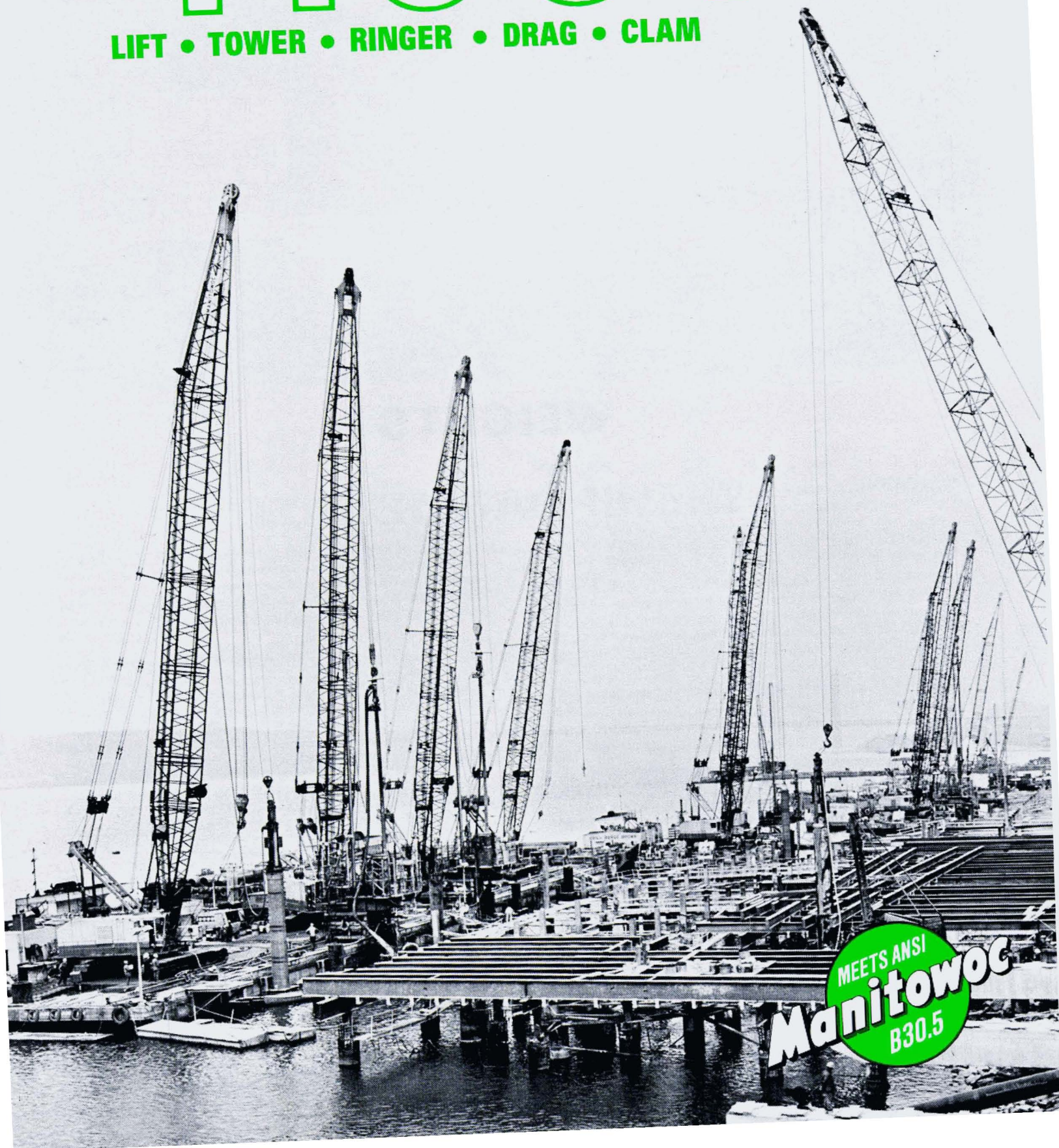




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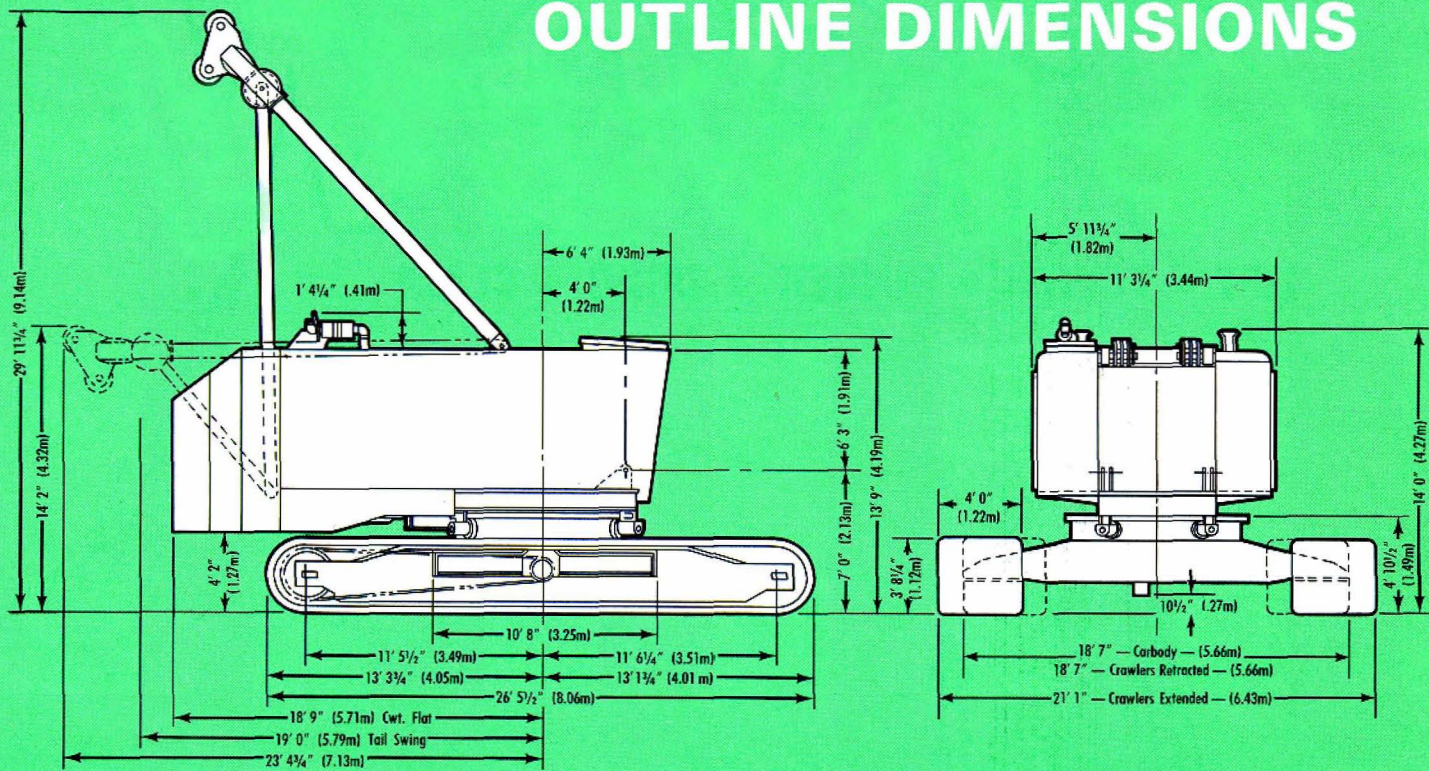
LIFT • TOWER • RINGER • DRAG • CLAM



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B30.5



OUTLINE DIMENSIONS



WEIGHTS

- POUNDS***
- LIFTCRANE**, complete with 70' No. 22A Boom, gantry and backhitch, boom hoist rigging and pendants, hoist wire rope, 15-ton swivel-type hook and weight ball, basic upperworks package, counterweights, 26' 6" long crawlers (48" wide treads), extendible width from 18' 7" to 21' 1", and outside crawler drive chains..... 356,660
 - CRAWLERS**, with crawler side frames, crawler treads, and outside crawler chains (each 36,400)... 72,800
 - CARBODY**, with center pin, roller path, and travel mechanism, without crawlers..... 49,500
 - UPPERWORKS**, complete with basic machinery, including drums, but not including gantry and backhitch, front end attachments or counterweights... 80,500
 - GANTRY AND BACKHITCH**..... 7,800

- POUNDS***
- SELF-REMOVING COUNTERWEIGHT (3-PC)**
 - Inner..... 41,900
 - Middle..... 41,500
 - Outer..... 39,000
 - BOOM NO. 22A**
 - BOOM BUTT:** (less wire rope and pendants).... 5,980
 - BOOM TOP:** (equipped with lower boom point, sheaves, and pendants)..... 9,760
 - Add for upper boom point and sheave..... 1,460
 - Total..... 11,220
 - BOOM INSERTS:**
 - Insert — 10' (with pendants)..... 2,000
 - Insert — 20' (with pendants)..... 3,100
 - Insert — 40' (with pendants)..... 5,340
 - DRAGLINE FAIRLEAD—REVOLVING TYPE.** 1,910
 - DRAGLINE FAIRLEAD—HINGED TYPE.** 7,420

**Weights are approximate and may vary between machines as a result of design changes and component variations.*

POWER PLANTS

	Model	Cylinder	Bore	Stroke	Cubic Inch Displacement	Net HP @ RPM (at flywheel)
BASIC	Cummins NTA-855 Diesel	6	5.500"	6.000"	855	333 @ 2000
OPTIONAL	G.M. 12V-71N Diesel	12	4.250"	5.000"	852	360 @ 2000
	Caterpillar D343-TA Diesel	6	5.400"	6.500"	893	364 @ 2000

Air Compressor: 37.5 CFM.

Fuel Tank Capacity: 315 gallons.



DRUMS AND LAGGINGS

TANDEM DRUM SHAFT								
Application	Drum	Diameter	Drum Width	Type of Lagging	Wire Rope Size	Spooling Capacity		
						First Layer	Layers	Maximum Capacity
LIFTCRANE Hoist Whip	Front	19"	37¼"	None	1½"	161'	7	1,505'
	Rear	27½"	37¼"	Plain	1½"	230'	3	745'
CLAMSHELL Closing Holding	Front	27"	37¼"	Grooved	1½"	225'		
	Rear	27"	37¼"	Grooved	1½"	225'		
DRAGLINE Drag Hoist	Front	24"	37¼"	Grooved	1¼"	164'		
	Rear	27"	37¼"	Grooved	1½"	225'		
OPTIONAL SPLIT REAR DRUM SHAFT WITH SINGLE FRONT DRUM SHAFT								
LIFTCRANE Hoist Whip Auxiliary	Front	19"	37¼"	None	1½"	161'	7	1,505'
	Left Rear	21"	*17¾"	Plain	1½"	83' (*76')	6	622' (*575')
	Right Rear	17½"	17¾"	None	1"	77'	8	847'
CLAMSHELL Closing Holding	Right Rear	27"	17¾"	Grooved	1½"	105'	3	340'
	Left Rear	27"	*17¾"	Grooved	1½"	105' (*97')	3	340' (*315')
DRAGLINE Drag Hoist	Front	24"	37¼"	Grooved	1¼"	164'	4	755'
	Right Rear	27"	17¾"	Grooved	1½"	105'	3	340'
*Drum width — 16⅞" with ratchet and pawl.						No. 6105, 11-20-72		
NOTE: Drum diameters are root diameters. For first layer pitch diameters, add diameter of wire rope.								

LOWER MACHINERY

CARBODY: One-piece, ribbed steel fabrication with integral side wings, permit crawlers to be extended or retracted without reducing bearing area between crawler side frames and carbody wings. Side wings rest on crawler side frames and transmit loads directly to them, eliminating axles and providing lower center of gravity.

RING GEAR AND ROLLER PATH: Cast alloy steel. Integral ring gear and roller path bolted to carbody with single row of high strength bolts. Internal gear teeth machine cut. Roller path 109" outside diameter with 8" face and 4" thick hook roller flange.

KING PIN: Machined from steel fabrication. Bolted to carbody with high strength bolts. Supports vertical travel shaft and provides pivot for rotating upperworks. Takes horizontal load only, no uplift. Pressure-lubricated bronze bearing in rotating bed.

TRAVEL SHAFTS: Travel power is transmitted from horizontal drive shaft in upperworks to horizontal travel shaft in carbody... through intermediate vertical travel shaft bronze bearing mounted in king pin. Horizontal travel shaft is bronze bearing mounted and enclosed in carbody. Ends extended by telescopic couplings provide for crawler extension and retraction. Totally enclosed bevel gear runs in oil; thrust taken by antifriction bearing.

TRAVEL AND STEERING: Accomplished by air controlled jaw clutches. Both are normally engaged for straight travel. Either clutch may be in neutral or locked position for gradual or sharp turns. Interlock keeps one jaw clutch engaged at all times.

TRAVEL LOCKS: Positive, air operated travel locks have dual ratchet and pawl permitting travel in one direction while preventing movement in opposite direction. Can be set to prevent travel in either direction. Travel lock pawls are spring cush-

ioned and engage external teeth on travel jaw clutch. Each pawl can be released separately by independent air control.

CRAWLER SIDE FRAMES: Steel fabrication with integral supports for attachment to carbody. Fourteen, 14" diameter double-flanged intermediate idler rollers mounted between side plates on 4¾" diameter shafts. Each roller supported by dual bronze bearings with center grease pocket. Abrasion resistant steel slide bars on top of frames support crawler pads.

CRAWLER FRONT IDLER: Double-flanged steel roller; large bronze bearing on each end and grease pocket in center. Mounted on 6¼" diameter stationary shaft supported at both ends in side frame. Tread belt adjusted by hydraulic jack and U-shaped shims which hold shaft in position.

CRAWLER SPROCKET AND TUMBLER: Cast steel, teeth and tumbler rim are flame-hardened. Driving torque transmitted through single-unit integral sprocket and tumbler with large bronze bearings on each end and center grease pocket. Mounted on 6¼" diameter stationary shaft supported at both ends in side frame. Self-cleaning tumbler has alternate sides open. Crawler chain adjusted by hydraulic jack and U-shaped shims which hold shaft in position.

CRAWLER DRIVE: Drive chains are located outside of crawler frame. Drive sprockets self-contained within crawler side frames are joined to horizontal drive shaft by telescoping coupling which allows crawlers to be extended, retracted or completely removed without separating drive chains or tread belts.

CRAWLER PADS: Cast alloy steel. Box section design with large central driving lug, internally ribbed for extra strength. Bottom edges tapered upward. Each pad connected by two high-carbon, wear resistant steel pins.



UPPER MACHINERY

ROTATING BED: One-piece, ribbed steel fabrication with integral machinery side frames forms a rigid deck for power plant, house rollers, rotating machinery, upper structure and boom hinge. Houses travel gear, swing gear, swing lock and boom hoist.

HOUSE ROLLERS: 6
4 Front antifriction bearing mounted.
2 Rear antifriction bearing mounted.

HOOK ROLLERS: 6 mounted on eccentric shaft for adjustment.
2 Front antifriction bearing mounted.
4 Rear antifriction bearing mounted.

UPPER STRUCTURE: Fabricated steel rear column, roof support and vertical center legs. Bar-type front legs. All joints pin-connected. Structure supports gantry, counterweight and rear drum.

POWER PLANTS: See bottom of page 2.

POWER TRANSMISSION, VICON®: The VICON (Variable Independent CONTROL—Patented) system provides a stepless variable control power transmission for various machine functions. Engine power is divided at transmission case to two controlled torque converters and hydraulic pump. Through chain drives, front converter powers horizontal travel shaft while the rear converter powers horizontal swing shaft. Hydraulic pump provides separate power for independent boom hoist hydraulic motor.

INDEPENDENT HORIZONTAL TRAVEL SHAFT: Alloy steel shaft, mounted on antifriction bearings. Single-disc clutches, mounted on cast steel hub splined to drive shaft. Clutches applied by axial-pressure, air actuated cam levers. Clutch pressure plates spring released. Cam faces separated by antifriction roller bearings which take axial thrust. Integral clutch spiders and bevel pinions ball bearing mounted. Bevel pinions totally enclosed and oil spray lubricated. These bevel pinions begin gear drive to horizontal travel shaft in carbody. Spur gear on this shaft also begins power source for main drum shafts.

INDEPENDENT HORIZONTAL SWING SHAFT: Located behind horizontal travel shaft. Alloy steel, mounted on antifriction bearings, except for bronze outboard bearing. Double-disc clutches applied by axial-pressure, air actuated cam levers. Clutch pressure plates, spring released. Cam faces separated by antifriction roller bearings which take axial thrust. Integral clutch spiders and bevel pinions antifriction bearing mounted. Bevel gears totally enclosed and run in oil. Bevel pinions drive intermediate vertical swing shaft.

INTERMEDIATE VERTICAL SWING SHAFT: Alloy steel, antifriction bearing mounted. Bevel gear splined to upper end; integral spur pinion on lower end of shaft. Transmits power from horizontal swing shaft to vertical swing shaft. Manually controlled swing brake mounted in center of shaft.

VERTICAL SWING SHAFT: Alloy steel, antifriction bearing mounted. Transmits power from intermediate vertical swing shaft to ring gear.

SWING LOCK: Gear segment engages swing gear by independent air control. Spring loaded lock provides cushioned operation.

FRONT AND REAR DRUM ASSEMBLIES: Heat treated, alloy steel drum shafts mounted on antifriction bearings. Drums antifriction bearing mounted on drum shafts. Cast iron combination clutch and brake flanges. Air applied, internal expanding, band type clutch mounted on right side. Dual, external contracting, band type brakes. Front drum gear driven from horizontal travel shaft. Rear drum chain driven from front drum shaft. Gears and chain totally enclosed and oil spray lubricated.

SPLIT REAR DRUM SHAFT: Optional. Two equal width drums on rear shaft, each with single clutch and brake. Clamshell and dragline capacities are reduced with this combination. Consult factory.

VICON® POWER LOWERING: Controlled power load lowering on both hoist drums for drum line pull in excess of 6,000 LBS is an integral part of the VICON control system. It enables raising, holding or lowering the load by means of stepless variable torque output of hoist converter. Hoist clutches remain in constant engagement, making transfer of load from clutch to brake unnecessary during normal job cycle.

FULL RANGE VICON POWER LOWERING: Optional. An engine driven hydraulic pump powers a hydraulic motor which drives output shaft of hoist controlled converter in a reverse direction of rotation. Provides power lowering (or reversing) for drum line pull less than 6,000 pounds. The hydraulic equipment permits a full range of lowering speeds from empty hook through maximum capacities.

INDEPENDENT BOOM HOIST: Dual drums, heat treated alloy steel drum shaft driven by bronze worm and gear through planetary gear reduction. Gears fully enclosed and run in oil. All rotating shafts antifriction bearing mounted. Boom hoist powered by variable displacement hydraulic motor providing full range speed control. Boom hoist brake, external contracting band type, spring applied, air released. Auxiliary brake, external contracting band type, manually applied from operator's station. Ratchet mounted to worm gear; pawl gravity engaged, air released. Ratchet and pawl mounted inside gear housing. Boom hoist mounted in rotating bed at rear of machine.

GANTRY AND BACKHITCH: Gantry is fabricated plate with parallel box section legs. Supported by A-frame center leg on large pins. Backhitch is three-piece, telescoping, link type construction, anchored to rear of rotating bed. Gantry and backhitch are pin-connected. Vertical backhitch sheaves antifriction bearing mounted. Horizontal sheaves bronze bearing mounted. Floating, vertical boom hoist rope sheaves bronze bearing mounted.

GANTRY LIFTING DEVICE: Electrically powered hydraulic unit used for partially raising gantry prior to erecting into working position. Also controls lowering of gantry into cab roof.

AUTOMATIC BOOM STOP: Push rod contacts boom actuating valve in air line, automatically stopping air supply to independent boom hoist hydraulic pump positioner. Set to stop hoisting when boom reaches maximum angle determined by style of boom used. Standard on liftcrane and liftcrane-excavator combinations.

TELESCOPIC BOOM STOP: Telescoping tube, air cushioned. Pinned to boom and A-frame. Starts cushioning at 79½° with positive physical stop at 88° from horizontal. Standard on liftcrane and liftcrane-excavator combinations.



FRONT END EQUIPMENT

NO. 22A BOOM: 70' boom (30' butt section and 40' open throat top section); optional 10', 20' and 40' inserts. All welded construction. Inverted angle chords and tubular lacing 100,000 PSI yield steel. Butt, top and inserts 95" wide x 95" deep at pin-connected joints. Each insert matched with two pair of 1 1/2" diameter single-length pendants. Lower boom point equipped with six 30" OD antifriction bearing mounted sheaves. Jib adapter available for No. 123 jib assembly. Maximum boom length 260'.

BOOM RIGGING: 12-part line, reeved between gantry and equalizer. Controls boom angle by dual lines from independent boom hoist drums which power boom up and down. Two pair of 1 1/2" diameter pendants connect equalizer to boom point. For longer booms, pendants matched to insert lengths.

EQUALIZER: Steel fabrication. Six vertical sheaves, antifriction bearing mounted.

WIRE ROPE GUIDE: Mounted on top side of boom. Two sheaves, bronze bearing mounted.

WIRE ROPE ROLLER GUIDE: Mounted on top side of boom. Induction hardened tubing. Antifriction bearing mounted.

UPPER BOOM POINT: Optional detachable assemblies. Pin-connected to open throat top. Single 36" OD sheave with rope guard for liftcrane. Single 36" OD sheave with cheek plate for dragline. Double 36" OD sheaves with cheek plate for clamshell. All sheaves antifriction bearing mounted.

No. 123 jib adapter cannot be used with detachable upper boom point assemblies on open throat and 4 1/2° offset boom tops.

4 1/2° OFFSET BOOM TOP: Optional. Permits greater clearance between load and boom. Standard No. 22A boom converted by adapter links at boom joint. Jib adapter available for No. 123 jib assembly. Basic length 70'; maximum length 260'. For capacity charts and information, consult factory.

HAMMERHEAD BOOM TOP: Optional. Permits lifting maximum capacity in areas with restricted overhead clearance. Standard No. 22A Boom converted by addition of 30' tapered insert and 10' hammerhead top. Top has lugs for attaching No. 123 jib assembly. Basic length 70'; maximum length 250'.

LIGHT TAPERED TOP: Optional. Permits longer reach with lighter loads. Standard No. 22A Boom converted by addition of 30' tapered insert (same as used for hammerhead) and 50' tapered top. Top has lugs for attaching No. 123 jib assembly. Basic boom length 110'; maximum boom length 280'.

NO. 123 JIB: Optional. 20-ton maximum capacity, 30' length, extendible to 60' with 10' inserts. Jib angle adjustable to 0, 10, and 20 degrees. All welded construction. Tubular chord and lacing members 100,000 PSI yield steel. 30" wide x 30" deep at pin-connected joints. Top section has 24" OD antifriction bearing sheave, cheek plates and anchor for two-part line.

Maximum capacities with inserts: 40' — 15 tons; 50' — 10 tons; 60' — 5 tons. Consult jib lifting capacity charts for specific capacity when used on various boom lengths.

REVOLVING FAIRLEAD: Furnished only on dragline equipped machines. Full revolving, antifriction bearing mounted in its support at front of rotating bed. All joints taper pin-connected for maximum rigidity. Two sheaves mounted on tapered shaft and sleeve for maximum stability. Shaft mounted on bronze bearings. Two large side guide rollers, case hardened and mounted on bronze bearings. Two end guide rollers. For boom lengths 70' through 100', the full revolving fairlead may be used; however, for 90' and 100' boom lengths, a rewrap may occur causing excessive wire rope wear. For continuous dragline service with boom lengths of 90' through 120', the extended hinged fairlead is recommended.

HINGED FAIRLEAD: Optional. Stationary fairlead frame mounted at front of rotating bed with tapered pins for maximum rigidity. Hinge lugs on frame move boom 66" ahead and 13" above normal boom hinge, providing greater spooling capacity on drag drum without rewrap of drag rope. Drag rope fully guided through antifriction bearing mounted hinged frame by guide sheaves and rollers. Sheaves extended for greater fleet angle on drag rope and mounted on tapered shaft for maximum stability; shafts antifriction bearing mounted.

TAGLINE: Furnished only on clamshell equipped machines. Three barrel, 30" drum. Mounted on boom.

GENERAL

CAB: Fully enclosed with operator's station located in right front corner. Tinted rubber mounted safety glass windows provide wide angle view. Sliding door to outside; sliding window to inside. Overhead window for high boom vision, protected by hinged grill and cover. Insulated door behind operator's seat isolates machinery noise. All controls conveniently arranged. Pull-out battery box compartment at lower right of cab. Sliding service door on left side and in cab roof; hinged service door at left front of cab. Power plant radiator shutter. Ladder to roof. Optional elevated cab available with controls in both cabs; forward of main cab, 26' 6" eye level above ground.

CONTROLS: Air-controlled travel locks, steering and swing

lock. Manually controlled main drum brakes, latched foot pedal operated. Graduated air controls for travel, swing, drum clutches and hydraulic boom hoist. Combination clutch and throttle controls for travel, swing and main drum clutches; first 10° movement of hand lever engages clutch; further movement increases controlled converter output torque permitting variable speed control of operation.

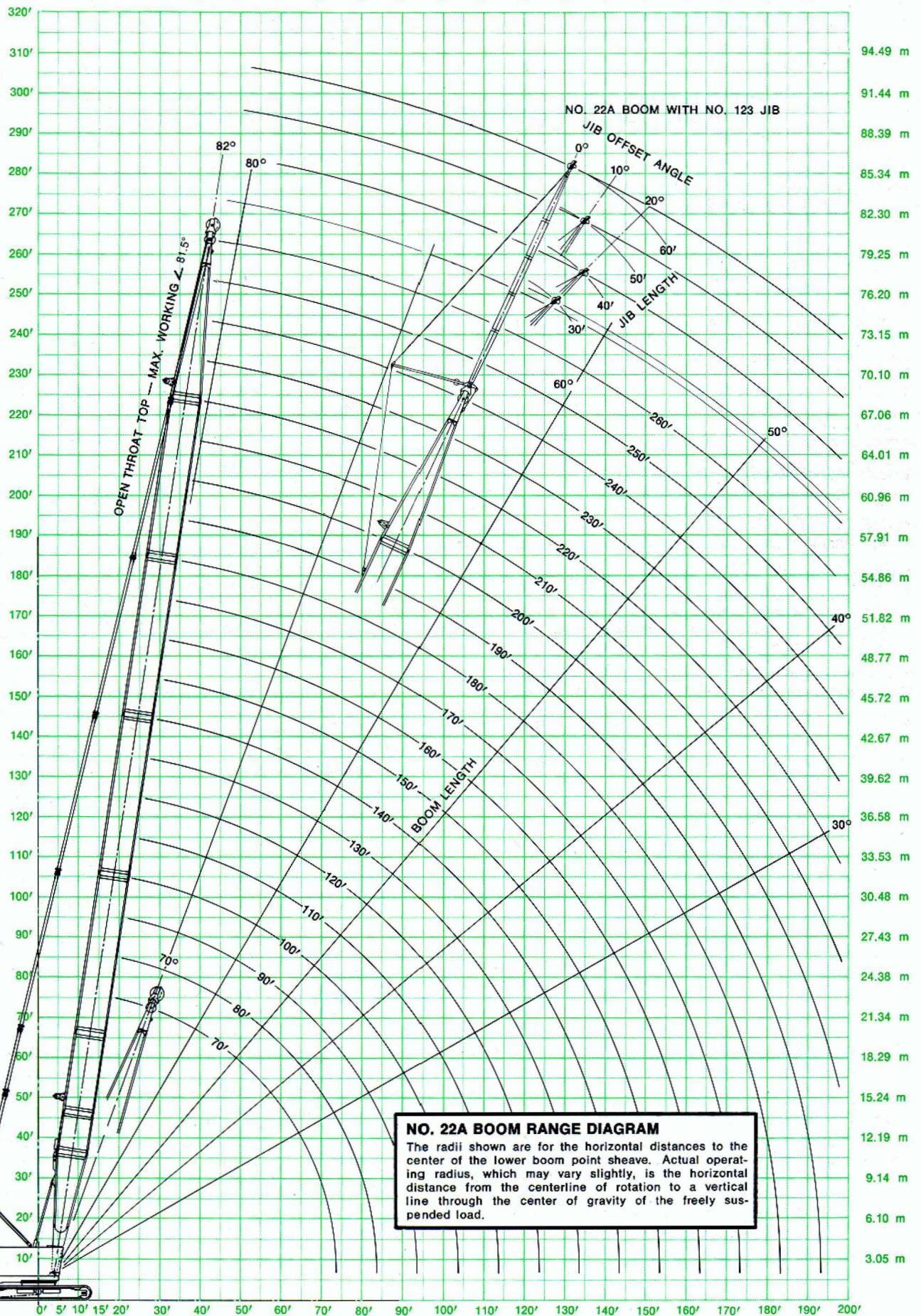
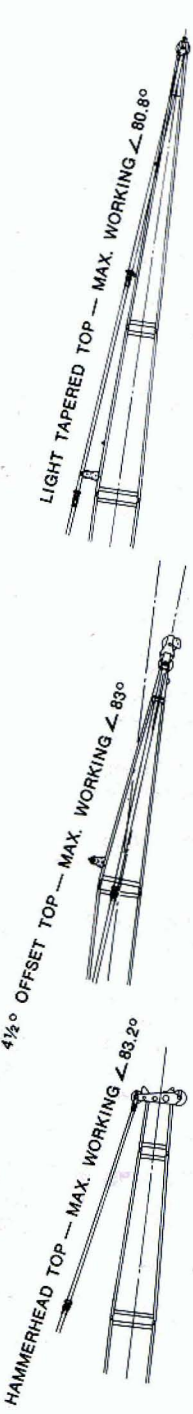
SWING SPEED: Variable, 4.00 RPM maximum.

TRAVEL SPEED: Variable, 1.33 MPH maximum.

GRADEABILITY: 30%.



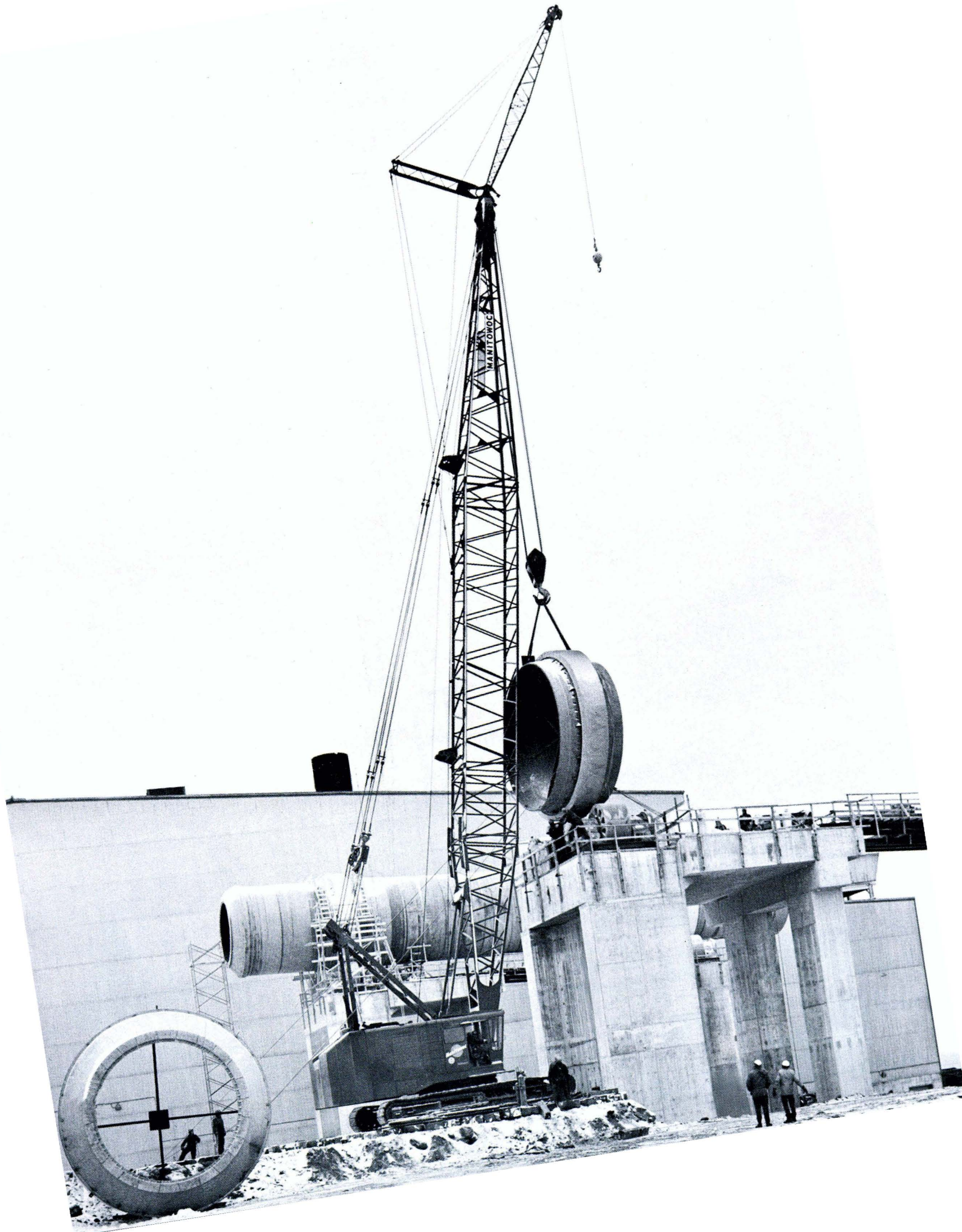
- 3.05 m
- 6.10 m
- 9.14 m
- 12.19 m
- 15.24 m
- 18.29 m
- 21.34 m
- 24.38 m
- 27.43 m
- 30.48 m
- 33.53 m
- 36.58 m
- 39.62 m
- 42.67 m
- 45.72 m
- 48.77 m
- 51.82 m
- 54.86 m
- 57.91 m



NO. 22A BOOM RANGE DIAGRAM
 The radii shown are for the horizontal distances to the center of the lower boom point sheave. Actual operating radius, which may vary slightly, is the horizontal distance from the centerline of rotation to a vertical line through the center of gravity of the freely suspended load.

Ⓢ ROTATION

OPERATING RADIUS



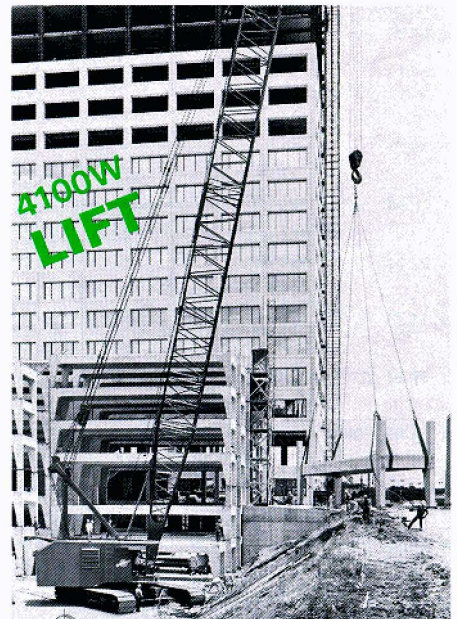
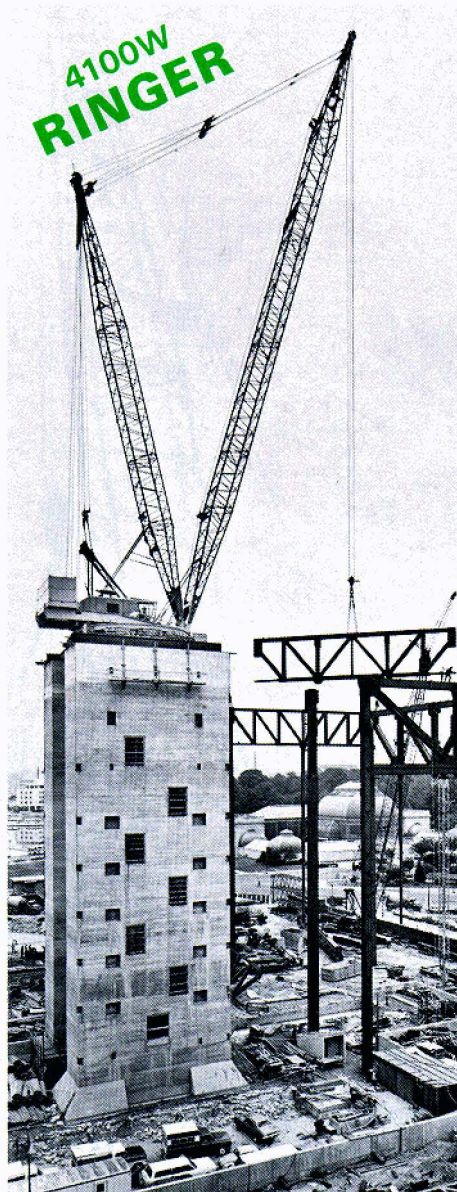
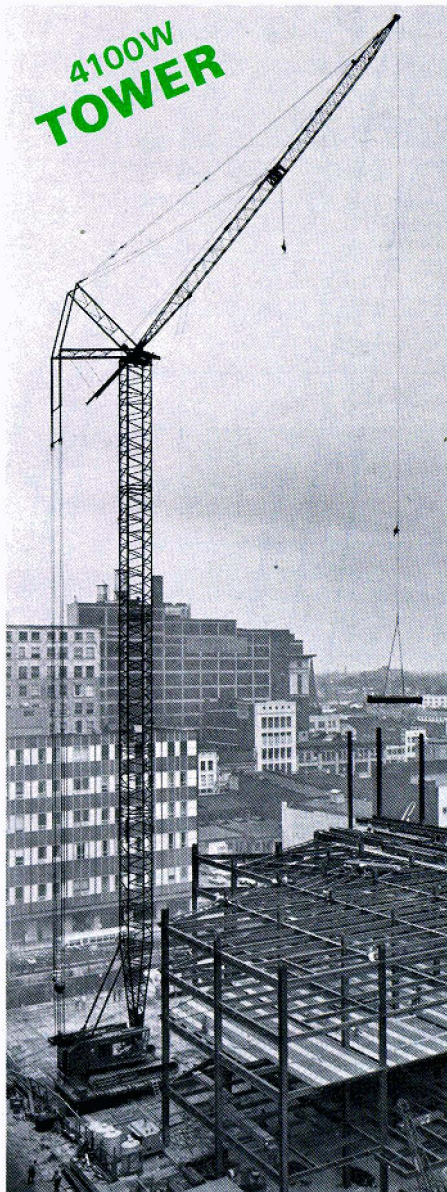


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MANITOWOC, WISCONSIN 54220



**...WORLD'S MOST
VERSATILE CRANES!**

**WEIGHTS** **4100W-S1 4100W-S2**

DESCRIPTION	APPROX. WEIGHT (IN LBS.)
LIFTCRANE - w/70' No. 22C boom, machine counterweight, universal gantry w/telescopic backhitch, 26'-6" crawlers w/48" treads, full width tandem drums, ind. swing, ind. boom hoist, Cummins NTA-855-C360 engine, 27-5/8" dia. lagging for rear drum, boom hoist rope, equalizer, telescopic air cushioned boom stop, 200 ton load block, 15 ton hook and weight ball, single sheave upper boom point, and upper wire rope guide.....	S1 363,795* S2 446,295*
UPPERWORKS - w/Cummins NTA-855-C360 engine, ind. boom hoist, ind. swing, and 27-5/8" dia. lagging for rear drum; LESS boom, gantry and backhitch, equalizer, load block, weight ball, counter weights, telescopic air cushioned boom stop, upper wire rope guide, and catwalk.....	80,500*
UPPERWORKS as above - w/gantry and backhitch, equalizer, boom hoist rope, and carbody; LESS crawlers.....	138,685*
CARBODY -w/roller path, ring gear, and king pin; LESS crawlers.....	49,700
CRAWLERS , 26'-6" w/48" treads.....	37,965 each
COUNTERWEIGHT	
Inner (Self-Removing).....	41,900
Middle (Self-Removing).....	41,500
Outer (Self-Removing).....	39,000
Side (2 Req'd).....	12,000 each
Carbody (2 Req'd).....	30,000 each
BOOM No. 22C	
Boom Butt - 30'	6,150
Boom Top - 40' (w/Lower boom point assembly).....	8,445
Upper Boom Point (Removable - single sheave).....	1,260
double sheave.....	1,505
Jib Adapter (Removable).....	545
Boom Insert - 10' (w/rope guide roller assembly).....	1,350
Boom Insert - 20' (w/rope guide roller assembly).....	2,435
Boom Insert - 40' (w/rope guide roller assembly).....	4,460
Boom Insert - 40' (w/jib backstay, and rope guide roller assembly).....	4,560
Basic Pendant - 40' 9-3/4" (4 Req'd).....	255 each
Pendant - 10' (4 per insert).....	115 each
Pendant - 20' (4 per insert).....	155 each
Pendant - 40' (4 per insert).....	215 each
Pendant Spreader Bar.....	320

*Weights do not include hoist line, whip line, or fuel. For CAT. D-343TA add 1,170 lbs., for CAT. 3406 PCTA add 100 lbs. and for CM 12 V-71N engines add 600 lbs.

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(Cont'd)

**WEIGHTS 4100W Cont'd**

DESCRIPTION	APPROX. WEIGHT (IN LBS.)
JIB NO. 123	
Jib Top - 15' (w/Jib point).....	695
Jib Butt - 15'.....	690
Jib Insert - 10'.....	340
Basic Pendant - 33' 3-3/4" (2 Req'd).....	115 each
Pendant - 10' (2 Per insert).....	65 each
Jib Backstay Pendant.....	155 each
Jib Stut - 12' - 6".....	365

COMPONENTS

Hook Rollers (6) - w/shafts.....	1,020
Light Plant - 6.5KW - w/mounting platform.....	1,390
Catwalk - left and right side w/rails.....	1,320
Lagging - 27-5/8" dia. plain.....	1,410
Boom Hoist Rope - 12 Part - 760' of 7/8" - 6 x 26.....	1,080
Wire Rope Guide Assembly - Lower.....	325
Wire Rope Guide Assembly - Upper.....	510
Rope Guide Roller Assembly.....	55 each
2-Part Gantry w/Telescopic Backhitch.....	7,805
Equalizer.....	2,000
Hoist Line - 1-1/8" - 6 x 31.....	2.34 lbs./ft.
Whip Line - 1-1/8" - 6 x 31.....	2.34 lbs./ft.
15 Ton Hook and Weight Ball.....	865
100 Ton Hook Block Assembly.....	2,065
200 Ton Hook Block Assembly.....	4,900
230 Ton Hook Block Assembly.....	5,375
Boom Stop - Telescopic Air Cushioned.....	675
Dragline Fairlead - Revolving.....	1,910
Dragline Fairlead - Hinged.....	9,330

NOTE: The above weights may fluctuate up or down 5% due to manufacturing tolerances.

LIFTCRANE CAPACITIES

MEETS ANSI B30.5 REQUIREMENTS

BOOM NO. 22C WITH OPEN THROAT TOP
146,400 LB. CRANE COUNTERWEIGHT
60,000 LB. CARBODY COUNTERWEIGHT
26'6" CRAWLERS EXTENDED

WARNING: This chart will apply only when two 12,000 lb. side ctwts. and two 30,000 lb. carbody ctwts. bear MEC registered Serial Numbers.

LIFTING CAPACITIES: Capacities for various boom lengths and operating radii may be based on percent of tipping, strength of structural components, operating speeds and other factors.

Capacities are for freely suspended loads and do not exceed 75% of a static tipping load. Capacities based on structural competence are shown by shaded areas.

Capacities are shown in pounds. Deduct 1200 pounds from capacities listed when single sheave upper boom point is attached and 1500 pounds when two sheave upper boom point is attached. To comply with B30.5 requirements, upper boom point cannot be used on the 260 ft. boom. Weight of jib, (see chart A), all load blocks, hooks, weight ball, slings, hoist lines beneath boom and jib point sheaves, etc., is considered part of the main boom load. Boom is not to be lowered beyond radii where combined weights are greater than rated capacity. Where no capacity is shown, operation is not intended or approved.

OPERATING CONDITIONS: Machine to operate in a level position on a firm surface with crawlers fully extended and gantry in working position and be rigged in accordance with and under conditions referred to in rigging drawing No. 190693 and load line specification chard No. 6592-A.

Crane operator judgement must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, as well as adverse operating conditions & physical machine depreciation.

OPERATOR RADIUS: Operating is the horizontal distance from the axis of rotation to the center of vertical hoist line or load block with the load freely suspended. Add 14" to boom point radius for radius of sheave when using single part hoist line.

Boom angle is the angle between horizontal and centerline of boom butt and inserts and is an indication of operating radius. In all cases, operating radius shall govern capacity.

BOOM POINT ELEVATION: Boom point elevation, in feet, is the vertical distance from ground level to centerline of boom point shaft.

MACHINE EQUIPMENT: Machine equipped with 26'6" extendible crawlers, 48" treads, 17' retractable gantry, 12 part boom hoist reeving, four 1 3/8" boom pendants, 1st ctwt. 41,900 lbs., 2nd ctwt. 41,500 lbs., 3rd ctwt. 39,000 lbs., two 12,000 lbs. side ctwt's. and two 30,000 lbs. carbody ctwt's.

LOAD AND WHIP LINE SPECIFICATIONS	
LOAD LINE: 1-1/8" - 6 x 31 Warrington-Seale, Extra Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 65 Ton. (Approx. Weight Per Ft. in Lbs. 2.34)	
WHIP LINE: 1-1/8" - Warrington-Seale, Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 56.5 Ton. Maximum Load - 28,300 Lbs. Per Line. (Approx. Weight Per Ft. in Lbs. 2.34)	

HOIST REEVEING FOR MAIN LOAD BLOCK						
No. Parts Of Line	1	2	3	4	5	6
Max. Load - Lbs.	32,500	65,000	97,500	130,000	162,500	195,000
No. Parts of Line	7	8	9	10	11	12
Max. Load - Lbs.	227,500	260,000	292,500	325,000	357,500	400,000
No. Parts of Line	13					
Max. Load - Lbs.	430,000					

MAXIMUM BOOM AND JIB LENGTHS LIFTED UNASSISTED				DEDUCT FROM CAPACITIES WHEN JIB IS ATTACHED	
OVERFRONT OF BLOCKED CRAWLERS		OVERSIDE OF EXTENDED CRAWLERS			
BOOM LENGTH	JIB NO. 123	BOOM LENGTH	JIB NO. 123	JIB LENGTH	JIB NO. 123
260'	--	260'	--	30'	3,000 lbs.
250'	--	250'	--	40'	3,600 lbs.
240'	40'	240'	40'	50'	4,200 lbs.
230'	60'	230'	60'	60'	4,900 lbs.

Load Block, hook and weight ball on ground at start.

FOR JIB CAPACITIES, CONSULT JIB CHART.

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
16.5	79.7	75.9	460,000	
17	79.3	75.8	400,000	
18	78.5	75.6	380,100	
19	77.6	75.4	363,000	
20	76.8	75.1	347,300	
70				
22	75.1	74.6	319,600	
24	73.4	74.1	293,400	
26	71.7	73.5	266,100	
28	69.9	72.8	237,500	
30	68.2	72.0	214,300	
80				
32	66.4	71.2	195,100	
34	64.6	70.2	178,900	
36	62.8	69.3	165,200	
38	60.9	68.2	153,300	
40	59.1	67.0	143,000	
90				
45	54.1	63.7	122,100	
50	48.9	59.8	106,300	
55	43.2	54.9	93,900	
60	36.9	49.0	84,000	
65	29.4	41.3	75,800	
70	19.5	30.3	63,900	

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
17	80.6	85.9	392,800	
18	79.9	85.8	378,900	
19	79.2	85.6	361,800	
20	78.5	85.4	346,100	
22	77.0	84.9	318,400	
80				
24	75.5	84.5	292,500	
26	74.0	83.9	265,600	
28	72.5	83.3	237,000	
30	71.0	82.7	213,800	
32	69.5	81.9	194,600	
90				
34	68.0	81.2	178,500	
36	66.4	80.3	164,700	
38	64.8	79.4	152,800	
40	63.3	78.4	142,400	
45	59.2	75.7	121,500	
100				
50	54.9	72.5	105,700	
55	50.4	68.6	93,300	
60	45.6	64.1	83,400	
65	40.3	58.8	75,200	
70	34.4	52.2	68,300	
110				
75	27.4	43.9	52,500	
80	18.2	32.0	53,900	

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
18	81.1	95.9	355,400	
19	80.4	95.7	346,900	
20	79.8	95.6	336,900	
22	78.5	95.2	317,400	
24	77.2	94.7	291,700	
90				
26	75.9	94.3	264,800	
28	74.5	93.7	236,600	
30	73.2	93.2	213,400	
32	71.9	92.5	194,200	
34	70.5	91.9	178,000	
100				
36	69.2	91.1	164,200	
38	67.8	90.3	152,300	
40	66.4	89.5	142,000	
45	62.9	87.1	121,100	
50	59.3	84.4	105,200	
110				
55	55.5	81.2	92,800	
60	51.5	77.4	82,900	
65	47.3	73.2	74,700	
70	42.8	68.2	67,800	
75	37.9	62.3	62,000	
120				
80	32.4	55.2	57,000	
85	25.8	46.2	52,600	
90	17.1	33.5	45,900	

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
19	81.4	105.9	332,900	
20	80.8	105.7	327,100	
22	79.6	105.4	316,200	
24	78.5	105.0	290,800	
26	77.3	104.5	263,900	
100				
28	76.1	104.1	236,200	
30	74.9	103.6	212,900	
32	73.7	103.0	193,700	
34	72.5	102.4	177,500	
36	71.3	101.7	163,700	
110				
38	70.1	101.0	151,800	
40	68.9	100.3	141,400	
45	65.8	98.7	120,500	
50	62.6	95.8	104,700	
55	59.3	93.0	92,300	
120				
60	55.9	89.8	82,300	
65	52.4	86.2	74,100	
70	48.7	82.1	67,200	
75	44.8	77.4	61,400	
80	40.5	72.0	56,400	
130				
85	35.9	65.6	52,000	
90	30.7	58.0	48,200	
95	24.5	48.5	44,900	
100	16.3	35.0	39,300	

CAUTION! CHECK AMOUNT OF COUNTERWEIGHT ON MACHINE BEFORE USE OF THIS CHART.

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LIFT CRANE CAPACITIES - 4100W SERIES 2
BOOM NO. 22C WITH OPEN THROAT TOP, CONTINUED.

SEE CONDITIONS ON FRONT PAGE

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
2	38	81.5	234.5	132,900
	40	81.0	234.2	125,200
	45	79.7	233.3	114,500
	50	78.5	232.4	98,600
	55	77.2	231.3	86,100
3	60	75.9	230.1	76,100
	65	74.6	228.8	67,800
	70	73.3	227.3	60,900
	75	72.0	225.8	55,000
	80	70.7	224.1	50,000
0	85	69.4	222.3	45,600
	90	68.0	220.3	41,700
	95	66.7	218.2	38,400
	100	65.3	216.0	35,300
	105	64.0	213.6	32,600
3	110	62.6	211.1	30,200
	115	61.1	208.4	28,000
	120	59.7	205.6	26,000
	125	58.3	202.6	24,100
	130	56.8	199.4	22,400
4	135	55.3	196.0	20,900
	140	53.8	192.5	19,400
	145	52.2	188.7	18,100
	150	50.6	184.7	16,900
	155	49.0	180.5	15,700
0	160	47.3	176.0	14,700
	165	45.6	171.3	13,600
	170	43.8	166.2	12,700
	175	42.0	160.8	11,800
	180	40.1	155.1	11,000
5	185	38.1	148.9	10,200
	190	36.0	142.3	9,400
	195	33.9	135.1	8,700
	200	31.6	127.3	8,100
	205	29.1	118.8	7,400
210	26.4	109.3	6,800	
2	40	81.4	244.3	123,400
	45	80.2	243.5	112,600
	50	78.9	242.6	98,100
	55	77.7	241.5	85,600
	60	76.5	240.4	75,600
3	65	75.3	239.1	67,300
	70	74.0	237.7	60,400
	75	72.8	236.3	54,500
	80	71.5	234.6	49,500
	85	70.3	232.9	45,100
0	90	69.0	231.1	41,200
	95	67.7	229.1	37,800
	100	66.4	227.0	34,800
	105	65.1	224.7	32,100
	110	63.8	222.3	29,700
4	115	62.5	219.8	27,400
	120	61.1	217.1	25,400
	125	59.7	214.3	23,600
	130	58.3	211.3	21,900
	135	56.9	208.1	20,300
0	140	55.5	204.7	18,900
	145	54.0	201.2	17,600
	150	52.5	197.5	16,300
	155	51.0	193.5	15,200
	160	49.5	189.4	14,100
5	165	47.9	185.0	13,100
	170	46.2	180.3	12,200
	175	44.6	175.4	11,300
	180	42.8	170.2	10,400
	185	41.0	164.6	9,600
6	190	39.2	158.7	8,900
	195	37.3	152.3	8,200
	200	35.2	145.5	7,500
	205	33.1	138.1	6,700
	210	30.9	130.1	6,000

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
2	45	80.6	253.6	106,600
	50	79.4	252.7	97,800
	55	78.2	251.7	85,200
	60	77.1	250.6	75,200
	65	75.9	249.4	66,900
3	70	74.7	248.1	60,000
	75	73.5	246.7	54,100
	80	72.3	245.2	49,100
	85	71.1	243.5	44,700
	90	69.9	241.7	40,800
0	95	68.7	239.8	37,400
	100	67.4	237.8	34,400
	105	66.2	235.7	31,700
	110	64.9	233.4	29,300
	115	63.6	231.0	27,100
5	120	62.4	228.5	25,000
	125	61.1	225.8	23,200
	130	59.7	222.9	21,500
	135	58.4	219.9	20,000
	140	57.0	216.8	18,500
6	145	55.7	213.4	17,200
	150	54.3	209.9	16,000
	155	52.8	206.2	14,800
	160	51.4	202.4	13,700
	165	49.9	198.3	12,700
0	170	48.4	193.9	11,800
	175	46.8	189.4	10,900
	180	45.3	184.5	10,100
	185	43.6	179.4	9,300
	190	41.9	174.0	8,500
2	195	40.2	168.3	7,800
	200	38.4	162.2	7,000
	205	36.5	155.7	6,200
	210	34.5	148.6	5,500
	3	45	80.9	263.7
50		79.8	262.9	95,700
55		78.7	261.9	84,700
60		77.6	260.9	74,700
65		76.4	259.7	66,400
0	70	75.3	258.5	59,500
	75	74.2	257.1	53,600
	80	73.0	255.6	48,500
	85	71.8	254.1	44,100
	90	70.7	252.4	40,300
4	95	69.5	250.6	36,900
	100	68.3	248.6	33,900
	105	67.1	246.6	31,100
	110	65.9	244.4	28,700
	115	64.7	242.1	26,500
6	120	63.5	239.7	24,500
	125	62.3	237.1	22,600
	130	61.0	234.4	20,900
	135	59.7	231.6	19,400
	140	58.5	228.6	17,900
0	145	57.2	225.4	16,600
	150	55.8	222.1	15,400
	155	54.5	218.7	14,200
	160	53.1	215.0	13,100
	165	51.7	211.2	12,100
2	170	50.3	207.1	11,200
	175	48.9	202.9	10,300
	180	47.4	198.4	9,500
	185	45.9	193.7	8,700
	190	44.3	188.7	7,900
3	195	42.7	183.4	7,000
	200	41.1	177.8	6,200
	205	39.4	171.9	5,400
	210	37.6	165.6	4,700

LIFTCRANE CAPACITIES

MEETS ANSI B30.5 REQUIREMENTS

BOOM NO. 22C WITH OPEN THROAT TOP OFFSET 4 1/2 DEGREES
 146,400 LB. CRANE COUNTERWEIGHT
 60,000 LB. CARBODY COUNTERWEIGHT
 26'6" CRAWLERS EXTENDED

WARNING: This chart will apply only when two 12,000 lb. side ctwts. and two 30,000 lb. carbody ctwts. bear MEC registered Serial Numbers.

LIFTING CAPACITIES: Capacities for various boom lengths and operating radii may be based on percent of tipping, strength of structural components, operating speeds and other factors.

Capacities are for freely suspended loads and do not exceed 75% of a static tipping load. Capacities based on structural competence are shown by shaded areas.

Capacities are shown in pounds. Deduct 1200 pounds from capacities listed when single sheave upper boom point is attached and 1500 pounds when two sheave upper boom point is attached. To comply with B30.5 requirements, upper boom point cannot be used on the 260 ft. boom. Weight of jib, (see chart A), all load blocks, hooks, weight ball, slings, hoist lines beneath boom and jib point sheaves, etc., is considered part of the main boom load. Boom is not to be lowered beyond radii where combined weights are greater than rated capacity. Where no capacity is shown, operation is not intended or approved.

OPERATING CONDITIONS: Machine to operate in a level position on a firm surface with crawlers fully extended and gantry in working position and be rigged in accordance with and under conditions referred to in rigging drawing No. 190693 and load line specification chard No. 6592-A.

HOIST REEVING FOR MAIN LOAD BLOCK						
No. Pats. Off Line	1	2	3	4	5	6
Max. Load - Lbs.	32,500	65,000	97,500	130,000	162,500	195,000
No. Parts of Line	7	8	9	10	11	12
Max. Load - Lbs.	227,500	260,000	292,500	325,000	357,500	400,000
No. Parts of Line	13					
Max. Load - Lbs.	430,000					

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
16.5	82.4	76.1		420,000
17	82.0	76.0		398,900
18	81.2	75.8		380,100
19	80.3	75.6		363,000
20	79.5	75.4		347,300
70				
22	77.8	74.9		319,600
24	76.1	74.3		293,400
26	74.4	73.7		266,100
28	72.7	73.0		237,500
30	71.0	72.3		214,300
80				
32	69.2	71.4		195,100
34	67.4	70.5		178,900
36	65.6	69.5		165,200
38	63.7	68.5		153,300
40	61.8	67.3		143,000
90				
45	57.0	64.0		122,100
50	51.8	60.1		106,300
55	46.1	55.3		93,900
60	39.8	49.4		84,000
65	32.4	41.8		75,800
70	22.7	31.0		63,900

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
17	83.0	86.2		315,400
18	82.3	86.0		309,400
19	81.6	85.8		303,600
20	80.8	85.6		298,200
22	79.4	85.2		286,000
80				
24	77.9	84.7		278,700
26	76.4	84.2		265,600
28	74.9	83.6		257,000
30	73.4	82.9		243,800
32	71.9	82.2		229,600
90				
34	70.4	81.4		178,500
36	68.8	80.6		164,700
38	67.3	79.7		152,800
40	65.7	78.7		142,400
45	61.6	76.0		121,500
100				
50	57.4	72.7		105,700
55	52.9	68.9		93,300
60	48.1	64.5		83,400
65	42.9	59.1		75,200
70	37.0	52.6		68,300
110				
75	30.1	44.4		62,500
80	21.0	32.7		53,900

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
19	82.5	96.0		276,700
20	81.9	95.8		271,500
22	80.6	95.4		261,300
24	79.3	95.0		252,900
26	78.0	94.5		244,800
90				
28	76.7	94.0		236,600
30	75.3	93.4		213,400
32	74.0	92.8		194,200
34	72.7	92.1		178,000
36	71.3	91.4		164,200
100				
38	69.9	90.6		152,300
40	68.6	89.7		142,000
45	65.1	87.4		121,100
50	61.4	84.6		105,200
55	57.7	81.4		92,800
110				
60	53.7	77.7		82,900
65	49.5	73.5		74,700
70	45.1	68.5		67,800
75	40.2	62.7		62,000
80	34.7	55.6		57,000
120				
85	28.2	46.7		52,600
90	19.7	34.3		49,900

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
20	82.7	105.9		258,300
22	81.5	105.6		248,700
24	80.4	105.2		240,100
26	79.2	104.8		232,100
28	78.0	104.3		224,800
100				
30	76.8	103.8		212,900
32	75.7	103.2		193,700
34	74.5	102.6		177,500
36	73.3	102.0		163,700
38	72.0	101.3		151,800
110				
40	70.8	100.5		141,400
45	67.7	98.5		120,500
50	64.6	96.0		104,700
55	61.3	93.3		92,300
60	57.9	90.1		82,300
120				
65	54.4	86.5		74,100
70	50.7	82.4		67,200
75	46.8	77.7		61,400
80	42.6	72.3		56,400
85	38.0	66.0		52,000
130				
90	32.8	58.5		48,200
95	26.6	49.0		44,900
100	18.6	35.8		39,300

Crane operator judgement must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, as well as adverse operating conditions & physical machine depreciation.

OPERATOR RADIUS: Operating is the horizontal distance from the axis of rotation to the center of vertical hoist line or load block with the load freely suspended. Add 14" to boom point radius for radius of sheave when using single part hoist line.

Boom angle is the angle between horizontal and centerline of boom butt and inserts and is an indication of operating radius. In all cases, operating radius shall govern capacity.

BOOM POINT ELEVATION: Boom point elevation, in feet, is the vertical distance from ground level to centerline of boom point shaft.

MACHINE EQUIPMENT: Machine equipped with 26'6" extendible crawlers, 48" treads, 17' retractable gantry, 12 part boom hoist reeving, four 1 3/8" boom pendants, 1st ctwt. 41,900 lbs., 2nd ctwt. 41,500 lbs., 3rd ctwt. 39,000 lbs., two 12,000 lbs. side ctwt's. and two 30,000 lbs. carbody ctwt's.

LOAD AND WHIPLINE SPECIFICATIONS					
LOADLINE: 1-1/8" - 6 x 31 Warrington-Seale, Extra Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 65 Ton. (Approx. Weight Per Ft. in Lbs. 2.34)					
WHIPLINE: 1-1/8" - Warrington-Seale, Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 56.5 Ton. Maximum Load - 28,300 Lbs. Per Line. (Approx. Weight Per Ft. in Lbs. 2.34)					

MAXIMUM BOOM AND JIB LENGTHS LIFTED UNASSISTED				DEDUCT FROM CAPACITIES WHEN JIB IS ATTACHED	
OVERFRONT OF BLOCKED CRAWLERS		OVERSIDE OF EXTENDED CRAWLERS		JIB LENGTH	JIB NO. 123
BOOM LENGTH	JIB NO. 123	BOOM LENGTH	JIB NO. 123	JIB LENGTH	JIB NO. 123
260'	--	260'	--	30'	3,000 lbs.
250'	--	250'	--	40'	3,600 lbs.
240'	40'	240'	40'	50'	4,200 lbs.
230'	60'	230'	60'	60'	4,900 lbs.

Load Block, hook and weight ball on ground at start.

FOR JIB CAPACITIES, CONSULT JIB CHART.

CAUTION! CHECK AMOUNT OF COUNTERWEIGHT ON MACHINE BEFORE USE OF THIS CHART.

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LIFT CRANE CAPACITIES - 4100W SERIES 2

BOOM NO. 22C WITH OPEN THROAT TOP OFFSET 4 1/2 DEGREES, CONTINUED

SEE CONDITIONS ON FRONT PAGE

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
2	38	82.3	234.7	119,600
	40	81.8	234.4	117,100
	45	80.6	233.5	111,200
	50	79.3	232.5	98,600
	55	78.0	231.5	86,100
3	60	76.7	230.3	76,100
	65	75.4	229.0	67,800
	70	74.2	227.5	60,900
	75	72.9	226.0	55,000
	80	71.5	224.3	50,000
0	85	70.2	222.5	45,600
	90	68.9	220.5	41,700
	95	67.5	218.4	38,400
	100	66.2	216.2	35,300
	105	64.8	213.8	32,600
3	110	63.4	211.3	30,200
	115	62.0	208.7	28,000
	120	60.6	205.8	26,000
	125	59.1	202.8	24,100
	130	57.6	199.6	22,400
4	135	56.1	196.3	20,900
	140	54.6	192.7	19,400
	145	53.0	189.0	18,100
	150	51.5	185.0	16,900
	155	49.8	180.7	15,700
5	160	48.2	176.3	14,700
	165	46.4	171.5	13,600
	170	44.7	166.5	12,700
	175	42.8	161.1	11,800
	180	40.9	155.4	11,000
6	185	39.0	149.2	10,200
	190	36.9	142.6	9,400
	195	34.7	135.5	8,700
	200	32.4	127.7	8,100
	205	30.0	119.2	7,400
210	27.3	109.7	6,800	
2	40	82.2	244.5	111,700
	45	81.0	243.7	106,300
	50	79.7	242.7	98,100
	55	78.5	241.7	85,600
	60	77.3	240.6	75,600
3	65	76.1	239.3	67,300
	70	74.8	237.9	60,400
	75	73.6	236.5	54,500
	80	72.3	234.8	49,500
	85	71.1	233.1	45,100
4	90	69.8	231.3	41,200
	95	68.5	229.3	37,800
	100	67.2	227.2	34,800
	105	65.9	224.9	32,100
	110	64.6	222.5	29,700
5	115	63.3	220.0	27,400
	120	61.9	217.3	25,400
	125	60.5	214.5	23,600
	130	59.1	211.5	21,900
	135	57.7	208.3	20,300
6	140	56.3	205.0	18,900
	145	54.8	201.4	17,600
	150	53.3	197.7	16,300
	155	51.8	193.8	15,200
	160	50.3	189.6	14,100
7	165	48.7	185.2	13,100
	170	47.1	180.6	12,200
	175	45.4	175.7	11,300
	180	43.7	170.4	10,400
	185	41.9	164.9	9,600
8	190	40.0	159.0	8,900
	195	38.1	152.6	8,200
	200	36.1	145.8	7,500
	205	34.0	138.5	6,700
	210	31.7	130.5	6,000

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
2	45	81.3	253.8	101,500
	50	80.2	252.9	96,900
	55	79.0	251.9	85,200
	60	77.8	250.8	75,200
	65	76.6	249.6	66,900
3	70	75.5	248.3	60,000
	75	74.3	246.9	54,100
	80	73.1	245.4	49,100
	85	71.9	243.7	44,700
	90	70.6	241.9	40,800
4	95	69.4	240.1	37,400
	100	68.2	238.0	34,400
	105	66.9	235.9	31,700
	110	65.7	233.6	29,300
	115	64.4	231.2	27,100
5	120	63.1	228.7	25,000
	125	61.8	226.0	23,200
	130	60.5	223.1	21,500
	135	59.2	220.2	20,000
	140	57.8	217.0	18,500
6	145	56.4	213.7	17,200
	150	55.1	210.2	16,000
	155	53.6	206.5	14,800
	160	52.2	202.6	13,700
	165	50.7	198.5	12,700
7	170	49.2	194.2	11,800
	175	47.6	189.6	10,900
	180	46.0	184.8	10,100
	185	44.4	179.7	9,300
	190	42.7	174.3	8,500
8	195	41.0	168.6	7,800
	200	39.2	162.5	7,000
	205	37.3	156.0	6,200
	210	35.3	149.0	5,500
	2	45	81.7	263.9
50		80.5	263.1	92,300
55		79.4	262.1	84,700
60		78.3	261.1	74,700
65		77.2	259.9	66,400
3	70	76.0	258.7	59,500
	75	74.9	257.3	53,600
	80	73.7	255.8	48,500
	85	72.6	254.3	44,100
	90	71.4	252.6	40,300
4	95	70.3	250.8	36,900
	100	69.1	248.8	33,900
	105	67.9	246.8	31,100
	110	66.7	244.6	28,700
	115	65.5	242.3	26,500
5	120	64.2	239.9	24,500
	125	63.0	237.3	22,600
	130	61.8	234.6	20,900
	135	60.5	231.8	19,400
	140	59.2	228.8	17,900
6	145	57.9	225.7	16,600
	150	56.6	222.4	15,400
	155	55.2	218.9	14,200
	160	53.9	215.2	13,100
	165	52.5	211.4	12,100
7	170	51.1	207.4	11,200
	175	49.6	203.1	10,300
	180	48.2	198.6	9,500
	185	46.6	193.9	8,700
	190	45.1	188.9	7,900
8	195	43.5	183.7	7,000
	200	41.8	178.1	6,200
	205	40.1	172.2	5,400
	210	38.4	165.9	4,700



Manitowoc 4100W

JIB LIFTING CAPACITIES

4100W

JIB NO. 123 WITH 12' 6" STRUT ON BOOM NO. 22C WITH OPEN THROAT TOP 26' 6" CRAWLERS EXTENDED

Meets ANSI B30.5 Requirements SERIES 2

0 DEGREE JIB OFFSET ANGLE

Chart supplement boom capacity chart No. 6924-A. Capacities are for freely suspended loads based on tipping, strength of structural components or other factors. Crane operator judgement must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, as well as adverse operating conditions and physical machine depreciation.

by shaded areas. Operating radius is the horizontal distance from axis of rotation to the center of vertical hoist line or load block. Weight of all load blocks, weight ball, slings, hoist lines beneath boom and jib point sheaves, etc., including those on the main boom is considered part of the jib load. Boom and jib load are not to be lowered beyond radii where combined weights are greater than rated capacity. Maximum capacity on 1^{1/2} inch - 6 x 31 IPS, IWRC is 28,300 lbs./line.

Capacities do not exceed 75% of a static tipping load with machine on firm level surface. Capacities based on structural competence are denoted

	JIB POINT RADIUS FEET	CAPACITIES IN POUNDS BOOMLENGTH - FEET													JIB POINT RADIUS FEET	
		110	120	130	140	150	160	170	180	190	200	210	220	230		240
30 FOOT JIB	90+	40000	40000	40000	40000	40000	40000	40000	40000	40000	40000	40000	40000	40000	40000	90+
	95	40000	40000	40000	40000	40000	40000	40000	40000	40000	39500	39100	38600	38000	37500	95
	100	40000	40000	40000	39800	39200	38600	38200	37600	37100	36500	36100	35500	35000	34400	100
	105	38700	38100	37700	37000	36500	35800	35500	34900	34300	33700	33300	32800	32200	31700	105
	110	36300	35600	35200	34600	34000	33400	33000	32400	31900	31300	30900	30300	29800	29200	110
	115	34100	33400	33000	32400	31800	31200	30800	30200	29600	29000	28600	28100	27500	27000	115
	120	32100	31400	31000	30300	29800	29100	28800	28200	27600	27000	26600	26000	25500	25000	120
	130		27900	27400	26800	26200	25600	25200	24600	24100	23500	23100	22500	21900	21400	130
	140			24400	23800	23200	22600	22200	21600	21000	20400	20000	19400	18900	18400	140
	150				21200	20600	20000	19600	19000	18500	17800	17400	16900	16300	15800	150
	160					18400	17800	17400	16800	16200	15600	15200	14600	14100	13500	160
170							15400	14800	14200	13600	13200	12600	12100	11500	170	
180								13100	12500	11900	11500	10900	10300	9800	180	
190									11000	10300	9900	9300	8800	8200	190	
200										8900	8600	8000	7400	6600	200	
210											7300	6600	5800	5100	210	
40 FOOT JIB	105+	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	105+
	110	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	29600	110
	115	30000	30000	30000	30000	30000	30000	30000	30000	30000	29400	29000	28400	27900	27300	115
	120	29600	30000	30000	30000	30000	29500	29100	28500	28000	27400	27000	26400	25800	25300	120
	125	28400	29900	29500	28800	28300	27600	27300	26700	26100	25500	25100	24500	24000	23400	125
	130	27300	28200	27800	27100	26600	25900	25600	25000	24400	23800	23400	22800	22300	21700	130
	140		25200	24800	24100	23600	22900	22500	21900	21400	20800	20400	19800	19200	18700	140
	150			22200	21500	21000	20300	20000	19300	18800	18200	17800	17200	16600	16100	150
	160				19300	18700	18100	17700	17100	16500	15900	15500	14900	14400	13800	160
	170					16100	15700	15100	14600	13900	13500	12900	12400	11800	11800	170
	180						14000	13400	12800	12200	11800	11200	10600	10100	9500	180
190							11800	11300	10600	10200	9600	9100	8500	8500	190	
200								9900	9300	8900	8300	7700	7000	7000	200	
210									8000	7600	7000	6200	5400	5400	210	
50 FOOT JIB	135+	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	135+	
	140	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	140
	145		20000	20000	20000	20000	20000	20000	20000	20000	19600	19200	18600	18100	145	
	150		20000	20000	20000	20000	20000	20000	20000	19600	19000	18400	18000	17400	16800	150
	155			20000	20000	20000	19400	19000	18400	17800	17200	16800	16200	15700	155	
	160			20000	19500	19000	18300	17900	17300	16800	16100	15700	15100	14600	160	
	170				17600	17000	16400	16000	15300	14800	14200	13800	13200	12600	170	
	180					14600	14200	13600	13000	12400	12000	11400	10900	10900	180	
	190							12700	12100	11500	10900	10500	9900	9300	190	
	200								10700	10100	9500	9100	8500	7900	200	
	210									8900	8200	7800	7200	6500	210	
220										7100	6700	5900	5100	220		
60 FOOT JIB	150+	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	150+	
	155		10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	155
	160		10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	160
	170			10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	170
	180				10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	180
	190					10000	10000	10000	10000	10000	10000	10000	10000	10000	9400	190
	200						10000	10000	10000	10000	10000	10000	10000	9600	8000	200
	210							9600	9000	8400	8000	7400	6800	6200	6700	210
	220									7900	7300	6800	6100	5300	5300	220
	230										6200	5600	4800	4000	4000	230

These load charts are intended for instructional purposes only. They were derived from manufacturer sales information which may not be complete or machine specific. Not responsible for typographical errors.



Manitowoc 4100W

JIB LIFTING CAPACITIES

4100W

JIB NO. 123 WITH 12' 6" STRUT ON BOOM NO. 22C WITH OPEN THROAT TOP 26' 6" CRAWLERS EXTENDED

Meets ANSI B30.5 Requirements SERIES 2

10 DEGREE JIB OFFSET ANGLE

Chart supplement boom capacity chart No. 6934-A. Capacities are for freely suspended loads based on tipping, strength of structural components or other factors. Crane operator judgement must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, as well as adverse operating conditions and physical machine depreciation.

by shaded areas. Operating radius is the horizontal distance from axis of rotation to the center of vertical hoist line or load block. Weight of all load blocks, weight ball, slings, hoist lines beneath boom and jib point sheaves, etc., including those on the main boom is considered part of the jib load. Boom and jib load are not to be lowered beyond radii where combined weights are greater than rated capacity. Maximum capacity on 1st inch - 6 x 31 IPS. IWRC is 28,300 lbs./line.

Capacities do not exceed 75% of a static tipping load with machine on firm level surface. Capacities based on structural competence are denoted

	JIB POINT RADIUS FEET	CAPACITIES IN POUNDS BOOM LENGTH - FEET														JIB POINT RADIUS FEET
		110	120	130	140	150	160	170	180	190	200	210	220	230	240	
30 FOOT JIB	90+	40000	40000	40000	40000	40000	40000	40000	40000	40000	40000	40000	40000	40000	40000	90+
	95	40000	40000	40000	40000	40000	40000	40000	40000	40000	39900	39500	38900	38400	37900	95
	100	38600	40000	40000	40000	39800	39200	38900	38300	37800	37200	36900	36300	35800	35400	100
	105	37200	38500	38100	37500	37000	36400	36100	35500	35000	34500	34100	33600	33100	32600	105
	110	36900	36000	35600	35000	34500	33900	33600	33000	32500	32000	31600	31000	30500	30000	110
	115		33800	33400	32800	32300	31700	31300	30800	30200	29700	29300	28800	28300	27700	115
	120		31700	31300	30700	30200	29600	29300	28700	28200	27600	27200	26700	26200	25700	120
	125			29400	28800	28300	27700	27400	26800	26300	25700	25300	24800	24300	23800	125
	130				27100	26600	26000	25600	25100	24600	24000	23600	23100	22500	22000	130
	140					23500	22900	22600	22000	21500	20900	20500	20000	19500	18900	140
	150						20300	19900	19400	18800	18300	17900	17300	16800	16300	150
	160								17100	16500	16000	15600	15000	14500	14000	160
	170									14500	13900	13600	13000	12500	11900	170
	180										12200	11800	11200	10700	10200	180
190												9600	9100	8600	190	
200													7700	7000	200	
40 FOOT JIB	100+	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	100+
	105	29100	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	27700	105
	110	28000	29300	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	110
	115	27100	28300	29500	30000	30000	30000	30000	30000	30000	30000	29900	29300	28900	28300	115
	120	26200	27400	28600	29700	30000	30000	29800	29200	28700	28100	27800	27200	26700	26200	120
	125		26600	27700	28800	28800	28200	27900	27300	26800	26200	25900	25300	24800	24300	125
	130		25900	26900	27600	27100	26500	26100	25600	25100	24500	24100	23600	23100	22600	130
	140				24500	24000	23400	23000	22500	22000	21400	21000	20500	20000	19400	140
	150					21300	20700	20400	19800	19300	18700	18300	17800	17300	16800	150
	160						18400	18100	17500	17000	16400	16000	15500	15000	14400	160
	170								15500	15000	14400	14000	13400	12900	12400	170
	180									13200	12600	12200	11600	11100	10600	180
	190											10600	10000	9500	9000	190
	200												8600	8100	7600	200
50 FOOT JIB	130+	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	130+	
	135	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	135	
	140		20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	140	
	145		20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	19400	18900	145	
	150				20000	20000	20000	20000	20000	19700	19100	18700	18200	17600	150	
	155				20000	20000	19900	19500	19000	18500	17900	17500	17000	16400	155	
	160					19400	18800	18400	17900	17300	16800	16400	15800	15300	160	
	165						17700	17400	16800	16300	15700	15300	14800	14300	165	
	170						16700	16400	15800	15300	14700	14300	13800	13300	170	
	180								14000	13500	12900	12500	12000	11500	180	
	190									11900	11300	10900	10400	9800	190	
200										9900	9500	8900	8400	200		
60 FOOT JIB	140+	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	140+	
	145		10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	145	
	150		10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	150	
	155			10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	155	
	160				10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	160	
	170					10000	10000	10000	10000	10000	10000	10000	10000	10000	170	
	180						10000	10000	10000	10000	10000	10000	10000	10000	180	
	190							10000	10000	10000	10000	10000	10000	10000	190	
200									10000	10000	9700	9200	8700	200		
210										8800	8400	7900	7300	210		



Manitowoc 4100W

JIB LIFTING CAPACITIES

4100W

JIB NO. 123 WITH 12' 6" STRUT ON BOOM NO. 22C WITH OPEN THROAT TOP 26' 6" CRAWLERS EXTENDED

Meets ANSI B30.5 Requirements SERIES 2

20 DEGREE JIB OFFSET ANGLE

Chart supplement boom capacity chart No. 6924-A. Capacities are for freely suspended loads based on tipping, strength of structural components or other factors. Crane operator judgement must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, as well as adverse operating conditions and physical machine depreciation.

by shaded areas. Operating radius is the horizontal distance from axis of rotation to the center of vertical hoist line or load block. Weight of all load blocks, weight ball, slings, hoist lines beneath boom and jib point sheaves, etc., including those on the main boom is considered part of the jib load. Boom and jib load are not to be lowered beyond radii where combined weights are greater than rated capacity. Maximum capacity on 1^{1/2} inch - 6 x 31 IPS, IWRC is 28,300 lbs./line.

Capacities do not exceed 75% of a static tipping load with machine on firm level surface. Capacities based on structural competence are denoted

JIB POINT RADIUS FEET	CAPACITIES IN POUNDS BOOM LENGTH - FEET														JIB POINT RADIUS FEET	
	110	120	130	140	150	160	170	180	190	200	210	220	230	240		
30 FOOT JIB	90+	40000	40000	40000	40000	40000	40000	40000	40000	40000	40000	40000	40000	40000	40000	90+
	95	40000	40000	40000	40000	40000	40000	40000	40000	40000	39500	39100	38600	38000	37500	95
	100	40000	40000	40000	39800	39200	38600	38200	37600	37100	36500	36100	35500	35000	34400	100
	105	38700	38100	37700	37000	36500	35800	35500	34900	34300	33700	33300	32800	32200	31700	105
	110	36300	35600	35200	34600	34000	33400	33000	32400	31900	31300	30900	30300	29800	29200	110
	115	34100	33400	33000	32400	31800	31200	30800	30200	29600	29000	28600	28100	27500	27000	115
	120	32100	31400	31000	30300	29800	29100	28800	28200	27600	27000	26600	26000	25500	25000	120
	130		27900	27400	26800	26200	25600	25200	24600	24100	23500	23100	22500	21900	21400	130
	140			24400	23800	23200	22600	22200	21600	21000	20400	20000	19400	18900	18400	140
	150				21200	20600	20000	19600	19000	18500	17800	17400	16900	16300	15800	150
	160					18400	17800	17400	16800	16200	15600	15200	14600	14100	13500	160
170							15400	14800	14200	13600	13200	12600	12100	11500	170	
180								13100	12500	11900	11500	10900	10300	9800	180	
190									11000	10300	9900	9300	8800	8200	190	
200										8900	8600	8000	7400	6600	200	
210											7300	6600	5800	5100	210	
40 FOOT JIB	105+	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	105+
	110	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	29600	110
	115	30000	30000	30000	30000	30000	30000	30000	30000	29400	29000	28400	27900	27300	115	
	120	29600	30000	30000	30000	30000	29500	29100	28500	28000	27400	27000	26400	25800	25300	120
	125	28400	29900	29500	28800	28300	27600	27300	26700	26100	25500	25100	24500	24000	23400	125
	130	27300	28200	27800	27100	26600	25900	25600	25000	24400	23800	23400	22800	22300	21700	130
	140		25200	24800	24100	23600	22900	22500	21900	21400	20800	20400	19800	19200	18700	140
	150			22200	21500	21000	20300	20000	19300	18800	18200	17800	17200	16600	16100	150
	160				19300	18700	18100	17700	17100	16500	15900	15500	14900	14400	13800	160
	170					16100	15700	15100	14600	13900	13500	12900	12400	11800	11200	170
	180						14000	13400	12800	12200	11800	11200	10600	10100	9500	180
190							11800	11300	10600	10200	9600	9100	8500	7900	190	
200									9900	9300	8900	8300	7700	7000	200	
210										8000	7600	7000	6200	5400	210	
50 FOOT JIB	135+	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	135+
	140	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	140
	145		20000	20000	20000	20000	20000	20000	20000	20000	19600	19200	18600	18100	145	
	150		20000	20000	20000	20000	20000	20000	19600	19000	18400	18000	17400	16800	150	
	155			20000	20000	20000	19400	19000	18400	17800	17200	16800	16200	15700	155	
	160			20000	19500	19000	18300	17900	17300	16800	16100	15700	15100	14600	160	
	170				17600	17000	16400	16000	15300	14800	14200	13800	13200	12600	170	
	180					14600	14200	13600	13000	12400	12000	11400	10900		180	
	190							12700	12100	11500	10900	10500	9900	9300	190	
	200								10700	10100	9500	9100	8500	7900	200	
	210									8900	8200	7800	7200	6500	210	
220										7100	6700	5900	5100	220		
60 FOOT JIB	150+	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	150+	
	155		10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	155	
	160		10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	160	
	170			10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	170	
	180				10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	180	
	190					10000	10000	10000	10000	10000	10000	10000	10000	9400	190	
	200						10000	10000	10000	10000	9600	9200	8600	8000	200	
	210							9600	9000	8400	8000	7400	6700		210	
	220									7900	7300	6800	6100	5300	220	
230										6200	5600	4800	4000	230		

These load charts are intended for instructional purposes only. They were derived from manufacturer sales information which may not be complete or machine specific. Not responsible for typographical errors.