

# P&H CENTURY T-280

116' ~~137'~~ 28-ton hydraulic truck crane  
 (41.8 m) maximum tip height



## Check these features against all other hydraulic truck cranes.

- 4-section, 91-foot boom. Four-plate welded inside and out. Rectangular, full depth for extra performance. Sections: 1-base, 2-powered, 1-pinned. Automatic equal extension of powered sections.
- Travels light. GVW-48,805 lbs. Front axle - 17,167 lbs. Rear tandem - 31,638 lbs.
- 25.5 ft. to 42.5 ft. swing-around lattice extension, offset-able to 22° for reaching over structures.
- 133.5-foot total reach, boom plus extension, with a tip height of 137 feet from the ground.
- Rugged P&H 6x4 carrier, 8 feet wide, with a Caterpillar 3208NA diesel engine, Road Ranger transmission (13 speeds forward, 3 speeds reverse). Expressway speeds plus off-highway grades to 69.6%.
- Extra wide 17'10" outrigger spread for solid stability.
- P&H model 1080 winches. Infinitely variable control, automatic multi-disc brakes.
- Volu-Matik hydraulic system (4 pumps, 145 gpm total flow) assures ample volume for simultaneous use of functions.
- Heavy duty electrical system for maximum reliability.
- Optional hydraulic front stabilizer for 360° operation.

## Specifications

# LOAD RATINGS . . . On Tires

## With 2,680 lbs. Counterweight

LOAD RATINGS IN POUNDS				
OPERATING RADIUS IN FEET.	10.00 X 20 (F) REAR TIRES			
	10R X 20 (G)			
	STATIONARY		TRAVEL RATINGS OVER REAR	
	OVER REAR	OVER SIDE	CREEP	2.5 MPH
10.0	23000	10100	17800	17000
12.0	18400	7500	16000	15000
15.0	13300	4900	13300	13000
20.0	8500	2300	8500	8500
25.0	5800		5800	5800
30.0	4000			
35.0	2800			

LOAD RATINGS IN POUNDS				
OPERATING RADIUS IN FEET.	15.0 X 22.5 (H) REAR TIRES			
	16.5 X 22.5 (H)			
	STATIONARY		TRAVEL RATINGS OVER REAR	
	OVER REAR	OVER SIDE	CREEP	2.5 MPH
10.0	13700	11400	11400	8200
12.0	11800	9300	10300	7200
15.0	10300	8800	8800	6000
20.0	8000	4000	7200	4600
25.0	5800		5800	3600
30.0	4000			
35.0	2800			

LOAD RATINGS IN POUNDS				
OPERATING RADIUS IN FEET.	15R X 22.5 (J) REAR TIRES			
	STATIONARY		TRAVEL RATINGS OVER REAR	
	OVER REAR	OVER SIDE	CREEP	2.5 MPH
10.0	9400	8400	8700	8700
12.0	8300	6800	7700	5800
15.0	7100	4900	6500	4700
20.0	5500	2300	5000	3400
25.0	4400		3900	2500
30.0	4000			
35.0	2800			

## With 750 lbs. Counterweight

LOAD RATINGS IN POUNDS				
OPERATING RADIUS IN FEET.	10.00 X 20 (F) REAR TIRES			
	10R X 20 (G)			
	STATIONARY		TRAVEL RATINGS OVER REAR	
	OVER REAR	OVER SIDE	CREEP	2.5 MPH
10.0	21500	9000	16500	15500
12.0	16700	6800	15000	14000
15.0	12000	4200	12000	12000
20.0	7600	1700	7600	7600
25.0	3000		5000	5000
30.0	3400			
35.0	2200			

LOAD RATINGS IN POUNDS				
OPERATING RADIUS IN FEET.	15.0 X 22.5 (H) REAR TIRES			
	16.5 X 22.5 (H)			
	STATIONARY		TRAVEL RATINGS OVER REAR	
	OVER REAR	OVER SIDE	CREEP	2.5 MPH
10.0	12700	10100	11200	8000
12.0	11200	8000	10100	7000
15.0	9500	5700	8600	6000
20.0	7400	3200	6600	4600
25.0	5000		5000	3600
30.0	3400			
35.0	2200			

LOAD RATINGS IN POUNDS				
OPERATING RADIUS IN FEET.	15R X 22.5 (J) REAR TIRES			
	STATIONARY		TRAVEL RATINGS OVER REAR	
	OVER REAR	OVER SIDE	CREEP	2.5 MPH
10.0	9100	7700	8400	8400
12.0	8100	6200	7500	5600
15.0	7000	4200	6400	4600
20.0	5500	1700	5000	3400
25.0	4200		3800	2400
30.0	3400			
35.0	2200			

### WARNINGS:

1. CRANE LOAD RATINGS WITHOUT OUTRIGGERS DEPENDS ON TIRE CAPACITY AND CONDITION OF TIRES INFLATED PER TABLE.
2. 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. SEE AREAS OF OPERATION PLATE FOR WORKING RANGES.
3. LIFT LOADS WITH MINIMUM BOOM LENGTH; DO NOT EXCEED 48 FEET BOOM LENGTH WHEN LIFTING ON RUBBER.
4. DO NOT ATTEMPT LIFTS ON TIRES WITH EXTENSION ERECTED.

### DEFINITIONS:

1. CREEP IS MOTION FOR LESS THAN 200 FT. IN A 30 MINUTE PERIOD AND NOT EXCEEDING 1 M.P.H.

### INFORMATION:

1. DEDUCTIONS MUST BE MADE FROM RATED LOADS FOR STOWED LATTICE EXTENSION, OPTIONAL ATTACHMENTS, HOOKS AND HOOKBLOCKS (SEE DEDUCTIONS CHART). WEIGHTS OF SLINGS AND ALL OTHER LOAD HANDLING DEVICES SHALL BE CONSIDERED A PART OF THE LOAD.
2. RATINGS ABOVE THE HEAVY LINE ARE BASED ON STRUCTURAL COMPETENCE AND NOT ON MACHINE STABILITY.
3. IT IS RECOMMENDED THAT OUTRIGGERS BE EXTENDED AS FAR AS POSSIBLE AND CLEAR OF GROUND WHEN LIFTING ON TIRES.
4. STABILITY RATINGS DO NOT EXCEED 75% OF TIPPING LOADS.

TIRE INFLATION (PSI)			
SIZE	STATIC	CREEP	2 1/2 MPH
15.00x22.5 (H)	105	105	100
16.5x22.5 (H)	100	100	90
10.00x20 (F)	95	95	85
10Rx20 (G)	120	120	120
15Rx22.5 (J)	115	115	115

DEDUCTIONS TO BE MADE FROM LOAD RATINGS IN POUNDS					
DESCRIPTION	WITHOUT HOOK BLOCK ON BOOM POINT	HOOK BLOCK ON POWERED BOOM POINT			
		5 TON	10-28 TON	5 TON WITH AUXILIARY SHEAVE	10-28 TON WITH AUXILIARY SHEAVE
HOOK BLOCK WEIGHT	-	150	550	250	650
25 FT. LATTICE EXTENSION STOWED	-	250	550	350	750
25.5 FT. LATTICE EXTENSION STOWED	-	300	700	400	800

**EQUIPMENT (STANDARD):** Front bumper, full fenders, low hooks front and rear, carrier-mount boom rack, and sliding engine hood. Back-up warning device, fire extinguisher, anti-skid decking.

**EQUIPMENT (OPTIONAL):** Cold weather starting aid, spare wheel, hydraulic front stabilizer and float (required for 350° ratings), windshield washer, air dryer, tool box, sound reduction package (82 Db<sub>a</sub>), and alcohol evaporator.



**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.

Operators four-way adjustable seat has torsion suspension.

**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 lights, water temperature gauge with warning lights, master ignition switch, engine start button. Panel also includes switches for highway lights, dome light, windshield wiper and washer, engine starting aid (optional), 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, seat belt and West Coast rear view mirror.



**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 operator's cab console switches or control stations on either side of carrier.

**OUTRIGGER BEAMS:** 80,000 PSI min. yield high strength alloy steel box extending to a maximum of 8'11" (2.71 m) from center of carrier (with machine fully raised on outriggers).

**OUTRIGGER FLOATS:** Removable floats with storage on carrier. Float size is 20.25" (514mm) square.

**FRONT AXLE:** Rockwell FL-931 forged balanced section I-beam.

**REAR AXLE:** Rockwell SQ100 single reduction, with inter-axle differential.

**SUSPENSION:** Front — Rayco multi-leaf spring mounted with torque rods and shock absorbers. Rear — Hendrickson solid bogie, mounted tandem with torque rods.

**STEERING:** Ross 32.5:1 hydraulic powered gear and integral valve with Garrison dual hydraulic power 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 BRAKES:** Maxi-spring set, air release on rear wheels.

**TIRES:** Standard — Front (2) and Rear (4) 15.00 x 22.5 Super Single Bias 16-ply Load Range H.

Optional — Front (2) and rear (4) 16.5 x 22.5 Super Single Bias 16-ply Load Range H.

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.

Front (2) 16.5 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.

Front (2) 15R x 22.5 Super Single Radial 16-ply Load Range J and Rear (8) 10R x 20 Dual Radial 14-ply Load Range G.

Front (2) and Rear (4) 15R x 22.5 Super Single Radial 16-ply Load Range J.



**POWER PLANT:**

ENGINE:	STANDARD	OPTIONAL
Make		Caterpillar Diesel
Model	3208NA	3208T 3208T (Calif.)
Type		Direct Injection Diesel
No. of Cylinders		8
Bore x Stroke, In.		4.5 x 5.0
mm		(114 x 127)
Displacement, In. <sup>3</sup>		636
liters		10.4
Cycles		4
Air Induction	Naturally Aspirated	Turbocharged

**TRANSMISSION: STANDARD**

Make	Fuller
Model	RT6613
	Road ranger
Speeds	13-speed Forward 3-speed Reverse

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

**TRANSMISSION: OPTIONAL**

Make	Allison
Model	MT-853 DR Automatic
Speeds	5-speed Forward 1-speed Reverse

**RATINGS: STANDARD OPTIONAL**

Horsepower, Gross	210 @ 2600 RPM SAE (157 kw)	225 @ 2600 RPM SAE (166 kw)
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**PERFORMANCE: STANDARD**

**(FULLER)** Speed and gradeability based on 50,000 pounds (22,679 kg) G.V.W. and may vary due to engine performance, vehicle weights and tire options.

Low Gear	1.4 MPH (2.3km/h)
High gear	48 MPH (77km/h)
Max. grade	63.8% 77.6%
Axle ratio	6.83

**PERFORMANCE: OPTIONAL**

**(ALLISON)** Speed and gradeability based on 50,000 pounds (22,679 kg) G.V.W. and may vary due to engine performance, vehicle weights and tire options.

**OPTIONAL**

Low gear	1.5 MPH (2.4km/h)
High gear	56 MPH (90km/h)
Max. grade	67.9%
Axle ratio	5.86

**ACCESSORIES:**

Air Cleaner	Two-stage dry type — replaceable element
Oil Filter	Full-flow with replaceable element
Fuel Filter	Heavy duty with replaceable element
Fuel Tank	FHWA approved (Left side of carrier) 60 gal. (227 liters) cap.
Cooling Radiator	Liquid-pressurized, recirculating by-pass Fin and tube core, thermostat controlled
Fan	6 Blade, suction type, 26 in. (660mm) dia.
Starting	12 volt motor
Charging	12 volt system with 65 amp. alternator, negative ground.
Battery	1 — 385 amp. hour
Compressor, air	12.9 CFM @ 1250 RPM
Governor, air	105-120 PSI

**PUMP DRIVES:** Driven off carrier engine with manual disconnect for travel.

Drive ratio: 1:1

**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 2600 rpm (engine full load) provides 8 gpm (30 lpm) to steering circuit. Three main gear type pumps are piggy-back mounted (use common driveshaft) and driven off front of engine at 2600 rpm (engine full load). The pump closest to engine provides 36 gpm (136 lpm) to boom hoist and telescope circuits. The shaft end pump of the piggy-back mounted tandem pump provides 73 gpm (280 lpm) to main and auxiliary winch circuits. The cover end pump of the tandem provides 27 gpm (102 lpm) to swing and outrigger circuits.

Total flow for this system at governed engine speed is 145 gpm (548 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 the 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, cylinders 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.

# specifications

## BOOM



**BOOM:** All boom sections are of full depth rectangular four plate construction, welded inside and out, with adjustable metallic 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 loads.

**STANDARD:** 91' (27.74M) four (4) section boom with manual section, 29' (8.8M) retracted length, 91' (27.74M), extended length, consisting of one base section, two hydraulically powered "first" and "second" sections and one manually pinned section that can be hydraulically extended or retracted.

Boom point contains one non-metallic idler sheave with bronze bushing and five load sheaves that are non-metallic with roller bearings. Sheaves are 11.875" (302mm) pitch diameter. Steel sheaves are optional.

**25' (7.6M) LATTICE EXTENSION (OPTIONAL):** Swing-around tapered lattice structure with single 13.125" (333mm) P.D. metallic point sheave with bronze bushing. Easily installed from ground level by pivoting from stored position on right side of boom base and pin connecting with self-storing pins to boom point. Offset 2° from boom. For extending reach of boom.

**25'6" to 42'6" (7.8 - 12.95M) LATTICE EXTENSION (OPTIONAL):** Swing-around tapered lattice structure with welded four-plate telescopic section and single 13.125" (333mm) P.D. metallic point sheave with bronze bushing. Easily installed from ground level by pivoting from stored position on right side of boom base and pin connecting with self-storing pins to boom point. Section is then extended or retracted and pinned with self-storing pins. Offset 2° from boom. For extending reach of boom.

**EXTENSION OFFSET MECHANISM (OPTIONAL):** Pivoting link which allows lattice extension to be offset to 22° from main boom.

**AUXILIARY SHEAVE (OPTIONAL):** Single 13.125" (333mm) P.D. metallic sheave with bronze bushings, bracket-mounted on boom point. For use with single auxiliary winch line.

### HOOK BLOCKS (OPTIONAL):

- 5 Ton — weighted hook with swivel and safety latch, for 1/2" (13mm) wire rope.
- 10 Ton — Single sheave with swivel hook and safety latch, for 1/2" (13mm) wire rope.
- 15 Ton — 2 sheave with swivel hook and safety latch, for 1/2" (13mm) wire rope.
- 20 Ton — 4 sheave with swivel hook and safety latch, for 1/2" (13mm) wire rope.

## UPPERSTRUCTURE



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

**CAB ACCESSORIES (STANDARD):** Cab contains all crane function controls in addition to mechanical boom angle indicator, electric windshield wiper, dash light, warning light and buzzer (monitoring hydraulic oil temperature, engine water temperature, air pressure and engine oil pressure), fuel gauge, master ignition switch, engine start button, seat belt, fire extinguisher, circular level, hand throttle, electric remote control of outriggers, and electronic anti-two block device.

**CAB ACCESSORIES (OPTIONAL):** Heater (diesel or propane fueled, thermostatically controlled), defroster fan, electric roof window wiper, windshield washer, electronic boom angle indicator, electronic boom length indicator, load moment device, drum rotation indicator for auxiliary winch, vandal-proof glass (lexan), floodlights, rear view mirrors, electric horn, and rotary roof beacon.



**CONTROLS:** In front of operator are foot pedals for boom hoist, swing brake, and engine throttle. Mounted on the left hand side of front console are double-acting levers for swing (with optional horn button) and telescope. At the right are levers for auxiliary winch (optional), main winch, and boom hoist. On right side of seat are floor mounted levers for 360° gear segment type house lock and swing holding brake. Drum rotation indicators are mounted on auxiliary (optional) and main (standard) winch levers. At operator's right are console mounted switches for master ignition, windshield wiper, defroster (optional), and outrigger controls. Also on console are engine start button, engine high temperature warning light, dash light, fuel gauge, air pressure gauge, circular level, and positive (air) hand throttle. Console has pre-wired removable modules for ease of service.



**MAIN WINCH:** P&H Model 1050 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 425' (130m) wire rope.

Drum 10.75" (273mm) P.D. x 16.5" (419mm) wide with 16.75" (425mm) dia. flanges.

Wire Rope: 1/2" (13mm) dia. 6 x 25 extra improved plow steel, with 7 x 7 I.W.R.C.

Optional: 1/2" (13mm) dia. 8 x 19 spin resistant extra improved plow steel, with 7 x 7 I.W.R.C.

Drum Capacity: 543 ft. (165m) 5 layers.  
Mechanical drum turn indicator.

Line Pull (Max): 10,309 lb. (4675 kg) 1st layer.

Line Pull (Permissible — Based on Strength of Wire Rope):  
7600 lbs. (3454 kg) 6 x 25 cable  
4650 lbs. (2109 kg) 8 x 19 spin resistant cable

Line Speed Up (Max): 385 fpm (109m/m) 5th layer.

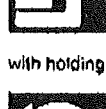
**AUXILIARY WINCH (OPTIONAL):** Same as main winch. Mounted on rear of revolving frame. Complete with 360' (110m) wire rope and additional boom point idler sheave.

### SHEAVE AND DRUM TO WIRE ROPE RATIOS: (Pitch Diameter)

	Sheave to Wire Rope	Drum to Wire Rope
Boom Main Sheave	23.8 to 1	— —
Boom Idler Sheave	23.8 to 1	— —
Main Winch	— —	19.3 to 1
Aux. Winch	— —	19.3 to 1



**BOOM HOIST:** One 11.0" (279mm) bore 58.0 stroke cylinder, double acting. Hydraulically powered raising and lowering with holding valve.



**BOOM TELESCOPE:** Two 5.25" (133mm) I.D. cylinders for 91' boom. Hydraulically powered extending and retracting with holding valve.



**SWING UNIT:** Hydraulic motor driving through P&H Model 580 double reduction gear reducer to pinion gear, 360° continuous rotation to 2.4 RPM.

**SWING GEAR:** External cut spur gear 39.867" (100.75cm) P.D. Ring gear dust cover is available (optional).

**SWING BRAKE:** Spring applied, hydraulically released, dry disc brake, integral with swing reducer. Hand brake control lever mounted on side console. A manual foot pedal applies brake for static holding.

**HOUSE LOCK:** A positive 360° position lock is manually engaged with house lock lever.

**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.

**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.

## CARRIER



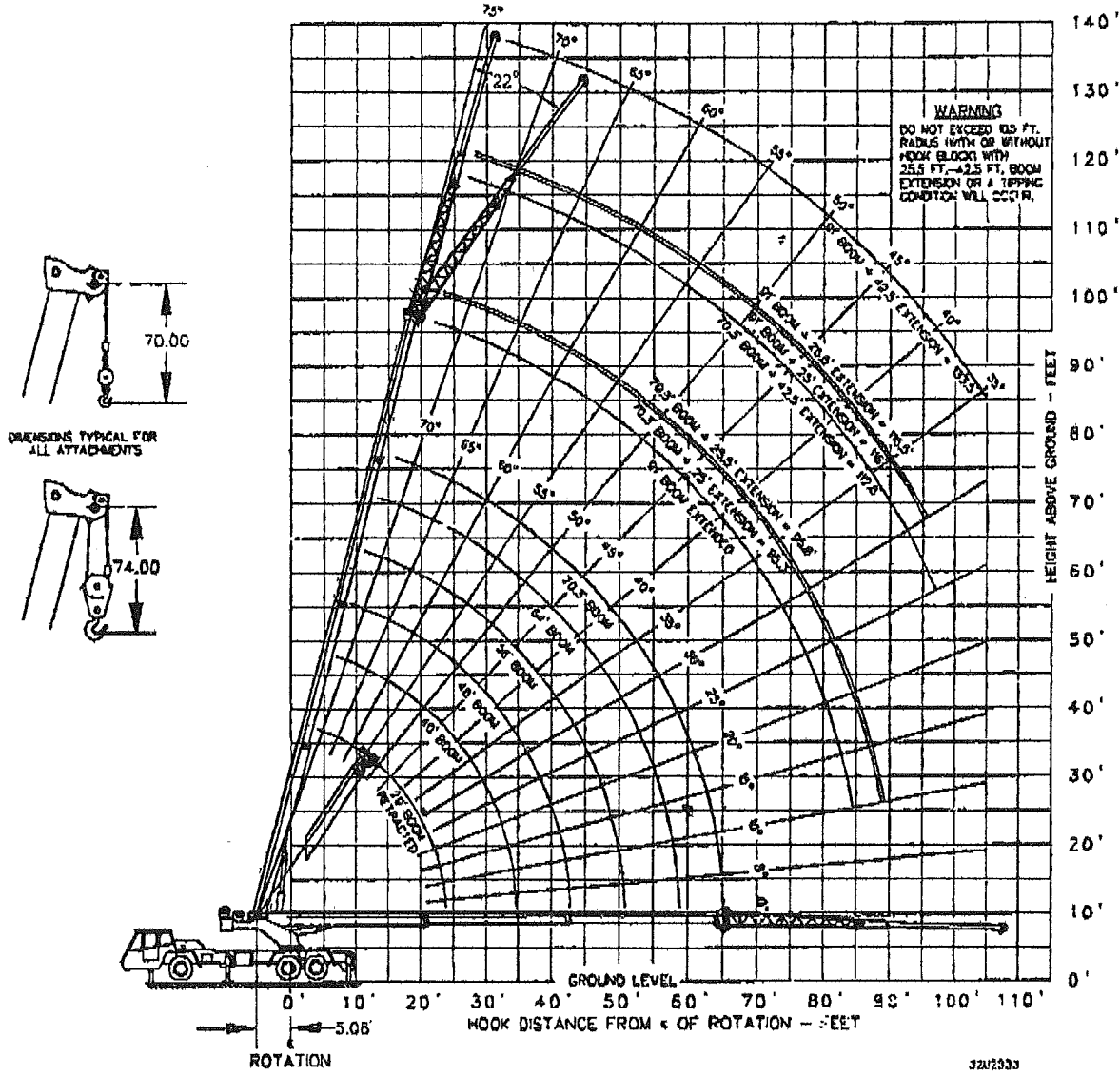
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**FRAME:** All-welded unitized construction assures rigidity and permanent alignment of swing bearing and rotating upper machinery. Fabricated of rectangular main frame beams of high strength 80,000 psi minimum yield alloy steel and reinforced with box cross members of high strength 80,000 psi minimum yield alloy steel.

**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.

# VEHICLE WEIGHTS

ITEM	WEIGHT DISTRIBUTION						ITEM	WEIGHT DISTRIBUTION					
	KILOGRAMS			POUNDS				KILOGRAMS			POUNDS		
	GROSS	FRONT	REAR	GROSS	FRONT	REAR		GROSS	FRONT	REAR	GROSS	FRONT	REAR
Basic Carrier	10224	3829	6395	22540	9442	14097	<b>ADJUSTMENTS FOR OPTIONS - BASIC MACHINE</b>						
Basic Upper	2406	-12	2418	5304	-28	5332	25.5-42.5' Extension	301	178	123	663	392	271
ENGINE - CAT 3308	1255	1063	192	2767	2343	423	28 Ton Hook Block at Front	0	425	-425	0	936	-936
Front Tires 15 x 22.5	234	234	0	516	516	0	Main and Aux. Winch	-68	47	-105	-129	104	-231
Rear Tires 15 x 22.5	492	0	492	1085	0	1085	Independent Main and Aux. Winch	105	38	67	231	85	149
Front Hyd. Stabilizer	166	206	-40	366	455	-89	<b>ADDITIONS FOR OPTIONS - CARRIER</b>						
Main Winch	515	-155	670	1135	-343	1478	Front Counterweight	335	535	-140	671	1180	-309
1/2 x 425' MW Rope	89	-29	118	196	-64	881	Pinle Hook	15	-6	21	33	-14	47
Slab C' Weight or Aux. Winch	503	-142	445	888	-313	981	<b>ADDITIONS FOR OPTIONS - UPPER</b>						
Counterweight Shell	344	-153	497	768	-398	1096	Floodlights	18	6	10	35	13	22
9'1/4 Sect. Boom	4934	2691	2243	10877	5933	4944	Heater - LP	23	-2	25	51	-5	56
Hoist Cylinder	529	87	462	1186	148	1016	Heater - Diesel	20	-2	22	44	-4	48
ATB Warning	41	24	17	90	53	37	Counterweight - Removable	869	-383	1352	2136	-844	2980
28 Ton Hook Block Stowed on Rear Deck	236	-89	325	520	-196	716	<b>ADDITIONS FOR OPTIONS - ATTACHMENTS</b>						
25' Extension	370	253	117	816	558	258	5 Ton Ball Hook	55	78	-23	121	173	-51
<b>BASIC MACHINE</b>	<b>22138</b>	<b>7787</b>	<b>14351</b>	<b>48805</b>	<b>17167</b>	<b>31638</b>	10 Ton Hook Block	149	211	-83	326	464	-136
<b>ADJUSTMENTS FOR OPTIONS - BASIC MACHINE</b>							Aux. Sheave	41	60	-19	80	152	42
Front Tool Box	76	82	-16	167	203	-36	1/2 x 380' AW Rope	75	-35	108	165	-73	239
Front Tires 16.5 x 22.5	24	24	0	54	54	0							
Rear Tires 10.00 x 20	299	0	299	659	0	659							
Rear Tires 10.00R x 20	350	0	350	771	0	771							



# RANGE DIAGRAM

# PSCA Class 10-69 LOAD RATINGS With 7,680 lbs. Counterweight 2,680 Lbs Counterweight

DESCRIPTION	10 FT. EXTENSION				15 FT. EXTENSION				20 FT. EXTENSION				25 FT. EXTENSION				30 FT. EXTENSION			
	W	R	S	REAR	W	R	S	REAR	W	R	S	REAR	W	R	S	REAR	W	R	S	REAR
10 FT. EXTENSION	130	150	180	210	150	180	210	240	180	210	240	270	210	240	270	300	240	270	300	330
15 FT. EXTENSION	150	180	210	240	180	210	240	270	210	240	270	300	240	270	300	330	270	300	330	360
20 FT. EXTENSION	180	210	240	270	210	240	270	300	240	270	300	330	270	300	330	360	300	330	360	390
25 FT. EXTENSION	210	240	270	300	240	270	300	330	270	300	330	360	300	330	360	390	330	360	390	420
30 FT. EXTENSION	240	270	300	330	270	300	330	360	300	330	360	390	330	360	390	420	360	390	420	450

PART OF LINE		PART OF LINE		PART OF LINE		PART OF LINE		PART OF LINE	
1	2	3	4	5	6	7	8	9	10
1000	1500	2000	2500	3000	3500	4000	4500	5000	5500
1000	1500	2000	2500	3000	3500	4000	4500	5000	5500

- DEFINITIONS:**
- OPERATING POINT IS THE HORIZONTAL DISTANCE FROM THE VERTICAL HOIST LINE OR TACKLE WITH LOAD APPLIED.
  - LOADED BOOM ANGLE, AS SHOWN IN COLUMN HEADED BY Δ, IS THE INCLUDED ANGLE BETWEEN THE HORIZONTAL AND LONGITUDINAL AXES OF THE BOOM BASE AFTER LIFTING RATED LOAD AT PAID RADII.
- NOTES:**
- WHEN LIFTING A LOAD ALL SECTIONS OF POWERED BOOM MUST BE EQUALLY EXTENDED WITHIN ONE FOOT.
  - WHEN LIFTING A LOAD ALL SECTIONS OF POWERED BOOM MUST BE EQUALLY EXTENDED WITHIN ONE FOOT.

RATED LOAD IN POUNDS ON OUTRIGGERS	28 FT.				30 FT.				32 FT.				34 FT.				36 FT.				38 FT.				40 FT.				42 FT.			
	W	R	S	REAR	W	R	S	REAR	W	R	S	REAR	W	R	S	REAR	W	R	S	REAR	W	R	S	REAR	W	R	S	REAR	W	R	S	REAR
10	63	56080	58	47200	68	36400	63	36400	68	29800	63	29800	68	23200	63	23200	68	16600	63	16600	68	10000	63	10000	68	3400	63	3400	68	3400	63	3400
20	126	112160	116	94400	136	72800	131	72800	136	59600	131	59600	136	46400	131	46400	136	33200	131	33200	136	16600	131	16600	136	16600	131	16600	136	16600	131	16600
30	189	168240	174	141600	204	109200	196	109200	204	89400	196	89400	204	72800	196	72800	204	56400	196	56400	204	39800	196	39800	204	39800	196	39800	204	39800	196	39800
40	252	224320	232	188800	272	145600	264	145600	272	121600	264	121600	272	100000	264	100000	272	79400	264	79400	272	58800	264	58800	272	58800	264	58800	272	58800	264	58800
50	315	280400	292	237600	340	184000	328	184000	340	154400	328	154400	340	128000	328	128000	340	102000	328	102000	340	76400	328	76400	340	76400	328	76400	340	76400	328	76400

Pinned Section Extended	25-25.5 FT.				30-30.5 FT.				35-35.5 FT.				40-40.5 FT.				45-45.5 FT.				50-50.5 FT.				55-55.5 FT.							
	W	R	S	REAR	W	R	S	REAR	W	R	S	REAR	W	R	S	REAR	W	R	S	REAR	W	R	S	REAR	W	R	S	REAR				
10	63	56080	58	47200	68	36400	63	36400	68	29800	63	29800	68	23200	63	23200	68	16600	63	16600	68	10000	63	10000	68	3400	63	3400	68	3400	63	3400
20	126	112160	116	94400	136	72800	131	72800	136	59600	131	59600	136	46400	131	46400	136	33200	131	33200	136	16600	131	16600	136	16600	131	16600	136	16600	131	16600
30	189	168240	174	141600	204	109200	196	109200	204	89400	196	89400	204	72800	196	72800	204	56400	196	56400	204	39800	196	39800	204	39800	196	39800	204	39800	196	39800
40	252	224320	232	188800	272	145600	264	145600	272	121600	264	121600	272	100000	264	100000	272	79400	264	79400	272	58800	264	58800	272	58800	264	58800	272	58800	264	58800
50	315	280400	292	237600	340	184000	328	184000	340	154400	328	154400	340	128000	328	128000	340	102000	328	102000	340	76400	328	76400	340	76400	328	76400	340	76400	328	76400

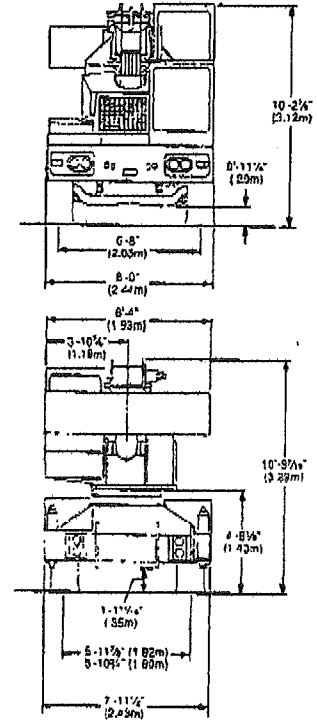
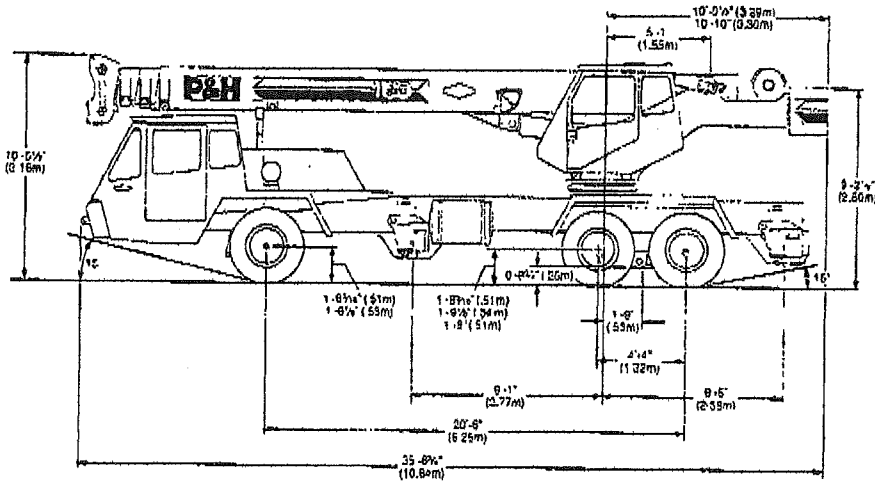
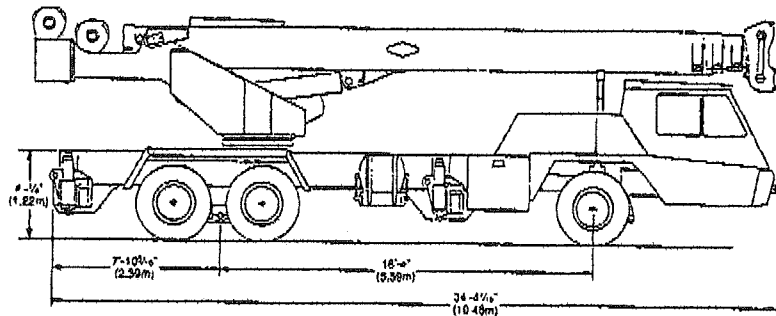
NOTE: OPERATION OF THIS EQUIPMENT IN EXCESS OF RATED LOADS AND DISREGARD OF INSTRUCTIONS IS AN UNSAFE PRACTICE AND WILL RESULT IN DENIAL OF WARRANTY CLAIMS.

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Item	Weight Distribution — For Publication					
	Pounds			Kilograms		
	Gross	Front	Rear	Gross	Front	Rear
Basic Carrier	22,540	8,442	14,097	10,224	3,829	6,395
Basic Upper	5,304	-28	5,332	2,406	-12	2,418
Engine — Cat. 3208	2,767	2,343	423	1,255	1,063	192
Front Rear Tires — 15 x 22.5	516	516	0	234	234	0
Rear Rear Tires — 15 x 22.5	1,085	0	1,085	492	0	492
Front Hydraulic Stabilizer	366	455	-89	166	206	-40
Main Winch	1,135	-343	1,478	515	-155	670
1/2 x 425' MW Rope	196	-84	981	89	-29	118
Slab Counterweight	668	-313	981	303	-142	445
Counterweight Shell	758	-338	1,096	344	-153	497
91' 4 Section Boom	10,277	5,933	4,944	4,934	2,691	2,243
Hoist Cylinder	1,166	148	1,018	529	67	462
ATB Warning	90	53	37	41	24	17
28 Ton Hook Block	520	-196	716	236	-89	325
25' Extension	816	558	258	370	253	117
Basic Machine	48,805	17,167	31,638	22,138	7,787	14,351
<b>Adjustments for Options — Basic Machine</b>						
Front Tool Box	167	203	-36	76	92	-16
Front Rear Tires — 16.5 x 22.5	54	54	0	24	24	0
Rear Rear Tires — 10.00 x 20	659	0	659	299	0	299
Rear Rear Tires — 10.00 R20	771	0	771	350	0	350
25.5 - 42.5' Extension	663	392	271	301	178	123
28T H. Block and Front	0	936	-936	0	425	-425
Main and Auxiliary Winch	-128	104	-231	-58	47	-105
<b>Additions for Options — Carrier</b>						
Front Counterweight	871	1,180	-309	395	535	-140
Pintle Hook	33	-14	47	15	-6	21
<b>Additions for Options — Upper</b>						
Floodlights	35	13	22	16	6	10
Heater — LP	51	-5	56	23	-2	25
Heater — Diesel	44	-4	48	20	-2	22
Counterweight — Removable	2,136	-844	2,980	969	-383	1,352
<b>Additions for Options — Attachments</b>						
5 Ton Ball Hook	121	173	-51	55	78	-23
10 Ton Hook Block	326	464	-138	148	211	-63
Auxiliary Sheave	90	132	-42	41	60	-19
1/2 x 360' AW Rope	165	-73	238	75	-33	108

Table 1-5. Axle Loading Chart

# GENERAL DIMENSIONS



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.



**VALIAR INCORPORATED**  
 1179 LAUREL ROAD S. O. R. RD 12836  
 NORFOLK, VA 23513  
 PHONE: NORFOLK 662-7808 FREDERICK 677-6100