P&H® Century T350

Hydraulic Truck Crane
35 Ton (31.7 tonnes) Maximum Capacity
134 Feet (40.85m) Maximum Tip Height

- **Excellent reach** afforded by telescoping 80 ft. (24.4 m) 3 section full power boom, Add 30 ft. (9.1 m) lattice boom extension and 20 ft. (6.1 m) jib for total length of 130 (39.6 m).
- **Telescope rated loads** for precise placement. Semi-fixed cylinder mounts decrease cylinder deflection under load and increase telescoping capacity.
- **Superior lifting performance** provided by rectangular full depth four plate boom that is welded inside and out.
- **P&H 6 x 4 truck carrier** has strong rigid frame utilizing a high strength rectangular box side rail construction, roomy lowline cab, sprung front suspension, 8'-0" (2.44 m) road width and road speeds to 49 mph (78.6Km/h).
- **A duty cycle machine** - powerful winches offer high line speeds and pull. VOLU-MATIK® hydraulic system provides optimum oil flow for fast crane functioning. No derate on boom for bucket work.
- **Total operator comfort** means less fatigue and greater production. Spacious cab module allows placement of controls "in the palm of your hand", lots of leg and elbow room, and full vision of all activities.
- **Less downtime** - "Pit-Stop" maintenance-proven. It's industry's most serviceable crane - engineered for parts commonality, accessibility and fast tear-down.
- **Fast, solid set-up** with P&H outriggers. Excellent stability with 17' 10" (5.43 m) outrigger stance.

Specifications

Specifications

ITEM NO. This P&H crane meets the requirements of ANSI B30.5c -1987. Boom Structure (boom, lattice extension and jib) has been tested per SAE J1063, machine stability tested per SAE J765. LOAD RATINGS shown apply only to machine as manufactured by P&H.

1 **BASIC MACHINE**

Boom

Boom: All boom sections are of full depth rectangular four plate construction, welded inside and out, with adjustable slider pads on top, bottom and sides. All powered sections are single lever controlled. Block type semi-fixed telescope cylinder mounts provide ample capacity to telescope rated loads.

Boom point contains one idler sheave and four load sheaves. Sheaves are 15" (381mm) pitch diameter and are non-metallic with roller bearings.

Boom: 80' (24.4M) three (3) section powered boom, 32' (9.8M) retracted length, 80' (24.4M) extended length, consisting of one base section and two powered sections.

For performance characteristics, see Chart No.3: Range Diagram and Chart No.4: Lifting Capacities.

(For enhanced performance, see Boom Options and Accessories).

Counterweight: 5,917 lbs. (2684kg).

For reduced axle loads, see options.

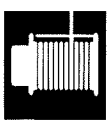
Upperstructure

Operator's Cab: All-weather environmental cab of steel has hinged tinted ceiling window, slide-by right side window, locking slide-by door and large windows with a full view in all directions. Safety glass used throughout. Operator's four-way adjustable seat has torsion suspension and seat belt. Cab is 34.5" (876mm) wide with a stand-up height of 56" (1422mm) and is cushion mounted for vibration dampening and noise reduction.

Cab Equipment: Cab contains all crane function controls. Also includes winch high speed indicators, windshield wiper and electric horn.

Controls: In front of operator are foot pedals for boom hoist, swing brake, service brakes, and engine throttle. Far left of steering wheel are console mounted double-acting levers for swing and telescope. At the right are levers for auxiliary winch (optional), main winch and boom hoist. Also on right console are main winch speed indicator and engine starting aid switch. On right side of seat are floor mounted levers for house lock and swing holding brake. Also at operator's right are console mounted switches for master ignition, steering mode, parking brake, windshield wiper, master lights, high-low transmission range and outrigger controls. Also on console are engine start button, engine high temperature warning light, engine stop button, dash light, cigarette lighter, fuel gauge, air pressure gauge, circular level, and positive (air) hand throttle. Console has prewired removable modules for ease of service.

Operational Aids: Mechanical boom angle indicator, anti-two block warning indicator with audio-visual warning, and Krueger load moment system (Mark 3e/2). Includes load moment device with audio-visual warning, radius, angle, length, and angle preset. Includes control lever lockouts (Solenoid valve shut-off devices).

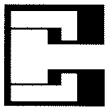


Main Winch: P&H model 1580 two speed, mounted on rear of upper frame. Planetary gearing with equal speed power raising and lowering, Infinitely variable controlled speed. Spring applied, hydraulically released load holding multiple disc brake is automatic. Complete with 450' (137M) wire rope, and mechanical drum turn indicator.

Drum: 14.875" (378mm) P.D. X 18.5" (470mm) wide with 22.25" (565mm) dia. flanges.
Wire Rope (Standard): 5/8" (16mm) dia. 6x37 extra improved plow steel, with 7x7 I.W.R.C.
See Chart No.5, Hoist Reeving, for rope capacities and parts of line required.
Drum Capacity: 639 ft. (195M) 5 layers.
Line Pull (Max.): 14,875 lbs. (6,741kg) 1st layer (low speed).
Line Pull (Permissible): 8600 lbs.(3924kg).
Line Speed Up (max.): 501 fpm (152 m/m) 5th layer (high speed).

Plumbing and Controls for Auxiliary Winch: No winch. For future installation of auxiliary winch.

(See options for Auxiliary Winch).



Boom Hoist: One 9" (229mm) I.D. cylinder, double-acting. Hydraulically powered raising and lowering with holding valve.

Boom Telescope: Two 5.75" (146mm) I.D. - double-acting cylinder. Hydraulically powered extending and retracting with holding valve. Supplied by a single hose loop.

Hydraulic System: This system utilizes 4 pumps and is designed to provide ample volume and pressure for optimum performance. A heavy duty power steering pump operating at 2800 rpm (engine full load) provides 8 gpm (30.3 lpm) to steering circuit. Three main gear type pumps are piggy-back mounted (use common drive shaft) and driven off front of engine at 2800 rpm (engine full load). The pump closest to engine provides 40 gpm (151.4 lpm) to boom hoist and telescope circuits. The shaft end pump of the piggy-back mounted tandem pump provides 80 gpm (302.8 lpm) to main and auxiliary winch circuits. The cover end pump of the tandem provides 29 gpm (109.8 lpm) to swing and outrigger circuits.

Total flow for the system at governed speed is 149 gpm (564 lpm). High pressure oil leaving the pump to the swing and outrigger circuits is filtered to 20 microns to protect seals in cylinders, valves and motors, before entering functioning circuits. All returning oil (100%) is filtered in a bypass type filter to 10 microns before entering the reservoir.

The 115 gal. (435.3 liter) reservoir is located on mid right side of carrier. Pumps, valves and motors are readily accessible and easy to service. Control valves are four way, three position type with low effort spools and pilot-operated relief valves for quick smooth response. A single spool pressure compensated valve is used for swing metering control. Cable linkage connects valves to control levers. Air to oil cooler is standard.

Swing Unit: Hydraulic motor driving through 36:1 planetary gear reducer to pinion gear, 360º continuous rotation to 3.13 rpm.

Swing Gear: External cut spur gear with 136 teeth 45.3" (1151mm) P.D.

Swing Brake: Multiple disc brake integral with swing reducer, manually engaged with swing brake lever and hydraulically released by swing lever engagement. Swing brake pedal for slow dynamic stopping.

House Lock: Two position (front and rear) pin-in-hole lock manually engaged with house lock lever.

Rotary Manifold: Sealed rotary swivel for air and hydraulic hose connections between rotating upper and carrier. Quickly removable from above or below for servicing. Electrical swivel is mounted on top of air and hydraulic swivel.

Fastening to Lower: Single row ball bearing integral with swing gear. Welded to carrier frame and bolted to rotating frame. Bearing is protected from dust by labyrinth seal.

Carrier

Carrier: P&H 6 x 4

Frame: All welded unitized construction assures rigidity and permanent alignment of swing bearing and rotating upper machinery. Fabricated of rectangular structural tubing main frame beams of high strength 80,000 psi (5600kg/sq. cm) minimum yield steel and reinforced with rectangular box cross members of high strength 80,000 psi (5600 kg/ sq. cm) minimum yield steel.

Hydraulic Outriggers: Four (4) independent assemblies that hydraulically extend out horizontally from carrier frame and down vertically to form a stable working platform. Four (4) double-acting hydraulic cylinders provide independent horizontal beam movement and four (4) provide vertical rod movement. Vertical cylinders are equipped with holding valves. Cylinders are actuated by electric solenoid directional control valves operated from cab console switches, or control stations on either side of carrier.

Outrigger Beams: Fabricated high strength alloy steel box extending to a maximum 8' 11" (2.7 m) from centerline of carrier.

Outrigger Floats: Removable floats with storage on outrigger box. Float size 20.25" (514 mm) square.

Lights: Dual headlights, tail lights, stop lights, front and rear directional signals with emergency flashers, rear license plate light, front, rear and side clearance lights with integral reflectors, dome light and front identification lights.

Equipment: Front bumper, full fenders, tow hooks front and rear, carrier-mounted boom rack, sliding engine hood, fire extinguisher and back-up warning device. Hydraulic front stabilizer.

Cab: Low profile environmental cab of steel construction is mounted forward of the front suspension on the left side of the carrier frame. Cab is cushion mounted for vibration dampening and noise reduction. Large safety glass windows are used throughout, providing full view in all directions. Operator's four-way adjustable seat has torsion suspension and seat belt.

Cab Equipment: Contains all roading controls and instrumentation. Includes illuminated instrument panel with speedometer, tachometer, hour meter, voltmeter, and warning light, three (3) air pressure gauges with warning lights, fuel gauge, oil pressure gauge with warning light, water temperature gauge with warning light, master ignition switch, engine start button. Panel also includes switches for highway lights, dome light, windshield wiper and washer, engine starting aid, heater, defroster, turn signals. Right side console includes inter-axle differential lock, transmission shift lever and parking brake. Other cab equipment includes cigarette lighter, engine condition warning alarm, air horns and West Coast rear view mirrors.

Front axle: Rockwell FL-941 forged balanced section I-beam.

Rear Axle: Rockwell SQ100 single reduction, ratio 7.2:1 with interaxle differential.

Suspension: Front - Reyco multi-leaf spring mounted with torque rods. Rear - Hendrickson solid bogie, mounted tandem with torque rods.

Steering: Ross 32.5:1 hydraulic powered gear and integral valve with Garrison dual hydraulic assist cylinder, 18" (457mm) diameter steering wheel.

Service Brakes: Rockwell Stopmasters on front, Maxi safety brakes on rear. Air on all six wheels - shoe type with separate front and rear air reservoirs for safety.

Parking Brake: Maxi spring set, air release on rear wheels.

Tires: Standard - Front (2): 15.00 x 22.5 Super Single Bias 16-ply Load Range H, and Rear (8): 10.00 x 20 Dual Bias 12-ply Load Range F.

See Chart Nos. 12 and 14 for "On Rubber" lifting capacities .
Alternate tires and spares available. See Options.

Power Plant:

Make	Caterpillar
Model	3208T
Type	Diesel
Cylinders	8
Bore x Stroke	4.50"x5.00" (114x127mm)
Displacement	636 cu.in. 10.4 liters
Cycles	Four
Air Induction	Turbocharged
Starting	12 volt motor Negative Ground
Charging	12 volt alternator, 80 amp.
Compressor, Air	12.9 CFM @ 1250 rpm

CONSULT FACTORY FOR 1992 EPA ENGINE.

Power Plant Cont.

Governor, Air	105-120 psi
Fan	6 blade, suction type 26 in. (660mm) dia.

Ratings:

Gross HP @ rpm	225 @ 2600
Kilowatts @ rpm	168 @ 2600

Accessories:..

Cooling	Liquid recirculating, bypass, pressurized.
Radiator	Tube and fin type, thermostat controlled.
Battery	385 amp. hour
Fuel Tank	60 gal. (227 liters) Meets FHWA requirements,(Left side of carrier).
Air Cleaner	Two stage dry type - replaceable element.
Lube oil filter	Replaceable element. Full-flow.
Fuel Filter	Replaceable element. Full flow.

Transmission:

Make:	Fuller
Model:	RT6613 Road Ranger
Speeds:	13-speed forward 3-speed reverse

Clutch: Spicer 14" (355.6mm) dual plate ceramic disc clutch.

Performance: Speed and gradeability based on 50,000 pounds (22,679 kg) GVW and may vary due to engine performance, vehicle weights and tire options.

Low gear:	2.7 mph (4.4 km/h)
High gear:	49 mph (78.6 km/h
Max. grade:	69.6%

SHEAVE AND DRUM TO WIRE ROPE RATIOS: Pitch Diameter

	Sheave to Wire Rope	Drum to Wire Rope
Boom Main Sheave	24 to 1	-----
Boom Idler Sheave	24 to 1	-----
Boom Ext. Sheave	24 to 1	-----
Main Winch	-----	18.2 to 1
Aux. Winch	-----	20.25 to 1

End Basic Machine

OPTIONS

ITEM NO.	Boom Options and Accessories
11	**3,552 lb. (1611 kg) Counterweight -** for use where reduced axle loads are necessary. See Axle Loadings, Chart No.1, page 5.
	For performance characteristics, see chart nos. 8, 9 and 10.
11C	**5917 lb. (2683 kg) Counterweight** with removal device. 5883 lb. (2668 kg) removable with main winch only. 5375 lb. (2438 kg) removable with both main and auxiliary winches. P&H 1580 auxiliary winch (Item 29A) not available with this counterweight.

Cont. Next Page

ITEM NO.

15 **30 ft. (9.1m) Lattice Extension:** Swing-around tapered lattice structure with a single 15" (381mm) P.D. metallic boom point sheave with roller bearing. Easily installed from ground level by pivoting from its stored position on right side of boom base and pin connecting to boom point. For extending reach of boom. Includes anti-two block material, and Item 15A.

For performance characteristics, see chart nos. 5 and 9.

20 **Positive Swing Lock - 360 degrees:** (Req'd to meet NYC Codes)

21 **A-Frame Jib:** 20 ft. (6.1m), underslung A-frame structure with a single 15" (381mm) P.D. metallic point sheave with roller bearing, compression strut and guy cables. Pin and guy line connected. For extending reach of lattice extension. Jib stored on carrier deck. Includes anti-two block materia. Requires Item 15.

See Chart Nos. 6 and 10 for Jib ratings.

22 **Jib Storage and Mounting Material:** For Carrier Deck

26 **10 ton Hook Block:** One sheave.

27 **35 ton Hook Block:** Four sheaves.

29A **Auxiliary Winch:** Model P&H 1580, two speed. (Same as main winch).

30 **Auxiliary Winch:** P&H model 1080 single speed mounted on counterweight. Planetary gearing with equal speed raising and lowering. Infinitely variable controlled speed. Spring applied, hydraulically released load holding multiple disc brake is automatic.

Drum:	11.25" (286 mm) P.D. x 16.5" (419 mm) wide with 16.75" (425 mm) dia. flanges.
Drum Capacity:	543 ft. (165 m) 5 layers.
Line Pull (max.):	10,500 lbs. (4761 kg) 1st layer.
Line Pull (permissible):	6,200 lbs. (2812 kg) per part of line.
Line Speed Up (max.):	High Speed 360 fpm (110 m/m) 5th Layer.

32A **Auxiliary Winch Wire Rope:** 1/2 " dia. x 360', for 1080 winch.

32B **Auxiliary Winch Wire Rope:** 5/8" dia x 450', for 1580 winch.

33 **8.5 ton Hook:** with swivel.

33A **5 ton Hook:** with swivel.

35 **Cable Spooling Device:** Main or Auxiliary Winch.

36 **Mechanical Drum Turn Indicator**: for Auxiliary winch.

37 **Auxiliary Boom Point Sheave:** includes anti-two block material.

38 **Special Paint:** Same spec as standard, different color.

38A **Primer Paint Only:** No Finish Painting.

46A **Windshield Washer:** Upper cab.

47 **Roof Window Wiper**

48 **Heater and Defroste**r: Diesel. Upper.

49 **Heater And Defroster:** Propane w/o tank. Upper.

50 **Floodlights:** Three

54A **Swing Gear Cover**

55 **Amber Rotating Beacon:** Upper

ITEM NO.

56 **Vandalism Kit:** Lexan glass - upper

56A **Tinted Glass:** Upper

63 **Remote Control:** Carrier

72 **Transmission:** Allison MT653 DR automatic.

75 **Tires:** 15:00 x 22.5 - 16 ply, front and rear (6). w/ 3552 lb. ctwt. only

76 **Tires:** 16.5 x 22.5 - 16 ply, front. Front and rear(6).

76A **Tires:** 16.5 x 22.5 -16 ply, front (2); 10:00 x 20 - 12 ply, rear (8).

77 **Tires:** Radial, 15R 22.5 - 18 ply, front and rear (6). w/ 3552 lb. ctwt. only.

77A **Tires:** Radial, 15R 22.5 - 18 ply, front (2); 10:00R 20 - 14 ply, rear (8).

See pages 9 and 10 for "On Tires " ratings.

78 **Spare:** Wheel & 15:00 x 22.5 - 16 ply tire, front.

78A **Spare:** Wheel & 15:00 x 22.5 - 16 ply tire, rear. (w/ 3552 lb ctwt. only).

78B **Spare:** Wheel & 16.5 x 22.5 - 16 ply tire, front.

78C **Spare:** Wheel & 16.5 x 22.5 - 16 ply tire, rear.

78D **Spare:** Wheel & 10:00 x 20 - 12 ply tire, rear.

78E **Spare:** Wheel & 15R 22.5 - 18 ply radial tire, front.

78F **Spare:** Wheel & 15R 22.5 - 18 ply radial tire, rear. w/ 3552 lb. ctwt. only.

78G **Spare:** Wheel & 10:00R 20 - 14 ply radial tire, rear.

79 **Tire Inflation Kit.**

80 **Tool Box:** Right side

89 **Cold Weather Starting Kit**

98 **Air Dryer**

END OF OPTIONS

Axle Loadings

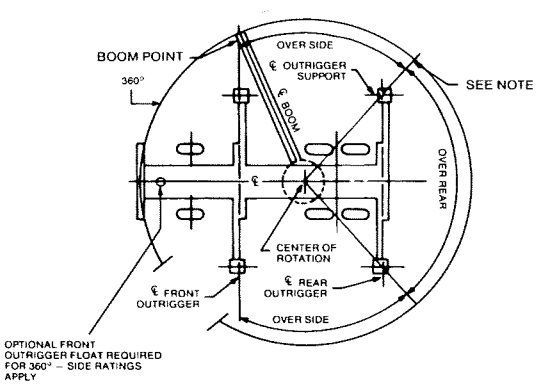
CHART 1

ITEM	Pounds			Kilograms		
	Gross	Front	Rear	Gross	Front	Rear
Basic Carrier	21359	7427	13932	9689	3369	6320
Basic Upper	4462	-302	4764	2024	-137	2161
Standard Equipment						
80 ft. 3 Section Boom (Travel Position)	11751	7409	4342	5330	3361	1969
Boom Hoist Cylinders	1293	488	805	586	221	365
5917 lb. Counterweight*	5917	-3306	9223	2684	-1500	4184
(*Includes 967 lb.Aux. Winch Counterweight)						
Main Winch - Model 1580	1151	-452	1603	522	-205	727
Main Winch Wire Rope - 5/8" x 450'	330	-144	474	150	-65	215
Engine - Cat 3208T	2767	2392	375	1255	1085	170
Tires and Rims - 15:00x22.5 Front (2)	516	516	0	234	234	0
10:00x20 Rear Duals (8)	1743	0	1743	791	0	791
Hydraulic Front Stabilizer	367	474	-107	166	215	-49
Swing Lock - Two Position	11	0	11	5	0	5
Miscellaneous Equipment	463	192	271	210	87	123
Basic Machine	**52130**	**14694**	**37436**	**23646**	**6665**	**16981**
Adjustments for Options						
3552 lb. Counterweight	-2365	1321	-3686	-1073	599	-1672
Tires and Rims - 15:00x22.5 - Rear (4)	-659	0	-659	-299	0	-299
Tires and Rims - 16.5x22.5 - Front (2)	54	54	0	24	24	0
Tires and Rims - 16.5x22.5 - Rear (4)	-551	0	-551	-250	0	-250
Tires and Rims - 10:00R20 Rear Duals (8)	112	0	112	51	0	51
360° Positive Swing Lock	12	0	12	5	0	5
Auxiliary Winch - Model 1080	113	-24	137	51	-11	62
Aux. Winch Wire Rope - 1/2" x 360'	170	-98	268	77	-45	122
Auxiliary Winch - Model 1580	98	-33	131	45	-15	60
Aux. Winch Wire Rope - 5/8"x 450'	330	-193	523	150	-88	238
Attachments						
30 ft. Boom Extension	898	731	167	407	331	76
20 ft. A-Frame Jib	862	137	725	391	62	329
Auxiliary Boom Point Sheave	85	145	-60	39	66	-27
10 ton Single Sheave Hook Block (Tied Off)	342	575	-233	155	261	-106
35 ton Four Sheave Hook Block (Tied Off)	425	714	-289	193	324	-131
8.5 ton Ball Hook (Tied Off)	220	370	-150	100	168	-68
5 ton Ball Hook (Tied Off)	121	172	-51	55	78	-23
Upper						
Diesel Heater	43	-8	51	20	-3	23
Propane Heater	68	-13	81	31	-6	37
Flood Lights	34	27	7	15	12	3
Remote Control (Drive from Upper)	100	45	55	45	20	25
Carrier						
Air Dryer	32	16	16	14	7	7
Tool Box	187	239	-52	85	109	-24
Spare 15:00x22.5 Tire and Rim	312	-117	429	142	-53	195

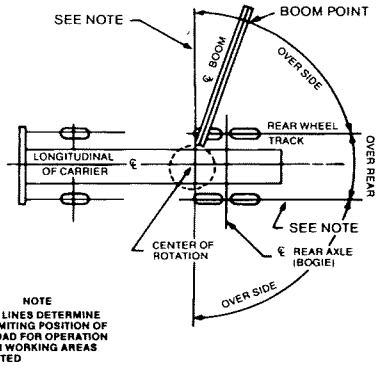
CHART 2

Areas of Operation

ON OUTRIGGERS



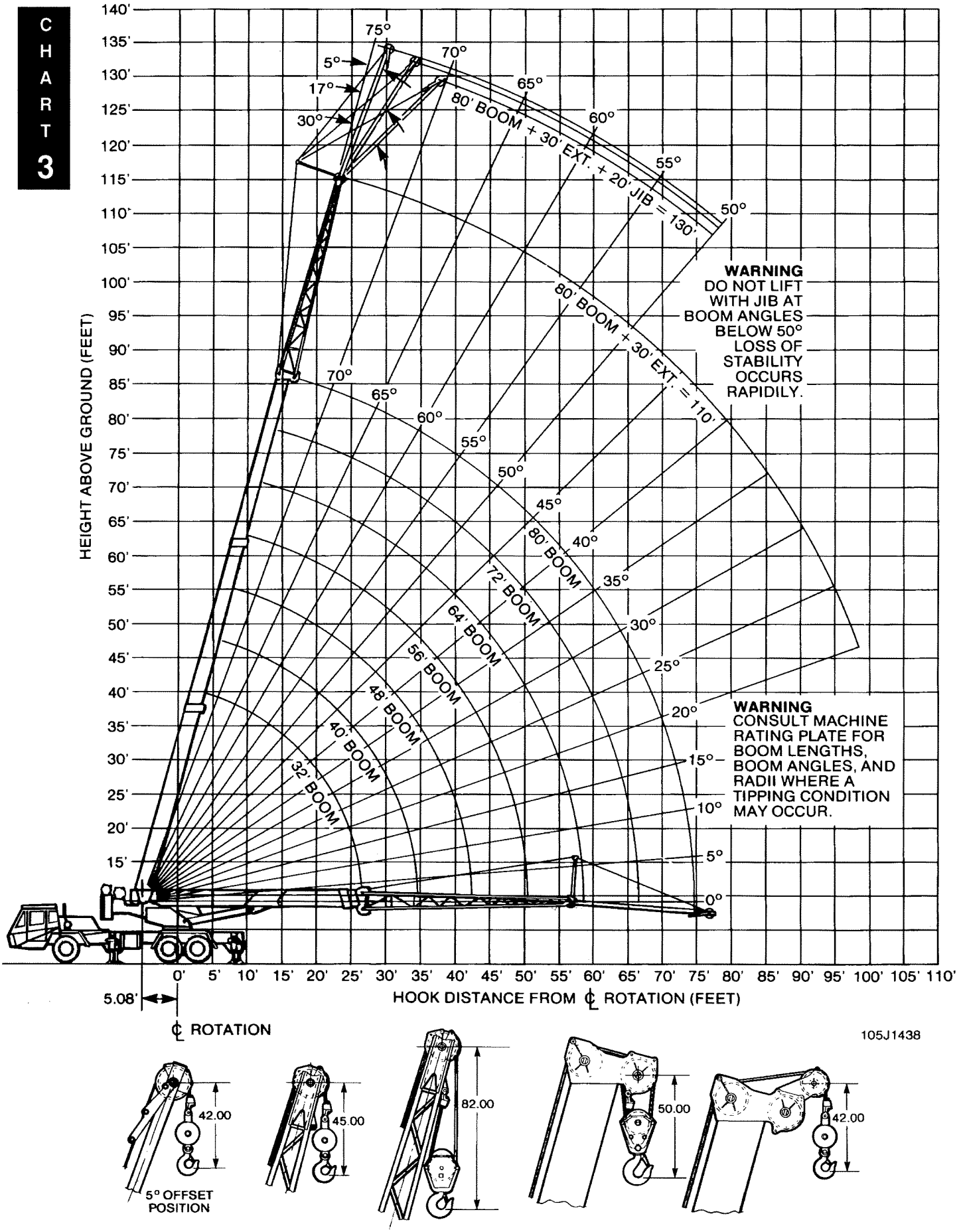
ON TIRES



NOTE
THESE LINES DETERMINE ANY LIMITING POSITION OF ANY LOAD FOR OPERATION WITHIN WORKING AREAS INDICATED

working ranges

CHART 3



PCSA Class 10-91
Three Section Full Powered Boom on Outriggers
Rated Crane Loads in Pounds with 5917 lb. Counterweight
Boom Over Side and Over Rear Work Areas

CHART 4

OPERATING RADIUS IN FT.	BOOM LENGTH IN FEET																						OPERATING RADIUS IN FT.
	32 FT.			40 FT.			48 FT.			56 FT			64 FT.			72 FT.			80 FT.			
	∠°	RATED LOAD IN POUNDS		∠°	RATED LOAD IN POUNDS		∠°	RATED LOAD IN POUNDS		∠°	RATED LOAD IN POUNDS		∠°	RATED LOAD IN POUNDS		∠°	RATED LOAD IN POUNDS		∠°	RATED LOAD IN POUNDS		
		SIDE	REAR		SIDE	REAR		SIDE	REAR		SIDE	REAR		SIDE	REAR		SIDE	REAR		SIDE	REAR	
10	66	70000	70000	71	60000	60000																10
12	61	50000	50000	68	50000	50000	72	50000	50000	75	46000	46000										12
15	55	43000	43000	63	43000	43000	68	43000	43000	71	43000	43000	74	35500	35500							15
20	42	30000	30000	54	30000	30000	61	30000	30000	66	30000	30000	70	30000	30000	72	27000	27000	74	25000	25000	20
25	24	22000	22800	44	22000	22800	54	22000	22800	60	22000	22800	65	22000	22800	68	22000	22500	71	21000	21000	25
30				32	15700	18000	46	15700	18000	54	15700	18000	59	15700	18000	63	15700	17500	67	15700	17200	30
35							36	11800	15800	47	11800	15800	54	11800	15800	59	11800	15800	63	11800	14800	35
40							23	9100	12500	39	9100	12500	48	9100	12500	54	9100	12500	58	9100	12500	40
45										29	7200	10200	41	7200	10200	48	7200	10200	54	7200	10200	45
50										13	5700	8400	33	5700	8400	42	5700	8400	49	5700	8400	50
55													22	4600	6900	35	4600	6900	44	4600	6900	55
60																27	3700	5800	38	3700	5800	60
65																15	2900	4800	31	2900	4800	65
70																			22	2300	4000	70
74																			11	1800	3500	74

CAUTION: FOR 32 FOOT BOOM LENGTH RATINGS, TELESCOPE CYLINDERS MUST BE FULLY RETRACTED AND AGAINST STOPS.

WARNING: Do not exceed rated load radius for a rated load.

(32R1209)

Warning: Main boom ratings must be reduced by weight of fixed boom attachments. See Chart no. 17.
When lifting a load, *all powered sections of the main boom must be extended equally.*

Ratings above heavy line are based on structural competence and not the machine stability.

CHART 5

LATTICE EXTENSION For All Boom Lengths 62 to 110 ft.			Load radius (feet) for 110 Foot Boom Only
LOADED BOOM ANGLE ∠°	RATED LOAD IN POUNDS		
	360°	FRONT	
73	12000	12000	30
71	10700	10700	35
68	9800	9800	40
65	8100	8100	45
62	6800	7500	50
59	5500	7100	55
56	4600	6400	60
52	3800	5700	65
49	3100	4900	70
46	2700	4400	74
41	2100	3700	80
37	1700	3200	85
32	1300	2800	90
26	1000	2400	95
19		2000	100

(32R1209)

WARNING
Do not exceed 95 foot radius *over side* as tipping will occur.
For boom angles not shown, use rating of next lower boom angle.

CHART 6

JIB RATINGS MAX. LOAD RATINGS IN POUNDS			
MIN. BOOM ANGLE	JIB ANGLE OFFSET 5°	17°	30°
75°	6200	6000	5100
70°	6000	5000	4500
65°	4300	4100	3900
60°	3200	3000	2800
55°	2200	2100	2000
50°	1700	1500	1400

(32R1209)

Jib Capacity Notes

1. Maximum jib load ratings below heavy line are based on stability of the machine and do not exceed 85% of tipping load with fully extended outriggers. Use of outriggers is required when boom is equipped with a jib.

2. For bucket ratings on jib, deduct 20% from maximum jib load ratings.

3. **Warning:** Do not lift with jib at boom angles below 50°. Loss of stability occurs rapidly.

4. **Warning:** Do not exceed 100 foot operating radius over side with erected jib or a tipping condition will occur.

CHART 7

1580 HOIST REEVING

5/8" DIA. 6 X 37 WIRE ROPE - EXTRA IMPROVED PLOW STEEL W/ I.W.R.C.- BREAKING STRENGTH: 41,200 lbs.

PARTS OF LINE	1	2	3	4	5	6	7	8
MAXIMUM LOAD	8750	17,500	26,250	35,000	43,750	52,500	61,250	70,000

1080 HOIST REEVING

1/2" DIA. WIRE ROPE - 6 X 37 EXTRA IMPROVED PLOW STEEL W/ I.W.R.C. BREAKING STRENGTH: 26,600 lbs.

PARTS OF LINE	1	2	3	4	5	6	7	8
MAXIMUM LOAD	6200	12,000	-	-	-	-	-	-

(32R1209)

PCSA Class 10-80
Three Section Full Powered Boom on Outriggers
Rated Crane Loads in Pounds with 3,552 lb. Counterweight
Boom Over Side and Over Rear Work Areas

CHART 8

OPERATING RADIUS IN FT.	BOOM LENGTH IN FEET																					OPERATING RADIUS IN FT.
	32 FT.			40 FT.			48 FT.			56 FT			64 FT.			72 FT.			80 FT.			
	∠°	RATED LOAD IN POUNDS		∠°	RATED LOAD IN POUNDS		∠°	RATED LOAD IN POUNDS		∠°	RATED LOAD IN POUNDS		∠°	RATED LOAD IN POUNDS		∠°	RATED LOAD IN POUNDS		∠°	RATED LOAD IN POUNDS		
		SIDE	REAR		SIDE	REAR		SIDE	REAR		SIDE	REAR		SIDE	REAR		SIDE	REAR		SIDE	REAR	
10	66	70000	70000	71	60000	60000																10
12	61	50000	50000	68	50000	50000	72	50000	50000	75	46000	46000										12
15	55	43000	43000	63	43000	43000	68	43000	43000	71	43000	43000	74	35500	35500							15
20	42	30000	30000	54	30000	30000	61	30000	30000	66	30000	30000	70	30000	30000	72	27000	27000	74	25000	25000	20
25	24	19900	22800	44	19900	22800	54	19900	22800	60	19900	22800	65	19900	22800	68	19900	22800	71	19900	21000	25
30				32	14100	18000	46	14100	18000	54	14100	18000	59	14100	18000	63	14100	17500	67	14100	17200	30
35							36	10500	14600	47	10500	14600	54	10500	14600	59	10500	14600	63	10500	14600	35
40							23	8000	11500	39	8000	11500	48	8000	11500	54	8000	11500	58	8000	11500	40
45										29	6200	9200	41	6200	9200	48	6200	9200	54	6200	9200	45
50										13	4800	7500	33	4800	7500	42	4800	7500	49	4800	7500	50
55													22	3700	6100	36	3700	6100	44	3700	6100	55
60																27	3000	5000	38	3000	5000	60
65																13	2300	4200	31	2300	4200	65
70																			22	1700	3400	70
74																			11	1300	2900	74

CAUTION: FOR 32 FOOT BOOM LENGTH RATINGS, TELESCOPE CYLINDERS MUST BE FULLY RETRACTED AND AGAINST STOPS.

WARNING: Do not exceed rated load radius for a rated load.

(32R1208)

Warning: Main boom ratings must be reduced by weight of fixed boom attachments. See Chart no. 17.
When lifting a load, *all powered sections of the main boom must be extended equally.*

Ratings above heavy line are based on structural competence and not the machine stability.

CHART 9

LATTICE EXTENSION For All Boom Lengths 62 to 110 ft.			Load radius (feet) for 110 Foot Boom Only
LOADED BOOM ANGLE ∠°	RATED LOAD IN POUNDS 360°	FRONT	
73	12000	12000	30
71	10700	10700	35
68	9200	9800	40
65	7300	8100	45
62	5900	7500	50
59	4700	7000	55
56	3900	6000	60
52	3200	5100	65
49	2600	4300	70
46	2200	3800	75
41	1700	3200	80
37	1300	2700	85
32		2300	90
26		1900	95
19		1600	100

(32R1208)

WARNING

Do not exceed 85 foot radius *over side* as tipping will occur.
For boom angles not shown, use rating of next lower boom angle.

CHART 10

JIB RATINGS MAX. LOAD RATINGS IN POUNDS			
MIN. BOOM ANGLE	JIB ANGLE OFFSET 5°	17°	30°
75°	6200	6000	5100
70°	5500	5000	4500
65°	3700	3500	3300
60°	2700	2500	2300
55°	1800	1700	1600
50°	1200	1100	1000

(32R1208)

Jib Capacity Notes

1. Maximum jib load ratings below heavy line are based on stability of the machine and do not exceed 85% of tipping load with fully extended outriggers. Use of outriggers is required when boom is equipped with a jib.

2. For bucket ratings on jib, deduct 20% from maximum jib load ratings.

3. **Warning:** Do not lift with jib at boom angles below 50°. Loss of stability occurs rapidly.

4. **Warning:** Do not exceed 95 foot operating radius over side with erected jib or a tipping condition will occur.

CHART 11

1580 HOIST REEVING

5/8" DIA. 6 X 37 WIRE ROPE - EXTRA IMPROVED PLOW STEEL W/ I.W.R.C.- BREAKING STRENGTH: 41,200 lbs.

PARTS OF LINE	1	2	3	4	5	6	7	8
MAXIMUM LOAD	8750	17,500	26,250	35,000	43,750	52,500	61,250	70,000

1080 HOIST REEVING

1/2" DIA. WIRE ROPE - 6 X 37 EXTRA IMPROVED PLOW STEEL W/ I.W.R.C. BREAKING STRENGTH: 26,600 lbs.

PARTS OF LINE	1	2	3	4	5	6	7	8
MAXIMUM LOAD	6200	12,000	-	-	-	-	-	-

(32R1208)

On Rubber with 5917 lb.Counterweight
Rated crane loads in pounds - minimum boom (48' maximum)

CHART 12

RATED LOADS FOR 10.00 x 20 (F), or, 10R x 20 (G) TIRES				LOAD RADIUS (FEET)	RATED LOADS FOR 16.5 x 22.5 (H) TIRES			
STATIONARY RATINGS		TRAVEL RATINGS			STATIONARY RATINGS		TRAVEL RATINGS	
OVER REAR	OVER SIDE	OVER REAR			OVER REAR	OVER SIDE	OVER REAR	
		CREEP	2 1/2 MPH				CREEP	2 1/2 MPH
18700	12300	15100	13400	10	12800	10900	12800	9600
15700	9600	13000	11500	12	11300	9000	11300	8300
11400	6700	10700	9300	15	9600	6600	9600	6800
7200	3700	7200	6800	20	7300	3800	7300	5000
4700	1800	4700	4700	25	4700	2000	4700	3600
3300	-	-	-	30	3300	-	-	-
2200	-	-	-	35	2200	-	-	-
1300	-	-	-	40	1300	-	-	-

(32U2261) (32U2259)

WARNING: Do not exceed maximum radius shown for each column, with or without hook block, or a tipping condition will occur.

Definitions:

1. Creep is motion for less than 200 ft. in a 30 minute period and not exceeding 1 mph.
2. Stability ratings do not exceed 75% of tipping loads.

Information:

1. Ratings above heavy line are based on structural competence and not on machine stability.
2. It is recommended that outriggers be extended as far as possible and clear of ground when lifting on rubber.

Warning: Crane load ratings without outriggers depend on tire capacity and condition of tires, inflated per table.

Warnings:

1. When transporting a load, machine must be on firm, level surface with mechanical houselock engaged. The load must be centered over rear of machine and restrained from swinging.

2. See Areas of Operation, page 5; working ranges, page 6.

3. Do not attempt lifts on rubber with lattice extension or jib erected.

4. Lift loads with minimum boom lengths, not to exceed 48 ft. when lifting on rubber.

Tire Inflation

CHART 13

	Static and Creep	2 1/2 mph	Travel
10.00 x 20 - 12 ply tires (F)	95 psi	85 psi	75 psi
10R x 20 - 14 ply tires (G)	120 psi	120 psi	95 psi
16.5 x 22.5 - 16 ply tires (H)	100 psi	90 psi	90 psi

NOTE:

"Operation of this equipment in excess of rated loads and disregard of instructions is an unsafe practice and will result in denial of warranty claims."

On Rubber with 3552 lb.Counterweight
Rated crane loads in pounds - minimum boom (48' maximum)

CHART 14

RATED LOADS FOR 15.00 x 22.5 (H), or, 16.5 x 22.5 (H) TIRES				LOAD RADIUS (FEET)	RATED LOADS FOR 10.00 x 20 (F), or, 10R x 20 (G) TIRES			
STATIONARY RATINGS		TRAVEL RATINGS			STATIONARY RATINGS		TRAVEL RATINGS	
OVER REAR	OVER SIDE	OVER REAR			OVER REAR	OVER SIDE	OVER REAR	
		CREEP	2 1/2 MPH				CREEP	2 1/2 MPH
12700	10200	10900	7400	10	17400	10500	13700	12100
11300	8000	9600	6300	12	13900	8000	11900	10400
9400	5600	8100	5100	15	10000	5400	9900	8500
6200	3000	6000	3500	20	6200	2700	6200	6200
4000	1300	4000	2400	25	4000	1000	4000	4000
2600	-	-	-	30	2600	-	-	-
1600	-	-	-	35	1600	-	-	-
-	-	-	-	40	-	-	-	-

(32U2258) (32U2260)

CHART 15

RATED LOADS FOR 15R x 22.5 (J) TIRES				
LOAD RADIUS (FEET)	STATIONARY RATINGS		TRAVEL RATINGS	
	OVER REAR	OVER SIDE	OVER REAR	
			CREEP	2 1/2 MPH
10	8700	7200	8000	5800
12	7500	5700	6800	4800
15	6100	4000	5500	3600
20	4500	2000	3900	2200
25	3200	-	2700	1200
30	2400	-	-	-
35	1600	-	-	-
40	-	-	-	-

(32U2257)

WARNING: Do not exceed maximum radius shown for each column, with or without hook block, or a tipping condition will occur.

Definitions:
1. Creep is motion for less than 200 ft. in a 30 minute period and not exceeding 1 mph.
2. Stability ratings do not exceed 75% of tipping loads.

Information:
1. Ratings above heavy line are based on structural competence and not on machine stability.
2. It is recommended that outriggers be extended as far as possible and clear of ground when lifting on rubber.

Warning: Crane load ratings without outriggers depend on tire capacity and condition of tires, inflated per table.

Warnings:
1. When transporting a load, machine must be on firm, level surface with mechanical houselock engaged. The load must be centered over rear of machine and restrained from swinging.

2. When swinging 360° load ratings, optional axle lockout override function must not be engaged.

3. On rubber lifting with boom extension or jib is not permitted.

4. Lift loads with minimum boom lengths, not to exceed 48 ft. when lifting on rubber.

CHART 16

Tire Inflation			
Size	Static and Creep	2 1/2 mph	Travel
15.00x22.5 (H)	105	100	100
16.5x22.5 (H)	100	90	90
10.00x20 (F)	95	85	75
10Rx20 (G)	120	120	95
15Rx22.5 (J)	115	115	115

CHART 17

Deductions to be made from Main Boom Rated Loads (in pounds)			
Lattice Extension		Stowed	Erected
		200	1375
Jib			3750
Aux. Boom Point Sheave			100
Hook Block	On Boom Point	On Lattice Extension	On Jib
35 ton 4 sheave	500	-	-
10 ton 1 sheave	342	2175	-
8.5 ton ball hook	220	1875	4475

Deductions to be made from Lattice Extension Rated Loads (in pounds)			
Jib		Stowed	Erected
		575	1250
Hook Block	On Boom Point	On Lattice Extension	On Jib
35 ton	450	500	-
10 ton	250	342	-
8.5 ton	175	220	1400

Deductions to be made fromJib Rated Loads (in pounds)			
Hook Block	On Boom Point	On Lattice Extension	On Jib
35 ton	300	530	-
10 ton	225	300	-
8.5 ton	150	200	220

(32R1208/9)

Operating Instructions

Warning: Operation of this machine in excess of rated loads, in areas of the chart not rated, or with disregard of instructions voids the machine warranty.

I. *Load radius* is the horizontal distance from the axis of rotation (before loading) to center of verticle hoist line (after loading). Actual working radii should be an accurate measurement.

2. Boom, lattice extension and jib point height dimensions are measured from ground to center of load sheave.

3. *Loaded boom angle* is the angle between the boom base section and the horizontal axis after lifting rated load at rated radius. Loaded boom angles shown are with rated loads applied and provide an **approximation** of the *load radius* at the specified *boom length* (includes lattice extension). The boom angle before loading should be slightly greater to account for boom deflection.

4. Load ratings shown are for machine with counterweight as shown, leveled and standing on firm, uniform supporting surface. Ratings are based on freely suspended loads and, on outriggers, are not more that 85% of minimum tipping loads. Ratings above the bold horizontal line are based on machine's hydraulic or structural competence and not on machine stability (tipping conditions).

5. To determine *load ratings* in-between those shown on the chart, proceed as follows:

   a. for boom lengths not shown, use rating of next longer boom.

   b. for load radii not shown, use rating of next longer radius.

6. Deduct weight from *load ratings* of all suspended load handling devices such as hooks, hook blocks, slings, buckets, etc., as they are considered part of the load. See Chart No. 17 for deductions.

7. Deduct weight from *Load Ratings* of fixed boom attachments (jib, boom extension) either stowed or erected, as they reduce capacity of boom. See Chart No. 17 for deductions.

8. *Load Ratings* shown make no allowance for such factors as wind effect on lifted loads, ground conditions, out-of-level, operating speed or conditions that could be detrimental to safe operation of this machine. The operator must judge and reduce ratings accordingly.

9. *"With Outriggers" Load Ratings* are based on outriggers fully extended and set at a distance of 8 ft. 11 in. (2.72m) from the longitudinal axis of the carrier to the vertical axis of the outrigger float. Machine must be level and supported by outriggers with tires free of supporting surface.

10. *"Without Outriggers" Load Ratings* are based on lift limitations and conditions of tires inflated to pressures shown in Chart Nos. 13 and 16, and apply only when rear axle lockouts are engaged. Over rear *"Pick and Carry" ratings* are limited to travel speed less than 2 1/2 mph (4 kmph) on firm, level ground with load centered over front of machine and load restrained from swinging.

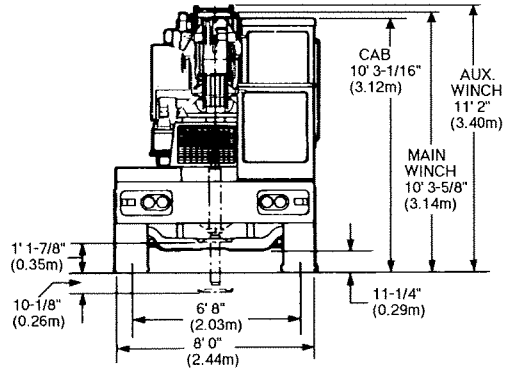
11. Maximum *Jib Load Ratings* are based on structural competence. Ratings at any radius shall not exceed Boom Load Ratings at same radius and shall not exceed maximum ratings shown.

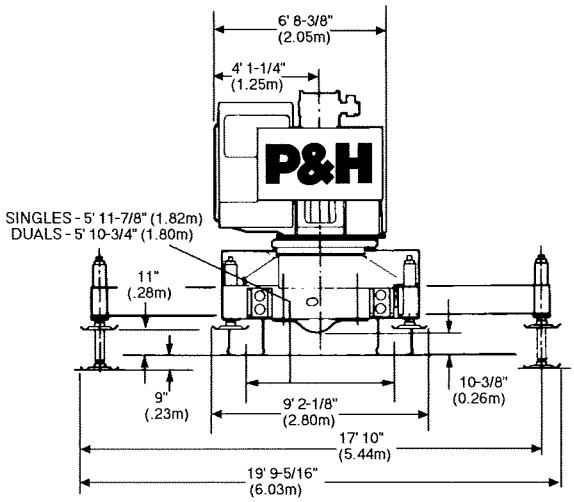
12. Jibs are intended to increase lifting height - not load radius. Maximum Jib Load Radius shall not exceed maximum Boom Load Radius of boom length on which jib is mounted.

13. Method of powered boom extension is hydraulically synchronous with each section extendible a distance of 24 ft. 0 in. (7.32m). Powered sections resynchronize when boom is fully retracted or extended.

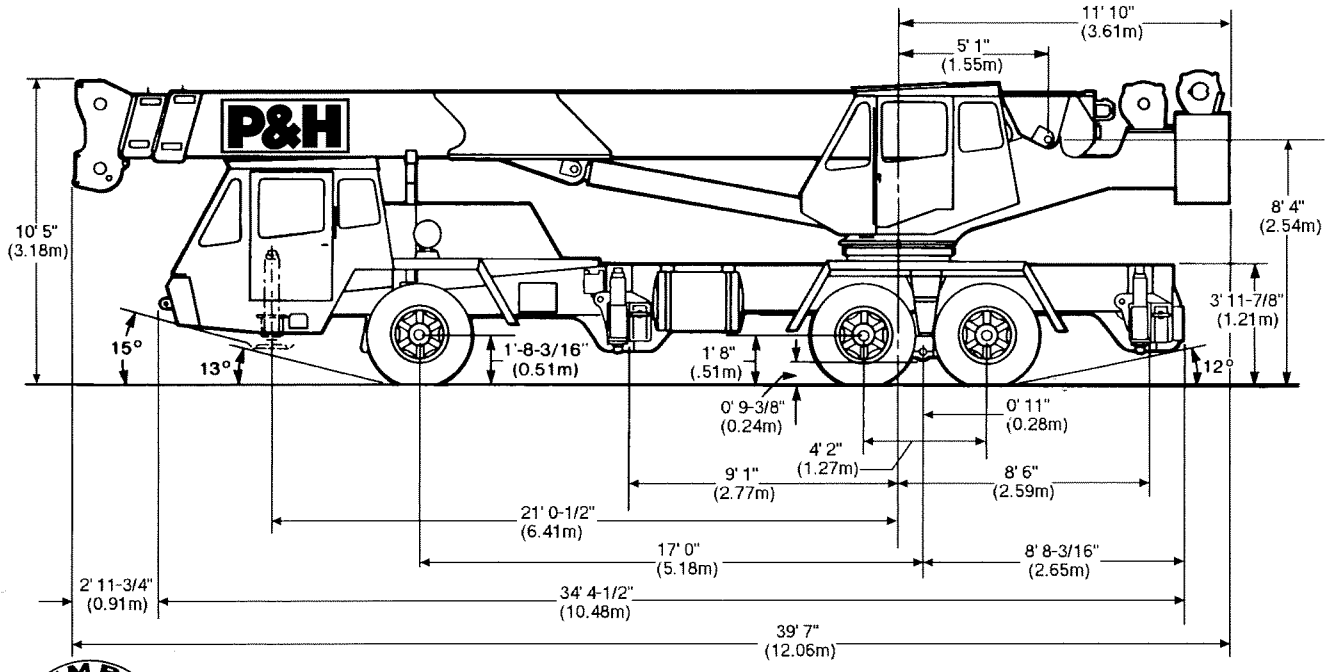
14.The maximum load which may be telescoped is limited by hydraulic pressure, boom angle and lubrication. It is safe to telescope any load within limits of load rating chart.

General Dimensions





Vehicle Turning Circle: 65' 7" (19.99m).
Vehicle Clearance Circle (over boom point): 76' 8" (23.37m).
Dimensions are with standard 15 x 22.5 tires (front) and 10:00 x 20 (rear). Add 3/4" (0.02m) to all height dimensions for 16.5 x 22.5 tires.



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NOTE: All designs, specifications and components of the equipment described above are subject to change at the manufacturer's sole discretion at any time and 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 conditions encountered. The only warranty applicable is our standard warranty for this machine.

P&H

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