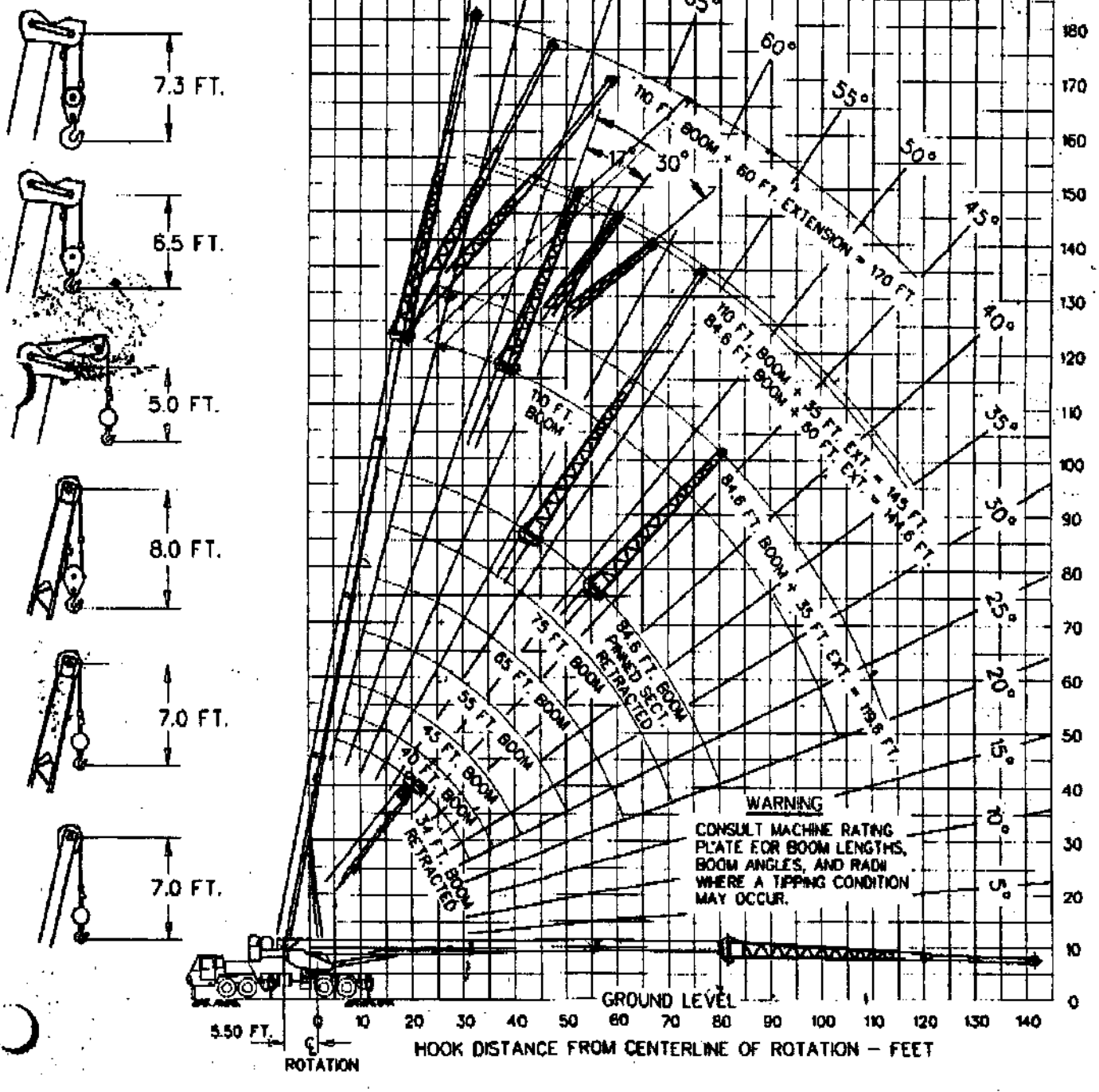
P&H® CENTURY T-500

50-ton hydraulic truck crane
170-ft. (51.8 m) boom and extension



Specificati

PUMPS: DETROIT DIESEL ALLISON 6L71TA ENGINE: One Tandem gear pump operating at 2480 full load RPM, with the first section providing 49.2 GPM (186 liter/min.) to the boom hoist and telescope circuits, and the second section providing 37.7 GPM (143 liter/min.) to the main and auxiliary winch circuit.

One Tandem gear pump operating at 2480 full load RPM, with the first section providing 32.1 GPM (121 liter/min.) to the swing circuit, and the second section providing 32.1 GPM (121 liter/min.) to the outrigger or winch boost circuits.

One Vickers vane pump, driven from the engine accessory drive, operating at 2100 full load RPM, provides 19.5 GPM (74 liter/min.), regulated to 8 GPM (30 liter/min.) to the steering circuit.

OIL RESERVOIR: 158 gallons (590 liter) mounted at front, right side of engine frame.

OIL COOLER: Oil to air, tube and fin type with internal turbulator.

CONTROL VALVES (STANDARD): One single-spool valve for swing circuits.

One two-spool valve with one spool for boom hoist and one spool for telescope circuits.

One single-spool valve for main winch circuit.

CONTROL VALVES (OPTIONAL): One two-spool valve with one spool for main winch and one spool for auxiliary winch circuits.

One single-spool valve for independent winch circuit.

SWING UNIT: Hydraulic motor driving through reduction gear reducer to pinion gear. 360° continuous rotation to 2.4 RPM Full Load.

SWING GEAR: Single shear ball swing bearing with integral spur gear.

SWING BRAKE: Spring applied, hydraulically released, internal 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: Two position (front and rear) pin-in-hole lock manually engaged with house lock lever in cab is standard. A positive 360° position lock is optional.

CARRIER

TYPE: P&H 8 x 4

WEIGHT: Including ball bearing swing circle, hydraulic outriggers and standard tires and Caterpillar 3208T engine. 33,457 lbs. (15,158 kg.)

FRAME: Rectangular frame members of 80,000 P.S.I. (5600 kg/cm²) yield strength alloy steel, reinforced with box constructed cross-members of 80,000 psi (5600 kg/cm²) yield strength alloy steel. Engine frame is channel construction of 47,000 P.S.I. (3300 kg/cm²) yield strength alloy steel.

OUTRIGGERS: Hydraulic out and down type. Eight double acting hydraulic cylinders for independent horizontal and vertical motion of each beam operated from the operator's cab or at each side of the carrier. Each vertical cylinder is equipped with a holding valve.

OUTRIGGER BEAMS: 80,000 P.S.I. yield strength alloy steel box extending to a maximum spread of 23' 7" (7.2 meters) from centerline of float to centerline float with the machine fully raised on the outriggers. Retracted width of the outriggers without floats is 9' 10" (3.0 M).

OUTRIGGER FLOATS: Individually removable floats with storage on carrier. Float size 24" (610 mm) dia. with effective nominal surface area of 452 sq. in. (2920 cm²) per float.

STEERING: Hydraulic powered gear and integral valve with a hydraulic power assist cylinder on each front axle.

CAB: One man, left side, low profile fully enclosed all-weather steel cab with full vision safety glass. Cab is cushion mounted for vibration isolation.

CAB EQUIPMENT: Contains all controls and instrumentation, including illuminated instrument panel with speedometer, tachometer, hour meter, voltmeter, air pressure gauges, low air pressure indicator lights, fuel gauge, oil pressure gauge, water temperature gauge, air horns, west coat rear view mirrors, electric windshield wiper, engine conditioning warning system with noise alarm and warning light for high temperature and low oil pressure, heater and defroster. Deluxe operator's seat with torsion suspension and vinyl covering.

LIGHTS: Dual headlights, taillights, stop lights, front and rear direction signals with emergency flashers, rear license plate light, front, rear and [illegible] with reflectors. Bumper mounted turn

CARRIER STANDARD EQUIPMENT: Front bumper, full fenders, sliding engine hood, tow hooks front and rear, carrier mounted boom rack, dunnage boxes, float storage racks and back-up warning device, windshield washer, and fire extinguisher.

CARRIER OPTIONAL EQUIPMENT: Cold starting aid, rotating beacon light, spare tire and wheel, pintle hook, alcohol evaporator, air dryer, tire inflation kit, and hydraulically operated front stabilizer with 24.0 inch (601 mm) diameter float. Two 8D batteries with a reserve capacity of 430 min. and CCA at 0°F of 900 amps.

BRAKES; SERVICE : Front Axles — air operated, cam actuated drum and shoe type.

Rear Axles — air operated, spring type safety chambers, cam actuated, drum and shoe type.

BRAKES; PARKING: Cam actuated, drum and shoe type on rear axles. Spring applied, air released for safety.

FRONT AXLE: Tubular tandem.

REAR AXLE: Single reduction with interaxle differential. Ratio 6.143:1.

SUSPENSION: Front Axle — Four spring mounted tandem with torque rods.

Rear Axle — Solid bogie mounted tandem with torque rods.

TRANSMISSIONS: Eaton Corp. Fuller Road Ranger RTO-11613, 13 speeds forward, 2 reverse, used with Detroit Diesel Allison 6L71TA Engine.

Eaton Corp. Fuller Road Ranger RT6613, 13 speeds forward, two reverse, used with Caterpillar 3208T Engine.

CLUTCH: Spicer 14 in. (356 mm) two plate with asbestos linings, coaxial torque dampener, upshift clutch brake and air actuation assist.

RADIATOR: Water to air, tube and fin type core. Thermostatic temperature controlled.

AIR CLEANER: Donaldson single-stage primary dry air cleaner with "Duralite" filter media.

MUFFLER: Donaldson — muffler and resonator.

ELECTRICAL: 24 volt system with negative ground. Two N150 batteries with a reserve capacity of 285 min. and CCA at 0°F of 840 amps. Wire harnesses have environmentally sealed Deutsch connectors.

FUEL TANK: FWHA approved steel tank, 80 gal. (303 liter) mounted on right side of carrier, behind front outriggers.

TIRES: Standard — Front 15.00 R 22.5 18 ply — rear 11.00 x 20 14 ply-duals. Optional — Front 15.00 R 22.5 18 ply — rear 12. 00 x 20 18 ply-duals.

POWER PLANTS:

Make: Caterpillar 3208T
Max. H.P.: 250 hp (186 kw) at 2800 rpm.
Max. Torque: 840 ft./lb. (88.5 kg. - m) at 1400 rpm.
No. Cyl.: 8 cylinder, 4.5 in. (114.3 mm) bore, 5.0 in. (127 mm) stroke.
Disp: 638 cu. in. (10.42 liter).
Cycle: 4
Alternator: Delco 24 volt, 65 amp.
Aspiration: Turbocharged.
Air Compressor: Bendix TU-FLO 501.
*Theoretical Performance:
Low Gear 1.6 mph (2.6 km/hr.) 41% grade.
High Gear 49 mph (79 km/hr.) .1% grade.

Make: Detroit Diesel Allison 6L71TA.

Max. HP: 265 hp (198 kw) at 2100 rpm.

Max. Torque: 737 ft./lbs. (101.9 kg./m) at 1400 rpm.

No. Cyl.: 6 cyl., 4.25 in. (107.9 mm) bore, 5.0 in. (127 mm) stroke.

Disp: 426 cu. in. (6.96 liter)

Cycle: 2

Alternator: Delco 24 volt, 65 amp.

Aspiration: Turbocharged.

Air Compressor: Bendix TU-FLO 501

*Theoretical Performance:

Low Gear 2.2 mph (3.5 km/hr.) 38% grade.

High Gear 51 mph (82 km/hr.) 1.1% grade.

*Theoretical performance is based on the following:

GVW: 77,000 lbs. (34,920 kg.)

Front Tires: 15.00 R 22.5

Rear Tires: 12.00 x 20

Counterweight: 6000 lbs. (5,530 kg.)

Speed and gradeability will vary due to engine performance, vehicle [illegible] and optional tires. Gradeability based on SAE J888.

specifications

BOOM: 34 ft. (10.4 m) retracted to 110 ft. (33.5 m) extended length, four section boom consisting of a boom base, two hydraulically extended and retracted sections and a fourth pinned section which can be hydraulically extended and retracted. Boom point has five 17.362" (44 mm) dia. main metallic sheaves with roller bearings and idler sheaves with bronze bearings.

EXTENSION (OPTIONAL): 35 ft. (10.7 m) swing around lattice structure boom extension with a single metallic sheave. It can be put into operating condition by pivoting from its stored position on right side of the boom base section. Self-storing pins connect extension to boom head. In the operating position the extension is offset 2° from the main boom.

TELESCOPIC BOOM EXTENSION (OPTIONAL): 35 ft. (10.7 m) to 60 ft. (18.3 m) swing around lattice structure boom extension with a welded four plate telescope section with a single metallic sheave. It can be put into operating condition by pivoting from its stored position on the right side of the boom base section and pinned to the boom head. Telescopic section is then extended on rollers and pinned. In the operating position the extension is offset 2° from the main boom.

EXTENSION OFFSET MECHANISM (OPTIONAL): Pivoting links which allow either boom extension above to be offset to 17° or 30° from the main boom.

AUXILIARY SHEAVE (OPTIONAL): Boom point mounted with single metallic sheave.

HOOK BLOCKS (OPTIONAL): 50 ton (45.4 metric ton) 5 sheave with swivel hook and safety latch. Sheaves are for .75 inch (19 mm) wire rope.

20 ton (18.1 metric ton) 1 sheave with swivel hook and safety latch. Sheave is for .75 inch (19 mm) wire rope.

BALL HOOK (OPTIONAL): 8.5 ton (7.7 metric ton) weighted swivel hook with safety latch, .75 inch (19 mm) wire rope.

UPPERSTRUCTURE

OPERATOR'S CAB: Fully enclosed, all-weather steel cab with full-vision safety glass and hinged top window with tinted glass. Cab is cushion mounted for vibration isolation.

OPERATOR'S CAB STANDARD EQUIPMENT: Contains all crane function controls. Front control console includes: engine water temperature gauge, engine oil pressure gauge, hydraulic oil temperature gauge, air pressure gauge, fuel gauge, volt meter, winch high speed indicators; anti-two-block warning, boom angle indicator, dash light, and electrical horn. Deluxe operator's seat with torsion suspension and vinyl covering, windshield wiper, fire extinguisher, and seat belts.

OPERATOR'S CAB OPTIONAL EQUIPMENT: Main winch drum turn indicator, diesel or propane heater, defroster fan, windshield washer, roof window wiper, rotary roof beacon and tachometer, hand control lever for independent main and auxiliary winch.

CONTROLS: Front console mounted hand control levers for swing, telescope, auxiliary winch (optional), main winch, and boom hoist. Front floor mounted foot pedals for swing brake, boom hoist, and engine throttle. Front console instrument panel contains ignition switch.

Side console has hand throttle control, swing lock control, and electrical outrigger panel — all standard.

ELECTRICAL SYSTEM: Electrical system is 24 volt negative ground. Wiring harnesses have protective covering and are independently clamped to framework. Wire harnesses have environmentally sealed Deutsch connectors. Toggle switches used in operator's cab are environmentally sealed.

THROTTLE CONTROL: Variable air control for foot operation, and positive position cable control for hand use.

MISCELLANEOUS UPPER OPTIONS: Load indicating device, flood lights, 360 degree swing lock, winch spooling roller, anti-two-block and load moment shutdown device.

COUNTERWEIGHTS: 8,000 lbs. (3,630 kg.) standard, non-removable type.

8,000 lbs. (3,630 kg.) with 7,525 lbs. (3,414 kg.) removable with a self-contained raising or lowering device using the winch.

1,080 lbs. (490 kg.) auxiliary counterweight to be used on units without an auxiliary winch.

MAIN WINCH (STANDARD): P&H Model 1581 with two speed motor, mounted to rear of revolving frame. Planetary gearing and equal speed, power raising and lowering. Infinitely variable speed control. Spring applied hydraulically released load holding multi-disc brake is automatic.

Drum: 15 in (381 mm) pitch diameter, 18.5 in. (470 mm) wide, 23.5 in. (597 mm) flange diameter.

Cable: .75 in (19 mm) diameter 6 x 25 extra improved plow steel with 7 x 7 I.W.R.C. Strength limit: 16,800 lbs. (7,619 kg.).

Drum Capacity .75 in. (19 mm) Cable: 554 ft. (168 m), 5 layers.

Line Pull Maximum: 18,282 lbs. (8,291 kg) 1st layer, low speed, 13,223 lbs. (5,997 kg.) 5th layer.,

Maximum Available Line Pull for starting load mid-air, 5th layer: 11,000 lbs. (4991 kg).

Line Speed Maximum: (At 2750 Engine R.P.M. and with .75 in. Dia. cable) 642 ft./min. (196 meter/min.) 5th layer, high speed.

AUXILIARY WINCH (OPTIONAL): P&H Model 1581 with two speed motor, mounted to rear of revolving frame on the counterweight. Planetary gearing and equal speed, power raising and lowering. Infinitely variable speed control. Spring applied hydraulically released load holding multi-disc brake is automatic.

Drum: 15 in. (381 mm) pitch diameter, 18.5 in. (470 mm) wide, 23.5 in. (597 mm) flange diameter.

Cable (optional): .75 in. (19 mm) diameter 6 x 25 extra improved plow steel with 7 x 7 I.W.R.C. Strength limit: 16,800 lbs. (7,619 kg.)

Cable (optional): .75 in. (19 mm) diameter, 8 x 25 spin resistant, extra improved plow steel, 7 x 7 I.W.R.C. Strength limit: 10,350 lbs. (4,696 kg.)

Drum Capacity .75 in. (19 mm) Cable: 554 ft. (168 m), 5 layers.

Line Pull Maximum: 18,282 lbs. (8,291 kg.) 1st layer, low speed, 13,223 lbs. (5,997 kg.) 5th layer (.75 in. cable).

Maximum Available Line Pull for starting load mid-air, 5th layer: 11,000 lbs. (4,991 kg.) (.75 in. cable).

Line Speed Maximum (At 2750 Engine R.P.M. and with .75 in. dia. cable): 642 ft./min. (196 M/min.) 5th layer, high speed.

Cable (optional): .625 in. (16 mm) diameter, 6 x 25 extra improved plow steel, 7 x 7 I.W.R.C.

Drum Capacity .625 in. (16 mm) Dia. Cable: 646 ft. (193 m), 5 layers.

Line Pull Maximum: 18,437 lbs. (8,361 kg.) 1st layer, low speed, 13,950 lbs. (6,327 kg.), 5th layer (.625 in. cable).

Maximum Available Line Pull for starting load mid-air, 5th layer: 11,000 lbs. (4,991 kg) (.625 in. cable).

Line Speed Maximum: (At 2750 engine R.P.M. and with .625 in. dia. cable 608 ft./min. (185 M/min.), 5th layer, high speed.)

SHEAVE AND DRUM TO WIRE ROPE RATIOS: (Pitch Diameter)	Sheave to Wire Rope	Drum to Wire Rope
Main Boom Sheaves		
.75" Wire Rope	24.15:1	— —
.625" Wire Rope	28.78:1	— —
Main Winch		
.75" Wire Rope	— —	20.0:1
.625" Wire Rope	— —	23.8:1

BOOM HOIST: Two 7.874" (200 mm) I.D. cylinders, double-acting. Hydraulically powered raising and lowering with holding valve.

BOOM TELESCOPE: Two 6.3" (160 mm) I.D. cylinders — double-acting. Hydraulically powered raising and lowering with holding valve. Supplied by a single hose loop.

HYDRAULIC SYSTEM

FILTERS: Two 10-micron nominal return line filters mounted in the hydraulic reservoir. All return oil is filtered. Indicators external.

PUMP DRIVE: Driven off carrier engine crankshaft, with manual pump disconnect for highway travel. 1.182 pump speed to 1.0 engine speed drive ratio for Detroit Diesel Allison 6L 711A Engine. 1.00 pump speed to 1.00 engine speed for Caterpillar 3208T Engine.

PUMPS: CATERPILLAR 3208T ENGINE: One Tandem gear pump operating at 2800 full load RPM, with the first section providing 51.5 GPM (195 liter/min.) to the boom hoist and telescope circuits, and the second section providing 39.6 GPM (150 liter/min.) to the main and auxiliary winch circuits.

One tandem gear pump operating at 2800 full load RPM, with the first section providing 33.6 GPM (127 liter/min.) to the swing circuit, the second section provides 33.6 GPM (127 liter/min.) to the outrigger or winch boost circuits.

An Eaton 1.65 cu. in. (27.04 cu. cm.) per revolution heavy duty power steering pump operating at full load RPM of 3120 RPM, provides 8 GPM (30.3 liter/min.) to steering circuit.

LOAD RATINGS - PCSA CLASS 10-208

With 8000 lbs. counterweight

RATED LOADS IN POUNDS ON OUTRIGGERS

POWERED BOOM LENGTH IN FEET — MANUAL RETRACTED

BOOM ANGLE	34 FT. RATED LOAD POUNDS SIDE	34 FT. RATED LOAD POUNDS REAR	40 FT. BOOM ANGLE	40 FT. RATED LOAD POUNDS SIDE	40 FT. RATED LOAD POUNDS REAR	45 FT. BOOM ANGLE	45 FT. RATED LOAD POUNDS SIDE	45 FT. RATED LOAD POUNDS REAR	50 FT. BOOM ANGLE	50 FT. RATED LOAD POUNDS SIDE	50 FT. RATED LOAD POUNDS REAR	55 FT. BOOM ANGLE	55 FT. RATED LOAD POUNDS SIDE	55 FT. RATED LOAD POUNDS REAR	60 FT. BOOM ANGLE	60 FT. RATED LOAD POUNDS SIDE	60 FT. RATED LOAD POUNDS REAR	65 FT. BOOM ANGLE	65 FT. RATED LOAD POUNDS SIDE	65 FT. RATED LOAD POUNDS REAR	70 FT. BOOM ANGLE	70 FT. RATED LOAD POUNDS SIDE	70 FT. RATED LOAD POUNDS REAR	74.66 FT. BOOM ANGLE	74.66 FT. RATED LOAD POUNDS SIDE	74.66 FT. RATED LOAD POUNDS REAR	BOOM ANGLE
10	86	100000	78	82000		72	61000		78	75000																	10
12	82	88000	83	81500		76	76500		74	84000		72	60000														12
15	76	71000	82	71000		69	70000		71	82000		74	56900		72	47200											15
20	65	54000	73	54000		58	54000		69	53000		68	47300		73	38900		75	34700								20
25	29	42000	63	42000		56	41900		58	41700		65	40800		69	34400		72	29900								25
30			50	33700		46	33800		52	33500		59	33480		65	30000		68	26100								30
35						28	27100	27100	45	27100	27100	54	27100	27100	60	26400		64	23980								35
40									37	20800	21200	48	20800	21300	55	20800	21300	60	20400								40
45									25	16100	16900	41	16100	16900	50	16100	16900	55	16100	16900							45
50												34	13000	13700	45	13000	13700	52	13000	13700							50
55												24	10500	11300	39	10500	11300	47	10500	11300							55
60															32	8400	9200	42	8400	9200							60
65															22	6900	7600	36	6900	7600							65
70																		29	5800	6300							70
75																		20	4500	5200							75
80																											80
85																											85

LOAD RATINGS IN POUNDS WITH OUTRIGGERS EXTENDED

BOOM ANGLE	PINNED SECTION EXTENDED — FOR ALL BOOM LENGTHS 34 TO 40 FT. — RATED LOAD IN POUNDS SIDE	PINNED SECTION EXTENDED — FOR ALL BOOM LENGTHS 34 TO 40 FT. — RATED LOAD IN POUNDS REAR	LATTICE EXTENSION WITH PINNED SECTION RETRACTED — 35 FT. — FOR ALL BOOM LENGTHS 40 TO 70 FT. — RATED LOAD IN POUNDS SIDE	LATTICE EXTENSION WITH PINNED SECTION RETRACTED — 35 FT. — FOR ALL BOOM LENGTHS 40 TO 70 FT. — RATED LOAD IN POUNDS REAR	LATTICE EXTENSION WITH PINNED SECTION RETRACTED — 35 FT. TELESCOPIC — FOR ALL BOOM LENGTHS 40 TO 70 FT. — RATED LOAD IN POUNDS SIDE	LATTICE EXTENSION WITH PINNED SECTION RETRACTED — 35 FT. TELESCOPIC — FOR ALL BOOM LENGTHS 40 TO 70 FT. — RATED LOAD IN POUNDS REAR	LATTICE EXTENSION WITH PINNED SECTION RETRACTED — 60 FT. TELESCOPIC — FOR ALL BOOM LENGTHS 55 TO 70 FT. — RATED LOAD IN POUNDS SIDE	LATTICE EXTENSION WITH PINNED SECTION RETRACTED — 60 FT. TELESCOPIC — FOR ALL BOOM LENGTHS 55 TO 70 FT. — RATED LOAD IN POUNDS REAR	LATTICE EXTENSION WITH PINNED SECTION EXTENDED — 55 FT. — FOR ALL BOOM LENGTHS 34 TO 40 FT. — RATED LOAD IN POUNDS SIDE	LATTICE EXTENSION WITH PINNED SECTION EXTENDED — 55 FT. — FOR ALL BOOM LENGTHS 34 TO 40 FT. — RATED LOAD IN POUNDS REAR	LATTICE EXTENSION WITH PINNED SECTION EXTENDED — 70 FT. TELESCOPIC — FOR ALL BOOM LENGTHS 34 TO 70 FT. — RATED LOAD IN POUNDS SIDE	LATTICE EXTENSION WITH PINNED SECTION EXTENDED — 70 FT. TELESCOPIC — FOR ALL BOOM LENGTHS 34 TO 70 FT. — RATED LOAD IN POUNDS REAR	LATTICE EXTENSION WITH PINNED SECTION EXTENDED — 60 FT. TELESCOPIC — FOR ALL BOOM LENGTHS 55 TO 70 FT. — RATED LOAD IN POUNDS SIDE	LATTICE EXTENSION WITH PINNED SECTION EXTENDED — 60 FT. TELESCOPIC — FOR ALL BOOM LENGTHS 55 TO 70 FT. — RATED LOAD IN POUNDS REAR	BOOM ANGLE
25	77	21500	25	78	17000		35	74	16400		25																25
30	74	19600	30	76	15800		30	75	15150		30																30
35	72	17880	35	73	14500		35	73	13900		35	76	7100		35	77	12000		35	78	11400						35
40	68	16100	40	71	13500		40	71	12900		40	74	6800		40	75	11900		40	76	10700						40
45	66	14700	45	68	12600		45	68	12000		45	72	6500		45	73	11000		45	74	9900		45	77	6600		45
50	63	13400	50	66	11800		50	66	11200		50	70	6100		50	71	10300		50	72	9100		50	75	6200		50
55	60	12290 12400	55	63	11100		55	63	10400		55	68	5700		55	69	9600		55	70	8300		55	73	5800		55
60	57	10800 10700	60	60	10400		60	60	9800		60	66	5400		60	67	7900		60	67	7700		60	72	5700		60
65	53	8500 8300	65	57	8900	9500	65	57	8180	8800	65	64	5400		65	63	7900		65	66	7100		65	70	5600		65
70	50	7300 7900	70	54	7600	8200	70	54	6840	7400	70	62	5200		70	62	6800		70	63	6500		70	68	5400		70
75	46	6900 6700	75	51	6480	7100	75	51	5700	6580	75	60	5000		75	60	6300		75	61	6000		75	66	5080		75
80	43	5900 5800	80	48	5500	6100	80	48	4700	5300	80	57	4900		80	58	5800		80	58	5200	5800	80	65	4700		80
85	36	4300 4500	85	44	4600	5200	85	44	3900	4400	85	55	4400		85	55	5200		85	56	4400	4900	85	63	4300		85
90	33	3850 4200	90	40	3900	4500	90	40	3100	3700	90	53	4400		90	53	4600		90	53	3800	4200	90	61	4000		90
100	19	3400 3000	100	32	2700	3500	100	33	1800	2500	100	47	3200	3700	100	47	3200	3700	100	47	3400	3900	100	57	3500		100
			110	19	–	2200					110	41	2700	2700	110	41	2200	2700	110	41	–	1800	110	53	2800	3600	110
											120	34	–	1800	120	34	–	1800					120	47	1800	2100	120

NOTE:

1. WHEN BOOM IS NOT FULLY EXTENDED, USE ONLY BOOM ANGLES, NOT OPERATING RADIUS TO DETERMINE LOAD RATING.
2. FOR BOOM ANGLES NOT SHOWN, USE RATING OF NEXT LOWER BOOM ANGLE.
3. FOR BUCKET RATINGS ON 60 FT. EXTENSION, DEDUCT 20% FROM LOAD RATINGS.

WARNING:

A TIPPING CONDITION WILL OCCUR WITH OR WITHOUT HOOK BLOCK WITH 35 FT. OR 60 FT. BOOM EXTENSION ERECTED, IF MAXIMUM OPERATING RADIUS SHOWN WITH LOAD RATING FOR RESPECTIVE OPERATING CONFIGURATION IS EXCEEDED.

DEDUCTIONS TO BE MADE FROM LOAD RATINGS IN POUNDS

HOISTING LOAD FROM POWERED BOOM / HOISTING LOAD FROM EXTENSION	DESCRIPTION		WITHOUT HOOK BLOCK ON BOOM POINT	HOOK BLOCK ON POWERED BOOM POINT: 6.5 – 20 TON	40 – 50 TON	6.5 – 20 TON WITH AUXILIARY SHEAVE	40 – 50 TON WITH AUXILIARY SHEAVE
	HOOK BLOCK WEIGHT		—	580	950	760	1150
	35 FT. LATTICE EXTENSION	STOWED	—	700	1100	880	1250
		ERECTED ONLY	—	3650	3900	3760	4050
		6.5 TON BALL	—	4750	5050	4850	5200
		20 TON BLOCK	—	6000	6350	6150	6500
	35 FT. TELESCOPING LATTICE EXTENSION	STOWED	—	700	1050	880	1200
		ERECTED ONLY	—	5300	5650	5450	6000
		6.5 TON BALL	—	6650	7000	6800	7150
		20 TON BLOCK	—	7950	8300	8100	8500
	60 FT. TELESCOPING LATTICE EXTENSION	ERECTED ONLY	—	5500	5850	5650	6000
		6.5 TON BALL	—	7100	7450	7250	7600
		20 TON BLOCK	—	8800	9150	9050	9400
	35 FT. LATTICE EXTENSION	6.5 TON BALL	270	850	850	750	950
		20 TON BLOCK	560	950	1100	1050	1250
	35 FT. TELESCOPING LATTICE EXTENSION	6.5 TON BALL	270	850	900	760	1000
		20 TON BLOCK	560	950	1200	1060	1300
	60 FT. TELESCOPING LATTICE EXTENSION	6.5 TON BALL	270	850	900	850	850
		20 TON BLOCK	560	900	1200	1000	1150

MAIN HOIST REEVING										
3/4 DIA. WIRE ROPE BREAKING STRENGTH 38,800 LBS. — 6 X 25 FW IPS										
PART OF LINE	1	2	3	4	5	6	7	8	9	10
MAXIMUM LOAD	14000	28000	35000	44000	55000	64000	77000	88000	99000	108000
AUXILIARY HOIST REEVING										
3/4 DIA. WIRE ROPE BREAKING STRENGTH 41,800 LBS. — 6 X 19 FW IWRC										
5/8 DIA. WIRE ROPE BREAKING STRENGTH 27,200 LBS. — 6 X 25 FW IWRC										
PART OF LINE	1	2	3	4	5	6	7	8	9	10
MAXIMUM LOAD	10900	20800	30000	40000	50000	60000	70000	80000	90000	100000

DEFINITIONS:

1. OPERATING RADIUS IS THE HORIZONTAL DISTANCE FROM THE AXIS OF ROTATION BEFORE LOADING TO THE CENTER OF THE VERTICAL HOIST LINE OR TACKLE WITH LOAD APPLIED.
2. LOADED BOOM ANGLE, AS SHOWN IN COLUMN HEADED BY ∠° IS THE INCLUDED ANGLE BETWEEN THE HORIZONTAL AND LONGITUDINAL AXES OF THE BOOM BASE AFTER LIFTING RATED LOAD AT RATED RADIUS.

LOAD RATINGS for Offset Lattice Extension
with 8,000 lb. counterweight

LOAD RATINGS IN POUNDS FOR 17° OFFSET WITH OUTRIGGERS EXTENDED

LATTICE EXTENSION WITH PINNED SECTION RETRACTED

OPERATING RADIUS FT FOR 119.6 FOOT BOOM ONLY	35 FT. — FOR ALL BOOM LENGTHS 69 TO 119.6 FT.			35 FT. TELESCOPIC — FOR ALL BOOM LENGTHS 69 TO 119.6 FT.			60 FT. TELESCOPIC — FOR ALL BOOM LENGTHS 94 TO 144.6 FT.		
	LOADED BOOM ANGLE °	RATED LOAD IN POUNDS SIDE	REAR	LOADED BOOM ANGLE °	RATED LOAD IN POUNDS SIDE	REAR	LOADED BOOM ANGLE °	RATED LOAD IN POUNDS SIDE	REAR
35	77	11100		77	10400				
40	74	10400		75	9900				
45	72	9900		72	9300		78	5400	
50	69	9500		69	8900		76	5200	
55	67	9100		67	8500		74	5100	
60	64	8700		64	8100		72	4900	
65	61	8400		61	7800		70	4700	
70	58	8100		58	7500		67	4500	
75	55	7000	7600	55	6300	6900	65	4300	
80	52	6000	6600	52	5200	5800	63	4100	
85	48	5100	5700	48	4300	4900	60	3900	
90	44	4300	4800	44	3500	4100	58	3700	
100	35	3000	3500	35	2200	2700	52	3500	
110	21	-	2300				46	2700	3100
120							39	-	2200

LATTICE EXTENSION WITH PINNED SECTION EXTENDED

OPERATING RADIUS FT FOR 145 FOOT BOOM ONLY	35 FT. — FOR ALL BOOM LENGTHS 94.3 TO 145 FT.			35 FT. TELESCOPIC — FOR ALL BOOM LENGTHS 94.3 TO 145 FT.			60 FT. TELESCOPIC — FOR ALL BOOM LENGTHS 119.3 TO 170 FT.		
	LOADED BOOM ANGLE °	RATED LOAD IN POUNDS SIDE	REAR	LOADED BOOM ANGLE °	RATED LOAD IN POUNDS SIDE	REAR	LOADED BOOM ANGLE °	RATED LOAD IN POUNDS SIDE	REAR
35									
40									
45	77	9700		77	9100				
50	75	9000		75	8300				
55	73	8300		73	7600		78	5200	
60	70	7700		71	7000		76	5000	
65	68	7200		68	6500		75	4800	
70	66	6700		66	6000		73	4600	
75	54	6200		64	5600		71	4400	
80	61	5800		61	5200		69	4100	
85	59	5400		59	4800		67	3900	
90	56	4900	5100	56	4100	4500	65	3600	
100	51	3600	4100	51	2800	3300	61	3100	
110	44	2500	3000	44	-	2200	57	2800	
120	37	-	2100				52	2000	2400

LOAD RATINGS IN POUNDS FOR 30° OFFSET WITH OUTRIGGERS EXTENDED

LATTICE EXTENSION WITH PINNED SECTION RETRACTED

OPERATING RADIUS FT FOR 119.6 FOOT BOOM ONLY	35 FT — FOR ALL BOOM LENGTHS 69 TO 119.6 FT.			35 FT. TELESCOPIC — FOR ALL BOOM LENGTHS 69 TO 119.6 FT.			60 FT TELESCOPIC — FOR ALL BOOM LENGTHS 94 TO 144.6 FT		
	LOADED BOOM ANGLE °	RATED LOAD IN POUNDS SIDE	REAR	LOADED BOOM ANGLE °	RATED LOAD IN POUNDS SIDE	REAR	LOADED BOOM ANGLE °	RATED LOAD IN POUNDS SIDE	REAR
35									
40	78	8900		78	8300				
45	75	8500		75	7900				
50	72	8200		72	7600				
55	70	8000		70	7400				
60	67	7700		67	7100		76	4200	
65	64	7500		64	6900		74	4000	
70	61	7300		61	6700		72	3800	
75	57	7200		58	6600		69	3700	
80	54	6300	6900	54	5600	6200	67	3600	
85	50	5400	5900	50	4600	5200	64	3500	
90	46	4500	5100	46	3800	4300	62	3400	
100	36	3100	3600	36	2300	2800	56	3200	
110	19	1800	2300				49	3000	
120							41	2000	2400

LATTICE EXTENSION WITH PINNED SECTION EXTENDED

OPERATING RADIUS FT FOR 145 FOOT BOOM ONLY	35 FT. — FOR ALL BOOM LENGTHS 94.3 TO 145 FT.			35 FT. TELESCOPIC — FOR ALL BOOM LENGTHS 94.3 TO 145 FT.			60 FT. TELESCOPIC — FOR ALL BOOM LENGTHS 119.3 TO 170 FT.		
	LOADED BOOM ANGLE °	RATED LOAD IN POUNDS SIDE	REAR	LOADED BOOM ANGLE °	RATED LOAD IN POUNDS SIDE	REAR	LOADED BOOM ANGLE °	RATED LOAD IN POUNDS SIDE	REAR
35									
40									
45									
50	77	8100		77	7400				
55	75	7600		75	6900				
60	73	7100		73	6400				
65	71	6600		71	5900		78	4100	
70	68	6200		68	5500		76	3900	
75	66	5900		66	5200		75	3800	
80	63	5600		63	4900		73	3700	
85	61	5300		61	4600		71	3500	
90	58	5000		58	4300		69	3300	
100	52	3800	4300	52	3000	3500	64	2900	
110	46	2700	3200	46	1900	2400	60	2600	
120	38	1800	2200				55	2300	

NOTES:
1. SEE MAIN LOAD RATING CHART ON OUTRIGGERS FOR WARNINGS, DEFINITIONS, INFORMATION AND REEVING.
2. FOR BUCKET RATINGS ON 60 FT. EXTENSION, DEDUCT 20# FROM LOAD RATINGS.
3. STABILITY RATINGS DO NOT EXCEED 85% OF TIPPING LOADS.
4. WHEN BOOM IS NOT FULLY EXTENDED USE ONLY BOOM ANGLES, NOT OPERATING RADIUS TO DETERMINE LOAD RATING.
5. FOR BOOM ANGLES NOT SHOWN, USE RATING OF NEXT LOWER BOOM ANGLE.
6. 8000 LB. STANDARD COUNTERWEIGHT OR 8000 LB. OPTIONAL CWT. INCLUDING 7525 LB. REMOVABLE WT.

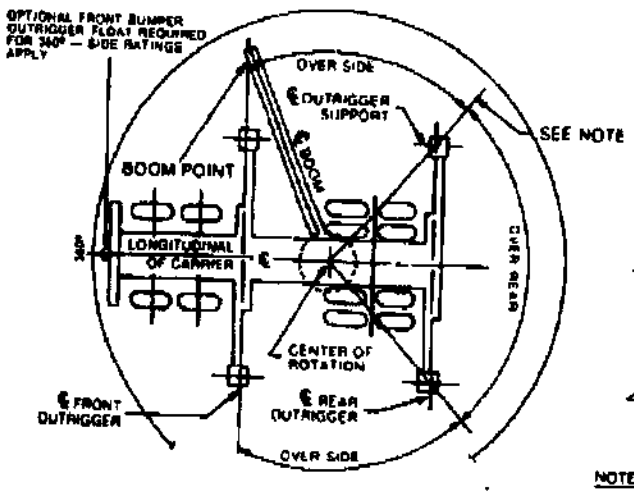
WARNINGS:

A TIPPING CONDITION WILL OCCUR (WITH OR WITHOUT HOOK BLOCK) WITH 35 FT. OR 60 FT. BOOM EXTENSION ERECTED, IF MAXIMUM OPERATING RADIUS SHOWN WITH LOAD RATING FOR RESPECTIVE OPERATING CONFIGURATION IS EXCEEDED.

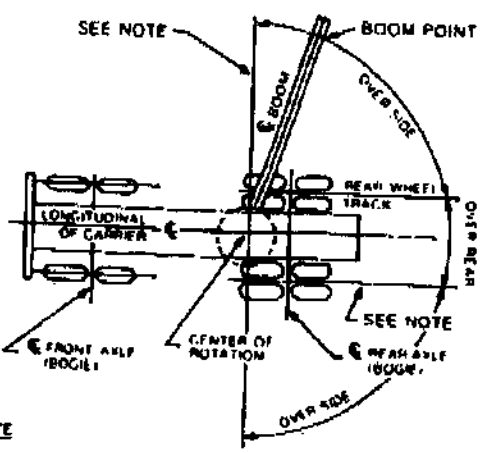
	WEIGHT DISTRIBUTION—FOR PUBLICATION					
	POUNDS			KILOGRAMS		
	GROSS	FRONT	REAR	GROSS	FRONT	REAR
BASIC CARRIER	33457	15009	18448	15176	6808	8368
BASIC UPPER	5449	456	4993	2468	203	2265
STANDARD OPTIONS:						
110 FT 45 CCT BOOM						
BOOM HOIST CYL INST.	17556	13140	4416	7963	5960	2003
8000 LB COUNTERWEIGHT	20363	9341	1023	936	472	464
MAIN WINCH MDL# 1681	9016	-3726	11741	3636	-1463	5099
MAIN WINCH ROPE .75 IN DIA X 510 FT.	1080	-301	1381	490	136	626
AUX WINCH OF 1080 LB COUNTERWEIGHT	538	149	685	244	-68	311
CATERPILLAR 3126B ENGINE	1080	-437	1516	490	-198	688
FRONT TIRES & RIMS -(4) 15.00R22.5 16 PR	3646	3568	78	1654	1441	35
REAR TIRES & RIMS -(8) 11.00X20 16 PR	1237	1237	0	561	561	0
TWO POSITION SWING LOCK	2037	0	2037	824	0	824
	9	1	8	4	0	4
BASIC MACHINE	76157	30380	45778	34545	13780	20765
ADJUSTMENTS FOR OPTIONS:						
BASIC MACHINE						
REMOVABLE 7510 LB COUNTERWEIGHT						
DETROIT DIESEL 6L 71TA ENGINE	7577	3048	-10573	-3419	1382	-4796
FRONT TIRES & RIMS -(4) 16.00R22.5 16 PR	642	681	-39	291	309	-18
REAR TIRES & RIMS -(8) 12.00X20 16 PR	103	103	0	47	47	0
MULTI POSITION SWING LOCK	170	0	170	77	0	77
	33	7	26	15	3	12
ADDITIONS FOR OPTIONS						
ATTACHMENTS						
35 FT. BOOM EXTENSION	1735	1353	382	787	614	173
35 FT - 60 FT BOOM EXTENSION	2849	2190	750	1315	975	340
BOOM EXTENSION OFFSET INST.	201	331	-131	91	150	-59
AUXILIARY SHEAVE	152	767	-715	69	121	52
45 TON 4 SHEAVE HOOK BLOCK	809	1429	620	408	648	-240
30 TON 5 SHEAVE HOOK BLOCK	946	1502	557	429	681	-252
20 TON 1 SHEAVE HOOK BLOCK	580	184	764	263	-83	346
85 TON BALL HOOK	265	-84	348	120	38	158
AUX WINCH ROPE .78 IN DIA X 460 FT.	487	-197	685	221	-89	310
AUX WINCH ROPE .825 IN DIA X 460 FT.	730	296	1025	331	-134	465
UPPER						
INDEPENDENT MAIN & AUX. WINCH	410	-12	422	186	-5	191
AUX. WINCH PLUMBING & CONTROLS	82	-17	99	37	-8	45
DIESEL HEATER	53	1	54	24	0	24
PROPANE HEATER	55	-1	56	25	0	25
PROPANE TANK FULL	49	-2	51	22	-1	23
FLOODLIGHTS	35	21	15	16	9	7
CARRIER						
HYDRAULIC FRONT STABILIZER						
TOW HOOK	665	671	-906	211	304	-93
AIR DRYER	26	-10	37	12	-5	17
	37	19	18	17	9	8

areas of operation

ON OUTRIGGERS



ON RUBBER



NOTE

THESE LINES DETERMINE ANY LIMITING POSITION OF ANY LOAD FOR OPERATION WITHIN NORMAL AREAS

LOAD RATINGS ON TIRES

With 8,000 lb. counterweight

LOAD RATINGS IN POUNDS					
OPERATING RADIUS FT.	11.00 X 20-14 PR TIRES 12.00 X 20-16 PR TIRES				OPERATING RADIUS FT.
	STATIONARY		TRAVEL RATINGS OVER REAR		
	OVER REAR	OVER SIDE	CREEP	2.5 MPH	
10	35200	25900	35200	28600	10
12	30500	22000	30500	25500	12
15	26100	15200	26100	22300	15
20	20900	8700	20900	17700	20
25	14800	5200	14800	14400	25
30	10700	3000			30
35	7900				35
40	5900				40
45	4300				45
50	3100				50

8,000 lb. counterweight with 7,525 lb. weight removed

LOAD RATINGS IN POUNDS					
OPERATING RADIUS FT.	11.00 X 20-14 PR TIRES 12.00 X 20-16 PR TIRES				OPERATING RADIUS FT.
	STATIONARY		TRAVEL RATINGS OVER REAR		
	OVER REAR	OVER SIDE	CREEP	2.5 MPH	
10	31200	20300	31200	26700	10
12	27200	14100	27200	23100	12
15	23500	8800	23500	19800	15
20	16500	4200	16500	15700	20
25	11100	1800	11100	11100	25
30	7700				30
35	5400				35
40	3700				40
45	2400				45
50	1400				50

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 65 FEET BOOM LENGTH WHEN LIFTING ON TIRES.
4. DO NOT ATTEMPT LIFTS ON TIRES WITH EXTENSION ERECTED.
5. MAXIMUM RECOMMENDED BOOM ANGLE ON TIRES IS 66° WITHOUT LOAD.

DEDUCTIONS TO BE MADE FROM LOAD RATINGS IN POUNDS					
DESCRIPTION		HOOK BLOCK ON POWERED BOOM POINT			
		8.5-20 TON	45-50 TON	8.5-20 TON WITH AUX SHEAVE	45-50 TON WITH AUX SHEAVE
HOOK BLOCK WEIGHT		580	950	740	1100
STOWED LATTICE EXT.	35 FT. BOOM EXTENSION	900	1300	1100	1450
	60 FT. TELESCOPIC BOOM EXTENSION	1100	1450	1250	1600
NOTE: LOAD DEDUCTIONS APPLY ONLY TO P&H SUPPLIED EQUIPMENT.					

INFORMATION:

1. DEDUCTIONS MUST BE MADE FROM RATED LOADS FOR STOWED LATTICE EXTENSION, OPTIONAL ATTACHMENTS, HOOKS AND HOOKBLOCKS. (SEE DEDUCTION 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.

DEFINITIONS:

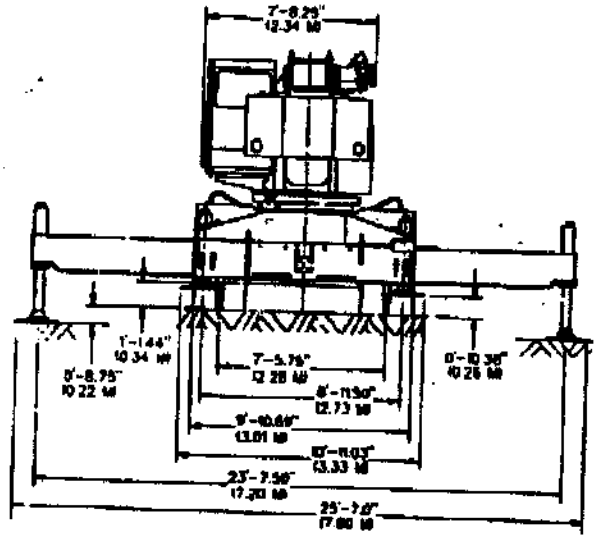
1. CREEP IS MOTION FOR LESS THAN 200 FT. IN A 30 MINUTE PERIOD AND NOT EXCEEDING 1 M.P.H.

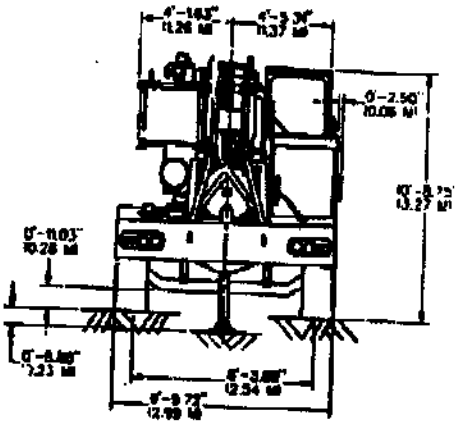
NOTES:

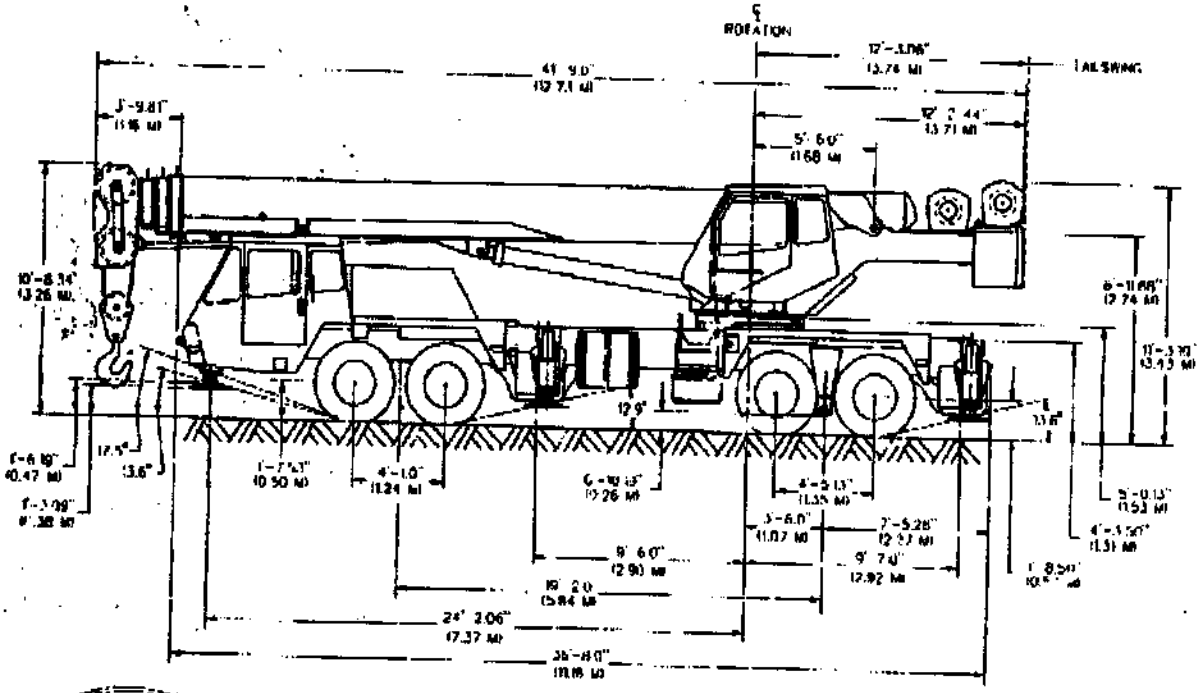
OPERATION OF THIS EQUIPMENT IN EXCESS OF RATED LOADS AND DISREGARD OF INSTRUCTIONS IS AN UNSAFE PRACTICE AND WILL RESULT IN DENIAL OF WARRANTY CLAIMS.

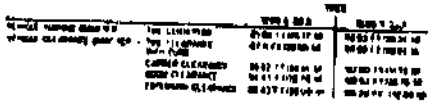
TIRE INFLATION			
SIZE	STATIC PSI	CREEP PSI	2.5 MPH PSI
11.00X20-14 PR	110	110	110
12.00X20-16 PR	115	115	115
15.0RX22.5-16PR	130	130	130
16.5RX22.5-16PR	125	125	125

DIMENSIONS









MORGAN/COLTON EQUIP. CO.
14480 ALONDRA BLVD.
LA MIRADA, CA. 90638
213-868-4754 - 714-521-6410