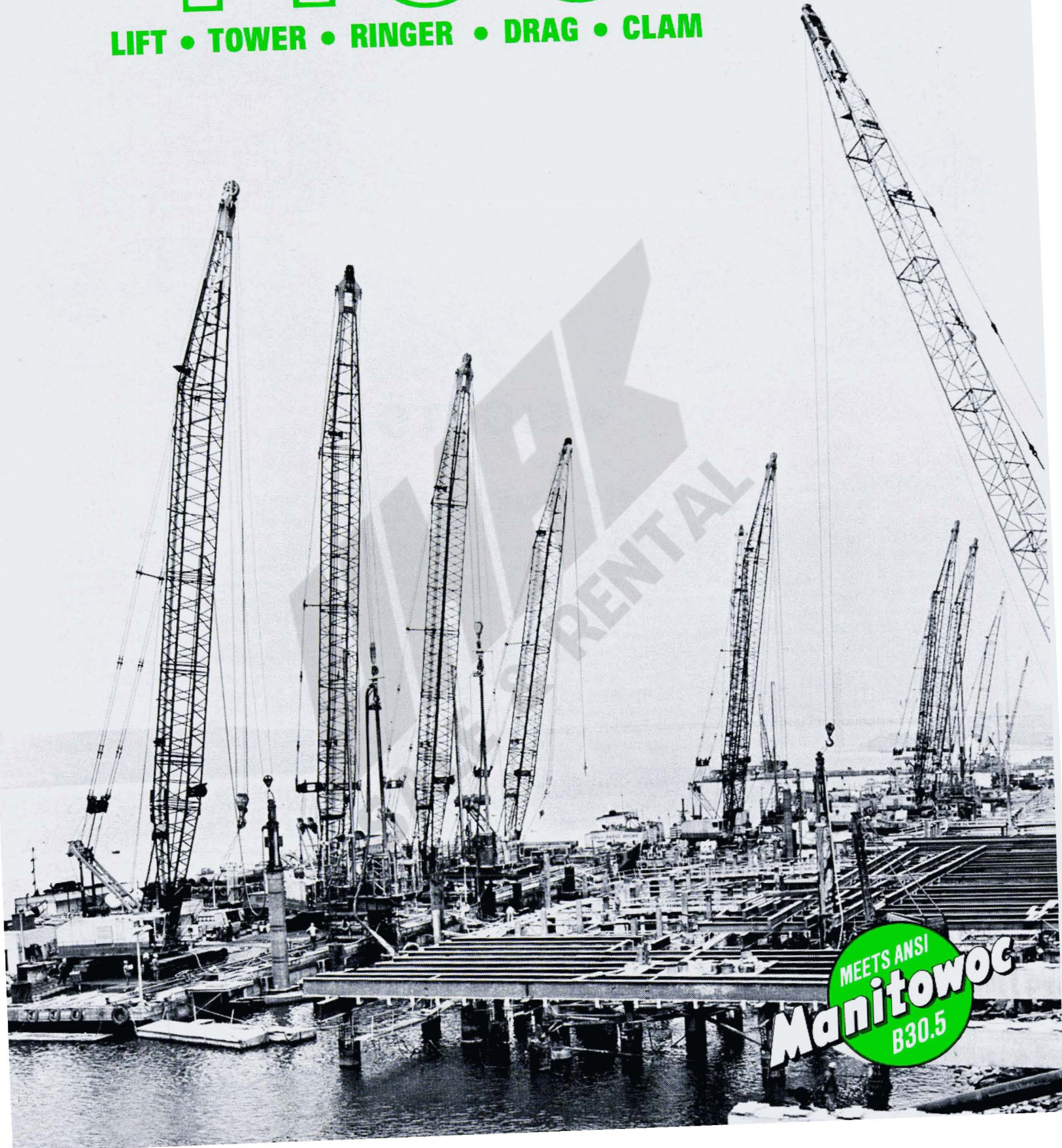


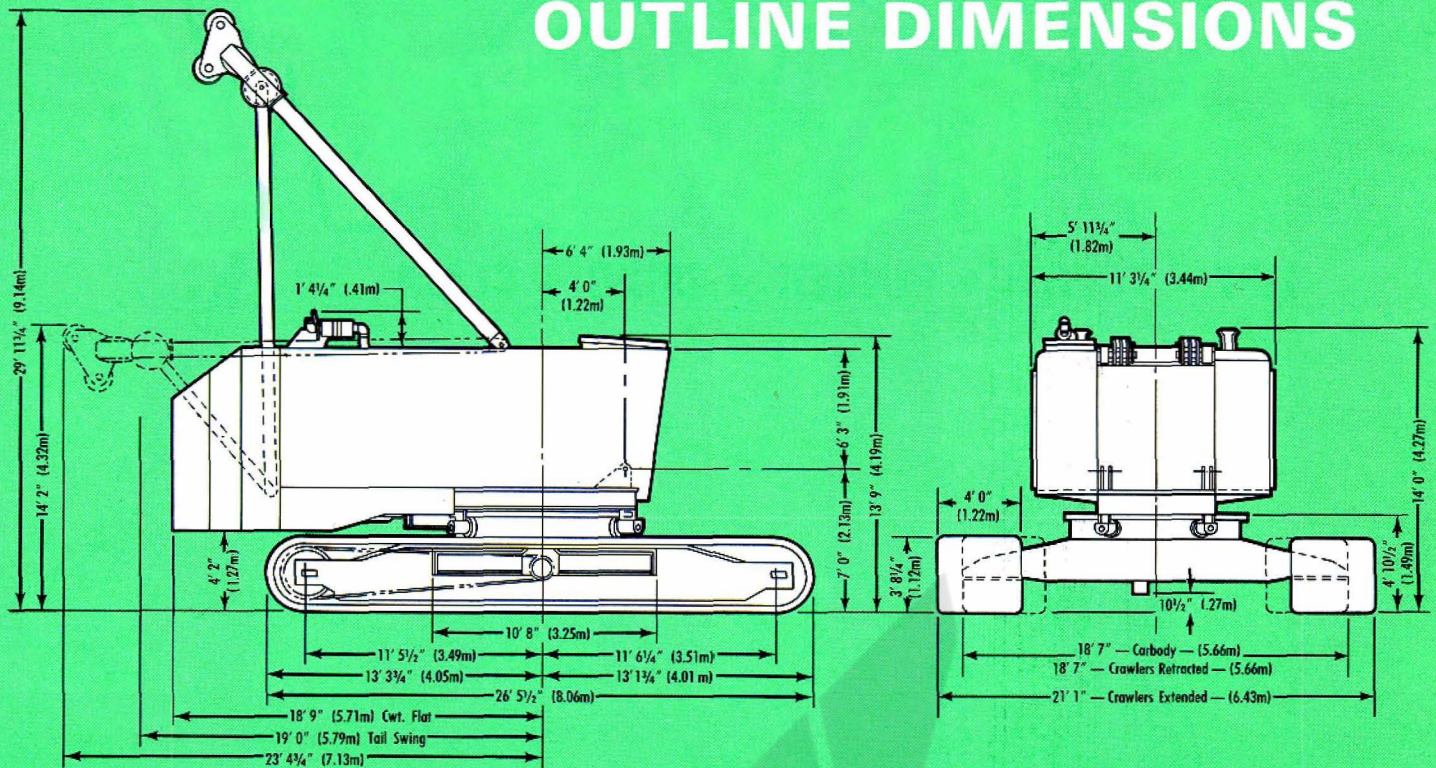
MANITOWOC

4100W

LIFT • TOWER • RINGER • DRAG • CLAM



OUTLINE DIMENSIONS



WEIGHTS

	POUNDS*		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	SELF-REMOVING COUNTERWEIGHT (3-PC)	
		Inner.....	41,900
CRAWLERS , with crawler side frames, crawler treads, and outside crawler chains (each 36,400) ..	72,800	Middle.....	41,500
		Outer.....	39,000
CARBODY , with center pin, roller path, and travel mechanism, without crawlers.....	49,500	BOOM NO. 22A	
UPPERWORKS , complete with basic machinery, including drums, but not including gantry and backhitch, front end attachments or counterweights... ..	80,500	BOOM BUTT: (less wire rope and pendants).....	5,980
GANTRY AND BACKHITCH	7,800	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	27⅝"	37¼"	Plain	1⅝"	230'	3	745'
CLAMSHELL Closing Holding	Front	27"	37¼"	Grooved	1⅝"	225'		
	Rear	27"	37¼"	Grooved	1⅝"	225'		
DRAGLINE Drag Hoist	Front	24"	37¼"	Grooved	1¼"	164'		
	Rear	27"	37¼"	Grooved	1⅝"	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"	*17⅞"	Plain	1⅝"	83' (*76')	6	622' (*575')
	Right Rear	17½"	17⅞"	None	1"	77'	8	847'
CLAMSHELL Closing Holding	Right Rear	27"	17⅞"	Grooved	1¼"	105'	3	340'
	Left Rear	27"	*17⅞"	Grooved	1⅝"	105' (*97')	3	340' (*315')
DRAGLINE Drag Hoist	Front	24"	37¼"	Grooved	1¼"	164'	4	755'
	Right Rear	27"	17⅞"	Grooved	1⅝"	105'	3	340'

*Drum width — 16⅞" with ratchet and pawl.
NOTE: Drum diameters are root diameters. For first layer pitch diameters, add diameter of wire rope.

No. 6105, 11-20-72

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 cushioned 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 4⅝" 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 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 step-less 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 step-less 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 1½" 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 1½" 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 4½° offset boom tops.

4½° 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

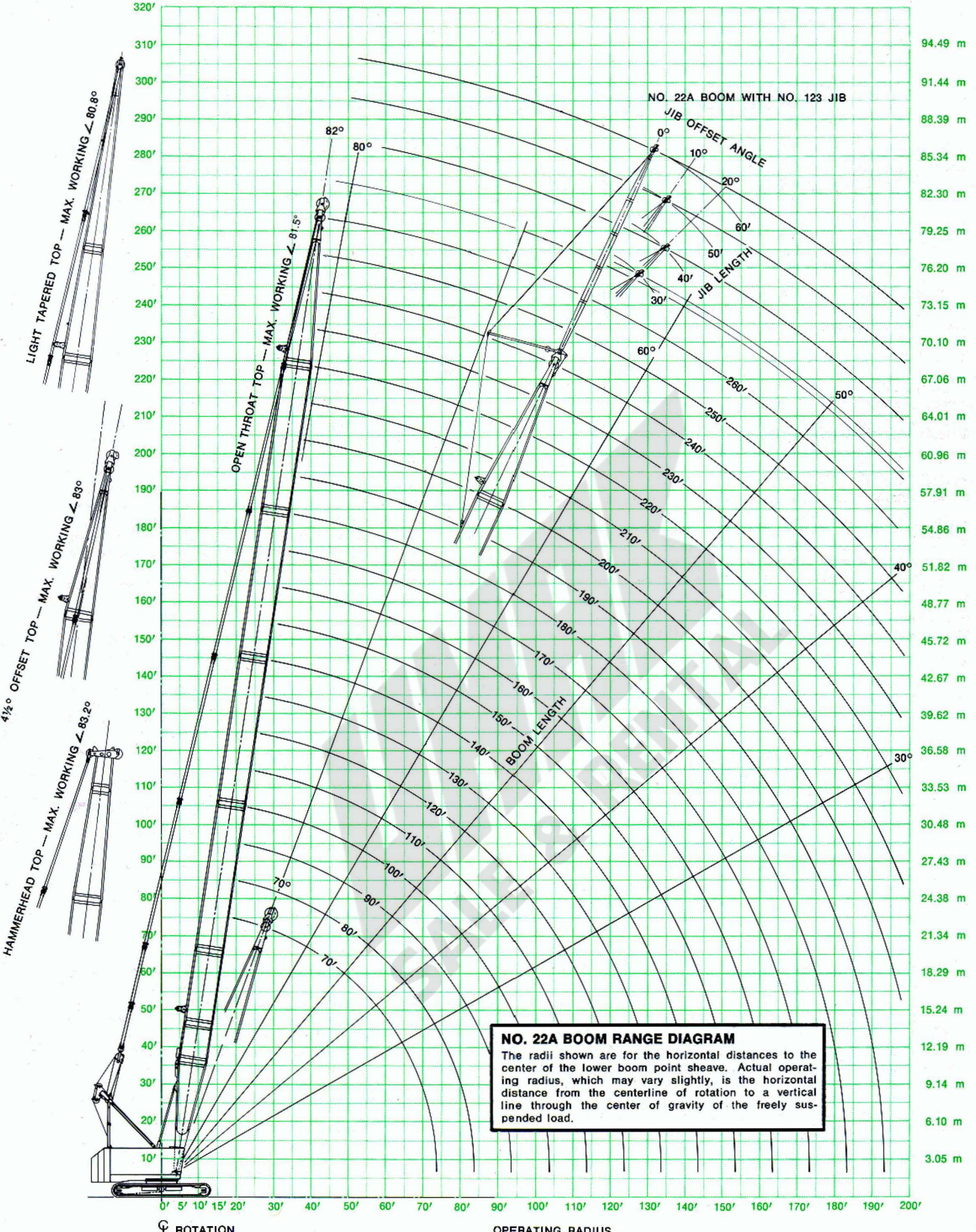
lock. Manually controlled main drum brakes, latched foot pedal operated. Graduated air controls for travel, swing, drum clutches and hydraulic boom hoist. Combination clutch and throttle controls for travel, swing and main drum clutches; first 10° movement of hand lever engages clutch; further movement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

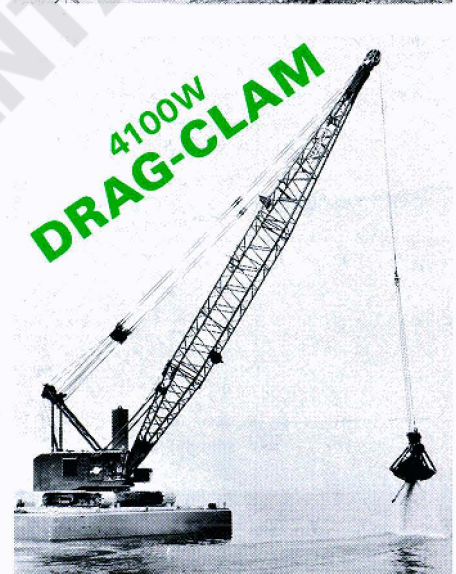
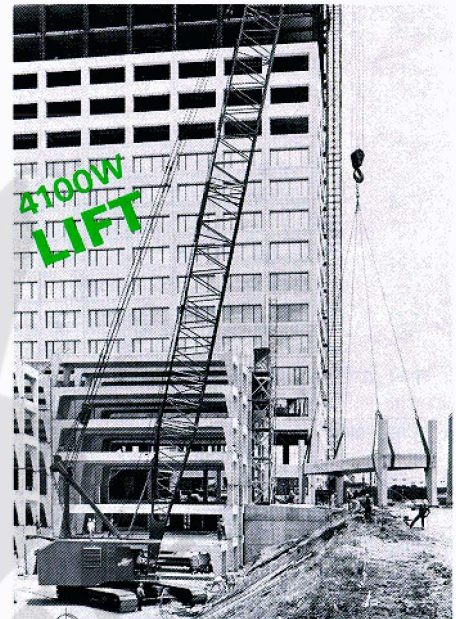
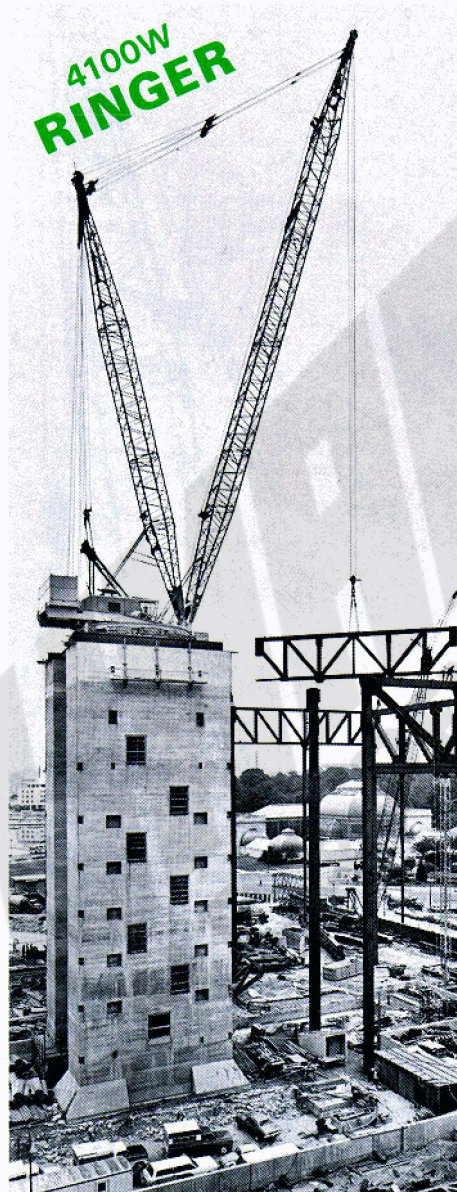
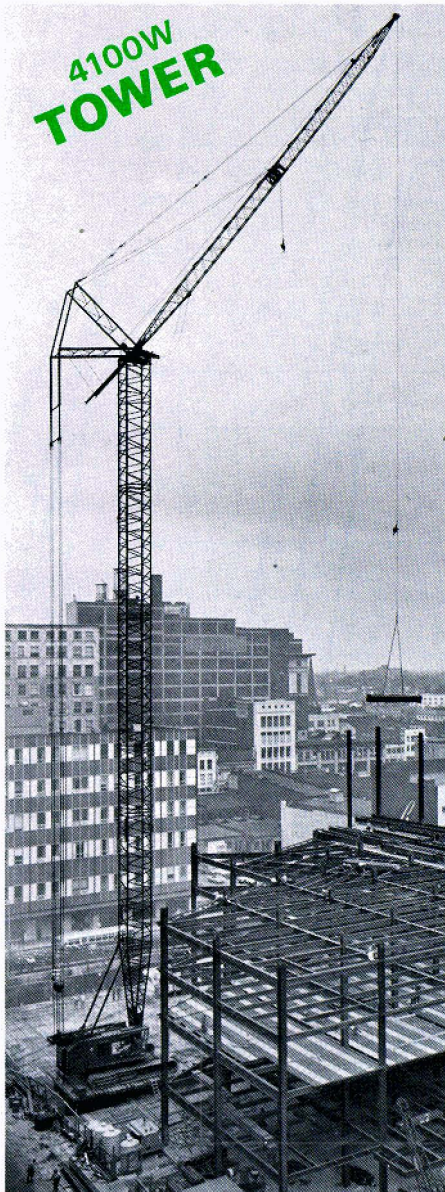


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MANITOWOC ENGINEERING CO.
(A division of The Manitowoc Co., Inc.)
MANITOWOC, WISCONSIN 54220



...WORLD'S MOST
VERSATILE CRANES!

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.

LIFT CRANE 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)					
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.

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					

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	363,300	
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	
70				
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	
70				
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	
80				
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	
80				
50	54.9	72.5	105,700	
55	50.4	68.5	93,300	
60	45.6	64.1	83,400	
65	40.3	58.8	75,200	
70	34.4	52.2	68,300	
80				
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	
90				
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	
90				
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	
90				
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	
100				
38	70.1	101.0	151,800	
40	68.9	100.3	141,400	
45	65.8	98.2	120,500	
50	62.6	95.8	104,700	
55	59.3	93.0	92,300	
100				
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	
100				
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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SEE CONDITIONS ON REVERSE SIDE

ROOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
22	80.6	115.5	291,600	
24	79.5	115.2	282,900	
26	78.5	114.8	265,500	
28	77.4	114.3	235,500	
30	76.3	113.9	212,500	
32	75.3	113.4	193,500	
34	74.2	112.8	177,100	
36	73.1	112.2	163,300	
38	72.0	111.6	151,400	
40	70.9	111.0	141,000	
45	68.1	109.1	120,100	
50	65.3	106.9	104,200	
55	62.4	104.5	91,800	
60	59.4	101.7	81,800	
65	56.3	98.58	73,600	
70	53.1	95.0	66,800	
75	49.8	91.0	60,900	
80	46.3	86.5	55,900	
85	42.6	81.4	51,600	
90	38.6	75.6	47,800	
95	34.2	68.8	44,400	
100	29.2	60.7	41,400	
105	23.3	50.6	38,700	
110	15.5	36.4	33,900	
22	81.4	125.6	285,000	
24	80.4	125.3	271,700	
26	79.4	125.0	259,800	
28	78.5	124.6	235,500	
30	77.5	124.1	212,100	
32	76.5	123.7	192,800	
34	75.5	123.2	176,600	
36	74.5	122.7	162,800	
38	73.5	122.1	150,900	
40	72.5	121.5	140,500	
45	70.0	119.8	119,500	
50	67.5	117.8	103,700	
55	64.8	115.6	91,300	
60	62.2	113.1	81,300	
65	59.4	110.3	73,100	
70	56.6	107.2	66,200	
75	53.9	103.7	60,400	
80	50.9	99.9	55,300	
85	47.5	95.5	51,000	
90	44.2	90.7	47,200	
95	40.7	85.2	43,800	
100	36.9	79.0	40,800	
105	32.7	71.8	38,100	
110	28.0	63.2	35,700	
115	22.3	52.6	33,500	
24	81.2	135.5	260,000	
26	80.3	135.1	248,600	
28	79.4	134.8	234,700	
30	78.5	134.4	211,800	
32	77.6	133.9	192,500	
34	76.7	133.5	176,300	
36	75.7	133.0	162,500	
38	74.8	132.5	150,600	
40	73.9	131.9	140,200	
45	71.6	130.4	119,300	
50	69.3	128.6	103,400	
55	66.9	126.6	91,000	
60	64.5	124.3	81,000	
65	62.0	121.8	72,800	
70	59.5	119.0	65,900	
75	56.9	115.9	60,000	
80	54.2	112.5	55,000	
85	51.5	108.7	50,700	
90	48.6	104.5	46,800	
95	45.6	9.8	43,500	
100	42.4	94.7	40,500	
105	39.0	88.8	37,800	
110	35.4	82.3	35,300	
115	31.4	74.7	33,100	
120	26.8	65.7	31,100	
125	21.4	54.5	29,300	
26	81.0	145.3	239,700	
28	80.1	144.9	230,800	
30	79.3	144.6	211,500	
32	78.5	144.2	192,100	
34	77.6	143.7	175,800	
36	76.8	143.5	162,000	
38	75.9	142.8	150,100	
40	75.1	142.3	139,700	
45	73.0	140.9	118,700	
50	70.8	139.2	102,800	
55	68.6	137.4	90,400	
60	66.4	135.3	80,400	
65	64.2	133.0	72,200	
70	61.9	130.5	65,300	
75	59.5	127.7	59,300	
80	57.1	124.6	54,400	
85	54.6	121.2	50,100	
90	52.1	117.5	46,200	
95	49.5	113.4	42,900	
100	46.7	108.9	39,900	

ROOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
105	43.8	103.9	37,200	
110	40.8	98.5	34,700	
115	37.5	92.3	30,500	
120	34.0	85.4	26,300	
125	30.2	77.4	28,700	
130	25.8	68.0	27,000	
135	20.7	56.4	25,500	
28	80.8	155.1	218,600	
30	80.0	154.7	210,300	
32	79.2	154.4	191,600	
34	78.5	154.0	175,400	
36	77.7	153.5	161,600	
38	76.9	153.1	149,600	
40	76.1	152.6	139,200	
45	74.1	151.3	118,200	
50	72.1	149.8	102,400	
55	70.1	148.1	89,900	
60	68.1	146.2	79,900	
65	66.0	144.0	71,700	
70	63.9	141.7	64,800	
75	61.7	139.1	59,000	
80	59.6	136.3	53,900	
85	57.3	133.2	49,600	
90	55.0	129.9	45,700	
95	52.7	126.2	42,400	
100	50.2	122.3	39,400	
105	47.7	117.9	36,700	
110	45.0	113.1	34,200	
115	42.3	107.9	32,000	
120	39.3	102.1	30,000	
125	36.3	95.7	28,500	
130	32.6	88.4	26,500	
135	29.2	80.1	25,000	
140	25.0	70.3	23,500	
145	19.9	58.2	22,200	
28	81.4	165.2	208,500	
30	80.6	164.9	203,500	
32	79.9	164.5	191,100	
34	79.2	164.2	174,900	
36	78.5	163.8	161,000	
38	77.7	163.3	149,100	
40	77.0	162.9	138,700	
45	75.2	161.7	117,700	
50	73.3	160.2	101,800	
55	71.4	158.7	89,300	
60	69.5	156.9	79,300	
65	67.6	154.9	71,100	
70	65.6	152.8	64,200	
75	63.7	150.4	58,400	
80	61.6	147.8	53,300	
85	59.6	145.0	49,000	
90	57.5	141.9	45,100	
95	55.3	138.6	41,800	
100	53.1	135.1	38,700	
105	50.9	131.1	36,000	
110	48.5	126.8	33,600	
115	46.1	122.2	31,400	
120	43.5	117.5	29,400	
125	40.9	111.7	27,600	
130	38.0	105.6	25,900	
135	35.0	98.9	24,300	
140	31.8	91.3	22,900	
145	28.2	82.6	21,600	
150	24.1	72.5	20,400	
155	19.3	59.9	19,200	
30	81.2	175.0	192,600	
32	80.5	174.7	188,400	
34	79.8	174.3	174,600	
36	79.2	174.0	160,800	
38	78.5	173.6	148,800	
40	77.8	173.1	138,400	
45	76.0	172.0	117,400	
50	74.3	170.7	101,500	
55	72.5	169.2	89,100	
60	70.8	167.5	79,000	
65	69.0	165.7	70,800	
70	67.2	163.7	63,900	
75	65.3	161.5	58,100	
80	63.4	159.1	53,000	
85	61.5	156.5	48,700	
90	59.6	153.6	44,900	
95	57.6	150.6	41,500	
100	55.6	147.3	38,500	
105	53.6	143.7	35,800	
110	51.4	139.9	33,300	
115	49.2	135.8	31,100	
120	47.0	131.3	29,100	
125	44.6	126.4	27,300	
130	42.2	121.1	25,600	
135	39.6	115.3	24,100	
140	36.9	109.0	22,600	
145	34.0	102.0	21,300	
150	30.8	94.1	20,100	
155	27.3	85.1	18,900	
160	23.4	74.6	17,800	
165	18.7	61.6	16,400	

ROOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
32	81.1	184.8	180,000	
34	80.4	184.5	174,100	
36	79.8	184.1	160,300	
38	79.1	183.8	148,300	
40	78.5	183.4	137,900	
45	76.8	182.3	116,900	
50	75.2	181.0	101,000	
55	73.5	179.6	88,500	
60	71.9	178.1	78,500	
65	70.2	176.3	70,300	
70	68.5	174.5	63,400	
75	66.8	172.4	57,500	
80	65.0	170.2	52,500	
85	63.3	167.7	48,100	
90	61.5	165.1	44,300	
95	59.6	162.3	40,900	
100	57.8	159.3	37,900	
105	55.9	156.0	35,200	
110	53.9	152.5	32,700	
115	51.9	148.7	30,500	
120	49.9	144.6	28,500	
125	47.8	140.3	26,700	
130	45.6	135.5	25,000	
135	43.3	130.4	23,500	
140	40.9	124.9	22,000	
145	38.4	118.9	20,700	
150	35.8	112.3	19,500	
155	33.0	105.0	18,300	
160	29.9	96.8	17,200	
165	26.6	87.5	16,200	
170	22.7	76.6	15,300	
175	18.2	63.2	13,500	
32	81.5	194.9	171,000	
34	80.9	194.6	166,100	
36	80.3	194.3	159,800	
38	79.7	193.9	147,900	
40	79.1	193.6	137,400	
45	77.5	192.5	116,400	
50	76.0	191.3	100,500	
55	74.4	190.0	88,000	
60	72.9	188.6	78,000	
65	71.3	186.9	69,700	
70	69.7	185.2	62,800	
75	68.1	183.5	57,000	
80	66.4	181.1	52,000	
85	64.8	178.9	47,600	
90	63.1	176.4	43,800	
95	61.4	173.8	40,400	
100	59.7	171.0	37,400	
105	57.9	167.9	34,700	
110	56.1	164.7	32,200	
115	54.3	161.2	30,000	
120	52.4	157.5	28,000	
125	50.4	153.5	26,200	
130	48.5	149.2	24,500	
135	46.4	144.6	22,900	
140	44.3	139.7	21,500	
145	42.1	134.4	20,200	
150	39.8	128.6	18,900	
155	37.4	122.3	17,800	
160	34.8	115.5	16,700	
165	32.1	107.9	15,700	
170	29.1	99.4	14,800	
175	25.8	89.8	13,900	
180	22.1	78.6	13,100	
185	17.7	64.8	11,000	
34	81.4	204.7	157,200	
36	80.8	204.4	153,500	
38	80.2	204.1	147,400	
40	79.6	203.7	136,900	
45	78.2	202.8	115,900	
50	76.7	201.6	100,000	
55	75.2	200.4	87,500	
60	73.7	199.0	77,400	
65	72.2	197.5	69,200	
70	70.7	195.8	62,300	
75	69.2	194.0	56,400	
80	67.7	192.0	51,400	
85	66.1	189.9	47,000	
90	64.5	187.6	43,200	
95	62.9	185.1	39,800	
100	61.3	182.5	36,800	
105	59.7	179.6	34,100	
110	58.0	176.6	31,600	
115	56.3	173.4	29,400	
120	54.5	169.9	27,400	
125	52.8	166.2	25,600	
130	50.9	162.3	23,900	
135	49.1	158.1	22,300	
140	47.2	153.6	20,900	
145	45.2	148.8	19,600	

LIFTCRANE 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
20	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
25	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
30	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
35	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
40	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
45	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
50	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	
55	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
60	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
65	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
70	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
75	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
80	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
85	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
20	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
25	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
30	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
35	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
40	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
45	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
50	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
	55	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
60	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
65	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
70	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
75	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
80	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
85	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

LIFT CRANE 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 chart No. 6592-A.

HOIST REEVING FOR MAIN LOAD BLOCK						
No. Parts 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	83.0	251,800	
32	71.9	82.2	249,600	
90				
34	70.4	81.4	248,500	
36	68.8	80.6	244,700	
38	67.3	79.7	242,000	
40	65.7	78.7	240,400	
45	61.6	76.0	231,500	
100				
50	57.4	72.7	205,700	
55	52.9	68.9	193,300	
60	48.1	64.5	183,400	
65	42.9	59.1	175,200	
70	37.0	52.6	168,300	
110				
75	30.1	44.4	162,500	
80	21.0	32.7	153,900	

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	231,400	
32	74.0	92.8	224,200	
34	72.7	92.1	218,000	
36	71.3	91.4	214,200	
100				
38	69.9	90.6	212,300	
40	68.6	89.7	212,000	
45	65.1	87.4	211,100	
50	61.4	84.6	210,200	
55	57.7	81.4	212,800	
110				
60	53.7	77.7	212,900	
65	49.5	73.5	214,700	
70	45.1	68.5	217,800	
75	40.2	62.7	222,000	
80	34.7	55.6	227,000	
120				
85	28.2	46.7	232,600	
90	19.7	34.3	249,900	

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	
BOOM LENGTH	JIB NO. 123	BOOM LENGTH	JIB NO. 123	LENGTH	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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SEE CONDITIONS ON REVERSE SIDE

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
22	82.3	115.7	240,500	
24	81.3	115.4	232,100	
26	80.2	115.0	224,400	
28	79.1	114.6	217,300	
30	78.1	114.1	210,700	
1				
32	77.0	113.6	193,300	
34	75.9	113.1	177,100	
36	74.8	112.5	161,300	
38	73.7	111.8	151,400	
40	72.6	111.2	141,000	
1				
45	69.9	109.3	120,100	
50	67.0	107.2	104,200	
55	64.1	104.7	91,800	
60	61.2	101.9	81,800	
65	58.1	98.8	73,600	
0				
70	54.9	95.3	66,800	
75	51.6	91.3	60,900	
80	48.1	86.8	55,900	
85	44.4	81.7	51,600	
90	40.4	75.9	47,800	
5				
95	36.1	69.2	44,400	
100	31.1	61.1	41,400	
105	25.3	51.1	38,700	
110	17.6	37.2	33,900	
2				
22	83.0	125.9	228,700	
24	82.0	125.5	220,500	
26	81.0	125.2	213,000	
28	80.0	124.8	206,100	
30	79.1	124.4	199,700	
1				
32	78.1	123.9	192,800	
34	77.1	123.4	186,600	
36	76.1	122.9	180,800	
38	75.1	122.3	175,900	
40	74.1	121.7	170,500	
0				
45	71.6	120.0	159,500	
50	69.1	118.1	150,700	
55	66.5	115.9	143,300	
60	63.8	113.4	137,300	
65	61.1	110.6	131,100	
0				
70	58.3	107.5	126,200	
75	55.4	104.0	121,300	
80	52.4	100.1	117,300	
85	49.2	95.8	113,300	
90	45.9	91.0	109,200	
5				
95	42.4	85.5	105,000	
100	38.6	79.4	100,800	
105	34.4	72.7	96,600	
110	29.7	63.9	92,400	
115	24.1	53.2	88,200	
6				
24	82.6	135.7	212,700	
26	81.7	135.3	205,300	
28	80.8	135.0	198,600	
30	79.9	134.6	192,300	
32	79.0	134.2	186,500	
1				
34	78.1	133.7	180,300	
36	77.2	133.2	174,500	
38	76.3	132.7	169,000	
40	75.4	132.1	163,800	
45	73.1	130.6	159,300	
3				
50	70.8	128.8	153,400	
55	68.4	126.8	148,000	
60	66.0	124.6	143,000	
65	63.5	122.0	138,300	
70	61.0	119.2	133,900	
0				
75	58.4	116.1	129,800	
80	55.7	112.7	125,900	
85	53.0	108.9	122,100	
90	50.1	104.8	118,400	
95	47.1	100.1	114,800	
10				
100	43.9	95.0	111,300	
105	40.6	89.7	107,800	
110	36.9	82.6	104,300	
115	33.0	75.1	100,800	
120	28.5	66.1	97,300	
125	23.1	55.1	93,800	
1				
26	82.3	145.5	198,400	
28	81.5	145.1	191,800	
30	80.7	144.8	185,600	
32	79.8	144.4	179,900	
34	79.0	144.0	174,700	
0				
36	78.1	143.5	169,000	
38	77.3	143.0	163,700	
40	76.5	142.5	158,700	
45	74.3	141.1	148,700	
50	72.2	139.4	140,800	
5				
55	70.0	137.6	133,000	
60	67.8	135.5	125,300	
65	65.6	133.2	117,700	
70	63.3	130.7	110,200	
75	60.9	127.9	102,800	
0				
80	58.5	124.8	95,400	
85	56.1	121.4	88,000	
90	53.5	117.7	80,600	
95	50.9	113.7	73,200	
100	48.1	109.2	65,800	

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
105	45.3	104.2	37,200	
110	42.2	98.8	34,700	
115	39.0	92.7	32,500	
120	35.5	85.7	30,500	
125	31.7	77.8	28,700	
4				
130	27.4	68.5	27,000	
135	22.2	57.0	25,500	
0				
28	82.1	155.3	185,600	
30	81.3	154.9	179,600	
32	80.5	154.6	174,000	
34	79.7	154.2	168,800	
36	79.0	153.8	161,600	
5				
38	78.2	153.3	149,600	
40	77.4	152.8	139,200	
45	75.4	151.5	118,200	
50	73.4	150.0	102,600	
55	71.4	148.3	89,900	
1				
60	69.4	146.4	79,900	
65	67.3	144.3	71,700	
70	65.2	141.9	64,800	
75	63.0	139.4	59,000	
80	60.9	136.6	53,900	
0				
85	58.6	133.5	49,600	
90	56.3	130.1	45,700	
95	54.0	126.5	42,400	
100	51.5	122.5	39,400	
105	49.0	118.2	36,700	
1				
110	46.4	113.4	34,200	
115	43.6	108.2	32,000	
120	40.7	102.4	30,000	
125	37.6	96.0	28,200	
130	34.2	88.8	26,500	
5				
135	30.5	80.5	25,000	
140	26.4	70.8	23,500	
145	21.4	58.8	22,200	
6				
28	82.6	165.4	179,800	
30	81.8	165.1	173,900	
32	81.1	164.7	168,400	
34	80.4	164.4	163,200	
36	79.7	164.0	158,600	
1				
38	78.9	163.6	149,100	
40	78.2	163.1	138,700	
45	76.3	161.9	117,700	
50	74.5	160.5	101,800	
55	72.6	158.9	89,300	
0				
60	70.7	157.1	79,900	
65	68.8	155.1	71,300	
70	66.8	153.0	64,200	
75	64.9	150.6	58,400	
80	62.9	148.0	53,300	
5				
85	60.8	145.2	49,000	
90	58.7	142.2	45,100	
95	56.6	138.8	41,800	
100	54.4	135.2	38,700	
105	52.1	131.4	36,000	
1				
110	49.7	127.1	33,600	
115	47.3	122.5	31,400	
120	44.8	117.5	29,400	
125	42.1	112.0	27,600	
130	39.3	105.9	25,900	
0				
135	36.3	99.2	24,300	
140	33.1	91.7	22,900	
145	29.5	83.0	21,600	
150	25.5	72.9	20,400	
155	20.7	60.5	19,200	
7				
30	82.3	175.2	169,000	
32	81.6	174.9	163,600	
34	81.0	174.5	158,700	
36	80.3	174.2	154,000	
38	79.6	173.8	148,800	
0				
40	78.9	173.3	138,400	
45	77.2	172.2	117,400	
50	75.4	170.9	101,500	
55	73.7	169.4	89,100	
60	71.9	167.7	79,000	
5				
65	70.1	165.9	70,800	
70	68.3	163.9	63,900	
75	66.4	161.7	58,100	
80	64.6	159.3	53,000	
85	62.7	156.7	48,700	
1				
90	60.8	153.9	44,900	
95	58.8	150.8	41,500	
100	56.8	147.5	38,500	
105	54.7	144.0	35,800	
110	52.6	140.2	33,300	
0				
115	50.4	136.0	31,100	
120	48.1	131.5	29,100	
125	45.8	126.7	27,300	
130	43.3	121.4	25,600	
135	40.8	115.7	24,100	
1				
140	38.1	109.3	22,600	
145	35.2	102.3	21,300	
150	32.0	94.5	20,100	
155	28.6	85.5	18,900	
160	24.7	75.1	17,800	
165	20.0	62.1	16,400	

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
32	82.1	185.0	158,700	
34	81.5	184.7	154,000	
36	80.8	184.3	149,500	
38	80.2	184.0	145,200	
40	79.5	183.6	137,900	
5				
45	77.9	182.5	116,900	
50	76.3	181.2	101,000	
55	74.6	179.8	88,500	
60	72.9	178.3	78,500	
65	71.3	176.6	70,300	
1				
70	69.6	174.7	63,400	
75	67.8	172.6	57,500	
80	66.1	170.4	52,500	
85	64.3	168.0	48,100	
90	62.5	165.4	44,300	
8				
95	60.7	162.5	40,900	
100	58.9	159.5	37,900	
105	57.0	156.2	35,200	
110	55.0	152.7	32,700	
115	53.0	149.0	30,500	
0				
120	51.0	144.9	28,500	
125	48.9	140.5	26,700	
130	46.7	135.8	25,000	
135	44.4	130.7	23,500	
140	42.0	125.2	22,000	
5				
145	39.6	119.2	20,700	
150	36.9	112.6	19,500	
155	34.1	105.3	18,300	
160	31.1	97.2	17,200	
165	27.7	87.9	16,200	
1				
170	23.9	77.1	15,300	
175	19.4	63.8	13,500	
2				
32	82.5	195.1	153,100	
34	81.9	194.8	148,800	
36	81.3	194.5	144,800	
38	80.7	194.1	140,800	
40	80.1	193.8	137,000	
5				
45	78.5	192.7	116,400	
50	77.0	191.8	100,500	
55	75.4	190.2	88,000	
60	73.9	188.8	78,000	
65	72.3	187.1	69,700	
1				
70	70.7	185.4	62,800	
75	69.1	183.4	57,000	
80	67.4	181.4	52,000	
85	65.8	179.1	47,600	
90	64.1	176.6	43,800	
9				
95	62.4	174.0	40,400	

LIFTCRANE 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
230	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
	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
	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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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
250	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
	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
	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	
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	
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	
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	
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	
45	81.7	263.9	96,500	
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	
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	
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	
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	
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	
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	
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	34000	33400	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	11000	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	30000	29500	29100	28500	28000	27400	27000	26400	25800	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	10100	180	
	190							11800	11300	10600	10200	9600	9100	8500	8500	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	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	15700	155	
	160			20000	19500	19000	18300	17900	17300	16800	16100	15700	15100	14600	14600	160	
	170				17600	17000	16400	16000	15300	14800	14200	13800	13200	12600	12600	170	
	180					14600	14200	13600	13000	12400	12000	11400	10900	10900	10900	180	
	190							12700	12100	11500	10900	10500	9900	9300	9300	190	
	200								10700	10100	9500	9100	8500	7900	7900	200	
	210									8900	8200	7800	7200	6500	6500	210	
	220										7100	6700	5900	5100	5100	220	
	60 FOOT JIB	150+	10000	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	9600	9200	8600	8000	200	
210								9600	9000	8400	8000	7400	6800	6200	6200	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	190	
	200													8600	8100	200	
	50 FOOT JIB	130+	20000	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	20000	135
140			20000	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	18400	145	
150					20000	20000	20000	20000	20000	19700	19100	18700	18200	17600	17100	150	
155					20000	20000	19900	19500	19000	18500	17900	17500	17000	16400	15900	155	
160						19400	18800	18400	17900	17300	16800	16400	15800	15300	14800	160	
165							17700	17400	16800	16300	15700	15300	14800	14300	13800	165	
170							16700	16400	15800	15300	14700	14300	13800	13300	12800	170	
180									14000	13500	12900	12500	12000	11500	11000	180	
190										11900	11300	10900	10400	9800	9300	190	
200											9900	9500	8900	8400	7900	200	
60 FOOT JIB		140+	10000	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	10000	145
		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	160	
	170					10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	170	
	180						10000	10000	10000	10000	10000	10000	10000	10000	10000	180	
	190							10000	10000	10000	10000	10000	10000	10000	10000	190	
	200									10000	10000	9700	9200	8700	8200	200	
	210										8800	8400	7900	7300	6800	210	

Manitowoc 4100W

JIB LIFTING CAPACITIES

4100W

Meets ANSI B30.5 Requirements **SERIES 2**

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

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 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	CAPACITIES IN POUNDS BOOMLENGTH- FEET														JIB POINT RADIUS FEET	
	110	120	130	140	150	160	170	180	190	200	210	220	230	240		
	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	10100	180	
190							11800	11300	10600	10200	9600	9100	8500	8500	190	
200									9900	9300	8900	8300	7700	7000	200	
210										8000	7600	7000	6200	5400	210	
50 FOOT JIB	CAPACITIES IN POUNDS BOOMLENGTH- FEET														JIB POINT RADIUS FEET	
	110	120	130	140	150	160	170	180	190	200	210	220	230	240		
	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	CAPACITIES IN POUNDS BOOMLENGTH- FEET														JIB POINT RADIUS FEET	
	110	120	130	140	150	160	170	180	190	200	210	220	230	240		
	150+	10000	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	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	10000	10000	10000	8600	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.

MANITOWOC

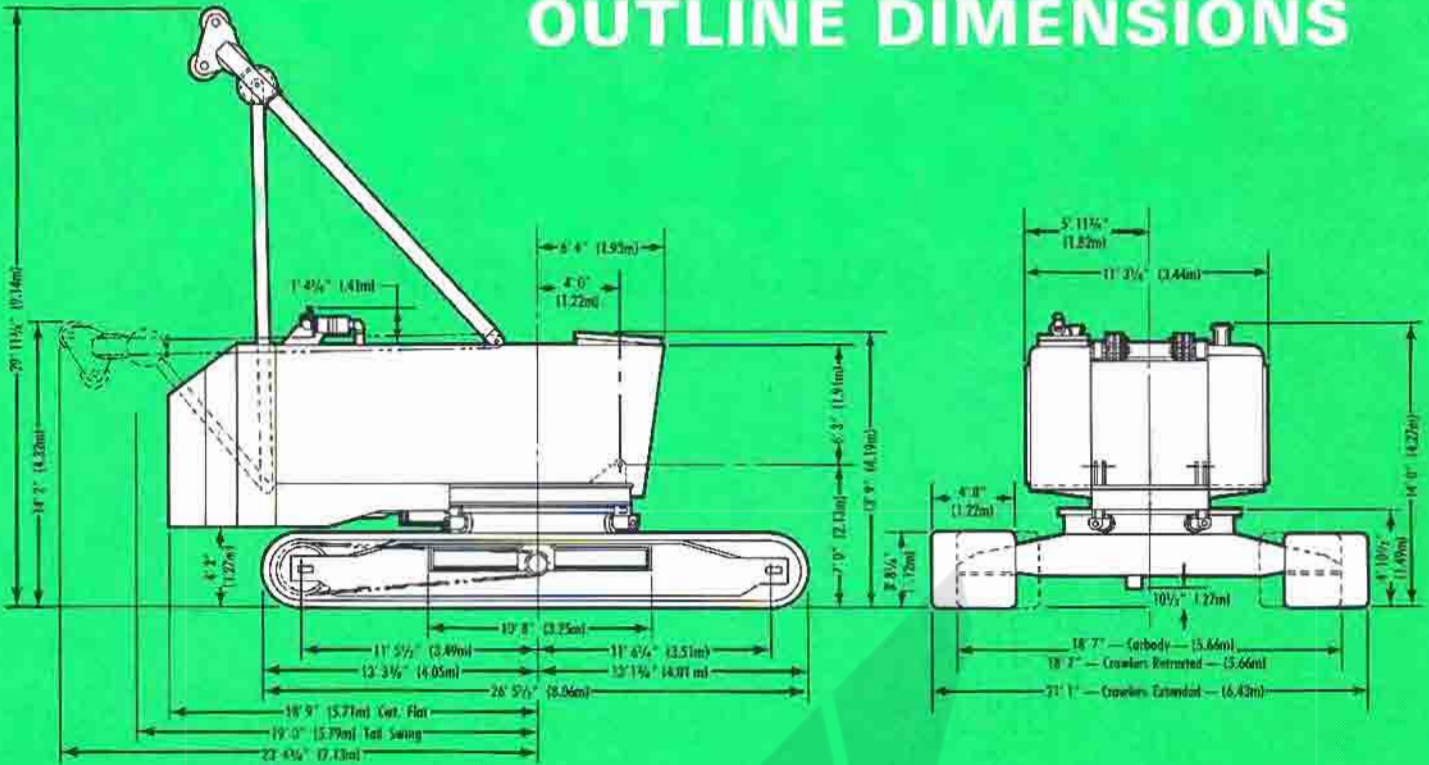
4100W

LIFT • TOWER • RINGER • DRAG • CLAM



MEETS ANSI
Manitowoc
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 Laggings	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"	*17½"	Plain	1½"	83' (*76')	6	622' (*575')
	Right Rear	17½"	17½"	None	1"	77'	8	847'
CLAMSHELL Closing Holding	Right Rear	27"	17½"	Grooved	1¼"	105'	3	340'
	Left Rear	27"	*17½"	Grooved	1½"	105' (*97')	3	340' (*315')
DRAGLINE Drag Hoist	Front	24"	37¼"	Grooved	1¼"	164'	4	755'
	Right Rear	27"	17½"	Grooved	1½"	105'	3	340'

*Drum width — 16½" 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 cushioned and engage external teeth on travel jaw clutch. Each pawl can be released separately by independent air control.

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 4½" 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 6½" 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 6½" 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 1½" 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 1½" 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 4½" offset boom tops.

4½" 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

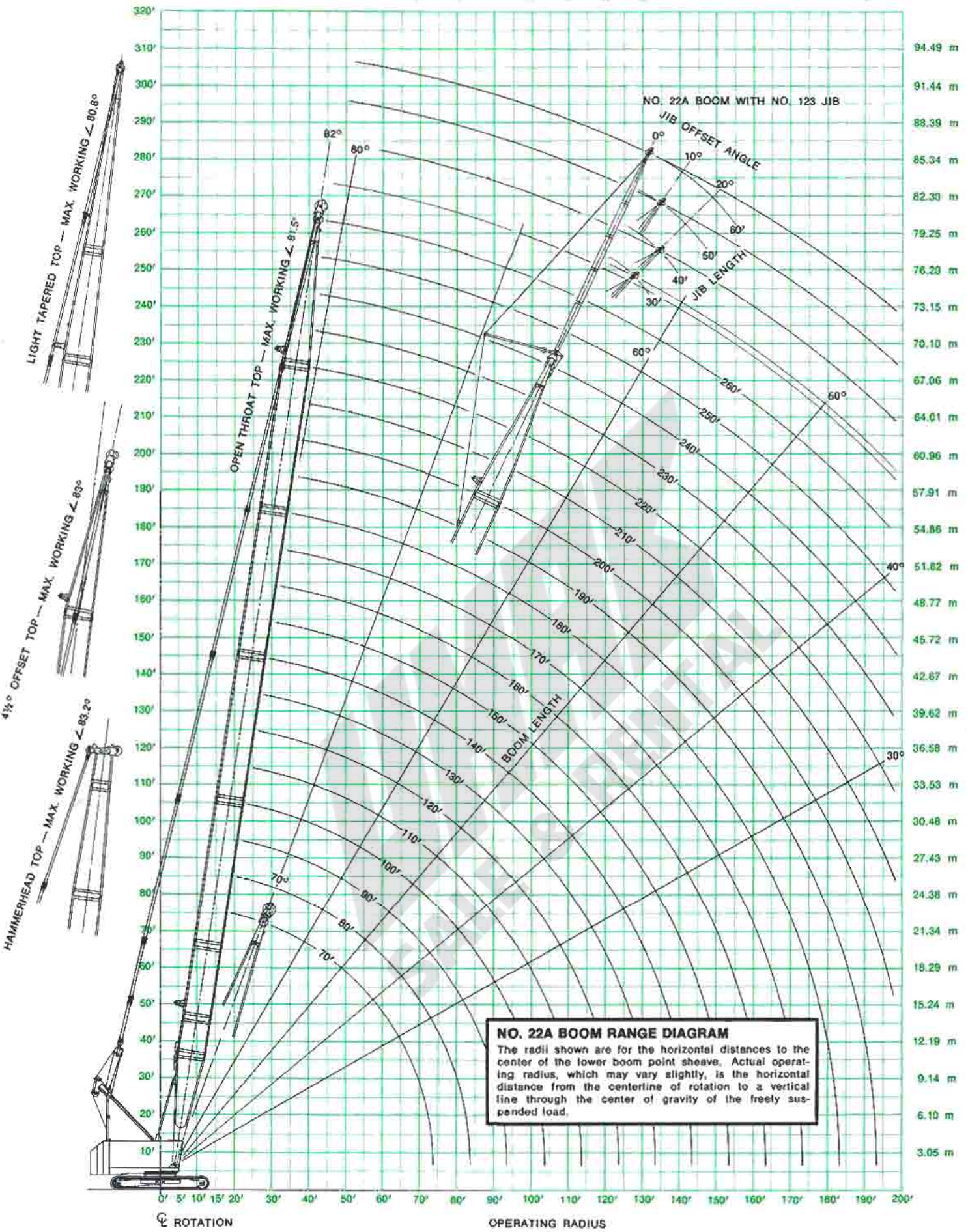
lock. Manually controlled main drum brakes, latched foot pedal operated. Graduated air controls for travel, swing, drum clutches and hydraulic boom hoist. Combination clutch and throttle controls for travel, swing and main drum clutches; first 10° movement of hand lever engages clutch; further movement 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%.

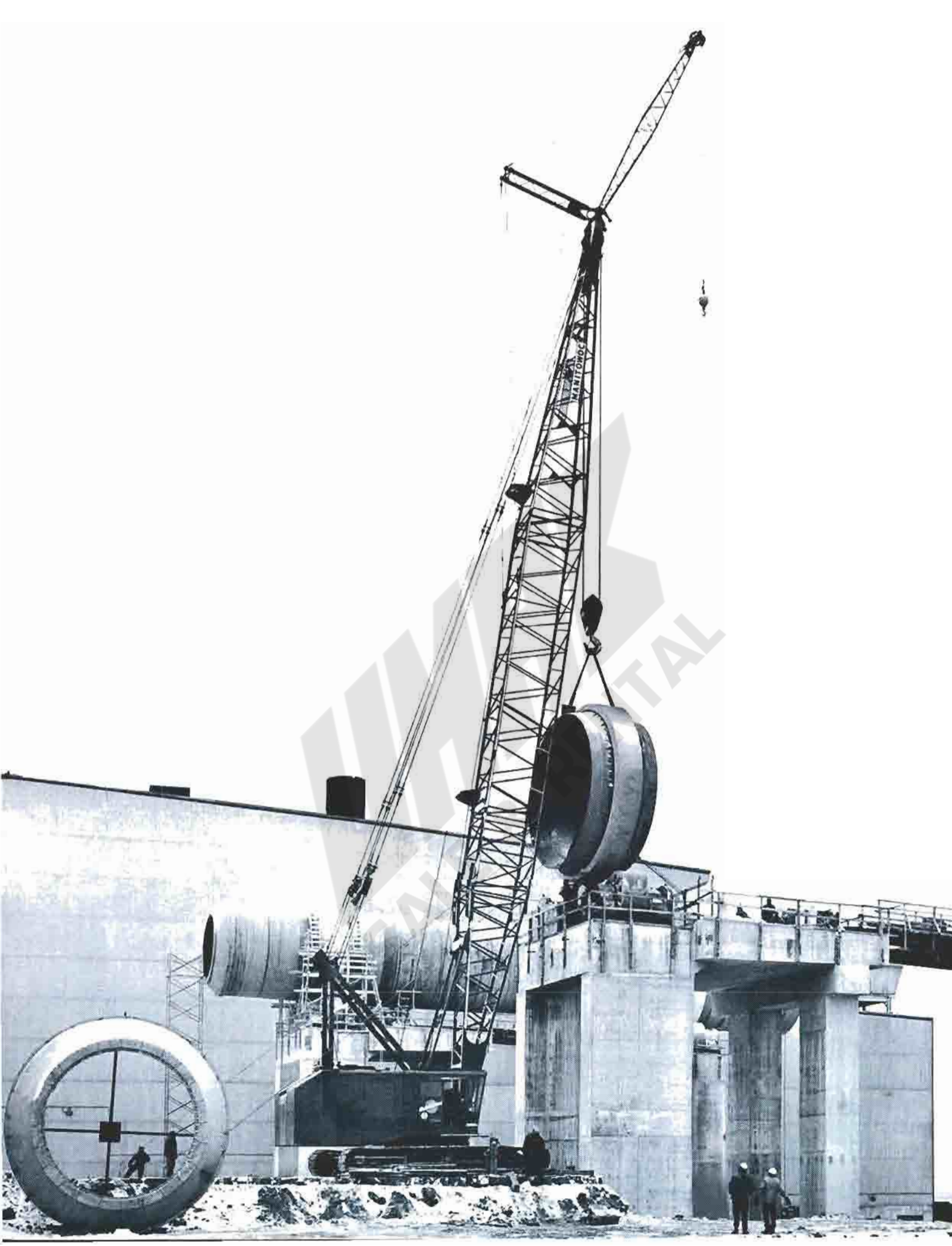
3.05 m 6.10 m 9.14 m 12.19 m 15.24 m 18.29 m 21.34 m 24.38 m 27.43 m 30.48 m 33.53 m 36.58 m 39.62 m 42.67 m 45.72 m 48.77 m 51.82 m 54.86 m 57.91 m



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

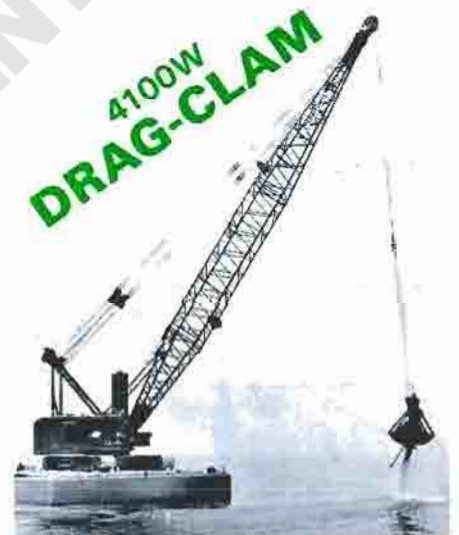
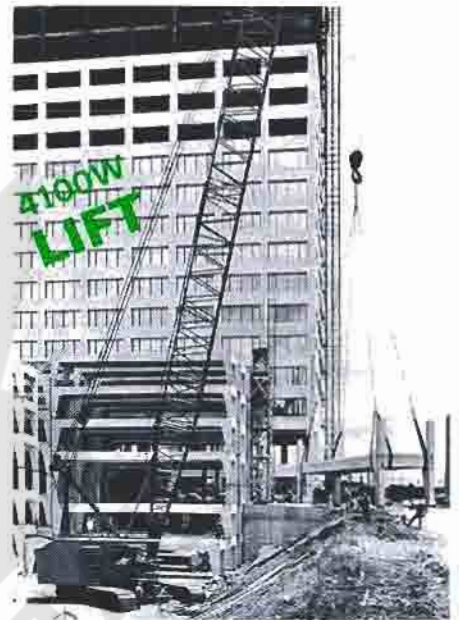


ONLY MANITOWOC OFFERS THIS ON-JOB VERSATILITY WITH THE SAME CRANE!

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Manitowoc

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



LOAD CHARTS

for Use With

WRITTEN EXAMINATIONS



Manitowoc 4100W

Manitowoc Crane Group, by providing pages of one of its manuals, is not providing a substitute for training on a Manitowoc crane.

These pages are reproduced for illustration only and not as a substitute for reviewing the entire manual for a particular crane.

Make sure that you are fully trained on, and review the entire manual for, every crane you operate.

This load chart has been adapted from the original manufacturer's load chart for use in the NCCER Mobile Crane Certification Examination. It is not to be used for calculating loads, planning lifts, or for any other purpose.

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.

LIFT CRANE 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		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.

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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
55	55.5	81.2	92,800	
60	51.5	77.5	82,900	
65	47.3	73.2	74,700	
70	42.8	68.2	67,800	
75	37.9	62.3	62,000	
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	
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	
38	70.1	101.0	151,800	
40	68.9	100.3	141,400	
45	65.8	98.2	120,500	
50	62.6	95.8	104,700	
55	59.3	93.0	92,300	
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	
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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SEE CONDITIONS ON REVERSE SIDE

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED	
110	22	80.6	115.5	291,600	
	24	79.5	115.2	282,900	
	26	78.3	114.8	263,200	
	28	77.4	114.3	235,800	
	30	76.3	113.9	212,500	
	32	75.3	113.4	193,300	
	34	74.2	112.8	177,100	
	36	73.1	112.2	163,300	
	38	72.0	111.6	151,400	
	40	70.9	110.9	141,000	
100	45	68.1	109.1	120,100	
	50	65.3	106.9	104,200	
	55	62.4	104.5	91,800	
	60	59.4	101.7	81,800	
	65	56.3	98.58	73,600	
	70	53.1	95.0	66,800	
	75	49.8	91.0	60,900	
	80	46.3	86.5	55,900	
	85	42.6	81.4	51,600	
	90	38.6	75.6	47,800	
95	95	34.2	68.8	44,400	
	100	29.2	60.7	41,400	
	105	23.3	50.6	38,700	
	110	15.5	36.4	33,900	
	90	22	81.4	125.6	285,000
		24	80.4	125.3	271,700
		26	79.4	125.0	259,800
		28	78.5	124.6	235,300
		30	77.5	124.1	212,100
		32	76.5	123.7	192,800
34		75.5	123.2	176,600	
36		74.5	122.7	162,800	
38		73.5	122.1	150,900	
40		72.5	121.5	140,500	
85	45	70.0	119.8	119,500	
	50	67.5	117.8	103,700	
	55	64.8	115.6	91,300	
	60	62.2	113.1	81,300	
	65	59.4	110.3	73,100	
	70	56.6	107.2	66,200	
	75	53.7	103.7	60,400	
	80	50.7	99.9	55,300	
	85	47.5	95.5	51,000	
	90	44.2	90.7	47,200	
80	95	40.7	85.2	43,800	
	100	36.9	79.0	40,800	
	105	32.7	71.8	38,100	
	110	28.0	63.2	35,700	
	115	22.3	52.6	33,500	
	75	24	81.2	135.5	260,000
		26	80.3	135.1	248,600
		28	79.4	134.8	234,700
		30	78.5	134.4	211,800
		32	77.6	133.9	192,500
34		76.7	133.5	176,300	
36		75.7	133.0	162,500	
38		74.8	132.5	150,600	
40		73.9	131.9	140,200	
45		71.6	130.4	119,300	
70	50	69.3	128.6	103,400	
	55	66.9	126.6	91,000	
	60	64.5	124.3	81,000	
	65	62.0	121.8	72,800	
	70	59.5	119.0	65,900	
	75	56.9	115.9	60,000	
	80	54.2	112.5	55,000	
	85	51.5	108.7	50,700	
	90	48.6	104.5	46,800	
	95	45.6	9.8	43,500	
65	100	42.4	94.7	40,500	
	105	39.0	88.8	37,800	
	110	35.4	82.3	35,300	
	115	31.4	74.7	33,100	
	120	26.8	65.7	31,100	
	125	21.4	54.5	29,300	
	60	26	81.0	145.3	239,700
		28	80.1	144.9	230,800
		30	79.3	144.6	211,300
		32	78.5	144.2	192,100
34		77.6	143.7	175,800	
36		76.8	143.5	162,000	
38		75.9	142.8	150,100	
40		75.1	142.3	139,700	
45		73.0	140.9	118,700	
50		70.8	139.2	102,800	
55	55	68.6	137.4	90,400	
	60	66.4	135.3	80,400	
	65	64.2	133.0	72,200	
	70	61.9	130.5	65,300	
	75	59.5	127.7	59,500	
	80	57.1	124.6	54,400	
	85	54.6	121.2	50,100	
	90	52.1	117.5	46,200	
	95	49.5	113.4	42,900	
	100	46.7	108.9	39,900	

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED		
140	105	43.8	103.9	37,200		
	110	40.8	98.5	34,700		
	115	37.5	92.3	32,500		
	120	34.0	85.4	30,500		
	125	30.2	77.4	28,700		
	135	130	25.8	68.0	27,000	
		135	20.7	56.4	25,500	
		130	28	80.8	155.1	218,600
			30	80.0	154.7	210,300
			32	79.2	154.4	191,600
34			78.5	154.0	175,400	
36			77.7	153.5	161,600	
38			76.9	153.1	149,600	
40			76.1	152.6	139,200	
45			74.1	151.3	118,200	
50	72.1		149.8	102,400		
55	70.1		148.1	89,900		
125	60	68.1	146.2	79,900		
	65	66.0	144.0	71,700		
	70	63.9	141.7	64,800		
	75	61.7	139.1	59,000		
	80	59.6	136.3	53,900		
	120	85	57.3	133.2	49,600	
		90	55.0	129.9	45,700	
		95	52.7	126.2	42,400	
		100	50.2	122.3	39,400	
		105	47.7	117.9	36,700	
115		110	45.0	113.1	34,200	
		115	42.3	107.9	32,000	
		120	39.3	102.1	30,000	
		125	36.2	95.7	28,200	
		130	32.9	88.4	26,500	
	110	135	29.2	80.1	25,000	
		140	25.0	70.3	23,500	
		145	19.9	58.2	22,200	
		105	28	81.4	165.2	208,500
			30	80.6	164.9	203,500
32			79.9	164.5	191,100	
34			79.2	164.2	174,900	
36			78.5	163.8	161,000	
38			77.7	163.3	149,100	
40			77.0	162.9	138,700	
45	75.2		161.7	117,700		
50	73.3		160.2	101,800		
55	71.4		158.7	89,300		
100	60	69.5	156.9	79,300		
	65	67.6	154.9	71,100		
	70	65.6	152.8	64,200		
	75	63.7	150.4	58,400		
	80	61.6	147.8	53,300		
	95	85	59.6	145.0	49,000	
		90	57.5	141.9	45,100	
		95	55.3	138.6	41,800	
		100	53.1	135.0	38,700	
		105	50.9	131.1	36,000	
90		110	48.5	126.8	33,600	
		115	46.1	122.2	31,400	
		120	43.5	117.2	29,400	
		125	40.9	111.7	27,600	
		130	38.0	105.6	25,900	
	85	135	35.0	98.9	24,300	
		140	31.8	91.3	22,900	
		145	28.2	82.6	21,600	
		150	24.1	72.5	20,400	
		155	19.3	59.9	19,200	
80		30	81.2	175.0	192,600	
		32	80.5	174.7	188,400	
		34	79.8	174.3	174,600	
		36	79.2	174.0	160,800	
		38	78.5	173.6	148,800	
	75	40	77.8	173.1	138,400	
		45	76.0	172.0	117,400	
		50	74.3	170.7	101,500	
		55	72.5	169.2	89,100	
		60	70.8	167.5	79,000	
70		65	69.0	165.7	70,800	
		70	67.2	163.7	63,900	
		75	65.3	161.5	58,100	
		80	63.4	159.1	53,000	
		85	61.5	156.5	48,700	
	65	90	59.6	153.6	44,900	
		95	57.6	150.6	41,500	
		100	55.6	147.3	38,500	
		105	53.6	143.7	35,800	
		110	51.4	139.9	33,300	
60		115	49.2	135.8	31,100	
		120	47.0	131.3	29,100	
		125	44.6	126.4	27,300	
		130	42.2	121.1	25,600	
		135	39.6	115.3	24,100	
	55	140	36.9	109.0	22,600	
		145	34.0	102.0	21,300	
		150	30.8	94.1	20,100	
		155	27.3	85.1	18,900	
		160	23.4	74.6	17,800	
165		18.7	61.6	16,400		

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED		
180	32	81.1	184.8	180,000		
	34	80.4	184.5	174,100		
	36	79.8	184.1	160,300		
	38	79.1	183.8	148,300		
	40	78.5	183.4	137,900		
	175	45	76.8	182.3	116,900	
		50	75.2	181.0	101,000	
		55	73.5	179.6	88,500	
		60	71.9	178.1	78,500	
		65	70.2	176.3	70,300	
170		70	68.5	174.5	63,400	
		75	66.8	172.4	57,500	
		80	65.0	170.2	52,500	
		85	63.3	167.7	48,100	
		90	61.5	165.1	44,300	
	165	95	59.6	162.3	40,900	
		100	57.8	159.3	37,900	
		105	55.9	156.0	35,200	
		110	53.9	152.5	32,700	
		115	51.9	148.7	30,500	
160		120	49.9	144.6	28,500	
		125	47.8	140.3	26,700	
		130	45.6	135.5	25,000	
		135	43.3	130.4	23,500	
		140	40.9	124.9	22,000	
	155	145	38.4	118.9	20,700	
		150	35.8	112.3	19,500	
		155	33.0	105.0	18,300	
		160	29.9	96.8	17,200	
		165	26.6	87.5	16,200	
150		170	22.7	76.6	15,300	
		175	18.2	63.2	13,500	
		145	32	81.5	194.9	171,000
			34	80.9	194.6	166,100
			36	80.3	194.3	159,800
	38		79.7	193.9	147,900	
	40		79.1	193.6	137,400	
	140		45	77.5	192.5	116,400
			50	76.0	191.3	100,500
			55	74.4	190.0	88,000
60			72.9	188.6	78,000	
65			71.3	186.9	69,700	
135		70	69.7	185.2	62,800	
		75	68.1	183.2	57,000	
		80	66.4	181.1	52,000	
		85	64.8	178.9	47,600	
		90	63.1	176.4	43,800	
	130	95	61.4	173.8	40,400	
		100	59.7	171.0	37,400	
		105	57.9	167.9	34,700	
		110	56.1	164.7	32,200	
		115	54.3	161.2	30,000	
125		120	52.4	157.5	28,000	
		125	50.4	153.5	26,200	
		130	48.5	149.2	24,500	
		135	46.4	144.6	22,900	
		140	44.3	139.7	21,500	
	120	145	42.1	134.4	20,200	
		150	39.8	128.6	18,900	
		155	37.4	122.3	17,800	
		160	34.8	115.5	16,700	
		165	32.1	107.9	15,700	
115		170	29.1	99.4	14,800	
		175	25.8	89.8	13,900	
		180	22.1	78.6	13,100	
		185	17.7	64.8	11,000	
		110	34	81.4	204.7	157,200
	36		80.8	204.4	153,500	
	38		80.2	204.1	147,400	
	40		79.6	203.7	136,900	
	45		78.2	202.8	115,900	
	105		50	76.7	201.6	100,000
55			75.2	200.4	87,500	
60			73.7	199.0	77,400	
65			72.2			

LIFTCRANE 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
0	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
0	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
0	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
2	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
0	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
0	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
0	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
0	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
0	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
	2	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
0	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
2	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
0	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
0	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 ANSIB30.5 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.

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 REEVING 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	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	
<hr/>				
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	
<hr/>				
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	
<hr/>				
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	
<hr/>				
24	77.9	84.7	278,700	
26	76.4	84.2	265,600	
28	74.9	83.6	237,000	
30	73.4	82.9	213,800	
32	71.9	82.2	194,600	
<hr/>				
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	
<hr/>				
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	
<hr/>				
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	
<hr/>				
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	
<hr/>				
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	
<hr/>				
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	
<hr/>				
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	
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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	
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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	
<hr/>				
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	
<hr/>				
90	32.8	58.5	48,200	
95	26.6	49.0	44,900	
100	18.6	35.8	39,300	

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

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SEE CONDITIONS ON REVERSE SIDE

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
22	82.3	115.7	115.7	240,500
24	81.3	115.4	115.4	232,100
26	80.2	115.0	115.0	224,400
28	79.1	114.6	114.6	217,300
30	78.1	114.1	114.1	210,700
32	77.0	113.6	113.6	193,300
34	75.9	113.1	113.1	177,100
36	74.8	112.5	112.5	163,300
38	73.7	111.8	111.8	151,400
40	72.6	111.2	111.2	141,000
45	69.9	109.3	109.3	120,100
50	67.0	107.2	107.2	104,200
55	64.1	104.7	104.7	91,800
60	61.2	101.9	101.9	81,800
65	58.1	98.8	98.8	73,600
70	54.9	95.3	95.3	66,800
75	51.6	91.3	91.3	60,900
80	48.1	86.8	86.8	55,900
85	44.4	81.7	81.7	51,600
90	40.4	75.9	75.9	47,800
95	36.1	69.2	69.2	44,400
100	31.1	61.1	61.1	41,400
105	25.3	51.1	51.1	38,700
110	17.6	37.2	37.2	33,900
22	83.0	125.9	125.9	228,700
24	82.0	125.5	125.5	220,500
26	81.0	125.2	125.2	213,000
28	80.0	124.8	124.8	206,100
30	79.1	124.4	124.4	199,700
32	78.1	123.9	123.9	192,800
34	77.1	123.4	123.4	186,600
36	76.1	122.9	122.9	180,800
38	75.1	122.3	122.3	175,900
40	74.1	121.7	121.7	170,500
45	71.6	120.0	120.0	159,500
50	69.1	118.1	118.1	149,700
55	66.5	115.9	115.9	141,300
60	63.8	113.4	113.4	133,300
65	61.1	110.6	110.6	125,700
70	58.3	107.5	107.5	118,200
75	55.4	104.0	104.0	111,000
80	52.4	100.1	100.1	104,000
85	49.2	95.8	95.8	97,000
90	45.9	91.0	91.0	90,000
95	42.4	85.5	85.5	83,800
100	38.6	79.4	79.4	78,000
105	34.4	72.2	72.2	72,600
110	29.7	63.7	63.7	67,500
115	24.1	53.2	53.2	62,500
24	82.6	135.7	135.7	212,700
26	81.7	135.3	135.3	205,300
28	80.8	135.0	135.0	198,600
30	79.9	134.6	134.6	192,300
32	79.0	134.2	134.2	186,500
34	78.1	133.7	133.7	180,300
36	77.2	133.2	133.2	174,600
38	76.3	132.7	132.7	169,000
40	75.4	132.1	132.1	163,500
45	73.1	130.6	130.6	159,300
50	70.8	128.8	128.8	155,000
55	68.4	126.8	126.8	150,000
60	66.0	124.6	124.6	145,000
65	63.5	122.0	122.0	140,000
70	61.0	119.2	119.2	135,000
75	58.4	116.1	116.1	130,000
80	55.7	112.7	112.7	125,000
85	53.0	108.9	108.9	120,000
90	50.1	104.8	104.8	115,000
95	47.1	100.1	100.1	110,000
100	43.9	95.0	95.0	105,000
105	40.6	89.2	89.2	100,000
110	36.9	82.6	82.6	95,000
115	33.0	75.1	75.1	90,000
120	28.5	66.1	66.1	85,000
125	23.1	55.1	55.1	80,000
26	82.3	145.5	145.5	198,400
28	81.5	145.1	145.1	191,800
30	80.7	144.8	144.8	185,600
32	79.8	144.4	144.4	179,900
34	79.0	144.0	144.0	174,700
36	78.1	143.5	143.5	169,000
38	77.3	143.0	143.0	163,300
40	76.5	142.5	142.5	157,600
45	74.3	141.1	141.1	148,700
50	72.2	139.4	139.4	140,800
55	70.0	137.6	137.6	133,000
60	67.8	135.5	135.5	125,000
65	65.6	133.2	133.2	117,000
70	63.3	130.7	130.7	109,000
75	60.9	127.9	127.9	101,000
80	58.5	124.8	124.8	93,000
85	56.1	121.4	121.4	85,000
90	53.5	117.7	117.7	77,000
95	50.9	113.7	113.7	69,000
100	48.1	109.2	109.2	61,000

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
1	105	45.3	104.2	37,200
4	110	42.2	98.8	34,700
115	39.0	92.7	32,500	
120	35.5	85.7	30,500	
125	31.7	77.8	28,700	
130	27.4	68.5	27,000	
135	22.2	57.0	25,500	
28	82.1	155.3	185,600	
30	81.3	154.9	179,600	
32	80.5	154.6	174,000	
34	79.7	154.2	168,800	
36	79.0	153.8	161,600	
38	78.2	153.3	149,600	
40	77.4	152.8	139,200	
45	75.4	151.5	118,200	
50	73.4	150.0	102,400	
55	71.4	148.3	89,900	
60	69.4	146.4	79,900	
65	67.3	144.3	71,700	
70	65.2	141.9	64,800	
75	63.0	139.4	59,000	
80	60.9	136.6	53,900	
85	58.6	133.5	49,600	
90	56.3	130.1	45,700	
95	54.0	126.5	42,400	
100	51.5	122.5	39,400	
105	49.0	118.2	36,700	
110	46.4	113.4	34,200	
115	43.6	108.2	32,000	
120	40.7	102.4	30,000	
125	37.6	96.0	28,200	
130	34.2	88.8	26,500	
135	30.5	80.5	25,000	
140	26.4	70.8	23,500	
145	21.4	58.8	22,200	
28	82.6	165.4	179,800	
30	81.8	165.1	173,900	
32	81.1	164.7	168,400	
34	80.4	164.4	163,400	
36	79.7	164.0	158,600	
38	78.9	163.6	149,100	
40	78.2	163.1	138,700	
45	76.3	161.9	117,700	
50	74.5	160.5	101,800	
55	72.6	158.9	89,300	
60	70.7	157.1	79,300	
65	68.8	155.1	71,100	
70	66.8	153.0	64,200	
75	64.9	150.6	58,400	
80	62.9	148.0	53,300	
85	60.8	145.2	49,000	
90	58.7	142.2	45,100	
95	56.6	138.8	41,800	
100	54.4	135.2	38,700	
105	52.1	131.4	36,000	
110	49.7	127.1	33,600	
115	47.3	122.5	31,400	
120	44.8	117.5	29,400	
125	42.1	112.0	27,600	
130	39.3	105.9	25,900	
135	36.3	99.2	24,300	
140	33.1	91.7	22,900	
145	29.5	83.0	21,600	
150	25.5	72.9	20,400	
155	20.7	60.5	19,200	
30	82.3	175.2	169,000	
32	81.6	174.9	163,600	
34	81.0	174.5	158,700	
36	80.3	174.2	154,000	
38	79.6	173.8	148,800	
40	78.9	173.3	138,400	
45	77.2	172.2	117,400	
50	75.4	170.9	101,500	
55	73.7	169.4	89,100	
60	71.9	167.7	79,000	
65	70.1	165.9	70,800	
70	68.3	163.9	63,900	
75	66.4	161.7	58,100	
80	64.6	159.3	53,000	
85	62.7	156.7	48,700	
90	60.8	153.9	44,900	
95	58.8	150.8	41,500	
100	56.8	147.5	38,500	
105	54.7	144.0	35,800	
110	52.6	140.2	33,300	
115	50.4	136.0	31,100	
120	48.1	131.5	29,100	
125	45.8	126.7	27,300	
130	43.3	121.4	25,600	
135	40.8	115.7	24,100	
140	38.1	109.3	22,600	
145	35.2	102.3	21,300	
150	32.0	94.5	20,100	
155	28.6	85.5	19,000	
160	24.7	75.1	17,800	
165	20.0	62.2	16,400	

BOOM LGTH FEET	OPER. RAD. FEET	BOOM ANG DEG.	BOOM POINT ELEV.	CAPACITY: CRAWLERS EXTENDED
32	82.1	185.0	185.0	158,700
34	81.5	184.7	184.7	154,000
36	80.8	184.3	184.3	149,500
38	80.2	184.0	184.0	145,200
40	79.5	183.6	183.6	137,900
45	77.9	182.5	182.5	116,900
50	76.3	181.2	181.2	101,000
55	74.6	179.8	179.8	88,500
60	72.9	178.3	178.3	78,500
65	71.3	176.6	176.6	70,300
70	69.6	174.7	174.7	63,400
75	67.8	172.6	172.6	57,500
80	66.1	170.4	170.4	52,500
85	64.3	168.0	168.0	48,100
90	62.5	165.4	165.4	44,300
95	60.7	162.5	162.5	40,900
100	58.9	159.5	159.5	37,900
105	57.0	156.2	156.2	35,200
110	55.0	152.7	152.7	32,700
115	53.0	149.0	149.0	30,500
120	51.0	144.9	144.9	28,500
125	48.9	140.5	140.5	26,700
130	46.7	135.8	135.8	25,000
135	44.4	130.7	130.7	23,500
140	42.0	125.2	125.2	22,000
145	39.6	119.2	119.2	20,700
150	36.9	112.6	112.6	19,500
155	34.1	105.3	105.3	18,300
160	31.1	97.2	97.2	17,200
165	27.7	87.9	87.9	16,200
170	23.9	77.1	77.1	15,300
175	19.4	63.8	63.8	13,500
32	82.5	195.1	195.1	153,100
34	81.9	194.8	194.8	148,800
36	81.3	194.5	194.5	144,800
38	80.7	194.1	194.1	140,800
40	80.1	193.8	193.8	137,000
45	78.5	192.7	192.7	116,400
50	77.0	191.5	191.5	100,500
55	75.4	190.2	190.2	88,000
60	73.9	188.8	188.8	78,000
65	72.3	187.1	187.1	69,700
70	70.7	185.4	185.4	62,800
75	69.1	183.4	183.4	57,000
80	67.4	181.4	181.4	52,000
85	65.8	179.1	179.1	47,600
90	64.1	176.6	176.6	43,800
95	62.4	174.0	174.0	40,400
100	60.7	171.2	171.2	37,400
105	58.9	168.2	168.2	34,700
110	57.1	164.9	164.9	32,200
115	55.3	161.4	161.4	30,000
120	53.4	157.7	157.7	28,000
125	51.5	153.7	153.7	26,200
130	49.5	149.5	149.5	24,500
135	47.5	1		

LIFTCRANE 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
230	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
	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
	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
300	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
350	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
400	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
450	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	
500	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
	550	65	76.1	239.3
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
600	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
650	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
700	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
750	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
800	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
250	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
	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
300	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
350	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
	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
400	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
450	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
	500	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
550		70	76.0	258.7
	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
600	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
650	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
700	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
750	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
800	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	11200	170
180						14000	13400	12800	12200	11800	11200	10600	10100	9500	180	
190							11800	11300	10600	10200	9600	9100	8500	8000	190	
200								9900	9300	8900	8300	7700	7000	6400	200	
210									8000	7600	7000	6200	5400	4700	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	17600	145
	150		20000	20000	20000	20000	20000	20000	19600	19000	18400	18000	17400	16800	16300	150
	155			20000	20000	20000	19400	19000	18400	17800	17200	16800	16200	15700	15200	155
	160			20000	19500	19000	18300	17900	17300	16800	16100	15700	15100	14600	14100	160
	170				17600	17000	16400	16000	15300	14800	14200	13800	13200	12600	12100	170
	180					14600	14200	13600	13000	12400	12000	11400	10900	10300	9800	180
	190						12700	12100	11500	10900	10500	9900	9300	8700	8200	190
	200							10700	10100	9500	9100	8500	7900	7300	6700	200
210								8900	8200	7800	7200	6500	5900	5300	210	
220									7100	6700	6100	5500	4900	4300	220	
60 FOOT JIB	150+	10000	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	9600	9200	8600	8000	200
	210							9600	9000	8400	8000	7400	6800	6200	5600	210
220								7900	7300	6800	6100	5300	4500	3900	220	
230									6200	5600	4800	4000	3200	2400	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 1 1/8 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	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	29900	29300	28900	28300	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	20000	130+	
	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	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

Meets ANSI B30.5 Requirements **SERIES 2**

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

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 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	39500	39100	38600	38000	37500	95	
	100	40000	40000	40000	39800	39200	38600	38200	37600	37100	36500	36100	35500	35000	100	
	105	38700	38100	37700	37000	36500	35800	35500	34900	34300	33700	33300	32800	32200	105	
	110	36300	35600	35200	34600	34000	33400	33000	32400	31900	31300	30900	30300	29800	110	
	115	34100	33400	33000	32400	31800	31200	30800	30200	29600	29000	28600	28100	27500	115	
	120	32100	31400	31000	30300	29800	29100	28800	28200	27600	27000	26600	26000	25500	120	
	130		27900	27400	26800	26200	25600	25200	24600	24100	23500	23100	22500	21900	130	
	140			24400	23800	23200	22600	22200	21600	21000	20400	20000	19400	18900	140	
	150				21200	20600	20000	19600	19000	18500	17800	17400	16900	16300	150	
	160					18400	17800	17400	16800	16200	15600	15200	14600	14100	160	
170							15400	14800	14200	13600	13200	12600	12100	170		
180								13100	12500	11900	11500	10900	10300	180		
190									11000	10300	9900	9300	8800	190		
200										8900	8600	8000	7400	200		
210											7300	6600	5800	210		
40 FOOT JIB	105+	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	29600	110	
	115	30000	30000	30000	30000	30000	30000	30000	30000	29400	29000	28400	27900	27300	115	
	120	29600	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	125	
	130	27300	28200	27800	27100	26600	25900	25600	25000	24400	23800	23400	22800	22300	130	
	140		25200	24800	24100	23600	22900	22500	21900	21400	20800	20400	19800	19200	140	
	150			22200	21500	21000	20300	20000	19300	18800	18200	17800	17200	16600	150	
	160				19300	18700	18100	17700	17100	16500	15900	15500	14900	14400	160	
	170					16100	15700	15100	14600	13900	13500	12900	12400	11800	170	
	180						14000	13400	12800	12200	11800	11200	10600	10100	180	
190							11800	11300	10600	10200	9600	9100	8500	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	135+	
	140	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	10000	10000	10000	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.