rope is 184.5 ft. (56.1 m) storage or 142.5 ft. (43.3 m) working length.

Transmission Range		Low	Normal	High
Gear Ratio		3.217 to 1	2.000 to 1	1.000 to 1
Line Speed		80.7 ft./min. (24.5 m/min.)	129.8 ft./min. (39.4 m/min.)	259.6 ft./min. (78.9 m/min.)
Line Pull		12868 lb. (5829.2 kg)	8000 lb. (3624 kg)	4000 lb. (1812 kg)



CLUTCH: 23" (58.4 cm) dia. x 5" (12.7 cm) wide, band type, internal expanding.



BRAKE: 25.5" (64.8 cm) dia. x 4" (10.2 cm) wide, band type, external contracting "full wrap" design.



SWING:

SWING GEAR: 132 internal cut teeth, 66" (167.6 cm) P.D.

Transmission Range	Low	Normal	High
Gear Ratio	3.217 to 1	2.000 to 1	1.000 to 1
Swing Speed	2.14 rpm	3.44 rpm	6.88 rpm



CLUTCH: (2) — 26" (66 cm) dia. x 6.25" (15.9 cm) wide, electro-magnetic "Magnetorque®". Powered by engine driven alternator.



BRAKE: 18" (45.7 cm) dia. x 2.5" (6.4 cm) wide, band type, external contracting. Hydraulic release, spring set.

SWING ROLLERS: Live roller circle with 36 - 5" (12.7 cm) dia. roller bearings (equally spaced) held in place by a retainer. Roller circle has 78.5" (199.4 cm) P.D.

FASTENING TO LOWER: 6 adjustable hook rollers, one double front, two double rear, bolted to frame and hooked under lip of roller path on carrier.

COUNTERWEIGHTS:

Underslung - 41000 lb. (18573 kg) — Cast, removable using 4 hydraulic rams set in carrier frame (standard).

Bustle - 21000 lb. (9513 kg) — Cast, located beneath rear of upper machinery cab (optional). Removable with gantry and boom hoist.

CARRIER: 8 Wheels, 4 Wheel Drive, 12 Tires



POWER PLANT:

ENGINE:	STANDARD	OPTIONAL
Make	Cummins	Cummins
Model	NTC(A)-350	NTCC(A)-350
Type	Diesel	Diesel
No. of Cylinders	6	6
Bore x Stroke, In.	5.5 x 6.0	5.5 x 6.0
cm	(14.0 x 15.2)	(14.0 x 15.2)
Displacement, In. ³	855	855
liters	(14.0)	(14.0)
Cycles	Four	Four
Air Induction	Turbocharged and Aftercooled	
Cooling	Liquid	Liquid
Starter	24 volt	24 volt
Charging	12 volt — 75 A	12 volt — 75 A
Compressor, Air	13.2 CFM	13.2 CFM
Governor, Air	105 to 210 PSI	105 to 120 PSI
Horsepower, Gross	350 HP @ 2100 RPM	350 HP @ 2100 RPM
Altitude Range	0-12,000	0-12,000
In Ft. (m)	(0-3,658)	(0-3,658)
Temp. Range in F.	-20° to 110°	-20° to 110°
(C.)	(-28° to 43°)	(-28° to 43°)

Fuel tank capacity — 75 gallons (284 liters). Meets FHWA requirements.

Air cleaner — Farr dry type.

Starting aid — Required below 14°F. (-10°C.) ether-measured shot (optional).

Batteries — (2) - 12 volt H.D. rated, series connected. 215 amp hours @ 20 hour rate.

Input disconnect clutch — Lipe-Rollway 14-2 LP. Pull-type with up-shift clutch brake.

TRANSMISSION	MAIN	AUXILIARY
Make	Fuller	Fuller
Model	RTOF-12515	AT-1202
Type	Road ranger	Air shifted
	Twin counter-shaft	Twin counter-shaft
	15-speed Forward	2 speed
	3-speed Reverse	

Total of thirty (30) forward gear ratios.

PROP. SHAFTS: Front, intermediate and interaxle prop. shaft — Spicer 1710 series.



FRAME: Front section is fabricated from 18" -58 lb/channel. Rear section is a fabricated box section 22.75 inches deep, crossbraced and reinforced. Front bumper of 0.25 inch bent plate. High strength low alloy steel plate used extensively. Tow loops front and rear. Removable rear frame section is standard.

BODY: Cab, engine hood, front and side panels, front skirts, equipment boxes, deck and dirt shields formed from sheet steel.

CAB: 34 inch (86.3 cm) wide one-man cab offset to left side of engine compartment, all windows safety glass, electric windshield wiper, removable dash panel (with tachometer, speedometer, air pressure gage, voltmeter, coolant temperature gage, engine oil pressure gage, fuel level gage and switches), air horn, dome light, seat assembly with seat belt and West Coast mirror — left side. Crank down door window and slide-by type right side windows.

LIGHTING: Two headlights with foot operated dimmer switch. Stop, tail, directional, clearance and rear license plate lights. Two weather-proof sockets provided for upper lighting during transit. In cab — dome light, illuminated gages, indicator lights for hi-beam, directional, emergency flasher and low air pressure warning.

STEERING: Ross worm and roller steering gear 32.5 to 1 ratio. 18 inch (45.7 cm) diameter steering wheel. Garrison power assist.



FRONT AXLE:

Shuler FTCA 5½" dia. tube, 1" wall axles in tandem. 101.875 inches king pin centers. 107.7 inch (274 cm) track.

REAR AXLE: Rockwell Standard SPRC-1735-P100 planetary drive bogie axle with interaxle differential. 100 inch (254 cm) track. 9.48:1 total ratio.



BRAKES:

Service — Dual air brake circuit with front and rear brakes on separate circuits. Front linings: 17.25 in. (43.8 cm) diameter by 4 in. (10.1 cm) wide (500 sq. in. (1270 cm²) total front lining area), 24 sq. in. (60.9 cm) air chambers. Rear linings: 20.25 in. (51.4 cm) diameter by 7 in. (17.8 cm) wide (1312 sq. in. (3332 cm) total rear lining area), 36 sq. in. (91.4 cm) air chambers. Total brake lining area — 1812 sq. in. (4602 cm).

Emergency/Parking — Air release, spring set brake chambers on all rear wheels controlled from cab. Separate reservoir for release of spring set brakes.

SUSPENSION: Rear — unsprung bogie beam with torque rods. Self-aligning bearings on both ends of bogie beams. Front — Reyco tandem sprung suspension. Dynamic capacity — 52,000 lbs. (23,587 kg).

TIRES: Twelve 1400 x 24 load range (20 PR). On-off highway tread, on Goodyear 1024 MD rims.



OUTRIGGERS:

Four (4) fabricated independent boxes of high strength low alloy steel plate. Front and rear boxes are pin connected and removable. Rollers and mechanical stops are provided when manually-operated outriggers are furnished.

OUTRIGGER BEAMS: Four (4) fabricated reinforced box section beams of high strength low alloy steel plate. Beams telescope to fully extended position of 130" (3.3 m) from longitudinal center of carrier to center line of jackscrew.

HYDRAULIC OUTRIGGER ASSEMBLY: Eight (8) double acting hydraulic cylinders provide independent horizontal and vertical movement of each beam. Vertical cylinders have lock check valves. Electric solenoid actuated directional control valves are operated from two control panels. Each panel controls outriggers on control side only. Optional.

FLOATS: Four (4) aluminum floats 26.5 x 26.5 inches (67 x 67 cm).

MISCELLANEOUS EQUIPMENT: Tire inflation valve and hose, one (1) manual hydraulic jack, hydraulic bypass hose, upper lighting cable and special tools.

OPTIONS: Hydraulic outriggers, spare rim — 1024 MD. 4' x 4' aluminum outrigger floats, fifth outrigger float for 360° operation. Auxiliary rear outriggers (2) for use with 15,000 lb. bumper counterweight. Ether starting aid. Jacobs engine brake. 15,000 lb. front bumper counterweight, 30,000 lb. front bumper counterweight, backup alarm w/light, heater, air conditioner and defroster fan. West Coast mirror — right side, low profile floats, remote control of outriggers, high water temperature/low oil pressure warning alarm and fire extinguisher.

ATTACHMENTS



STANDARD BOOM:

Two-piece 50' (15.2 m) long, open throat lattice type tubular boom consisting of a 25' (7.6 m) long tapered base section and a 25' long heavy duty tapered tip section. All boom sections are pin connected, have a 69" x 69" (175 cm x 175 cm) cross section and complete with suspension cable assemblies. Sections are fabricated from seamless tubular T-1 steel and reinforced with contour-cut tubular lacings for strongest welded joints. Other tip sections are optional.

HEAVY DUTY TIP: 25' has 5 offset boom point sheaves 24" (60.9 cm) P.D., with roller bearings. Required for lifts in excess of 150,000 lbs. (68,039 kg). Boom extendible to 250' (76.2 m).

LIGHT DUTY TIP: 35' (10.6 m) long section has 2 offset boom point sheaves 24" (60.9 cm) P.D. with roller bearings. Required for long boom work from 260' to 270' (79.3 m to 82.3 m) for lifts up to 150,000 lbs. (68,039 kg). Also available with 3 boom point sheaves. Optional.

HAMMERHEAD TIP: 15' (4.6 m) long section has 5 offset boom point sheaves 24" (60.9 cm) P.D. with roller bearings. Extra heavy duty tip of short length for minimum headroom clearance and heaviest lifts. Boom extendible to 180' (54.9 m). Optional.

CONTAINER TIP: 25' (7.6 m) long section has 4 boom point sheaves (2 each side) 24" (60.9 cm) P.D. with roller bearings for single or double drum operation. Double hoist lines keep container level and straight for precise placement. Boom extendible from 120' minimum to 160' (36.6 to 48.8 m). Optional.

BOOM INSERT SECTION: 10' (3.1 m) Boom insert with suspension cable assemblies, pin connections optional
20' (6.1 m) insert optional
30' (9.1 m) insert optional
50' (15.2 m) insert optional
JIB: 20' (6.1 m) long jib, open throat lattice type, two equal tapered sections, pin connected, having a 29" (73.7 cm) square cross section and with single 18" (45.7 cm) P.D. jib point sheave, compression strut and guy cables assemblies. Extendible to 60' (18.3 m). Extends reach to 320' (97.5 m). For lifts not exceeding 30,000 lb. (13,608 kg). Optional.

JIB INSERT SECTIONS:

10' (3.1 m) jib insert with cable assemblies optional
20' (6.1 m) jib insert optional
30' (9.1 m) jib insert optional

MAST: Required for heavy and light duty booms 190 ft. (57.8 m) or longer and on hammerhead booms 150 ft. (45.6 m) or longer. Mast is 30 ft. (9.1 m) long and is attached to boom foot during operation. (Optional).

MID-POINT SUSPENSION: Required when boom length is 210 ft. (63.8 m) or longer. (Optional).

BOOM HOIST REEVING: 12 parts line, 3/4" (19 mm) wire rope.

BOOM BACKSTOPS: Spring loaded, shock absorber type. (Optional)

WIRE ROPE GUIDE ROLLERS: Use as required to eliminate wire rope interference. (Optional).

SHEAVE AND DRUM TO WIRE ROPE RATIOS: Pitch Diameter

	Boom Hoist	Front	Rear	Third
Sheave to Wire Rope	17 to 1	24 to 1	18 to 1	---
Drum to Wire Rope	21 to 1	21 to 1	21 to 1	21.67 to 1



TOWER CRANE: Consists of two boom elements, tower and jib.

TOWER BOOM — 130' (39.6 m) long lattice type tubular boom, 69" x 69" (175 cm x 175 cm) cross section consisting of 25' (7.6 m) base, 50' (15.2 m) insert, 30' (9.1 m) insert and 25' (7.7 m) cap section, pin connected with suspension cable assemblies and strut. Tower extendible to 160' (48.6 m). Optional.

JIB BOOM — 70' (21.3 m) long lattice type tubular boom, 50" x 50" (127 cm x 127 cm) cross section consisting of 20' (6.1 m) base, 30' (9.1 m) insert and 20' (6.1 m) tip section with one boom point sheave 17 1/4" (45.1 cm) P.D. with roller bearings, pin connected with suspension cable assemblies. JIB — extendible to 150' (45.6 m). Optional.

TOWER INSERT SECTIONS: Same as standard boom insert sections. Optional.

JIB INSERT SECTIONS:

10' (3.1 m) jib insert with cable assemblies optional
20' (6.1 m) jib insert with cable assemblies optional
30' (9.1 m) jib insert with cable assemblies optional

HOOKE BLOCKS:

Block Capacity	Number Sheaves	Cable Size	Weight	Cable to Sheave Ratio	Part No.
25,000 lb. (11340 kg)	1	1"	555 lb. (251.4 kg)	16.5 to 1	8U7-D33 (Jib-Opt.)
25,000 lb. (11340 kg)	Weighted hook	---	594 lb. (269.1 kg)	----	8U7-D509 (Jibs-Opt.)
60,000 lbs. (27180 kg)	1	1"	575 lb. (260.5 kg)	16.5 to 1	8U7-D10 (Optional)
90,000 lb. (40770 kg)	1	1"	790 lb. (357.9 kg)	18.375 to 1	8U7-D30 (Standard)
140,000 lb. (63420 kg)	2	1"	1745 lb. (790.5 kg)	21.5 to 1	8U7-D76 (Optional)
200,000 lb. (90600 kg)	3	1-1/8"	2530 lb. (1146.1 kg)	19.22 to 1	8U7-D64 (Optional)
250,000 lb. (113250 kg)	4	1"	2938 lb. (1330.9 kg)	21.5 to 1	8U7-D65 (Optional)
280,000 lb. (126840 kg)	5	1"	3250 lb. (1472.3 kg)	21.5 to 1	8U7-D66 (Optional)

WEIGHTS:

Carrier — Including turret, hydraulic outriggers, floats, roller circle and standard tires — 67,800 lbs. (30,754 kg).

Upper machine — 53123 lb. (24096 kg)

Mast — 1989 lb. (901 kg)

Gantry — 3321 lb. (1504 kg)

Upper — Underslung counterweight — 41000 lb. (18573 kg)

Upper — Bustle counterweight — 21000 lb. (9513 kg)

Boom:

Base — 4158 lb. (1809 kg)

Inserts — 10 ft. — 845 lb. (368 kg)

20 ft. — 1290 lb. (561 kg)

30 ft. — 1660 lb. (722 kg)

50 ft. — 2680 lb. (1166 kg)

Tip — 4124 lb. (1794 kg)

Jib:

Base — 365 lb. (165.3 kg)

Inserts — 10 ft. (3.0 m) — 213 lb. (96.5 kg)

20 ft. (6.1 m) — 373 lb. (169 kg)

30 ft. (9.1 m) — 515 lb. (233.3 kg)

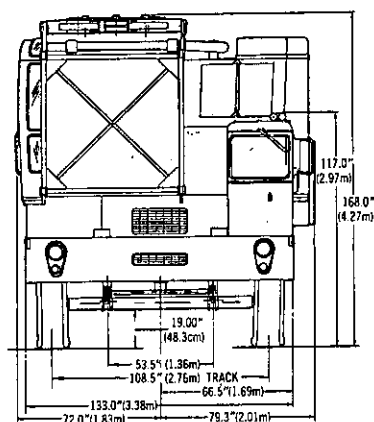
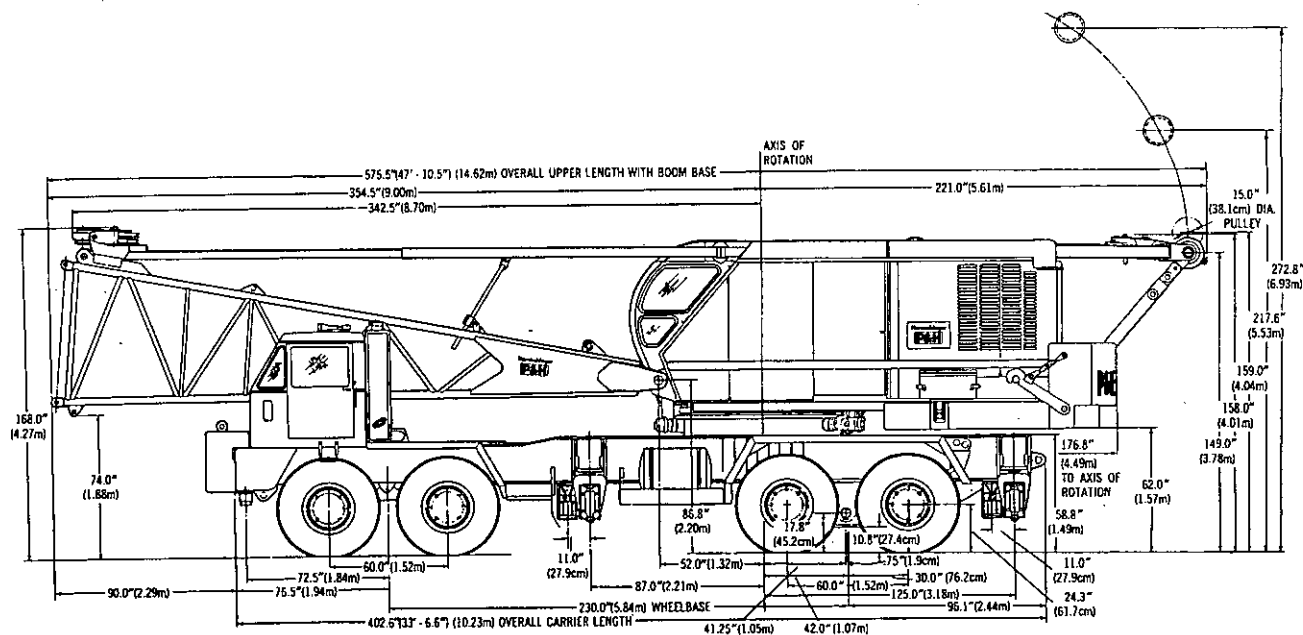
Tip — 510 lb. (231 kg)

PERFORMANCE:

(Based on Cummins NTC(A)-350 Engine)

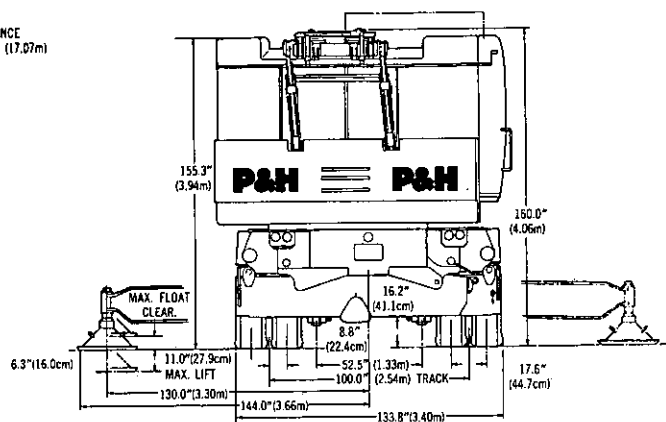
ON HIGHWAY: 15 forward speeds, 3 reverse speeds. Performance in highest and lowest gear based on engine @ full load RPM and 120,000# (54432 kg) GVW (class I, good surface road). (Rockwell Axles). Lowest Gear: 3.8 MPH (6.1 km/h) to 21.8 percent grade. Highest Gear: 41.3 MPH (66.5 km/h) to 0.6 percent grade.

OFF HIGHWAY: 5 forward speeds, 1 reverse speed. Performance in lowest gear ratio based on engine @ max. torque RPM and 120,000# (54432 kg) GVW (class II road). (Rockwell Axles). 1.2 MPH (1.7 FPS) (1.9 km/h) to 30.0 percent grade.



TURNING CLEARANCE
RADIUS - 56.0 FT. (17.07m)

B105/281



NOTE: All designs, specifications and components of the equipment described above are subject to change at the manufacturer's sole discretion at any time without advance notice. Data published herein is informational in nature and shall not be construed to warrant suitability of the machine for any particular purpose as performance may vary with the conditions encountered. The only warranty applicable is our standard written warranty for this machine. Manufactured and sold in conformance with U. S. Department of Commerce Commercial Standard CS-90-58.

Address inquiries to:

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P&H[®] 9125-TC

140-ton Truck Crane Crane Axle Loadings

Description of Item(s)	Total Weight or Adjustment Lbs.	Boom Over Front of Carrier		Boom Over Rear of Carrier	
		Front Tandem Weight Lbs.	Rear Tandem Weight Lbs.	Front Tandem Weight Lbs.	Rear Tandem Weight Lbs.
Basic Machine Including: Hydraulic outrigger assemblies with (4) floats, twelve (12) 14.00-24/L tires, gantry lowered, roller circle, underslung counterweight, standard transmission in upper, 20 gal. fuel in lower, no crane attachments or cable.	159,280	9970	149,310	68,590	90,690
Basic Carrier Including: Hydraulic outrigger assemblies with (4) floats, twelve (12) 14.00-24/L tires, 20 gal. fuel, w/o roller circle.	67,060	22,440	44,620	22,440	44,620
Basic Carrier Including: Hydraulic outrigger assemblies (less removable rear end), (4) floats, twelve (12) 14.00-24/L tires, 20 gal. fuel, w/o roller circle.	56,120	26,122	29,998	26,122	29,998
EFFECT OF REMOVING					
Counterweight, bustle	-21,000	+10,865	-31,865	-18,535	-2465
Counterweight, underslung	-40,690	+11,146	-51,836	-26,006	-14,684
Outrigger beams & horizontal cyl. — frt.	-3320	-1941	-1379	-1941	-1379
Outrigger beams — frt. (manual or hyd. o/r) (2)	-3120	-1825	-1295	-1825	-1295
Outrigger boxes — frt. (2)	-2360	-1380	-980	-1380	-980
Outrigger vert. cylinders & trunnions — frt. (2)	-1008	-589	-419	-589	-419
Complete removable rear end (hyd. o/r)	-10,940	+3585	-14,525	+3585	-14,525
Outrigger beams & horizontal cyl. — rear (2)	-3320	+1090	-4410	+1090	-4410
Outrigger beams — rear (manual or hyd. o/r) (2)	-3120	+1024	-4144	+1024	-4144
Outrigger boxes — rear (2)	-2360	+775	-3135	+775	-3135
Outrigger vertical cylinders & trunnions — rear	-1008	+331	-1339	+331	-1339
Complete removable rear end (manual o/r)	-9932	+3253	-13,185	+3253	-13,185
Roller circle	-740	-135	-605	-135	-605
50' basic boom including: 25' boom base, 25' boom tip (heavy duty; 5-sheave), upper spreader boom backstops, boom tip guy lines (4), head machinery	-9541	-16,958	+7417	+13,474	-23,015
25' boom tip including: guy lines (4), head machinery	-4270	-11,113	+6843	+9554	-13,824
25' base section including: upper spreader, boom backstops	-5271	-5846	+575	+3921	-9192
Miscellaneous weights:					
(4) floats	460				
Bottom block — 1 sheave	790				
Bottom block — 3 sheave	2530				
Bottom block — 4 sheave	2938				
Bottom block — 5 sheave	3250				
Jib hook	594				
Swivel	39				
EFFECT OF ADDING:					
Hydraulic outriggers in lieu of manual outriggers	2016	+250	+1766	+250	+1766
Front bumper counterweight	30,000	+41,298	-11,298	+41,298	-11,298
Front bumper counterweight	14,000	+19,031	-5031	+19,031	-5031

* Actual scaled weights from "Truck Crane Weight and compliance to B30.5-1968 Code" dated 6-21-72 & 4-4-73

NOTE: The structural material used to fabricate this model has a nominal weight tolerance of plus or minus 3%. Therefore, the weight data provided should be used for reference only. To insure that any specific configuration meets local highway regulations, we suggest that the calculated weight distribution be verified by actual scaled weights.



**BOOM LENGTHS, OVERALL LENGTHS, AND AXLE LOADS (IN POUNDS) FOR TRAVELING (BOOM NOT FOLDED)
MACHINE WITH HYDRAULICALLY OPERATED OUTRIGGERS**

Crane Attachment				Total Weight of Machine	Boom Over Front of Carrier Single Sheave Block Fastened to Bumper		Overall Length in Feet	Boom Over Rear of Carrier Single Sheave Hook Block Fastened to Frame		Overall Length in Feet
Boom Length Ft.	Insert(s) Ft.	Attachment Wt., Lbs.**	Attachment Center of Gravity from Base, In.		Front Tandem Weight Lbs.	Rear Tandem Weight Lbs.		Front Tandem Weight Lbs.	Rear Tandem Weight Lbs.	
50	Basic	9541	314.8	168821	26844	141977	73.9	55034	113787	77.7
60	10	10657	367.6	169937	31265	138672	83.9	51001	118936	87.7
70	20	11113	421.9	170393	34799	135594	93.9	47626	122767	97.7
80	30	11729	476.7	171009	38970	132039	103.9	43669	127340	107.7
90	10-30	12845	526.9	172125	44533	127592	113.9	38495	133630	117.7
100	50	12837	587.6	172117	47899	124218	123.9	35126	136991	127.7

** Crane attachment weights include boom, guy lines and spreader, less hook block and cable.

TIRE RATING CHART

TIRE SIZE	ALLOWABLE LOAD/TIRE	
	STATIC TO 1.5 MPH	TO 50 MPH
14.00 - 24/L - (20 PR)	29300 lbs. at 100 psi	10700 lbs. at 100 psi.



NOTE: All designs, specifications and components of the equipment described above are subject to change at the manufacturer's sole discretion at any time without advance notice. Data published herein is informational in nature and shall not be construed to warrant suitability of the machine for any particular purpose as performance may vary with the conditions encountered. The only warranty applicable is our standard written warranty for this machine. Manufactured and sold in conformance with U. S. Department of Commerce Commercial Standard CS-90-58.

Address inquiries to:

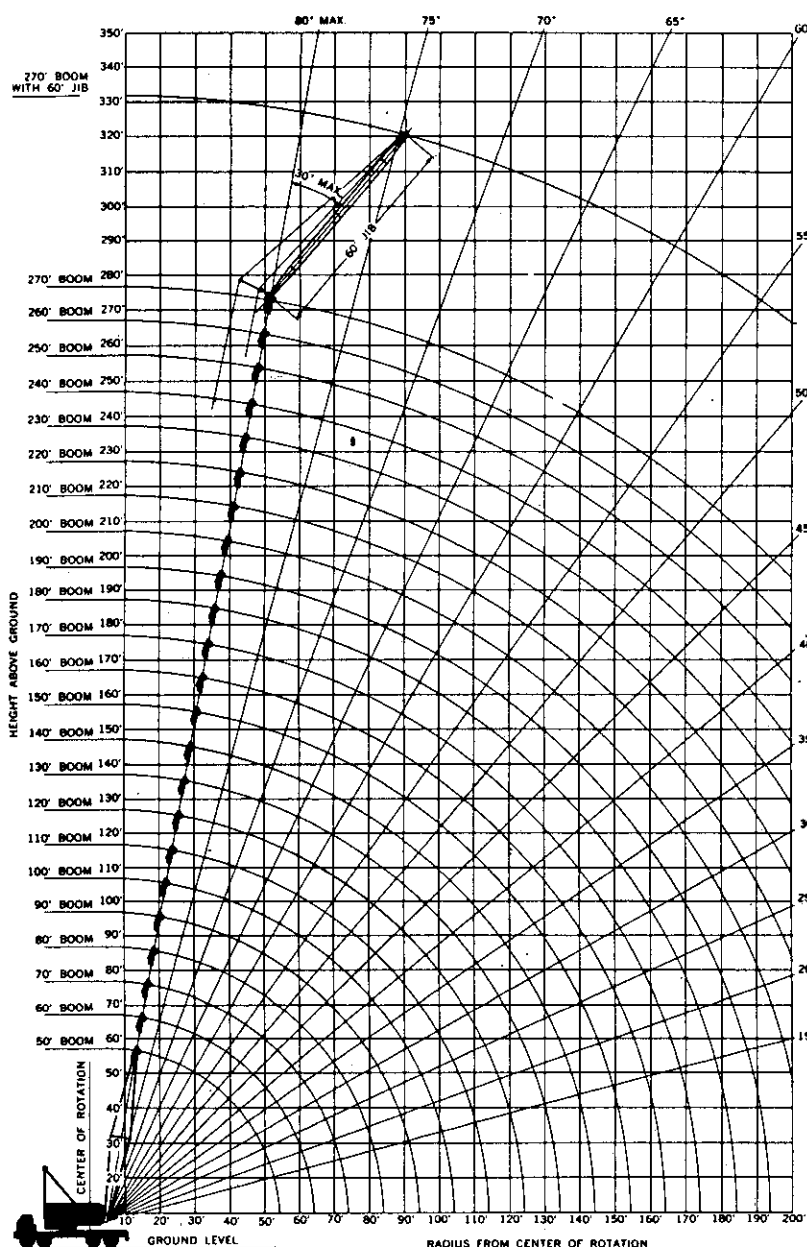
Harnischfeger
P&H
milwaukee, wisconsin. 53204



P&H® 9125-TC

140-ton Truck Crane

270' boom, 60' jib



7'-2" (APPROX.)
2, 3 & 5 PARTS
HOIST LINE



5'-2" (APPROX.)
2 & 3 PARTS
HOIST LINE



3'-3" 39" MAGNET
3'-9" 45" MAGNET

Your versatile P & H 9125-TC adapts readily to your special operating needs through a choice of counterweights and boom tips. This brochure contains these crane rating charts:

Heavy and Light Duty Tapered Tip Boom:

1. 41,000 lbs. counterweight — on outriggers
50 to 250 foot boom lengths
2. 41,000 lbs. counterweight — on rubber
50 to 130 foot boom lengths
3. 41,000 lbs. counterweight plus 14,000 lbs.
front bumper counterweight — special
over-rear on rubber — for "tilt-up" work
50 to 100 foot boom lengths
4. 62,000 lbs. counterweight — on outriggers
50 to 270 foot boom lengths
5. 62,000 lbs. counterweight plus 14,000 lbs.
front bumper counterweight — over-rear
only — on outriggers — for heavy rigging
50 to 180 foot boom lengths

Special Container Tip Boom:

6. 62,000 lbs. counterweight — on outriggers
120 to 160 foot boom lengths

Hammerhead Tip Boom:

7. 41,000 lbs. counterweight — on outriggers
40 to 180 foot boom lengths
8. 62,000 lbs. counterweight — on outriggers
40 to 180 foot boom lengths
9. 41,000 lbs. counterweight — on rubber
40 to 130 foot boom lengths

Jib Ratings

All boom combinations except container

Standard
69" wide x 69" deep
Boom

crane **lifting capacities**
working ranges



P&H 9125-TC

the nine charts in this brochure illustrate the range and lifting prowess that has made the 9125-TC the "standard of the industry", the most widely used crane in its class

PCSA CLASS 12-613

1 rated crane loads in pounds — main boom (69" w. x 69" d.) in over side

Oper. Rad. Ft.	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		Angle	120 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	81	58.0	280,000																					
15	78	57.5	210,500	80	67.6	196,000																		
20	72	56.2	165,200	75	66.6	164,900	77	76.8	164,600															
25	66	54.3	127,000	70	65.1	127,300	73	75.6	127,300	75	85.8	127,200	77	96.3	127,100	78	106.5	127,000						
30	60	52.0	94,200	65	63.1	94,500	69	74.1	94,400	71	84.2	94,300	73	94.6	94,100	75	104.2	94,000	77	115.7	93,800	78	126.0	93,600
35	53	48.6	74,500	59	60.1	74,800	64	71.6	74,700	67	82.2	74,600	70	93.1	74,400	72	103.8	74,200	74	114.4	74,000	75	124.4	73,800
40	45	44.0	61,300	54	57.1	61,600	59	68.6	61,400	64	80.6	61,300	67	91.5	61,100	69	102.1	60,900	71	112.6	60,700	73	123.4	60,400
45	36	37.0	51,800	47	52.5	52,200	55	66.0	52,000	59	77.2	51,900	63	88.8	51,700	66	100.1	51,500	68	110.6	51,300	70	121.4	51,100
50	24	28.0	44,600	40	48.2	44,900	49	61.4	44,700	55	74.1	44,600	60	86.6	44,400	63	97.7	44,200	65	108.3	44,000	68	120.0	43,700
60				22	30.9	34,900	37	50.6	34,600	46	66.1	34,500	52	79.6	34,300	56	91.5	34,100	60	104.0	33,800	62	114.6	33,600
70							20	33.4	28,000	35	54.4	27,800	43	70.0	27,600	49	84.1	27,500	53	96.4	27,500	57	109.2	27,500
80										19	34.4	23,600	32	58.0	23,400	41	74.1	23,100	47	89.1	22,900	51	101.8	22,600
90													17	35.8	19,800	31	59.9	19,500	39	77.7	19,300	44	93.3	18,900
100																17	37.5	16,600	30	63.4	16,400	37	80.6	16,100
110																			16	38.8	14,200	28	66.1	13,800
120																						15	41.1	12,000
130																								
140																								
150																								
160																								
170																								
180																								
190																								
200																								

WARNING: When operating crane "without outriggers" loads lifted over rear and swung over side, will increase in radius due to tire deflection. This increase in radius must be compensated for by raising boom, or machine may tip over.

2 rated crane loads in pounds — main boom — without outriggers

Oper. Rad. Ft.	Angle	50 Ft. Boom		Angle	60 Ft. Boom		Angle	70 Ft. Boom		Angle	80 Ft. Boom		Angle	90 Ft. Boom		Angle	100 Ft. Boom	
		Over Side	Over Rear		Over Side	Over Rear		Over Side	Over Rear		Over Side	Over Rear		Over Side	Over Rear		Over Side	Over Rear
12	81		75,228															
15	78		63,984	80		63,234												
20	72	41,652	50,844	75	40,994	50,156	77	40,643	49,787									
25	66	33,689	41,876	70	33,068	41,229	73	32,738	40,884	75	32,384	40,516	77	31,763	39,869	78	31,392	39,485
30	60	28,066	34,300	65	27,471	34,764	69	27,156	34,437	71	26,817	34,085	73	26,222	33,468	75	25,863	33,098
35	53	23,885	28,100	59	23,309	28,800	64	23,005	28,700	67	22,677	28,500	70	22,102	28,200	72	21,751	27,900
40	45	20,654	23,700	54	20,094	24,400	59	19,798	24,200	64	19,478	24,000	67	18,918	23,700	69	18,575	23,400
45	36	18,083	20,200	47	17,535	20,900	55	17,246	20,800	59	16,933	20,600	63	16,385	20,300	66	16,047	20,000
50	24	15,700	17,600	40	15,451	18,300	49	15,167	18,100	55	14,860	17,900	60	14,321	17,600	63	13,988	17,300
60				22	12,260	14,300	37	11,985	14,100	46	11,686	13,900	52	11,162	13,600	56	10,836	13,300
70							20	9,664	11,400	35	9,371	11,100	43	8,858	10,800	49	8,536	10,500
80										19	7,608	9,100	32	7,103	8,800	41	6,785	8,500
90													17	5,722	7,250	31	5,407	6,900
100																17	4,295	5,700



with 41,000 lbs. counterweight

maximum

Boom Over	WITHOU	
	With Outri	
	Boom Only	
Side	200	
Rear	210	
Side	210	
Rear	220	

..... and over rear work areas with outriggers fully extended and set

Oper. Rad. Ft.	Angle	130 Ft. Boom		140 Ft. Boom		150 Ft. Boom		160 Ft. Boom		170 Ft. Boom		180 Ft. Boom		190 Ft. Boom		200 Ft. Boom		Angle
		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																		
15																		
20																		
25																		
30																		
35	77	135.3	73,600	77	145.0	73,400	78	155.3	73,200									
40	74	133.6	60,300	75	143.9	60,000	76	154.1	59,800	77	164.6	59,500	78	174.9	59,300	79	185.3	59,000
45	72	132.1	50,900	73	142.4	50,700	74	152.8	50,500	75	163.1	50,200	76	173.6	50,000	77	184.1	49,800
50	69	130.1	43,600	71	141.1	43,400	72	151.4	43,200	73	161.6	42,900	74	172.1	42,600	75	182.6	42,400
60	65	126.5	33,500	67	136.6	33,200	68	147.7	32,900	69	158.0	32,700	71	169.3	32,400	72	179.7	32,200
70	60	121.2	27,500	62	132.2	27,300	64	143.5	27,000	66	154.6	26,700	67	165.1	26,500	69	177.6	26,300
80	54	114.0	22,600	57	126.1	22,300	60	138.6	22,000	62	150.1	21,800	64	161.5	21,500	65	171.7	21,300
90	49	106.6	18,900	52	120.0	18,600	55	131.5	18,300	58	144.2	18,100	60	155.8	17,800	62	167.6	17,600
100	43	97.1	16,000	47	111.0	15,800	50	124.8	15,500	53	136.3	15,200	56	148.6	14,900	58	161.1	14,700
110	36	84.9	13,800	41	104.3	13,500	45	114.5	13,200	49	129.3	12,900	52	142.6	12,600	54	154.1	12,400
120	27	67.4	11,900	34	88.2	11,700	40	104.9	11,300	44	119.7	11,100	47	133.0	10,700	50	146.5	10,600
130	15	41.7	10,400	26	70.7	10,100	33	90.1	9,800	38	106.8	9,550	42	122.4	9,200	46	138.1	9,050
140				14	43.7	8,850	25	73.2	8,500	32	93.1	8,250	37	110.9	7,900	41	126.6	7,750
150							14	44.4	7,400	24	73.4	7,150	31	96.1	6,800	36	114.3	6,650
160										13	44.1	6,200	24	77.5	5,850	30	98.4	5,700
170													13	46.3	5,000	23	78.7	4,850
180																13	48.6	4,150
190																12	49.4	3,200
200																12	49.7	2,250

This chart does not apply for booms equipped with a container tip or hammerhead tip section. Refer to applicable chart for ratings.

special over rear

..... tires at 100 p.s.i.

Oper. Rad. Ft.	Angle	110 Ft. Boom		Angle	120 Ft. Boom		Angle	130 Ft. Boom	
		Over Side	Over Rear		Over Side	Over Rear		Over Side	Over Rear
12		RATINGS SHOWN DO NOT EXCEED MAXIMUM APPROVED TIRE CAPACITY							
15									
20									
25									
30	77	25,268	32,480	78	25,126	32,335			
35	74	21,176	27,600	75	21,037	27,200	77	20,664	27,100
40	71	18,014	23,100	73	17,877	22,700	74	17,512	22,600
45	68	15,498	19,600	70	15,363	19,300	72	15,004	19,100
50	65	13,449	16,900	68	13,315	16,600	69	12,960	16,400
60	60	10,312	13,000	62	10,180	12,600	65	9,832	12,500
70	53	8,023	10,200	57	7,893	9,850	60	7,551	9,700
80	47	6,280	8,150	51	6,152	7,800	54	5,813	7,650
90	39	4,909	6,550	44	4,781	6,250	49	4,445	6,050
100	30	3,801	5,350	37	3,674	5,000	43	3,341	4,800

32R202A

*Maximum travel speed with lifted load is 1.5 m.p.h.

3 rated crane loads in p

OPER. RAD. FT.	ANGLE	50 FT. BOOM		ANGLE
		BOOM PT. EL.	RATING LBS.	
12	81	58.0	110,000	
13	80	57.8	107,400	
15	78	57.5	96,800	80
17	76	57.1	83,700	78
20	72	56.2	69,400	75
25	66	54.3	53,700	70
30	60	52.0	43,500	65
35	53	48.6	36,300	59
40	45	44.0	31,100	54
45	36	37.8	27,000	47

**Maximum boom length to lift off ground**

MAXIMUM BOOM LENGTH TO LIFT OFF GROUND				
WITHOUT BUMPER COUNTERWEIGHT			With 30,000 Lbs. Front Bumper Counterweight and Outriggers Set*	
Set	Without Outriggers Set			
1 & Jib	Boom Only	Boom & Jib	Boom Only	Boom & Jib
25 FT. TIP SECTION WITH 5 SHEAVES				
+ 50	130	110 + 30	200	180 + 50
+ 30	130	120 + 20	250	230 + 60
35 FT. TIP SECTION WITH 2 SHEAVES				
+ 60	130	110 + 30	210	190 + 60
+ 40	130	120 + 20	250	250 + 60

Maximum approved travel speed with 30,000 pound front bumper counterweight installed is 5 m.p.h. All tires must be evenly inflated to 100 P.S.I. Maximum approved boom length for travel is 130 ft. or 110 ft. boom and 30 ft. jib. Boom must be positioned over rear of carrier. Gantry must be in raised position to travel with boom attached.

*Front bumper counterweight is not an operating counterweight — is used only to erect boom over the rear without load.

1 Ft. Boom	220 Ft. Boom	230 Ft. Boom	240 Ft. Boom	250 Ft. Boom	Oper. Rad. Ft.
Rating Lbs.	Angle Boom Pt. El. Rating Lbs.	Angle Boom Pt. El. Rating Lbs.	Angle Boom Pt. El. Rating Lbs.	Angle Boom Pt. El. Rating Lbs.	
LONG AND GANTRY MUST BE IN THE INTERMEDIATE POSITION.					
					12
					15
TIP SUSPENSION (CENTER-HITCH) REQUIRED FOR BOOMS OVER 200 FT. LONG					
					20
					25
					30
					35
BOOM LENGTHS OVER 200 FT. WITH A 35 FT. TIP SECTION REQUIRES A 2 SHEAVE POINT					
					40
					45
3 42,800	78 223.7 40,600	79 234.4 36,400			50
5 32,200	76 222.1 32,100	76 231.7 31,700	77 242.5 31,500	77 252.1 26,100	60
3 26,200	73 218.8 26,100	73 228.6 25,700	74 239.4 25,500	75 250.1 25,200	70
7 21,100	70 215.5 20,900	71 226.2 20,800	72 236.6 20,400	73 247.6 20,200	80
3 17,200	67 211.1 17,000	68 221.8 16,800	69 232.6 16,500	70 243.6 16,300	90
0 14,300	64 206.2 14,100	65 217.1 13,800	67 229.6 13,500	67 240.0 13,400	100
3 11,900	61 201.1 11,700	63 213.6 11,400	64 224.4 11,200	65 235.2 11,000	110
8 10,000	58 195.1 9,800	60 208.0 9,500	61 218.6 9,250	62 229.5 9,050	120
5 8,400	55 188.8 8,200	57 201.4 7,900	58 212.3 7,650	60 225.1 7,450	130
3 7,050	52 182.1 6,850	54 194.8 6,600	56 207.6 6,300	57 218.1 6,100	140
5 5,900	48 174.1 5,700	51 187.4 5,450	53 200.0 5,150	54 212.4 4,950	150
3 4,950	45 164.6 4,700	47 178.6 4,450	50 192.5 4,150	52 205.6 3,950	160
8 4,050	41 154.1 3,800	44 168.5 3,550	46 182.1 3,300	49 197.0 3,050	170
2 3,300	37 141.6 3,050	40 156.3 2,800	43 172.1 2,550	45 187.2 2,500	180
0 2,650	33 127.3 2,400	36 145.0 2,150			190
5 2,050					200

32R202A

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

Boom Length
12
15
20
25
30
35
40
45
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200

Maximum boom length to lift off ground with 41,000 lbs. counterweight and 14,000 lbs. front bumper counterweight*

Maximum boom length to lift off ground — main boom — over rear — without outriggers

FT. BOOM	70 FT. BOOM	80 FT. BOOM	90 FT. BOOM	100 FT. BOOM	OPER. RAD. FT.
Rating Lbs.	Angle Boom Pt. El. Rating Lbs.	Angle Boom Pt. El. Rating Lbs.	Angle Boom Pt. El. Rating Lbs.	Angle Boom Pt. El. Rating Lbs.	
					12
					13
					15
5 96,200					17
3 83,100	80 77.5 82,800				20
8 68,800	77 76.8 68,500	79 87.1 68,100	80 97.2 67,500		25
1 53,100	73 75.6 52,800	75 85.8 52,400	77 96.3 51,900	78 106.5 51,500	30
1 42,900	69 74.1 42,600	71 84.2 42,200	73 94.6 41,700	75 104.2 41,400	35
1 35,800	64 71.6 35,500	67 82.2 35,100	70 93.1 34,600	72 103.8 34,200	40
1 30,500	59 68.6 30,200	64 80.6 29,900	67 91.5 29,300	69 102.1 29,000	45
5 26,400	55 66.0 26,100	59 77.2 25,800	63 88.8 25,300	66 100.1 24,900	

32U840



PCSA CLASS 12-749

4 rated crane loads in pounds — main boom (69" w. x 69" d.) in over side

Oper Rad. Ft.	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		Angle	120 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	81	58.0	280,000																					
15	78	57.5	220,800	80	67.6	196,000																		
20	72	56.2	174,300	75	66.6	174,000	77	76.8	168,500															
25	66	54.3	138,360	70	65.1	137,900	73	75.6	137,600	75	85.8	137,300	77	96.3	136,800	78	106.5	132,200						
30	60	52.0	114,400	65	63.1	114,700	69	74.1	114,600	71	84.2	114,500	73	94.6	114,300	75	104.2	114,100	77	115.7	113,900	78	126.0	106,100
35	53	48.6	90,700	59	60.1	91,000	64	71.6	90,800	67	82.2	90,700	70	93.1	90,500	72	103.8	90,300	74	114.4	90,100	75	124.4	89,100
40	45	44.0	74,900	54	57.1	75,200	59	68.6	75,000	64	80.6	74,900	67	91.5	74,700	69	102.1	74,500	71	112.6	74,200	73	123.4	74,100
45	36	37.0	63,500	47	52.5	63,800	55	66.0	63,600	59	77.2	63,400	63	88.8	63,300	66	100.1	63,000	68	110.6	62,800	70	121.4	62,100
50	24	28.0	55,100	40	48.2	55,400	49	61.4	55,100	55	74.1	55,000	60	86.6	54,800	63	97.7	54,600	65	108.3	54,400	68	120.0	54,100
60				22	30.9	43,400	37	50.6	43,100	46	66.1	43,000	52	79.6	42,800	56	91.5	42,500	60	104.0	42,300	62	114.6	42,100
70							20	33.4	35,100	35	54.4	35,000	43	70.0	34,800	49	84.1	34,500	53	96.4	34,300	57	109.2	34,100
80										19	34.4	29,200	32	58.0	29,000	41	74.1	28,700	47	89.1	28,500	51	101.8	28,100
90													17	35.8	25,200	31	59.9	24,900	39	77.7	24,700	44	93.3	24,100
100																17	37.5	21,400	30	63.4	21,200	37	80.6	20,100
110																			16	38.8	18,500	28	66.1	18,100
120																						15	41.1	15,100
130																								
140																								
150																								
160																								
170																								
180																								
190																								
200																								

RATINGS ABOVE HEAVY LINE ARE LIMITED BY FACTORS OTHER THAN STABILITY.

RATINGS AT 20 FT. OR LESS REQUIRE USE OF A 25 FT. TIP SECTION WITH 5 SHEAVES.

RATINGS LISTED FOR BOOMS 60 FT. AND LONGER ARE BASED ON THE USE OF A 35 FT. TIP SECTION. WHEN USING BOOMS WITH 25 FT. SECTION, 60 FT. TO 250 FT. LONG; RATINGS BELOW HEAVY LINE AND GREATER THAN 25 FT. OPERATING RADIUS, DEDUCT 1000 LBS.

WARNING:
WHEN BOOM IS EQUIPPED WITH JIB, MAIN HOOK RATING MUST BE REDUCED TO COMPENSATE FOR JIB ATTACHMENT WEIGHT.

WARNING: MAXIMUM RATING FOR 35 FT. 3 SHEAVE TIP IS 150,000 LB

JIB LENGTH	20 FT.	30 FT.	40 FT.	50 FT.	60 FT.
DEDUCT — LBS.	1,500	1,500	2,000	2,500	3,000

WARNING: Machine will tip over when upper is revolved over side unless outriggers are fully extended and set.

PCSA CLASS 12-834

5 rated crane loads in pounds — main boom (69" w. x 69" d.) in over side

OPER. RAD. FT.	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		Angle	120 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	82	58.2	280000																					
15	78	57.7	220800	81	67.8	196000																		
20	73	56.5	174300	76	66.8	174000	78	77.1	168500															
25	66	54.6	138360	71	65.4	137900	73	75.8	137600	75	86.2	137300	77	96.5	136800	79	106.7	132200						
30	60	52.1	115000	65	63.4	114700	69	74.2	114800	72	84.8	114500	74	95.2	114300	76	105.6	114100	77	115.9	113900	78	126.1	106,100
35	53	48.8	98000	60	60.8	97500	65	72.1	97000	68	83.0	96500	71	93.6	96000	73	104.2	95500	74	114.6	95000	76	124.9	89,100
40	45	44.4	83400	54	57.5	83100	60	69.4	83000	64	80.8	82900	67	91.7	82600	70	102.5	82400	72	113.1	82100	73	123.6	74,100
45	36	36.5	70900	48	53.5	70600	55	63.3	70400	60	78.1	70300	64	89.4	70000	68	100.5	69800	69	111.3	69500	71	121.9	74,100
50	25	28.7	61500	41	48.3	61200	50	62.4	61000	56	75.0	60900	60	86.8	60600	63	98.1	60300	66	109.2	60000	68	120.0	54,100
60				23	31.7	48100	38	51.8	47900	46	66.6	47800	52	80.0	47500	57	92.3	47200	60	104.1	46900	63	115.5	42,100
70							21	33.5	39100	35	55.1	39000	44	70.9	38600	49	84.7	38400	54	97.5	38100	57	108.7	34,100
80										20	35.3	32700	33	58.1	32300	41	74.8	32100	47	89.2	31700	51	102.5	28,100
90													20	38.6	27600	33	62.6	27600	40	79.6	27500	46	94.4	24,100
100																19	41.5	24100	31	65.4	23800	38	83.1	20,100
110																			18	43.1	20800	30	66.1	18,100
120																						18	44.6	15,100

RATINGS ABOVE HEAVY LINE ARE LIMITED BY FACTORS OTHER THAN STABILITY.

RATINGS LISTED FOR BOOMS 60 FT. AND LONGER ARE BASED ON THE USE OF A 35 FT. TIP SECTION. WHEN USING BOOMS WITH 25 FT. SECTION, 60 FT. TO 250 FT. LONG; RATINGS BELOW HEAVY LINE AND GREATER THAN 25 FT. OPERATING RADIUS, DEDUCT 1000 LBS.

WARNING:
WHEN BOOM IS EQUIPPED WITH JIB, MAIN HOOK RATING MUST BE REDUCED TO COMPENSATE FOR JIB ATTACHMENT WEIGHT.

JIB LENGTH	20 FT.	30 FT.	40 FT.	50 FT.	60 FT.
DEDUCT — LBS.	1500	1500	2000	2500	3000

**with 62,000 lbs. counterweight**

(ratings shown are based on a counterweight of 41,000 lbs. and 21,000 lbs. bustle counterweight)

and over rear work areas with outriggers fully extended and set

Angle	130 Ft. Boom		Angle	140 Ft. Boom		Angle	150 Ft. Boom		Angle	160 Ft. Boom		Angle	170 Ft. Boom		Angle	180 Ft. Boom		Angle	190 Ft. Boom		Angle	200 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.		Boom Pt. El.	Rating Lbs.		Boom Pt. El.
																MAST REQUIRED FOR BOOMS OVER 180 FT. LONG AND GANTRY MUST BE IN THE INTERMEDIATE POSITION								12	
																								15	
																								20	
																								25	
X																								30	
X 77	135.3	89,700	77	145.0	86,400	78	155.3	78,800																35	
X 74	133.6	73,800	75	143.9	73,600	76	154.1	73,400	77	164.6	69,400	78	174.9	64,100	79	185.3	61,300							40	
X 72	132.1	62,400	73	142.4	62,100	74	152.8	61,900	75	163.1	61,600	76	173.6	60,900	77	184.1	56,400	78	194.3	58,400	79	204.1	51,500	45	
X 69	130.1	54,000	71	141.1	53,700	72	151.4	53,500	73	161.6	53,200	74	172.1	53,000	75	182.6	52,300	76	193.0	53,500	77	203.4	49,900	50	
X 65	126.5	41,900	67	136.6	41,700	68	147.7	41,400	69	158.0	41,100	71	169.3	40,800	72	179.7	40,600	73	190.2	41,100	74	201.1	40,800	60	
X 60	121.2	33,900	62	132.2	33,600	64	143.5	33,300	66	154.6	33,000	67	165.1	32,700	69	177.6	32,500	70	187.1	32,800	71	197.8	32,500	70	
X 54	114.0	28,000	57	126.1	27,400	60	138.6	27,400	62	150.1	27,400	64	161.5	27,300	65	171.7	27,300	67	183.6	27,300	68	194.1	27,300	80	
X 49	106.6	24,300	52	120.0	24,000	55	131.5	23,700	58	144.2	23,500	60	155.8	23,200	62	167.6	23,000	63	178.1	23,100	65	190.1	22,900	90	
X 43	97.1	20,800	47	111.0	20,600	50	124.8	20,300	53	136.3	20,000	56	148.6	19,700	58	161.1	19,500	60	173.1	19,600	61	183.6	19,300	100	
X 36	84.9	18,100	41	104.3	17,800	45	114.5	17,500	49	129.3	17,200	52	142.6	16,900	54	154.1	16,800	56	166.2	16,700	58	178.2	16,400	110	
X 27	67.4	15,800	34	88.2	15,600	40	104.9	15,200	44	119.7	15,000	47	133.0	14,700	50	146.5	14,500	53	160.2	14,400	55	172.5	14,100	120	
	15	41.7	14,000	26	70.7	13,700	33	90.1	13,400	38	106.8	13,100	42	122.4	12,800	46	138.1	12,600	49	152.0	12,500	51	163.9	12,200	130
			14	43.7	12,200	25	73.2	11,800	32	93.1	11,500	37	110.9	11,200	41	126.6	11,000	44	142.2	10,900	47	155.0	10,600	140	
						14	44.4	10,500	24	73.4	10,200	31	96.1	9,850	36	114.3	9,700	40	130.5	9,500	43	146.3	9,200	150	
									13	44.1	9,050	24	77.5	8,700	30	98.4	8,550	35	117.5	8,300	39	134.5	8,000	160	
												13	46.3	7,700	23	78.7	7,550	29	102.0	7,300	34	120.3	6,950	170	
															13	48.6	6,650	22	81.5	6,350	29	105.3	6,050	180	
																		12	49.4	5,550	22	83.3	5,250	190	
																					12	49.7	4,500	200	

32R201

with 62,000 lbs. counterweight
and 14,000 lbs. front bumper counterweight

 Maximum approved travel
 speed with 14,000 pound
 front bumper counterweight
 installed is 5 m.p.h.
over rear work areas with outriggers fully extended and set

	130 FT. BOOM		140 FT. BOOM		150 FT. BOOM		160 FT. BOOM		170 FT. BOOM		180 FT. BOOM		OPER. RAD. FT.
ANGLE BOOM PT. EL.	RATING LBS.	ANGLE BOOM PT. EL.	RATING LBS.	ANGLE BOOM PT. EL.	RATING LBS.	ANGLE BOOM PT. EL.	RATING LBS.	ANGLE BOOM PT. EL.	RATING LBS.	ANGLE BOOM PT. EL.	RATING LBS.	ANGLE BOOM PT. EL.	RATING LBS.
													12
													15
													20
													25
													30
													35
													40
													45
													50
													60
													70
													80
													90
													100
													110
													120
													130
													140
													150
													160
													170
													180

32R254



This chart does not apply for booms equipped with a container tip or hammerhead tip section. Refer to applicable chart for ratings.

Oper. Rad. Ft.	Angle	210 Ft. Boom		Angle	220 Ft. Boom		Angle	230 Ft. Boom		Angle	240 Ft. Boom		Angle	250 Ft. Boom		Angle	260 Ft. Boom		Angle	270 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																						12
15																						15
20																						20
25																						25
30																						30
35																						35
40																						40
45																						45
50	77	213.3	45,700	78	223.7	40,600	79	234.4	36,400													50
60	75	211.5	40,600	76	222.1	39,400	76	231.7	35,300	77	242.5	31,600	77	252.1	26,100	78	262.8	24,300				60
70	72	208.3	32,300	73	218.8	32,100	73	228.6	31,800	74	239.4	30,500	75	250.1	25,200	76	260.6	23,500	76	270.6	20,300	70
80	69	204.7	27,200	70	215.5	27,100	71	226.2	26,800	72	236.6	26,600	73	247.6	24,300	73	257.4	22,600	74	268.1	19,400	80
90	66	200.3	22,600	67	211.1	22,500	68	221.8	22,200	69	232.6	21,900	70	243.6	21,800	71	254.6	21,500	72	265.4	18,700	90
100	63	196.0	19,100	64	206.2	18,900	65	217.1	18,600	67	229.6	18,300	67	240.0	18,200	68	249.6	17,900	69	261.1	17,600	100
110	60	190.3	16,200	61	201.1	16,000	63	213.6	15,700	64	224.4	15,500	65	235.2	15,300	66	245.8	15,000	67	257.1	14,700	110
120	57	184.8	13,900	58	195.1	13,700	60	208.0	13,400	61	218.6	13,200	62	229.5	13,000	64	242.6	12,700	65	253.5	12,400	120
130	53	176.5	12,000	55	188.8	11,800	57	201.4	11,500	58	212.3	11,200	60	225.1	11,000	61	236.1	10,700	62	247.1	10,400	130
140	50	169.3	10,400	52	182.1	10,100	54	194.6	9,900	56	207.6	9,600	57	218.1	9,400	59	231.6	9,100	60	242.6	8,800	140
150	46	159.5	9,000	48	174.1	8,750	51	187.4	8,500	53	200.0	8,200	54	212.4	8,000	56	224.1	7,700	57	235.6	7,400	150
160	42	150.3	7,800	45	164.6	7,550	47	178.6	7,300	50	192.5	7,000	52	205.6	6,800	53	216.1	6,500	55	229.6	6,200	160
170	38	137.8	6,750	41	154.1	6,500	44	168.5	6,250	46	182.1	6,000	49	197.0	5,750	50	207.5	5,450	52	221.6	5,150	170
180	33	124.2	5,850	37	141.6	5,550	40	156.3	5,300	43	172.1	5,050	45	187.2	4,800	47	197.5	4,550	50	215.2	4,200	180
190	28	107.0	5,000	33	127.3	4,750	36	145.0	4,500	39	161.4	4,250	42	175.6	4,000	44	189.1	3,700	47	206.3	3,400	190
200	21	85.5	4,300	27	109.8	4,050	31	130.2	3,800	35	148.3	3,500	39	165.8	3,250	41	175.5	3,000	44	196.4	2,650	200

32R201

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.

MAXIMUM BOOM LENGTH TO LIFT OFF GROUND ON OUTRIGGERS ONLY				
Over	Without Front Bumper Counterweight		With 30,000 lbs. Front Bumper Counterweight	
	Boom Only	Boom & Jib	Boom Only	Boom & Jib
25 Ft. Tip Section with 5 Sheaves				
Side	230	200 + 60	230	200 + 60
Rear	230	200 + 60	250	250 + 60
35 Ft. Tip Section with 2 Sheaves				
Side	240	210 + 60	240	210 + 60
Rear	240	210 + 60	270	270 + 60

25 FT. TIP SECTION							
BOOM LENGTH FT.	BOOM MAKE-UP ARRANGEMENT CHART	APPROX. INSERT LENGTHS FT.	BOOM LENGTH FT.	APPROXIMATE MID-POINT CONNECTION UP BOOM FROM BOOM FOOT PIN			
				ADJUST 908T116 MID-POINT ROPE LENGTH C_1 TO C_2 PIN, TO			
				FT.-IN.	*MID-POINT DEFLECTION RANGE (MIN. and MAX.) INCHES	BOOM MAKE-UP ARRANGEMENT	
100	Base - B - C - Tip	Base-25	210	105	79-2	10.5 to 13.5	Base - A - B - D - C - D - Tip
110	Base - A - B - C - Tip		220	115	89-0	10.75 to 14.25	Base - B - B - D - C - D - Tip
120	Base - B - D - Tip		230	125	98-6	11.5 to 15.0	Base - D - D - C - D - Tip
130	Base - C - D - Tip		240	115	89-0	11.75 to 15.5	Base - A - C - D - D - D - Tip
140	Base - A - C - D - Tip	A-10	250	125	99-0	12.25 to 16.0	Base - B - C - D - D - D - Tip
150	Base - B - C - D - Tip	B-20					
160	Base - A - B - C - D - Tip	C-30					
170	Base - B - D - D - Tip						
180	Base - C - D - D - Tip	D-50					
190	Base - A - C - D - D - Tip						
200	Base - B - C - D - D - Tip	Tip-25					

*When erecting boom, adjust mid-point turnbuckles to limit mid-point deflection within specified mid-point deflection range.



with 25 ft. container tip and 62,000 lbs. counterweight

6 rated crane loads in pounds — main boom — in over side and over rear work areas with outriggers fully extended and set

Oper. Rad. Ft.	Angle	120 Ft. Boom		Angle	130 Ft. Boom		Angle	140 Ft. Boom		Angle	150 Ft. Boom		Angle	160 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.
30	78	126'-0"	101,800												
35	75	124'-5"	83,100	77	135'-4"	82,800	77	145'-0"	82,500	78	155'-4"	76,600			
40	73	123'-4"	71,500	74	133'-8"	71,200	75	143'-11"	70,900	76	154'-2"	70,600	77	164'-7"	66,200
45	70	121'-4"	60,600	72	132'-6"	60,300	73	142'-5"	60,000	74	152'-10"	59,700	75	163'-2"	59,400
50	68	120'-0"	51,950	69	130'-1"	51,650	71	141'-1"	51,350	72	151'-5"	51,050	73	161'-8"	50,750
60	62	114'-8"	39,950	65	126'-6"	39,650	67	136'-8"	39,350	68	147'-9"	39,050	69	158'-0"	38,750
70	57	109'-3"	32,700	60	121'-3"	32,400	62	132'-3"	32,100	64	143'-7"	31,800	66	154'-8"	31,500
80	51	101'-10"	27,150	54	114'-0"	26,850	57	126'-1"	26,550	60	138'-8"	26,250	62	150'-1"	25,950
90	44	93'-4"	22,850	49	108'-8"	22,550	52	120'-0"	22,250	55	131'-6"	21,950	58	144'-2"	21,650
100	37	80'-8"	18,400	43	97'-2"	18,100	47	111'-0"	17,800	50	124'-10"	17,500	53	136'-4"	17,200
110	28	66'-2"	16,200	36	84'-11"	15,900	41	100'-4"	15,600	45	114'-6"	15,300	49	129'-4"	15,000
120	15	41'-2"	14,100	27	67'-5"	13,800	34	88'-3"	13,500	40	104'-11"	13,200	44	119'-9"	12,900
130				15	41'-9"	12,100	26	70'-9"	11,800	33	90'-2"	11,500	38	106'-10"	11,200
140							14	43'-9"	10,400	25	73'-3"	10,100	32	93'-2"	9,800
150										14	44'-5"	7,680	24	73'-5"	7,380
160													13	44'-1"	6,500

32R220

Ratings apply to full 360° operation when front float is in place, otherwise only over sides and rear.

Use insert arrangement as shown in Boom Make-Up Chart for 25 ft. Tip Section.

Gantry must be in raised position for all operating conditions.

Travel speed in excess of 5 M.P.H. with machine counterweight and bumper counterweight exceeds tire manufacturers load ratings.

SINGLE DRUM OPERATION					
Parts of Line	1	2	3	4	
Max. Load-Pounds	25,500	51,000	76,500	102,000	
P&H TYPE 25 WIRE ROPE 1 INCH DIA.					
DOUBLE DRUM OPERATION					
Parts of Line	1	2	3	4	Loads Per Drum Equals Loading Required
Max. Load-Pounds	10,500	21,000	31,500	42,000	

P&H SINGLE SHEAVE BLOCK	790 LBS.
P&H TWO SHEAVE BLOCK	840 LBS.

WARNING: When machine is equipped with 62,000 lbs. of counterweight, machine will tip over when upper is revolved over the side unless outriggers are fully extended and set.

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.

35 FT. TIP SECTION							
BOOM LENGTH FT.	BOOM MAKE-UP ARRANGEMENT CHART	APPROX. INSERT LENGTHS FT.	BOOM LENGTH FT.	APPROXIMATE MID-POINT CONNECTION UP BOOM FROM BOOM FOOT PIN			
				ADJUST 908T116 MID-POINT ROPE LENGTH, Q ₁ TO Q ₂ PIN, TO			
				FT. IN.	*MID-POINT DEFLECTION RANGE (MIN. and MAX.) INCHES	BOOM MAKE-UP ARRANGEMENT	
100	Base - A - C - Tip	Base-25	210	105	79-6	10.5 to 13.5	Base - D - C - B - D - Tip
110	Base - B - C - Tip		220	105	78-11	10.75 to 14.25	Base - A - B - D - C - D - Tip
120	Base - A - B - C - Tip		230	125	98-8	11.5 to 15.0	Base - D - D - B - D - Tip
130	Base - B - D - Tip	A-10	240	125	98-8	11.75 to 15.5	Base - D - D - C - D - Tip
140	Base - C - D - Tip		250	115	89-6	12.25 to 16.0	Base - A - C - D - D - D - Tip
150	Base - A - C - D - Tip		260	125	98-8	13.0 to 17.0	Base - B - C - D - D - D - Tip
160	Base - B - C - D - Tip	B-20	270	135	108-11	13.5 to 17.5	Base - A - B - C - D - D - D - Tip
170	Base - A - B - C - D - Tip						
180	Base - B - D - D - Tip						
190	Base - C - D - D - Tip	C-30					
200	Base - A - C - D - D - Tip						

*When erecting boom, adjust mid-point turnbuckles to limit mid-point deflection within specified mid-point deflection range.

**PCSA CLASS 12-560****with 15 ft. hamm****7 rated crane loads in pounds — main boom (69" w. x 69" d.) in ov**

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 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	82	48.9	280,000																					
15	78	48.5	230,500	80	58.6	207,000	82	68.7	192,000															
20	71	47.4	170,500	75	57.7	165,200	77	68.0	164,900	79	78.1	165,000												
25	63	45.5	118,900	69	56.3	118,600	72	66.8	118,300	75	77.1	118,000	77	87.4	117,700	78	97.6	117,400	79	107.7	117,100			
30	55	42.6	87,900	62	54.2	87,500	67	65.1	87,200	71	75.7	86,900	73	86.1	86,600	75	96.5	86,300	77	106.7	86,000	78	117.0	
35	45	38.4	68,600	56	51.3	68,300	62	62.8	68,000	66	73.8	67,700	69	84.6	67,400	72	95.1	67,100	74	105.5	66,800	75	115.8	
40	33	32.1	56,300	48	47.4	56,000	56	60.0	55,700	62	71.5	55,400	66	82.6	55,100	68	93.4	54,800	71	104.0	54,500	72	114.5	
45				40	42.3	47,500	50	56.3	47,200	57	68.6	46,900	62	80.2	46,600	65	91.3	46,300	68	102.2	46,000	70	112.9	
50				30	34.8	40,750	44	51.7	40,450	52	65.1	40,150	57	77.3	39,850	61	88.9	39,550	64	100.0	39,250	67	110.9	
60							27	37.2	30,900	40	55.5	30,600	48	69.8	30,300	54	82.6	30,000	58	94.7	29,700	61	106.2	
70										25	39.3	25,000	38	59.0	24,700	45	74.2	24,400	51	87.6	24,100	55	100.1	
80													23	41.3	20,350	35	62.3	20,050	43	78.2	19,750	48	92.2	
90																22	43.2	16,650	34	65.3	16,350	41	82.0	
100																			20	45.0	13,800	32	68.2	
110																						19	46.6	
120																								
130																								
140																								
150																								
160																								
170																								
180																								

WARNING:
WHEN BOOM IS EQUIPPED WITH JIB, MAIN HOOK RATING MUST
BE REDUCED TO COMPENSATE FOR JIB ATTACHMENT WEIGHT.

JIB LENGTH	20 FT.	30 FT.	40 FT.	50 FT.	60 FT.
DEDUCT — LBS.	1,500	1,500	2,000	2,500	3,000

PCSA CLASS 12-726**with 15 ft. hamme****8 rated crane loads in pounds — main boom (69" w. x 69" d.) in ov**

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 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	82	48.9	280,000																					
15	78	48.5	245,000	80	58.6	207,000	82	68.7	192,000															
20	71	47.4	186,500	75	57.7	174,300	77	68.0	174,000	79	78.1	165,000												
25	63	45.5	140,000	69	56.3	127,700	72	66.8	127,400	75	77.1	127,100	77	87.4	126,800	78	97.6	126,500	79	107.7	126,200			
30	55	42.6	105,500	62	54.2	102,900	67	65.1	102,600	71	75.7	102,300	73	86.1	102,000	75	96.5	101,700	77	106.7	101,400	78	117.0	
35	45	38.4	84,500	56	51.3	84,200	62	62.8	83,900	66	73.8	83,600	69	84.6	83,300	72	95.1	83,000	74	105.5	82,700	75	115.8	
40	33	32.1	72,900	48	47.4	72,600	56	60.0	72,300	62	71.5	72,000	66	82.6	71,700	68	93.4	71,400	71	104.0	71,100	72	114.5	
45				40	42.3	61,700	50	56.3	61,400	57	68.6	61,100	62	80.2	60,800	65	91.3	60,500	68	102.2	60,200	70	112.9	
50				30	34.8	53,050	44	51.7	52,750	52	65.1	52,450	57	77.3	52,150	61	88.9	51,850	64	100.0	51,550	67	110.9	
60							27	37.2	40,750	40	55.5	40,450	48	69.8	40,150	54	82.6	39,850	58	94.7	39,550	61	106.2	
70										25	39.3	33,200	38	59.0	32,900	45	74.2	32,600	51	87.6	32,300	55	100.1	
80													23	41.3	27,350	35	62.3	27,050	43	78.2	26,750	48	92.2	
90																22	43.2	22,750	34	65.3	22,450	41	82.0	
100																			20	45.0	18,000	32	68.2	
110																						19	46.6	
120																								
130																								
140																								
150																								
160																								
170																								
180																								

WARNING:
WHEN BOOM IS EQUIPPED WITH JIB, MAIN HOOK RATING MUST
BE REDUCED TO COMPENSATE FOR JIB ATTACHMENT WEIGHT.

JIB LENGTH	20 FT.	30 FT.	40 FT.	50 FT.	60 FT.
DEDUCT — LBS.	1,500	1,500	2,000	2,500	3,000

**Overhead tip section and 41,000 lbs. counterweight**

over side and over rear work areas with outriggers fully extended and set

Boom Rating Lbs.	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
																						15
																						20
																						25
																						30
35,700	79	127.1	85,400																			35
36,500	76	126.1	66,200	77	136.4	65,900	78	146.6	65,600	79	156.7	65,300										40
34,200	74	124.9	53,900	75	135.2	53,600	76	145.5	53,300	77	155.7	53,000	78	166.0	52,700	79	176.1	52,400	79	186.3	52,100	45
35,700	71	123.4	45,400	73	133.9	45,100	74	144.2	44,800	75	154.6	44,500	76	164.9	44,200	77	175.1	43,900	78	185.3	43,600	50
38,950	69	121.7	38,650	71	132.3	38,350	72	142.8	38,050	73	153.2	37,750	74	163.6	37,450	75	173.9	37,150	76	184.2	36,850	60
29,400	64	117.4	29,100	66	128.4	28,800	68	139.3	28,500	69	150.0	28,200	71	160.6	27,900	72	171.1	27,600	73	181.6	27,300	70
23,800	58	112.0	23,500	61	123.5	23,200	63	134.8	22,900	65	145.9	22,600	67	156.8	22,300	68	167.6	22,000	69	178.3	21,700	80
19,450	52	105.2	19,150	56	117.5	18,850	59	129.3	18,550	61	140.9	18,250	63	152.2	17,950	65	163.3	17,650	66	174.3	17,350	90
16,050	46	96.6	15,750	50	110.0	15,450	54	122.7	15,150	56	134.8	14,850	59	146.6	14,550	61	158.2	14,250	62	169.5	13,950	100
13,500	39	85.6	13,200	44	100.7	12,900	48	114.6	12,600	52	127.6	12,300	54	140.1	12,000	57	152.2	11,700	59	164.0	11,400	110
11,400	30	70.9	11,100	37	89.0	10,800	42	104.7	10,500	47	119.0	10,200	50	132.4	9,900	53	145.2	9,600	55	157.5	9,300	120
	19	48.2	9,500	29	73.5	9,200	36	92.3	8,900	41	108.5	8,600	45	123.2	8,300	48	136.9	8,000	51	150.0	7,700	130
				18	49.8	7,950	28	76.1	7,650	35	95.5	7,350	40	112.1	7,050	44	127.2	6,750	47	141.3	6,450	140
							17	51.2	6,650	27	78.5	6,350	34	98.5	6,050	38	115.6	5,750	42	131.2	5,450	150
										17	52.7	5,400	26	80.8	5,100	32	101.4	4,800	37	119.0	4,500	160
													16	54.0	4,250	25	83.0	3,950	32	104.3	3,650	170
																15	55.3	3,130	25	85.2	2,830	180
																			15	56.6	2,100	180

32R15

WARNING: When machine is equipped with 62,000 lbs. of counterweight, machine will tip over when upper is revolved over the side unless outriggers are fully extended and set.

Overhead tip section and 62,000 lbs. counterweight

over side and over rear work areas with outriggers fully extended and set

Boom Rating Lbs.	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
																						15
																						20
																						25
																						30
1,100	79	127.1	100,800																			35
2,400	76	126.1	82,100	77	136.4	81,800	78	146.6	81,500	79	156.7	79,400										40
0,800	74	124.9	70,500	75	135.2	70,200	76	145.5	69,900	77	155.7	69,600	78	166.0	69,300	79	176.1	64,200	79	186.3	59,300	45
9,900	71	123.4	59,600	73	133.9	59,300	74	144.2	59,000	75	154.6	58,700	76	164.9	58,400	77	175.1	58,100	78	185.3	57,800	50
1,250	69	121.7	50,950	71	132.3	50,650	72	142.8	50,350	73	153.2	50,050	74	163.6	49,750	75	173.9	49,450	76	184.2	49,150	60
3,250	64	117.4	38,950	66	128.4	38,650	68	139.3	38,350	69	150.0	38,050	71	160.6	37,750	72	171.1	37,450	73	181.6	37,150	70
2,000	58	112.0	31,700	61	123.5	31,400	63	134.8	31,100	65	145.9	30,800	67	156.8	30,500	68	167.6	30,200	69	178.3	29,900	80
6,450	52	105.2	26,150	56	117.5	25,850	59	129.3	25,550	61	140.9	25,250	63	152.2	24,950	65	163.3	24,650	66	174.3	24,350	90
2,150	46	96.6	21,850	50	110.0	21,550	54	122.7	21,250	56	134.8	20,950	59	146.6	20,650	61	158.2	20,350	62	169.5	20,050	100
7,700	39	85.6	17,400	44	100.7	17,100	48	114.6	16,800	52	127.6	16,500	54	140.1	16,200	57	152.2	15,900	59	164.0	15,600	110
5,500	30	70.9	15,200	37	89.0	14,900	42	104.7	14,600	47	119.0	14,300	50	132.4	14,000	53	145.2	13,700	55	157.5	13,400	120
	19	48.2	13,100	29	73.5	12,800	36	92.3	12,500	41	108.5	12,200	45	123.2	11,900	48	136.9	11,600	51	150.0	11,300	130
				18	49.8	11,100	28	76.1	10,800	35	95.5	10,500	40	112.1	10,200	44	127.2	9,900	47	141.3	9,600	140
							17	51.2	9,400	27	78.5	9,100	34	98.5	8,800	38	115.6	8,500	42	131.2	8,200	150
										17	52.7	6,680	26	80.8	6,380	32	101.4	6,080	37	119.0	5,780	160
													16	54.0	5,500	25	83.0	5,200	32	104.3	4,900	170
																15	55.3	4,170	25	85.2	3,870	180
																			15	56.6	2,960	180

32R15



with 15 ft. hammerhead tip section and 41,000 lbs. counterweight

9 rated crane loads in pounds — main boom — without outriggers — tires at 1

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		Angle	120 Ft. Boom	
		Over Side	Over Rear		Over Side	Over Rear		Over Side	Over Rear		Over Side	Over Rear		Over Side	Over Rear		Over Side	Over Rear		Over Side	Over Rear		Over Side	Over Rear		Over Side	Over Rear
12	82		74,758																								
15	78		63,464	80		62,984	82		61,234																		
RATINGS SHOWN DO NOT EXCEED MAXIMUM APPROVED TIRE LOADS																											
20	71	41,048	50,268	75	40,652	49,844	77	38,994	48,156	79	38,643	47,787															
25	63	33,051	41,261	69	32,689	40,876	72	31,068	39,229	75	30,738	38,884	77	30,384	38,516	78	29,763	37,869	79	29,392	37,485						
30	55	27,403	33,600	62	27,066	33,300	67	25,471	32,764	71	25,156	32,437	73	24,817	32,085	75	24,222	31,468	77	23,863	31,098	78	23,268	30,480	79	23,126	30,335
35	45	23,204	27,400	56	22,885	27,100	62	21,309	26,800	66	21,005	26,700	69	20,677	26,500	72	20,102	26,200	74	19,751	25,900	75	19,176	25,600	76	19,037	25,200
40	33	19,960	23,000	48	19,654	22,700	56	18,094	22,400	62	17,798	22,200	66	17,478	22,000	68	16,918	21,700	71	16,575	21,400	72	16,014	21,100	74	15,877	20,700
45				40	17,083	19,200	50	15,535	18,900	57	15,246	18,800	62	14,933	18,600	65	14,385	18,300	68	14,047	18,000	70	13,498	17,600	71	13,363	17,300
50				30	14,700	16,600	44	13,451	16,300	52	13,167	16,100	57	12,860	15,900	61	12,321	15,600	64	11,988	15,300	67	11,449	14,900	69	11,315	14,600
60							27	10,260	12,300	40	9,985	12,100	48	9,686	11,900	54	9,162	11,600	58	8,836	11,300	61	8,312	11,000	64	8,180	10,600
70										25	7,864	9,400	38	7,371	9,100	45	6,858	8,800	51	6,536	8,500	55	6,032	8,200	58	5,893	7,850
80													23	5,608	7,100	35	5,103	6,800	43	4,785	6,500	48	4,280	6,150	52	4,152	5,800
90																22	3,722	5,250	34	3,407	4,900	41	2,909	4,550	46	2,781	4,250
100																			20	2,295	3,700	32	1,801	3,350	39	1,674	3,000

WARNING: When operating crane "without outriggers" loads lifted over rear and swung over side, will increase in radius due to tire deflection. This increase in radius must be compensated for by raising boom, or machine may tip over.

MAXIMUM BOOM LENGTH TO LIFT OFF GROUND				
Boom Over	With Outriggers Set		Without Outriggers Set	
	Boom Only	Boom & Jib	Boom Only	Boom & Jib
With 41,000 Lbs. Counterweight				
Side	180	170 + 50	120	100 + 30
Rear	180	180 + 30	130	110 + 20
With 62,000 Lbs. Counterweight				
Side	180	180 + 60	Not Approved	
Rear	180	180 + 60		

Maximum approved boom length for travel is 130 ft. or 110 ft. boom and 20 ft. jib. All tires must be evenly inflated to 100 P.S.I. Boom must be positioned over rear of carrier. Gantry must be in raised position to travel with boom attached.

This rating plate applies only for booms equipped with a 15 ft. hammerhead tip section.

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.

15 FT. HAMMERHEAD TIP BOOM MAKE-UP ARRANGEMENT CHART	
Boom Length Ft.	BOOM ARRANGEMENT
	Base Length = 25 ft.; Tip Length = 15 ft. Inserts: A=10 ft.; B=20 ft.; C=30 ft.; D=50 ft.
100	Base - A - B - C - Tip
110	Base - B - D - Tip
120	Base - C - D - Tip
130	Base - A - C - D - Tip
140	Base - B - C - D - Tip
150	Base - A - B - C - D - Tip
160	Base - B - D - D - Tip
170	Base - C - D - D - Tip
180	Base - A - C - D - D - Tip

WARNING

Using this equipment in excess of rated loads, in areas of chart not rated, or with disregard of instructions will result in unsafe operating conditions and is a violation of the U.S. Dept. of Labor, Safety and Health regulations for construction.

This P & H Model 9125-TC meets the requirements of ANSI B30.5 1968. Boom structure has been tested per SAE J 987. Machine stability has been tested per SAE J 765.



reeving data,

0 p.s.i.

130 Ft. Boom	Over Side	Over Rear	Oper. Rad. Ft.
			12
			15
			20
			25
			30
18,664	25,100		35
15,512	20,600		40
13,004	17,100		45
10,960	14,400		50
7,832	10,500		60
5,551	7,700		70
3,813	5,650		80
2,445	4,050		90
1,341	2,800		100

32R15

MAIN HOIST DRUM RATED LOADS FOR ONE INCH DIA. P & H TYPE 25 WIRE ROPE					
Number of Parts of Main Hoist Reeving	1	2	3	4	5
Maximum Load - lbs.	27,800	55,600	83,400	111,200	139,000
Number of Parts of Main Hoist Reeving	6	7	8	9	10
Maximum Load - lbs.	166,800	194,600	222,400	250,000	280,000

RECOMMENDED WIRE ROPE LENGTH FOR DRUMS — FT.					
BOOM LENGTH FT.	MAIN HOIST DRUM	JIB HOIST DRUM	BOOM LENGTH FT.	MAIN HOIST DRUM	JIB HOIST DRUM
40	510	225	160	680	570
50	640	245	170	720	600
60	685	270	180	760	630
70	630	300	190	800	660
80	620	330	200	840	690
90	595	360	210	665	720
100	655	390	220	695	750
110	715	420	230	725	780
120	775	450	240	755	810
130	700	480	250	785	840
140	760	510	260	815	665
150	800	540	270	565	685

jib ratings

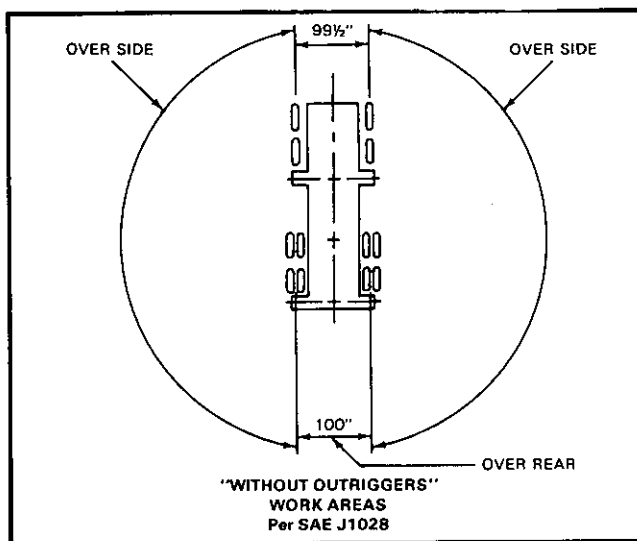
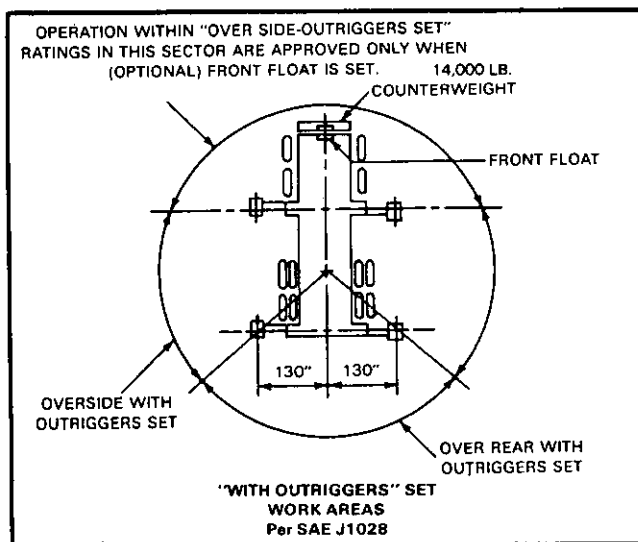
MAXIMUM JIB (29" W. x 29" D.) RATINGS FOR LIFTING CRANE SERVICE—LBS.					
ONE INCH DIA. P&H TYPE 25 WIRE ROPE					
*Use Two Parts of Line for Loads Above 25,000 Lbs.					
Offset Angle Jib to Boom Under Full Load	20 Ft. Jib	30 Ft. Jib	40 Ft. Jib	50 Ft. Jib	60 Ft. Jib
10°	30,000*	20,000	16,000	13,000	10,700
20°	25,000	18,000	14,500	11,600	9,800
30° Max.	23,000	17,000	13,500	11,000	9,300
MAXIMUM JIB RATINGS FOR BUCKET SERVICE—LBS.					
10°	24,000	16,000	12,800	10,400	8,560
20°	20,000	14,400	11,600	9,280	7,840
20° Max.	18,400	13,600	10,800	8,800	7,440

Jib Crane Ratings are based on strength of materials. When main boom load rating at operating radius is less than maximum jib ratings, stability governs and the lower value of main boom load rating must be used. Jibs are intended to increase lifting height — not operating radius — therefore, maximum jib operating radius is limited to maximum rated radius of boom length on which jib is mounted.

Locate jib backstay anchor at base end of first insert below boom tip section.



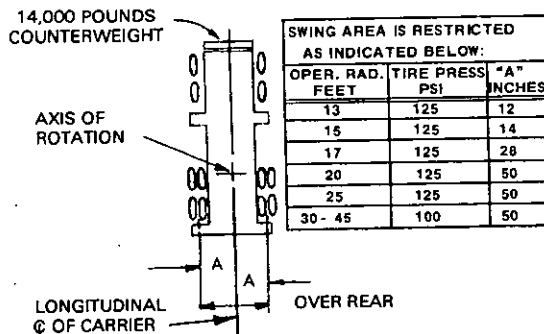
AREAS OF OPERATION



Machine must be on a firm, level, supporting surface. All tires must be 14:00x24—24 ply inflated to: see chart below. Load must be restrained from swinging during travel. Maximum approved travel speed: with lifted load is 1.5 M.P.H.; with front bumper counterweight but without load is 5 M.P.H. Remove front bumper counterweight for travel speeds above 5 M.P.H. Maximum tire pressure for highway travel is 100 P.S.I.

NOTE: For loads of 69,400 lbs. or less, max. swing area is 50 inches from longitudinal $\bar{C}$ of carrier at all operating radii with 125 P.S.I. tire pressure. For loads of 43,600 lbs. or less, max. swing area is 50 inches from longitudinal $\bar{C}$ of carrier at all operating radii with 100 P.S.I. tire pressure.

ALL TIRES MUST BE 14:00 X 24 - 24 PLY



SPECIAL OVER REAR ON RUBBER WORK AREA WITH 14,000 POUNDS FRONT BUMPER COUNTERWEIGHT INSTALLED PER SAE 1028



operating instructions printed below and throughout this brochure are for your safety and will contribute to the long life of your P&H 9125-TC

Operating radius is the horizontal distance from centerline of rotation to a vertical line through the center of gravity of the load.

Ratings shown are only for combination of P & H manufactured upper, boom, jib, counterweights, carrier and outriggers. Boom backstops are required for all boom lengths. Boom inserts must be arranged as shown in the Boom Make-Up Chart. Standard boom hoist reeving is 12 part line. Gantry must be in raised position for all operating conditions except when mast is required. When boom is equipped with jib, main hook ratings must be reduced by 1500 lbs. for 20 ft. or 30 ft. jib; 2000 lbs. for 40 ft. jib; 2500 lbs. for 50 ft. jib and 3000 lbs. for 60 ft. jib. Refer to diagrams for applicable working area.

Ratings shown are based on freely suspended loads and make no allowance for such factors as wind effect on lifted loads, ground conditions, out-of-level, operating speeds or any other condition that could be detrimental to the safe operation of this equipment. The operator, therefore, has the responsibility to judge the existing conditions and reduce lifted loads and operating speeds accordingly. Ratings do not exceed 85% of tipping load as determined by SAE J 765. Deduct weight of hook block(s), slings, cement bucket, and all other load handling accessories from main boom or jib rating shown. Ratings shown are based on the counterweight shown.

WARNING: The wind effect on the lifted load can cause sufficient side load to overstress boom or jib structure. When suspended load will not remain in line with boom, derate chart 25%. We recommend stopping operation when wind is above 30 m.p.h. and tying off or lowering boom when wind is above 50 m.p.h. When continued operation under windy conditions is necessary, consult factory for special derated load rating chart.

P & H type 4 wire rope: 6 x 25 with filler wire, preformed improved plow steel wire rope 7 x 7 I.W.R.C.

P & H type 25 wire rope: 6 x 25 I.W.R.C., preformed extra improved plow steel wire rope (filler wire).

Maximum approved travel speed with 30,000 pound front bumper counterweight installed is 5 m.p.h. All tires must be evenly inflated to 100 P.S.I. Maximum approved boom length for travel is 130 ft. or 110 ft. boom and 30 ft. jib. Boom must be positioned over rear of carrier. Gantry must be in raised position to travel with boom attached.

WARNING: When one inch diameter P & H type 11 wire rope (18 x 7 non-rotating preformed plow steel wire rope fiber core) is used for jib line on rear drum maximum lifted load including hook must not exceed 15,320 lbs. Do not use dead-end swivels with non-rotating wire rope.



NOTE: All designs, specifications and components of the equipment described above are subject to change at the manufacturer's sole discretion at any time without advance notice. Data published herein is informational in nature and shall not be construed to warrant suitability of the machine for any particular purpose as performance may vary with the conditions encountered. The only warranty applicable is our standard written warranty for this machine. Manufactured and sold in conformance with U. S. Department of Commerce Commercial Standard CS-90-58.



Address inquiries to:



140 TON P & H

MATCH
LINE

PCSA CLASS 12-749

4 rated crane loads in pounds — main boom (69" w. x 69" d.) in over side and over rear

OPER. RAD. FT.	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		ANGLE	120 Ft. Boom		ANGLE	130 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.		Boom Pt. El.	Rating Lbs.
2	81	58.0	280,000																								
5	78	57.5	220,800	80	67.6	196,000																					
10	72	56.2	174,300	75	66.6	174,000	77	76.8	168,500																		
15	66	54.3	138,360	70	65.1	137,900	73	75.6	137,600	75	85.8	137,300	77	96.3	136,800	78	106.5	132,200									
20	60	52.0	114,400	65	63.1	114,700	69	74.1	114,600	71	84.2	114,500	73	94.6	114,300	75	104.2	114,100	77	115.7	113,900	78	126.0	109,500			
25	53	48.6	90,700	59	60.1	91,000	64	71.6	90,800	67	82.2	90,700	70	93.1	90,500	72	103.8	90,300	74	114.4	90,100	75	124.4	89,800	77	135.3	
30	45	44.0	74,900	54	57.1	75,200	59	68.6	75,000	64	80.6	74,900	67	91.5	74,700	69	102.1	74,500	71	112.6	74,200	73	123.4	74,000	74	133.6	
35	36	37.0	63,500	47	52.5	63,800	55	66.0	63,600	59	77.2	63,400	63	88.8	63,300	66	100.1	63,000	68	110.6	62,800	70	121.4	62,500	72	132.1	
40	24	28.0	55,100	40	48.2	55,400	49	61.4	55,100	55	74.1	55,000	60	86.6	54,800	63	97.7	54,600	65	108.3	54,400	68	120.0	54,000	69	130.1	
45				22	30.9	43,400	37	50.6	43,100	46	66.1	43,000	52	79.6	42,800	56	91.5	42,500	60	104.0	42,300	62	114.6	42,000	65	126.5	
50							20	33.4	35,100	35	54.4	35,000	43	70.0	34,800	49	84.1	34,500	53	96.4	34,300	57	109.2	34,000	60	121.2	
55										19	34.4	29,200	32	58.0	29,000	41	74.1	28,700	47	89.1	28,500	51	101.8	28,100	54	114.0	
60													17	35.8	25,200	31	59.9	24,900	39	77.7	24,700	44	93.3	24,100	49	106.6	
65																17	37.5	21,400	30	63.4	21,200	37	80.6	20,900	43	97.1	
70																			16	38.8	18,500	28	66.1	18,100	36	84.9	
75																						15	41.1	15,900	27	67.4	
80																									15	41.7	
RATINGS LISTED FOR BOOMS 60 FT. AND LONGER ARE BASED ON THE USE OF A 35 FT. TIP SECTION. WHEN USING BOOMS WITH 25 FT. SECTION, 60 FT. TO 250 FT. LONG: RATINGS BELOW HEAVY LINE AND GREATER THAN 25 FT. OPERATING RADIUS, DEDUCT 1000 LBS.																											
WARNING: WHEN BOOM IS EQUIPPED WITH JIB, MAIN HOOK RATING MUST BE REDUCED TO COMPENSATE FOR JIB ATTACHMENT WEIGHT.														WARNING: MAXIMUM RATING FOR 35 FT. 3 SHEAVE TIP IS 150,000 LBS.													
85	JIB LENGTH	20 FT.	30 FT.	40 FT.	50 FT.	60 FT.																					
90	DEDUCT — LBS.	1,500	1,500	2,000	2,500	3,000																					

WARNING: Machine will tip over when upper is revoiced over side unless outriggers are fully extended and set.

MATCH
LINE

PCSA CLASS 12-834

and

5 rated crane loads in pounds — main boom (69" w. x 69" d.) in over rear

OPER. RAD. FT.	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		ANGLE	120 FT. BOOM		ANGLE	130 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.		BOOM PT. EL.	RATING LBS.
12	82	58.2	280000																								
15	78	57.7	220800	81	67.8	196000																					
20	73	56.5	174300	76	66.8	174000	78	77.1	168500																		
25	66	54.6	138360	71	65.4	137900	73	75.8	137600	76	86.2	137300	77	96.5	136800	79	106.7	132200									
30	60	52.1	115000	65	63.4	114700	69	74.2	114600	72	84.8	114500	74	95.2	114300	76	105.6	114100	77	115.9	113900	78	126.1	109500			
35	53	48.8	98000	60	60.8	97500	65	72.1	97000	68	83.0	96500	71	93.6	96000	73	104.2	95500	74	114.6	95000	76	124.9	94500	77	135.2	
40	45	44.4	83400	54	57.5	83100	60	69.4	83000	64	80.8	82900	67	91.7	82600	70	102.5	82400	72	113.1	82100	73	123.6	81900	74	134.0	
45	36	38.5	70900	48	53.5	70600	55	63.3	70400	60	78.1	70300	64	89.4	70000	66	100.5	69800	69	111.3	69500	71	121.3	69300	72	132.5	
50	25	29.7	61500	41	48.3	61200	50	62.4	61000	56	75.0	60900	60	86.8	60600	63	98.1	60300	66	109.2	60000	68	120.0	59800	70	130.8	
60				23	31.7	48100	38	51.8	47900	45	66.8	47800	52	80.0	47500	57	92.3	47200	60	104.1	46900	63	115.5	46600	65	126.6	
70							21	33.5	39100	35	55.1	39000	44	70.9	38600	49	84.7	38400	54	97.5	38100	57	109.7	37900	60	121.4	
80										20	35.3	32700	33	58.1	32300	41	74.8	32100	47	89.2	31700	51	102.5	31600	55	115.0	
90													20	39.8	27600	33	62.6	27600	40	79.6	27500	46	94.4	27500	50	108.0	
100																19	41.5	24100	31	65.4	23800	38	83.1	23700	44	98.5	
110	JIB LENGTH	20 FT.	30 FT.	40 FT.	50 FT.	60 FT.													18	43.1	20800	30	68.1	20700	37	86.5	
120	DEDUCT — LBS.	1500	1500	2000	2500	3000																18	44.6	18200	28	70.6	

**with 62,000 lbs. counterweight**

(ratings shown are based on a counterweight of 41,000 lbs. and 21,000 lbs. bustle counterweight)

and over rear work areas with outriggers fully extended and set

130 Ft. Boom			140 Ft. Boom			150 Ft. Boom			160 Ft. Boom			170 Ft. Boom			180 Ft. Boom			190 Ft. Boom			200 Ft. Boom			Oper. Rad. Ft.
Angle	Boom Pt. El.	Rating Lbs.	Angle	Boom Pt. El.	Rating Lbs.	Angle	Boom Pt. El.	Rating Lbs.	Angle	Boom Pt. El.	Rating Lbs.	Angle	Boom Pt. El.	Rating Lbs.	Angle	Boom Pt. El.	Rating Lbs.	Angle	Boom Pt. El.	Rating Lbs.	Angle	Boom Pt. El.	Rating Lbs.	
															MAST REQUIRED FOR BOOMS OVER 180 FT. LONG AND GANTRY MUST BE IN THE INTERMEDIATE POSITION							12		
																								15
																								20
																								25
																								30
																								35
77	135.3	89,700	77	145.0	86,400	78	155.3	78,800																40
74	133.6	73,800	75	143.9	73,600	76	154.1	73,400	77	164.6	69,400	78	174.9	64,100	79	185.3	61,300							45
72	132.1	62,400	73	142.4	62,100	74	152.8	61,900	75	163.1	61,600	76	173.6	60,900	77	184.1	56,400	78	194.3	58,400	79	204.1	51,500	50
69	130.1	54,000	71	141.1	53,700	72	151.4	53,500	73	161.6	53,200	74	172.1	53,000	75	182.6	52,300	76	193.0	53,500	77	203.4	49,900	55
65	126.5	41,900	67	136.6	41,700	68	147.7	41,400	69	158.0	41,100	71	169.3	40,800	72	179.7	40,600	73	190.2	41,100	74	201.1	40,800	60
60	121.2	33,900	62	132.2	33,600	64	143.5	33,300	66	154.6	33,000	67	165.1	32,700	69	177.6	32,500	70	187.1	32,800	71	197.8	32,500	70
54	114.0	28,000	57	126.1	27,400	60	138.6	27,400	62	150.1	27,400	64	161.5	27,300	65	171.7	27,300	67	183.6	27,300	68	194.1	27,300	80
49	106.6	24,300	52	120.0	24,000	55	131.5	23,700	58	144.2	23,500	60	156.8	23,200	62	167.6	23,000	63	178.1	23,100	65	190.1	22,900	90
43	97.1	20,800	47	111.0	20,600	50	124.8	20,300	53	136.3	20,000	56	148.6	19,700	58	161.1	19,500	60	173.1	19,600	61	183.6	19,300	100
36	84.9	18,100	41	104.3	17,800	45	114.5	17,500	49	129.3	17,200	52	142.6	16,900	54	154.1	16,800	56	166.2	16,700	58	178.2	16,400	110
27	67.4	15,800	34	88.2	5,600	40	104.9	15,200	44	119.7	15,000	47	133.0	14,700	50	146.5	14,500	53	160.2	14,400	55	172.5	14,100	120
15	41.7	14,000	26	70.7	13,700	33	90.1	13,400	38	106.8	13,100	42	122.4	12,800	46	138.1	12,600	49	152.0	12,500	51	163.9	12,200	130
			14	43.7	12,200	25	73.2	11,800	32	93.1	11,500	37	110.9	11,200	41	126.6	11,000	44	142.2	10,900	47	155.0	10,600	140
						14	44.4	10,500	24	73.4	10,200	31	98.1	9,850	36	114.3	9,700	40	130.5	9,500	43	146.3	9,200	150
									13	44.1	9,050	24	77.5	8,700	30	98.4	8,550	35	117.5	8,300	39	134.5	8,000	160
												13	46.3	7,700	23	78.7	7,550	29	102.0	7,300	34	120.3	6,950	170
															13	48.6	6,650	22	81.5	6,350	29	105.3	6,050	180
																		12	49.4	5,550	22	83.3	5,250	190
																					12	49.7	4,500	200

32R201

with 62,000 lbs. counterweight

and 14,000 lbs. front bumper counterweight

Maximum approved travel
speed with 14,000 pound
front bumper counterweight
installed is 5 m.p.h.

over rear work areas with outriggers fully extended and set

130 FT. BOOM			140 FT. BOOM			150 FT. BOOM			160 FT. BOOM			170 FT. BOOM			180 FT. BOOM			OPER. RAD. FT.
ANGLE	BOOM PT. EL.	RATING LBS.	ANGLE	BOOM PT. EL.	RATING LBS.	ANGLE	BOOM PT. EL.	RATING LBS.	ANGLE	BOOM PT. EL.	RATING LBS.	ANGLE	BOOM PT. EL.	RATING LBS.	ANGLE	BOOM PT. EL.	RATING LBS.	
																		12
																		15
																		20
																		25
																		30
																		35
77	135.2	92100	78	145.5	85400	79	155.7	77800										40
74	134.0	81700	76	144.3	80600	77	154.6	74100	77	164.9	68400	78	175.1	63100	79	185.3	60300	45
72	132.5	69100	73	142.9	68800	75	153.3	68500	76	163.7	65900	77	174.0	59900	78	184.2	55400	50
70	130.8	59600	71	141.4	59300	73	151.9	59000	74	162.3	58700	75	172.7	57400	76	183.0	51300	60
65	126.5	46500	67	137.6	46300	69	148.4	46000	70	159.0	45700	71	169.6	45500	72	180.2	45200	70
60	121.4	37700	62	132.8	37400	64	144.0	37100	66	155.0	36800	68	165.9	36600	69	176.7	36300	80
55	115.0	31400	58	127.0	31000	60	138.7	30800	62	150.2	30400	64	161.4	30200	65	172.4	29900	90
	98.0	27200	53	120.8	26900	56	133.1	26700	58	145.0	26400	60	156.6	26200	62	168.0	25900	100
4	98.5	23500	48	112.5	23100	51	125.7	22900	54	138.3	22600	56	150.5	22400	59	162.3	22100	110
37	86.5	20400	42	102.3	20100	46	116.0	19900	49	130.3	19500	52	143.3	19300	55	155.7	19100	120
28	70.6	18000	35	89.7	17600	40	106.1	17400	45	120.9	17000	48	134.8	16900	51	148.1	16600	130
						34	92.8	15300	39	109.7	15000	43	124.9	14800	46	139.2	14500	140
			16	47.5	13900	26	75.4	13600	33	95.8	13300	38	113.1	13100	42	128.8	12800	150
						16	48.9	12100	26	77.7	11800	32	98.7	11600	37	116.5	11300	160
									15	50.2	10500	25	79.9	10300	31	101.4	10100	170
												15	51.5	9200	24	82.0	8950	180
																		190
																		200

32R254



This chart does not apply for booms equipped with a container tip or hammerhead tip section. Refer to applicable chart for ratings.

62,000 CTW.

Oper. Rad. Ft.	Angle	210 Ft. Boom		220 Ft. Boom		230 Ft. Boom		240 Ft. Boom		250 Ft. Boom		260 Ft. Boom		270 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																12
15																15
20																20
25																25
30																30
35																35
40																40
45																45
50	77	213.3	45,700	78	223.7	40,600	79	234.4	36,400							50
60	75	211.5	40,600	76	222.1	39,400	76	231.7	35,300	77	242.5	31,600	77	252.1	28,100	60
70	72	208.3	32,300	73	218.8	32,100	73	228.6	31,800	74	239.4	30,500	75	250.1	25,200	70
80	69	204.7	27,200	70	215.5	27,100	71	226.2	26,800	72	236.6	26,600	73	247.6	24,300	80
90	66	200.3	22,600	67	211.1	22,500	68	221.8	22,200	69	232.6	21,900	70	243.6	21,800	90
100	63	196.0	19,100	64	206.2	18,900	65	217.1	18,600	66	227.9	18,300	67	238.7	18,000	100
110	60	190.3	16,200	61	201.1	16,000	62	213.6	15,700	63	224.4	15,500	64	235.2	15,300	110
120	57	184.8	13,900	58	195.1	13,700	59	208.0	13,400	60	218.8	13,200	61	229.5	13,000	120
130	53	178.5	12,000	54	188.8	11,800	55	201.4	11,500	56	212.3	11,200	57	223.1	11,000	130
140	50	169.3	10,400	51	182.1	10,100	52	194.6	9,900	53	207.6	9,600	54	218.1	9,400	140
150	46	159.5	9,000	47	174.1	8,750	48	187.4	8,500	49	200.0	8,200	50	212.4	8,000	150
160	42	150.3	7,800	43	164.6	7,550	44	178.8	7,300	45	192.5	7,000	46	205.6	6,800	160
170	38	137.8	6,750	39	154.1	6,500	40	168.5	6,250	41	182.1	6,000	42	197.0	5,750	170
180	33	124.2	5,850	34	141.6	5,550	35	156.3	5,300	36	172.1	5,050	37	187.2	4,800	180
190	28	107.0	5,000	29	127.3	4,750	30	145.0	4,500	31	161.4	4,250	32	175.8	4,000	190
200	21	85.5	4,300	22	109.8	4,050	23	130.2	3,800	24	148.3	3,500	25	165.8	3,250	200

32R201

MAXIMUM JIB (29" W. x 29" D.) RATINGS FOR LIFTING CRANE SERVICE—LBS.					
ONE INCH DIA. P&H TYPE 25 WIRE ROPE					
*Use Two Parts of Line for Loads Above 25,000 Lbs.					
Offset Angle Jib to Boom Under Full Load	20 Ft. Jib	30 Ft. Jib	40 Ft. Jib	50 Ft. Jib	60 Ft. Jib
10°	30,000*	20,000	16,000	13,000	10,700
20°	25,000	18,000	14,500	11,600	9,800
30° Max.	23,000	17,000	13,500	11,000	9,300
MAXIMUM JIB RATINGS FOR BUCKET SERVICE—LBS.					
10°	24,000	16,000	12,800	10,400	8,560
20°	20,000	14,400	11,600	9,280	7,840
20° Max.	18,400	13,600	10,800	8,800	7,440

MAXIMUM BOOM LENGTH TO LIFT OFF GROUND ON OUTRIGGERS ONLY				
Over	Without Front Bumper Counterweight		With 30,000 lbs. Front Bumper Counterweight	
	Boom Only	Boom & Jib	Boom Only	Boom & Jib
25 Ft. Tip Section with 5 Sheaves				
Side	230	200 + 60	230	200 + 60
Rear	230	200 + 60	250	250 + 60
35 Ft. Tip Section with 2 Sheaves				
Side	240	210 + 60	240	210 + 60
Rear	240	210 + 60	270	270 + 60

25 FT. TIP SECTION							
BOOM LENGTH FT.	BOOM MAKE-UP ARRANGEMENT CHART	APPROX. INSERT LENGTHS FT.	BOOM LENGTH FT.	APPROXIMATE MID-POINT CONNECTION UP BOOM FROM BOOM FOOT PIN			
				ADJUST 908T116 MID-POINT ROPE LENGTH Q ₁ TO Q ₂ PIN, TO			
				FT.-IN.	*MID-POINT DEFLECTION RANGE (MIN. and MAX.) INCHES	BOOM MAKE-UP ARRANGEMENT	
100	Base - B - C - Tip	Base-25	210	105	79-2	10.5 to 13.5	Base - A - B - D - C - D - Tip
110	Base - A - B - C - Tip		220	115	89-0	10.75 to 14.25	Base - B - B - D - C - D - Tip
120	Base - B - D - Tip		230	125	98-6	11.5 to 15.0	Base - D - D - C - D - Tip
130	Base - C - D - Tip	A-10	240	115	89-0	11.75 to 15.5	Base - A - C - D - D - D - Tip
140	Base - A - C - D - Tip	B-20	250	125	99-0	12.25 to 16.0	Base - B - C - D - D - D - Tip
150	Base - B - C - D - Tip	C-30					
160	Base - A - B - C - D - Tip						
170	Base - B - D - D - Tip						
180	Base - C - D - D - Tip	D-50					
190	Base - A - C - D - D - Tip						
200	Base - B - C - D - D - Tip						

*When erecting boom, adjust mid-point turnbuckles to limit mid-point deflection within specified mid-point deflection range.



rated crane loads in pounds — main boom (69" w. x 69" d.) in over side

OPER. RAD. FT.	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		ANGLE	120 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	81	58.0	280,000					RATINGS ABOVE HEAVY LINE ARE LIMITED BY FACTORS OTHER THAN STABILITY.									RATINGS AT 20 FT. OPERATING RADIUS OR LESS REQUIRES THE USE OF 25 FT. TIP SECTION WITH 5 SHEAVES.							
15	70	57.5	210,500	80	67.6	196,000																		
20		56.2	165,200	75	66.6	164,900	77	76.8	164,600															
25	66	54.3	127,000	70	65.1	127,300	73	75.6	127,300	75	85.8	127,200	77	96.3	127,100	78	106.5	127,000						
30	60	52.0	94,200	65	63.1	94,500	69	74.1	94,400	71	84.2	94,300	73	94.6	94,100	75	104.2	94,000	77	115.7	93,800	78	126.0	93,600
35	53	48.6	74,500	59	60.1	74,800	64	71.6	74,700	67	82.2	74,600	70	93.1	74,400	72	103.8	74,200	74	114.4	74,000	75	124.4	73,800
40	45	44.0	61,300	54	57.1	61,600	59	68.6	61,400	64	80.6	61,300	67	91.5	61,100	69	102.1	60,900	71	112.6	60,700	73	123.4	60,400
45	36	37.0	51,800	47	52.5	52,200	55	66.0	52,000	59	77.2	51,900	63	88.8	51,700	66	100.1	51,500	68	110.6	51,300	70	121.4	51,100
50	24	28.0	44,600	40	48.2	44,900	49	61.4	44,700	55	74.1	44,600	60	86.6	44,400	63	97.7	44,200	65	108.3	44,000	68	120.0	43,700
60				22	30.9	34,900	37	50.6	34,600	46	66.1	34,500	52	79.6	34,300	56	91.5	34,100	60	104.0	33,800	62	114.6	33,600
70							20	33.4	28,000	35	54.4	27,800	43	70.0	27,600	49	84.1	27,500	53	96.4	27,500	57	109.2	27,500
80										19	34.4	23,600	32	58.0	23,400	41	74.1	23,100	47	89.1	22,900	51	101.8	22,600
90													17	35.8	19,800	31	59.9	19,500	39	77.7	19,300	44	93.3	18,900
100																17	37.5	16,600	30	63.4	16,400	37	80.6	16,100
10		RATINGS LISTED FOR BOOMS 60 FT. AND LONGER ARE BASED ON THE USE OF A 35 FT. TIP SECTION. WHEN USING BOOMS WITH A 25 FT. TIP SECTION, 60 FT. TO 250 FT. LONG; RATINGS GREATER THAN 20 FEET MUST BE REDUCED BY 1000 POUNDS.																16	38.8	14,200	28	66.1	13,800	
20																						15	41.1	12,000
30																								
40																								
50																								
60																								
70																								
80																								
90																								
100																								
WARNING: WHEN BOOM IS EQUIPPED WITH JIB, MAIN HOOK RATING MUST BE REDUCED TO COMPENSATE FOR JIB ATTACHMENT WEIGHT												WARNING: MAXIMUM RATING FOR 35 FT. 3 SHEAVE TIP IS 150,000 LBS.												
JIB LENGTH		20 FT.	30 FT.	40 FT.	50 FT.	60 FT.																		
DEDUCT — LBS.		1,500	1,500	2,000	2,500	3,000																		

WARNING: When operating crane "without outriggers" loads lifted over rear and swung over side, will increase in radius due to tire deflection. This increase in radius must be compensated for by raising boom, or machine may tip over.

special over rear on rubber with 41,000 lbs. counterweight
and 14,000 lbs. front bumper counterweight

3 rated crane loads in pounds — main boom — over rear — without outriggers

OPER. RAD. FT.	ANGLE	50 FT. BOOM		ANGLE	60 FT. BOOM		ANGLE	70 FT. BOOM		ANGLE	80 FT. BOOM		ANGLE	90 FT. BOOM		ANGLE	100 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.	
12	81	58.0	110,000																12
13	80	57.8	107,400																13
15	78	57.5	96,800	80	67.6	96,200													15
17	76	57.1	83,700	78	67.3	83,100	80	77.5	82,800										17
20	72	56.2	69,400	75	66.8	68,800	77	76.8	68,500	79	87.1	68,100	80	97.2	67,500				20
25	66	54.3	53,700	70	65.1	53,100	73	75.6	52,800	75	85.8	52,400	77	96.3	51,900	78	106.5	51,500	25
30	60	52.0	43,500	65	63.1	42,900	69	74.1	42,600	71	84.2	42,200	73	94.6	41,700	75	104.2	41,400	30
35	53	48.6	36,300	59	60.1	35,800	64	71.6	35,500	67	82.2	35,100	70	93.1	34,600	72	103.8	34,200	35
40	45	44.0	31,100	54	57.1	30,500	59	68.6	30,200	64	80.6	29,900	67	91.5	29,300	69	102.1	29,000	40
45	36	37.8	27,000	47	52.5	26,400	55	66.0	26,100	59	77.2	25,800	63	88.8	25,300	66	100.1	24,900	45



Figure 1-4. General Dimension (8105J272)

reeving data,

.i.

Year	Oper. Rtd. Ft.
1912	12
1913	15
1914	20
1915	25
1916	30
1917	35
1918	40
1919	45
1920	50
1921	60
1922	70
1923	80
1924	90
1925	100

32R15

MAIN HOIST DRUM RATED LOADS FOR ONE INCH DIA. P & H TYPE 25 WIRE ROPE					
Number of Parts of Main Hoist Reeving	1	2	3	4	5
Maximum Load - lbs	27,800	55,600	83,400	111,200	139,000
Number of Parts of Main Hoist Reeving	6	7	8	9	10
Maximum Load - lbs.	166,800	194,600	222,400	250,000	280,000

BOOM LENGTH FT.	MAIN HOIST DRUM	JIB HOIST DRUM	BOOM LENGTH FT.	MAIN HOIST DRUM	JIB HOIST DRUM
40	510	225	180	680	570
50	640	245	170	720	600
60	685	270	180	760	630
70	630	300	190	800	660
80	620	330	200	840	690
90	595	360	210	885	720
100	655	390	220	695	750
110	715	420	230	725	780
120	775	450	240	755	810
130	700	480	250	785	840
140	750	510	260	815	665
150	800	540	270	585	685

jib ratings

MAXIMUM JIB (29" W. x 29" D.) RATINGS FOR LIFTING CRANE SERVICE—LBS.					
ONE INCH DIA. P&H TYPE 25 WIRE ROPE					
*Use Two Parts of Line for Loads Above 25,000 Lbs.					
Offset Angle Jib to Boom Under Full Load	20 Ft. Jib	30 Ft. Jib	40 Ft. Jib	50 Ft. Jib	60 Ft. Jib
10°	30,000*	20,000	16,000	13,000	10,700
20°	25,000	18,000	14,500	11,600	9,800
30° Max.	23,000	17,000	13,500	11,000	9,300
MAXIMUM JIB RATINGS FOR BUCKET SERVICE—LBS.					
10°	24,000	16,000	12,800	10,400	8,560
20°	20,000	14,400	11,600	9,280	7,840
20° Max.	18,400	13,600	10,800	8,800	7,440

Jib Crane Ratings are based on strength of materials. When main boom load rating at operating radius is less than maximum jib ratings, stability governs and the lower value of main boom load rating must be used. Jibs are intended to increase lifting height — not operating radius — therefore, maximum jib operating radius is limited to maximum rated radius of boom length on which jib is mounted.

Locate jib backstay anchor at base end of first insert below boom tip section.

age and
"standard of
; class

in over side

110 Ft. Boom			120 Ft. Boom		
Angle	Boom Pt. El.	Rating Lbs.	Angle	Boom Pt. El.	Rating Lbs.
T 20 FT. OPERATING RADIUS OR URES THE USE OF 25 FT. TIP. ITH 5 SHEAVES.					
77	115.7	93,800	78	126.0	93,600
74	114.4	74,000	75	124.4	73,800
71	112.6	60,700	73	123.4	60,400
68	110.6	51,300	70	121.4	51,100
65	108.3	44,000	68	120.0	43,700
60	104.0	33,800	62	114.6	33,600
53	96.4	27,500	57	109.2	27,500
47	89.1	22,900	51	101.8	22,600
39	77.7	19,300	44	93.3	18,900
30	63.4	16,400	37	80.6	16,100
16	38.8	14,200	28	66.1	13,800
			15	41.1	12,000
ING					
000 LBS.					

e, will increase in radius due
ray tip over.

Out outriggers

10 Ft. Boom		Angle	100 Ft. Boom	
Order	Over Rear		Over Side	Over Rear
H A 25 FT. TIP SECTION, 60 FT 1,000 LBS				
763	39.869	78	31.392	39.485
222	33.468	75	25.863	33.098
102	28.200	72	21.751	27.900
918	23.700	69	18.575	23.400
385	20.300	66	16.047	20.000
321	17.600	63	13.988	17.300
162	13.600	56	10.836	13.300
858	10.800	49	8.536	10.500
103	8.800	41	6.785	8.500
722	7.250	31	5.407	6.900
		17	4.295	5.700