

Manitowoc

CAPACITY CHARTS

**Model
4000W**

**Serial Number
40767**

CAPACITY CHARTS MANUAL INDEX
MODEL 4000W - SERIAL 40767

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09/15/10

EQ: 78x3033 / SN: 40767

Courtesy of Crane.Market

MODEL 4000W VICON
FORM 1135
REV. 11-78

MANITOWOC MODEL 2300W THRU 4100W
BASIC SPECIFICATIONS

MACH. NO. 40767 MAGNET X
LIFT CRANE X DRAGLINE _____ CLAMSHELL _____ SHOVEL _____ HOE _____
S.O. NO.: 4016 DATE ISSUED 4/19/89 DATE SHIPPED 6-14-89
SHIP TO: HUNTER CORPORATION-BURNS HARBOR INDIANA
DISTRIBUTOR: HENNESSEY-FORRESTAL
BUYER: HUNTER CORPORATION-BURNS HARBOR INDIANA
PURCHASE ORDER NO.: _____ ROUTE _____
EXPORT: YES _____ NO X PAINTING: _____
LETTERING: _____

<u>MACHINE DATA-BASIC</u>		<u>HOIST</u>	<u>SWING</u>	<u>TRANSMISSION</u>	<u>RATIO</u>
				<u>HOIST</u>	<u>SWING</u>
ENGINE DRIVE SPROCKET	91322-2	36T	24500-2	24T	ENG SHAFT: 24447-2 37T 24447-2 37T
DRIVEN SPROCKET	33712-2	145T	32673-2	146T	CONVERTER: 24446-2 41T 24446-2 41T
TRANSMISSION	1"P 3-STR200P (335175) 1"P3-STR 258P (335084)			CHAIN HST: 3/4"P 6-STR 88P (335093)	
CRAWLER SHOE	40246-48"			CHAIN SW: 3/4"P 6-STR 84P (335092)	
RIGHT DRUM LAGGING	163900-2 20 3/8" DIA GR.1 1/8 ROPE WEDGE:			71878-1 1 1/8" ROPE	
LEFT DRUM LAGGING	BARE			WEDGE: 11966-1 1 1/8" ROPE	

COUNTERWEIGHT

48996-2 BOX 3,550# FILL 35,450# TOTAL 39,000#
48997-2 BOX 3,150# FILL 32,650# TOTAL 35,800#
43893-2 BOX 2,900# FILL 25,600# TOTAL 28,500#
GENERATOR ASSY TOTAL 1,175#

TOTAL CWT. 104,475#

BOOM DATA

BOOM TYPE NO. 22

PENDANTS

BOOM BUTT 48153-9-30'

4-276963-0 40' 9 3/4" BASIC

BOOM TOP 50453-2-40'

4-276862-0 20'

BOOM INSERT 1-33426-3-20

BOOM INSERT

BOOM INSERT

BOOM INSERT

BOOM INSERT

GANTRY YES X NO _____

BOOM LENGTH 90

160564-2 14'8"

RIGHT DRUM CABLE

LEFT DRUM CABLE

BOOM HOIST CABLE: 685' 7/8" 6X26 WARR-SEALE ALT LAY EXTRA IMP PLOW STEEL IWRC #719094

BOOM BRIDLE CABLE

_____ JIB DATA _____ FT. LONG

TOP:

BUTT:

STRUT:

INSERT:

PENDANT-BASIC:

PENDANT-INSERT:

_____ JIB BACKSTAY PENDANTS

PENDANT:

PENDANT:

PENDANT:

CWT. HANDLING PENDANTS

PENDANT _____

PENDANT _____

PENDANT _____

POWER PLANT DATA

FAN _____ SUCTION X BLOWER X

ENGINE: CUMMINS NTA-855-C360 SERIAL NO. 11440964

TORQUE CONVERTER YES X NO _____

GOVERNOR CONTROL YES X NO _____

ELECTRIC STARTING YES X NO _____

GOVERNED SPEED R.P.M. _____ LOW IDLE _____ O.S. GOV. SPEED _____ HIGH IDLE _____ STALL _____

SEE ATTACHED CAPACITY CHART SHEET

EQ: 78x3033 / SN: 40767

Capacity Chart Sheet

Model: 4000W
Serial Number: 40767
Boom #: #22
Jib #: #123
Signature/Date: MV 09-07-2010

CHARTS		Date
Drum and Lagging:	4865	2/16/1977
Lift Chart (Barge):	6909-A	2/10/2009
Lift Chart:	6274-A	3/22/1993
	6274-C	3/22/1993
	6274-E	12/6/1983
	6274-F	12/6/1983
	6274-G	12/16/1983
	6274-L	12/6/1983
Jib Chart:	6295-A	3/22/1993
	6295-B	3/22/1993
Wire Rope:	6664-A	8/18/1982
Range Chart:	5359	8/18/1982
Range Diagram:	48955	6/15/1973
Boom Rigging Dwg.:	48168	12/27/1990
Jib Rigging Dwg.:	43730	2/25/1998
Jib Backstay Dwg.:	75055	9/8/1982

EQ: 78x3033 / SN: 40767

WARNING AND INFORMATION SIGNS

Nameplates and Decals

MAINTAINING SIGNS

The crane owner/user shall make sure that all signs are legible and installed at the proper locations on the crane. If a sign has been defaced or removed, it must be replaced immediately. See Nameplates and Decals Drawing in this section for the installation locations of signs.

ORDERING SIGNS

Order replacement signs from your Manitowoc Crane Care distributor or from the factory at the following address:

Manitowoc Crane Care

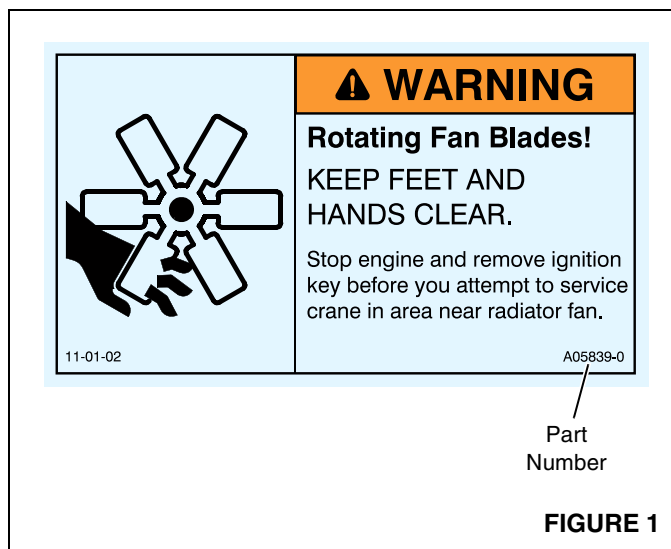
2401 So. 30th St.
Manitowoc, WI 54220

Phone: 1-888-499-7278

Fax: 920-683-6278

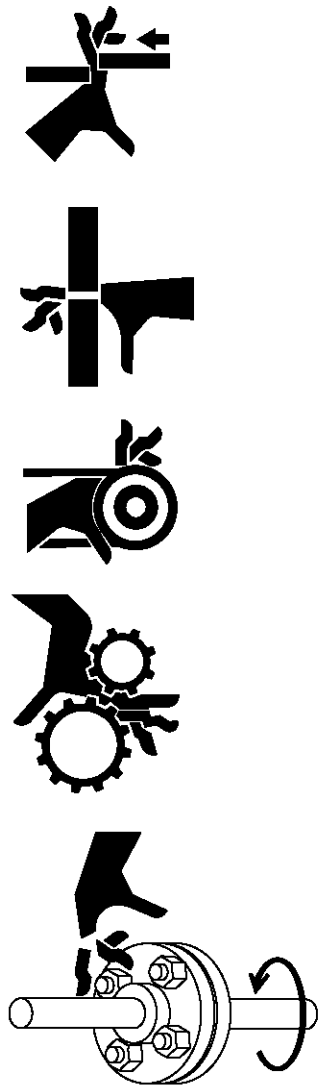
E-mail: latticeteam@manitowoc.com

When ordering a sign, give the crane model number, the serial number, and the name and part number of the sign (Figure 1). If the sign has a figure number, it can be used if the drawing number is missing.

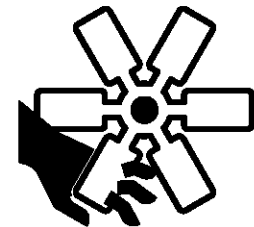


SAFETY SYMBOLS

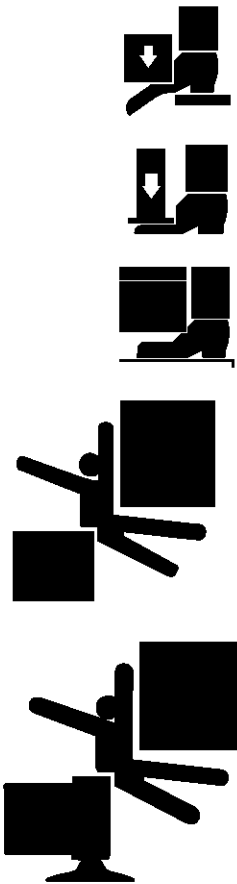
Safety symbols used in the decals on this crane are identified on pages 2 - 4 of this folio.



Cut or Crush Hazards



Cut Hazard



Crush Hazards



Electrocution Hazard



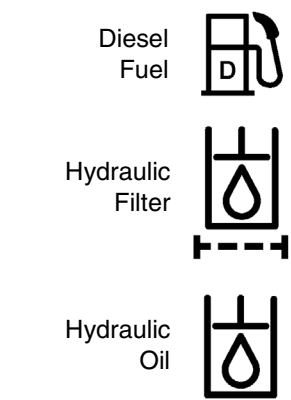
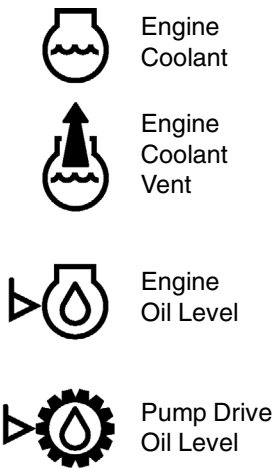
Explosion Hazard



Fall Hazard



Fall Hazards



Fluid Symbols

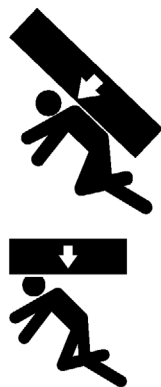


Falling Boom Hazards
(Crush Hazard)

Flying Object Hazards

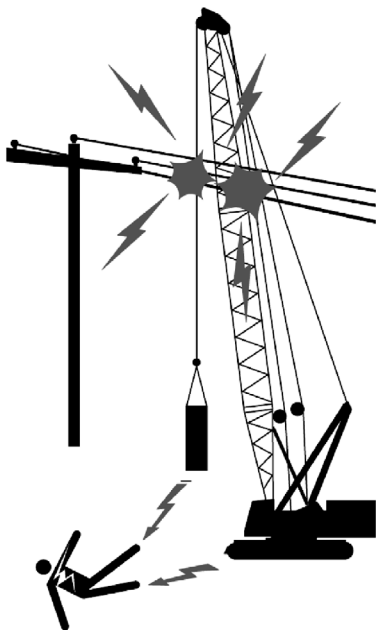


Overhead Obstruction Hazard



Falling Load Hazards
(Crush Hazard)

Power Line Hazard
(Electrocution)



Fire Extinguisher

	Personal Fall Protection	Sound Power Level	
	Pressure Cleaning	Read Manual	 
	Pressure Release Hazard	Tire Pressure	

SAFE OPERATING PRACTICES

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GENERAL

The importance of safe operation cannot be over emphasized. Carelessness and neglect on the part of operators, supervisors and planners, rigging personnel and job site personnel can result in their death or injury and costly damage to the crane or property.

The safety information in this publication is intended only as a guide to assist qualified operators in safe operation. Manitowoc cannot foresee all hazards that will arise in the field; therefore, **safety remains responsibility of crane operators and owner.**

Local, state, and other governmental agencies may require stricter operating practices. When a conflict in practices exists, follow the strictest practice.

READ CRANE INSTRUCTION MANUAL

An Operator's Manual is provided with our hydraulic line of cranes. A Service Manual is provided with our traditional line of cranes. Both manuals contain the same type of instructions: safety, operation, and maintenance.

For the remainder of this folio, the manual will be referred to as Crane Instruction Manual.

Safe and efficient operation of this crane requires that it be maintained in proper working order and that its operators and maintenance personnel be familiar with the crane's functions and capabilities.

The Crane Instruction Manual supplied with and considered part of your crane must be read and completely understood

by each person responsible for operation and maintenance of the crane.

The Crane Instruction Manual must be read to personnel who can not read or understand English or other language the manual is translated into.

Because of a program of continuing improvement in product design, Manitowoc reserves the right to change the information and specifications contained in the Crane Instruction Manual at any time without notice. If you have any questions regarding the crane or its Instruction Manual, please contact your Manitowoc distributor.



WARNING

Crane Instruction Manual and Capacity Charts must be kept in operator's cab at all times.

OPERATOR QUALIFICATIONS

The crane shall be operated only by the following **qualified** personnel:

1. Designated operators.
2. Trainees under direct supervision of a designated operator.
3. Supervisors, inspectors, and maintenance or test personnel when necessary in performance of their duties. Operation of the crane by these personnel shall be limited to the crane functions needed to perform the inspection or to verify the crane's performance after maintenance procedures.

No personnel shall be allowed to climb onto the crane or enter the crane cab unless performance of

their duties require them to do so, and then only with knowledge of the operator or other qualified person.

Qualified person is defined as one who by reason of training and experience is thoroughly familiar with crane operations and the hazards involved. Such a person shall meet the operator qualifications specified in OSHA Regulations (United States Federal Law), in ASME B30.5 American National Standard, or any other applicable Federal, State, or local laws.

Operator training and qualification is crane owner's responsibility.

NOTE: The regulations and standards mentioned above and later in this publication can be obtained from:

US DOL/OSHA Rules and Regulations are available by mail from the Superintendent of Documents, PO Box 371954, Pittsburgh, PA, 15250-7954 or by:

- Phone 202-512-1899
- Fax 202-512-2250
- Electronically via GPO Access at docs or from www.osha.gov.

ASME (formerly ANSI) B30 Series American National Standards are available by mail from the ASME, 22 Law Drive, Fairfield, New Jersey, 0700-2900 or by:

- Phone US & Canada 800-843-2763
- Phone Mexico 95-800-843-2763
- Phone Universal 973-882-1167
- Fax 973-882-1717 or 973-882-5155
- E-mail infocentral@asme.org.

OPERATOR CONDUCT

1. Operator shall not engage in any practice which diverts his/her attention while operating crane.
2. Operator shall not operate crane when physically or mentally unfit.
3. Operator shall be responsible for all operations under his/her direct control. When safety of an operation is in doubt, operator shall consult with person supervising lift before lifting load.
4. Operator shall be thoroughly familiar with operation of crane and its proper care. If adjustments or repairs are necessary or if there are known defects that impair safe operation, crane shall not be operated until unsafe conditions have been corrected.
5. If there is a warning sign at start controls, operator shall not start engine until warning sign has been removed by person who installed it.
6. Before starting engine, operator shall make sure that:
 - a. All daily inspection and maintenance services have been performed.
 - b. All controls are in off position and all brakes and locking devices are applied or engaged.
 - c. All personnel are clear of crane. Deploy a swing radius barrier to keep personnel clear of crane.
7. Operator shall test all controls, limits, and communication systems at start of each shift. Any defects found shall be corrected before operation is begun.



WARNING

Operational aids (accessories) such as rated capacity indicator or limiter, boom and jib angle indicator or limiter, anti-two-block device, level indicator, swing limiter, proximity device, etc., may be installed on your crane. Such devices are to be used only as **AIDS TO ASSIST OPERATOR**; their presence on crane in no way substitutes for or lessens requirement that operator knowledge, experience, and judgment are required to ensure safe operation of crane.

Crane shall not be loaded beyond applicable static or dynamic ratings given on capacity chart for crane.

- See Size of Load later in this section.
 - See Operation section of Crane Instruction Manual and Operational Aids topic in this section for purpose of each operational aid.
8. Operator shall not start crane movement if the load or designated signal person is not within his/her range of vision or communication.
 9. Operator shall understand and respond to signals from the person directing the lift or from the designated signal person. When a signal person or crane follower is not required, operator is responsible for lift. **Operator shall obey a stop signal at all times, no matter who gives it.**
 10. Operator shall verify that the capacity chart being used is the correct one for how the crane is equipped (boom length, load line reeving, counterweight, etc.).
 11. Operator shall verify that:
 - a. All attachments are properly assembled and attached to the crane according to the rigging drawings called for on the capacity chart.
 - b. The counterweight — to include applicable auxiliary counterweight — is in place and of proper weight. **Maximum required counterweight shall not be exceeded.**

**WARNING****Moving Load/Tipping Crane Hazard!**

Changing weather conditions including but not limited to: wind, ice or snow accumulation, precipitation, flooding, lightning, etc. should be considered when determining the location and configuration of a crane when it will be left unattended.

12. Operator shall perform the following operations before leaving operator's cab for any reason:

- a. Park crane and position upperworks so crane does not interfere with operation of other equipment.
- b. Apply travel and swing brakes or locking devices.
- c. Land any attached load.
- d. Lower boom onto blocking at ground level or onto a boom rest if possible.

If the boom cannot be lowered, as determined by a qualified designated person, it must be securely fastened from movement by wind or other outside forces (see Wind Conditions in Capacity Chart Manual).

NOTE: The designated person must be familiar with the job site limitations, the crane configuration, and the expected weather conditions.

- e. Move all controls to off.
- f. Apply all drum brakes and pawls.
- g. Disengage master clutch, if equipped.
- h. Stop engine.

NOTE: Also read Unattended Crane instructions in Operator's Manual.

13. Operator shall perform following operations if power or a control function fails during operation:

- a. Land all suspended loads, if possible, under brake or power control.
- b. Apply all brakes and locking devices.
- c. Move all controls to off.

14. If crane will be operated at night, operator shall make sure that there is sufficient lighting for safe operation. Load and landing area shall be illuminated.

15. Operator shall not operate crane during periods of bad weather if his or her ability to see load or signal person is impaired by darkness, fog, rain, snow, etc.

Never operate crane with a snow or ice-covered boom or jib. The extra weight may cause overload or tipping.

Never operate crane during an electrical thunderstorm.

When a local weather storm warning exists, (including electrical thunderstorms), stop operation and secure crane. See step 12 under Operator Conduct topic.

NOTE DO NOT depend on grounding. Grounding of a crane affords little or no protection from electrical hazards. The effectiveness of grounding is limited by size of conductor (wire) used, condition of ground, magnitude of voltage and current present, and numerous other factors.

16. Wind can cause crane to tip or boom and other attachments to collapse. Operator or qualified person directing lift shall compensate for effect of wind on load and boom by reducing ratings, reducing operating speeds, or a combination of both.

Unless otherwise specified on Capacity Chart, or in Crane Instruction Manual, stop operation under following wind conditions:

- a. If wind causes load to swing forward past allowable operating radius or sideways past either boom hinge pin, land load and apply drum brakes.
- b. If wind exceeds 35 mph, land all loads and apply drum brakes, lower boom onto blocking at ground level or otherwise restrain it, and apply swing and travel brakes and/or locks.

NOTE: "**Land load**" means to set it down on a firm uniformly supporting surface.

17. Booms, jibs, or masts which are being assembled or disassembled on ground (with or without support of boom rigging) shall be securely blocked to prevent dropping of boom, jib, or mast sections.

Workers shall not go under boom, jib, or mast sections when removing connecting pins or bolts.

18. Each outrigger shall be visible to operator or signal person during extension and retraction.

HANDLING LOAD**Size of Load**

1. Crane shall not be loaded beyond applicable static or dynamic ratings given on the capacity chart for the crane configuration.

NOTE: Capacity charts for Manitowoc cranes show the total weight of freely suspended loads for various boom and jib lengths and operating radii.

“Freely suspended load” is a load that is hanging free with no direct external force applied except by the crane’s load-line reeving.

To determine actual weight of load which can be lifted at a given radius (working load), operator must deduct weight of certain lifting equipment from total weight given on chart. See specific capacity chart for your crane for a list of lifting equipment which must be deducted.

Operator’s judgment must be used to further reduce total weight to allow for dynamic effects of swinging, hoisting, or lowering, and adverse weather conditions to include wind.

2. Operator or other designated person directing the lift shall verify that weight of load is within static or dynamic rating for radius at which load will be lifted.

Verified weights and measured radii shall take priority over RCI/RCL readings.

Attaching Load

1. Attach hook to load with slings, or other suitable rigging. Each hook shall have a latch that is in proper working order. **Hook latches shall not be wired open.**
 - a. Inspect each hook and latch before using.
 - b. Never use a hook or latch that is distorted or bent.
 - c. Make sure spring will force latch against tip of hook.
 - d. Make sure hook supports load. Latch must never support load. Latches are only intended to retain loose slings under slack conditions.
2. Only use slings and other rigging that are in safe operating condition and have a rating equal to or greater than the load to be lifted.
3. Do not wrap load line around load.
4. Use suitable protection between slings and any sharp edges on load.
5. Secure unused legs of a multi-leg sling before handling a load with one leg of sling.

Lifting/Moving Load

1. Before lifting or moving load, operator or qualified person directing lift shall make following checks:
 - a. Crane has a firm uniformly supporting foundation under both crawlers, all tires, or each outrigger jack pad or float. Unless otherwise specified on capacity chart, foundation shall be *level to within 1% — 1 ft (0,3 m) rise or fall in 100 ft (30,5 m) distance.*

When such a surface is not available, it shall be provided with timbers, cribbing, or other structural members to distribute load such that allowable bearing capacity of underlying member is not exceeded.

Contact Crane Care Customer Service at Manitowoc for ground bearing data.

- b. Load is secured and properly balanced in slings or lifting device before lifting the load more than 3 – 6 in (76 – 152 mm).
 - c. Lift and swing paths are clear of personnel and obstructions.
 - d. Load is free to be lifted.
 - e. Load line is not kinked or otherwise damaged.
 - f. Multiple part load lines are not twisted around each other in such a manner that lines will not separate when load is lifted.
 - g. Hook is brought over load in a manner that will minimize twisting or swinging.
 - h. Load line and boom hoist ropes are properly spooled on drums and seated in sheaves.
 - i. Load drum brakes are in proper working order.
- Operator shall test load drum brakes each time a load approaching rated load is handled. Lift load 3 – 6 in (76 – 152 mm) and fully apply brakes — *load must not lower through applied brakes.*
- j. Unused load drums are parked (working and parking brakes applied; if equipped, drum pawls engaged).
 - k. All personnel are clear of swing radius of crane’s counterweight.

2. While lifting or moving load, operator shall take following precautions:
 - a. Accelerate and decelerate load smoothly to avoid excessive stress on crane boom and machinery.
 - b. Avoid sudden starts and stops while swinging. Keep swing speed under control to prevent load from swinging out beyond radius at which load can be handled and to minimize the pendulum action of load.
 - c. Use taglines or other restraints to control load when necessary.
 - d. Do not exceed any swing limitations (areas of operation) given on capacity chart.
 - e. Do not allow load, boom, or any other part of crane to contact obstructions.
 - f. Do not use crane to drag a load.
 - g. Do not hoist, lower, or swing load while personnel are on load or hook. See Personnel Handling in this section.
 - h. Avoid carrying load over personnel. Loads which are suspended shall be blocked or cribbed before personnel are allowed to work under or between them.

- i. Before lifting a load which requires use of outriggers (or anytime outriggers are used), fully extend outrigger beams and jacks so the truck tires do not bear any load.

Securely fasten outrigger jack pads or floats to jacks and set them on a flat, firm surface that will support load placed on pads or floats. Do not set jack pads or floats in holes, on rocky ground, or on extremely soft ground.

When dictated by ground conditions, install wood blocking or steel plates under jack pads or floats to properly distribute loading on the supporting surface.

Wood blocking or steel plates used under jack pads or floats shall be:

- Free of defects.
- Strong enough to prevent crushing, bending, or shear failure.
- Of sufficient thickness, width, and length to completely support the jack pad or float, transmit the load to the supporting surface, and prevent shifting, toppling, or excessive settlement under load.

- j. Fully retract and lock jacks and outrigger beams so they cannot extend when not in use.

- k. Operate with extreme caution when using two or more cranes to lift same load.

One designated person shall be responsible for operation when two or more cranes are used to lift same load. Designated person shall analyze lift and instruct all personnel involved in proper rigging and positioning of load and all movements to be made. Decisions such as necessity to reduce crane ratings, load position, boom position, ground support, and speed of movements shall be in accordance with designated person's decision.

- l. Do not lower load or boom to a point where less than two full wraps of wire rope remain on the respective drum (or as otherwise indicated in local, state, or federal regulations).

- m. Engage boom hoist pawl when operating with boom at a fixed radius.

- 3. While traveling, operator shall take following precautions:

- a. Sound signal horn before traveling and intermittently while traveling, especially when approaching personnel.
- b. Carry boom in-line with lowerworks and facing direction of travel.
- c. Do not position boom so high that it could bounce over backwards whether traveling with or without load.

- d. Lock upperworks against rotation except when it is necessary to negotiate a turn, and then only when operator is seated at controls or the boom is supported on a dolly.

- e. Lash or otherwise restrain unused hooks so they cannot swing freely.

- 4. Before traveling with a load, operator shall take following additional precautions:

- a. A designated person shall be responsible for operation. Decisions such as necessity to reduce crane ratings, load position, boom position, ground support, and speed of movements shall be in accordance with designated person's decision.

- b. Maintain specified tire pressures (truck cranes).

- c. Avoid sudden starts and stops. Use taglines or other restraints to control position of load.

Multiple Load Line Operation

Multiple load line operation is becoming common practice for applications like panel tilt-up, pile tilt-up, pile driving, rolling fabricated sections, etc. The multiple lines may be on a common shaft (each with different parts of line) or on multiple shafts (boom and upper point, boom and fixed jib point, etc.).

Manitowoc authorizes multiple load line operation for those applications requiring it, provided following steps are performed:

1. A qualified lift planner and crane operator shall read and become thoroughly familiar with appropriate Capacity Charts and Wire Rope Specification Charts.
2. Lift planner and crane operator shall make sure total load does not exceed rated capacity given in Capacity Chart and Wire Rope Specification Chart for given boom point or jib point.

EXAMPLE: If one load line is lifting from jib point, proper jib chart applies.

3. Crane shall be thoroughly inspected by a qualified person prior to setup.
4. Crane shall be thoroughly inspected for load line interference caused by routing and reeving of multiple load lines. If interference is found, it shall be eliminated.
5. For cranes produced before 2003, Rated Capacity Indicators/Limiters were not required by ASME B30.5 for non-personnel lifting.

To aid operator in staying within crane's capacity chart with total applied load, Manitowoc recommends that its cranes be equipped with Rated Capacity Indicators/Limiters to monitor load on each load line.

Operator is still responsible knowing load and radius whether or not crane is equipped with load indicator(s).

6. Manitowoc also recommends that each load line be equipped with an anti two-block device.

7. Manitowoc's Capacity Charts are based on freely suspended loads. To prevent side load damage to boom, jib, and sheaves:
 - Load lines must hang as near vertical as possible to minimize side and forward loads.
 - Load must remain centered on boom and jib point shafts unless special lift approval is granted by Manitowoc.
 - Load lines should be located over load's center of gravity as it is supported on a trailer, barge, or ground.
8. Crane operator must be familiar with operational characteristic of crane as it relates to multiple drum operation (simultaneous operation, same or opposite direction, or individual operation).
9. When using tandem drums, maximum operating layers may be limited depending on whether crane was initially designed for tandem drum operation or not.
5. When it is necessary to give instructions to operator (other than those established by signal system), all crane motions shall be stopped.
6. Signal person shall:
 - a. Be tested by a designated person and show that he or she has a basic understanding of crane operations and limitations and is thoroughly familiar with the standard hand signals and voice signals if used.
 - b. Be positioned in clear view of operator. Signal person's position should give him or her a clear view of load, crane, and operating area.
 - c. Direct load so it does not pass over personnel.
 - d. Keep unnecessary personnel out of crane's operating area.
7. When moving crane, following audible signals shall be used:
 - a. STOP - one short audible signal.
 - b. GO AHEAD - two short audible signals.
 - c. BACK UP - three short audible signals.



WARNING

Avoid Over Load and Side Load Damage to Crane

Manitowoc highly recommends that you contact your distributor for lift planning assistance and approval.

Holding Load

When a load is suspended, operator shall take following precautions:

1. Not leave his/her position at controls.
2. Not allow personnel to stand or pass under load.
3. Move all controls to off, apply all drum brakes, engage boom hoist pawl, and apply swing and travel brakes or locks.

SIGNALS

1. Continuous communication shall be maintained between operator and signal person during all crane movements. If communication is disrupted, **operator shall stop all crane movements.**
2. Signals to operator shall be in accordance with standard signals shown in Section 3, unless communications equipment (telephone, radio, etc.) is used.
3. All signals shall be easily understood by operator at all times. Operator shall not respond to any signal which is not clearly understood.
4. For operations not covered in standard signals, or for special situations or emergencies, additional signals may be required. In those cases, signals used shall be agreed upon in advance by operator and signal person. Signals used shall not conflict with or have potential to be confused with standard signals.

OPERATIONAL AIDS

Verified weights, measured radii, and Manitowoc's Capacity Charts and instructions shall take precedence over operational aids when handling a load. If it is necessary to temporarily override an operational aid, crane user shall stay within limits of Manitowoc's Capacity Charts and instructions. A designated, qualified person responsible for directing the lift shall make sure load does not exceed capacity chart.

When operational aids are inoperative or malfunctioning, the following steps shall be taken to ensure safe continued operation of the crane.

1. Steps shall be taken to schedule repairs and calibration immediately. Operational aids shall be put back into service as soon as replacement parts, if required, are available and repairs and calibration can be carried out. Every reasonable effort must be made to expedite repairs and calibration.
2. When **rated capacity indicator/limiter** is inoperative or malfunctioning, designated, qualified person directing lift shall establish procedures for determining load weights and shall make sure that weight of load does not exceed crane rating at radius where load is handled.
3. When **boom angle** or **radius indicator** is inoperative or malfunctioning, radius or boom angle shall be determined by measurement (i.e., measure radius with tape measure; measure boom angle with a protractor-level on centerline of boom).
4. When **boom or jib angle limiter (automatic boom or jib stop)** is inoperative or malfunctioning, qualified person directing lift shall make sure maximum boom angle/radius specified on capacity chart for load being

handled is not exceeded. Radius and boom angle shall be determined by measurement (i.e., measure radius with tape measure; measure angle with a protractor-level on centerline of boom).

5. When **anti-two-block device** is inoperative or malfunctioning, qualified person directing lift shall establish procedures to furnish equivalent protection (i.e., assign an additional signal person to observe distance between load and boom or jib point).

This practice does not apply when lifting personnel in load line supported baskets. **Personnel shall not be lifted in load line supported baskets when anti-two-block devices are not functioning properly.**

6. When **level indicator** is inoperative or malfunctioning, other means shall be used to level crane within limits specified on capacity chart (i.e., level crane using a carpenter level on rotating bed).
7. When **boom length indicator** is inoperative or malfunctioning, qualified person directing lift shall establish boom length at which lift will be made by actual measurement and marking of boom.
8. When **swing limiter** or other **proximity device** is inoperative or malfunctioning, qualified person directing lift shall establish procedures to furnish equivalent protection (i.e., assign an additional signal person to observe distance between boom or load and job site obstructions to include power lines).
9. When **drum spooling limiter** (maximum or minimum bail limit) is inoperative or malfunctioning, qualified person directing lift, operator, or designated signal person shall watch drum and make sure it is not over spooled (rope does not jump off drum) and that there are never less than 2 full wraps of wire rope on load drum or boom hoist (or as otherwise indicated in local, state, or federal regulations).
10. When **closed-circuit television** (CCTV) is inoperative or malfunctioning, designated signal persons shall watch load, drums, and counterweight and provide necessary hand or voice signals to the crane operator.

PEDESTAL MOUNTING

A crane which is pedestal mounted or otherwise secured to a structure (such as a barge) is not like a land based crane. A pedestal mounted crane will not tip to warn the operator that the crane's capacity has been exceeded. When the capacity of a pedestal mounted crane is exceeded, structural components will fail without warning and the crane may break away from the pedestal. See Folio 1064 in Crane Instruction Manual for pedestal mounted crane mounting instructions and operating precautions.

PERSONNEL HANDLING

Manitowoc cranes are neither designed for nor intended to be used as personnel hoists. See Folio 1295 in Crane Instruction Manual for Manitowoc's policy on personnel handling.

GETTING ON OR OFF CRANE

Personnel getting on and off crane shall do so only at steps or ladders provided and only **while crane is parked**.

Never climb onto or off a moving crane. **Climb onto and off crane only when it is parked and only with operator's permission.**

When personnel use ladders to get onto and off the crane, their hands shall be free of any objects. Objects which cannot be carried in pockets or tool belts shall be lifted into place with a hand line or hoist.

CRANE ACCESS POINTS



WARNING

Crush Hazard!

Upperworks can swing into and crush personnel climbing on or off crane.

Moving crawlers can crush personnel climbing on or off crane.

To prevent death or serious injury:

- Barricade all accessible areas to crane so personnel cannot be struck or crushed when upperworks is swung (swing radius barrier not on all cranes).
- Do not climb onto or off crane while upperworks is being swung or crane is being traveled.
- Signal operator for permission to climb onto/off crane.
- Operator: do not swing or travel while personnel are climbing onto or off crane. Stop swing and travel motions. Apply swing brake and turn on travel park.
- Operator: Always sound horn to alert personnel before you swing or travel.

General

Take necessary precaution to prevent slipping and/or falling off the crane during assembly, disassembly, maintenance, or other work. **Falling from any height could result in serious injury or death.**

The owner/user must provide workers with approved ladders or aerial work platforms to access those areas of the crane, mast, and boom that cannot be reached from the ground or from steps, ladders, catwalks, and platforms provided by Manitowoc.

Adhere to local, state, and federal regulations for handling personnel and for personnel fall protection.

- Access points must be kept clear to prevent personal injury and unsafe operation of crane. Store clothing and other personal belongings so they do not interfere with controls in operator's cab or with operation of crane.
- Tools, oil cans, spare parts, and other necessary equipment must be stored in tool boxes or other appropriate locations. Do not allow these items to lie around loose in operators cab or on steps, ladders, and platforms.
- To reduce risk of slipping, non-skid material (sand in paint) has been applied to painted walkways and platforms.

Walkways and platforms can be slippery when wet and when oil or grease is spilled on them. **Keep walkways and platforms clean and dry to prevent slipping on them.** When non-skid material wears out, reapply it.
- Wear shoes with a highly slip-resistant sole material. Clean any mud or debris from shoes before entering the crane cab or climbing onto the cab. A shoe that is not clean might slip off a control pedal during operation.
- Do not make modifications or additions to the crane's access system that have not been evaluated and approved by Manitowoc.
- Do not use top of mast, boom, or jib as walkways (unless they have optional catwalks).

NOTE Optional walkways (catwalks) are available for the boom and luffing jib sections, but only for those countries that authorize their use.

Ladders, stored in insert next to the boom butt, are available for boom assembly and disassembly.

OPERATING NEAR ELECTRIC POWER LINES/TRANSMISSION LINES

Electrocution Hazard

Thoroughly read, understand, and abide by all applicable federal, state, and local regulations regarding operation of cranes near electric power lines or equipment.

United States federal law prohibits the use of cranes closer than 10 ft (3 m) to power sources up to 50,000 volts, and greater distances for higher voltages [29CFR1910.180 and 29CFR1926.550].

To avoid death or serious injury, Manitowoc recommends that all parts of crane, boom, and load be kept at least 20 ft (6 m) away from all electrical power lines and equipment.

NOTE For detailed guidelines on operating near power lines, see current edition of ASME B30.5 American National Standard.

Keep all personnel and their personal belongings (clothing, water coolers, lunch buckets, etc.) away from crane if it is being operated near electrical power lines or equipment.

Before operating crane in the vicinity of electrical power lines or equipment, notify the power utility company. Obtain positive and absolute assurance that the power has been turned off.

The crane is NOT INSULATED. Always consider all parts of the load and the crane, including the wire rope, pendants or straps, and tag lines as conductors.

Most overhead power lines ARE NOT insulated. Treat all overhead power lines as being energized unless you have reliable information to the contrary from the utility company or owner.

The rules in this section must be followed at all times, even if the electrical power lines or equipment have been de-energized.

Crane operation is dangerous when close to an energized electrical power source. Exercise extreme caution and prudent judgement. Operate slowly and cautiously when in the vicinity of power lines.

If the load, wire rope, boom, or any portion of the crane contacts or comes too close to an electrical power source, everyone in, on, and around the crane can be seriously injured or killed.

The safest way to avoid electrocution is to stay away from electrical power lines and electrical power sources.

The operator is responsible for alerting all personnel of dangers associated with electrical power lines and equipment. The crane is not insulated. Do not allow unnecessary personnel in the vicinity of the crane while operating. Permit no one to lean against or touch the crane. Permit no one, including riggers and load handlers, to hold the load, load lines, tag lines, or rigging gear.

Even if the crane operator is not affected by an electrical contact, others in the area may become seriously injured or killed.

It is not always necessary to contact a power line or power source to become electrocuted. Electricity, depending on magnitude, can arc or jump to any part of the load, load line, or crane boom if it comes too close to an electrical power source. Low voltages can also be dangerous.

Set-Up and Operation

During crane use, assume that every line is energized ("hot" or "live") and take necessary precautions.

Position the crane such that the load, boom, or any part of the crane and its attachments cannot be moved to within 20 ft (6 m) of electrical power lines or equipment. This includes the crane boom and all attachments. Overhead lines tend to blow in the wind so allow for lines' movement when determining safe operating distance.

A suitable barricade should be erected to physically restrain the crane, all attachments, and the load from entering into an unsafe distance from electrical power lines or equipment.

Plan ahead and always plan a safe route before traveling under power lines. A wooden clearance frame should be

constructed to ensure sufficient clearance is maintained between crane and power lines.

Appoint a reliable and qualified signal person, equipped with a loud signal whistle or horn and voice communication equipment, to warn the operator when any part of the crane or load moves near a power source. This person should have no other duties while the crane is working.

Tag lines should always be made of non-conductive materials. Any tag line that is wet or dirty can conduct electricity.

DO NOT store materials under power lines or close to electrical power sources.

Prior to operating near transmitter towers where an electrical charge can be induced into the crane or load:

- The transmitter shall be deenergized OR,
- Tests shall be made to determine if an electrical charge will be induced into the crane or load.

Every precaution shall be taken to dissipate induced voltages. Consult local, state, and federal codes and regulations.

Electrocution Hazard Devices

The use of insulated links, insulated boom cages/guards, proximity warning devices, or mechanical limit stops does not assure that electrical contact will not occur. Even if codes or regulations require the use of such devices, failure to follow the rules in this section may result in serious injury or death.

Be aware that such devices have limitations and you should follow the rules and precautions outlined in this section at all times even if the crane is equipped with these devices.

Insulating links installed into the load line afford limited protection from electrocution hazards. Links are limited in their lifting abilities, insulating properties, and other properties that affect their performance. Moisture, dust, dirt, oils, and other contaminants can cause a link to conduct electricity. Due to their capacity ratings, some links are not effective for large cranes and/or high voltages/currents.

The only protection that may be afforded by an insulated link is below the link (electrically downstream), provided the link has been kept clean, free of contamination, has not been scratched or damaged, and is periodically tested (just before use) for its dielectric integrity.

Boom cages and boom guards afford limited protection from electrocution hazards. They are designed to cover only the boom nose and a small portion of the boom. Performance of boom cages and boom guards is limited by their physical size, insulating characteristics, and operating environment (e.g. dust, dirt, moisture, etc.). The insulating characteristics of these devices can be compromised if not kept clean, free of contamination, and undamaged.

Proximity sensing and warning devices are available in different types. Some use boom nose (localized) sensors and others use full boom length sensors. No warning may be

given for components, cables, loads, and other attachments located outside of the sensing area. Reliance is placed upon the operator in selecting and properly setting the sensitivity of these devices.

Never rely solely on a device to protect you and your fellow workers from danger.

Some variables you must know and understand are:

- Proximity devices are supposed to detect the existence of electricity and not its distance, quantity, or magnitude.
- Some proximity devices will detect only alternating current (AC) and not direct current (DC).
- Some proximity devices detect radio frequency (RF) energy and others do not.
- Most proximity devices simply provide a signal (audible, visual, or both) for the operator and this signal must not be ignored.
- Sometimes the sensing portion of the proximity devices becomes confused by complex or differing arrays of power lines and power sources.

DO NOT depend on grounding. Grounding of a crane affords little or no protection from electrical hazards. The effectiveness of grounding is limited by the size of the (wire) conductor used, the condition of the ground, the magnitude of the voltage and current present, and numerous other factors.

Electrical Contact

If the crane comes in contact with an energized power source, the operator must:

1. Stay in the crane cab. DON'T PANIC.
2. Immediately warn PERSONNEL in the vicinity to STAY AWAY.
3. Attempt to move the crane away from the contacted power source using the crane's controls which are likely to remain functional.
4. Stay in the crane until the power company has been contacted and the power source has been de-energized. NO ONE must attempt to come close to the crane or load until the power has been turned off.

Only as a last resort should an operator attempt to leave the crane upon contacting a power source. If it is absolutely necessary to leave the cab, JUMP COMPLETELY CLEAR OF CRANE. DO NOT STEP OFF. Hop away with both feet together. DO NOT walk or run.

Following any contact with an energized electrical source, the local, authorized, Manitowoc distributor must be immediately advised of the incident and consulted on necessary inspections and repairs. Thoroughly inspect the wire rope and all points of contact on the crane. Should the distributor not be immediately available, contact CraneCARE Customer Service at the factory. The crane must not be returned to service until it is thoroughly inspected for any

evidence of damage and all damaged parts are repaired or replaced as authorized by Manitowoc or the local Manitowoc distributor.

REFUELING

1. When using a portable container to refuel crane, container shall be a safety-type can equipped with an automatic closing cap and a flame arrester.
2. Engine shall be **stopped** before refueling crane.
3. Smoking and open flames shall be prohibited in refueling area.

FIRE EXTINGUISHERS

1. A portable fire extinguisher with a minimum rating of 10 BC shall be installed in operator's or machinery cab of crane.
2. Operator and all maintenance personnel shall be thoroughly familiar with location, use, and care of fire extinguisher(s) provided.

ACCIDENTS

If this crane becomes involved in a property damage and/or personal injury accident, immediately contact Crane Care Customer Service or the Product Safety and Reliability Manager at the following address:

Manitowoc Cranes

2401 So. 30th St.
Manitowoc, WI 54220

Phone: 888-499-7278 **or**
920-683-6390

Provide a complete description of the accident, including the crane model and serial number.

PEDESTAL/BARGE MOUNTED CRANES

Definitions & Operating Precautions

Table of Contents

Pedestal Mounted Crane	1	Shock Loading	3
Definition	1	Definition	3
Examples	1	Operation On Barge	3
Barge Mounted Crane.....	2	General	3
Definition	2	Definitions	3
Examples	2	Crane Inspection.....	4
Capacity Charts	3	Transporting Crane on Barge.....	4



WARNING

Crane owner/user must verify that method used to fasten or restrain crane to foundation, barge, ship or floating platform is strong enough, under all operating conditions, to prevent crane from breaking off foundation or moving on barge.

Manitowoc does not permit use of a truck crane on a barge, ship or floating platform.

PEDESTAL MOUNTED CRANE

Also see ASME publication B30.8-2004, Floating Cranes and Derricks.



WARNING Overload Hazard!

A pedestal mounted crane will not tip to indicate to operator that crane's capacity has been exceeded. When capacity of a pedestal mounted crane is exceeded, turntable bearing, hook rollers (if equipped), or other structural components may break, before load lines fail, causing crane to separate from pedestal.

For this reason, great care must be taken to operate a pedestal mounted crane within its rated capacity.

Careful planning is required before a crane can be operated on a barge. Crane user shall verify that barge is capable of limiting crane list and/or dynamics to maximum allowable specified on capacity charts. If specified crane list and/or dynamic conditions are exceeded, crane's capacity may be exceeded; therefore, turntable bearing, hook rollers (if equipped), or other structural components may break, causing crane to separate from pedestal.

Definition

A pedestal mounted crane is a crane which is securely fastened to a foundation, barge, ship or floating platform so the crane is restrained from tipping.

Examples

1. Crane upperworks mounted on a turret (or tub) which is securely fastened to foundation (Figure 1).

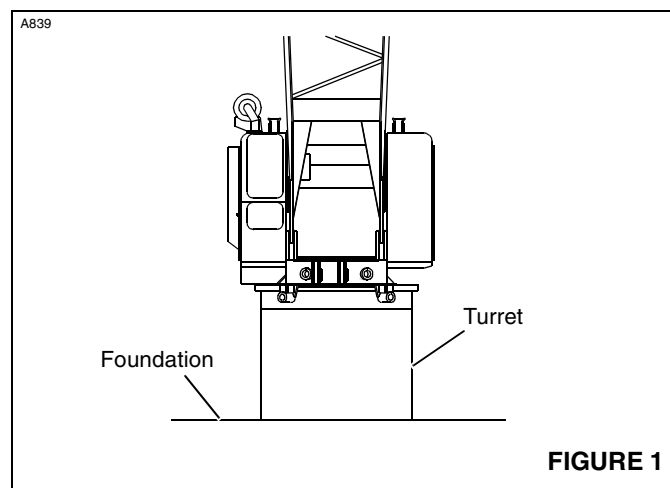
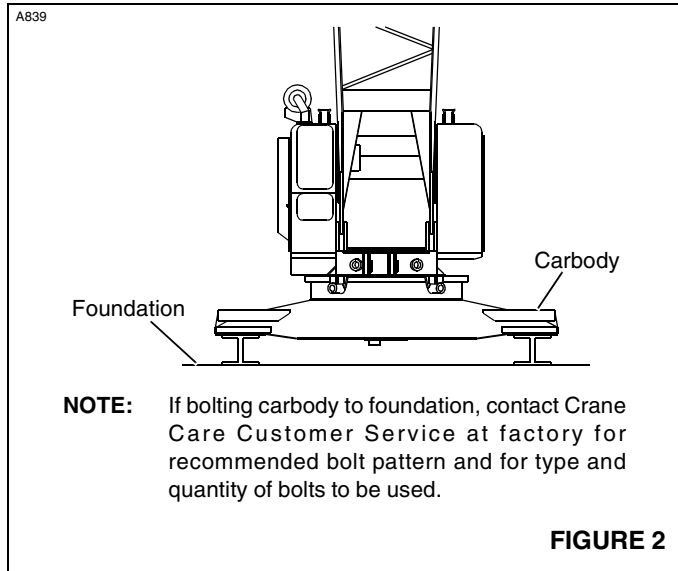


FIGURE 1

2. Crane upperworks mounted on a carbody (crawlers removed) which is securely fastened to foundation (Figure 2).



BARGE MOUNTED CRANE

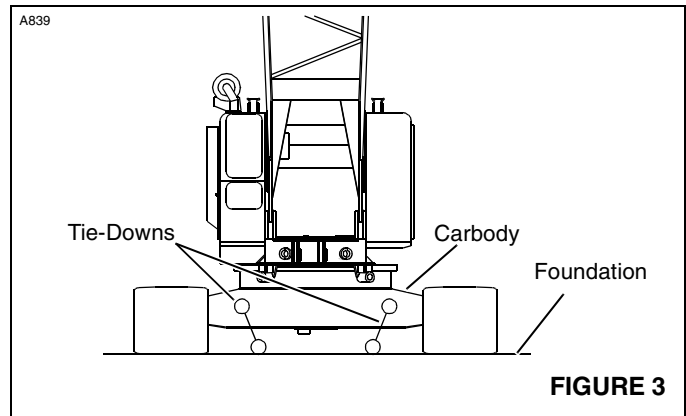
Definition

A barge mounted crane is a crane that is anchored or restrained in a work area of the barge, ship, or floating platform and is subjected to tipping forces.

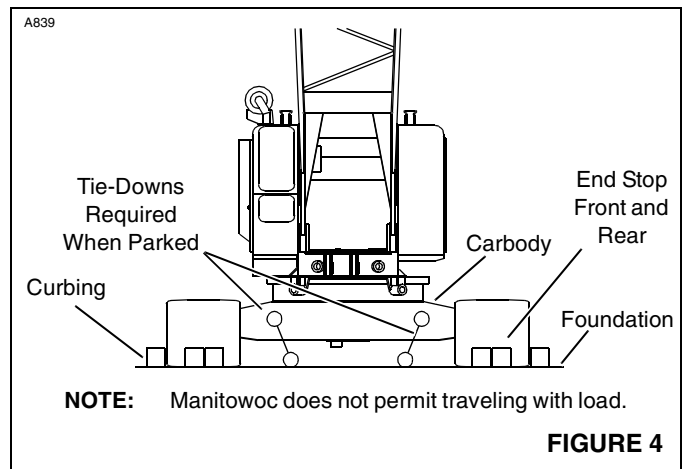
Examples

NOTE: The foundation is the deck of the barge, ship or floating platform.

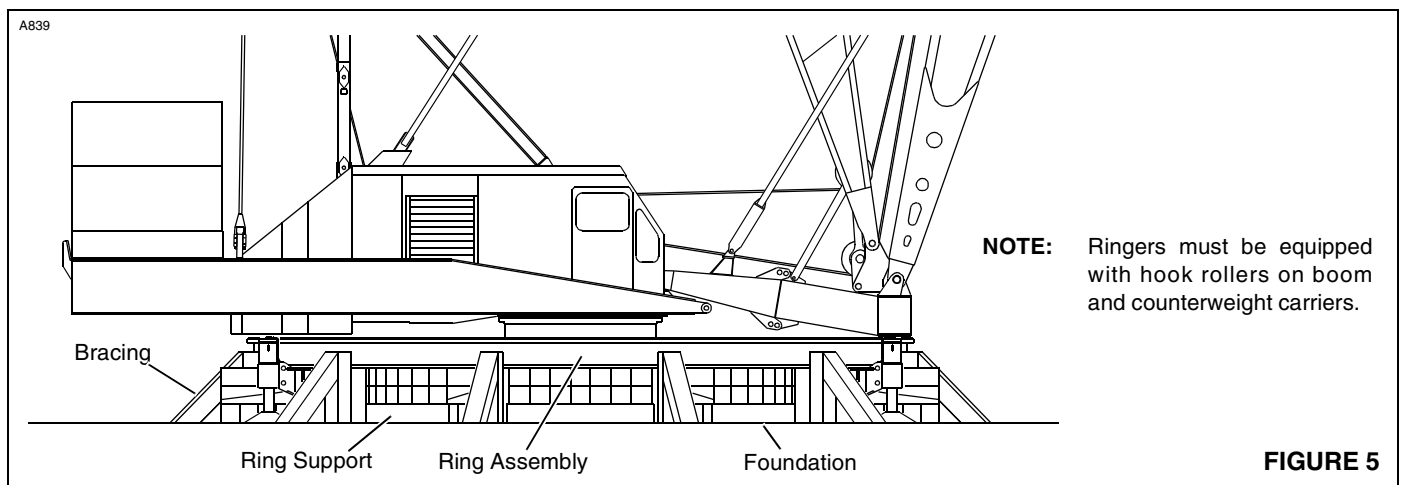
1. Crawler-mounted crane with carbody anchored with tie-downs to foundation (Figure 3).



2. Crawler-mounted crane working on timbered area of barge, ship or floating platform with crawlers restrained by curbing and end stops (Figure 4). When not working, crane carbody is anchored with tie-downs to foundation. **Traveling with load is not permitted.**



3. RINGER® (crawler mounted, carbody mounted) supported on blocking, screw jacks or steel pedestals which are braced and fastened to foundation in such a manner as to prevent movement (Figure 5).
4. RINGER (platform mounted) which has ring braced and fastened directly to foundation in such a manner as to prevent movement.



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AXIS		TRANSITIONAL		ROTATIONAL	
SYMBOL	NAME	STATIC	DYNAMIC	STATIC	DYNAMIC
X	Longitudinal		Surge	Heel List	Roll
Y	Vertical		Heave		Yaw
Z	Lateral		Sway	Trim	Pitch

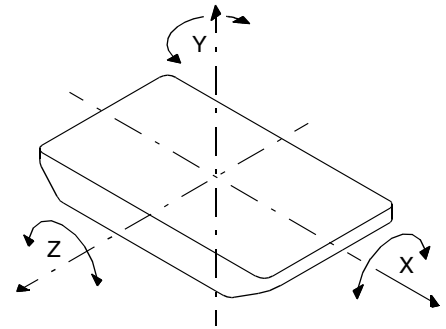


FIGURE 6

CAPACITY CHARTS

Manitowoc Cranes provides two types of capacity charts for a crane mounted on a barge or other supporting structure under static conditions.

1. A capacity chart based on tipping when crane is anchored only to prevent shifting.
2. A capacity chart based on structural competence when crane is securely fastened for use as a pedestal mounted crane.

NOTE: Unless otherwise specified on a machine list capacity chart, a "0" degree machine list capacity chart rating applies to machine list **not to exceed 1/2 degree**. All other machine list ratings – 1°, 2°, and 3° – must NOT be exceeded.

SHOCK LOADING

Definition

Shock loads to the crane can be experienced when the barge is subjected to up and down movement of wave action (referred to as DYNAMICS). Figure 6 illustrates the dynamic conditions of the barge which influence crane capacity.

CAUTION

Structural Damage Hazard!

If crane boom or structure is shock loaded during operation, or there is any indication of shock loading, all structural components of crane shall be inspected to detect cracks and other damage. Nondestructive test equipment, such as magnetic particle or ultrasonic procedures, is recommended for this inspection.

NOTE: Manitowoc does not allow operation under dynamic conditions.

Operation On Barge

General

Machine list and/or dynamics will be experienced when a crane is operated on a barge, ship or floating platform. Both

of these conditions reduce the crane's capacity, and each must be taken into account for safe operation on a barge, ship or floating platform.



WARNING

Tipping Crane Hazard!

Tie-downs which only prevent crane from shifting as in barge, ship or floating platform mounting, may not provide adequate support when using a capacity chart for pedestal mounting. Before operating a crane on a barge, ship or floating platform, crane user shall verify that correct capacity chart is being used — pedestal mounted, barge mounted, 0°, 1°, 2° or 3° list or dynamic capacity chart.

Failing to use correct capacity chart can result in an accident.

Definitions

1. **Machine List**, as defined by Manitowoc, is crane's out-of-level condition — from side-to-side — as measured by angle between horizontal and a line drawn through centerline of crane's boom hinge pins (Figure 7). This out-of-level condition creates side load and effects crane's lifting capacity.

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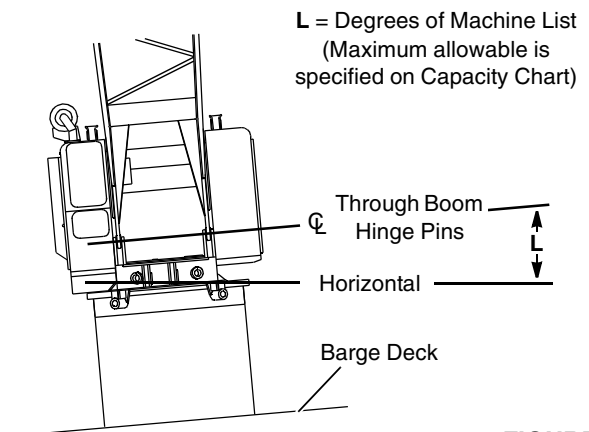


FIGURE 7

2. *Barge List* (also referred to as heel or trim) causes swing out of the load and may produce side load. When Manitowoc provides a capacity chart showing capacities for a 2 degree machine list for example, we are referring to maximum allowable lifting capacity for crane when experiencing an out-of-level condition (side-to-side) of 2 degrees as measured by angle between horizontal and a line drawn through centerline of crane's boom hinge pins.

Unless otherwise specified on capacity chart, barge list (heel or trim) must not exceed machine list degrees given on the capacity chart.

3. *Barge List and Machine List are not same.* As machine rotates on barge, barge list (as defined above) will change. Worst machine list condition generally occurs when machine swings over corner of barge, producing maximum side load.

Crane Inspection

To aid in preventing harmful and damaging failure as previously indicated, regular inspection for signs of overloading in the following load bearing components is required. Correct each defect found before placing the crane into service.

- Boom
- Gantry

- Backhitch
- Rotating Frame
- Wire Rope
- Pendants and Straps
- Turntable Bearing

When equipped with hook rollers, it is recommended that each hook roller assembly be inspected daily for any sign of overloading, to include:

- Deformation of roller path.
- Proper hook roller adjustment.
- Deformation or cracks in hook roller hanger.
- Bent hook roller shaft.
- Damaged bearings.

Transporting Crane on Barge

If it is necessary to transport the crane on a barge, ship or floating platform when dynamic conditions will be experienced, the boom shall be lowered onto a cradle (or other support) and the boom, crane upperworks and lowerworks shall be secured against movement. If the crane is equipped with a mast, the mast shall be securely tied down with guy lines. Failing to take these steps can result in shock load or side load damage to the boom and mast.

CAPACITY CHART INFORMATION

All Models

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GUIDE FOR DETERMINING TOTAL LOAD AND MAXIMUM WORKING RADIUS



WARNING

Falling Load Hazard!

Prevent crane from tipping or structural failure of attachment. Perform following steps prior to lifting any load:

- Read capacity chart to determine what is considered part of total load.
- Calculate total load to be lifted.
- Do not exceed maximum working radius for total load to be lifted.

Capacity charts for Manitowoc cranes show the total weight of freely-suspended loads for various boom/jib lengths and operating radii.

NOTE “*Freely-suspended load*” is a load that is hanging free with no direct external force applied except by the crane’s load-line reeving.

To determine the total weight of the load that can be lifted at a given radius, the operator must include the weight of certain lifting equipment, such as the following:

- Jib.
- Upper boom point.
- Intermediate fall point.
- Wire rope below boom, jib, and intermediate fall points.
- Load blocks and hook and weight balls below boom, jib, and intermediate fall points.
- Slings and other lifting equipment below boom, jib, and intermediate fall points.

This folio contains worksheets to assist qualified operators in determining the total load to be lifted and the maximum working radius for that load.

The work sheets provided in this folio are for standard lifting arrangements. What is and is not considered part of the total load can vary from one capacity chart to another and from one attachment to another. ***Read capacity chart in use to determine what is considered part of total load.*** If in doubt, contact your Manitowoc Crane Care distributor for assistance.

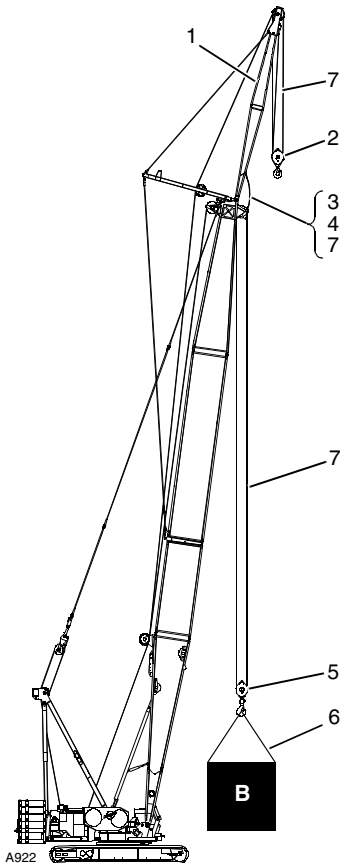
EXAMPLE – Determining Total Load and Maximum Working Radius From Lower Boom Point

For this example, an M-250 equipped as follows has been used:

- B30.5 Capacity Chart
- 130 ft of #44 Heavy Lift Boom
- 40 ft of #132 Jib
- 60 U.S. Ton Block with 4-Part Load Line Suspended 30 ft below Jib Point
- 100 U.S. Ton Block with 4-Part Load Line from Lower Boom Point (full block travel)
- 50,000 lb Load from Lower Boom Point
- 2.7 lb/ft Weight of Wire Rope.

Deduct from Capacities when Jib is Attached

Jib Length	Jib No. 132
40'	6,400 lbs
60'	8,200 lbs
80'	10,300 lbs
100'	12,800 lbs
120'	15,300 lbs



Boom Lgth. Feet	Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Capacity Pounds
130	26	82.7	136.6	350,700*
	27	82.2	136.4	348,700*
	28	81.8	136.2	346,700*
	29	81.3	136.1	337,400
	30	80.9	135.9	378,300
	32	80.0	135.5	285,800
	34	79.1	135.1	259,100
	36	78.2	134.6	236,600
	38	77.3	134.2	217,600
	40	76.4	133.6	201,200
	42	75.4	133.1	186,900
	44	74.5	132.5	174,400
	46	73.6	131.9	163,300
	48	72.7	131.2	153,500
	50	71.7	130.5	144,600
	55	69.4	128.7	126,100
	60	67.0	126.5	111,300
	65	64.5	124.1	99,300
	70	62.1	121.5	89,400
	75	59.5	118.5	81,000
	80	56.9	115.3	73,800
	85	54.2	111.7	67,600
	90	51.3	107.7	62,200
	95	48.4	103.3	57,400
	100	45.3	98.4	53,200
105	42.0	92.9	49,400	
110	38.5	86.7	46,000	
115	34.7	79.7	42,900	
120	30.5	71.5	40,100	
125	25.6	61.5	37,600	

130

D

DESCRIPTION

WEIGHT (lb)

Component Weights

1 Fixed Jib (see Jib Deduct table in capacity chart)	6,400
2 Load Block/Hook and Weight Ball (below jib point)	2,825
3 Upper Boom Point (from capacity chart if noted)	Does Not Apply
4 Load Block/Hook and Weight Ball (below upper boom point)	Does Not Apply
5 Load Block/Hook and Weight Ball (below lower boom point)	4,800
6 Total Weight of Slings and Other Lifting Equipment Below Jib Point, Upper Boom Point, and Lower Boom Point	700
7 Total Weight of Wire Rope Below Fixed Jib Point, Upper Boom Point, and Lower Boom Point (see equation below)	1,530

for this example: Jib: 30 ft of rope x 4 parts of line x 2.7 lb/ft = 324 lb plus

Boom: 111.7 ft of rope x 4 parts of line x 2.7 lb/ft = 1,206 lb

Totals

A Total Component Weights (ADD items 1 – 7 above)	16,255
B Weight of Load to be Lifted	50,000
C Total Load to be Lifted (ADD A and B above)	62,255
D Maximum Working Radius (for Total Load to be Lifted from C above — see correct capacity chart)	85 ft

Equation — Use following equation to calculate weight of wire rope below any point (boom, fixed jib, luffing jib, intermediate fall):

Length of Wire Rope Below Given Point times Numer of Parts of Line times Weight of Wire rope per Foot

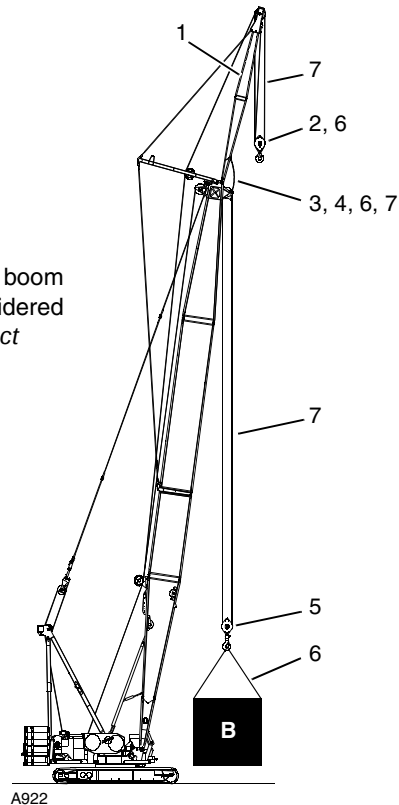
Determined by Operator or
by Person Directing Lift

Provided in Load Line or Wire
Rope Specifications Chart

**Worksheet A – Determining Total Load and Maximum
Working Radius From Lower Boom Point**

DESCRIPTION	WEIGHT
Component Weights (see Note 1:)	
1 Fixed Jib (see <i>Jib Deduct table in capacity chart</i>)	_____
2 Load Block/Hook and Weight Ball (below fixed jib point)	_____
3 Upper Boom Point (from capacity chart if noted)	_____
4 Load Block/Hook and Weight Ball (below upper boom point, if installed)	_____
5 Load Block/Hook and Weight Ball (below lower boom point)	_____
6 Total Weight of Slings and Other Lifting Equipment Below Fixed Jib Point, Upper Boom Point, and Lower Boom Point	_____
7 Total Weight of Wire Rope Below Fixed Jib Point, Upper Boom Point, and Lower Boom Point (see <i>Load Line or Wire Rope Specifications Chart</i> for weight of wire rope)	_____
Totals	
A Total Component Weights (ADD items 1 – 7 above)	_____
B Weight of Load to be Lifted	_____
C Total Load to be Lifted (ADD A and B above)	_____
D Maximum Working Radius (for Total Load to be Lifted from C above — see correct capacity chart)	_____

Note 1: For some cranes so equipped, auxiliary drum in boom butt and special rope guides or guards are considered part of load from boom and jib points. See *deduct tables in capacity chart* for detailed information.

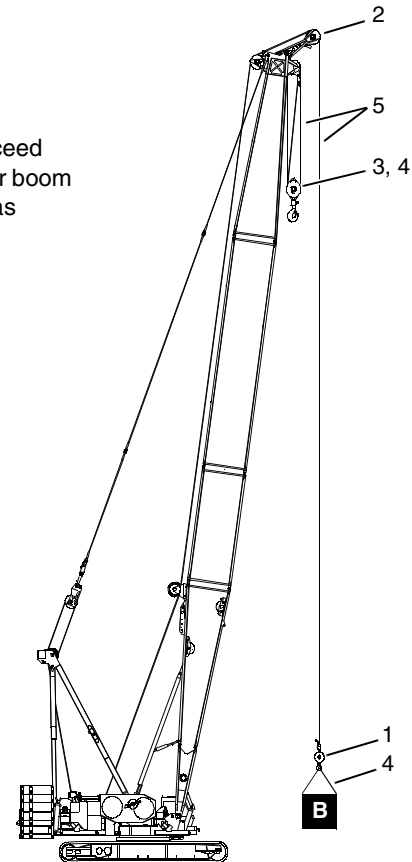


CAPACITY CHART INFORMATION

Worksheet B – Determining Total Load And Maximum Working Radius From Upper Boom Point

DESCRIPTION		WEIGHT
Component Weights		
1	Load Block/Hook and Weight Ball (<i>below upper boom point</i>)	_____
2	Upper Boom Point (<i>from capacity chart if noted</i>)	_____
3	Load Block/Hook and Weight Ball (<i>below lower boom point</i>)	_____
4	Total Weight of Slings and Other Lifting Equipment Below Upper Boom Point and Lower Boom Point . .	_____
5	Total Weight of Wire Rope Below Upper Boom Point and Lower Boom Point (<i>see Load Line or Wire Rope Specifications Chart for weight of wire rope</i>)	_____
Totals		
A	Total Component Weights (<i>ADD items 1-5 above</i>)	_____
B	Weight of Load to be Lifted	_____
C	Total Load to be Lifted (<i>ADD A and B above</i>) see NOTE 1	_____
D	Maximum Working Radius (<i>for Total Load to be Lifted from C above – see correct capacity chart</i>)	_____

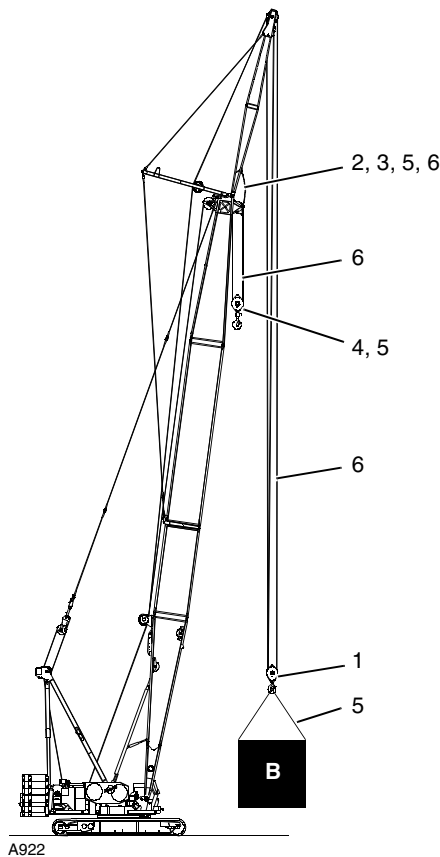
Note 1: Total load to be lifted must not exceed maximum structural rating of upper boom point or exceed boom capacities as specified in capacity chart.



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Worksheet C – Determining Total Load and Maximum Working Radius From Fixed Jib Point on Boom

DESCRIPTION	WEIGHT
Component Weights	
1 Load Block/Hook and Weight Ball (<i>below fixed jib point</i>)	_____
2 Upper Boom Point (<i>from capacity chart if noted</i>)	_____
3 Load Block/Hook and Weight Ball (<i>below upper boom point, if installed</i>)	_____
4 Load Block/Hook and Weight Ball (<i>below lower boom point</i>)	_____
5 Total Weight of Slings and Other Lifting Equipment Below Fixed Jib Point, Upper Boom Point, and Lower Boom Point	_____
6 Total Weight of Wire Rope Below Fixed Jib Point, Upper Boom Point, and Lower Boom Point (<i>see Load Line or Wire Rope Specifications Chart for weight of wire rope</i>)	_____
Totals	
A Total Component Weights (<i>ADD items 1-6 above</i>)	_____
B Weight of Load to be Lifted	_____
C Total Load to be Lifted (<i>ADD A and B above</i>)	_____
D Maximum Working Radius (<i>for Total Load to be Lifted from C above — see correct capacity chart</i>)	_____

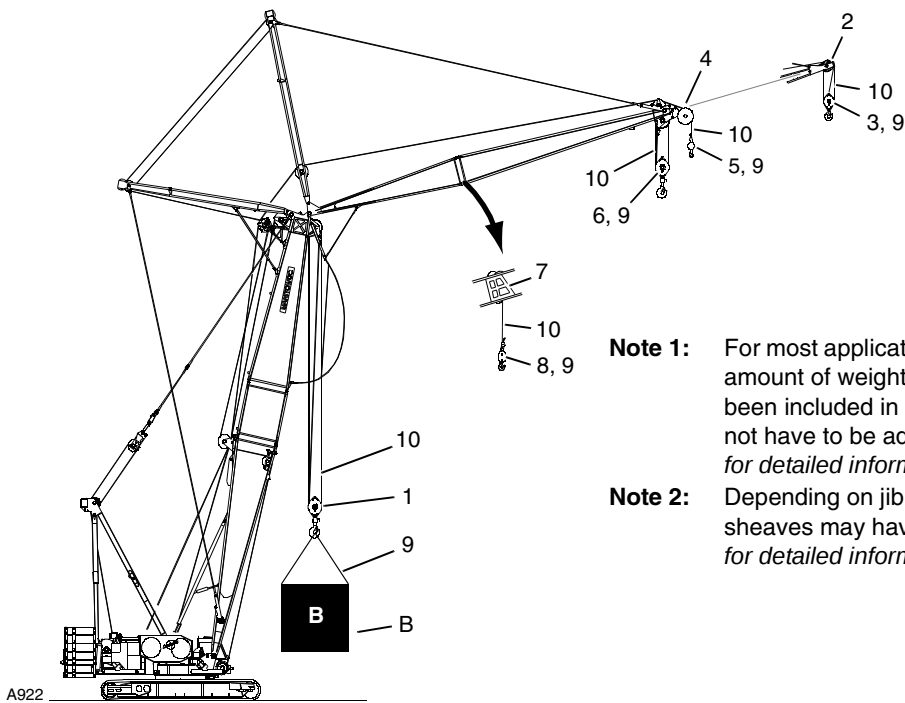


CAPACITY CHART INFORMATION

Worksheet D – Determining Total Load and Maximum Working Radius From Lower Boom Point with Luffing Jib Attached

(see Note 1:)

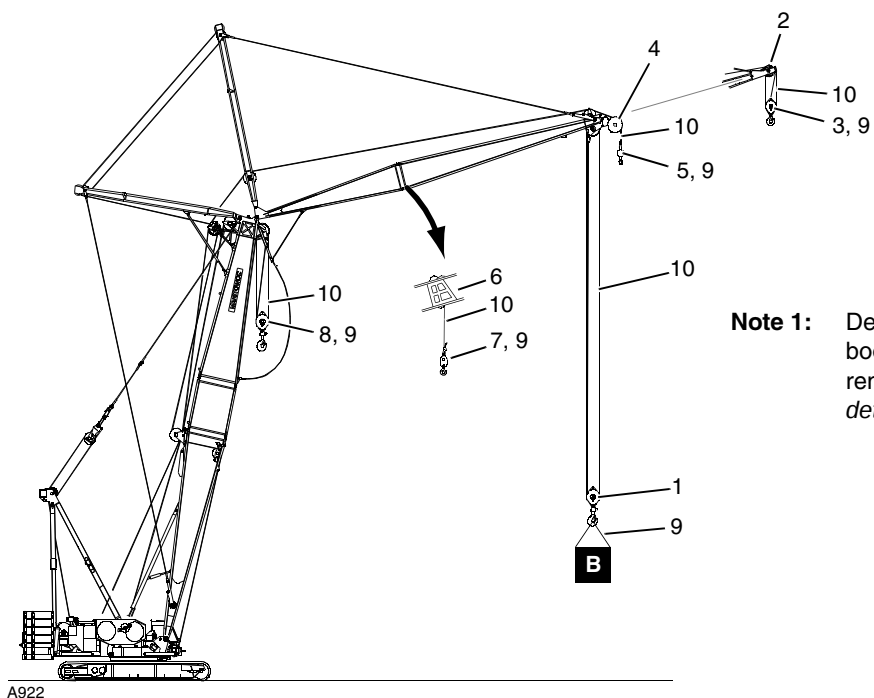
DESCRIPTION		WEIGHT
Component Weights		
1	Load Block/Hook and Weight Ball Below Lower Boom Point (see Note 2:)	_____
2	Fixed Jib (see <i>Jib Deduct Table in capacity chart</i>)	_____
3	Load Block/Hook and Weight Ball (below fixed jib point, if installed)	_____
4	Upper Luffing Jib Point (from capacity chart if noted)	_____
5	Load Block/Hook and Weight Ball (below upper luffing jib point, if installed)	_____
6	Load Block/Hook and Weight Ball (below lower luffing jib point, if installed)	_____
7	Intermediate Fall Point (see <i>Intermediate Fall Deduct Table in capacity chart</i>)	_____
8	Load Block/Hook and Weight Ball (below intermediate fall point)	_____
9	Total Weight of Slings and Other Lifting Equipment Below Fixed Jib Point, Upper Luffing Jib Point, Lower Luffing Jib Point, Intermediate Fall Point, and Lower Boom Point	_____
10	Total Weight of Wire Rope Below Fixed Jib Point, Upper Luffing Jib Point, Lower Luffing Jib Point, Intermediate Fall Point, and Lower Boom Point (see <i>Load Line or Wire Rope Specifications Chart for weight of wire rope</i>)	_____
Totals		
A	Total Component Weights (ADD items 1-10 above)	_____
B	Weight of Load to be Lifted	_____
C	Total Load to be Lifted (ADD A and B above)	_____
D	Maximum Working Radius (for Total Load to be Lifted from C above — see correct capacity chart)	_____



- Note 1:** For most applications, weight of luffing jib and a certain amount of weight below lower luffing jib point have been included in boom capacity determination and do not have to be added to total load. See capacity chart for detailed information.
- Note 2:** Depending on jib length, some lower boom point sheaves may have to be removed. See capacity chart for detailed information.

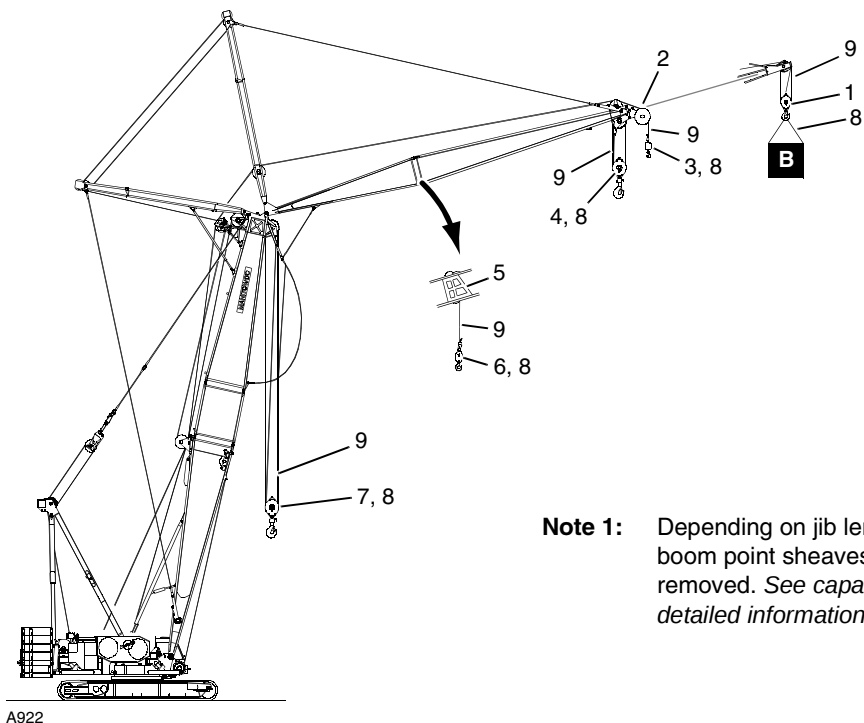
Worksheet E – Determining Total Load and Maximum Working Radius From Lower Luffing Jib Point

DESCRIPTION	WEIGHT
Component Weights	
1 Load Block/Hook and Weight Ball (below lower luffing jib point)	_____
2 Fixed Jib (see Jib Deduct Table in capacity chart)	_____
3 Load Block/Hook and Weight Ball (below fixed jib point, if installed)	_____
4 Upper Luffing Jib Point (from capacity chart if noted)	_____
5 Load Block/Hook and Weight Ball (below upper luffing jib point, if installed)	_____
6 Intermediate Fall Point (see Intermediate Fall Deduct Table in capacity chart)	_____
7 Load Block/Hook and Weight Ball (below intermediate fall point)	_____
8 Load Block/Hook and Weight Ball (below lower boom point, if installed) see Note 1:	_____
9 Total Weight of Slings and Other Lifting Equipment Below Fixed Jib Point, Upper Luffing Jib Point, Lower Luffing Jib Point, Intermediate Fall Point, and Lower Boom Point	_____
10 Total Weight of Wire Rope Below Fixed Jib Point, Upper Luffing Jib Point, Lower Luffing Jib Point, Intermediate Fall Point, and Lower Boom Point (see Load Line or Wire Rope Specifications Chart for weight of wire rope)	_____
Totals	
A Total Component Weights (ADD items 1-10 above)	_____
B Weight of Load to be Lifted	_____
C Total Load to be Lifted (ADD A and B above)	_____
D Maximum Working Radius (for Total Load to be Lifted from C above — see correct capacity chart)	_____



Worksheet F – Determining Total Load and Maximum Working Radius From Fixed Jib Point on Luffing Jib

DESCRIPTION	WEIGHT
Component Weights	
1 Load Block/Hook and Weight Ball (below fixed jib point)	_____
2 Upper Luffing Jib Point (from capacity chart if noted)	_____
3 Load Block/Hook and Weight Ball (below upper luffing jib point, if installed)	_____
4 Load Block/Hook and Weight Ball (below lower luffing jib point, if installed)	_____
5 Intermediate Fall Point (see Intermediate Fall Deduct Table in capacity chart)	_____
6 Load Block/Hook and Weight Ball (below intermediate fall point)	_____
7 Load Block/Hook and Weight Ball (below lower boom point) see Note 1:	_____
8 Total Weight of Slings and Other Lifting Equipment Below Fixed Jib Point, Upper Luffing Jib Point, Lower Luffing Jib Point, Intermediate Fall Point, and Lower Boom Point	_____
9 Total Weight of Wire Rope Below Fixed Jib Point, Upper Luffing Jib Point, Lower Luffing Jib Point, Intermediate Fall Point, and Lower Boom Point (see Load Line or Wire Rope Specifications Chart for weight of wire rope)	_____
Totals	
A Total Component Weights (ADD items 1-9 above)	_____
B Weight of Load to be Lifted	_____
C Total Load to be Lifted (ADD A and B above)	_____
D Maximum Working Radius (for Total Load to be Lifted from C above — see correct capacity chart)	_____

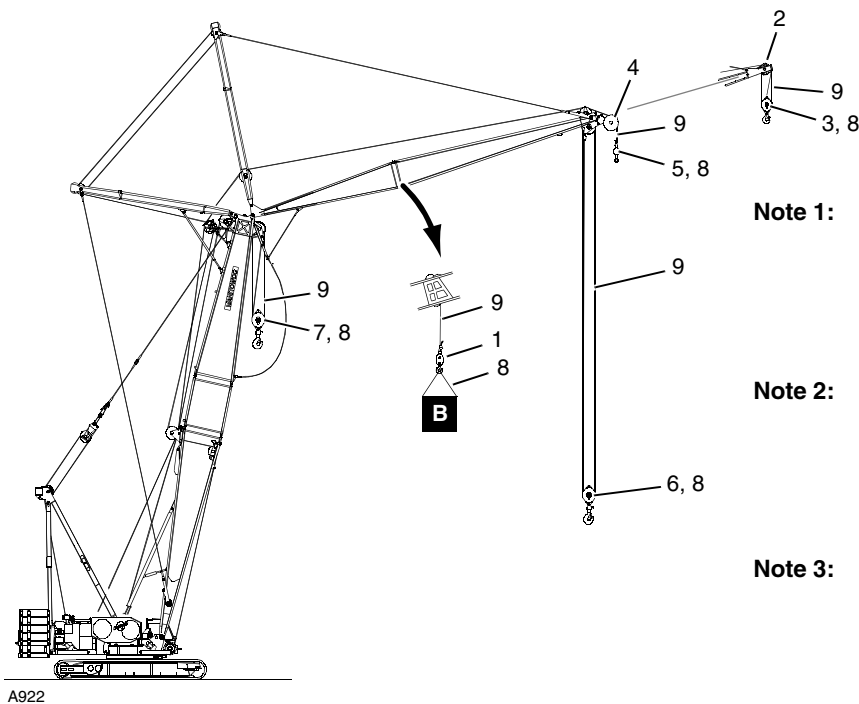


Note 1: Depending on jib length, some lower boom point sheaves may have to be removed. See capacity chart for detailed information.

Worksheet G – Determining Total Load and Maximum Working Radius From Intermediate Fall Point on Luffing Jib

(see Note 1:)

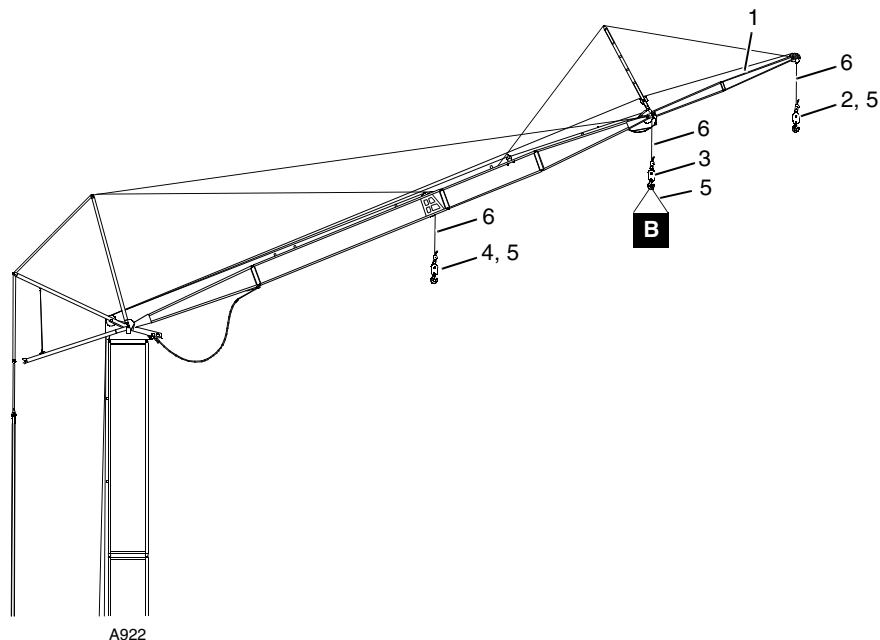
DESCRIPTION	WEIGHT
Component Weights	
1 Load Block/Hook and Weight Ball (below intermediate fall point)	_____
2 Fixed Jib (see Jib Deduct Table in capacity chart) see Note 2:	_____
3 Load Block/Hook and Weight Ball (below fixed jib point, if installed)	_____
4 Upper Luffing Jib Point (from capacity chart if noted)	_____
5 Load Block/Hook and Weight Ball (below upper luffing jib point, if installed)	_____
6 Load Block/Hook and Weight Ball (below lower luffing jib point, if installed)	_____
7 Load Block/Hook and Weight Ball (below lower boom point, if installed) see Note 3:	_____
8 Total Weight of Slings and Other Lifting Equipment Below Fixed Jib Point, Upper Luffing Jib Point, Lower Luffing Jib Point, Intermediate Fall Point, and Lower Boom Point	_____
9 Total Weight of Wire Rope Below Fixed Jib Point, Upper Luffing Jib Point, Lower Luffing Jib Point, Intermediate Fall Point, and Lower Boom Point (see Load Line or Wire Rope Specifications Chart for weight of wire rope)	_____
Totals	
A Total Component Weights (ADD items 1-9 above)	_____
B Weight of Load to be Lifted	_____
C Total Load to be Lifted (ADD A and B above)	_____
D Maximum Working Radius (for Total Load to be Lifted from C above — see correct capacity chart)	_____



- Note 1:** For most applications, weight of luffing jib and a certain amount of weight below lower luffing jib point have been included in intermediate fall capacity determination and do not have to be added to total load. See capacity chart for detailed information.
- Note 2:** For most applications, weight of fixed jib and a certain amount of weight below fixed jib point have been included in intermediate fall capacity determination and do not have to be added to total load. See capacity chart for detailed information.
- Note 3:** Depending on jib length, some lower boom point sheaves may have to be removed. See capacity chart for detailed information.

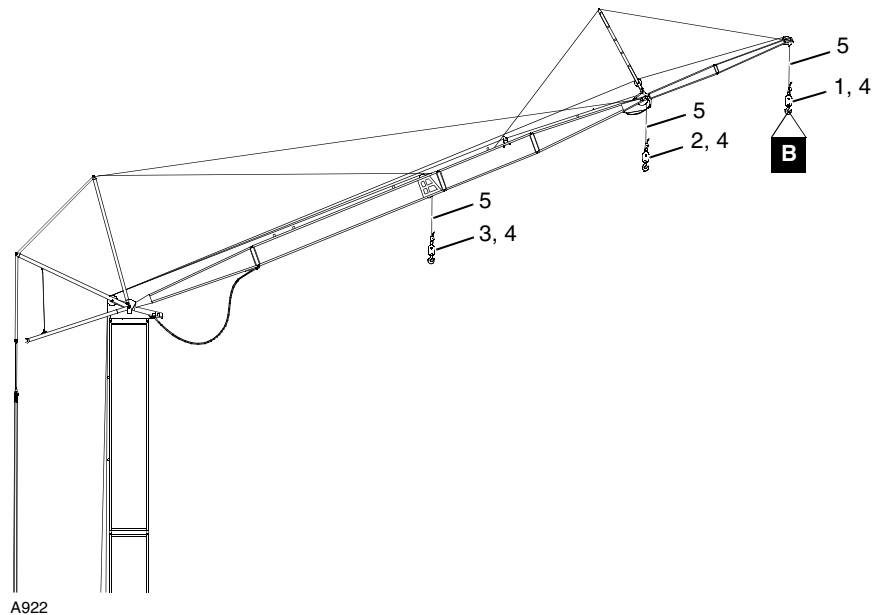
Worksheet H – Determining Total Load and Maximum Working Radius From Tower Boom Point

DESCRIPTION	WEIGHT
Component Weights	
1 Jib (see Jib Deduct Table in capacity chart)	_____
2 Load Block/Hook and Weight Ball (below jib point, if installed)	_____
3 Load Block/Hook and Weight Ball (below boom point)	_____
4 Load Block/Hook and Weight Ball (below intermediate fall, if installed)	_____
5 Total Weight of Slings and Other Lifting Equipment Below Jib Point, Boom Point, and Intermediate Fall .	_____
6 Total Weight of Wire Rope Below Jib Point, Boom Point, and Intermediate Fall (see Load Line or Wire Rope Specifications Chart for weight of wire rope)	_____
Totals	
A Total Component Weights (ADD items 1-6 above)	_____
B Weight of Load to be Lifted	_____
C Total Load to be Lifted (ADD A and B above)	_____
D Maximum Working Radius (for Total Load to be Lifted from C above — see correct capacity chart)	_____



Worksheet J – Determining Total Load and Maximum Working Radius Tower Jib Point

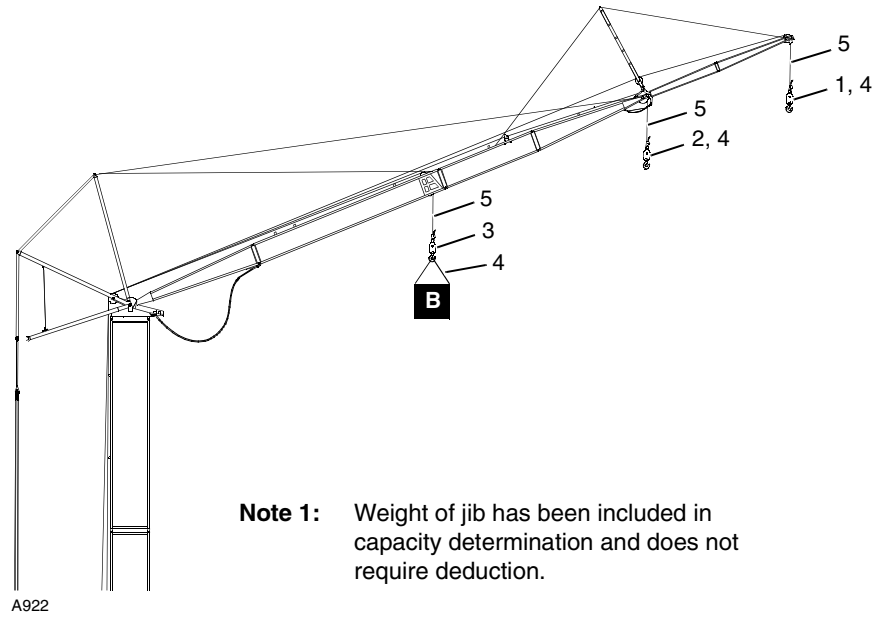
DESCRIPTION	WEIGHT
Component Weights	
1 Load Block/Hook and Weight Ball (<i>below jib point</i>)	_____
2 Load Block/Hook and Weight Ball (<i>below boom point, if installed</i>)	_____
3 Load Block/Hook and Weight Ball (<i>below intermediate fall, if installed</i>)	_____
4 Total Weight of Slings and Other Lifting Equipment Below Jib Point, Boom Point, and Intermediate Fall .	_____
5 Total Weight of Wire Rope Below Jib Point, Boom Point, and Intermediate Fall (<i>see Load Line or Wire Rope Specifications Chart for weight of wire rope</i>)	_____
Totals	
A Total Component Weights (<i>ADD items 1-5 above</i>)	_____
B Weight of Load to be Lifted	_____
C Total Load to be Lifted (<i>ADD A and B above</i>)	_____
D Maximum Working Radius (<i>for Total Load to be Lifted from C above — see correct capacity chart</i>)	_____



Worksheet K – Determining Total Load and Maximum Working Radius From Tower Intermediate Fall

(see Note 1:)

DESCRIPTION		WEIGHT
Component Weights		
1	Load Block/Hook and Weight Ball (<i>below jib point, if installed</i>) (see Note 1:)	_____
2	Load Block/Hook and Weight Ball (<i>below boom point, if installed</i>)	_____
3	Load Block/Hook and Weight Ball (<i>below intermediate fall</i>).	_____
4	Total Weight of Slings and Other Lifting Equipment Below Jib Point, Boom Point, and Intermediate Fall.	_____
5	Total Weight of Wire Rope Below Jib Point, Boom Point, and Intermediate Fall (<i>see Load Line or Wire Rope Specifications Chart for weight of wire rope</i>)	_____
Totals		
A	Total Component Weights (<i>ADD items 1-5 above</i>)	_____
B	Weight of Load to be Lifted	_____
C	Total Load to be Lifted (<i>ADD A and B above</i>)	_____
D	Maximum Working Radius (<i>for Total Load to be Lifted from C above — see correct capacity chart</i>)	_____



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CRAWLER BLOCKING DIAGRAM



WARNING

READ CAPACITY CHARTS!

Do not attempt to operate crane without first reading and understanding capacity charts.

Crane must be rigged, blocked, and operated according to instructions given in capacity charts.

All operations must be performed with crane level as specified in capacity charts; otherwise crane could tip.

Failing to comply with capacity charts can result in tipping or structural failure of boom, boom and fixed jib, tower attachment, or luffing jib attachment.

Death or serious injury to personnel can result.

Figure 1 shows proper blocking of the crawlers for the following operating conditions:

- Raising and lowering booms, boom and fixed jibs, tower attachments, and luffing jib attachments which require increased stability as stated on the capacity chart.
- Capacity chart ratings which require front of crawlers to be blocked (limited swing).
- Capacity chart ratings which require front **and** rear of crawlers to be blocked (360° rating).

Hardwood or steel blocking must provide even support, equal to the width of crawler pads under the centerline of the crawler rollers and/or the tumblers. **Blocking must be thick enough to maintain dimensions given in table even after ground and blocking are compacted.**

The blocking ensures that the centerline of the crawler rollers or the tumblers becomes the tipping fulcrum.

CAUTION

Crawler Damage!

DO NOT extend blocking into area of intermediate rollers. Damage to crawler components may result.

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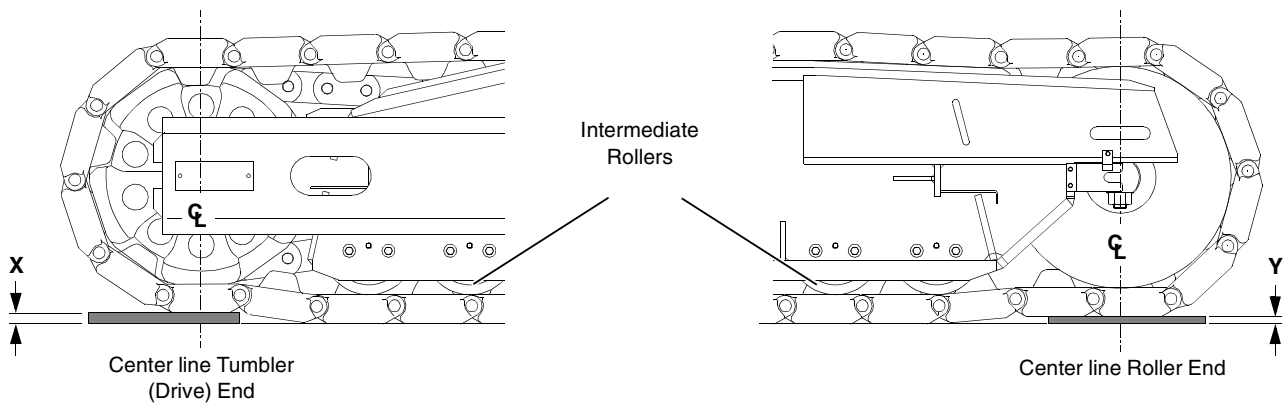


FIGURE 1

CAPACITY CHART INFORMATION

Model	Blocking Dimensions				Notes
	X		Y		
	Tumbler (Drive) End		Roller End		
	inches	mm	inches	mm	
M-50W	1-1/2	38,10	1-3/8	34,93	
M-65W	1-1/4	31,75	1-1/4	31,75	
M-80W	1-1/2	38,10	1-1/4	31,75	
M-85W	1-1/2	38,10	1-1/4	31,75	
111	1/2	12,70	1/2	12,70	
180	1-1/2	38,10	1-1/2	38,10	
222	1-1/2	38,10	1-1/2	38,10	
M-250, S2	1-1/4	31,75	1/2	12,70	
555	1-1/4	31,75	1-1/4	31,75	
777	1-1/2	38,10	3/4	19,05	4
777	1	25,40	1/4	6,35	5
888 S1, S2	1-1/8	28,58	1/2	12,70	
999	1	25,40	1/2	12,70	
1015	1/4	6,35	7/8	22,22	
2250	1	25,40	1/2	12,70	
2900WC	3/4	19,05	3/4	19,05	1
2900WC	1	25,40	1	25,40	2
3000W	1/4	6,35	1	25,40	3
3900	1/4	6,35	1/2	12,70	4, 5
3900W	1/4	6,35	1/2	12,70	6
3950D	1/4	6,35	3/4	19,05	
3950W	1/4	6,35	3/4	19,05	
4000	1/2	12,70	3/4	19,05	
4000W	1/4	6,35	1/2	12,70	
4100W S1, S2	5/8	15,88	1/2	12,70	
4600	5/8	15,88	5/8	15,88	
4600 S3	5/8	15,88	5/8	15,88	
4600 S4, S5	5/8	15,88	5/8	15,88	
6000W	1	25,40	1-1/4	31,75	
6000 S2	1	25,40	1-1/4	31,75	
7000	1	25,40	1-1/4	31,75	
14000	1	25,40	1/2	12,70	
15000	--	25,40	--	12,70	
16000	1-7/8	47,62	2-1/8	53,97	
18000	2-7/8	73,02	2-5/8	66,67	
21000	1-1/4	31,75	Not Applicable		

NOTES

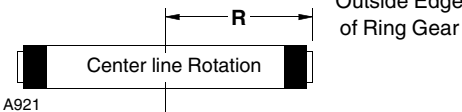
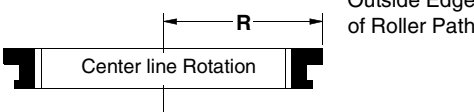
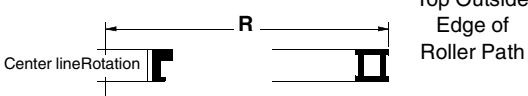
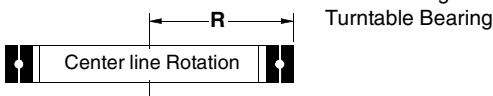
- 1 – 30 in (762 mm) Crawler Treads
- 2 – 36 in (914) Crawler Treads
- 3 – 33 in (838 mm) Crawler Treads
- 4 – 38 in (965 mm) Crawler Treads
- 5 – 48 in (1 219 mm) Crawler Treads
- 6 – 24 in (610 mm) or 27 in (686 mm) Crawler Treads

OPERATING RADIUS

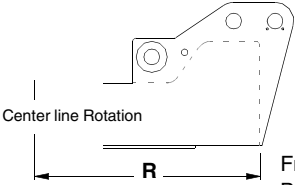
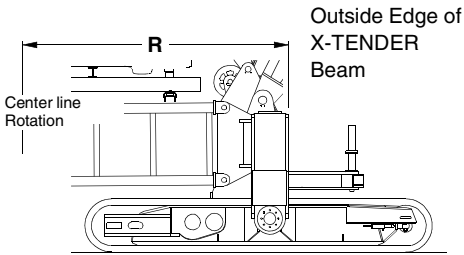
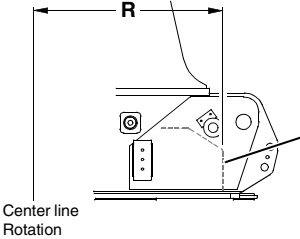
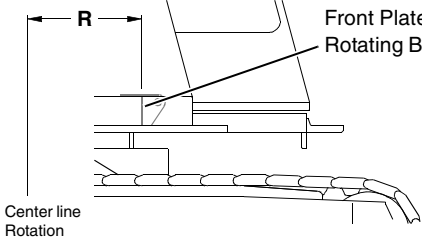
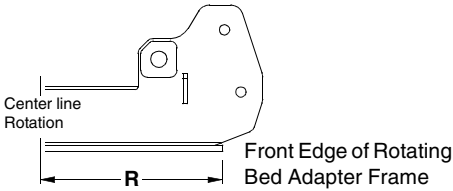
OPERATING RADIUS is the horizontal distance from the crane's centerline of rotation to the center of the freely suspended load line or load block.

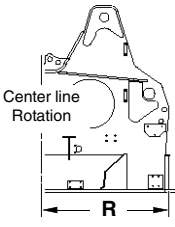
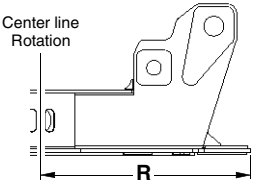
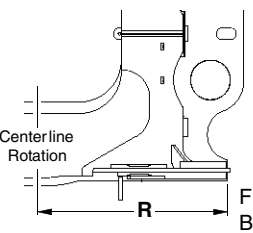
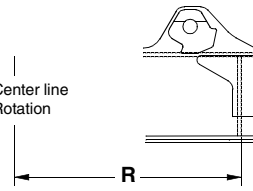
The centerline of rotation is difficult to locate. Therefore, deduct the radius (**R**) given in the table from the operating radius given on the capacity chart. Then measure from the point indicated in the appropriate illustration to the center of the load line or load block.

This practice will eliminate the need to find the crane's centerline of rotation when measuring operating radius.

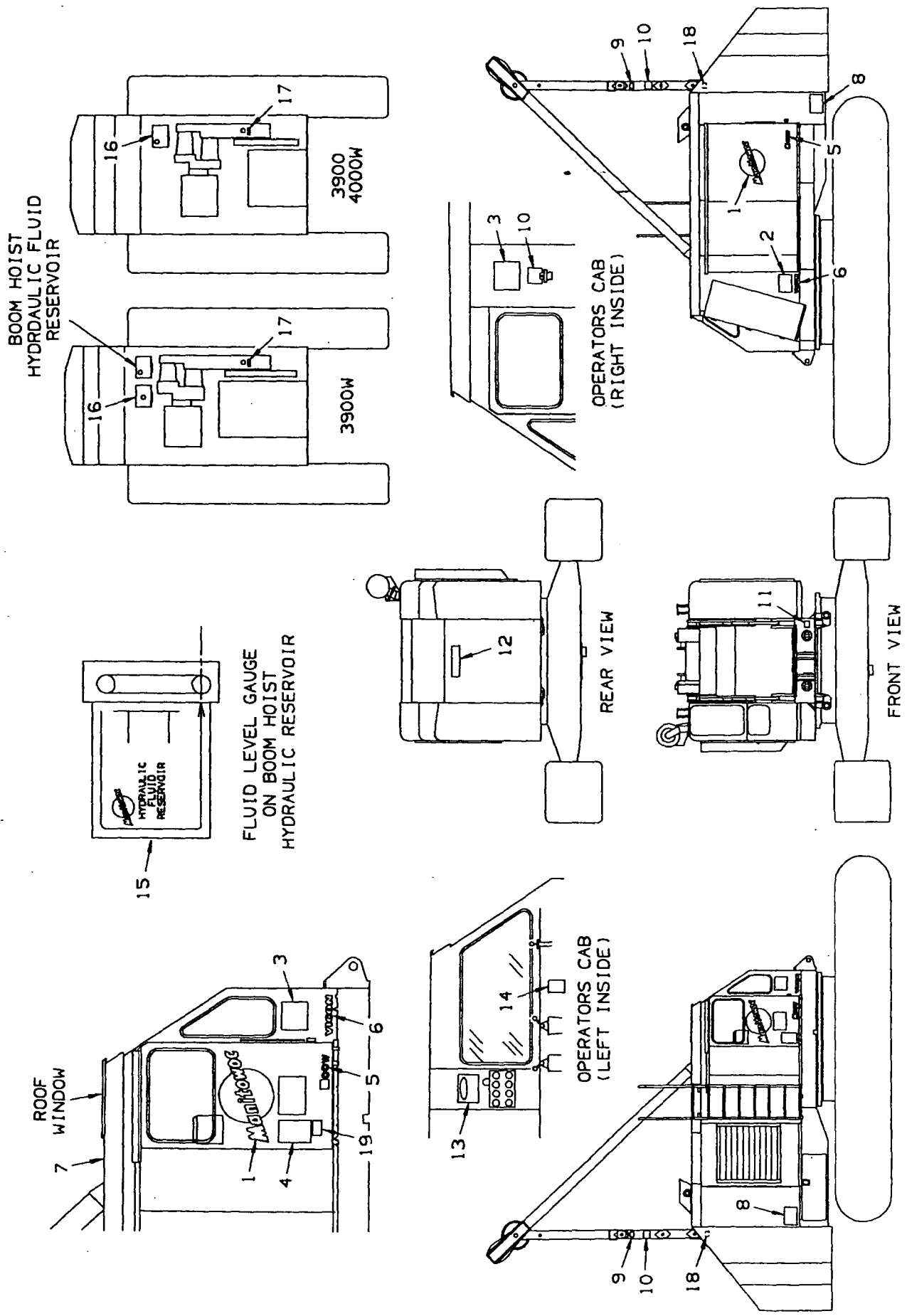
Model	Radius – R		Identification
	ft-in	meters	
2000 2300	2-7	0,79	
3000 3000W 3600	3-2	0,96	
888	4-6	1,37	
2900T 2900WC	3-7	1,09	
3900 3900T 3900W or WT 3950D 3950W or WT 4000 4000W	4-5	1,35	
4100W	4-6	1,37	
4600 S-1, 2, 3	5-6	1,68	
4600 S-4, 5 6000W 6000 S-2 6400	5-7	1,70	
4000W RINGER® 4100W RINGER 36' P.R.	18-1	5,51	
7000	18-4	5,59	
4600 RINGERS 60' P.R.	30-0	9,14	
M-1200 RINGER	30-2	9,19	
888 RINGER	22-7	6,88	
M-50W	2-4	0,71	
M-80W	2-9	0,84	
M-65SC M-65T M-65W M-85T M-85W 111 180 222 222 Wagon	2-8	0,81	

CAPACITY CHART INFORMATION

Model	Radius – R		Identification
	ft-in	meters	
M-250 2250	6-1	1,85	 Center line Rotation R Front Plate of Rotating Bed Adapter Frame
4100W S-2 X-TENDER™ S-2	67-4	20,52	 Center line Rotation R Outside Edge of X-TENDER Beam
555	4-7 ¹ OR 5-4 ²	1,40 ¹ OR 1,63 ²	 Center line Rotation R Front Plate of Rotating Bed OR Front of Front Counterweight
¹ Without front counterweight (cranes with free fall on both drums).			
² With front counterweight (cranes with free fall on both drums)			
777 777T	3-11	1,19	
999	4-11	1,50	
15000	-	1,49	A967  Center line Rotation R Front Plate of Rotating Bed
1015	4-6	1,37	 Center line Rotation R Front Edge of Rotating Bed Adapter Frame

Model	Radius – R		Identification
	ft-in	meters	
14000	4-9	1,44	A15809  Center line Rotation Front Plate of Rotating Bed
16000	6-1	1,85	A10393  Center line Rotation Front Edge of Rotating Bed Adapter Frame
18000	5-7	1,79	A04300  Center line Rotation Front Edge of Rotating Bed Adapter Frame
21000	4-8	1,42	 Center line Rotation Front Plate of Rotating Bed Adapter Frame

166479C1



EQ: 78x3033 / SN: 40767

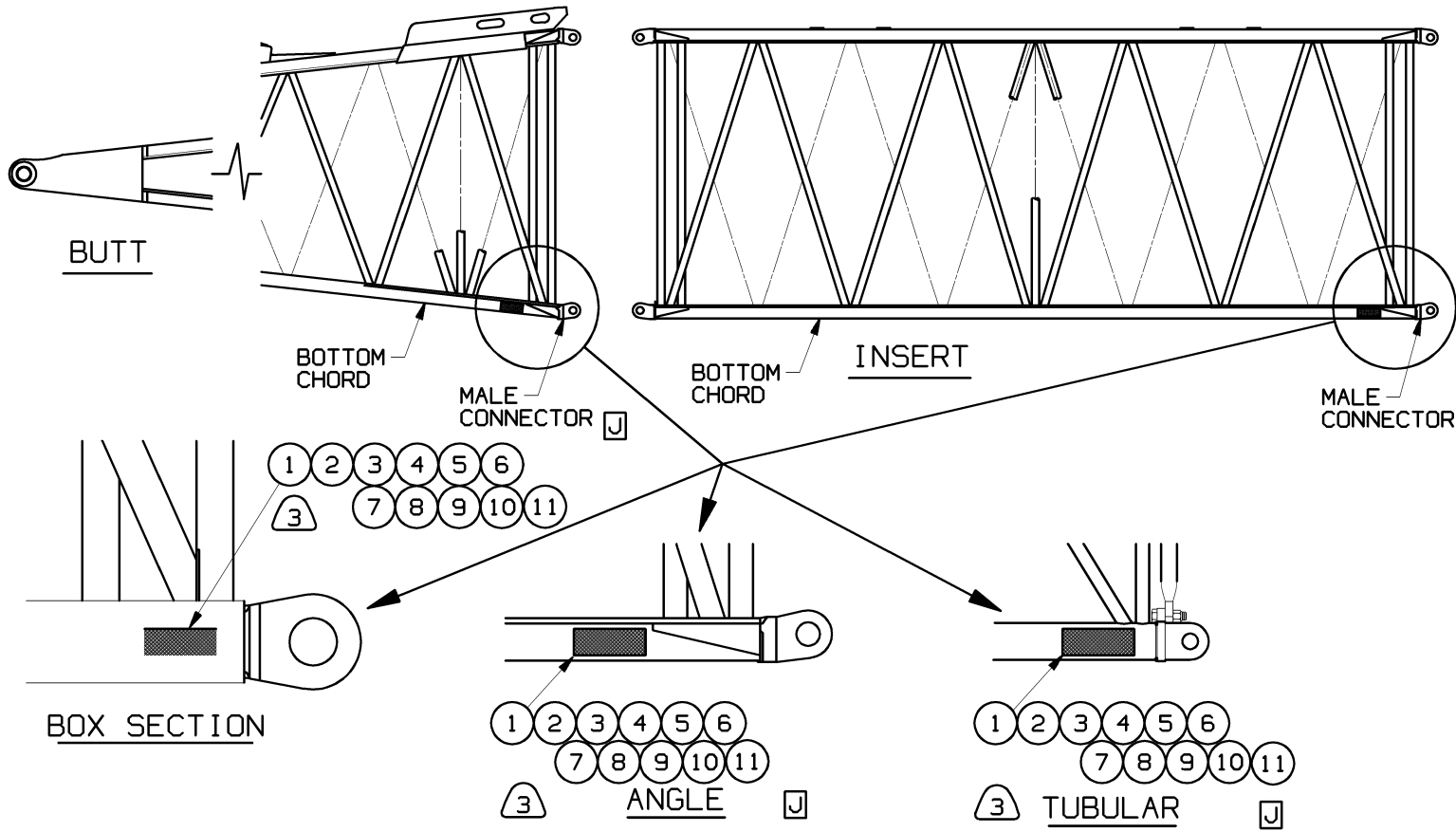
MATERIAL LIST ON BACK

Courtesy of CraneMarket

NAMEPLATES AND DECALS - 3900, 3900W, 4000W

166479-1		REV. C	MODEL 3900, 3900W, 4000W	
NAMEPLATE AND DECAL ASSEMBLY				
REF. NO.	PART NUMBER	QTY. REQ.	DESCRIPTION OF PART	VENDORS PART NO.
1	539515	2	DECAL (MANITOWOC) (large)	
2	95495	2	DECAL, Danger (Electric Shock) (Large)	
3	181503	2	PLATE, Builders (For field replacement order 899717)	
	599293	8	RIVET, Blind (1/8" x 1/4")	
4	184679	1	DECAL (Hand Signal)	
5	539516	2	DECAL (Model No. 3900W)	
5	539527	2	DECAL (Model No. 4000W)	
5	539281	2	DECAL (Model No. 3900)	
6	73443-3	2	DECAL (VICON) (Small-white)	
6	73443-4	2	DECAL (VICON) (Small-black)	
7	97281	1	DECAL (No Step) (see Note 1)	
8	95494	2	DECAL, Danger (Stay Clear)	
9	161036	4	DECAL, Danger (Gantry Lowering) (Model 3900, 3900W, 4000W)	
10	165432	3	DECAL, Caution (Gantry Raising/Lowering) (see Note 2)	
11	147202	1	NAMEPLATE (Roller Path Radius)	
12	91777-3	1	DECAL (VICON) (Large-white)	
12	91777-4	1	DECAL (VICON) (Large-black)	
13	95496	1	DECAL, Danger (Electric Shock) (small)	
14	143587	1	DECAL, Caution (Operator Warning)	
15	145467	1	NAMEPLATE (Hyd. Fluid Reservoir) (see Note 3)	
16	140152	1	NAMEPLATE (Converter Fluid Reservoir)	
17	140153	1	NAMEPLATE (Chain Case Lubrication)	
18	161036	4	DECAL, Danger (Gantry Lowering) (Model 3900W)	
19	147848	1	DECAL, Patent	
	22656	2	SIGN, Boom (MANITOWOC) (not shown)	
<u>Note 1:</u> Machines with a cover over roof window will require a second decal No. 97281 placed inside cover so it will be legible when cover is open. <u>Note 2:</u> Required on all 3900W & 4000W machines with gantry lifting device. Caution decal 165432 located on outside of each backhitch leg and above gantry lifting device control in operator's cab. <u>Note 3:</u> Locate nameplate 145467 so arrow on nameplate border points directly at center of bottom sight glass tube.				
PLEASE GIVE MACHINE SERIAL NUMBER WITH ORDER				
		REV. C	166479-1	

- 1
- APPLIES TO ALL PIN CONNECTED BOOMS, JIBS, MASTS AND TOWERS.
- 2
- REQUIRED ON BOTTOM CHORDS (1 EACH SIDE) OF BUTT AND EACH INSERT - AT MALE CONNECTOR END.
- 3
- APPLY DECAL TO CLEAN SMOOTH SURFACE AS CLOSE AS POSSIBLE TO BOTH BOTTOM MALE CONNECTORS AS SHOWN.



BILL OF MATERIAL					
ITEM NO.	SEC. NO.	DESCRIPTION	LENGTH IN.	MATERIAL	CODE NO. OR DNG. NO.
DANGER DECAL (ENGLISH)					
1	2	DECAL, DANGER (BOOM HAZARD)		147852	2
DANGER DECAL (DUTCH)					
A	2	DECAL, DANGER (BOOM HAZARD)		386315	2
DANGER DECAL (CHINESE)					
B	3	DECAL, DANGER (BOOM HAZARD)		386299	2
DANGER DECAL (SPANISH)					
C	4	DECAL, DANGER (BOOM HAZARD)		386300	2
DANGER DECAL (FRENCH)					
D	5	DECAL, DANGER (BOOM HAZARD)		386301	2
DANGER DECAL (PORTUGUESE)					
E	6	DECAL, DANGER (BOOM HAZARD)		386492	2
DANGER DECAL (GERMAN)					
F	7	DECAL, DANGER (BOOM HAZARD)		A10090	2
DANGER DECAL (RUSSIAN)					
G	8	DECAL, DANGER (BOOM HAZARD)		A12529	2
DANGER DECAL (ITALIAN)					
H	9	DECAL, DANGER (BOOM HAZARD)		A11581	2
DANGER DECAL (BRAZIL)					
K	10	DECAL, DANGER (BOOM HAZARD)		A17314	2
DANGER DECAL (KOREAN)					
L	10	DECAL, DANGER (BOOM HAZARD)		81000713	2

ASSEMBLIES USED ON

REVISIONS

4-30-96 DP
A B C D ADDED

03-23-98 NVS
E ADDED

02-11-04 NVS
F ADDED

12-13-04 RAW
G ADDED

12-16-04 RAW
H ADDED

02-22-05 RAW
J ADDED BALLOONS 7, 8, 9.

08-28-06 NVS
K ADDED

10-01-07 PET
L ADDED

DWG. NO.
175916

PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 6829103794 FOR COMPONENTS LISTED IN GDS500-05-035

DATE
4-28-94

PATTERN NO.

DWG. NO.
175916

SCALE NONE	Manitowoc Cranes, Inc.	NAMEPLATE AND DECAL
DR. NVS	Manitowoc, Wisconsin	ASSEMBLY
CK. MF	MODEL ALL	BOOM DISASSEMBLY (1)
APP GMP		

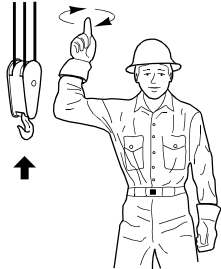
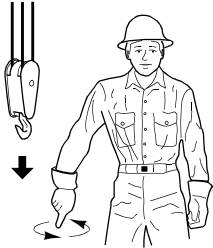
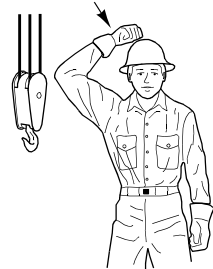
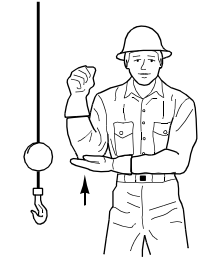
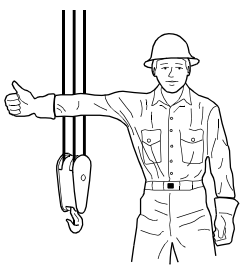
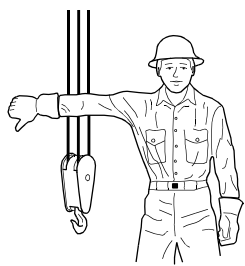
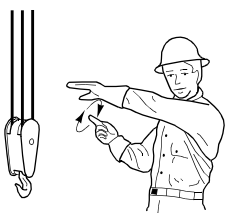
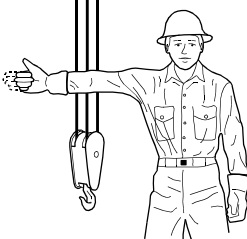
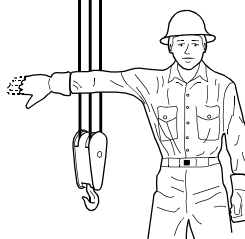
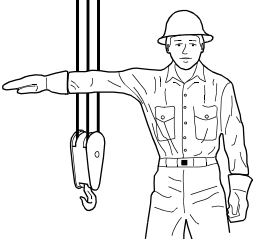
DO NOT SCALE THIS DRAWING

EQ: 78x3033 / SN: 40767

EQ: 78x3033 / SN: 40767

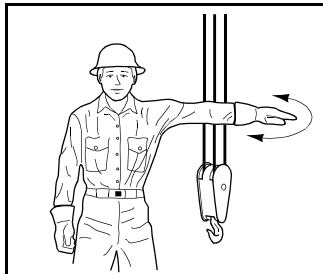
STANDARD HAND SIGNALS FOR CONTROLLING CRANE OPERATIONS

Complies with ASME B30.5 — 2004

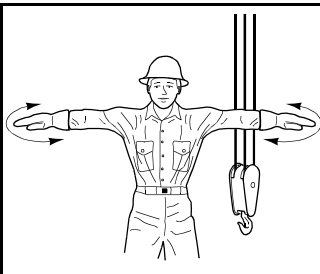
 HOIST. With forearm vertical, forefinger pointing up, move hand in small horizontal circle.	 LOWER. With arm extended downward, forefinger pointing down, move hand in small horizontal circles.	 USE MAIN HOIST. Tap fist on head; then use regular signals.	 USE WHIPLINE (Auxiliary Hoist). Tap elbow with one hand; then use regular signals.
 RAISE BOOM. Arm extended, finger closed, thumb pointing upward.	 LOWER BOOM. Arm extended, fingers closed, thumb pointing downward.	 MOVE SLOWLY. Use one hand to give any motion signal and place other hand motionless in front of hand giving the motion signal (hoist slowly shown as an example).	
 RAISE BOOM & LOWER LOAD. With arm extended, thumb pointing up, flex fingers in and out as long as load movement is desired.	 LOWER BOOM & RAISE LOAD. With arm extended, thumb pointing down, flex fingers in and out as long as load movement is desired.	 SWING. Arm extended point with finger in direction of swing of boom.	

da0108

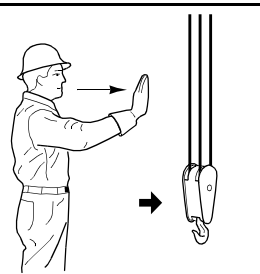
STANDARD HAND SIGNALS FOR CONTROLLING CRANE OPERATIONS



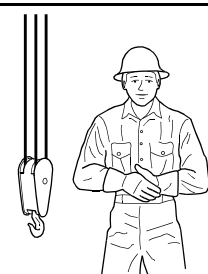
STOP. Arm extended, palm down, move arm back and forth horizontally.



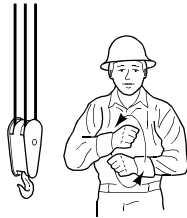
EMERGENCY STOP. Both arms extended, palms down, move arms back and forth horizontally.



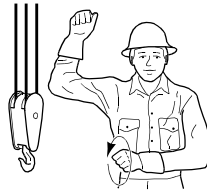
TRAVEL. Arm extended forward, hand open and slightly raised, make pushing motion in direction of travel.



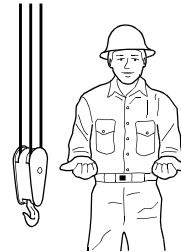
DOG EVERYTHING. Clasp hand in front of body.



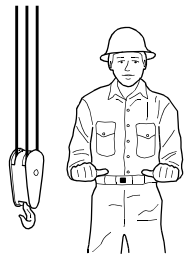
TRAVEL (Both Tracks). Use both fists in front of body, making a circular motion about each other, indicating direction of travel; forward or backward. (For Land Cranes Only).



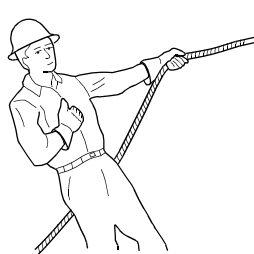
TRAVEL (One Track). Lock the track on side indicated by raised fist. Travel opposite track in direction indicated by circular motion of other fist, rotated vertically in front of body. (For Land Cranes Only).



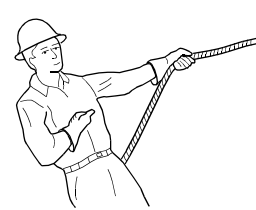
EXTEND BOOM (Telescoping Booms). Both fists in front of body with thumbs pointing outward.



RETRACT BOOM (Telescoping Boom). Both fists in front of body with thumbs pointing toward each other.



EXTEND BOOM (Telescoping Boom). One Hand Signal. One fist in front of chest with thumb tapping chest.



RETRACT BOOM (Telescoping Boom). One hand signal. One fist in front of chest, thumb pointing outward and heel of fist tapping chest.

da0109

REQUIRED FOR VARIOUS BOOM LENGTHS -

DRAWING NUMBER	TOTAL LENGTH	TOTAL OF PEND. SETS	WIRE ROPE ROLLER GUIDE ASSY	WIRE ROPE GUIDE ASSY	SPREADER IN LINE OFFSET	PENDANT TIE BAR
80FT.	10FT.	10FT.	0	0	0	2
90FT.	20FT.	20FT.	0	1	0	2
100FT.	30FT.	30FT.	0	1	0	2
110FT.	40FT.	40FT.	1	1	0	2
120FT.	50FT.	50FT.	1	1	0	4
130FT.	60FT.	60FT.	2	1	1	2
140FT.	70FT.	70FT.	2	1	1	4
150FT.	80FT.	80FT.	3	1	1	4
160FT.	90FT.	90FT.	3	1	1	4
170FT.	100FT.	100FT.	4	1	1	2
180FT.	110FT.	110FT.	4	1	1	4
190FT.	120FT.	120FT.	5	1	1	4
200FT.	130FT.	130FT.	5	1	1	6
210FT.	140FT.	140FT.	6	1	1	4
220FT.	150FT.	150FT.	6	1	1	6

INSERT NOTES:

1

MAX. NUMBER OF 10FT. INSERTS = 2

2

MAX. NUMBER OF 20FT. INSERTS = 2

3

BOOMS OVER 80FT SHOULD HAVE A MIN. OF (1) 20FT. INSERT TO PROPERLY LOCATE LOWER WIRE ROPE GUIDE.

4

INSERTS SHALL BE INSTALLED IN ORDER OF ASCENDING LENGTH.

5

COMBINATION OF 10FT. & 20FT. INSERTS CANNOT EXCEED 2-10FT. + 1-20FT OR 1-10FT. + 2-20FT.

PENDANT NOTES:

1

"PENDANT SETS" DO NOT INCLUDE BASIC PENDANT #276963.

2

PENDANTS FURNISHED IN SETS OF FOUR.

3

MATCH LENGTHS OF PENDANT SETS TO LENGTHS OF INSERTS FURNISHED.

4

EIGHT 20FT. PENDANTS #276862 ARE REQUIRED TO LOCATE SPREADER FOR 110 AND 120 FT. BOOM LENGTHS.

5

FOR BOOM TOP OFFSET 4 1/2°, PENDANT PINS #141408 MUST BE LOCATED IN RIGGING AT 81 FT 7 3/4" AND AT EITHER 61 FT 7 3/4" OR 121 FT 7 3/4" FROM LOWER BOOM POINT TO ALLOW INSERTION OF SPREADER IN PROPER LOCATION.

70 FT. BASIC BOOM

DWG. NO.	DESCRIPTION	REMARKS
2 22656	BOOM SIGN	
1 33634	WIRE ROPE GUIDE	SEE GEN. NOTE 5
1 48153-9	BOOM BUTT - 30FT.	
1 160814	GANTRY ASSEMBLY	SEE GEN. NOTE 4
1 50453	BOOM TOP - 40FT.	
2 74759	BUSHING	
2 79146	PIN	
2 79258	PIN	
2 91125	PENDANT LINK	
1 91132	LOWER BOOM POINT ASSEMBLY	6-30DSHEAVES
2 91948	PENDANT LINK	
2 92097	REMOVABLE EQUALIZER RAIL	4-ADDED GEN. NOTE 5
2 92572	BOOM HANDLING LINK	
1 181735	EQUALIZER ASSEMBLY	9-20-83 SPS (K) WAS 49621
4 276963	BASIC PENDANT - 40FT. 9-3/4	DWG. 139353

OPTIONAL PARTS

1 78169	JIB ADAPTOR ASSEMBLY	REQ'D FOR JIB ATTACHMENT
2 94652-2	SPREADER BRACKET	USE W/SPREADER
4 141408	PIN	*180213 SEE "PENDANT" NOTE 5 (M)
4 17328	END PLATE	
1 90940	UPPER BOOM PT. SHAFT ASS'Y (2-SHEAVE)	JIB CANNOT BE USED WITH THIS ASS'Y
1 92174	UPPER BOOM PT. SHAFT ASS'Y (1-SHEAVE)	BM. HANDLING
2 91330	PENDANT ATTACHMENT LUG ASS'Y	SEE GEN. NOTE 2
4 91258	PENDANT RUBBING FRAME (IN LINE TOP ONLY)	
2 91950	PENDANT CONNECTING LINK	
1 93110	PLATFORM FOR BOOM BUTT	NOT SHOWN
1 93702	UNIVERSAL WIRE ROPE ANCHOR JOINT	REQ'D FOR 2-PART LINE
1 138570	JIB BACKSTAY ANCHOR (IN LINE TOP ONLY)	SEE GEN. NOTE 3
33407-3	10FT. INSERT W/MTG. CLIPS FOR ROPE GUIDE	
33426-3	20FT. INSERT W/MTG. CLIPS FOR ROPE GUIDE	
623532	40FT. INSERT W/SHEAR LUGS	DWG. 50609
623526	40FT. INSERT W/SHEAR LUGS	DWG. 50609
623580	20FT. INSERT W/BACKSTAY LUGS	DWG. 33426
276861	10FT. PENDANT	DWG. 76280
276862	20FT. PENDANT	DWG. 76280
276863	40FT. PENDANT	DWG. 76280

OPTIONAL PARTS FOR 4-1/2° OFFSET TOP

2 76998	BOOM JOINT PIN	
2 79526	LINK	
2 140555	SPACER	

BOOM HANDLING INSTRUCTIONS

ATTACHMENT ARRANGEMENT	GANTRY POS.	MAX. LG. OF BM. HANDLED	BOOM MAKEUP	BOOM CONDITIONS OR LIMITATIONS
EQUALIZER PINNED TO RAIL W/BOOM HANDLING LINK	DOWN	30FT.	BUTT ONLY	
EQUALIZER PINNED TO RAIL W/BOOM HANDLING LINK	UP	70FT.	BUTT & 40FT. INSERT	
PENDANTS PINNED TO ATTACHMENT LUGS (91330) ON INSERTS	DOWN	110FT.	BUTT & 2-40FT. INSERTS	POINT OF ATTACHMENT MUST NOT EXCEED 80FT FROM HINGE PIN.
PENDANTS PINNED TO ATTACHMENT LUGS (91330) ON INSERTS	UP	150FT.	BUTT & INSERTS	ONE 40FT. INSERT IS THE MAX. LENGTH TO BE CANTILEVERED FOR ANY LG. OF BOOM
PENDANTS ATTACHED TO BOOM POINT (IN LINE TOP ONLY)	DOWN	110FT.	110FT. BOOM NO JIB	BOOM CARRIED IN HORIZONTAL POSITION
EQ. PINNED TO RAIL (REAR HOLE ON EQ. AT UPPER HOLE ON RAIL)				PROVIDES NECESSARY PENDANT SLACK FOR ASSEMBLY AND DISASSEMBLY
EQ. PINNED TO RAIL (FWD. HOLE ON EQ. AT LOWER HOLE ON RAIL)				EQ. WILL NORMALLY LAND AT THIS POSITION WHEN LOWERED ONTO THE BUTT

SPREADER INSTRUCTIONS (SEE NOTES) FOR BOOM TOP OFFSET 4 1/2°

BOOM LENGTH	SPREADER REQUIRED	SPREADER LENGTH	LOCATION FROM LOWER BM. POINT
70FT.-120FT.	NO	-	-
130FT.-220FT.	YES	10FT. 6 3/8	81 FT 7 3/4

SPREADER INSTRUCTIONS (SEE NOTES) FOR BOOM TOP OFFSET 4 1/2°

BOOM LENGTH	SPREADER REQUIRED	SPREADER LENGTH	LOCATION FROM LOWER BM. POINT
70FT.-90FT.	NO	-	-
100FT.-120FT.	YES	9FT. 8	61 FT. 7-3/4
130FT.-170FT.	YES	11FT. 5-1/4	81 FT. 7-3/4
180FT.-220FT.	YES	13FT. 5-1/4	121 FT. 7-3/4

NOTICE

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MANITOWOC ENGINEERING CO.

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SUPERSEDES 48168 OF 9-7-79 & 48352

MANITOWOC ENGINEERING CO.

BOOM RIGGING ASSY

*22 BOOM

LIFTCRANE

DATE

11-16-79

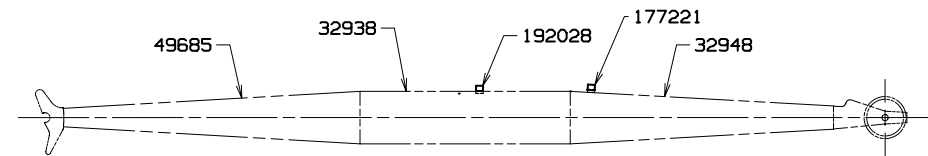
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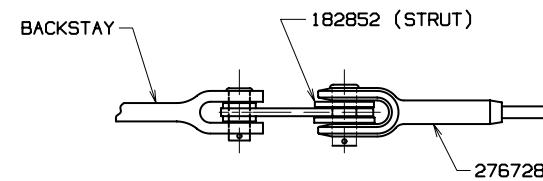
DWG. NO.

48168

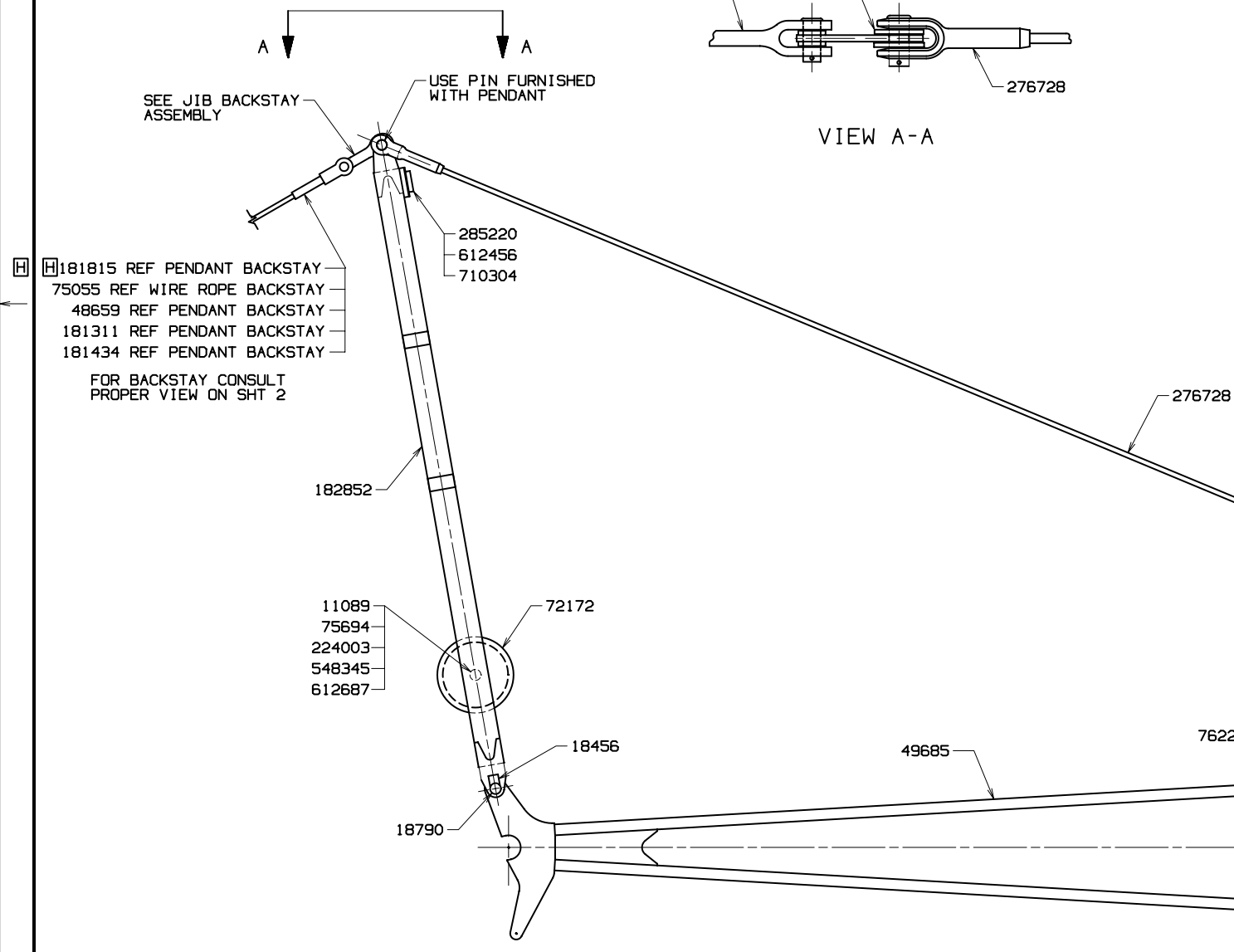
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VIEW OF 40' JIB WITH WIRE ROPE ROLLER GUIDE



VIEW A-A



FOR BOOM 22 & 22A HAMMERHEAD
2 PIECE-50920-ADD

C	2	LOCKING PLATE	139849
	2	END PLATE	79306
F	2	JIB STOP ASSEMBLY	140408
	2	PIN	139676

FOR BOOM #9-15FT HAMMERHEAD
2 PIECE-ADD

A	2	LOCKING PLATE	139849

FOR BOOM #9A-3FT HAMMERHEAD
DEEP SECTION-ADD

D	6	PIN	13310
	2	JIB LOCKING PLATE	139058
	2	ADAPTOR	139853
	2	PIN	139193
G	4	LINK	139728
	2	LINK	140507

REQ'D. FOR VARIOUS JIB LENGTHS

JIB LENGTH	10' INSERT DWG NO. 32938	PENDANT NO. 276729 DWG NO. 74958	JIB JOINT PIN NO. 76225	TIMBER 192028
40FT	1	2	4	1
50FT	2	4	8	2
60FT	3	6	12	3

T **1** 276730 & 276731 ARE ON DWG 75023.
USE 276730 WITH 0° JIB ANGLE.
USE 276731 WITH 10° AND 20° JIB ANGLE.

2 #27 LIFT-CLAM

3 3900T ONLY

BILL OF MATERIAL					ASSEMBLIES USED ON	
ITEM NO. NO. REQ'D	SEC- TION	DESCRIPTION	LENGTH IN.	MATERIAL	CODE NO. OR DWG. NO.	
BASIC PARTS						
	2	WASHER		11089		
	2	KEEPER		18456		
	2	PIN		18790		
	1	JIB TOP (15'-0")		32948		
	1	STRUT (12'-6")		182852		
	1	JIB BUTT (15'-0")		49685		
	1	TIMBER		177221		
	1	SHEAVE		72172		
	2	PIN		75052		
	1	SHEAVE PIN		75694		
	4	PIN		76225		
	1	UNIVERSAL WIRE ROPE ANCHOR JOINT		90317		
	1	JIB POINT SHAFT		90318		
	1	ROLLER BEARING		224003		
	2	PENDANT (33'-3 3/4" ON DWG. 74958)		276728		
	2	RUBBER BUMPER		285220		
	2	.625-11UNC-2B ELASTIC STOP NUT		548345		
	4	.375-16UNC-2A X 1.25 LG HEX SCREW		612456		
	2	.625-11UNC-2A X 5.50 LG HEX SCREW		612687		
	4	.375 LOCKWASHER		710304		

P

J

W

REVISONS

7-26-71 CHM
A/B/C WAS 70528
D/E WAS 139059
3-10-72 DWD
F WAS 139662
4-1-72 DWD
G WAS 139729
H ADDED
9-12-73 KBW
J WAS 33599
9-10-74 KBW
K/L WAS 4 REQ'D
M/N ADDED
5-19-76 RAD
P WAS 33589
5-28-76 RAD
O NO. CORRECTED
5-6-81 CRP
R ADDED
9-8-82 MJW
S 39 ADDED
T ADDED
3-1-83 DWD
U 22C ADDED
7-26-84 DCB
REDRAW CADAM
V#39A ADDED
CK. RAD
APP. MR
2-25-98 DW
W ADDED
X WAS WIRE
ROPE ROLLER

☒ FOR BOOMS #6, 7A, 8, 9, 9A, 13,
☒ 17, 22, 22A, 22C, 27, 39 & 39A-ADD

[B]	2	LOCKING PLATE	139849	
[K]	2	PIN	75025	
	4	ADJUSTING LINK	90333	
	2	JIB STOP PENDANT 71.25 LG	276730	1
	2	JIB STOP PENDANT 67.62 LG	276731	1
	2	KEEPER	71587	2
[M]	2	PIN	564093	
[R]	1	STRUT HANDLING ASS'Y FOR 123 JIB	184226	3

FOR BOOM #22 & 22A
LIGHT TAPERED TOPS-ADD

L	2	PIN	75025	
	4	ADJUSTING LINK	90333	
E	2	JIB LOCKING PLATE	139058	
	2	ADAPTOR	139853	
	2	PIN	139193	
N	2	JIB STOP PENDANT 71.25 LG	276730	1
	2	JIB STOP PENDANT 67.62 LG	276731	1
	2	PIN	564093	

SUPERSEDES 43730 OF 1-27-71

SCALE 3/4"=1'	DATE: 4/3/30	Mantowee Cranes, Inc. Manitowee, Wisconsin MODEL 3900 THRU 4600		8 36 71
DR. DWD			#123 TUBULAR JIB	PATTERN NO.
CK. WM			ASSEMBLY	
APP			SHEET 1 OF 2	DATE: 4/3/30

DWG. NO. 75055	JIB BACKSTAY ASSEMBLY	SCALE 1" = 10'	UNLESS NOTED PRAC. DIM. HOLE DIA. HOLE CENTERS FINISH	MANITOWOC ENGINEERING CO. MANITOWOC, WISCONSIN	DATE 3-4-70
CODE NO.	WIRE ROPE TYPE FOR	DR. D.W.D.			REVISED DATE 5-7-75 D.W.D.
PATTERN NO.	TUBULAR JIB #123	CR. <i>MP</i>			#27 BOOM ADDED
	MODEL 3900-4100W-3950W	APP.			9-26-77 SPS 80 FT ADDED
					9-8-82 LS #39 BOOM ADDED

BASIC DETAILS

FOR BOOMS #6, #7, #8, #9, #9A, #13, #17, #22, #22A, #27, #39

ITEM	REQ'D.	DESCRIPTION	DWG. OR CODE NO.
1	4	1" OPEN WEDGE SOCKETS	646419
2	4	PINS P58611	563960
3	2	1" CABLE CLAMP. (STRUT END)	349292
4	2	JIB BACKSTAY STRAP	74996

WIRE ROPE REQ'D. (C)

BOOMS #6, #7, #8, #9, #9A, #39 ALL LENGTHS

2 - 1" DIA. 6X25 I.W.R.C. EX. IMP. PLOW STL. X 59' LG. 719062

BOOMS #13, #17 ALL LENGTHS

2 - 1" DIA. 6X25 I.W.R.C. EX. IMP. PLOW STL. X 63' LG. 719062

BOOMS #22 ALL LENGTHS (A)

2 - 1" DIA. 6X25 I.W.R.C. EX. IMP. PLOW STL. X 50' LG. 719062

(B) BOOMS #22 4" 22A - 70' 80' LG.

2 - 1" DIA. 6X25 I.W.R.C. EX. IMP. PLOW STL. X 67' LG. 719062

BOOMS #22 4" 22A - 90' 80' LG.

2 - 1" DIA. 6X25 I.W.R.C. EX. IMP. PLOW STL. X 59' LG. 719062

43197
43730

ASSEMBLIES
USED ON

75055

EQ: 78x3033 / SN: 40767

DRUM AND LAGGING CHART 4000W

SPLIT FRONT DRUM

APPLICATION	DRUM	DRUM OR LAGGING PART NO.	DIA.	WIDTH	TYPE OF DRUM OR LAGGING	WIRE ROPE SIZE
<u>LIFTCRANE</u>						
HOIST	RIGHT	32262	19"	20-3/8"	BARE DRUM	1-1/8"
WHIP	LEFT	31082	21"	14-3/8"	PLAIN	1-1/8"
REAR AUXILIARY DRUM	REAR AUX.	48988	17"	30-7/16"	BARE DRUM	7/8"
<u>CLAMSHELL — VICON</u>						
CLOSING	RIGHT	33133	27"	20-3/8"	GROOVED	1-1/8"
HOLDING	LEFT	33113	27"	14-3/8"	GROOVED	1-1/8"
<u>CLAMSHELL — NON-VICON</u>						
CLOSING	RIGHT	32655	26"	20-3/8"	GROOVED	1"
HOLDING	LEFT	31878	27"	14-3/8"	GROOVED	1"
<u>DRAGLINE — REVOLVING FAIRLEAD</u>						
DRAG	RIGHT	32288	24"	20-3/8"	GROOVED	1-1/4"
HOIST	LEFT	31878	27"	14-3/8"	GROOVED	1"
<u>DRAGLINE — HINGED FAIRLEAD</u>						
DRAG	RIGHT	32784	24"	20-3/8"	GROOVED	1-1/4"
HOIST	LEFT	31878	27"	14-3/8"	GROOVED	1"
<u>TOWER CRANE</u>						
NO. 17 TOWER — NO. 18 BOOM						
HOIST — 1 PART LINE	RIGHT	32655	26"	20-3/8"	GROOVED	1"
HOIST — 2 PART LINE	RIGHT	32262	19"	20-3/8"	BARE DRUM	1"
HOLD BACK LINE	LEFT	31082	21"	14-3/8"	PLAIN	1"
NO. 22 TOWER — NO. 23 BOOM						
HOIST — 1 PART LINE	RIGHT	32655	26"	20-3/8"	GROOVED	1-1/8"
HOIST — 2 PART LINE	RIGHT	32262	19"	20-3/8"	BARE DRUM	1-1/8"
HOLD BACK LINE	LEFT	31082	21"	14-3/8"	PLAIN	1"
<u>MAGNET</u>						
DRAG	RIGHT	32288	24"	20-3/8"	GROOVED	1-1/4"
HOIST — 1 PART LINE	LEFT	32535	24"	14-3/8"	GROOVED	1-1/4"
HOIST — 2 PART LINE	LEFT	31878	27"	14-3/8"	GROOVED	1"

MANITOWOC ENGINEERING CO.

(A division of The Manitowoc Company, Inc.) Manitowoc, Wisconsin 54220

S/N: 40767*دستگاه***WITH POWER LOWERING — RETARDER TYPE**

APPLICATION	DRUM	DRUM OR LAGGING PART NO.	DIA.	WIDTH	TYPE OF DRUM OR LAGGING	WIRE ROPE SIZE
<u>LIFTCRANE</u>						
HOIST	RIGHT	32262	19"	16.8"	BARE DRUM	1-1/8"
WHIP	LEFT	31082	21"	14-3/8"	PLAIN	1-1/8"
<u>CLAMSHELL</u>						
CLOSING	RIGHT	32637	26"	16.8"	GROOVED	1"
HOLDING	LEFT	31878	27"	14-3/8"	GROOVED	1"
<u>CLAMSHELL (1-1/8" ROPE OPTION)</u>						
CLOSING	RIGHT	32368	27"	16.8"	GROOVED	1-1/8"
HOLDING	LEFT	33113	27"	14-3/8"	GROOVED	1-1/8"
<u>DRAGLINE — REVOLVING FAIRLEAD</u>						
DRAG	RIGHT	32636	24"	16.8"	GROOVED	1-1/4"
HOIST	LEFT	31878	27"	14-3/8"	GROOVED	1"

SINGLE FRONT DRUM

APPLICATION	DRUM	DRUM OR LAGGING PART NO.	DIA.	WIDTH	TYPE OF DRUM OR LAGGING	WIRE ROPE SIZE
<u>LIFTCRANE</u>						
HOIST	FRONT	180533	19"	37-1/4"	BARE DRUM	1-1/8"
REAR AUXILIARY DRUM (WHIP LINE)	REAR AUX.	48988	17"	30-7/16"	BARE DRUM	7/8"
<u>TOWER CRANE</u>						
NO. 17 TOWER — NO. 18 BOOM						
HOIST	FRONT	180533	19"	37-1/4"	BARE DRUM	1"
HOLD BACK LINE	REAR AUX.	48988	17"	30-7/16"	BARE DRUM	1"
NO. 22 TOWER — NO. 23 BOOM						
HOIST	FRONT	180533	19"	37-1/4"	BARE DRUM	1-1/8"
HOLD BACK LINE	REAR AUX.	48988	17"	30-7/16"	BARE DRUM	1"

Liftcrane Boom Capacities

Boom No. 22 With Open Throat Top
104,400 lb Counterweight
24 ft Crawlers Extended
Crawler Machine on a Barge
0 Degree thru 3 Degree Machine List
No Travel - 360 Degree Rating

LIFTING CAPACITIES: Lifting capacities are for a crawler machine when operating on a barge. Machine shall be positively secured to prevent shifting. Lifting capacities for various boom lengths and operating radii are for freely suspended loads and do not exceed 75% of a static tipping load. Capacities based on structural competence are denoted by an asterisk (*).

Upper boom point capacity for liftcrane service with single part whip line, or combination of two single part lines, is 28,300 lbs (20,000 lbs when rear auxiliary drum is used). In all cases, upper boom point capacities cannot exceed those listed for main boom capacity.

Weight of upper boom point, all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom point sheaves, is considered part of 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 on a firm uniformly supporting surface with crawlers fully extended, gantry up and machine list not to exceed degrees noted. Refer to boom rigging **No. 43952, 43698, or 48168**, and Wire Rope Specification chart **No. 5320**. Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, wind conditions, as well as adverse operating conditions and physical machine depreciation. Refer to operators manual for operating guidelines.

OPERATING RADIUS: Operating radius is horizontal distance from axis of rotation at barge deck to center of vertical hoist line or load block. Boom angle is 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 is vertical distance from barge deck to centerline of boom point shaft.

MACHINE EQUIPMENT: Machine equipped with 24 ft extendible crawlers, 48 in. treads, 15 ft retractable gantry, 10 part (#43952), 10 or 12 part (#43698) or 12 part (#48168) boom hoist reeving, four 1-3/8 in. boom pendants. First counterweight equals 40,100 lbs; second counterweight equals 35,800 lbs; third counterweight equals 28,500 lbs.

Jib is not to be used on crawler machine while operating on a barge.

Upper Boom Point Deduct	
Equipped	Deduct
One Sheave Point	1,200 lbs
Two Sheave Point	1,500 lbs

Manitowoc Cranes, Inc.

Manitowoc, Wisconsin 54220 U.S.A.

**4000W****Liftcrane Boom Capacities****Boom No. 22 With Open Throat Top****104,400 lb Counterweight****24 ft Crawlers Extended****Crawler Machine on a Barge****0 Degree thru 3 Degree Machine List****No Travel - 360 Degree Rating**

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	0 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	2 Degree List Boom Capacity Pounds	3 Degree List Boom Capacity Pounds	Oper. Radius Feet
70.0 ft							
17	79.0	75.8	300,000 *	262,100 *	230,800 *		17
18	78.2	75.6	285,000 *	245,600 *	218,000 *	193,900 *	18
19	77.3	75.4	267,300 *	230,900 *	206,500 *	184,600 *	19
20	76.5	75.2	249,900 *	214,900	196,000	175,200	20
22	74.8	74.7	212,500	185,200	170,300	153,900	22
24	73.1	74.1	183,300	162,500	150,300	137,100	24
26	71.4	73.4	160,900	144,500	134,300	123,400	26
28	69.7	72.7	143,200	130,000	121,300	112,100	28
30	67.9	72.0	128,800	118,000	110,400	102,600	30
32	66.1	71.1	116,900	107,900	101,200	94,500	32
34	64.3	70.2	106,900	99,300	93,400	87,500	34
36	62.5	69.2	98,400	91,900	86,600	81,400	36
38	60.6	68.1	91,000	85,400	80,700	76,000	38
40	58.7	66.9	84,600	79,800	75,400	71,300	40
45	53.8	63.6	71,700	68,200	64,700	61,500	45
50	48.6	59.6	61,900	59,300	56,400	53,900	50
55	42.8	54.7	54,200	52,300	49,800	47,800	55
60	36.4	48.7	48,000	46,600	44,500	42,800	60
65	28.8	40.8	43,000	42,000	40,100	38,800	65
70	18.6	29.5	38,700	38,100	36,500	35,400	70
80.0 ft							
17	80.4	86.0	294,000 *	256,200 *			17
18	79.7	85.8	281,600 *	240,300 *			18
19	78.9	85.6	266,500 *	226,100 *	199,100 *		19
20	78.2	85.4	249,100 *	210,300	189,200 *	168,000 *	20
22	76.8	85.0	212,200	181,600	165,900	148,500	22
24	75.3	84.5	183,000	159,600	146,700	132,600	24
26	73.8	83.9	160,500	142,100	131,300	119,600	26
28	72.3	83.3	142,800	127,900	118,700	108,800	28
30	70.8	82.6	128,400	116,100	108,100	99,700	30
32	69.3	81.9	116,500	106,200	99,200	91,900	32
34	67.7	81.1	106,500	97,800	91,500	85,100	34
36	66.2	80.3	97,900	90,500	84,900	79,200	36
38	64.6	79.4	90,500	84,100	79,100	74,000	38
40	63.0	78.4	84,100	78,500	73,900	69,400	40
45	58.9	75.6	71,200	67,100	63,400	59,900	45
50	54.6	72.3	61,400	58,300	55,200	52,400	50
55	50.1	68.5	53,700	51,300	48,700	46,400	55
60	45.2	63.9	47,500	45,700	43,400	41,500	60
65	39.9	58.5	42,400	41,000	39,100	37,500	65
70	34.0	51.8	38,200	37,100	35,400	34,000	70
75	26.9	43.3	34,600	33,800	32,200	31,100	75
80	17.4	31.0	31,500	30,900	29,600	28,700	80

Manitowoc Cranes, Inc.

Manitowoc, Wisconsin 54220 U.S.A.

**4000W****Liftcrane Boom Capacities****Boom No. 22 With Open Throat Top****104,400 lb Counterweight****24 ft Crawlers Extended****Crawler Machine on a Barge****0 Degree thru 3 Degree Machine List****No Travel - 360 Degree Rating**

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	0 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	2 Degree List Boom Capacity Pounds	3 Degree List Boom Capacity Pounds	Oper. Radius Feet
90.0 ft							
17	81.5	96.1	267,100 *				17
18	80.8	95.9	262,000 *	235,300 *			18
19	80.2	95.8	256,000 *	221,600 *			19
20	79.5	95.6	249,300 *	206,000	182,800 *		20
22	78.2	95.2	211,900	178,200	161,700	143,500	22
24	76.9	94.8	182,600	156,800	143,300	128,400	24
26	75.6	94.3	160,200	139,700	128,400	116,000	26
28	74.3	93.7	142,400	125,900	116,200	105,700	28
30	73.0	93.2	128,000	114,300	105,900	97,000	30
32	71.7	92.5	116,100	104,600	97,200	89,400	32
34	70.3	91.8	106,000	96,300	89,800	82,900	34
36	68.9	91.1	97,500	89,100	83,300	77,200	36
38	67.6	90.3	90,100	82,900	77,600	72,200	38
40	66.2	89.4	83,700	77,400	72,500	67,700	40
45	62.7	87.1	70,700	66,100	62,200	58,400	45
50	59.0	84.3	60,900	57,400	54,100	51,100	50
55	55.2	81.0	53,200	50,500	47,700	45,200	55
60	51.2	77.3	47,000	44,900	42,500	40,400	60
65	47.0	73.0	41,900	40,200	38,100	36,400	65
70	42.5	67.9	37,700	36,300	34,500	33,000	70
75	37.6	62.0	34,100	33,000	31,400	30,100	75
80	32.0	54.8	31,000	30,100	28,700	27,500	80
85	25.4	45.6	28,300	27,600	26,300	25,400	85
90	16.4	32.5	25,900	25,500	24,300	23,500	90
100.0 ft							
19	81.2	105.9	243,000 *				19
20	80.6	105.8	240,000 *	201,600			20
22	79.4	105.4	211,500	174,800	157,600		22
24	78.3	105.0	182,200	153,900	139,800	124,300	24
26	77.1	104.6	159,700	137,300	125,500	112,500	26
28	75.9	104.1	141,900	123,700	113,600	102,600	28
30	74.7	103.6	127,500	112,400	103,600	94,200	30
32	73.5	103.0	115,500	102,900	95,200	86,900	32
34	72.3	102.4	105,500	94,700	87,900	80,600	34
36	71.1	101.7	96,900	87,700	81,500	75,100	36
38	69.9	101.0	89,500	81,500	75,900	70,200	38
40	68.7	100.3	83,100	76,000	71,000	65,800	40
45	65.6	98.2	70,100	64,900	60,800	56,700	45
50	62.4	95.7	60,200	56,300	52,900	49,600	50
55	59.1	92.9	52,500	49,400	46,600	43,900	55
60	55.7	89.7	46,300	43,900	41,400	39,100	60
65	52.2	86.1	41,200	39,300	37,100	35,200	65
70	48.4	81.9	37,000	35,400	33,400	31,800	70
75	44.5	77.2	33,400	32,100	30,300	28,900	75
80	40.2	71.7	30,300	29,200	27,600	26,400	80
85	35.6	65.3	27,600	26,700	25,300	24,200	85
90	30.3	57.6	25,200	24,500	23,200	22,300	90
95	24.0	47.8	23,100	22,600	21,400	20,600	95
100	15.6	33.9	21,200	20,900	19,800	19,200	100

Manitowoc Cranes, Inc.

Manitowoc, Wisconsin 54220 U.S.A.

**4000W****Liftcrane Boom Capacities****Boom No. 22 With Open Throat Top****104,400 lb Counterweight****24 ft Crawlers Extended****Crawler Machine on a Barge****0 Degree thru 3 Degree Machine List****No Travel - 360 Degree Rating**

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	0 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	2 Degree List Boom Capacity Pounds	3 Degree List Boom Capacity Pounds	Oper. Radius Feet
110.0 ft							
20	81.5	115.9	215,900 *				20
22	80.4	115.6	211,200	171,600			22
24	79.3	115.2	181,900	151,300	136,700		24
26	78.3	114.8	159,400	135,100	122,800	109,200	26
28	77.2	114.4	141,500	121,800	111,300	99,800	28
30	76.1	113.9	127,100	110,800	101,600	91,700	30
32	75.1	113.4	115,100	101,400	93,400	84,700	32
34	74.0	112.8	105,100	93,400	86,200	78,600	34
36	72.9	112.2	96,500	86,400	80,000	73,200	36
38	71.8	111.6	89,100	80,300	74,600	68,500	38
40	70.7	110.9	82,700	75,000	69,700	64,200	40
45	67.9	109.0	69,700	64,000	59,700	55,400	45
50	65.1	106.9	59,800	55,500	51,900	48,400	50
55	62.2	104.4	52,100	48,700	45,700	42,800	55
60	59.2	101.6	45,900	43,200	40,600	38,100	60
65	56.1	98.4	40,800	38,600	36,300	34,200	65
70	52.9	94.8	36,600	34,700	32,700	30,900	70
75	49.6	90.8	32,900	31,400	29,600	28,100	75
80	46.1	86.3	29,800	28,600	26,900	25,600	80
85	42.3	81.2	27,100	26,100	24,600	23,400	85
90	38.3	75.3	24,700	23,900	22,500	21,500	90
95	33.9	68.4	22,700	21,900	20,700	19,800	95
100	28.9	60.2	20,800	20,200	19,100	18,300	100
105	22.9	49.9	19,100	18,700	17,700	16,900	105

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**4000W****Liftcrane Boom Capacities****Boom No. 22 With Open Throat Top****104,400 lb Counterweight****24 ft Crawlers Extended****Crawler Machine on a Barge****0 Degree thru 3 Degree Machine List****No Travel - 360 Degree Rating**

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	0 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	2 Degree List Boom Capacity Pounds	3 Degree List Boom Capacity Pounds	Oper. Radius Feet
120.0 ft							
22	81.2	125.7	186,800 *				22
24	80.2	125.4	181,500	148,600			24
26	79.3	125.0	158,900	132,800	120,100		26
28	78.3	124.6	141,100	119,800	108,900	96,900	28
30	77.3	124.2	126,600	109,000	99,500	89,100	30
32	76.3	123.7	114,600	99,800	91,500	82,400	32
34	75.4	123.2	104,600	91,900	84,500	76,500	34
36	74.4	122.7	96,000	85,100	78,400	71,300	36
38	73.4	122.1	88,600	79,100	73,100	66,700	38
40	72.4	121.5	82,100	73,800	68,300	62,600	40
45	69.9	119.8	69,100	62,900	58,500	53,900	45
50	67.3	117.8	59,300	54,500	50,800	47,100	50
55	64.7	115.6	51,500	47,700	44,600	41,600	55
60	62.0	113.1	45,300	42,300	39,600	37,000	60
65	59.3	110.2	40,200	37,700	35,400	33,200	65
70	56.4	107.1	35,900	33,900	31,800	29,900	70
75	53.5	103.6	32,300	30,600	28,700	27,100	75
80	50.5	99.7	29,200	27,800	26,100	24,600	80
85	47.3	95.3	26,500	25,300	23,800	22,500	85
90	44.0	90.4	24,100	23,100	21,700	20,600	90
95	40.4	84.9	22,000	21,200	19,900	18,900	95
100	36.6	78.7	20,200	19,400	18,300	17,300	100
105	32.4	71.4	18,500	17,900	16,800	16,000	105
110	27.6	62.7	17,000	16,500	15,500	14,800	110
115	21.9	51.9	15,600	15,200	14,300	13,700	115

Manitowoc Cranes, Inc.

Manitowoc, Wisconsin 54220 U.S.A.

**4000W****Liftcrane Boom Capacities****Boom No. 22 With Open Throat Top****104,400 lb Counterweight****24 ft Crawlers Extended****Crawler Machine on a Barge****0 Degree thru 3 Degree Machine List****No Travel - 360 Degree Rating**

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	0 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	2 Degree List Boom Capacity Pounds	3 Degree List Boom Capacity Pounds	Oper. Radius Feet
130.0 ft							
24	81.0	135.5	181,400	146,400			24
26	80.1	135.2	158,800	130,900			26
28	79.2	134.8	141,000	118,200	107,000		28
30	78.3	134.4	126,500	107,600	97,900	87,100	30
32	77.4	134.0	114,500	98,600	90,000	80,600	32
34	76.5	133.5	104,500	90,900	83,200	74,900	34
36	75.6	133.0	95,900	84,100	77,300	69,900	36
38	74.7	132.5	88,500	78,200	72,000	65,400	38
40	73.8	131.9	82,000	73,000	67,400	61,400	40
45	71.5	130.4	69,000	62,300	57,700	52,900	45
50	69.1	128.6	59,100	53,900	50,100	46,300	50
55	66.7	126.5	51,400	47,300	44,100	40,900	55
60	64.3	124.3	45,200	41,900	39,100	36,400	60
65	61.8	121.7	40,100	37,300	34,900	32,600	65
70	59.3	118.9	35,800	33,500	31,400	29,400	70
75	56.7	115.8	32,200	30,300	28,300	26,600	75
80	54.0	112.3	29,100	27,400	25,700	24,200	80
85	51.3	108.5	26,300	25,000	23,400	22,000	85
90	48.4	104.3	24,000	22,800	21,400	20,100	90
95	45.4	99.6	21,900	20,900	19,500	18,500	95
100	42.2	94.4	20,000	19,100	17,900	16,900	100
105	38.8	88.5	18,300	17,600	16,500	15,600	105
110	35.1	81.9	16,800	16,200	15,200	14,400	110
115	31.1	74.2	15,500	14,900	14,000	13,300	115
120	26.5	65.1	14,200	13,800	12,900	12,200	120
125	21.0	53.8	13,100	12,700	11,900	11,300	125

Manitowoc Cranes, Inc.

Manitowoc, Wisconsin 54220 U.S.A.

**4000W****Liftcrane Boom Capacities****Boom No. 22 With Open Throat Top****104,400 lb Counterweight****24 ft Crawlers Extended****Crawler Machine on a Barge****0 Degree thru 3 Degree Machine List****No Travel - 360 Degree Rating**

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	0 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	2 Degree List Boom Capacity Pounds	3 Degree List Boom Capacity Pounds	Oper. Radius Feet
140.0 ft							
26	80.8	145.3	157,000 *	128,800			26
28	80.0	145.0	140,500	116,300			28
30	79.2	144.6	126,000	105,900	95,900		30
32	78.3	144.2	114,100	97,100	88,200	78,400	32
34	77.5	143.8	104,000	89,400	81,600	72,900	34
36	76.6	143.3	95,400	82,800	75,700	68,000	36
38	75.8	142.8	87,900	77,000	70,600	63,700	38
40	75.0	142.3	81,500	71,800	66,000	59,800	40
45	72.8	140.9	68,400	61,200	56,500	51,600	45
50	70.7	139.2	58,600	53,000	49,100	45,000	50
55	68.5	137.4	50,800	46,400	43,100	39,700	55
60	66.3	135.3	44,600	41,000	38,100	35,300	60
65	64.0	132.9	39,500	36,500	34,000	31,600	65
70	61.7	130.4	35,200	32,700	30,500	28,400	70
75	59.4	127.6	31,600	29,500	27,500	25,600	75
80	57.0	124.5	28,500	26,700	24,900	23,200	80
85	54.5	121.1	25,700	24,200	22,600	21,100	85
90	51.9	117.3	23,400	22,100	20,600	19,300	90
95	49.3	113.2	21,300	20,100	18,800	17,600	95
100	46.5	108.7	19,400	18,400	17,200	16,100	100
105	43.6	103.7	17,700	16,900	15,700	14,800	105
110	40.6	98.2	16,200	15,500	14,400	13,500	110
115	37.3	92.0	14,800	14,200	13,200	12,400	115
120	33.8	85.0	13,600	13,100	12,100	11,400	120
125	29.9	76.9	12,500	12,000	11,100	10,500	125
130	25.5	67.4	11,400	11,000	10,200	9,600	130
135	20.3	55.6	10,500	10,200	9,400	8,900	135

Manitowoc Cranes, Inc.

Manitowoc, Wisconsin 54220 U.S.A.

**4000W****Liftcrane Boom Capacities****Boom No. 22 With Open Throat Top****104,400 lb Counterweight****24 ft Crawlers Extended****Crawler Machine on a Barge****0 Degree thru 3 Degree Machine List****No Travel - 360 Degree Rating**

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	0 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	2 Degree List Boom Capacity Pounds	3 Degree List Boom Capacity Pounds	Oper. Radius Feet
150.0 ft							
26	81.4	155.4	157,000 *				26
28	80.7	155.1	140,100	114,500			28
30	79.9	154.8	125,600	104,300			30
32	79.1	154.4	113,600	95,600	86,500		32
34	78.3	154.0	103,500	88,100	80,000	71,100	34
36	77.6	153.6	94,900	81,600	74,300	66,300	36
38	76.8	153.1	87,500	75,900	69,300	62,100	38
40	76.0	152.6	81,000	70,800	64,800	58,300	40
45	74.0	151.3	68,000	60,300	55,400	50,300	45
50	72.0	149.8	58,100	52,100	48,100	43,900	50
55	70.0	148.0	50,400	45,600	42,200	38,700	55
60	67.9	146.1	44,100	40,300	37,300	34,300	60
65	65.9	144.0	39,000	35,800	33,200	30,700	65
70	63.8	141.6	34,700	32,100	29,800	27,600	70
75	61.6	139.1	31,100	28,800	26,800	24,800	75
80	59.4	136.2	28,000	26,000	24,200	22,500	80
85	57.2	133.1	25,300	23,600	21,900	20,400	85
90	54.9	129.8	22,900	21,400	19,900	18,500	90
95	52.5	126.1	20,800	19,500	18,100	16,900	95
100	50.0	122.1	18,900	17,800	16,500	15,400	100
105	47.5	117.7	17,200	16,300	15,100	14,100	105
110	44.9	112.9	15,700	14,900	13,800	12,800	110
115	42.1	107.6	14,300	13,600	12,600	11,700	115
120	39.1	101.8	13,100	12,500	11,500	10,700	120
125	36.0	95.3	12,000	11,400	10,500	9,800	125
130	32.6	88.0	10,900	10,400	9,600	9,000	130
135	28.9	79.6	10,000	9,600	8,800	8,200	135
140	24.6	69.7	9,100	8,700	8,000	7,500	140
145	19.6	57.3	8,200	8,000	7,300	6,800	145

Manitowoc Cranes, Inc.

Manitowoc, Wisconsin 54220 U.S.A.

**4000W****Liftcrane Boom Capacities****Boom No. 22 With Open Throat Top****104,400 lb Counterweight****24 ft Crawlers Extended****Crawler Machine on a Barge****0 Degree thru 3 Degree Machine List****No Travel - 360 Degree Rating**

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	0 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	2 Degree List Boom Capacity Pounds	3 Degree List Boom Capacity Pounds	Oper. Radius Feet
160.0 ft							
28	81.3	165.2	139,700				28
30	80.5	164.9	125,200	102,700			30
32	79.8	164.6	113,200	94,100			32
34	79.1	164.2	103,000	86,700	78,400		34
36	78.3	163.8	94,400	80,300	72,800	64,600	36
38	77.6	163.4	87,000	74,600	67,900	60,500	38
40	76.9	162.9	80,500	69,600	63,500	56,800	40
45	75.0	161.7	67,400	59,300	54,300	48,900	45
50	73.2	160.2	57,500	51,200	47,000	42,700	50
55	71.3	158.6	49,800	44,700	41,200	37,600	55
60	69.4	156.9	43,600	39,400	36,400	33,300	60
65	67.5	154.9	38,400	35,000	32,400	29,700	65
70	65.5	152.7	34,100	31,300	28,900	26,600	70
75	63.5	150.3	30,500	28,100	26,000	23,900	75
80	61.5	147.7	27,400	25,300	23,400	21,600	80
85	59.4	144.9	24,700	22,900	21,100	19,500	85
90	57.3	141.8	22,300	20,700	19,100	17,700	90
95	55.2	138.5	20,200	18,800	17,400	16,100	95
100	53.0	134.9	18,300	17,100	15,800	14,600	100
105	50.7	130.9	16,600	15,600	14,300	13,300	105
110	48.3	126.7	15,100	14,200	13,000	12,100	110
115	45.9	122.0	13,700	12,900	11,800	10,900	115
120	43.4	116.9	12,500	11,800	10,800	9,900	120
125	40.7	111.4	11,300	10,700	9,800	9,000	125
130	37.9	105.3	10,300	9,700	8,900	8,200	130
135	34.8	98.5	9,300	8,800	8,000	7,400	135
140	31.6	90.8	8,400	8,000	7,200	6,700	140
145	28.0	82.1	7,600	7,300	6,500	6,000	145
150	23.9	71.8	6,900	6,600	5,900	5,400	150
155	18.9	59.0	6,100	5,900	5,200	4,800	155

Manitowoc Cranes, Inc.

Manitowoc, Wisconsin 54220 U.S.A.

**4000W****Liftcrane Boom Capacities****Boom No. 22 With Open Throat Top****104,400 lb Counterweight****24 ft Crawlers Extended****Crawler Machine on a Barge****0 Degree thru 3 Degree Machine List****No Travel - 360 Degree Rating**

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	0 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	2 Degree List Boom Capacity Pounds	3 Degree List Boom Capacity Pounds	Oper. Radius Feet
170.0 ft							
30	81.1	175.1	124,900				30
32	80.4	174.7	112,900	92,900			32
34	79.7	174.4	102,800	85,600			34
36	79.0	174.0	94,200	79,300	71,600		36
38	78.3	173.6	86,700	73,700	66,800	59,200	38
40	77.7	173.2	80,200	68,800	62,500	55,600	40
45	75.9	172.0	67,200	58,500	53,400	47,900	45
50	74.2	170.7	57,300	50,600	46,300	41,800	50
55	72.4	169.2	49,500	44,200	40,600	36,800	55
60	70.6	167.5	43,300	38,900	35,800	32,600	60
65	68.9	165.6	38,200	34,500	31,800	29,000	65
70	67.0	163.6	33,900	30,800	28,400	26,000	70
75	65.2	161.4	30,200	27,600	25,500	23,400	75
80	63.3	159.0	27,100	24,900	22,900	21,100	80
85	61.4	156.4	24,400	22,500	20,700	19,000	85
90	59.5	153.6	22,000	20,300	18,700	17,200	90
95	57.5	150.5	19,900	18,400	16,900	15,600	95
100	55.5	147.2	18,000	16,700	15,400	14,100	100
105	53.4	143.6	16,300	15,200	13,900	12,800	105
110	51.3	139.7	14,800	13,800	12,600	11,600	110
115	49.1	135.6	13,500	12,600	11,500	10,500	115
120	46.8	131.1	12,200	11,400	10,400	9,500	120
125	44.5	126.2	11,100	10,400	9,400	8,600	125
130	42.0	120.8	10,000	9,400	8,500	7,800	130
135	39.4	115.0	9,100	8,500	7,600	7,000	135
140	36.7	108.7	8,200	7,700	6,900	6,200	140
145	33.8	101.6	7,300	6,900	6,100	5,600	145
150	30.6	93.6	6,600	6,200	5,500	4,900	150
155	27.1	84.6	5,900	5,500	4,900	4,400	155
160	23.1	73.9	5,200	4,900	4,300		160
165	18.4	60.7	4,600	4,400			165

Manitowoc Cranes, Inc.

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Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	0 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	2 Degree List Boom Capacity Pounds	3 Degree List Boom Capacity Pounds	Oper. Radius Feet
180.0 ft							
32	80.9	184.9	112,500	91,500			32
34	80.3	184.5	102,400	84,400			34
36	79.7	184.2	93,800	78,100			36
38	79.0	183.8	86,300	72,600	65,500		38
40	78.4	183.4	79,800	67,700	61,300	54,200	40
45	76.7	182.3	66,700	57,600	52,400	46,700	45
50	75.1	181.0	56,800	49,700	45,400	40,700	50
55	73.4	179.6	49,100	43,400	39,700	35,800	55
60	71.8	178.1	42,800	38,200	35,000	31,700	60
65	70.1	176.3	37,700	33,800	31,000	28,200	65
70	68.4	174.4	33,400	30,100	27,700	25,200	70
75	66.7	172.4	29,700	27,000	24,800	22,600	75
80	64.9	170.1	26,600	24,200	22,200	20,300	80
85	63.1	167.7	23,900	21,800	20,000	18,300	85
90	61.3	165.0	21,500	19,700	18,000	16,500	90
95	59.5	162.2	19,400	17,800	16,300	14,900	95
100	57.6	159.1	17,500	16,100	14,700	13,400	100
105	55.7	155.9	15,800	14,600	13,300	12,100	105
110	53.8	152.3	14,300	13,200	12,000	10,900	110
115	51.8	148.5	12,900	12,000	10,800	9,800	115
120	49.7	144.4	11,700	10,800	9,800	8,800	120
125	47.6	140.1	10,500	9,800	8,800	7,900	125
130	45.4	135.3	9,500	8,800	7,900	7,100	130
135	43.1	130.2	8,500	7,900	7,000	6,300	135
140	40.8	124.6	7,600	7,100	6,200	5,600	140
145	38.3	118.6	6,800	6,300	5,500	4,900	145
150	35.6	111.9	6,000	5,600	4,900	4,300	150
155	32.8	104.6	5,300	4,900	4,200		155
160	29.7	96.3	4,700	4,300			160
165	26.3	86.9	4,000				165

Manitowoc Cranes, Inc.

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Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	0 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	2 Degree List Boom Capacity Pounds	3 Degree List Boom Capacity Pounds	Oper. Radius Feet
190.0 ft							
32	81.4	195.0	112,100				32
34	80.8	194.7	102,000	83,100			34
36	80.2	194.3	93,300	76,900			36
38	79.6	194.0	85,900	71,500			38
40	79.0	193.6	79,400	66,700	60,100		40
45	77.4	192.6	66,300	56,700	51,300	45,500	45
50	75.9	191.4	56,300	48,900	44,400	39,600	50
55	74.3	190.0	48,600	42,600	38,800	34,800	55
60	72.8	188.6	42,300	37,400	34,200	30,800	60
65	71.2	186.9	37,200	33,100	30,300	27,300	65
70	69.6	185.1	32,900	29,500	26,900	24,400	70
75	67.9	183.2	29,200	26,300	24,100	21,800	75
80	66.3	181.1	26,100	23,600	21,500	19,500	80
85	64.7	178.8	23,400	21,200	19,300	17,500	85
90	63.0	176.4	21,000	19,100	17,400	15,800	90
95	61.3	173.7	18,900	17,200	15,600	14,200	95
100	59.5	170.9	17,000	15,500	14,100	12,700	100
105	57.8	167.8	15,300	14,000	12,700	11,400	105
110	56.0	164.6	13,800	12,600	11,400	10,300	110
115	54.1	161.1	12,400	11,400	10,200	9,200	115
120	52.2	157.3	11,200	10,200	9,100	8,200	120
125	50.3	153.3	10,000	9,200	8,200	7,300	125
130	48.3	149.0	9,000	8,200	7,300	6,500	130
135	46.3	144.4	8,000	7,300	6,400	5,700	135
140	44.1	139.4	7,100	6,500	5,700	5,000	140
145	41.9	134.1	6,300	5,700	4,900	4,300	145
150	39.6	128.3	5,500	5,000	4,300		150
155	37.2	122.0	4,800	4,400			155
160	34.6	115.1	4,100				160

Manitowoc Cranes, Inc.

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Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	0 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	2 Degree List Boom Capacity Pounds	3 Degree List Boom Capacity Pounds	Oper. Radius Feet
200.0 ft							
34	81.3	204.8	95,500 *				34
36	80.7	204.5	92,800	75,700			36
38	80.1	204.1	85,400	70,400			38
40	79.5	203.8	78,900	65,600	58,800		40
45	78.1	202.8	65,700	55,700	50,200	44,200	45
50	76.6	201.7	55,800	48,000	43,400	38,500	50
55	75.1	200.4	48,000	41,800	37,900	33,700	55
60	73.6	199.0	41,800	36,600	33,300	29,800	60
65	72.1	197.5	36,600	32,300	29,400	26,400	65
70	70.6	195.8	32,300	28,700	26,100	23,500	70
75	69.1	193.9	28,700	25,600	23,300	20,900	75
80	67.6	192.0	25,500	22,900	20,800	18,700	80
85	66.0	189.8	22,800	20,500	18,600	16,700	85
90	64.4	187.5	20,400	18,400	16,600	15,000	90
95	62.8	185.0	18,300	16,500	14,900	13,400	95
100	61.2	182.4	16,400	14,800	13,400	12,000	100
105	59.6	179.5	14,700	13,300	12,000	10,700	105
110	57.9	176.5	13,200	11,900	10,700	9,500	110
115	56.2	173.2	11,800	10,700	9,500	8,400	115
120	54.4	169.8	10,600	9,600	8,400	7,500	120
125	52.7	166.1	9,400	8,500	7,500	6,600	125
130	50.8	162.1	8,400	7,500	6,600	5,700	130
135	49.0	157.9	7,400	6,700	5,700	5,000	135
140	47.0	153.4	6,500	5,800	5,000	4,200	140
145	45.0	148.6	5,700	5,100	4,200		145
150	43.0	143.4	4,900	4,400			150
155	40.8	137.9	4,200				155

S/N: 40767

EQ: 78x3033 / SN: 40767

Courtesy of Crane.Market

S/N: 40767

**MANITOWOC ENGINEERING CO.**

Division of The Manitowoc Company, Inc. Manitowoc, Wisconsin 54220

LIFTCRANE CAPACITIES

BOOM NO. 22 WITH OPEN THROAT TOP
104,400 LB. COUNTERWEIGHT
360 DEGREE RATING

MEETS
ANSI B30.5
REQUIREMENTS

4000W

CAPACITIES FOR VARIOUS BOOM LENGTHS AND OPERATING RADII ARE FOR FREELY SUSPENDED LOADS AND DO NOT EXCEED 75% OF A STATIC TIPPING LOAD. CAPACITIES BASED ON STRUCTURAL COMPETENCE ARE DENOTED BY AN ASTERISK (*).

UPPER BOOM POINT CAPACITY FOR LIFTCRANE SERVICE WITH SINGLE PART WHIP LINE OR COMBINATION OF TWO SINGLE PART LINES IS 28,300 LBS. (20,000 LBS. WHEN REAR AUXILIARY DRUM IS USED). IN ALL CASES, UPPER BOOM POINT CAPACITIES CANNOT EXCEED THOSE LISTED FOR THE MAIN BOOM CAPACITY.

WEIGHT OF UPPER BOOM POINT, JIB, ALL LOAD BLOCKS, HOOKS, WEIGHT BALL, SLINGS, HOIST LINES, ETC., BENEATH BOOM AND JIB POINT SHEAVES, 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.

MACHINE TO OPERATE IN A LEVEL POSITION ON A FIRM UNIFORMLY SUPPORTING SURFACE WITH GANTRY UP. REFER TO BOOM RIGGING NO. 4816B AND WIRE ROPE SPECIFICATION CHART NO. 6664-A. CRANE OPERATOR JUDGMENT MUST BE USED TO ALLOW FOR DYNAMIC LOAD EFFECTS OF SWINGING, HOISTING OR LOWERING, TRAVEL, WIND CONDITIONS, AS WELL AS ADVERSE OPERATING CONDITIONS AND PHYSICAL MACHINE DEPRECIATION.

OPERATING RADIUS IS THE HORIZONTAL DISTANCE FROM THE AXIS OF ROTATION TO THE CENTER OF VERTICAL HOIST LINE OR LOAD BLOCK. 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 IS VERTICAL DISTANCE FROM GROUND LEVEL TO CENTERLINE OF BOOM POINT SHAFT.

MACHINE EQUIPPED WITH 24' EXTENDIBLE CRAWLERS, 48" TREADS, 15' RETRACTABLE GANTRY, 12 PART BOOM HOIST REEVING, FOUR 1-3/8" BOOM PENDANTS, 1ST COUNTERWEIGHT = 40,100 LBS. (39,000 LBS. WITH COUNTERWEIGHT ASSEMBLY NO. 48998), 2ND COUNTERWEIGHT = 35,800 LBS., AND 3RD COUNTERWEIGHT = 28,500 LBS.

MAXIMUM BOOM AND JIB LENGTHS LIFTED UNASSISTED					
OVER END OF BLOCKED CRAWLERS		OVER SIDE OF EXTENDED CRAWLERS		OVER SIDE OF RETRACTED CRAWLERS	
BOOM LGTH.	JIB NO. 123	BOOM LGTH.	JIB NO. 123	BOOM LGTH.	JIB NO. 123
220'	---	200'	---	190'	---
210'	---	190'	---	180'	---
200'	40'	180'	50'	170'	50'
190'	60'	170'	60'	160'	60'
LOAD BLOCK, HOOK AND WEIGHT BALL ON GROUND AT START. UPPER BOOM POINT CANNOT BE USED ON 220' BOOM.					

DEDUCT FROM CAPACITIES WHEN UPPER BOOM POINT IS ATTACHED		DEDUCT FROM CAPACITIES WHEN JIB IS ATTACHED	
ONE SHEAVE POINT	1,200 LBS.	JIB LGTH.	JIB NO. 123
TWO SHEAVE POINT	1,500 LBS.	30'	3,000 LBS.
		40'	3,600 LBS.
		50'	4,200 LBS.
		60'	4,900 LBS.
JIB DEDUCTS INCLUDE JIB ADAPTOR.			

CONSULT JIB CHART FOR JIB CAPACITIES.

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY CRAWLERS RETRACTED POUNDS	CAPACITY CRAWLERS EXTENDED POUNDS
70	15	80.7	76.2	350,000*	350,000*
	16	79.9	76.0	308,600	332,800*
	17	79.0	75.8	275,000	307,800*
	18	78.2	75.6	248,000	285,200*
	19	77.3	75.4	225,600	270,100*
	20	76.5	75.2	206,900	253,500*
	22	74.8	74.7	177,200	214,000
	24	73.1	74.1	154,800	184,800
	26	71.4	73.4	137,200	162,500
	28	69.7	72.7	123,100	144,800
	30	67.9	72.0	111,500	130,500
	32	66.1	71.1	101,700	118,600
	34	64.3	70.2	93,500	108,600
	36	62.5	69.2	86,400	100,100
	38	60.6	68.1	80,300	92,700
	40	58.7	66.9	74,900	86,300
	45	53.8	63.6	63,900	73,400
	50	48.6	59.6	55,600	63,700
	55	42.8	54.7	49,000	56,000
	60	36.4	48.7	43,600	49,800
	65	28.8	40.8	39,200	44,800
	70	18.6	29.5	35,500	40,500

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY CRAWLERS RETRACTED POUNDS	CAPACITY CRAWLERS EXTENDED POUNDS
80	16	81.1	86.1	308,300	311,000*
	17	80.4	86.0	274,700	306,300*
	18	79.7	85.8	247,600	283,800*
	19	78.9	85.6	225,200	268,800*
	20	78.2	85.4	206,500	252,600*
	22	76.8	85.0	176,800	213,600
	24	75.3	84.5	154,300	184,400
	26	73.8	83.9	136,700	162,100
	28	72.3	83.3	122,500	144,300
	30	70.8	82.6	110,900	130,000
	32	69.3	81.9	101,200	118,100
	34	67.7	81.1	93,000	108,100
	36	66.2	80.3	85,900	99,600
	38	64.6	79.4	79,700	92,200
	40	63.0	78.4	74,300	85,800
	45	58.9	75.6	63,400	72,900
	50	54.6	72.3	55,000	63,100
	55	50.1	68.5	48,400	55,400
	60	45.2	63.9	43,000	49,200
	65	39.9	58.5	38,600	44,200
	70	34.0	51.8	34,900	39,900
	75	26.9	43.3	31,700	36,300
	80	17.4	31.0	29,000	33,200

CHART NO. 6274-A, 3-22-93/GA
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EQ: 78x3033 / SN: 40767

Courtesy of CraneMarket

MANITOWOC ENGINEERING CO.

Division of The Manitowoc Company, Inc. Manitowoc, Wisconsin 54220

S/N: 40767



LIFT CRANE CAPACITIES

BOOM NO. 22 WITH OPEN THROAT TOP
104,400 LB. COUNTERWEIGHT
360 DEGREE RATING

MEETS
ANSI B30.5
REQUIREMENTS

4000W

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY CRAWLERS RETRACTED POUNDS	CAPACITY CRAWLERS EXTENDED POUNDS
90	17	81.5	96.1	267,100	267,100
	18	80.8	96.0	247,400	267,100
	19	80.2	95.8	225,000	263,000
	20	79.5	95.6	206,200	250,500
	22	78.2	95.2	176,500	213,400
	24	76.9	94.8	154,000	184,200
	26	75.6	94.3	136,400	161,800
	28	74.3	93.8	122,200	144,100
	30	73.0	93.2	110,600	129,700
	32	71.7	92.5	100,900	117,800
	34	70.3	91.8	92,600	107,800
	36	68.9	91.1	85,500	99,200
	38	67.6	90.3	79,400	91,900
	40	66.2	89.4	74,000	85,500
	45	62.7	87.1	63,000	72,500
	50	59.0	84.3	54,600	62,700
	55	55.2	81.0	48,000	55,100
	60	51.2	77.3	42,700	48,900
	65	47.0	73.0	38,200	43,800
	70	42.5	67.9	34,500	39,600
100	75	37.6	62.0	31,400	36,000
	80	32.0	54.8	28,600	32,900
	85	25.4	45.6	26,300	30,200
	90	16.4	32.5	24,200	27,800
	19	81.2	105.9	224,600	243,000
	20	80.6	105.8	205,800	243,000
	22	79.4	105.4	176,100	213,100
	24	78.3	105.0	153,500	183,800
	26	77.1	104.6	135,900	161,400
	28	75.9	104.1	121,800	143,600
	30	74.7	103.6	110,100	129,200
	32	73.5	103.0	100,400	117,300
	34	72.3	102.4	92,100	107,300
	36	71.1	101.7	85,000	98,800
	38	69.9	101.0	78,800	91,400
	40	68.7	100.3	73,400	85,000
	45	65.6	98.2	62,500	72,000
	50	62.4	95.7	54,100	62,200
	55	59.1	92.9	47,400	54,500
	60	55.7	89.7	42,100	48,300
110	65	52.2	86.1	37,700	43,300
	70	48.4	81.9	33,900	39,000
	75	44.5	77.2	30,800	35,400
	80	40.2	71.7	28,000	32,300
	85	35.6	65.3	25,700	29,600
	90	30.3	57.6	23,600	27,200
	95	24.0	47.8	21,700	25,200
	100	15.6	33.9	20,100	23,300
	20	81.5	115.9	205,500	215,900
	22	80.4	115.6	175,700	212,800
	24	79.3	115.2	153,200	183,500
	26	78.3	114.8	135,600	161,100
	28	77.2	114.4	121,400	143,300
	30	76.1	113.9	109,700	128,900
	32	75.1	113.4	100,000	117,000
	34	74.0	112.8	91,700	107,000
	36	72.9	112.2	84,600	98,400
	38	71.8	111.6	78,500	91,000
	40	70.7	110.9	73,100	84,600
	45	67.9	109.0	62,100	71,600
120	50	65.1	106.9	53,700	61,800
	55	62.2	104.4	47,000	54,100
	60	59.2	101.6	41,700	47,900
	65	56.1	98.4	37,200	42,900
	70	52.9	94.9	33,500	38,600
	75	49.6	90.8	30,400	35,000
	80	46.1	86.3	27,600	31,900
	85	42.3	81.2	25,300	29,200
	90	38.3	75.3	23,200	26,800
	95	33.9	68.4	21,300	24,700
130	100	28.9	60.2	19,700	22,900
	105	22.9	49.9	18,200	21,200

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY CRAWLERS RETRACTED POUNDS	CAPACITY CRAWLERS EXTENDED POUNDS
120	22	81.2	125.7	175,500	186,800
	24	80.2	125.4	153,000	183,400
	26	79.3	125.0	135,300	160,900
	28	78.3	124.6	121,100	143,100
	30	77.3	124.2	109,500	128,700
	32	76.3	123.7	99,700	116,800
	34	75.4	123.2	91,500	106,700
	36	74.4	122.7	84,400	98,200
	38	73.4	122.1	78,200	90,800
	40	72.4	121.5	72,800	84,300
	45	69.9	119.8	61,800	71,400
	50	67.3	117.8	53,400	61,500
	55	64.7	115.6	46,700	53,800
	60	62.0	113.1	41,400	47,600
	65	59.3	110.2	36,900	42,600
	70	56.4	107.1	33,200	38,300
	75	53.5	103.6	30,000	34,700
	80	50.5	99.7	27,300	31,600
	85	47.3	95.3	24,900	28,900
	90	44.0	90.5	22,800	26,500
130	95	40.4	84.9	21,000	24,400
	100	36.6	78.7	19,300	22,600
	105	32.4	71.4	17,900	20,900
	110	27.6	62.7	16,500	19,400
	115	21.9	51.9	15,300	18,000
	24	81.0	135.5	152,600	183,300
	26	80.1	135.2	135,000	160,600
	28	79.2	134.8	120,800	142,800
	30	78.3	134.4	109,100	128,300
	32	77.4	134.0	99,400	116,400
	34	76.5	133.5	91,100	106,400
	36	75.6	133.0	84,000	97,800
	38	74.7	132.5	77,800	90,400
	40	73.8	131.9	72,400	84,000
	45	71.5	130.4	61,400	71,000
	50	69.1	128.6	53,000	61,100
	55	66.7	126.5	46,300	53,400
	60	64.3	124.3	41,000	47,200
	65	61.8	121.7	36,500	42,100
	70	59.3	118.9	32,800	37,900
	75	56.7	115.8	29,600	34,300
140	80	54.0	112.3	26,900	31,200
	85	51.3	108.5	24,500	28,500
	90	48.4	104.3	22,400	26,100
	95	45.4	99.6	20,600	24,000
	100	42.2	94.4	18,900	22,100
	105	38.8	88.5	17,400	20,500
	110	35.1	81.9	16,100	19,000
	115	31.1	74.2	14,900	17,600
	120	26.5	65.1	13,800	16,400
	125	21.0	53.8	12,800	15,200

S/N: 40767

MANITOWOC ENGINEERING CO.

Division of The Manitowoc Company, Inc. Manitowoc, Wisconsin 54220

**LIFT CRANE CAPACITIES**

BOOM NO. 22 WITH OPEN THROAT TOP
104,400 LB. COUNTERWEIGHT
360 DEGREE RATING

MEETS
ANSI B30.5
REQUIREMENTS

4000W

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY CRAWLERS RETRACTED POUNDS	CAPACITY CRAWLERS EXTENDED POUNDS
140	26	80.8	145.3	134,500	157,000*
	28	80.0	145.0	120,300	142,400
	30	79.2	144.6	108,600	127,900
	32	78.3	144.2	98,900	116,000
	34	77.5	143.8	90,600	105,900
	36	76.6	143.3	83,500	97,300
	38	75.8	142.8	77,300	89,900
	40	75.0	142.3	71,900	83,500
	45	72.8	140.9	60,800	70,500
	50	70.7	139.2	52,400	60,600
	55	68.5	137.4	45,800	52,900
	60	66.3	135.3	40,400	46,700
	65	64.0	133.0	36,000	41,600
	70	61.7	130.4	32,200	37,300
	75	59.4	127.6	29,100	33,700
	80	57.0	124.5	26,300	30,600
	85	54.5	121.1	23,900	27,900
	90	51.9	117.3	21,800	25,500
	95	49.3	113.2	20,000	23,400
	100	46.5	108.7	18,300	21,600
150	105	43.6	103.7	16,900	19,900
	110	40.6	98.2	15,500	18,400
	115	37.3	92.0	14,300	17,000
	120	33.8	85.0	13,200	15,800
	125	29.9	76.9	12,200	14,700
	130	25.5	67.4	11,300	13,600
	135	20.3	55.6	10,400	12,700
	26	81.4	155.4	134,100	157,000*
	28	80.7	155.1	119,900	142,000
	30	79.9	154.8	108,200	127,500
	32	79.1	154.4	98,500	115,600
	34	78.3	154.0	90,200	105,500
	36	77.6	153.6	83,100	96,900
	38	76.8	153.1	76,900	89,500
	40	76.0	152.6	71,400	83,100
	45	74.0	151.3	60,400	70,100
	50	72.0	149.8	52,000	60,200
	55	70.0	148.0	45,300	52,500
	60	67.9	146.1	40,000	46,300
	65	65.9	144.0	35,500	41,200
	70	63.8	141.6	31,800	36,900
160	75	61.6	139.1	28,600	33,300
	80	59.4	136.2	25,900	30,200
	85	57.2	133.1	23,500	27,500
	90	54.9	129.8	21,400	25,100
	95	52.5	126.1	19,500	23,000
	100	50.0	122.1	17,900	21,100
	105	47.5	117.7	16,400	19,500
	110	44.9	112.9	15,100	17,900
	115	42.1	107.6	13,800	16,600
	120	39.1	101.8	12,700	15,300
	125	36.0	95.3	11,700	14,200
	130	32.6	88.0	10,800	13,200
	135	28.9	79.6	9,900	12,200
	140	24.6	69.7	9,100	11,300
	145	19.6	57.4	8,400	10,500
	28	81.3	165.2	119,600	141,700
	30	80.5	164.9	107,900	127,300
	32	79.8	164.6	98,100	115,300
	34	79.1	164.2	89,800	105,200
	36	78.3	163.8	82,700	96,600
	38	77.6	163.4	76,500	89,200
	40	76.9	162.9	71,100	82,800
	45	75.0	161.7	60,100	69,700
	50	73.2	160.2	51,600	59,900
	55	71.3	158.6	45,000	52,200
180	60	69.4	156.9	39,600	45,900
	65	67.5	154.9	35,200	40,800
	70	65.5	152.7	31,400	36,600
	75	63.5	150.3	28,200	32,900
	80	61.5	147.7	25,500	29,800
	85	59.4	144.9	23,100	27,100
	90	57.3	141.8	21,000	24,700
	95	55.2	138.5	19,200	22,600
	100	53.0	134.9	17,500	20,800
	105	50.7	130.9	16,000	19,100
	110	48.3	126.7	14,700	17,600
	115	45.9	122.0	13,500	16,200
	120	43.4	117.0	12,400	15,000
	125	40.7	111.4	11,300	13,800
	130	37.9	105.3	10,400	12,800
	135	34.8	98.5	9,600	11,800
	140	31.6	90.8	8,800	10,900
	145	28.0	82.1	8,000	10,100
	150	23.9	71.8	7,300	9,400
	155	18.9	59.0	6,700	8,600
160	30	81.1	175.1	107,500	126,200*
	32	80.4	174.7	97,700	114,900
	34	79.7	174.4	89,400	104,800
	36	79.0	174.0	82,300	96,200
	38	78.3	173.6	76,100	88,800
	40	77.7	173.2	70,700	82,400
	45	75.9	172.0	59,600	69,300
	50	74.2	170.7	51,200	59,500
	55	72.4	169.2	44,500	51,700
	60	70.6	167.5	39,200	45,500
	65	68.9	165.7	34,700	40,400
	70	67.0	163.6	31,000	36,100
	75	65.2	161.4	27,800	32,500
	80	63.3	159.0	25,100	29,400
	85	61.4	156.4	22,700	26,700
	90	59.5	153.6	20,600	24,300
	95	57.5	150.5	18,700	22,200
	100	55.5	147.2	17,100	20,300
	105	53.4	143.6	15,600	18,600
	110	51.3	139.7	14,200	17,100
170	115	49.1	135.6	13,000	15,800
	120	46.8	131.1	11,900	14,500
	125	44.5	126.2	10,900	13,400
	130	42.0	120.9	10,000	12,300
	135	39.4	115.0	9,100	11,400
	140	36.7	108.7	8,300	10,500
	145	33.8	101.6	7,600	9,700
	150	30.6	93.6	6,900	8,900
	155	27.1	84.6	6,200	8,200
	160	23.1	73.9	5,700	7,500
	165	18.4	60.7	5,100	6,900
	32	80.9	184.9	97,300	114,500
	34	80.3	184.5	89,000	104,400
	36	79.7	184.2	81,800	95,800
	38	79.0	183.8	75,600	88,400
	40	78.4	183.4	70,200	81,900
	45	76.7	182.3	59,100	68,800
	50	75.1	181.0	50,700	59,000
	55	73.4	179.6	44,000	51,200
	60	71.8	178.1	38,600	45,000
	65	70.1	176.3	34,200	39,900
	70	68.4	174.4	30,400	35,600
	75	66.7	172.4	27,300	32,000
	80	64.9	170.1	24,500	28,800
	85	63.1	167.7	22,100	26,100
	90	61.3	165.0	20,000	23,700
180	95	59.5	162.2	18,200	21,600
	100	57.6	159.2	16,500	19,800
	105	55.7	155.9	15,000	18,100
	110	53.8	152.3	13,700	16,600
	115	51.8	148.5	12,500	15,200
	120	49.7	144.5	11,300	14,000
	125	47.6	140.1	10,300	12,800
	130	45.4	135.3	9,400	11,800
	135	43.1	130.2	8,500	10,800
	140	40.8	124.6	7,700	9,900
	145	38.3	118.6	7,000	9,100
	150	35.6	111.9	6,300	8,300
	155	32.8	104.6	5,700	7,600
	160	29.7	96.3	5,100	7,000
	165	26.3	86.9	4,500	6,300
	170	22.5	75.9	4,000	5,800
	175	17.9	62.3	3,500	5,200

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S/N: 40767



LIFT CRANE CAPACITIES

BOOM NO. 22 WITH OPEN THROAT TOP
104,400 LB. COUNTERWEIGHT
360 DEGREE RATING

MEETS
ANSI B30.5
REQUIREMENTS

4000W

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY CRAWLERS RETRACTED POUNDS	CAPACITY CRAWLERS EXTENDED POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY CRAWLERS RETRACTED POUNDS	CAPACITY CRAWLERS EXTENDED POUNDS
190	32	81.4	195.0	96,900	114,100	210	36	81.1	214.6	80,600	94,600
	34	80.8	194.7	88,500	104,000		38	80.6	214.3	74,400	87,200
	36	80.2	194.3	81,400	95,400		40	80.0	213.9	68,900	80,700
	38	79.6	194.0	75,200	88,000		45	78.6	213.0	57,900	67,600
	40	79.0	193.6	69,700	81,500		50	77.3	211.9	49,400	57,700
	45	77.4	192.6	58,700	68,400		55	75.9	210.7	42,700	50,000
	50	75.9	191.4	50,200	58,500		60	74.4	209.4	37,300	43,700
	55	74.3	190.0	43,600	50,800		65	73.0	207.9	32,900	38,600
	60	72.8	188.6	38,200	44,600		70	71.6	206.4	29,100	34,300
	65	71.2	186.9	33,700	39,400		75	70.1	204.6	25,900	30,700
	70	69.6	185.1	30,000	35,100		80	68.7	202.7	23,200	27,500
	75	67.9	183.2	26,800	31,500		85	67.2	200.7	20,800	24,800
	80	66.3	181.1	24,000	28,400		90	65.7	198.5	18,700	22,400
	85	64.7	178.8	21,700	25,700		95	64.2	196.2	16,800	20,300
	90	63.0	176.4	19,600	23,300		100	62.7	193.7	15,200	18,500
	95	61.3	173.7	17,700	21,200		105	61.1	191.0	13,700	16,800
	100	59.5	170.9	16,000	19,300		110	59.6	188.2	12,300	15,300
	105	57.8	167.8	14,500	17,600		115	58.0	185.2	11,100	13,900
	110	56.0	164.6	13,200	16,100		120	56.4	181.9	10,000	12,600
	115	54.1	161.1	12,000	14,700		125	54.7	178.5	9,000	11,500
200	120	52.2	157.3	10,900	13,500	220	130	53.0	174.9	8,000	10,400
	125	50.3	153.3	9,900	12,400		135	51.3	171.0	7,200	9,500
	130	48.3	149.0	8,900	11,300		140	49.5	166.8	6,400	8,600
	135	46.3	144.4	8,100	10,300		145	47.7	162.4	5,700	7,800
	140	44.1	139.4	7,300	9,500		150	45.8	157.7	5,000	7,000
	145	41.9	134.1	6,500	8,600		155	43.9	152.7	4,300	6,300
	150	39.6	128.3	5,800	7,900		160	41.9	147.3	3,800	5,600
	155	37.2	122.0	5,200	7,200		165	39.8	141.5	3,300	5,000
	160	34.6	115.1	4,600	6,500		170	37.6	135.3	2,900	4,400
	165	31.9	107.5	4,100	5,900		38	81.0	224.4	73,900	86,800
	170	28.9	98.9	3,700	5,300		40	80.5	224.1	68,500	80,300
	175	25.6	89.2	3,300	4,700		45	79.2	223.2	57,400	67,200
	180	21.9	77.9	3,000	4,200		50	77.8	222.2	48,900	57,300
	34	81.3	204.8	88,200	95,500*		55	76.5	221.0	42,200	49,500
	36	80.7	204.5	81,000	87,000		60	75.2	219.8	36,800	43,200
	38	80.1	204.1	74,800	80,600		65	73.8	218.4	32,400	38,100
	40	79.5	203.8	69,400	75,200		70	72.5	216.9	28,600	33,800
	45	78.1	202.8	64,000	69,800		75	71.1	215.2	25,400	30,200
	50	76.6	201.7	58,600	64,400		80	69.7	213.4	22,700	27,000
	55	75.1	200.4	53,200	59,000		85	68.3	211.5	20,300	24,300
	60	73.6	199.0	47,800	53,600		90	66.9	209.5	18,200	21,900
	65	72.1	197.5	42,400	48,200		95	65.5	207.2	16,300	19,800
	70	70.6	195.8	37,000	42,800		100	64.0	204.9	14,600	17,900
200	75	69.1	194.0	31,600	37,200		105	62.6	202.4	13,100	16,200
	80	67.6	192.0	26,200	31,800		110	61.1	199.7	11,800	14,700
	85	66.0	189.8	21,800	26,400		115	59.6	196.9	10,600	13,300
	90	64.4	187.5	19,200	22,900		120	58.1	193.8	9,500	12,100
	95	62.8	185.0	17,300	20,800		125	56.5	190.6	8,400	11,000
	100	61.2	182.4	15,600	18,900		130	55.0	187.2	7,500	9,900
	105	59.6	179.5	14,100	17,200		135	53.3	183.6	6,600	8,900
	110	57.9	176.5	12,800	15,700		140	51.7	179.8	5,800	8,000
	115	56.2	173.3	11,600	14,300		145	50.0	175.7	5,100	7,200
	120	54.4	169.8	10,500	13,100		150	48.3	171.4	4,400	6,500
	125	52.7	166.1	9,400	12,000		155	46.5	166.8	3,800	5,700
	130	50.8	162.2	8,500	10,900		160	44.7	161.9	3,300	5,100
	135	49.0	157.9	7,700	9,900		165	42.8	156.7	2,900	4,400
	140	47.0	153.4	6,900	9,100						
	145	45.0	148.6	6,100	8,200						
	150	43.0	143.4	5,400	7,500						
	155	40.8	137.9	4,800	6,700						
	160	38.6	131.8	4,200	6,100						
	165	36.2	125.3	3,700	5,500						
	170	33.7	118.2	3,200	4,900						
	175	31.1	110.3	2,800	4,300						

S/N: 40767

MANITOWOC ENGINEERING CO.

Division of The Manitowoc Company, Inc. Manitowoc, Wisconsin 54220

**LIFTCRANE CAPACITIES**MEETS
ANSI B30.5
REQUIREMENTS**4000W**

**BOOM NO. 22 WITH OPEN THROAT TOP
OFFSET 4-1/2 DEGREES
104,400 LB. COUNTERWEIGHT
360 DEGREE RATING**

CAPACITIES FOR VARIOUS BOOM LENGTHS AND OPERATING RADII ARE FOR FREELY SUSPENDED LOADS AND DO NOT EXCEED 75% OF A STATIC TIPPING LOAD. CAPACITIES BASED ON STRUCTURAL COMPETENCE ARE DENOTED BY AN ASTERISK (*).

UPPER BOOM POINT CAPACITY FOR LIFTCRANE SERVICE WITH SINGLE PART WHIP LINE OR COMBINATION OF TWO SINGLE PART LINES IS 28,300 LBS. (20,000 LBS. WHEN REAR AUXILIARY DRUM IS USED). IN ALL CASES, UPPER BOOM POINT CAPACITIES CANNOT EXCEED THOSE LISTED FOR THE MAIN BOOM CAPACITY.

WEIGHT OF UPPER BOOM POINT, JIB, ALL LOAD BLOCKS, HOOKS, WEIGHT BALL, SLINGS, HOIST LINES, ETC., BENEATH BOOM AND JIB POINT SHEAVES, 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.

MACHINE TO OPERATE IN A LEVEL POSITION ON A FIRM UNIFORMLY SUPPORTING SURFACE WITH GANTRY UP. REFER TO BOOM RIGGING NO. 48168 AND WIRE ROPE SPECIFICATION CHART NO. 6664-A. CRANE OPERATOR JUDGMENT MUST BE USED TO ALLOW FOR DYNAMIC LOAD EFFECTS OF SWINGING, HOISTING OR LOWERING, TRAVEL, WIND CONDITIONS, AS WELL AS ADVERSE OPERATING CONDITIONS AND PHYSICAL MACHINE DEPRECIATION.

OPERATING RADIUS IS THE HORIZONTAL DISTANCE FROM THE AXIS OF ROTATION TO THE CENTER OF VERTICAL HOIST LINE OR LOAD BLOCK. 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 IS VERTICAL DISTANCE FROM GROUND LEVEL TO CENTERLINE OF BOOM POINT SHAFT.

MACHINE EQUIPPED WITH 24' EXTENDIBLE CRAWLERS, 48" TREADS, 15' RETRACTABLE GANTRY, 12 PART BOOM HOIST REEVING, FOUR 1-3/8" BOOM PENDANTS, 1ST COUNTERWEIGHT = 40,100 LBS. (39,000 LBS. WITH COUNTERWEIGHT ASSEMBLY NO. 48998), 2ND COUNTERWEIGHT = 35,800 LBS., AND 3RD COUNTERWEIGHT = 28,500 LBS.

MAXIMUM BOOM AND JIB LENGTHS LIFTED UNASSISTED					
OVER END OF BLOCKED CRAWLERS		OVER SIDE OF EXTENDED CRAWLERS		OVER SIDE OF RETRACTED CRAWLERS	
BOOM LGTH.	JIB NO. 123	BOOM LGTH.	JIB NO. 123	BOOM LGTH.	JIB NO. 123
220'	---	200'	---	190'	---
210'	---	190'	---	180'	---
200'	40'	180'	50'	170'	50'
190'	60'	170'	60'	160'	60'

LOAD BLOCK, HOOK AND WEIGHT BALL ON GROUND AT START. UPPER BOOM POINT CANNOT BE USED ON 220' BOOM.

DEDUCT FROM CAPACITIES WHEN UPPER BOOM POINT IS ATTACHED		DEDUCT FROM CAPACITIES WHEN JIB IS ATTACHED	
ONE SHEAVE POINT	TWO SHEAVE POINT	JIB LGTH.	JIB NO. 123
1,200 LBS.	1,500 LBS.	30'	3,000 LBS.
		40'	3,600 LBS.
		50'	4,200 LBS.
		60'	4,900 LBS.
		JIB DEDUCTS INCLUDE JIB ADAPTOR.	

CONSULT JIB CHART FOR JIB CAPACITIES.

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY CRAWLERS RETRACTED POUNDS	CAPACITY CRAWLERS EXTENDED POUNDS
70	16	82.6	76.3	290,000*	290,000*
	17	81.7	76.1	275,000	283,400*
	18	80.9	75.9	248,000	277,600*
	19	80.1	75.7	225,600	270,600*
	20	79.2	75.4	206,900	253,500*
	22	77.5	74.9	177,200	214,000
	24	75.9	74.3	154,800	184,800
	26	74.1	73.7	137,200	162,500
	28	72.4	73.0	123,100	144,800
	30	70.7	72.2	111,500	130,500
	32	68.9	71.4	101,700	118,600
	34	67.1	70.5	93,500	108,600
	36	65.3	69.5	86,400	100,100
	38	63.4	68.4	80,300	92,700
	40	61.5	67.2	74,900	86,300
	45	56.6	63.9	63,900	73,400
	50	51.4	59.9	55,600	63,700
	55	45.7	55.1	49,000	56,000
	60	39.4	49.1	43,600	49,800
	65	31.9	41.3	39,200	44,800
	70	21.9	30.2	35,500	40,500

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY CRAWLERS RETRACTED POUNDS	CAPACITY CRAWLERS EXTENDED POUNDS
80	17	82.8	86.2	263,000*	263,000*
	18	82.1	86.0	247,600	257,400*
	19	81.3	85.9	225,200	252,200*
	20	80.6	85.7	206,500	247,200*
	22	79.1	85.2	176,800	213,600
	24	77.7	84.7	154,300	184,400
	26	76.2	84.2	136,700	162,100
	28	74.7	83.6	122,500	144,300
	30	73.2	82.9	110,900	130,000
	32	71.7	82.2	101,200	118,100
	34	70.1	81.4	93,000	108,100
	36	68.6	80.5	85,900	99,600
	38	67.0	79.6	79,700	92,200
	40	65.4	78.6	74,300	85,800
	45	61.3	75.9	63,400	72,900
	50	57.1	72.6	55,000	63,100
	55	52.6	68.8	48,400	55,400
	60	47.7	64.2	43,000	49,200
	65	42.5	58.8	38,600	44,200
	70	36.6	52.2	34,900	39,900
	75	29.6	43.8	31,700	36,300
	80	20.3	31.8	29,000	33,200

CHART NO. 6274-C, 3-22-93/GA
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EQ: 78x3033 / SN: 40767

Courtesy of CraneMarket



LIFT CRANE CAPACITIES

BOOM NO. 22 WITH OPEN THROAT TOP
OFFSET 4-1/2 DEGREES
104,400 LB. COUNTERWEIGHT
360 DEGREE RATING

MEETS
ANSI B30.5
REQUIREMENTS

4000W

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY CRAWLERS RETRACTED POUNDS	CAPACITY CRAWLERS EXTENDED POUNDS
90	18	82.9	96.2	242,600	242,600
	19	82.3	96.0	225,000	237,500
	20	81.7	95.8	206,200	232,600
	22	80.4	95.4	176,500	213,400
	24	79.1	95.0	154,000	184,200
	26	77.8	94.5	136,400	161,800
	28	76.4	94.0	122,200	144,100
	30	75.1	93.4	110,600	129,700
	32	73.8	92.8	100,900	117,800
	34	72.4	92.1	92,600	107,800
	36	71.1	91.3	85,500	99,200
	38	69.7	90.5	79,400	91,900
	40	68.3	89.7	74,000	85,500
	45	64.8	87.3	63,000	72,500
	50	61.2	84.5	54,600	62,700
	55	57.4	81.3	48,000	55,100
	60	53.4	77.6	42,700	48,900
	65	49.3	73.3	38,200	43,800
100	70	44.8	68.3	34,500	39,600
	75	39.8	62.4	31,400	36,000
	80	34.3	55.2	28,600	32,900
	85	27.7	46.2	26,300	30,200
	90	19.0	33.3	24,200	27,800
	20	82.5	106.0	205,800	220,600
	22	81.3	105.6	176,100	211,900
	24	80.2	105.2	153,500	183,800
	26	79.0	104.8	135,900	161,400
	28	77.8	104.3	121,800	143,600
	30	76.6	103.8	110,100	129,200
	32	75.5	103.2	100,400	117,300
	34	74.3	102.6	92,100	107,300
	36	73.1	102.0	85,000	98,800
	38	71.8	101.3	78,800	91,400
	40	70.6	100.5	73,400	85,000
	45	67.5	98.4	62,500	72,000
	50	64.3	96.0	54,100	62,200
110	55	61.1	93.2	47,400	54,500
	60	57.7	90.0	42,100	48,300
	65	54.1	86.4	37,700	43,300
	70	50.4	82.2	33,900	39,000
	75	46.5	77.5	30,800	35,400
	80	42.3	72.0	28,000	32,300
	85	37.6	65.7	25,700	29,600
	90	32.4	58.0	23,600	27,200
	95	26.2	48.4	21,700	25,200
	100	17.9	34.7	20,100	23,300
	22	82.1	115.8	175,700	202,000
	24	81.1	115.4	153,200	183,500
	26	80.0	115.0	135,600	161,100
	28	79.0	114.6	121,400	143,300
	30	77.9	114.1	109,700	128,900
	32	76.8	113.6	100,000	117,000
	34	75.7	113.1	91,700	107,000
	36	74.6	112.5	84,600	98,400
	38	73.6	111.8	78,500	91,000
120	40	72.5	111.2	73,100	84,600
	45	69.7	109.3	62,100	71,600
	50	66.8	107.1	53,700	61,800
	55	63.9	104.6	47,000	54,100
	60	61.0	101.8	41,700	47,900
	65	57.9	98.7	37,200	42,900
	70	54.7	95.1	33,500	38,600
	75	51.4	91.1	30,400	35,000
	80	47.9	86.6	27,600	31,900
	85	44.1	81.5	25,300	29,200
	90	40.1	75.6	23,200	26,800
	95	35.7	68.8	21,300	24,700
	100	30.8	60.7	19,700	22,900
	105	24.9	50.5	18,200	21,200

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY CRAWLERS RETRACTED POUNDS	CAPACITY CRAWLERS EXTENDED POUNDS
120	22	82.8	125.9	175,600	186,800
	24	81.8	125.6	153,100	163,400
	26	80.9	125.2	135,400	140,900
	28	79.9	124.8	121,200	123,100
	30	78.9	124.4	109,600	108,700
	32	77.9	123.9	99,800	98,800
	34	76.9	123.4	91,500	90,700
	36	76.0	122.9	84,400	84,200
	38	75.0	122.3	78,200	78,200
	40	74.0	121.7	72,800	72,800
	45	71.5	120.0	61,800	61,800
	50	68.9	118.0	53,400	53,400
	55	66.3	115.8	46,800	46,800
	60	63.6	113.3	41,400	41,400
	65	60.9	110.5	37,000	37,000
	70	58.1	107.4	33,200	33,200
	75	55.2	103.9	30,100	30,100
	80	52.1	100.0	27,300	27,300
130	85	49.0	95.6	25,000	25,000
	90	45.7	90.8	22,900	22,900
	95	42.1	85.3	21,000	21,000
	100	38.3	79.0	19,400	19,400
	105	34.1	71.8	17,900	17,900
	110	29.4	63.2	16,500	16,500
	115	23.7	52.4	15,300	15,300
	24	82.5	135.7	152,800	179,700
	26	81.6	135.4	135,100	160,600
	28	80.7	135.0	120,900	142,800
	30	79.8	134.6	109,200	128,300
	32	78.9	134.2	99,500	116,400
	34	78.0	133.7	91,200	106,400
	36	77.1	133.2	84,100	97,800
	38	76.2	132.7	77,900	90,400
	40	75.2	132.1	72,500	84,000
	45	72.9	130.6	61,400	71,000
	50	70.6	128.8	53,000	61,100
140	55	68.2	126.8	46,400	53,400
	60	65.8	124.5	41,000	47,200
	65	63.3	122.0	36,600	42,100
	70	60.8	119.1	32,800	37,900
	75	58.2	116.0	29,700	34,300
	80	55.6	112.6	26,900	31,200
	85	52.8	108.8	24,500	28,500
	90	49.9	104.6	22,400	26,100
	95	46.9	99.9	20,600	24,000
	100	43.7	94.7	18,900	22,100
	105	40.3	88.9	17,500	20,500
	110	36.7	82.3	16,100	19,000
	115	32.7	74.6	14,900	17,600
	120	28.1	65.6	13,800	16,400
	125	22.7	54.4	12,800	15,200

S/N: 40767

MANITOWOC ENGINEERING CO.

Division of The Manitowoc Company, Inc. Manitowoc, Wisconsin 54220

**4000W****LIFTCRANE CAPACITIES**MEETS
ANSI B30.5
REQUIREMENTS

BOOM NO. 22 WITH OPEN THROAT TOP
OFFSET 4-1/2 DEGREES
104,400 LB. COUNTERWEIGHT
360 DEGREE RATING

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY CRAWLERS RETRACTED POUNDS	CAPACITY CRAWLERS EXTENDED POUNDS
140	26	82.2	145.5	134,600	157,000*
	28	81.3	145.2	120,400	142,400
	30	80.5	144.8	108,700	127,900
	32	79.7	144.4	98,900	116,000
	34	78.8	144.0	90,600	105,900
	36	78.0	143.5	83,500	97,300
	38	77.2	143.0	77,300	89,900
	40	76.3	142.5	71,900	83,500
	45	74.2	141.1	60,900	70,500
	50	72.0	139.4	52,500	60,600
	55	69.9	137.6	45,800	52,900
	60	67.7	135.5	40,400	46,700
	65	65.4	133.2	36,000	41,600
	70	63.1	130.6	32,300	37,300
	75	60.8	127.8	29,100	33,700
	80	58.4	124.7	26,300	30,600
	85	55.9	121.3	24,000	27,900
	90	53.3	117.6	21,900	25,500
	95	50.7	113.5	20,000	23,400
	100	47.9	109.0	18,400	21,600
150	105	45.1	104.0	16,900	19,900
	110	42.0	98.5	15,500	18,400
	115	38.8	92.3	14,300	17,000
	120	35.3	85.4	13,200	15,800
	125	31.4	77.4	12,200	14,700
	130	27.0	67.9	11,300	13,600
	135	21.8	56.2	10,400	12,700
	26	82.7	155.6	134,100	157,000*
	28	81.9	155.3	119,900	142,000
	30	81.2	155.0	108,200	127,500
	32	80.4	154.6	98,500	115,600
	34	79.6	154.2	90,200	105,500
	36	78.8	153.8	83,100	96,900
	38	78.0	153.3	76,900	89,500
	40	77.3	152.8	71,400	83,100
	45	75.3	151.5	60,400	70,100
	50	73.3	150.0	52,000	60,200
	55	71.3	148.3	45,300	52,500
	60	69.2	146.3	40,000	46,300
	65	67.2	144.2	35,500	41,200
	70	65.0	141.9	31,800	36,900
	75	62.9	139.3	28,600	33,300
170	80	60.7	136.5	25,900	30,200
	85	58.5	133.4	23,500	27,500
	90	56.2	130.0	21,400	25,100
	95	53.8	126.3	19,500	23,000
	100	51.4	122.3	17,900	21,100
	105	48.8	118.0	16,400	19,500
	110	46.2	113.2	15,100	17,900
	115	43.4	107.9	13,800	16,600
	120	40.5	102.1	12,700	15,300
	125	37.4	95.6	11,700	14,200
	130	34.0	88.3	10,800	13,200
	135	30.3	80.0	9,900	12,200
	140	26.1	70.1	9,100	11,300
	145	21.0	58.0	8,400	10,500

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY CRAWLERS RETRACTED POUNDS	CAPACITY CRAWLERS EXTENDED POUNDS
160	28	82.4	165.4	119,600	141,700
	30	81.7	165.1	107,900	127,300
	32	81.0	164.8	98,100	115,300
	34	80.3	164.4	89,800	105,200
	36	79.5	164.0	82,700	96,600
	38	78.8	163.6	76,500	89,200
	40	78.1	163.1	71,100	82,800
	45	76.2	161.9	60,100	69,700
	50	74.4	160.5	51,600	59,900
	55	72.5	158.9	45,000	52,200
	60	70.6	157.1	39,600	45,900
	65	68.7	155.1	35,200	40,800
	70	66.7	152.9	31,400	36,600
	75	64.7	150.5	28,200	32,900
	80	62.7	147.9	25,500	29,800
	85	60.7	145.1	23,100	27,100
	90	58.6	142.1	21,000	24,700
	95	56.4	138.7	19,200	22,600
	100	54.2	135.1	17,500	20,800
	105	51.9	131.2	16,000	19,100
170	110	49.6	126.9	14,700	17,600
	115	47.1	122.3	13,500	16,200
	120	44.6	117.2	12,400	15,000
	125	41.9	111.7	11,300	13,800
	130	39.1	105.6	10,400	12,800
	135	36.1	98.8	9,600	11,800
	140	32.9	91.2	8,800	10,900
	145	29.3	82.5	8,000	10,100
	150	25.2	72.3	7,300	9,400
	155	20.3	59.7	6,700	8,600
	28	82.9	175.6	119,200	126,200*
	30	82.2	175.3	107,500	126,200*
	32	81.5	174.9	97,700	114,900
	34	80.8	174.6	89,400	104,800
	36	80.2	174.2	82,300	96,200
	38	79.5	173.8	76,100	88,800
	40	78.8	173.4	70,700	82,400
	45	77.0	172.2	59,600	69,300
	50	75.3	170.9	51,200	59,500
	55	73.6	169.4	44,500	51,700
	60	71.8	167.7	39,200	45,500
	65	70.0	165.9	34,700	40,400
	70	68.2	163.8	31,000	36,100
	75	66.3	161.6	27,800	32,500
	80	64.5	159.2	25,100	29,400
180	85	62.6	156.6	22,700	26,700
	90	60.6	153.8	20,600	24,300
	95	58.7	150.7	18,500	22,200
	100	56.6	147.4	17,100	20,300
	105	54.6	143.8	15,600	18,600
	110	52.4	140.0	14,200	17,100
	115	50.3	135.8	13,000	15,800
	120	48.0	131.3	11,900	14,500
	125	45.6	126.5	10,900	13,400
	130	43.2	121.2	10,000	12,300
	135	40.6	115.4	9,100	11,400
	140	37.9	109.0	8,300	10,500
	145	35.0	101.9	7,600	9,700
	150	31.8	94.0	6,900	8,900
	155	28.3	85.0	6,200	8,200
	160	24.4	74.4	5,700	7,500
	165	19.7	61.3	5,100	6,900



LIFTCRANE CAPACITIES

BOOM NO. 22 WITH OPEN THROAT TOP
OFFSET 4-1/2 DEGREES
104,400 LB. COUNTERWEIGHT
360 DEGREE RATING

MEETS
ANSI B30.5
REQUIREMENTS

4000W

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY CRAWLERS RETRACTED POUNDS	CAPACITY CRAWLERS EXTENDED POUNDS
180	30	82.6	185.4	107,100	126,200*
	32	82.0	185.1	97,300	114,500
	34	81.4	184.7	89,000	104,400
	36	80.7	184.4	81,800	95,800
	38	80.1	184.0	75,600	88,400
	40	79.4	183.6	70,200	81,900
	45	77.8	182.5	59,100	68,800
	50	76.1	181.2	50,700	59,000
	55	74.5	179.8	44,000	51,200
	60	72.8	178.3	38,600	45,000
	65	71.1	176.5	34,200	39,900
	70	69.4	174.6	30,400	35,600
	75	67.7	172.6	27,300	32,000
	80	66.0	170.3	24,500	28,800
	85	64.2	167.9	22,100	26,100
	90	62.4	165.3	20,000	23,700
	95	60.6	162.4	18,200	21,600
	100	58.7	159.4	16,500	19,800
	105	56.8	156.1	15,000	18,100
	110	54.9	152.6	13,700	16,600
190	115	52.9	148.8	12,500	15,200
	120	50.8	144.7	11,300	14,000
	125	48.7	140.3	10,300	12,800
	130	46.5	135.6	9,400	11,800
	135	44.3	130.5	8,500	10,800
	140	41.9	124.9	7,700	9,900
	145	39.4	118.9	7,000	9,100
	150	36.7	112.3	6,300	8,300
	155	33.9	104.9	5,700	7,600
	160	30.9	96.7	5,100	7,000
	165	27.5	87.4	4,500	6,300
	170	23.7	76.4	4,000	5,800
	175	19.1	62.9		5,200
	32	82.4	195.2	96,900	114,100
	34	81.8	194.9	88,500	104,000
	36	81.2	194.5	81,400	95,400
	38	80.6	194.2	75,200	88,000
	40	80.0	193.8	69,700	81,500
	45	78.4	192.8	58,700	68,400
	50	76.9	191.6	50,200	58,500
	55	75.3	190.2	43,600	50,800
	60	73.8	188.8	38,200	44,600
	65	72.2	187.1	33,700	39,400
	70	70.6	185.4	30,000	35,100
	75	69.0	183.4	26,800	31,500
	80	67.3	181.3	24,000	28,400
	85	65.7	179.0	21,700	25,700
	90	64.0	176.6	19,600	23,300
	95	62.3	173.9	17,700	21,200
	100	60.6	171.1	16,000	19,300
	105	58.8	168.1	14,500	17,600
	110	57.0	164.8	13,200	16,100
	115	55.2	161.3	12,000	14,700
	120	53.3	157.6	10,900	13,500
	125	51.4	153.6	9,900	12,400
	130	49.4	149.3	9,000	11,300
	135	47.3	144.7	8,100	10,300
	140	45.2	139.7	7,300	9,500
	145	43.0	134.4	6,500	8,600
	150	40.7	128.6	5,800	7,900
	155	38.3	122.3	5,200	7,200
	160	35.7	115.4	4,600	6,500
	165	33.0	107.8	4,100	5,900
	170	30.0	99.3		5,300
	175	26.7	89.7		4,700
	180	23.0	78.4		4,200

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY CRAWLERS RETRACTED POUNDS	CAPACITY CRAWLERS EXTENDED POUNDS
200	32	82.8	205.3	95,500*	95,500*
	34	82.2	205.0	88,200	95,500*
	36	81.6	204.7	81,000	95,000
	38	81.1	204.3	74,800	87,600
	40	80.5	204.0	69,400	81,100
	45	79.0	203.0	58,300	68,100
	50	77.6	201.9	49,900	58,200
	55	76.1	200.6	43,200	50,400
	60	74.6	199.2	37,800	44,200
	65	73.1	197.7	33,300	39,000
	70	71.6	196.0	29,600	34,800
	75	70.1	194.2	26,400	31,100
	80	68.5	192.2	23,700	28,000
	85	67.0	190.0	21,300	25,300
	90	65.4	187.7	19,200	22,900
	95	63.8	185.2	17,300	20,800
	100	62.2	182.6	15,600	18,900
	105	60.5	179.8	14,100	17,200
	110	58.9	176.7	12,800	15,700
	115	57.2	173.5	11,600	14,300
210	120	55.4	170.0	10,500	13,100
	125	53.6	166.3	9,400	12,000
	130	51.8	162.4	8,500	10,900
	135	49.9	158.2	7,700	9,900
	140	48.0	153.7	6,900	9,100
	145	46.0	148.9	6,100	8,200
	150	44.0	143.7	5,400	7,500
	155	41.8	138.2	4,800	6,700
	160	39.6	132.2	4,200	6,100
	165	37.2	125.6		5,500
	170	34.8	118.5		4,900
	175	32.1	110.7		4,300
	34	82.6	215.1	87,800	95,500*
	36	82.0	214.8	80,600	94,600
	38	81.5	214.5	74,400	87,200
	40	80.9	214.1	68,900	80,700
	45	79.6	213.2	57,900	67,600
	50	78.2	212.1	49,400	57,700
	55	76.8	210.9	42,700	50,000
	60	75.3	209.6	37,300	43,700
	65	73.9	208.1	32,900	38,600
	70	72.5	206.6	29,100	34,300
	75	71.1	204.8	25,900	30,700
	80	69.6	202.9	23,200	27,500
	85	68.1	200.9	20,800	24,800
	90	66.6	198.7	18,700	22,400
	95	65.1	196.4	16,800	20,300
	100	63.6	193.9	15,200	18,500
	105	62.1	191.3	13,700	16,800
	110	60.5	188.4	12,300	15,300
	115	58.9	185.4	11,100	13,900
	120	57.3	182.2	10,000	12,600
	125	55.6	178.7	9,000	11,500
	130	54.0	175.1	8,000	10,400
	135	52.2	171.2	7,200	9,500
	140	50.5	167.1	6,400	8,600
	145	48.6	162.7	5,700	7,800
	150	46.8	158.0	5,000	7,000
	155	44.8	153.0	4,300	6,300
	160	42.8	147.6		5,600
	165	40.8	141.8		5,000
	170	38.6	135.6		4,400

S/N: 40767

MANITOWOC ENGINEERING CO.

Division of The Manitowoc Company, Inc. Manitowoc, Wisconsin 54220

**LIFTCRANE CAPACITIES**

BOOM NO. 22 WITH OPEN THROAT TOP
OFFSET 4-1/2 DEGREES
104,400 LB. COUNTERWEIGHT
360 DEGREE RATING

MEETS
ANSI B30.5
REQUIREMENTS

4000W

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY CRAWLERS RETRACTED POUNDS	CAPACITY CRAWLERS EXTENDED POUNDS
220	36	82.4	224.9	80,100	94,200
	38	81.9	224.6	73,900	86,800
	40	81.4	224.3	68,500	80,300
	45	80.0	223.4	57,400	67,200
	50	78.7	222.4	48,900	57,300
	55	77.4	221.2	42,200	49,500
	60	76.0	220.0	36,800	43,200
	65	74.7	218.6	32,400	38,100
	70	73.3	217.1	28,600	33,800
	75	72.0	215.4	25,400	30,200
	80	70.6	213.6	22,700	27,000
	85	69.2	211.7	20,300	24,300
	90	67.8	209.7	18,200	21,900
	95	66.3	207.5	16,300	19,800
	100	64.9	205.1	14,600	17,900
	105	63.5	202.6	13,100	16,200
	110	62.0	199.9	11,800	14,700
	115	60.5	197.1	10,600	13,300
	120	59.0	194.1	9,500	12,100
	125	57.4	190.8	8,400	11,000
	130	55.8	187.4	7,500	9,900
	135	54.2	183.8	6,600	8,900
	140	52.6	180.0	5,800	8,000
	145	50.9	176.0	5,100	7,200
	150	49.2	171.6	4,400	6,500
	155	47.4	167.0		5,700
	160	45.6	162.2		5,100
	165	43.7	157.0		4,400

S/N: 40767

EQ: 78x3033 / SN: 40767

Courtesy of Crane.Market

LIFTCRANE CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

**4000W
CRAWLER**

BOOM NO. 22 WITH OPEN THROAT TOP 24'0" CRAWLERS EXTENDED 75,900 LB. COUNTERWEIGHT

LIFTING CAPACITIES: Capacities for various boom lengths and operating radii 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.

Upper boom point capacity for single part whip line or combination of two single part lines is 28,300 lb. (20,000 lb. when rear auxiliary drum is used). In all cases, upper boom point capacities cannot exceed those listed for the main boom capacity.

Capacities are shown in pounds. Weight of upper boom point, jib, (see chart A), all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom and jib point sheaves, 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 with gantry in working position and under conditions referred to in rigging drawing No. 48168 and load line specification chart No. 6664-A.

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

OPERATING RADIUS: Operating radius 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 24'0" extendible crawlers, 48" treads, 15' retractable gantry, 12 part boom hoist reeving, four 1-3/8" boom pendants, 1st cwt. 40,100 lbs., 2nd cwt. 35,800 lbs.

HOIST REEVEING FOR MAIN LOAD BLOCK						
No. Parts of Line	1	2	3	4	5	6
Max. Load — Lbs.	32,500	64,000	95,500	126,200	157,000	186,800
No. Parts of Line	7	8	9	10	11	12
Max. Load — Lbs.	215,900	243,000	267,100	289,000	311,000	331,000

LOAD AND WHIP LINE SPECIFICATIONS	
LOADLINE: 1 1/2" — 6x31 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 1/2" — 6x25 Filler Wire, 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				(A) DEDUCT FROM CAPACITIES WHEN JIB IS ATTACHED	
OVER FRONT OF BLOCKED CRAWLERS		OVER SIDE OF EXTENDED CRAWLERS			
Bm. Lgth.	Jib No. 123	Bm. Lgth.	Jib No. 123	Jib Length	Jib No. 123
180'	—	170'	—	30'	3,000 lb.
170'	40'	160'	40'	40'	3,600 lb.
160'	60'	150'	60'	50'	4,200 lb.
				60'	4,900 lb.
Load block, hook and weight ball on ground at start.				Jib deducts include jib adaptor.	

DEDUCT FROM CAPACITIES WHEN UPPER BOOM POINT IS ATTACHED	
One Sheave Point	1,200 lb.
Two Sheave Point	1,500 lb.

For jib capacities, consult jib chart.

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity: Crawlers Extended	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity: Crawlers Extended	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity: Crawlers Extended	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity: Crawlers Extended
70	15	80.7	76.2	318,500	80	16	81.1	86.1	291,100	90	17	81.5	96.1	267,100	100	19	75.9	104.1	114,900
	16	79.9	76.0	291,900		17	80.4	86.0	268,500		18	80.8	96.0	248,300		20	80.6	105.9	226,200
	17	79.0	75.8	269,400		18	79.7	85.8	249,100		19	80.2	95.8	226,500		22	79.4	105.8	205,000
	18	78.2	75.6	249,900		19	78.9	85.6	228,800		20	79.5	95.6	205,300		24	78.3	105.4	172,200
	19	77.3	75.4	227,000		20	78.2	85.4	205,600		22	78.2	95.2	172,600		26	77.1	105.0	148,100
	20	76.5	75.2	205,800		22	76.8	85.0	172,900		24	76.9	94.8	148,500		28	75.9	104.1	114,900
	22	74.8	74.7	173,200		24	75.3	84.5	148,800		26	75.6	94.3	130,000		30	74.7	103.6	103,000
	24	73.1	74.1	149,200		26	73.8	83.9	130,400		28	74.3	93.8	115,400		32	73.5	103.0	93,200
	26	71.4	73.4	130,800		28	72.3	83.3	115,800		30	73.0	93.2	103,500		34	72.3	102.4	84,900
	28	69.7	72.7	116,200		30	70.8	82.6	103,900		32	71.7	92.5	93,700		36	71.1	101.7	77,900
70	30	67.9	72.0	104,400	80	32	69.3	81.9	94,100	90	34	70.3	91.8	85,500	100	38	69.9	101.0	71,800
	32	66.1	71.1	94,600		34	67.7	81.1	85,900		36	68.9	91.1	78,400		40	68.7	100.3	66,500
	34	64.3	70.2	86,300		36	66.2	80.3	78,900		38	67.6	90.3	72,400		45	65.6	98.2	55,800
	36	62.5	69.2	79,300		38	64.6	79.4	72,800		40	66.2	89.4	67,100		50	62.4	95.7	47,700
	38	60.6	68.1	73,300		40	63.0	78.4	67,500		45	62.7	87.1	56,400		55	59.1	92.9	41,300
	40	58.7	66.9	68,000		45	58.9	75.6	56,900		50	59.0	84.3	48,300		60	55.7	89.7	36,200
	45	53.8	63.6	57,400		50	54.6	72.3	48,800		55	55.2	81.0	42,000		65	52.2	86.1	32,000
	50	48.6	59.6	49,300		55	50.1	68.5	42,500		60	51.2	77.3	36,900		70	45.4	81.9	28,500
	55	42.8	54.7	43,000		60	45.2	63.9	37,400		65	47.0	73.0	32,700		75	44.5	77.2	25,500
	60	36.4	48.7	37,900		65	39.9	58.5	33,200		70	42.5	67.9	29,200		80	40.2	71.7	23,000
70	65	28.8	40.8	33,700	80	70	34.0	51.8	29,700	90	75	37.6	62.0	26,200	100	85	35.6	65.3	20,800
	70	18.6	29.5	30,200		75	26.9	43.3	26,700		80	32.0	54.8	23,700		90	30.3	57.6	18,800
						80	17.4	31.0	24,200		85	25.4	45.6	21,500		95	24.0	47.8	17,100
											90	16.4	32.5	19,500		100	15.6	33.9	15,600

Capacities continued
on reverse side.

SEE CONDITIONS ON REVERSE SIDE

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity: Crawlers Extended	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity: Crawlers Extended	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity: Crawlers Extended
110	20	81.5	115.9	204,800	140	26	80.8	145.3	128,300	170	30	81.1	175.1	100,500
	22	80.4	115.6	171,900		28	80.0	145.0	113,500		32	80.4	174.7	90,600
	24	79.3	115.2	147,800		30	79.2	144.6	101,600		34	79.7	174.4	82,200
	26	78.3	114.8	129,200		32	78.3	144.2	91,700		36	79.0	174.0	75,100
	28	77.2	114.4	114,600		34	77.5	143.8	83,400		38	78.3	173.6	69,000
	30	76.1	113.9	102,700		36	76.6	143.3	76,300		40	77.7	173.2	63,600
	32	75.1	113.4	92,800		38	75.8	142.8	70,200		45	75.9	172.0	52,900
	34	74.0	112.8	84,500		40	75.0	142.3	64,900		50	74.2	170.7	44,700
	36	72.9	112.2	77,500		45	72.8	140.9	54,100		55	72.4	169.2	38,300
	38	71.8	111.6	71,400		50	70.7	139.2	46,000		60	70.6	167.5	33,200
120	40	70.7	110.9	66,100	150	55	68.5	137.4	39,600	180	65	68.9	165.7	29,000
	45	67.9	109.0	55,400		60	66.3	135.3	34,500		70	67.0	163.6	25,400
	50	65.1	106.9	47,300		65	64.0	133.0	30,300		75	65.2	161.4	22,400
	55	62.2	104.4	40,900		70	61.7	130.4	26,800		80	63.3	159.0	19,800
	60	59.2	101.6	35,800		75	59.4	127.6	23,800		85	61.4	156.4	17,600
	65	56.1	98.4	31,600		80	57.0	124.5	21,200		90	59.5	153.6	15,600
	70	52.9	94.9	28,100		85	54.5	121.1	19,000		95	57.5	150.5	13,900
	75	49.6	90.8	25,100		90	51.9	117.3	17,000		100	55.5	147.2	12,400
	80	46.1	86.3	22,500		95	49.3	113.2	15,300		105	53.4	143.6	11,000
	85	42.3	81.2	20,300		100	46.5	108.7	13,700		110	51.3	139.7	9,700
130	90	38.3	75.3	18,400	160	105	43.6	103.7	12,300	190	115	49.1	135.6	8,600
	95	33.9	68.4	16,600		110	40.6	98.2	11,100		120	46.8	131.1	7,600
	100	28.9	60.2	15,100		115	37.3	92.0	10,000		125	44.5	126.2	6,600
	105	22.9	49.9	13,700		120	33.8	85.0	8,900		130	42.0	120.9	5,800
	22	81.2	125.7	171,600		125	29.9	76.9	8,000		135	39.4	115.0	5,000
	24	80.2	125.4	147,300		130	25.5	67.4	7,100		140	36.7	108.7	4,200
	26	79.3	125.0	128,800		135	20.3	55.6	6,400		32	80.9	184.9	90,200
	28	78.3	124.6	114,100		26	81.4	155.4	127,900		34	80.3	184.5	81,800
	30	77.3	124.2	102,200		28	80.7	155.1	113,100		36	79.7	184.2	74,700
	32	76.3	123.7	92,300		30	79.9	154.8	101,200		38	79.0	183.8	68,600
140	34	75.4	123.2	84,000	170	32	79.1	154.4	91,300	200	40	78.4	183.4	63,200
	36	74.4	122.7	76,900		34	78.3	154.0	83,000		45	76.7	182.3	52,400
	38	73.4	122.1	70,800		36	77.6	153.6	75,900		50	75.1	181.0	44,300
	40	72.4	121.5	65,500		38	76.8	153.1	69,800		55	73.4	179.6	37,900
	45	69.9	119.8	54,800		40	76.0	152.6	64,400		60	71.8	178.1	32,700
	50	67.3	117.8	46,700		45	74.0	151.3	53,700		65	70.1	176.3	28,500
	55	64.7	115.6	40,300		50	72.0	149.8	45,500		70	68.4	174.4	24,900
	60	62.0	113.1	35,200		55	70.0	148.0	39,200		75	66.7	172.4	21,900
	65	59.3	110.2	31,000		60	67.9	146.1	34,000		80	64.9	170.1	19,300
	150	70	56.4	107.1		27,500	180	65	65.9		144.0	29,800	210	85
75		53.5	103.6	24,500	70	63.8		141.6	26,300	90	61.3	165.0		15,100
80		50.5	99.7	21,900	75	61.6		139.1	23,300	95	59.5	162.2		13,400
85		47.3	95.3	19,700	80	59.4		136.2	20,700	100	57.6	159.2		11,800
90		44.0	90.5	17,700	85	57.2		133.1	18,500	105	55.7	155.9		10,400
95		40.4	84.9	16,000	90	54.9		129.8	16,500	110	53.8	152.3		9,200
100		36.6	78.7	14,500	95	52.5		126.1	14,800	115	51.8	148.5		8,100
105		32.4	71.4	13,100	100	50.0		122.1	13,200	120	49.7	144.5		7,000
110		27.6	62.7	11,900	105	47.5		117.7	11,900	125	47.6	140.1		6,100
115		21.9	51.9	10,700	110	44.9		112.9	10,600	130	45.4	135.3		5,200
160	24	81.0	135.5	147,300	190	115	42.1	107.6	9,500	220	135	43.1	130.2	4,400
	26	80.1	135.2	128,700		120	39.1	101.8	8,400		32	80.9	184.9	90,200
	28	79.2	134.8	114,000		125	36.0	95.3	7,500		34	80.3	184.5	81,800
	30	78.3	134.4	102,100		130	32.6	88.0	6,600		36	79.7	184.2	74,700
	32	77.4	134.0	92,200		135	28.9	79.6	5,900		38	79.0	183.8	68,600
	34	76.5	133.5	83,900		140	24.6	69.7	5,100		40	78.4	183.4	63,200
	36	75.6	133.0	76,800		28	81.3	165.2	112,700		45	76.7	182.3	52,400
	38	74.7	132.5	70,700		30	80.5	164.9	100,700		50	75.1	181.0	44,300
	40	73.8	131.9	65,400		32	79.8	164.6	90,800		55	73.4	179.6	37,900
	45	71.5	130.4	54,700		34	79.1	164.2	82,500		60	71.8	178.1	32,700
170	50	69.1	128.6	46,600	210	36	78.3	163.8	75,400	240	65	68.9	165.7	29,000
	55	66.7	126.5	40,200		38	77.6	163.4	69,300		70	67.0	163.6	25,400
	60	64.3	124.3	35,100		40	76.9	162.9	63,900		75	65.2	161.4	22,400
	65	61.8	121.7	30,900		45	75.0	161.7	53,100		80	63.3	159.0	19,800
	70	59.3	118.9	27,300		50	73.2	160.2	45,000		85	61.4	156.4	17,600
	75	56.7	115.8	24,400		55	71.3	158.6	38,600		90	59.5	153.6	15,600
	80	54.0	112.3	21,800		60	69.4	156.9	33,400		95	57.5	150.5	13,900
	85	51.3	108.5	19,600		65	67.5	154.9	29,200		100	55.5	147.2	12,400
	90	48.4	104.3	17,600		70	65.5	152.7	25,700		105	53.4	143.6	11,000
	95	45.4	99.6	15,900		75	63.5	150.3	22,700		110	51.3	139.7	9,700
180	100	42.2	94.4	14,300	220	80	61.5	147.7	20,100	250	115	49.1	135.6	8,600
	105	38.8	88.5	13,000		85	59.4	144.9	17,900		120	46.8	131.1	7,600
	110	35.1	81.9	11,700		90	57.3	141.8	15,900		125	44.5	126.2	6,600
	115	31.1	74.2	10,600		95	55.2	138.5	14,200		130	42.0	120.9	5,800
	120	26.5	65.1	9,600		100	53.0	134.9	12,600		135	39.4	115.0	5,000
	125	21.0	53.8	8,600		105	50.7	130.9	11,200		140	36.7	108.7	4,200
	24	81.0	135.5	147,300		110	48.3	126.7	10,000		32	80.9	184.9	90,200
	26	80.1	135.2	128,700		115	45.9	122.0	8,900		34	80.3	184.5	81,800
	28	79.2	134.8	114,000		120	43.4	117.0	7,800		36	79.7	184.2	74,700
	30	78.3	134.4	102,100		125	40.7	111.4	6,900		38	79.0	183.8	68,600
32	77.4	134.0	92,200	130	37.9	105.3	6,000	40	78.4	183.4	63,200			
190	34	76.5	133.5	83,900	230	135	34.8	98.5	5,200	260	45	76.7	182.3	52,400
	36	75.6	133.0	76,800		140	31.6	90.8	4,500		50	75.1	181.0	44,300
	38	74.7	132.5	70,700	28	81.3	165.2	112,700	55	73.4	179.6	37,900		
40	73.8	131.9	65,400	30	80.5	164.9	100,700	60	71.8	178.1	32,700			
45	71.5	130.4	54,700	32	79.8	164.6	90,800	65	70.1	176.3	28,500			
200	50	69.1	128.6	46,600	240	34	79.1	164.2	82,500	270	70	68.4	174.4	24,900
	55	66.7	126.5	40,200		36	78.3	163.8	75,400		75	66.7	172.4	21,900
	60	64.3	124.3	35,100		38	77.6	163.4	69,300		80	64.9	170.1	19,300
	65	61.8	121.7	30,900		40	76.9	162.9	63,900		85	63.1	167.7	17,100
	70	59.3	118.9	27,300		45	75.0	161.7	53,100		90	61.3	165.0	15,100
	75	56.7	115.8	24,400		50	73.2	160.2	45,000		95	59.5	162.2	13,400
	80	54.0	112.3	21,800		55	71.3	158.6	38,600		100	57.6	159.2	11,800
	85	51.3	108.5	19,600		60	69.4	156.9	33,400		105	55.7	155.9	10,400
	90	48.4	104.3	17,600		65	67.5	154.9	29,200		110	53.8	152.3	9,200
	95	45.4	99.6	15,900		70	65.5	152.7	25,700		115	51.8	148.5	8,100
210	100	42.2	94.4	14,300	260	75	63.5	150.3	22,700	290	120	49.7	144.5	7,000
	105	38.8	88.5	13,000		80	61.5	147.7	20,100		125	47.6	140.1	6,100
	110	35.1	81.9	11,700		85	59.4	144.9	17,900		130	45.4	135.3	5,200
	115	31.1	74.2											

LIFTCRANE CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

**4000W
CRAWLER**

**BOOM NO. 22 WITH OPEN THROAT TOP OFFSET 4-1/2 DEGREES
24'-0" CRAWLERS EXTENDED
75,900 LB. COUNTERWEIGHT**

LIFTING CAPACITIES: Capacities for various boom lengths and operating radii 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.

Upper boom point capacity for single part whip line or combination of two single part lines is 28,300 lb. when rear auxiliary drum is used). In all cases, upper boom point capacities cannot exceed those listed for the main boom capacity.

Capacities are shown in pounds. Weight of upper boom point, jib, (see chart A), all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom and jib point sheaves, 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 with gantry in working position and under conditions referred to in rigging drawing No. 48168 and load line specification chart No. 6664-A.

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

OPERATING RADIUS: Operating radius 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 24'-0" extendible crawlers, 48" treads, 15' retractable gantry, 12-part boom hoist reeving, four 1 1/2" boom pendants, 1st ctwt. 40,100 lbs., (39,000 lb. with ctwt. assembly no. 48998) 2nd ctwt. 35,800 lbs.

HOIST REEVING FOR MAIN LOAD BLOCK						
No. Parts of Line	1	2	3	4	5	6
Max. Load — Lbs.	32,500	64,000	95,500	126,200	157,000	186,800
No. Parts of Line	7	8	9	10	11	
Max. Load — Lbs.	215,900	243,000	267,100	289,000	311,000	

LOAD AND WHIP LINE SPECIFICATIONS	
LOAD LINE: 1 1/2" — 6x31 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 1/2" — 6x25 Filler Wire, 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				(A) DEDUCT FROM CAPACITIES WHEN JIB IS ATTACHED	
OVER FRONT OF BLOCKED CRAWLERS		OVER SIDE OF EXTENDED CRAWLERS			
Bm. Lgth.	Jib No. 123	Bm. Lgth.	Jib No. 123	Jib Length	Jib No. 123
180'	—	170'	—	30'	3,000 lb.
170'	40'	160'	40'	40'	3,600 lb.
160'	60'	150'	60'	50'	4,200 lb.
				60'	4,900 lb.
Load block, hook and weight ball on ground at start.				Jib deducts include jib adaptor.	

DEDUCT FROM CAPACITIES WHEN UPPER BOOM POINT IS ATTACHED	
One Sheave Point	1,200 lb.
Two Sheave Point	1,500 lb.

For jib capacities, consult jib chart.

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity: Crawlers Extended	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity: Crawlers Extended	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity: Crawlers Extended	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity: Crawlers Extended
70	16	82.6	76.3	290,000	80	17	82.8	86.2	263,000	90	18	82.9	96.2	242,600	100	20	82.5	106.0	205,000
	17	81.7	76.1	269,400		18	82.1	86.0	249,100		19	82.3	96.0	226,500		22	81.3	105.6	172,200
	18	80.9	75.9	249,900		19	81.3	85.9	226,800		20	81.7	95.8	205,300		24	80.2	105.2	148,100
	19	80.1	75.7	227,000		20	80.6	85.7	205,600		22	80.4	95.4	172,600		26	79.0	104.8	129,600
	20	79.2	75.4	205,800		22	79.1	85.2	172,900		24	79.1	95.0	148,500		28	77.8	104.3	114,900
	22	77.5	74.9	173,200		24	77.7	84.7	148,800		26	77.8	94.5	130,000		30	76.6	103.8	103,000
	24	75.9	74.3	149,200		26	76.2	84.2	130,400		28	76.4	94.0	115,400		32	75.5	103.2	93,200
	26	74.1	73.7	130,800		28	74.7	83.6	115,800		30	75.1	93.4	103,500		34	74.3	102.6	84,900
	28	72.4	73.0	116,200		30	73.2	82.9	103,900		32	73.8	92.8	93,700		36	73.1	102.0	77,900
	30	70.7	72.2	104,400		32	71.7	82.2	94,100		34	72.4	92.1	85,500		38	71.8	101.3	71,800
70	32	68.9	71.4	94,600	80	34	70.1	81.4	85,900	90	36	71.1	91.3	78,400	100	40	70.6	100.5	66,500
	34	67.1	70.5	86,300		36	68.6	80.5	78,900		38	69.7	90.5	72,400		45	67.5	98.4	55,800
	36	65.3	69.5	79,300		38	67.0	79.6	72,800		40	68.3	89.7	67,100		50	64.3	96.0	47,700
	38	63.4	68.4	73,300		40	65.4	78.6	67,500		45	64.8	87.3	56,400		55	61.1	93.2	41,300
	40	61.5	67.2	68,000		45	61.3	75.9	56,900		50	61.2	84.5	48,300		60	57.7	90.0	36,200
	45	56.6	63.9	57,400		50	57.1	72.6	48,800		55	57.4	81.3	42,000		65	54.1	86.4	32,000
	50	51.4	59.9	49,300		55	52.6	68.8	42,500		60	53.4	77.6	36,900		70	50.4	82.2	28,500
	55	45.7	55.1	43,000		60	47.7	64.2	37,400		65	49.3	73.3	32,700		75	46.5	77.5	25,500
	60	39.4	49.1	37,900		65	42.5	58.8	33,200		70	44.8	68.3	29,200		80	42.3	72.0	23,000
	65	31.9	41.3	33,700		70	36.6	52.2	29,700		75	39.8	62.4	26,200		85	37.6	65.7	20,800
70	70	21.9	30.2	30,200	80	75	29.6	43.8	26,700	90	80	34.3	55.2	23,700	100	90	32.4	58.0	18,800
						80	20.3	31.8	24,200		85	27.7	46.2	21,500		95	26.2	48.4	17,100
											90	19.0	33.3	19,500		100	17.9	34.7	15,600

Capacities continued
on reverse side.

SEE CONDITIONS ON REVERSE SIDE

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity: Crawlers Extended	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity: Crawlers Extended	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity: Crawlers Extended
1 1 0	22	82.1	115.8	171,900	1 4 0	26	82.2	145.5	128,300	1 7 0	28	82.9	175.6	112,400
	24	81.1	115.4	147,800		28	81.3	145.2	113,500		30	82.2	175.3	100,500
	26	80.0	115.0	129,200		30	80.5	144.8	101,600		32	81.5	174.9	90,600
	28	79.0	114.6	114,600		32	79.7	144.4	91,700		34	80.8	174.6	82,200
	30	77.9	114.1	102,700		34	78.8	144.0	83,400		36	80.2	174.2	75,100
	32	76.8	113.6	92,800		36	78.0	143.5	76,300		38	79.5	173.8	69,000
	34	75.7	113.1	84,500		38	77.2	143.0	70,200		40	78.8	173.4	63,600
	36	74.6	112.5	77,500		40	76.3	142.5	64,900		45	77.0	172.2	52,900
	38	73.6	111.8	71,400		45	74.2	141.1	54,100		50	75.3	170.9	44,700
	40	72.5	111.2	66,100		50	72.0	139.4	46,000		55	73.6	169.4	38,300
1 2 0	45	69.7	109.3	55,400	1 5 0	55	69.9	137.6	39,600	1 8 0	60	71.8	167.7	33,200
	50	66.8	107.1	47,300		60	67.7	135.5	34,500		65	70.0	165.9	29,000
	55	63.9	104.6	40,900		65	65.4	133.2	30,300		70	68.2	163.8	25,400
	60	61.0	101.8	35,800		70	63.1	130.6	26,800		75	66.3	161.6	22,400
	65	57.9	98.7	31,600		75	60.8	127.8	23,800		80	64.5	159.2	19,800
	70	54.7	95.1	28,100		80	58.4	124.7	21,200		85	62.6	156.6	17,600
	75	51.4	91.1	25,100		85	55.9	121.3	19,000		90	60.6	153.8	15,600
	80	47.9	86.6	22,500		90	53.3	117.6	17,000		95	58.7	150.7	13,900
	85	44.1	81.5	20,300		95	50.7	113.5	15,300		100	56.6	147.4	12,400
	90	40.1	75.6	18,400		100	47.9	109.0	13,700		105	54.6	143.8	11,000
1 3 0	95	35.7	68.8	16,600	1 6 0	105	45.1	104.0	12,300		110	52.4	140.0	9,700
	100	30.8	60.7	15,100		110	42.0	98.5	11,100		115	50.3	135.8	8,600
	105	24.9	50.5	13,700		115	38.8	92.3	10,000		120	48.0	131.3	7,600
	22	82.8	125.9	171,600		120	35.3	85.4	8,900		125	45.6	126.5	6,600
	24	81.8	125.6	147,300		125	31.4	77.4	8,000		130	43.2	121.2	5,800
	26	80.9	125.2	128,800		130	27.0	67.9	7,100		135	40.6	115.4	5,000
	28	79.9	124.8	114,100		135	21.8	56.2	6,400		140	37.9	109.0	4,200
	30	78.9	124.4	102,200		26	82.7	155.6	127,900		30	82.6	185.4	100,100
	32	77.9	123.9	92,300		28	81.9	155.3	113,100		32	82.0	185.1	90,200
	34	76.9	123.4	84,000		30	81.2	155.0	101,200		34	81.4	184.7	81,800
1 4 0	36	76.0	122.9	76,900	1 7 0	32	80.4	154.6	91,300		36	80.7	184.4	74,700
	38	75.0	122.3	70,800		34	79.6	154.2	83,000		38	80.1	184.0	68,600
	40	74.0	121.7	65,500		36	78.8	153.8	75,900		40	79.4	183.6	63,200
	45	71.5	120.0	54,800		38	78.0	153.3	69,800		45	77.8	182.5	52,400
	50	68.9	118.0	46,700		40	77.3	152.8	64,400		50	76.1	181.2	44,300
	55	66.3	115.8	40,300		45	75.3	151.5	53,700		55	74.5	179.8	37,900
	60	63.6	113.3	35,200		50	73.3	150.0	45,500		60	72.8	178.3	32,700
	65	60.9	110.5	31,000		55	71.3	148.3	39,200		65	71.1	176.5	28,500
	70	58.1	107.4	27,500		60	69.2	146.3	34,000		70	69.4	174.6	24,900
	75	55.2	103.9	24,500		65	67.2	144.2	29,800		75	67.7	172.6	21,900
1 5 0	80	52.1	100.0	21,900	1 8 0	70	65.0	141.9	26,300		80	66.0	170.3	19,300
	85	49.0	95.6	19,700		75	62.9	139.3	23,300		85	64.2	167.9	17,100
	90	45.7	90.8	17,700		80	60.7	136.5	20,700		90	62.4	165.3	15,100
	95	42.1	85.3	16,000		85	58.5	133.4	18,500		95	60.6	162.4	13,400
	100	38.3	79.0	14,500		90	56.2	130.0	16,500		100	58.7	159.4	11,800
	105	34.1	71.8	13,100		95	53.8	126.3	14,800		105	56.8	156.1	10,400
	110	29.4	63.2	11,900		100	51.4	122.3	13,200		110	54.9	152.6	9,200
	115	23.7	52.4	10,700		105	48.8	118.0	11,900		115	52.9	148.8	8,100
	24	82.5	135.7	147,300		110	46.2	113.2	10,600		120	50.8	144.7	7,000
	26	81.6	135.4	128,700		115	43.4	107.9	9,500		125	48.7	140.3	6,100
1 6 0	28	80.7	135.0	114,000	1 9 0	120	40.5	102.1	8,400		130	46.5	135.6	5,200
	30	79.8	134.6	102,100		125	37.4	95.6	7,500		135	44.3	130.5	4,400
	32	78.9	134.2	92,200		130	34.0	88.3	6,600					
	34	78.0	133.7	83,900		135	30.3	80.0	5,900					
	36	77.1	133.2	76,800		140	26.1	70.1	5,100					
	38	76.2	132.7	70,700		28	82.4	165.4	112,700					
	40	75.2	132.1	65,400		30	81.7	165.1	100,700					
	45	72.9	130.6	54,700		32	81.0	164.8	90,800					
	50	70.6	128.8	46,600		34	80.3	164.4	82,500					
	55	68.2	126.8	40,200		36	79.5	164.0	75,400					
1 7 0	60	65.8	124.5	35,100	2 0 0	38	78.8	163.6	69,300					
	65	63.3	122.0	30,900		40	78.1	163.1	63,900					
	70	60.8	119.1	27,300		45	76.2	161.9	53,100					
	75	58.2	116.0	24,400		50	74.4	160.5	45,000					
	80	55.6	112.6	21,800		55	72.5	158.9	38,600					
	85	52.8	108.8	19,600		60	70.6	157.1	33,400					
	90	49.9	104.6	17,600		65	68.7	155.1	29,200					
	95	46.9	99.9	15,900		70	66.7	152.9	25,700					
	100	43.7	94.7	14,300		75	64.7	150.5	22,700					
	105	40.3	88.9	13,000		80	62.7	147.9	20,100					
1 8 0	110	36.7	82.3	11,700	2 1 0	85	60.7	145.1	17,900					
	115	32.7	74.6	10,600		90	58.6	142.1	15,900					
	120	28.1	65.6	9,600		95	56.4	138.7	14,200					
	125	22.7	54.4	8,600		100	54.2	135.1	12,600					
						105	51.9	131.2	11,200					
						110	49.6	126.9	10,000					
						115	47.1	122.3	8,900					
						120	44.6	117.2	7,800					
						125	41.9	111.7	6,900					
						130	39.1	105.6	6,000					
						135	36.1	98.8	5,200					
						140	32.9	91.2	4,500					

Combined From Charts:

No. 6421 7-20-77

No. 6274-F 12-6-83

No. 6664-A 8-18-82

MANITOWOC ENGINEERING CO.

Division of The Manitowoc Company, Inc. Manitowoc, Wisconsin 54220

**LIFTCRANE CAPACITIES**MEETS
ANSI B30.5
REQUIREMENTS**4000W
CRAWLER****BOOM NO. 22 WITH OPEN THROAT TOP****24'0" CRAWLERS EXTENDED****RATING OVER FRONT OF BLOCKED CRAWLERS — LIMITED SWING****104,400 LB. COUNTERWEIGHT**

LIFTING CAPACITIES: Capacities for various boom lengths and operating radii are for freely suspended loads and do not exceed 75% of a static tipping load over front of machine with crawlers extended and blocked. Capacities based on structural competence are denoted by shaded areas.

Upper boom point capacity for single part whip line or combination of two single part lines is 28,300 lb. (20,000 lb. when rear auxiliary drum is used). In all cases, upper boom point capacities cannot exceed those listed for the main boom capacity.

Capacities are shown in pounds. Weight of upper boom point, jib, (see chart A) all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom and jib point sheaves, 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 gantry up, crawlers fully extended and front tumbler properly blocked so that the centerline of the idler tumbler becomes the tipping fulcrum. Drive chains must be to the rear of the machine. Swing is limited to that sector shown on operating range diagram chart No. 6540-A. Refer to rigging No. 48168, load line specification chart No. 6664-B.

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

OPERATING RADIUS: Operating radius 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 24'0" extendible crawlers, 48" treads, 15' retractable gantry, 12 part boom hoist reeving, four 1 1/2" boom pendants, 1st cwt. 40,100 lbs. (39,000 lbs. with cwt. assembly No. 48998), 2nd cwt. 35,800 lbs., 3rd cwt. 28,500 lbs.

HOIST REEVEING FOR MAIN LOAD BLOCK

No. Parts of Line	1	2	3	4	5	6
Max. Load — Lbs.	32,500	64,000	95,500	126,200	157,000	186,800
No. Parts of Line	7	8	9	10	11	12
Max. Load — Lbs.	215,900	243,000	267,100	289,000	311,000	331,000
No. Parts of Line	13					
Max. Load — Lbs.	350,000					

LOAD AND WHIP LINE SPECIFICATIONS

LOAD LINE: 1 1/2" — 6x31 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 1/2" — 6x25 Filler Wire, 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

OVER FRONT OF BLOCKED CRAWLERS		(A) DEDUCT FROM CAPACITIES WHEN JIB IS ATTACHED	
Boom Lgth.	Jib No. 123	Jib Length	Jib No. 123
220'	---	30'	3,000 lbs.
210'	---	40'	3,600 lbs.
200'	40'	50'	4,200 lbs.
190'	60'	60'	4,900 lbs.
Load block, hook and weight ball on ground at start. Upper boom point cannot be used on 220' boom.		Jib deducts include jib adaptor.	
		DEDUCT FROM CAPACITIES WHEN UPPER BOOM POINT IS ATTACHED	
		One Sheave Point 1,200 lbs. Two Sheave Point 1,500 lbs.	

For jib capacities, consult jib chart.

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity:																																																																																																																																																																
70	15	80.7	76.2	350,000	80	16	81.1	86.1	331,500	90	17	81.5	96.1	305,100	100	19	81.2	105.9	263,200																																																																																																																																																																
	16	79.9	76.0	332,800		17	79.0	75.8	307,800		18	78.2	75.6	285,200		19	77.3	75.4	270,100	20	76.8	85.0	218,500	21	76.5	94.8	194,500	22	74.8	94.3	175,700	23	73.1	93.8	160,100	24	71.4	93.2	146,900	70	30	67.9	72.0	149,100	80	32	69.3	81.9	136,600	90	34	70.3	91.8	125,700	100	36	71.1	101.7	115,100	32	66.1	71.1	137,800	34	64.3	70.2	127,000	36	62.5	69.2	116,400	38	60.6	68.1	107,400	40	58.7	66.9	99,600	42	56.8	65.6	92,000	44	54.8	64.3	84,000	46	52.8	62.9	72,300	48	50.8	61.6	63,200	70	55	42.8	54.7	63,200	65	55	58.9	75.6	83,500	50	50	59.0	84.3	71,400	60	60	55.7	89.7	54,400	60	36.4	48.7	56,000	50	54.6	72.3	71,800	55	50.1	68.5	62,700	60	45.2	63.9	55,500	65	39.9	58.5	49,500	70	34.0	51.8	44,600	75	26.9	43.8	40,400	80	17.4	31.0	36,800	85	16.4	32.5	30,500																												
	17	79.0	75.8	307,800		18	78.2	75.6	285,200		19	77.3	75.4	270,100		20	76.8	85.0	218,500	21	76.5	94.8	194,500	22	74.8	94.3	175,700	23	73.1	93.8	160,100	24	71.4	93.2	146,900	70	30	67.9	72.0		149,100	80	32	69.3		81.9	136,600	90	34		70.3	91.8	125,700	100		36	71.1	101.7	115,100	32	66.1	71.1	137,800	34	64.3	70.2	127,000	36	62.5	69.2	116,400	38	60.6	68.1	107,400	40	58.7	66.9	99,600	42	56.8	65.6	92,000	44	54.8	64.3	84,000	46	52.8	62.9	72,300	48	50.8	61.6	63,200		70	55	42.8	54.7		63,200	65	55	58.9		75.6	83,500	50	50		59.0	84.3	71,400	60	60	55.7	89.7	54,400	60	36.4	48.7	56,000	50	54.6	72.3	71,800	55	50.1	68.5	62,700	60	45.2	63.9	55,500	65	39.9	58.5	49,500	70	34.0	51.8	44,600	75	26.9	43.8	40,400	80	17.4	31.0	36,800	85	16.4	32.5	30,500																								
	18	78.2	75.6	285,200		19	77.3	75.4	270,100		20	76.8	85.0	218,500		21	76.5	94.8	194,500	22	74.8	94.3	175,700	23	73.1	93.8	160,100	24	71.4	93.2	146,900	70	30	67.9	72.0		149,100	80	32		69.3		81.9	136,600		90	34		70.3		91.8	125,700	100			36	71.1	101.7	115,100	32	66.1	71.1	137,800	34	64.3	70.2	127,000	36	62.5	69.2	116,400	38	60.6	68.1	107,400	40	58.7	66.9	99,600	42	56.8	65.6	92,000	44	54.8	64.3	84,000	46	52.8	62.9	72,300	48	50.8	61.6	63,200			70	55	42.8		54.7		63,200	65		55	58.9		75.6		83,500	50	50		59.0	84.3	71,400	60	60	55.7	89.7	54,400	60	36.4	48.7	56,000	50	54.6	72.3	71,800	55	50.1	68.5	62,700	60	45.2	63.9	55,500	65	39.9	58.5	49,500	70	34.0	51.8	44,600	75	26.9	43.8	40,400	80	17.4	31.0	36,800	85	16.4	32.5	30,500																				
	19	77.3	75.4	270,100		20	76.8	85.0	218,500		21	76.5	94.8	194,500		22	74.8	94.3	175,700	23	73.1	93.8	160,100	24	71.4	93.2	146,900	70	30	67.9	72.0		149,100	80	32		69.3		81.9		136,600		90	34			70.3		91.8		125,700	100				36	71.1	101.7	115,100	32	66.1	71.1	137,800	34	64.3	70.2	127,000	36	62.5	69.2	116,400	38	60.6	68.1	107,400	40	58.7	66.9	99,600	42	56.8	65.6	92,000	44	54.8	64.3	84,000	46	52.8	62.9	72,300	48	50.8	61.6	63,200				70	55		42.8		54.7			63,200	65		55		58.9		75.6		83,500	50	50		59.0	84.3	71,400	60	60	55.7	89.7	54,400	60	36.4	48.7	56,000	50	54.6	72.3	71,800	55	50.1	68.5	62,700	60	45.2	63.9	55,500	65	39.9	58.5	49,500	70	34.0	51.8	44,600	75	26.9	43.8	40,400	80	17.4	31.0	36,800	85	16.4	32.5	30,500																
	20	76.8	85.0	218,500		21	76.5	94.8	194,500		22	74.8	94.3	175,700		23	73.1	93.8	160,100	24	71.4	93.2	146,900	70	30	67.9	72.0		149,100	80	32		69.3		81.9		136,600		90		34			70.3			91.8		125,700		100					36	71.1	101.7	115,100	32	66.1	71.1	137,800	34	64.3	70.2	127,000	36	62.5	69.2	116,400	38	60.6	68.1	107,400	40	58.7	66.9	99,600	42	56.8	65.6	92,000	44	54.8	64.3	84,000	46	52.8	62.9	72,300	48	50.8	61.6	63,200					70		55		42.8			54.7			63,200		65		55		58.9		75.6		83,500	50	50		59.0	84.3	71,400	60	60	55.7	89.7	54,400	60	36.4	48.7	56,000	50	54.6	72.3	71,800	55	50.1	68.5	62,700	60	45.2	63.9	55,500	65	39.9	58.5	49,500	70	34.0	51.8	44,600	75	26.9	43.8	40,400	80	17.4	31.0	36,800	85	16.4	32.5	30,500												
	21	76.5	94.8	194,500		22	74.8	94.3	175,700		23	73.1	93.8	160,100		24	71.4	93.2	146,900	70	30	67.9	72.0		149,100	80	32		69.3		81.9		136,600		90		34				70.3			91.8			125,700		100							36	71.1	101.7	115,100	32	66.1	71.1	137,800	34	64.3	70.2	127,000	36	62.5	69.2	116,400	38	60.6	68.1	107,400	40	58.7	66.9	99,600	42	56.8	65.6	92,000	44	54.8	64.3	84,000	46	52.8	62.9	72,300	48	50.8	61.6	63,200							70		55			42.8			54.7				63,200		65		55		58.9		75.6		83,500	50	50		59.0	84.3	71,400	60	60	55.7	89.7	54,400	60	36.4	48.7	56,000	50	54.6	72.3	71,800	55	50.1	68.5	62,700	60	45.2	63.9	55,500	65	39.9	58.5	49,500	70	34.0	51.8	44,600	75	26.9	43.8	40,400	80	17.4	31.0	36,800	85	16.4	32.5	30,500								
	22	74.8	94.3	175,700		23	73.1	93.8	160,100		24	71.4	93.2	146,900		70	30	67.9	72.0		149,100	80	32		69.3		81.9		136,600		90		34				70.3				91.8			125,700			100									36	71.1	101.7	115,100	32	66.1	71.1	137,800	34	64.3	70.2	127,000	36	62.5	69.2	116,400	38	60.6	68.1	107,400	40	58.7	66.9	99,600	42	56.8	65.6	92,000	44	54.8	64.3	84,000	46	52.8	62.9	72,300	48	50.8	61.6	63,200									70			55			42.8				54.7				63,200		65		55		58.9		75.6		83,500	50	50		59.0	84.3	71,400	60	60	55.7	89.7	54,400	60	36.4	48.7	56,000	50	54.6	72.3	71,800	55	50.1	68.5	62,700	60	45.2	63.9	55,500	65	39.9	58.5	49,500	70	34.0	51.8	44,600	75	26.9	43.8	40,400	80	17.4	31.0	36,800	85	16.4	32.5	30,500				
	23	73.1	93.8	160,100		24	71.4	93.2	146,900		70	30	67.9	72.0			149,100	80	32		69.3		81.9		136,600		90		34				70.3				91.8				125,700			100												36	71.1	101.7	115,100	32	66.1	71.1	137,800	34	64.3	70.2	127,000	36	62.5	69.2	116,400	38	60.6	68.1	107,400	40	58.7	66.9	99,600	42	56.8	65.6	92,000	44	54.8	64.3	84,000	46	52.8	62.9	72,300	48	50.8	61.6	63,200												70			55				42.8				54.7				63,200		65		55		58.9		75.6		83,500	50	50		59.0	84.3	71,400	60	60	55.7	89.7	54,400	60	36.4	48.7	56,000	50	54.6	72.3	71,800	55	50.1	68.5	62,700	60	45.2	63.9	55,500	65	39.9	58.5	49,500	70	34.0	51.8	44,600	75	26.9	43.8	40,400	80	17.4	31.0	36,800	85	16.4	32.5	30,500
	24	71.4	93.2	146,900		70	30	67.9	72.0			149,100	80	32			69.3		81.9		136,600		90		34				70.3				91.8				125,700				100															36	71.1	101.7	115,100	32	66.1	71.1	137,800	34	64.3	70.2	127,000	36	62.5	69.2	116,400	38	60.6	68.1	107,400	40	58.7	66.9	99,600	42	56.8	65.6	92,000	44	54.8	64.3	84,000	46	52.8	62.9	72,300	48	50.8	61.6	63,200															70				55				42.8				54.7				63,200		65		55		58.9		75.6		83,500	50	50		59.0	84.3	71,400	60	60	55.7	89.7	54,400	60	36.4	48.7	56,000	50	54.6	72.3	71,800	55	50.1	68.5	62,700	60	45.2	63.9	55,500	65	39.9	58.5	49,500	70	34.0	51.8	44,600	75	26.9	43.8	40,400	80	17.4	31.0	36,800
70	30	67.9	72.0	149,100	80		32	69.3	81.9	136,600		90		34	70.3		91.8		125,700		100				36				71.1				101.7				115,100																																																																																																																																														
	32	66.1	71.1	137,800			34	64.3	70.2	127,000				36	62.5		69.2		116,400						38				60.6				68.1				107,400			40					58.7					66.9					99,600	42	56.8	65.6	92,000	44	54.8	64.3	84,000	46	52.8	62.9	72,300	48	50.8	61.6	63,200	70	55	42.8	54.7	63,200	65	55	58.9	75.6	83,500	50	50	59.0	84.3	71,400	60	60	55.7	89.7	54,400	60	36.4	48.7	56,000	50					54.6					72.3					71,800			55				50.1				68.5				62,700				60		45.2		63.9		55,500		65		39.9	58.5	49,500		70	34.0	51.8	44,600	75	26.9	43.8	40,400	80	17.4	31.0	36,800	85	16.4	32.5	30,500																				
	34	64.3	70.2	127,000			36	62.5	69.2	116,400				38	60.6		68.1		107,400						40				58.7				66.9			99,600	42			56.8		65.6			92,000			44		54.8				64.3	84,000	46	52.8	62.9	72,300	48	50.8	61.6	63,200	70	55	42.8	54.7	63,200	65	55	58.9		75.6	83,500	50	50		59.0	84.3	71,400	60		60	55.7	89.7	54,400		60	36.4	48.7	56,000	50	54.6	72.3	71,800	55	50.1				68.5		62,700			60			45.2		63.9			55,500	65			39.9				58.5				49,500				70		34.0		51.8		44,600		75		26.9	43.8	40,400		80	17.4	31.0	36,800	85	16.4	32.5	30,500																												
	36	62.5	69.2	116,400			38	60.6	68.1	107,400				40	58.7		66.9		99,600						42				56.8			65.6	92,000			44	54.8	64.3		84,000		46			52.8	62.9		72,300		48			50.8	61.6	63,200	70	55	42.8	54.7	63,200	65	55	58.9		75.6	83,500	50	50		59.0	84.3		71,400	60		60		55.7	89.7	54,400			60	36.4	48.7	56,000		50	54.6	72.3	71,800	55	50.1	68.5	62,700	60	45.2	63.9			55,500		65		39.9	58.5			49,500		70		34.0	51.8	44,600			75	26.9			43.8				40,400				80		17.4		31.0		36,800		85		16.4	32.5	30,500																																					
	38	60.6	68.1	107,400			40	58.7	66.9	99,600				42	56.8		65.6		92,000						44			54.8	64.3			84,000	46	52.8		62.9	72,300	48		50.8		61.6	63,200		70	55		42.8		54.7		63,200	65	55	58.9		75.6	83,500	50	50		59.0	84.3		71,400	60		60		55.7	89.7		54,400			60		36.4	48.7	56,000			50	54.6	72.3	71,800		55	50.1	68.5	62,700	60	45.2	63.9	55,500	65	39.9	58.5	49,500		70		34.0		51.8	44,600		75	26.9		43.8		40,400	80	17.4		31.0	36,800	85			16.4	32.5			30,500																																																					
	40	58.7	66.9	99,600			42	56.8	65.6	92,000				44	54.8		64.3		84,000					46	52.8			62.9	72,300	48		50.8	61.6	63,200		70	55	42.8	54.7	63,200		65	55			58.9		75.6		83,500	50	50		59.0	84.3		71,400	60		60		55.7	89.7		54,400			60		36.4	48.7		56,000			50		54.6	72.3	71,800			55	50.1	68.5	62,700		60	45.2	63.9	55,500	65	39.9	58.5	49,500	70	34.0	51.8	44,600	75	26.9		43.8		40,400	80		17.4	31.0		36,800	85	16.4	32.5	30,500																																																																
	42	56.8	65.6	92,000			44	54.8	64.3	84,000				46	52.8		62.9		72,300	48				50.8	61.6	63,200		70	55	42.8		54.7	63,200	65	55		58.9	75.6	83,500	50			50			59.0		84.3	71,400	60		60		55.7	89.7		54,400			60		36.4	48.7		56,000			50		54.6	72.3		71,800			55		50.1	68.5	62,700			60	45.2	63.9	55,500		65	39.9	58.5	49,500	70	34.0	51.8	44,600	75	26.9	43.8	40,400	80	17.4	31.0	36,800		85	16.4		32.5	30,500																																																																						
	44	54.8	64.3	84,000			46	52.8	62.9	72,300				48	50.8	61.6	63,200		70	55		42.8		54.7	63,200	65			55	58.9	75.6	83,500	50		50		59.0	84.3	71,400				60			60	55.7	89.7	54,400			60		36.4	48.7		56,000			50		54.6	72.3		71,800			55		50.1	68.5		62,700			60		45.2	63.9	55,500			65	39.9	58.5	49,500		70	34.0	51.8	44,600	75	26.9	43.8	40,400	80	17.4	31.0	36,800	85	16.4	32.5	30,500																																																																												
	46	52.8	62.9	72,300			48	50.8	61.6	63,200	70			55	42.8	54.7	63,200	65		55		58.9		75.6	83,500		50		50	59.0	84.3	71,400			60		60	55.7	89.7					54,400		60	36.4	48.7	56,000			50		54.6	72.3		71,800			55		50.1	68.5		62,700			60		45.2	63.9		55,500			65		39.9	58.5	49,500			70	34.0	51.8	44,600		75	26.9	43.8	40,400	80	17.4	31.0	36,800	85	16.4	32.5	30,500																																																																																
	48	50.8	61.6	63,200		70	55	42.8	54.7	63,200			65	55	58.9	75.6	83,500			50		50	59.0	84.3	71,400				60	60	55.7	89.7					54,400	60	36.4		48.7			56,000		50	54.6	72.3	71,800			55		50.1	68.5		62,700			60		45.2	63.9		55,500			65		39.9	58.5		49,500			70		34.0	51.8	44,600			75	26.9	43.8	40,400		80	17.4	31.0	36,800	85	16.4	32.5	30,500																																																																																				
70	55	42.8	54.7	63,200	65		55	58.9	75.6	83,500		50		50	59.0	84.3	71,400				60	60	55.7	89.7	54,400																																																																																																																																																										
	60	36.4	48.7	56,000			50	54.6	72.3	71,800				55	50.1	68.5	62,700					60	45.2	63.9	55,500					65	39.9	58.5					49,500	70	34.0		51.8			44,600		75	26.9	43.8	40,400			80		17.4	31.0		36,800			85		16.4	32.5		30,500																																																																																																																		
	50	54.6	72.3	71,800			55	50.1	68.5	62,700				60	45.2	63.9	55,500					65	39.9	58.5	49,500					70	34.0	51.8					44,600	75	26.9		43.8			40,400		80	17.4	31.0	36,800			85		16.4	32.5		30,500																																																																																																																										
	55	50.1	68.5	62,700			60	45.2	63.9	55,500				65	39.9	58.5	49,500					70	34.0	51.8	44,600					75	26.9	43.8					40,400	80	17.4		31.0			36,800		85	16.4	32.5	30,500																																																																																																																																		
	60	45.2	63.9	55,500			65	39.9	58.5	49,500				70	34.0	51.8	44,600					75	26.9	43.8	40,400					80	17.4	31.0					36,800	85	16.4		32.5			30,500																																																																																																																																							
	65	39.9	58.5	49,500			70	34.0	51.8	44,600				75	26.9	43.8	40,400					80	17.4	31.0	36,800					85	16.4	32.5				30,500																																																																																																																																															
	70	34.0	51.8	44,600			75	26.9	43.8	40,400				80	17.4	31.0	36,800					85	16.4	32.5	30,500																																																																																																																																																										
	75	26.9	43.8	40,400			80	17.4	31.0	36,800				85	16.4	32.5	30,500																																																																																																																																																																		
	80	17.4	31.0	36,800			85	16.4	32.5	30,500																																																																																																																																																																									
	85	16.4	32.5	30,500																																																																																																																																																																															

S/N: 40767

SEE CONDITIONS ON REVERSE SIDE

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity:
20	81.5	115.9	244,900		26	80.8	145.3	173,200		30	81.1	175.1	142,100		34	81.3	204.8	118,600	
22	80.4	115.6	216,100		28	80.0	145.0	157,300		32	80.4	174.7	130,500		36	80.7	204.5	109,800	
24	79.3	115.2	193,100		30	79.2	144.6	143,800		34	79.7	174.4	120,500		38	80.1	204.1	102,000	
26	78.3	114.8	174,300		32	78.3	144.2	132,300		36	79.0	174.0	111,800		40	79.5	203.8	94,300	
28	77.2	114.4	158,600		34	77.5	143.8	122,300		38	78.3	173.6	103,500		45	78.1	202.8	78,400	
30	76.1	113.9	145,300		36	76.6	143.3	113,600		40	77.7	173.2	95,600		50	76.6	201.7	66,600	
32	75.1	113.4	133,900		38	75.8	142.8	104,600		45	75.9	172.0	79,800		55	75.1	200.4	57,300	
34	74.0	112.8	124,000		40	75.0	142.3	96,700		50	74.2	170.7	67,900		60	73.6	199.0	50,000	
36	72.9	112.2	114,700		45	72.8	140.9	81,000		55	72.4	169.2	58,800		65	72.1	197.5	43,900	
38	71.8	111.6	105,700		50	70.7	139.2	69,200		60	70.6	167.5	51,400		70	70.6	195.8	38,900	
40	70.7	110.9	97,800		55	68.5	137.4	60,000		65	68.9	165.7	45,400		75	69.1	194.0	34,700	
45	67.9	109.0	82,100		60	66.3	135.3	52,700		70	67.0	163.6	40,400		80	67.6	192.0	31,100	
50	65.1	106.9	70,400		65	64.0	133.0	46,700		75	65.2	161.4	36,200		85	66.0	189.8	27,900	
55	62.2	104.4	61,300		70	61.7	130.4	41,700		80	63.3	159.0	32,600		90	64.4	187.5	25,200	
60	59.2	101.6	54,000		75	59.4	127.6	37,500		85	61.4	156.4	29,500		95	62.8	185.0	22,700	
65	56.1	98.4	48,000		80	57.0	124.5	33,900		90	59.5	153.6	26,700		100	61.2	182.4	20,600	
70	52.9	94.9	43,000		85	54.5	121.1	30,800		95	57.5	150.5	24,300		105	59.6	179.5	18,600	
75	49.6	90.8	38,800		90	51.9	117.3	28,000		100	55.5	147.2	22,200		110	57.9	176.5	16,900	
80	46.1	86.3	35,200		95	49.3	113.2	25,600		105	53.4	143.6	20,200		115	56.2	173.3	15,300	
85	42.3	81.2	32,100		100	46.5	108.7	23,500		110	51.3	139.7	18,500		120	54.4	169.8	13,900	
90	38.3	75.3	29,400		105	43.6	103.7	21,600		115	49.1	135.6	16,900		125	52.7	166.1	12,600	
95	33.9	68.4	27,000		110	40.6	98.2	19,900		120	46.8	131.1	15,500		130	50.8	162.2	11,400	
100	28.9	60.2	24,900		115	37.3	92.0	18,300		125	44.5	126.2	14,200		135	49.0	157.9	10,300	
105	22.9	49.9	22,900		120	33.8	85.0	16,900		130	42.0	120.9	13,000		140	47.0	153.4	9,300	
					125	29.9	76.9	15,600		135	39.4	115.0	11,900		145	45.0	148.6	8,300	
22	81.2	125.7	215,500		130	25.5	67.4	14,400		140	36.7	108.7	10,900		150	43.0	143.4	7,600	
24	80.2	125.4	192,400		135	20.3	55.6	13,300		145	33.8	101.6	10,000		155	40.8	137.9	6,800	
26	79.3	125.0	173,500		26	81.4	155.4	172,300		150	30.6	93.6	9,100		160	38.6	131.8	6,200	
28	78.3	124.6	157,800		28	80.7	155.1	156,400		155	27.1	84.6	8,300		165	36.2	125.3	5,600	
30	77.3	124.2	144,500		30	79.9	154.8	143,000		160	23.1	73.9	7,600		170	33.7	118.2	5,000	
32	76.3	123.7	133,000		32	79.1	154.4	131,500		165	18.4	60.7	7,000		175	31.1	110.3	4,400	
34	75.4	123.2	123,200		34	78.3	154.0	121,500		32	80.9	184.9	129,700		36	81.1	214.6	109,200	
36	74.4	122.7	114,300		36	77.6	153.6	112,800		34	80.3	184.5	119,700		38	80.6	214.3	101,500	
38	73.4	122.1	105,200		38	76.8	153.1	104,200		36	79.7	184.2	110,900		40	80.0	213.9	93,900	
40	72.4	121.5	97,300		40	76.0	152.6	96,300		38	79.0	183.8	103,100		45	78.6	213.0	78,100	
45	69.9	119.8	81,600		45	74.0	151.3	80,500		40	78.4	183.4	95,200		50	77.3	211.9	66,200	
50	67.3	117.8	69,800		50	72.0	149.8	68,700		45	76.7	182.3	79,400		55	75.9	210.7	57,000	
55	64.7	115.6	60,700		55	70.0	148.0	59,600		50	75.1	181.0	67,500		60	74.4	209.4	49,600	
60	62.0	113.1	53,400		60	67.9	146.1	52,200		55	73.4	179.6	58,300		65	73.0	207.9	43,600	
65	59.3	110.2	47,400		65	65.9	144.0	46,300		60	71.8	178.1	51,000		70	71.6	206.4	38,600	
70	56.4	107.1	42,400		70	63.8	141.6	41,300		65	70.1	176.3	45,000		75	70.1	204.6	34,400	
75	53.5	103.6	38,200		75	61.6	139.1	37,100		70	68.4	174.4	40,000		80	68.7	202.7	30,700	
80	50.5	99.7	34,600		80	59.4	136.2	33,400		75	66.7	172.4	35,700		85	67.2	200.7	27,600	
85	47.3	95.3	31,500		85	57.2	133.1	30,300		80	64.9	170.1	32,100		90	65.7	198.5	24,800	
90	44.0	90.5	28,800		90	54.9	129.8	27,600		85	63.1	167.7	29,000		95	64.2	196.2	22,400	
95	40.4	84.9	26,400		95	52.5	126.1	25,200		90	61.3	165.0	26,200		100	62.7	193.7	20,200	
100	36.6	78.7	24,200		100	50.0	122.1	23,000		95	59.5	162.2	23,800		105	61.1	191.0	18,300	
105	32.4	71.4	22,300		105	47.5	117.7	21,100		100	57.6	159.2	21,600		110	59.6	188.2	16,600	
110	27.6	62.7	20,600		110	44.9	112.9	19,400		105	55.7	155.9	19,700		115	58.0	185.2	15,000	
115	21.9	51.9	19,100		115	42.1	107.6	17,800		110	53.8	152.3	18,000		120	56.4	181.9	13,600	
24	81.0	135.5	192,600		120	39.1	101.8	16,400		115	51.8	148.5	16,400		125	54.7	178.5	12,300	
26	80.1	135.2	173,600		125	36.0	95.3	15,100		120	49.7	144.5	15,000		130	53.0	174.9	11,100	
28	79.2	134.8	157,800		130	32.6	88.0	13,900		125	47.6	140.1	13,700		135	51.3	171.0	10,000	
30	78.3	134.4	144,400		135	28.9	79.6	12,800		130	45.4	135.3	12,500		140	49.5	166.8	9,000	
32	77.4	134.0	133,000		140	24.6	69.7	11,800		135	43.1	130.2	11,400		145	47.7	162.4	8,000	
34	76.5	133.5	123,000		145	19.6	57.4	10,900		140	40.8	124.6	10,400		150	45.8	157.7	7,100	
36	75.6	133.0	114,200		28	81.3	165.2	156,100		145	38.3	118.6	9,500		155	43.9	152.7	6,400	
38	74.7	132.5	105,100		30	80.5	164.9	142,600		150	35.6	111.9	8,600		160	41.9	147.3	5,700	
40	73.8	131.9	97,200		32	79.8	164.6	131,000		155	32.8	104.6	7,800		165	39.8	141.5	5,100	
45	71.5	130.4	81,500		34	79.1	164.2	121,000		160	29.7	96.3	7,000		170	37.6	135.3	4,500	
50	69.1	128.6	69,700		36	78.3	163.8	112,200		165	26.3	86.9	6,300						
55	66.7	126.5	60,600		38	77.6	163.4	103,700		170	22.5	75.9	5,900		38	81.0	224.4	100,300	
60	64.3	124.3	53,300		40	76.9	162.9	95,800		175	17.9	62.3	5,300		40	80.5	224.1	93,500	
65	61.8	121.7	47,300		45	75.0	161.7	80,000		32	81.4	195.0	128,900		45	79.2	223.2	77,600	
70	59.3	118.9	42,300		50	73.2	160.2	68,200		34	80.8	194.7	118,900		50	77.8	222.2	65,700	
75	56.7	115.8	38,100		55	71.3	158.6	59,000		36	80.2	194.3	110,100		55	76.5	221.0	56,500	
80	54.0	112.3	34,500		60	69.4	156.9	51,700		45	77.4	192.6	78,900		60	75.2	219.8	49,100	
85	51.3	108.5	31,400		65	67.5	154.9	45,700		50	75.9	191.4	67,100		65	73.8	218.4	43,100	
90	48.4	104.3	28,600		70	65.5	152.7	40,700		55	74.3	190.0	57,900		70	72.5	216.9	38,100	
95	45.4	99.6	26,200		75	63.5	150.3	36,500		60	72.8	188.6	50,500		75	71.1	215.2	33,800	
100	42.2	94.4	24,100		80	61.5	147.7	32,900		65	71.2								



LIFTCRANE CAPACITIES

 MEETS
 ANSI B30.5
 REQUIREMENTS

**4000W
CRAWLER**
**BOOM NO. 22 WITH OPEN THROAT TOP
24'0" CRAWLERS EXTENDED
40,100 LB. COUNTERWEIGHT**

LIFTING CAPACITIES: Capacities for various boom lengths and operating radii 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.

Upper boom point capacity for single part whip line or combination of two single part lines is 28,300 lb. (20,000 lb. when rear auxiliary drum is used). In all cases, upper boom point capacities cannot exceed those listed for the main boom capacity.

Capacities are shown in pounds. Weight of upper boom point, all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom point sheaves, 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 with gantry in working position and under conditions referred to in rigging drawing No. 48168 and load line specification chart No. 6664-A.

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

OPERATING RADIUS: Operating radius 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 24'0" extendible crawlers, 48" treads, 15' retractable gantry, 12 part boom hoist reeving, four 1 1/2" boom pendants, and 40,100 lbs., counterweight. (39,000 lb. with cwt. assembly No. 48998).

HOIST REEVEING FOR MAIN LOAD BLOCK						
No. Parts of Line	1	2	3	4	5	6
Max. Load — Lbs.	32,500	64,000	95,500	126,200	157,000	188,800
No. Parts of Line	7	8	9	10		
Max. Load — Lbs.	215,900	243,000	267,100	289,000		

LOAD AND WHIP LINE SPECIFICATIONS	
LOAD LINE: 1 1/2" — 6x31 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 1/2" — 6x25 Filler Wire, 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 LENGTH LIFTED UNASSISTED	
OVER FRONT OF BLOCKED CRAWLERS IS 150'	OVER SIDE OF EXTENDED CRAWLERS IS 140'
Load block, hook and weight ball on ground at start.	

DEDUCT FROM CAPACITIES WHEN UPPER BOOM POINT IS ATTACHED	
One Sheave Point	1,200 lb.
Two Sheave Point	1,500 lb.

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity:
70	15	80.7	76.2	268,300	80	16	81.1	86.1	245,000	90	17	81.5	96.1	213,800	100	19	81.2	105.9	169,700
	16	79.9	76.0	245,100		17	80.4	86.0	213,900		18	80.8	96.0	189,500		20	80.6	105.8	153,600
	17	79.0	75.8	214,100		18	79.7	85.8	189,700		19	80.2	95.8	169,900		22	79.4	105.4	128,800
	18	78.2	75.6	189,900		19	78.9	85.6	170,200		20	79.5	95.6	153,900		24	78.3	105.0	110,500
	19	77.3	75.4	170,400		20	78.2	85.4	154,200		22	78.2	95.2	129,200		26	77.1	104.6	96,500
	20	76.5	75.2	154,500		22	76.8	85.0	129,500		24	76.9	94.8	110,900		28	75.9	104.1	85,400
	22	74.8	74.7	129,800		24	75.3	84.5	111,300		26	75.6	94.3	96,900		30	74.7	103.6	76,400
	24	73.1	74.1	111,700		26	73.8	83.9	97,300		28	74.3	93.8	85,900		32	73.5	103.0	68,900
	26	71.4	73.4	97,800		28	72.3	83.3	86,300		30	73.0	93.2	76,900		34	72.3	102.4	62,700
	28	69.7	72.7	86,700		30	70.8	82.6	77,300		32	71.7	92.5	69,500		36	71.1	101.7	57,300
70	30	67.9	72.0	77,800	80	32	69.3	81.9	69,900	90	34	70.3	91.8	63,200	100	38	69.9	101.0	52,700
	32	66.1	71.1	70,400		34	67.7	81.1	63,700		36	68.9	91.1	57,900		40	68.7	100.3	48,700
	34	64.3	70.2	64,200		36	66.2	80.3	58,400		38	67.6	90.3	53,300		45	65.6	98.2	40,600
	36	62.5	69.2	58,900		38	64.6	79.4	53,800		40	66.2	89.4	49,300		50	62.4	95.7	34,500
	38	60.6	68.1	54,300		40	63.0	78.4	49,800		45	62.7	87.1	41,300		55	59.1	92.9	29,700
	40	58.7	66.9	50,300		45	58.9	75.6	41,700		50	59.0	84.3	35,100		60	55.7	89.7	25,800
	45	53.8	63.6	42,300		50	54.6	72.3	35,600		55	55.2	81.0	30,400		65	52.2	86.1	22,600
	50	48.6	59.6	36,200		55	50.1	68.5	30,900		60	51.2	77.3	26,500		70	48.4	81.9	20,000
	55	42.8	54.7	31,400		60	45.2	63.9	27,000		65	47.0	73.0	23,300		75	44.5	77.2	17,700
	60	36.4	48.7	27,600		65	39.9	58.5	23,900		70	42.5	67.9	20,700		80	40.2	71.7	15,800
70	65	28.8	40.8	24,500	80	70	34.0	51.8	21,200	90	75	37.6	62.0	18,400	100	85	35.6	65.3	14,100
	70	18.6	29.5	21,800		75	26.9	43.3	19,000		80	32.0	54.8	16,500		90	30.3	57.6	12,600
						80	17.4	31.0	17,000		85	25.4	45.6	14,800		95	24.0	47.8	11,300
											90	16.4	32.5	13,400		100	15.6	33.9	10,200

Capacities continued on reverse side.

SEE CONDITIONS ON REVERSE SIDE

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Angle: Deg.	Boom Point: Elev.	Capacity:
1 1 0	20	81.5	115.9	153,300	1 4 0	26	80.8	145.3	95,200
	22	80.4	115.6	128,400		28	80.0	145.0	84,000
	24	79.3	115.2	110,100		30	79.2	144.6	75,000
	26	78.3	114.8	96,100		32	78.3	144.2	67,500
	28	77.2	114.4	85,000		34	77.5	143.8	61,200
	30	76.1	113.9	76,000		36	76.6	143.3	55,800
	32	75.1	113.4	68,500		38	75.8	142.8	51,200
	34	74.0	112.8	62,300		40	75.0	142.3	47,100
	36	72.9	112.2	56,900		45	72.8	140.9	39,000
	38	71.8	111.6	52,300		50	70.7	139.2	32,800
1 2 0	40	70.7	110.9	48,300	1 5 0	55	68.5	137.4	28,000
	45	67.9	109.0	40,200		60	66.3	135.3	24,100
	50	65.1	106.9	34,000		65	64.0	133.0	20,900
	55	62.2	104.4	29,200		70	61.7	130.4	18,200
	60	59.2	101.6	25,400		75	59.4	127.6	15,900
	65	56.1	98.4	22,200		80	57.0	124.5	14,000
	70	52.9	94.9	19,500		85	54.5	121.1	12,300
	75	49.6	90.8	17,300		90	51.9	117.3	10,800
	80	46.1	86.3	15,300		95	49.3	113.2	9,500
	85	42.3	81.2	13,600		100	46.5	108.7	8,300
1 3 0	90	38.3	75.3	12,200	1 6 0	105	43.6	103.7	7,300
	95	33.9	68.4	10,900		110	40.6	98.2	6,300
	100	28.9	60.2	9,700		115	37.3	92.0	5,500
	105	22.9	49.9	8,700		120	33.8	85.0	4,700
	22	81.2	125.7	128,100		125	29.9	76.9	4,000
	24	80.2	125.4	109,700	1 7 0	26	81.4	155.4	94,800
	26	79.3	125.0	95,700		28	80.7	155.1	83,600
	28	78.3	124.6	84,500		30	79.9	154.8	74,600
	30	77.3	124.2	75,500		32	79.1	154.4	67,000
	32	76.3	123.7	68,000		34	78.3	154.0	60,700
	34	75.4	123.2	61,700		36	77.6	153.6	55,400
	36	74.4	122.7	56,400		38	76.8	153.1	50,700
	38	73.4	122.1	51,800		40	76.0	152.6	46,700
	40	72.4	121.5	47,700		45	74.0	151.3	38,500
	45	69.9	119.8	39,600		50	72.0	149.8	32,300
1 4 0	50	67.3	117.8	33,500	1 8 0	55	70.0	148.0	27,500
	55	64.7	115.6	28,600		60	67.9	146.1	23,600
	60	62.0	113.1	24,800		65	65.9	144.0	20,400
	65	59.3	110.2	21,600		70	63.8	141.6	17,700
	70	56.4	107.1	18,900		75	61.6	139.1	15,500
	75	53.5	103.6	16,600		80	59.4	136.2	13,500
	80	50.5	99.7	14,700		85	57.2	133.1	11,800
	85	47.3	95.3	13,000		90	54.9	129.8	10,300
	90	44.0	90.5	11,500		95	52.5	126.1	9,000
	95	40.4	84.9	10,200		100	50.0	122.1	7,800
1 5 0	100	36.6	78.7	9,100	1 9 0	105	47.5	117.7	6,800
	105	32.4	71.4	8,000		110	44.9	112.9	5,800
	110	27.6	62.7	7,100		115	42.1	107.6	5,000
	115	21.9	51.9	6,200		120	39.1	101.8	4,200
	24	81.0	135.5	109,700	2 0 0	26	81.4	155.4	94,800
	26	80.1	135.2	95,600		28	80.7	155.1	83,600
	28	79.2	134.8	84,500		30	79.9	154.8	74,600
	30	78.3	134.4	75,400		32	79.1	154.4	67,000
	32	77.4	134.0	68,000		34	78.3	154.0	60,700
	34	76.5	133.5	61,700		36	77.6	153.6	55,400
	36	75.6	133.0	56,300		38	76.8	153.1	50,700
	38	74.7	132.5	51,700		40	76.0	152.6	46,700
	40	73.8	131.9	47,600		45	74.0	151.3	38,500
	45	71.5	130.4	39,500		50	72.0	149.8	32,300
2 1 0	50	69.1	128.6	33,400	2 2 0	55	70.0	148.0	27,500
	55	66.7	126.5	28,500		60	67.9	146.1	23,600
	60	64.3	124.3	24,700		65	65.9	144.0	20,400
	65	61.8	121.7	21,500		70	63.8	141.6	17,700
	70	59.3	118.9	18,800		75	61.6	139.1	15,500
	75	56.7	115.8	16,500		80	59.4	136.2	13,500
	80	54.0	112.3	14,600		85	57.2	133.1	11,800
	85	51.3	108.5	12,900		90	54.9	129.8	10,300
	90	48.4	104.3	11,400		95	52.5	126.1	9,000
	95	45.4	99.6	10,100		100	50.0	122.1	7,800
2 2 0	100	42.2	94.4	8,900	2 3 0	105	47.5	117.7	6,800
	105	38.8	88.5	7,900		110	44.9	112.9	5,800
	110	35.1	81.9	7,000		115	42.1	107.6	5,000
	115	31.1	74.2	6,100		120	39.1	101.8	4,200
	120	26.5	65.1	5,300	2 4 0	24	81.0	135.5	109,700
	125	21.0	53.8	4,600		26	80.1	135.2	95,600
	24	81.0	135.5	109,700		28	79.2	134.8	84,500
	26	80.1	135.2	95,600		30	78.3	134.4	75,400
	28	79.2	134.8	84,500		32	77.4	134.0	68,000
	30	78.3	134.4	75,400		34	76.5	133.5	61,700
	32	77.4	134.0	68,000		36	75.6	133.0	56,300
	34	76.5	133.5	61,700		38	74.7	132.5	51,700
	36	75.6	133.0	56,300		40	73.8	131.9	47,600
	38	74.7	132.5	51,700		45	71.5	130.4	39,500

Combined From Charts:

No. 5359 8-18-82
 No. 6274-L 12-6-83
 No. 6664-A 8-18-82

LIFTCRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

CHART SUPPLEMENTS BOOM CAPACITY CHART NO. 6274-A. CAPACITIES FOR VARIOUS BOOM LENGTHS, JIB LENGTHS AND JIB OPERATING RADII ARE FOR FREELY SUSPENDED LOADS AND DO NOT EXCEED 75% OF A STATIC TIPPING LOAD. CAPACITIES BASED ON STRUCTURAL COMPETENCE ARE DENOTED BY AN ASTERISK (*).

WEIGHT OF ALL LOAD BLOCKS, HOOKS, WEIGHT BALL, SLINGS, HOIST LINES, ETC., BENEATH BOOM AND JIB POINT SHEAVES, IS CONSIDERED PART OF THE JIB LOAD. BOOM AND JIB ARE 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.

MACHINE TO OPERATE IN A LEVEL POSITION ON A FIRM UNIFORMLY SUPPORTING SURFACE WITH CRAWLERS FULLY EXTENDED AND GANTRY UP. REFER TO BOOM RIGGING NO. 4816B, JIB ASSEMBLY NO. 43730 AND WIRE ROPE SPECIFICATION CHART NO. 6664-A. CRANE OPERATOR JUDGMENT MUST BE USED TO ALLOW FOR DYNAMIC LOAD EFFECTS OF SWINGING, HOISTING OR LOWERING, TRAVEL, WIND CONDITIONS, AS WELL AS ADVERSE OPERATING CONDITIONS AND PHYSICAL MACHINE DEPRECIATION.

OPERATING RADIUS IS THE HORIZONTAL DISTANCE FROM THE AXIS OF ROTATION TO THE CENTER OF VERTICAL HOIST LINE OR LOAD BLOCK. 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. JIB POINT ELEVATION IS VERTICAL DISTANCE FROM GROUND LEVEL TO CENTERLINE OF JIB POINT SHAFT.

MACHINE EQUIPPED WITH 24' EXTENDIBLE CRAWLERS, 48" TREADS, 15' RETRACTABLE GANTRY, 12 PART BOOM HOIST REEVING, FOUR 1-3/8" BOOM PENDANTS, 1ST COUNTERWEIGHT = 40,100 LBS., (39,000 LBS. WITH COUNTERWEIGHT ASSEMBLY NO. 48998), 2ND COUNTERWEIGHT = 35,800 LBS., AND 3RD COUNTERWEIGHT = 28,500 LBS.

MAXIMUM CAPACITY ON 1-1/8" - 6 X 25 IPS, IWRC IS 28,300 LBS. PER LINE.

MAXIMUM BOOM AND JIB LENGTHS LIFTED UNASSISTED			
OVER END OF BLOCKED CRAWLERS		OVER SIDE OF EXTENDED CRAWLERS	
BOOM LGTH.	JIB NO. 123	BOOM LGTH.	JIB NO. 123
220'	---	200'	---
210'	---	190'	---
200'	40'	180'	50'
190'	60'	170'	60'

LOAD BLOCK, HOOK AND WEIGHT BALL ON GROUND AT START.

30 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
110	30	79.8	148.1	40,000*							30
	35	77.7	147.1	40,000*	79.8	146.6	40,000*				35
	40	75.7	145.9	40,000*	77.7	145.4	40,000*	79.7	144.2	40,000*	40
	45	73.6	144.5	40,000*	75.6	144.0	40,000*	77.6	142.7	40,000*	45
	50	71.5	142.9	40,000*	73.5	142.4	40,000*	75.4	141.1	40,000*	50
	55	69.4	141.1	40,000*	71.4	140.6	40,000*	73.3	139.3	40,000*	55
	60	67.2	139.1	40,000*	69.2	138.5	40,000*	71.1	137.2	40,000*	60
	65	65.0	136.8	40,000*	67.0	136.3	40,000*	68.9	134.9	40,000*	65
	70	62.8	134.3	39,100	64.8	133.8	39,800	66.6	132.4	40,000*	70
	80	58.2	128.6	32,400	60.2	128.0	32,900	61.9	126.6	33,400	80
	90	53.4	121.7	27,300	55.3	121.1	27,700	57.0	119.6	28,100	90
	100	48.2	113.4	23,300	50.1	112.8	23,600	51.7	111.1	23,900	100
120	110	42.5	103.4	20,100	44.4	102.7	20,400				110
	120	36.2	91.1	17,500							120
	30	80.5	158.3	40,000*							30
	35	78.6	157.4	40,000*	80.4	156.9	40,000*				35
	40	76.6	156.2	40,000*	78.5	155.7	40,000*	80.4	154.4	40,000*	40
	45	74.7	154.9	40,000*	76.6	154.4	40,000*	78.4	153.1	40,000*	45
	50	72.8	153.4	40,000*	74.6	152.9	40,000*	76.4	151.6	40,000*	50
	55	70.8	151.7	40,000*	72.7	151.2	40,000*	74.4	149.9	40,000*	55
	60	68.8	149.9	40,000*	70.7	149.4	40,000*	72.4	148.0	40,000*	60
	65	66.8	147.8	40,000*	68.6	147.3	40,000*	70.4	145.9	40,000*	65
	70	64.7	145.5	38,500	66.6	145.0	39,200	68.3	143.6	39,900	70
	80	60.5	140.3	31,700	62.3	139.7	32,300	64.0	138.3	32,800	80
	90	56.1	134.0	26,600	57.9	133.4	27,100	59.5	131.9	27,500	90
	100	51.5	126.6	22,600	53.2	126.0	23,000	54.8	124.4	23,400	100
	110	46.5	117.8	19,400	48.2	117.1	19,800				110
	120	41.0	107.2	16,800	42.8	106.5	17,100				120
	130	34.9	94.3	14,600							130

LIFT CRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

30 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
130	30	81.0	168.4	40,000*	81.0	167.1	40,000*				30
	35	79.3	167.6	40,000*	79.2	166.0	40,000*	81.0	164.7	40,000*	35
	40	77.5	166.5	40,000*				79.1	163.5	40,000*	40
	45	75.7	165.3	40,000*	77.4	164.8	40,000*	77.3	162.1	40,000*	45
	50	73.8	163.9	40,000*	75.6	163.4	40,000*				50
	55	72.0	162.3	40,000*	73.8	161.8	40,000*	75.4	160.5	40,000*	55
	60	70.2	160.6	40,000*	71.9	160.0	40,000*	73.6	158.7	40,000*	60
	65	68.3	158.6	40,000*	70.0	158.1	40,000*	71.7	156.8	40,000*	65
	70	66.4	156.5	38,200	68.1	156.0	38,900	69.7	154.6	39,600	70
	80	62.5	151.7	31,400	64.2	151.1	32,000	65.8	149.7	32,600	80
	90	58.4	145.9	26,300	60.1	145.3	26,800	61.7	143.9	27,300	90
	100	54.2	139.2	22,300	55.9	138.6	22,700	57.4	137.0	23,100	100
	110	49.7	131.3	19,100	51.4	130.6	19,500	52.8	129.0	19,800	110
	120	44.9	122.0	16,500	46.6	121.3	16,800				120
	130	39.7	110.9	14,300	41.3	110.1	14,500				130
	140	33.8	97.3	12,400							140
140	35	79.9	177.7	40,000*	79.9	176.2	40,000*	79.8	173.8	40,000*	35
	40	78.2	176.7	40,000*				78.1	172.4	40,000*	40
	45	76.5	175.6	40,000*	78.2	175.1	40,000*	76.3	171.0	40,000*	45
	50	74.8	174.3	40,000*	76.5	173.8	40,000*				50
	55	73.1	172.8	40,000*	74.7	172.3	40,000*	74.6	169.3	40,000*	55
	60	71.3	171.2	40,000*	73.0	170.7	40,000*	72.8	167.5	40,000*	60
	65	69.6	169.4	40,000*	71.2	168.8	40,000*	71.0	165.5	39,100	65
	70	67.8	167.4	37,600	69.4	166.9	38,400	67.3	160.9	32,100	70
	80	64.2	162.9	30,800	65.8	162.3	31,500	63.5	155.5	26,700	80
	90	60.4	157.6	25,700	62.1	157.0	26,200	59.6	149.2	22,600	90
	100	56.6	151.4	21,700	58.2	150.8	22,200	55.5	141.9	19,200	100
	110	52.5	144.2	18,500	54.1	143.5	18,900	51.1	133.4	16,500	110
	120	48.2	135.8	15,800	49.7	135.1	16,200				120
	130	43.6	126.0	13,700	45.1	125.3	13,900				130
	140	38.5	114.4	11,800							140
	150	32.8	100.3	10,200							150
150	35	80.4	187.9	40,000*	80.4	186.4	40,000*	80.4	184.0	40,000*	35
	40	78.9	186.9	40,000*				78.7	182.8	40,000*	40
	45	77.3	185.9	40,000*	78.8	185.4	40,000*	77.1	181.4	40,000*	45
	50	75.7	184.6	40,000*	77.2	184.1	40,000*				50
	55	74.0	183.3	40,000*	75.6	182.7	40,000*	75.5	179.8	40,000*	55
	60	72.4	181.7	40,000*	74.0	181.2	40,000*	73.8	178.1	40,000*	60
	65	70.7	180.0	40,000*	72.3	179.5	40,000*	72.1	176.2	38,700	65
	70	69.1	178.2	37,100	70.6	177.6	37,900	68.7	172.0	31,600	70
	80	65.7	174.0	30,300	67.2	173.4	31,000	65.1	167.0	26,300	80
	90	62.2	169.0	25,100	63.7	168.4	25,700				90
	100	58.6	163.3	21,200	60.1	162.7	21,700	61.5	161.1	22,100	100
	110	54.9	156.6	17,900	56.4	156.0	18,400	57.7	154.4	18,800	110
	120	50.9	149.0	15,300	52.4	148.3	15,700	53.7	146.7	16,000	120
	130	46.8	140.2	13,100	48.2	139.5	13,400				130
	140	42.3	129.9	11,300	43.7	129.1	11,500				140
	150	37.4	117.8	9,700							150
	160	31.8	103.1	8,300							160
160	35	80.9	198.0	40,000*	80.9	196.6	40,000*	80.9	194.3	40,000*	35
	40	79.4	197.1	40,000*				79.3	193.1	40,000*	40
	45	77.9	196.1	40,000*	79.4	195.6	40,000*	77.8	191.8	40,000*	45
	50	76.4	195.0	40,000*	77.9	194.4	40,000*				50
	55	74.9	193.6	40,000*	76.4	193.1	40,000*	76.2	190.3	40,000*	55
	60	73.3	192.2	40,000*	74.8	191.7	40,000*	74.7	188.7	40,000*	60
	65	71.8	190.6	40,000*	73.3	190.1	40,000*	73.1	186.9	38,200	65
	70	70.2	188.9	36,500	71.7	188.3	37,400	69.9	182.9	31,100	70
	80	67.0	184.9	29,700	68.5	184.3	30,400	66.6	178.2	25,800	80
	90	63.8	180.3	24,500	65.2	179.7	25,200				90
	100	60.4	174.9	20,500	61.8	174.3	21,100	63.2	172.8	21,600	100
	110	56.9	168.7	17,300	58.4	168.1	17,800	56.0	159.4	15,500	110
	120	53.3	161.7	14,700	54.7	161.1	15,100	52.1	151.2	13,200	120
	130	49.5	153.6	12,500	50.9	153.0	12,800				130
	140	45.5	144.4	10,600	46.8	143.7	10,900				140
	150	41.1	133.7	9,000	42.5	132.9	9,300				150
	160	36.4	121.1	7,600							160
	170	31.0	105.9	6,400							170

LIFTCRANE JIB CAPACITIES

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

MEETS
ANSI B30.5
REQUIREMENTS

4000W

30 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
170	40	80.0	207.3	40,000*	80.0	205.8	40,000*	79.9	203.4	40,000*	40
	45	78.5	206.3	40,000*	78.5	204.7	40,000*	78.4	202.1	40,000*	45
	50	77.1	205.2	40,000*	77.1	203.5	40,000*	76.9	200.7	40,000*	50
	55	75.6	204.0	40,000*	75.6	202.1	40,000*	75.5	199.2	40,000*	55
	60	74.2	202.6	40,000*	74.2	200.6	40,000*	74.0	197.5	37,900	60
	65	72.7	201.1	40,000*	72.7	198.9	37,000	70.9	193.8	30,800	65
	70	71.2	199.5	36,100	69.6	195.2	30,100	67.8	189.3	25,500	70
	80	68.2	195.7	29,300	66.5	190.8	24,800	64.6	184.3	21,300	80
	90	65.1	191.4	24,200	63.4	185.8	20,800	61.3	178.4	17,900	90
	100	62.0	186.3	20,200	60.1	180.0	17,500	57.9	171.8	15,200	100
	110	58.7	180.6	17,000	56.7	173.4	14,800	54.4	164.3	12,800	110
	120	55.4	174.0	14,300	53.2	166.0	12,500	50.6	155.7	10,900	120
	130	51.9	166.6	12,100	49.5	157.5	10,600				130
	140	48.2	158.2	10,300	45.6	147.8	9,000				140
	150	44.3	148.5	8,700	41.3	136.5	7,500				150
	160	40.0	137.3	7,300							160
	170	35.4	124.3	6,100							170
180	40	80.4	217.5	40,000*	80.4	216.0	40,000*	80.4	213.6	40,000*	40
	45	79.1	216.5	40,000*	79.1	215.0	40,000*	79.0	212.4	40,000*	45
	50	77.7	215.5	40,000*	77.7	213.8	40,000*	77.6	211.1	40,000*	50
	55	76.3	214.3	40,000*	76.3	212.5	40,000*	76.2	209.7	40,000*	55
	60	74.9	213.0	40,000*	74.9	211.0	40,000*	74.8	208.1	37,500	60
	65	73.5	211.6	39,900	73.5	209.5	36,600	71.9	204.5	30,400	65
	70	72.1	210.0	35,600	70.6	205.9	29,600	68.9	200.3	25,000	70
	80	69.3	206.5	28,800	67.7	201.8	24,400	65.9	195.5	20,800	80
	90	66.4	202.3	23,600	64.7	197.0	20,200	62.9	190.1	17,400	90
	100	63.4	197.6	19,600	61.7	191.6	17,000	59.7	183.9	14,700	100
	110	60.4	192.2	16,400	58.5	185.5	14,300	56.4	176.9	12,400	110
	120	57.2	186.1	13,800	55.2	178.5	12,000	52.9	169.0	10,400	120
	130	54.0	179.2	11,600	51.8	170.7	10,100				130
	140	50.5	171.4	9,700	48.2	161.8	8,400				140
	150	47.0	162.5	8,100	44.4	151.7	7,000				150
	160	43.2	152.5	6,700	40.3	140.1	5,700				160
	170	39.1	140.9	5,500							170
	180	34.5	127.4	4,400							180
190	40	80.9	227.6	40,000*	80.9	226.2	40,000*	80.8	223.8	40,000*	40
	45	79.6	226.7	40,000*	79.6	225.2	40,000*	79.5	222.7	40,000*	45
	50	78.3	225.7	40,000*	78.2	224.1	40,000*	78.2	221.4	40,000*	50
	55	76.9	224.6	40,000*	76.9	222.8	40,000*	76.8	220.1	40,000*	55
	60	75.6	223.4	40,000*	75.6	221.5	40,000*	75.5	218.6	37,100	60
	65	74.3	222.0	39,400	74.2	220.0	36,100	72.7	215.2	30,000	65
	70	73.0	220.5	35,100	71.5	216.6	29,100	70.0	211.2	24,600	70
	80	70.3	217.1	28,300	68.8	212.7	23,900	67.1	206.7	20,400	80
	90	67.5	213.2	23,100	66.0	208.2	19,800	64.2	201.6	17,000	90
	100	64.7	208.8	19,100	63.1	203.1	16,500	61.2	195.7	14,200	100
	110	61.8	203.7	15,900	60.1	197.3	13,800	58.1	189.2	11,900	110
	120	58.9	197.9	13,300	57.0	190.8	11,500	54.9	181.8	9,900	120
	130	55.8	191.4	11,100	53.9	183.5	9,600	51.6	173.5	8,200	130
	140	52.6	184.2	9,200	50.5	175.3	7,900				140
	150	49.3	176.0	7,600	47.0	166.1	6,500				150
	160	45.8	166.8	6,200	43.3	155.6	5,200				160
	170	42.1	156.4	5,000							170
200	45	80.0	236.9	40,000*	80.0	235.4	40,000*	80.0	233.0	40,000*	45
	50	78.8	235.9	40,000*	78.8	234.3	40,000*	78.7	231.8	40,000*	50
	55	77.5	234.9	40,000*	77.5	233.1	40,000*	77.4	230.4	40,000*	55
	60	76.3	233.7	40,000*	76.2	231.8	40,000*	76.1	229.0	36,600	60
	65	75.0	232.4	38,800	74.9	230.4	35,600	73.5	225.8	29,500	65
	70	73.7	231.0	34,500	72.4	227.2	28,600	70.9	222.0	24,100	70
	80	71.1	227.8	27,700	69.7	223.5	23,300	68.2	217.7	19,800	80
	90	68.5	224.0	22,500	67.1	219.2	19,200	65.4	212.9	16,500	90
	100	65.9	219.8	18,500	64.3	214.4	15,900	62.6	207.4	13,700	100
	110	63.1	215.0	15,300	61.5	208.9	13,200	59.7	201.2	11,300	110
	120	60.3	209.5	12,700	58.6	202.8	10,900	56.7	194.3	9,400	120
	130	57.5	203.5	10,400	55.7	196.0	9,000	53.6	186.6	7,700	130
	140	54.5	196.6	8,600	52.6	188.4	7,300	50.3	178.0	6,200	140
	150	51.4	189.0	7,000	49.3	179.8	5,900				150
	160	48.2	180.5	5,600	45.9	170.2	4,700				160
	170	44.8	170.9	4,400							170

LIFTCRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

40 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
110	30	80.7	158.3	30,000*	81.3	156.7	30,000*				30
	35	78.8	157.3	30,000*	79.4	155.6	30,000*				35
	40	76.9	156.2	30,000*	77.4	154.3	30,000*				40
	45	74.9	154.9	30,000*	75.5	152.8	30,000*	79.9	152.6	30,000*	45
	50	73.0	153.4	30,000*				77.9	151.1	30,000*	50
	55	71.0	151.7	30,000*	73.5	151.1	30,000*	75.9	149.4	30,000*	55
	60	69.0	149.9	30,000*	71.5	149.2	30,000*	73.9	147.5	30,000*	60
	65	67.0	147.8	30,000*	69.5	147.1	30,000*	71.8	145.4	30,000*	65
	70	65.0	145.5	30,000*	67.4	144.8	30,000*	69.7	143.1	30,000*	70
	80	60.7	140.2	30,000*	63.2	139.5	30,000*	65.4	137.7	30,000*	80
	90	56.3	134.0	27,600	58.7	133.2	28,100	60.9	131.3	28,500*	90
	100	51.7	126.6	23,600	54.0	125.8	24,000	56.2	123.7	24,500	100
	110	46.7	117.8	20,400	49.0	116.9	20,800	51.1	114.7	21,100	110
120	120	41.3	107.2	17,700	43.6	106.2	18,100				120
	130	35.2	94.2	15,600							130
130	30	81.3	168.4	30,000*							30
	35	79.5	167.5	30,000*							35
	40	77.7	166.5	30,000*	80.0	165.8	30,000*				40
	45	75.9	165.3	30,000*	78.2	164.6	30,000*	80.5	163.0	30,000*	45
	50	74.1	163.9	30,000*	76.4	163.2	30,000*	78.7	161.5	30,000*	50
	55	72.2	162.3	30,000*	74.6	161.6	30,000*	76.8	159.9	30,000*	55
	60	70.4	160.6	30,000*	72.7	159.9	30,000*	74.9	158.2	30,000*	60
	65	68.5	158.6	30,000*	70.8	157.9	30,000*	73.0	156.2	30,000*	65
	70	66.6	156.5	30,000*	68.9	155.8	30,000*	71.1	154.1	30,000*	70
	80	62.7	151.7	30,000*	65.0	150.9	30,000*	67.1	149.1	30,000*	80
	90	58.7	145.9	26,900	60.9	145.2	27,500	63.0	143.3	28,100	90
	100	54.4	139.2	22,900	56.7	138.4	23,400	58.7	136.4	23,900	100
	110	50.0	131.3	19,700	52.2	130.4	20,100	54.1	128.3	20,500	110
140	120	45.2	121.9	17,100	47.3	121.0	17,400				120
	130	39.9	110.8	14,900	42.0	109.8	15,200				130
	140	34.0	97.3	13,000							140
150	35	80.1	177.7	30,000*	80.6	176.1	30,000*				35
	40	78.4	176.7	30,000*	78.9	174.9	30,000*	81.1	173.2	30,000*	40
	45	76.7	175.6	30,000*	77.2	173.6	30,000*	79.4	171.9	30,000*	45
	50	75.0	174.3	30,000*	75.5	172.1	30,000*	77.6	170.4	30,000*	50
	55	73.3	172.8	30,000*	73.7	170.5	30,000*	75.9	168.8	30,000*	55
	60	71.6	171.2	30,000*	72.0	168.7	30,000*	74.1	166.9	30,000*	60
	65	69.8	169.4	30,000*	70.2	166.7	30,000*	72.3	164.9	30,000*	65
	70	68.0	167.4	30,000*	68.5	162.1	30,000*	68.6	160.3	30,000*	70
	80	64.4	162.9	30,000*	62.8	156.8	27,200	64.8	154.9	27,900	80
	90	60.7	157.6	26,600	58.9	150.6	23,100	60.8	148.6	23,700	90
	100	56.8	151.4	22,600	54.8	143.3	19,900	56.7	141.3	20,300	100
	110	52.7	144.2	19,400	50.4	134.9	17,200	52.3	132.7	17,500	110
	120	48.4	135.8	16,700	45.8	125.0	14,900				120
160	130	43.8	126.0	14,600	40.7	113.3	13,000				130
	140	38.7	114.4	12,700							140
	150	33.0	100.3	11,100							150
170	35	80.6	187.9	30,000*	81.1	186.3	30,000*				35
	40	79.1	186.9	30,000*	79.5	185.2	30,000*				40
	45	77.5	185.9	30,000*	77.9	183.9	30,000*	80.0	182.2	30,000*	45
	50	75.9	184.6	30,000*	76.3	182.6	30,000*	78.3	180.8	30,000*	50
	55	74.2	183.2	30,000*	74.7	181.0	30,000*	76.7	179.3	30,000*	55
	60	72.6	181.7	30,000*	73.0	179.3	30,000*	75.0	177.6	30,000*	60
	65	70.9	180.0	30,000*	71.3	177.4	30,000*	73.3	175.7	30,000*	65
	70	69.3	178.2	30,000*	69.9	173.2	30,000*	69.9	171.4	30,000*	70
	80	65.9	173.9	30,000*	64.4	168.2	26,700	66.3	166.4	27,400	80
	90	62.4	169.0	25,900	60.8	162.5	22,600	62.7	160.5	23,100	90
	100	58.8	163.2	22,000	57.0	155.8	19,300	58.8	153.8	19,800	100
	110	55.1	156.6	18,700	53.1	148.1	16,600	54.8	146.0	17,000	110
	120	51.1	149.0	16,100	48.9	139.2	14,300	50.6	136.9	14,700	120
180	130	47.0	140.1	13,900	44.4	128.9	12,400				130
	140	42.5	129.9	12,100							140
	150	37.6	117.8	10,500							150
190	160	32.0	103.1	9,100							160

LIFTCRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

40 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
150	35	81.1	198.0	30,000*							35
	40	79.6	197.1	30,000*							40
	45	78.1	196.1	30,000*	80.1	195.4	30,000*				45
	50	76.6	194.9	30,000*	78.6	194.2	30,000*	80.5	192.5	30,000*	50
	55	75.1	193.6	30,000*	77.0	192.9	30,000*	79.0	191.2	30,000*	55
	60	73.5	192.2	30,000*	75.5	191.5	30,000*	77.4	189.7	30,000*	60
	65	72.0	190.6	30,000*	73.9	189.9	30,000*	75.8	188.1	30,000*	65
	70	70.4	188.8	30,000*	72.3	188.1	30,000*	74.2	186.3	30,000*	70
	80	67.2	184.9	30,000*	69.1	184.1	30,000*	71.0	182.3	30,000*	80
	90	64.0	180.2	25,400	65.9	179.5	25,200	67.7	177.6	25,900	90
	100	60.6	174.9	21,400	62.5	174.1	22,100	64.3	172.2	22,700	100
	110	57.1	168.7	18,200	59.0	167.9	18,800	60.7	165.9	19,300	110
	120	53.5	161.7	15,600	55.4	160.8	16,100	57.0	158.7	16,500	120
	130	49.7	153.6	13,400	51.5	152.7	13,800	53.2	150.5	14,200	130
	140	45.7	144.4	11,500	47.5	143.4	11,900				140
	150	41.3	133.7	9,900	43.1	132.6	10,200				150
	160	36.5	121.1	8,500							160
	170	31.2	105.9	7,300							170
160	40	80.1	207.3	30,000*							40
	45	78.7	206.3	30,000*	80.6	205.6	30,000*				45
	50	77.3	205.2	30,000*	79.1	204.5	30,000*	81.0	202.8	30,000*	50
	55	75.8	204.0	30,000*	77.7	203.3	30,000*	79.5	201.5	30,000*	55
	60	74.4	202.6	30,000*	76.2	201.9	30,000*	78.0	200.1	30,000*	60
	65	72.9	201.1	30,000*	74.7	200.4	30,000*	76.6	198.6	30,000*	65
	70	71.4	199.5	30,000*	73.3	198.7	30,000*	75.0	196.9	30,000*	70
	80	68.4	195.7	29,900	70.2	195.0	30,000*	72.0	193.1	30,000*	80
	90	65.3	191.3	24,800	67.2	190.6	25,700	68.9	188.7	26,400	90
	100	62.2	186.3	20,800	64.0	185.5	21,500	65.7	183.6	22,200	100
	110	58.9	180.6	17,600	60.7	179.8	18,200	62.4	177.8	18,800	110
	120	55.6	174.0	15,000	57.3	173.2	15,500	59.0	171.1	16,000	120
	130	52.1	166.6	12,800	53.8	165.7	13,200	55.4	163.6	13,700	130
	140	48.4	158.1	10,900	50.1	157.2	11,300	51.6	154.9	11,700	140
	150	44.4	148.5	9,300	46.2	147.5	9,600				150
	160	40.2	137.3	7,900	41.9	136.3	8,200				160
	170	35.6	124.3	6,700							170
170	40	80.6	217.5	30,000*							40
	45	79.2	216.5	30,000*	81.0	215.8	30,000*				45
	50	77.9	215.5	30,000*	79.7	214.8	30,000*				50
	55	76.5	214.3	30,000*	78.3	213.6	30,000*	80.0	211.8	30,000*	55
	60	75.1	213.0	30,000*	76.9	212.3	30,000*	78.6	210.5	30,000*	60
	65	73.7	211.6	30,000*	75.5	210.9	30,000*	77.2	209.1	30,000*	65
	70	72.3	210.0	30,000*	74.1	209.3	30,000*	75.8	207.5	30,000*	70
	80	69.5	206.5	29,600	71.2	205.7	30,000*	72.9	203.9	30,000*	80
	90	66.6	202.3	24,400	68.3	201.6	25,300	70.0	199.7	26,100	90
	100	63.6	197.6	20,400	65.3	196.8	21,200	67.0	194.9	21,900	100
	110	60.5	192.2	17,200	62.3	191.4	17,900	63.9	189.4	18,500	110
	120	57.4	186.1	14,600	59.1	185.3	15,200	60.7	183.2	15,700	120
	130	54.1	179.2	12,400	55.8	178.3	12,900	57.3	176.2	13,300	130
	140	50.7	171.4	10,500	52.4	170.5	11,000	53.9	168.2	11,400	140
	150	47.1	162.5	8,900	48.8	161.6	9,300				150
	160	43.3	152.5	7,500	45.0	151.4	7,900				160
	170	39.2	140.9	6,300	40.8	139.8	6,600				170
	180	34.7	127.4	5,200							180

LIFTCRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

40 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
180	40	81.0	227.6	30,000*							40
	45	79.7	226.7	30,000*							45
	50	78.4	225.7	30,000*	80.1	225.0	30,000*				50
	55	77.1	224.6	30,000*	78.8	223.9	30,000*	80.5	222.1	30,000*	55
	60	75.8	223.4	30,000*	77.5	222.6	30,000*	79.2	220.8	30,000*	60
	65	74.5	222.0	30,000*	76.2	221.3	30,000*	77.8	219.5	30,000*	65
	70	73.1	220.5	30,000*	74.8	219.8	30,000*	76.5	218.0	30,000*	70
	80	70.4	217.1	29,000	72.1	216.4	30,000*	73.7	214.5	30,000*	80
	90	67.7	213.2	23,900	69.3	212.5	24,800	70.9	210.6	25,700	90
	100	64.9	208.7	19,900	66.5	208.0	20,700	68.1	206.0	21,400	100
	110	62.0	203.6	16,700	63.6	202.9	17,400	65.2	200.9	18,000	110
	120	59.0	197.9	14,000	60.7	197.1	14,700	62.2	195.1	15,200	120
	130	56.0	191.4	11,800	57.6	190.6	12,400	59.1	188.5	12,900	130
	140	52.8	184.2	10,000	54.4	183.3	10,400	55.8	181.1	10,900	140
	150	49.5	176.0	8,400	51.1	175.1	8,800	52.5	172.8	9,200	150
	160	46.0	166.8	7,000	47.6	165.8	7,300				160
	170	42.3	156.3	5,700	43.8	155.3	6,100				170
	180	38.3	144.4	4,700							180
190	45	80.2	236.9	30,000*							45
	50	78.9	235.9	30,000*	80.6	235.2	30,000*				50
	55	77.7	234.9	30,000*	79.3	234.1	30,000*	80.9	232.3	30,000*	55
	60	76.4	233.7	30,000*	78.0	232.9	30,000*	79.6	231.1	30,000*	60
	65	75.1	232.4	30,000*	76.8	231.6	30,000*	78.4	229.8	30,000*	65
	70	73.9	230.9	30,000*	75.5	230.2	30,000*	77.1	228.4	30,000*	70
	80	71.3	227.7	28,500	72.9	227.0	29,700	74.5	225.1	30,000*	80
	90	68.7	224.0	23,400	70.3	223.3	24,400	71.8	221.4	25,300	90
	100	66.0	219.8	19,400	67.6	219.0	20,200	69.1	217.1	21,000	100
	110	63.3	214.9	16,100	64.9	214.2	16,900	66.3	212.2	17,600	110
	120	60.5	209.5	13,500	62.1	208.7	14,200	63.5	206.7	14,800	120
	130	57.6	203.4	11,300	59.2	202.6	11,900	60.6	200.5	12,400	130
	140	54.6	196.6	9,400	56.2	195.8	10,000	57.6	193.6	10,400	140
	150	51.6	189.0	7,800	53.1	188.1	8,300	54.4	185.9	8,700	150
	160	48.3	180.5	6,400	49.9	179.6	6,800	51.2	177.2	7,200	160
	170	44.9	170.9	5,200	46.4	169.9	5,600				170
	180	41.3	160.1	4,100	42.8	159.0	4,500				180
200	45	80.6	247.0	30,000*							45
	50	79.4	246.1	30,000*	81.0	245.4	30,000*				50
	55	78.2	245.1	30,000*	79.8	244.4	30,000*	81.3	242.6	30,000*	55
	60	77.0	244.0	30,000*	78.5	243.2	30,000*	80.1	241.4	30,000*	60
	65	75.8	242.7	30,000*	77.3	242.0	30,000*	78.9	240.2	30,000*	65
	70	74.6	241.4	30,000*	76.1	240.6	30,000*	77.6	238.8	30,000*	70
	80	72.1	238.3	27,900	73.6	237.5	29,200	75.1	235.7	30,000*	80
	90	69.6	234.7	22,800	71.1	234.0	23,800	72.6	232.1	24,800	90
	100	67.1	230.7	18,800	68.6	229.9	19,700	70.0	228.0	20,500	100
	110	64.5	226.1	15,600	66.0	225.3	16,300	67.4	223.4	17,100	110
	120	61.8	221.0	12,900	63.3	220.2	13,600	64.7	218.2	14,300	120
	130	59.1	215.2	10,700	60.6	214.4	11,300	62.0	212.3	11,900	130
	140	56.3	208.8	8,800	57.8	208.0	9,400	59.1	205.8	9,900	140
	150	53.4	201.7	7,200	54.9	200.8	7,700	56.2	198.6	8,200	150
	160	50.4	193.7	5,800	51.9	192.8	6,300	53.2	190.5	6,700	160
	170	47.3	184.9	4,600	48.7	183.9	5,000				170

LIFTCRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

50 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
110	35	79.8	167.7	20,000*	80.9	166.0	20,000*				35
	40	78.0	166.7	20,000*							40
	45	76.2	165.5	20,000*	79.1	164.8	20,000*				45
	50	74.4	164.1	20,000*	77.3	163.4	20,000*	80.2	161.6	20,000*	50
	55	72.5	162.6	20,000*	75.4	161.9	20,000*	78.3	160.0	20,000*	55
	60	70.7	160.9	20,000*	73.6	160.2	20,000*	76.4	158.3	20,000*	60
	65	68.8	159.0	20,000*	71.7	158.3	20,000*	74.5	156.4	20,000*	65
	70	66.9	156.9	20,000*	69.8	156.2	20,000*	72.6	154.3	20,000*	70
	80	63.0	152.1	20,000*	65.9	151.4	20,000*	68.6	149.4	20,000*	80
	90	59.0	146.5	20,000*	61.8	145.7	20,000*	64.5	143.6	20,000*	90
	100	54.8	139.8	20,000*	57.6	139.0	20,000*	60.2	136.8	20,000*	100
	110	50.3	132.1	20,000*	53.1	131.2	20,000*	55.7	128.8	20,000*	110
	120	45.6	122.9	18,000	48.3	121.9	18,400	50.8	119.4	18,800	120
	130	40.4	112.0	15,800	43.1	110.9	16,200				130
	140	34.6	98.7	14,000							140
120	35	80.4	177.9	20,000*							35
	40	78.7	176.9	20,000*							40
	45	77.0	175.8	20,000*	79.8	175.1	20,000*				45
	50	75.3	174.5	20,000*	78.0	173.8	20,000*	80.8	171.9	20,000*	50
	55	73.6	173.1	20,000*	76.3	172.4	20,000*	79.0	170.5	20,000*	55
	60	71.8	171.5	20,000*	74.6	170.8	20,000*	77.3	168.8	20,000*	60
	65	70.1	169.7	20,000*	72.8	169.0	20,000*	75.5	167.0	20,000*	65
	70	68.3	167.8	20,000*	71.0	167.0	20,000*	73.7	165.1	20,000*	70
	80	64.7	163.3	20,000*	67.4	162.6	20,000*	70.0	160.5	20,000*	80
	90	61.0	158.1	20,000*	63.7	157.3	20,000*	66.2	155.2	20,000*	90
	100	57.1	152.0	20,000*	59.8	151.2	20,000*	62.3	149.0	20,000*	100
	110	53.0	144.9	20,000*	55.7	144.0	20,000*	58.1	141.7	20,000*	110
	120	48.8	136.6	17,400	51.4	135.7	17,900	53.7	133.2	18,300	120
	130	44.2	127.0	15,200	46.7	126.0	15,600				130
	140	39.1	115.5	13,300	41.7	114.4	13,600				140
	150	33.5	101.7	11,700							150
130	35	80.9	188.0	20,000*							35
	40	79.3	187.1	20,000*							40
	45	77.7	186.1	20,000*	80.3	185.4	20,000*				45
	50	76.1	184.9	20,000*	78.7	184.1	20,000*	81.3	182.2	20,000*	50
	55	74.5	183.5	20,000*	77.1	182.8	20,000*	79.7	180.9	20,000*	55
	60	72.9	182.0	20,000*	75.5	181.3	20,000*	78.0	179.3	20,000*	60
	65	71.2	180.3	20,000*	73.8	179.6	20,000*	76.3	177.6	20,000*	65
	70	69.5	178.5	20,000*	72.1	177.8	20,000*	74.6	175.8	20,000*	70
	80	66.2	174.4	20,000*	68.7	173.6	20,000*	71.2	171.6	20,000*	80
	90	62.7	169.5	20,000*	65.2	168.7	20,000*	67.7	166.6	20,000*	90
	100	59.1	163.8	20,000*	61.6	163.0	20,000*	64.0	160.8	20,000*	100
	110	55.4	157.3	19,700	57.9	156.4	20,000*	60.2	154.1	20,000*	110
	120	51.5	149.7	17,000	53.9	148.8	17,600	56.2	146.4	18,000	120
	130	47.3	141.0	14,800	49.8	140.1	15,300	52.0	137.5	15,700	130
	140	42.9	130.9	13,000	45.3	129.9	13,300				140
	150	38.0	119.0	11,400	40.4	117.8	11,700				150
	160	32.5	104.6	10,000							160
140	35	81.4	198.2	20,000*							35
	40	79.9	197.3	20,000*							40
	45	78.4	196.3	20,000*	80.8	195.6	20,000*				45
	50	76.8	195.2	20,000*	79.3	194.4	20,000*				50
	55	75.3	193.9	20,000*	77.8	193.2	20,000*	80.2	191.2	20,000*	55
	60	73.8	192.5	20,000*	76.2	191.7	20,000*	78.7	189.8	20,000*	60
	65	72.2	190.9	20,000*	74.7	190.1	20,000*	77.1	188.2	20,000*	65
	70	70.7	189.2	20,000*	73.1	188.4	20,000*	75.5	186.4	20,000*	70
	80	67.5	185.3	20,000*	69.9	184.5	20,000*	72.3	182.4	20,000*	80
	90	64.2	180.7	20,000*	66.6	179.9	20,000*	69.0	177.8	20,000*	90
	100	60.9	175.4	20,000*	63.3	174.6	20,000*	65.5	172.4	20,000*	100
	110	57.4	169.3	19,100	59.8	168.5	19,700	62.0	166.2	20,000*	110
	120	53.8	162.4	16,400	56.2	161.5	17,000	58.3	159.1	17,500	120
	130	50.0	154.4	14,200	52.4	153.5	14,700	54.5	151.0	15,200	130
	140	46.0	145.3	12,300	48.3	144.3	12,800	50.3	141.6	13,200	140
	150	41.7	134.7	10,700	44.0	133.6	11,100				150
	160	37.0	122.3	9,300							160
	170	31.7	107.5	8,100							170

LIFT CRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

50 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
150	40	80.4	207.5	20,000*	81.3	205.8	20,000*				40
	45	78.9	206.5	20,000*							45
	50	77.5	205.4	20,000*	79.9	204.7	20,000*				50
	55	76.0	204.2	20,000*	78.4	203.5	20,000*	80.7	201.5	20,000*	55
	60	74.6	202.9	20,000*	76.9	202.1	20,000*	79.2	200.1	20,000*	60
	65	73.1	201.4	20,000*	75.5	200.6	20,000*	77.8	198.6	20,000*	65
	70	71.6	199.8	20,000*	74.0	199.0	20,000*	76.2	197.0	20,000*	70
	80	68.6	196.1	20,000*	71.0	195.3	20,000*	73.2	193.2	20,000*	80
	90	65.6	191.8	20,000*	67.9	191.0	20,000*	70.1	188.9	20,000*	90
	100	62.4	186.8	20,000*	64.7	186.0	20,000*	66.9	183.8	20,000*	100
	110	59.2	181.1	18,500	61.5	180.3	19,200	63.6	178.0	19,900	110
	120	55.8	174.7	15,900	58.1	173.8	16,500	60.2	171.5	17,100	120
	130	52.3	167.3	13,700	54.6	166.4	14,200	56.6	164.0	14,700	130
	140	48.7	159.0	11,800	50.9	158.0	12,300	52.9	155.4	12,700	140
	150	44.8	149.4	10,200	47.0	148.4	10,600				150
	160	40.6	138.4	8,800	42.7	137.3	9,200				160
	170	36.0	125.6	7,600							170
	180	30.8	110.2	6,500							180
160	40	80.8	217.6	20,000*							40
	45	79.5	216.7	20,000*							45
	50	78.1	215.7	20,000*	80.3	214.9	20,000*				50
	55	76.7	214.5	20,000*	79.0	213.8	20,000*	81.2	211.8	20,000*	55
	60	75.3	213.3	20,000*	77.6	212.5	20,000*	79.8	210.5	20,000*	60
	65	73.9	211.9	20,000*	76.2	211.1	20,000*	78.4	209.0	20,000*	65
	70	72.5	210.3	20,000*	74.8	209.5	20,000*	76.9	207.5	20,000*	70
	80	69.7	206.8	20,000*	71.9	206.0	20,000*	74.0	203.9	20,000*	80
	90	66.8	202.7	20,000*	69.0	201.9	20,000*	71.1	199.8	20,000*	90
	100	63.8	198.1	20,000*	66.0	197.2	20,000*	68.1	195.1	20,000*	100
	110	60.8	192.7	17,900	63.0	191.9	18,700	65.0	189.6	19,400	110
	120	57.6	186.7	15,300	59.8	185.8	16,000	61.8	183.5	16,600	120
	130	54.4	179.9	13,100	56.5	178.9	13,700	58.5	176.5	14,200	130
	140	51.0	172.1	11,200	53.1	171.2	11,700	55.0	168.6	12,200	140
	150	47.4	163.4	9,600	49.5	162.4	10,000	51.4	159.7	10,400	150
	160	43.7	153.5	8,200	45.7	152.4	8,600				160
	170	39.6	142.1	7,000	41.6	140.9	7,300				170
	180	35.1	128.8	5,900							180
170	40	81.2	227.8	20,000*							40
	45	79.9	226.9	20,000*							45
	50	78.6	225.9	20,000*	80.8	225.1	20,000*				50
	55	77.3	224.8	20,000*	79.5	224.0	20,000*				55
	60	76.0	223.6	20,000*	78.1	222.8	20,000*	80.2	220.8	20,000*	60
	65	74.7	222.3	20,000*	76.8	221.5	20,000*	78.9	219.4	20,000*	65
	70	73.3	220.8	20,000*	75.5	220.0	20,000*	77.5	217.9	20,000*	70
	80	70.6	217.5	20,000*	72.8	216.7	20,000*	74.8	214.6	20,000*	80
	90	67.9	213.6	20,000*	70.0	212.8	20,000*	72.0	210.7	20,000*	90
	100	65.1	209.2	20,000*	67.2	208.4	20,000*	69.2	206.2	20,000*	100
	110	62.2	204.2	17,500	64.3	203.3	18,400	66.3	201.1	19,100	110
	120	59.3	198.5	14,900	61.3	197.6	15,600	63.3	195.3	16,300	120
	130	56.2	192.1	12,700	58.3	191.2	13,300	60.2	188.8	13,900	130
	140	53.1	184.9	10,800	55.1	183.9	11,400	56.9	181.4	11,900	140
	150	49.8	176.8	9,200	51.8	175.8	9,700	53.6	173.2	10,100	150
	160	46.3	167.7	7,800	48.3	166.6	8,200				160
	170	42.6	157.4	6,600	44.6	156.2	7,000				170
	180	38.6	145.6	5,500	40.6	144.3	5,800				180
	190	34.3	131.9	4,500							190

LIFTCRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

50 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
180	45	80.4	237.1	20,000*	81.2	235.3	20,000*				45
	50	79.1	236.1	20,000*	79.9	234.3	20,000*				50
	55	77.9	235.1	20,000*	78.7	233.1	20,000*	80.7	231.1	20,000*	55
	60	76.6	233.9	20,000*	77.4	231.8	20,000*	79.4	229.8	20,000*	60
	65	75.3	232.6	20,000*	76.1	230.4	20,000*	78.1	228.4	20,000*	65
	70	74.1	231.2	20,000*	73.5	227.3	20,000*	75.5	225.1	20,000*	70
	80	71.5	228.1	20,000*	70.9	223.6	20,000*	72.8	221.4	20,000*	80
	90	68.9	224.4	20,000*	68.2	219.4	20,000*	70.1	217.2	20,000*	90
	100	66.2	220.2	20,000*	65.5	214.6	17,900	67.4	212.3	18,700	100
	110	63.5	215.4	17,000	62.7	209.2	15,100	64.6	206.9	15,800	110
	120	60.7	210.1	14,400	59.8	203.1	12,800	61.6	200.8	13,400	120
	130	57.9	204.0	12,100	56.9	196.4	10,900	58.6	193.9	11,400	130
	140	54.9	197.3	10,300	53.8	188.8	9,200	55.5	186.2	9,700	140
	150	51.8	189.8	8,700	50.5	180.3	7,700	52.2	177.6	8,200	150
	160	48.6	181.3	7,300	47.1	170.8	6,500				160
	170	45.2	171.9	6,000	43.5	160.0	5,300				170
	180	41.6	161.2	4,900							180
	190	37.8	149.0	4,000							190
190	45	80.8	247.2	20,000*	80.3	244.5	20,000*				45
	50	79.6	246.3	20,000*	79.1	243.4	20,000*	81.1	241.3	20,000*	50
	55	78.4	245.3	20,000*	77.9	242.2	20,000*	79.8	240.1	20,000*	55
	60	77.2	244.2	20,000*	76.7	240.8	20,000*	78.6	238.7	20,000*	60
	65	76.0	243.0	20,000*	74.2	237.8	20,000*	76.1	235.7	20,000*	65
	70	74.7	241.6	20,000*	71.7	234.3	20,000*	73.6	232.1	20,000*	70
	80	72.3	238.6	20,000*	69.2	230.3	20,000*	71.0	228.1	20,000*	80
	90	69.8	235.1	20,000*	66.6	225.7	17,400	68.4	223.5	18,300	90
	100	67.3	231.1	19,700	63.9	220.6	14,600	65.7	218.3	15,400	100
	110	64.7	226.6	16,500	61.2	214.9	12,300	63.0	212.5	13,000	110
	120	62.0	221.5	13,800	58.4	208.5	10,400	60.1	206.1	11,000	120
	130	59.3	215.8	11,600	55.5	201.4	8,700	57.2	198.9	9,200	130
	140	56.5	209.4	9,700	52.5	193.5	7,200	54.2	190.9	7,700	140
	150	53.7	202.4	8,100	49.4	184.7	6,000	51.0	181.9	6,400	150
	160	50.7	194.5	6,700	46.1	174.8	4,800				160
	170	47.5	185.8	5,500							170
	180	44.2	176.0	4,400							180

LIFT CRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

60 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
110	35	80.1	177.9	10,000*							35
	40	78.4	176.9	10,000*							40
	45	76.7	175.8	10,000*	80.0	175.2	10,000*				45
	50	75.0	174.5	10,000*	78.3	173.9	10,000*				50
	55	73.3	173.1	10,000*	76.6	172.4	10,000*	79.9	170.5	10,000*	55
	60	71.5	171.5	10,000*	74.9	170.8	10,000*	78.2	168.8	10,000*	60
	65	69.8	169.7	10,000*	73.1	169.1	10,000*	76.4	167.0	10,000*	65
	70	68.0	167.8	10,000*	71.3	167.1	10,000*	74.6	165.1	10,000*	70
	80	64.4	163.3	10,000*	67.7	162.6	10,000*	70.9	160.5	10,000*	80
	90	60.7	158.1	10,000*	63.9	157.4	10,000*	67.1	155.2	10,000*	90
	100	56.8	152.0	10,000*	60.1	151.2	10,000*	63.2	149.0	10,000*	100
	110	52.8	144.9	10,000*	56.0	144.1	10,000*	59.0	141.7	10,000*	110
	120	48.5	136.6	10,000*	51.7	135.8	10,000*	54.6	133.2	10,000*	120
	130	43.9	127.0	10,000*	47.0	126.1	10,000*				130
	140	38.9	115.6	10,000*	42.0	114.5	10,000*				140
	150	33.2	101.7	10,000*							150
120	35	80.6	188.1	10,000*							35
	40	79.0	187.1	10,000*							40
	45	77.4	186.1	10,000*	80.6	185.4	10,000*				45
	50	75.8	184.9	10,000*	79.0	184.2	10,000*				50
	55	74.2	183.5	10,000*	77.4	182.9	10,000*	80.5	180.8	10,000*	55
	60	72.6	182.0	10,000*	75.7	181.3	10,000*	78.9	179.3	10,000*	60
	65	70.9	180.4	10,000*	74.1	179.7	10,000*	77.2	177.6	10,000*	65
	70	69.3	178.5	10,000*	72.4	177.8	10,000*	75.5	175.8	10,000*	70
	80	65.9	174.4	10,000*	69.0	173.7	10,000*	72.1	171.5	10,000*	80
	90	62.4	169.5	10,000*	65.5	168.8	10,000*	68.5	166.6	10,000*	90
	100	58.8	163.8	10,000*	61.9	163.1	10,000*	64.9	160.8	10,000*	100
	110	55.1	157.3	10,000*	58.2	156.5	10,000*	61.1	154.1	10,000*	110
	120	51.2	149.8	10,000*	54.2	148.9	10,000*	57.1	146.4	10,000*	120
	130	47.0	141.0	10,000*	50.1	140.2	10,000*	52.8	137.5	10,000*	130
	140	42.6	130.9	10,000*	45.6	130.0	10,000*				140
	150	37.7	119.0	10,000*	40.7	117.9	10,000*				150
	160	32.3	104.6	10,000*							160
130	35	81.1	198.2	10,000*							35
	40	79.6	197.3	10,000*							40
	45	78.1	196.3	10,000*							45
	50	76.6	195.2	10,000*	79.6	194.5	10,000*				50
	55	75.1	193.9	10,000*	78.0	193.2	10,000*	81.0	191.1	10,000*	55
	60	73.5	192.5	10,000*	76.5	191.8	10,000*	79.5	189.7	10,000*	60
	65	72.0	190.9	10,000*	74.9	190.2	10,000*	77.9	188.1	10,000*	65
	70	70.4	189.2	10,000*	73.4	188.5	10,000*	76.3	186.4	10,000*	70
	80	67.2	185.3	10,000*	70.2	184.6	10,000*	73.1	182.4	10,000*	80
	90	64.0	180.7	10,000*	66.9	180.0	10,000*	69.8	177.7	10,000*	90
	100	60.6	175.4	10,000*	63.5	174.7	10,000*	66.4	172.4	10,000*	100
	110	57.1	169.4	10,000*	60.0	168.6	10,000*	62.8	166.2	10,000*	110
	120	53.5	162.4	10,000*	56.4	161.6	10,000*	59.1	159.1	10,000*	120
	130	49.8	154.4	10,000*	52.6	153.6	10,000*	55.3	150.9	10,000*	130
	140	45.7	145.3	10,000*	48.6	144.4	10,000*	51.1	141.6	10,000*	140
	150	41.4	134.7	10,000*	44.2	133.7	10,000*				150
	160	36.7	122.4	10,000*							160
	170	31.4	107.5	8,900							170
140	40	80.1	207.5	10,000*							40
	45	78.7	206.5	10,000*							45
	50	77.3	205.5	10,000*	80.1	204.8	10,000*				50
	55	75.8	204.2	10,000*	78.6	203.5	10,000*				55
	60	74.3	202.9	10,000*	77.2	202.2	10,000*	80.0	200.1	10,000*	60
	65	72.9	201.4	10,000*	75.7	200.7	10,000*	78.5	198.6	10,000*	65
	70	71.4	199.8	10,000*	74.2	199.1	10,000*	77.0	196.9	10,000*	70
	80	68.4	196.1	10,000*	71.2	195.4	10,000*	74.0	193.2	10,000*	80
	90	65.3	191.8	10,000*	68.1	191.0	10,000*	70.9	188.8	10,000*	90
	100	62.2	186.8	10,000*	65.0	186.1	10,000*	67.7	183.7	10,000*	100
	110	58.9	181.2	10,000*	61.7	180.4	10,000*	64.4	178.0	10,000*	110
	120	55.6	174.7	10,000*	58.3	173.9	10,000*	60.9	171.4	10,000*	120
	130	52.1	167.4	10,000*	54.8	166.5	10,000*	57.4	163.9	10,000*	130
	140	48.4	159.0	10,000*	51.1	158.1	10,000*	53.6	155.3	10,000*	140
	150	44.5	149.5	10,000*	47.2	148.5	10,000*				150
	160	40.4	138.5	9,500	43.0	137.4	9,900				160
	170	35.8	125.6	8,300							170
	180	30.6	110.2	7,200							180

LIFTCRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

60 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
150	40	80.6	217.6	10,000*							40
	45	79.2	216.7	10,000*							45
	50	77.9	215.7	10,000*	80.6	215.0	10,000*				50
	55	76.5	214.6	10,000*	79.2	213.8	10,000*				55
	60	75.1	213.3	10,000*	77.8	212.6	10,000*	80.5	210.4	10,000*	60
	65	73.7	211.9	10,000*	76.4	211.1	10,000*	79.1	209.0	10,000*	65
	70	72.3	210.3	10,000*	75.0	209.6	10,000*	77.7	207.4	10,000*	70
	80	69.5	206.8	10,000*	72.1	206.1	10,000*	74.8	203.9	10,000*	80
	90	66.6	202.8	10,000*	69.2	202.0	10,000*	71.8	199.7	10,000*	90
	100	63.6	198.1	10,000*	66.3	197.3	10,000*	68.8	195.0	10,000*	100
	110	60.6	192.8	10,000*	63.2	192.0	10,000*	65.7	189.6	10,000*	110
	120	57.4	186.7	10,000*	60.0	185.9	10,000*	62.5	183.4	10,000*	120
	130	54.2	179.9	10,000*	56.8	179.0	10,000*	59.2	176.4	10,000*	130
	140	50.8	172.2	10,000*	53.4	171.3	10,000*	55.8	168.5	10,000*	140
	150	47.2	163.4	10,000*	49.8	162.5	10,000*	52.1	159.6	10,000*	150
	160	43.4	153.5	9,000	46.0	152.5	9,400				160
	170	39.4	142.1	7,800	41.9	141.0	8,100				170
	180	34.9	128.8	6,700							180
160	40	81.0	227.8	10,000*							40
	45	79.7	226.9	10,000*							45
	50	78.4	225.9	10,000*	81.0	225.2	10,000*				50
	55	77.1	224.8	10,000*	79.7	224.1	10,000*				55
	60	75.8	223.6	10,000*	78.4	222.9	10,000*	80.9	220.7	10,000*	60
	65	74.5	222.3	10,000*	77.0	221.5	10,000*	79.6	219.3	10,000*	65
	70	73.1	220.8	10,000*	75.7	220.1	10,000*	78.2	217.9	10,000*	70
	80	70.4	217.5	10,000*	73.0	216.7	10,000*	75.5	214.5	10,000*	80
	90	67.7	213.6	10,000*	70.2	212.9	10,000*	72.7	210.6	10,000*	90
	100	64.9	209.2	10,000*	67.4	208.4	10,000*	69.9	206.1	10,000*	100
	110	62.0	204.2	10,000*	64.5	203.4	10,000*	67.0	201.0	10,000*	110
	120	59.0	198.5	10,000*	61.6	197.7	10,000*	64.0	195.2	10,000*	120
	130	56.0	192.1	10,000*	58.5	191.2	10,000*	60.9	188.7	10,000*	130
	140	52.8	184.9	10,000*	55.3	184.0	10,000*	57.6	181.3	10,000*	140
	150	49.5	176.8	9,800	52.0	175.9	10,000*	54.3	173.1	10,000*	150
	160	46.1	167.7	8,400	48.5	166.7	8,900	50.7	163.8	9,300	160
	170	42.4	157.4	7,100	44.8	156.3	7,600				170
	180	38.4	145.6	6,100	40.8	144.4	6,400				180
	190	34.1	131.9	5,100							190
170	45	80.2	237.1	10,000*							45
	50	78.9	236.1	10,000*							50
	55	77.7	235.1	10,000*	80.1	234.3	10,000*				55
	60	76.4	233.9	10,000*	78.9	233.2	10,000*				60
	65	75.1	232.6	10,000*	77.6	231.9	10,000*	80.1	229.7	10,000*	65
	70	73.9	231.2	10,000*	76.3	230.5	10,000*	78.8	228.3	10,000*	70
	80	71.3	228.1	10,000*	73.7	227.3	10,000*	76.2	225.0	10,000*	80
	90	68.7	224.4	10,000*	71.1	223.6	10,000*	73.5	221.3	10,000*	90
	100	66.0	220.2	10,000*	68.4	219.4	10,000*	70.8	217.1	10,000*	100
	110	63.3	215.4	10,000*	65.7	214.6	10,000*	68.1	212.2	10,000*	110
	120	60.5	210.1	10,000*	62.9	209.2	10,000*	65.2	206.8	10,000*	120
	130	57.6	204.1	10,000*	60.0	203.2	10,000*	62.3	200.6	10,000*	130
	140	54.7	197.3	10,000*	57.1	196.4	10,000*	59.3	193.8	10,000*	140
	150	51.6	189.8	9,400	54.0	188.9	10,000*	56.2	186.1	10,000*	150
	160	48.4	181.4	8,000	50.8	180.4	8,500	52.9	177.5	9,000	160
	170	45.0	171.9	6,800	47.4	170.9	7,200				170
	180	41.4	161.2	5,700	43.7	160.1	6,100				180
	190	37.6	149.0	4,700							190

LIFT CRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

60 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
180	45	80.6	247.2	10,000*							45
	50	79.4	246.3	10,000*							50
	55	78.2	245.3	10,000*	80.5	244.6	10,000*				55
	60	77.0	244.2	10,000*	79.3	243.5	10,000*				60
	65	75.8	243.0	10,000*	78.1	242.2	10,000*	80.5	240.0	10,000*	65
	70	74.5	241.6	10,000*	76.9	240.9	10,000*	79.3	238.6	10,000*	70
	80	72.1	238.6	10,000*	74.4	237.9	10,000*	76.8	235.6	10,000*	80
	90	69.6	235.1	10,000*	71.9	234.3	10,000*	74.2	232.0	10,000*	90
	100	67.1	231.1	10,000*	69.4	230.3	10,000*	71.7	228.0	10,000*	100
	110	64.5	226.6	10,000*	66.8	225.8	10,000*	69.0	223.4	10,000*	110
	120	61.8	221.5	10,000*	64.1	220.7	10,000*	66.4	218.2	10,000*	120
	130	59.1	215.8	10,000*	61.4	215.0	10,000*	63.6	212.4	10,000*	130
	140	56.3	209.5	10,000*	58.6	208.6	10,000*	60.8	206.0	10,000*	140
	150	53.5	202.4	8,800	55.7	201.5	9,500	57.8	198.8	10,000*	150
	160	50.5	194.5	7,400	52.7	193.6	8,000	54.8	190.8	8,500	160
	170	47.3	185.8	6,200	49.6	184.8	6,700	51.6	181.8	7,200	170
	180	44.0	176.0	5,100	46.3	174.9	5,600				180
	190	40.5	164.9	4,200	42.7	163.8	4,600				190
190	45	80.9	257.4	10,000*							45
	50	79.8	256.5	10,000*							50
	55	78.6	255.5	10,000*	80.9	254.8	10,000*				55
	60	77.5	254.5	10,000*	79.8	253.7	10,000*				60
	65	76.3	253.3	10,000*	78.6	252.5	10,000*	80.9	250.3	10,000*	65
	70	75.2	252.0	10,000*	77.4	251.2	10,000*	79.7	249.0	10,000*	70
	80	72.8	249.1	10,000*	75.1	248.3	10,000*	77.3	246.0	10,000*	80
	90	70.4	245.8	10,000*	72.7	245.0	10,000*	74.9	242.6	10,000*	90
	100	68.0	242.0	10,000*	70.3	241.2	10,000*	72.4	238.8	10,000*	100
	110	65.5	237.6	10,000*	67.8	236.8	10,000*	70.0	234.4	10,000*	110
	120	63.0	232.8	10,000*	65.3	232.0	10,000*	67.4	229.5	10,000*	120
	130	60.5	227.4	10,000*	62.7	226.5	10,000*	64.8	224.0	10,000*	130
	140	57.8	221.4	9,900	60.0	220.5	10,000*	62.1	217.9	10,000*	140
	150	55.1	214.7	8,300	57.3	213.8	9,000	59.4	211.1	9,600	150
	160	52.3	207.4	6,900	54.5	206.4	7,500	56.5	203.6	8,100	160
	170	49.4	199.2	5,700	51.6	198.2	6,200	53.5	195.3	6,700	170
	180	46.3	190.1	4,600	48.5	189.1	5,100	50.4	186.0	5,500	180
	190				45.2	178.9	4,100				190

LIFTCRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
OFFSET 4-1/2 DEGREES
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

CHART SUPPLEMENTS BOOM CAPACITY CHART NO. 6274-C. CAPACITIES FOR VARIOUS BOOM LENGTHS, JIB LENGTHS AND JIB OPERATING RADII ARE FOR FREELY SUSPENDED LOADS AND DO NOT EXCEED 75% OF A STATIC TIPPING LOAD. CAPACITIES BASED ON STRUCTURAL COMPETENCE ARE DENOTED BY AN ASTERISK (*).

WEIGHT OF ALL LOAD BLOCKS, HOOKS, WEIGHT BALL, SLINGS, HOIST LINES, ETC., BENEATH BOOM AND JIB POINT SHEAVES, IS CONSIDERED PART OF THE JIB LOAD. BOOM AND JIB ARE 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.

MACHINE TO OPERATE IN A LEVEL POSITION ON A FIRM UNIFORMLY SUPPORTING SURFACE WITH CRAWLERS FULLY EXTENDED AND GANTRY UP. REFER TO BOOM RIGGING NO. 48168, JIB ASSEMBLY NO. 43730 AND WIRE ROPE SPECIFICATION CHART NO. 6664-A. CRANE OPERATOR JUDGMENT MUST BE USED TO ALLOW FOR DYNAMIC LOAD EFFECTS OF SWINGING, HOISTING OR LOWERING, TRAVEL, WIND CONDITIONS, AS WELL AS ADVERSE OPERATING CONDITIONS AND PHYSICAL MACHINE DEPRECIATION.

OPERATING RADIUS IS THE HORIZONTAL DISTANCE FROM THE AXIS OF ROTATION TO THE CENTER OF VERTICAL HOIST LINE OR LOAD BLOCK. 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. JIB POINT ELEVATION IS VERTICAL DISTANCE FROM GROUND LEVEL TO CENTERLINE OF JIB POINT SHAFT.

MACHINE EQUIPPED WITH 24' EXTENDIBLE CRAWLERS, 48" TREADS, 15' RETRACTABLE GANTRY, 12 PART BOOM HOIST REEVING, FOUR 1-3/8" BOOM PENDANTS, 1ST COUNTERWEIGHT = 40,100 LBS. (39,000 LBS. WITH COUNTERWEIGHT ASSEMBLY NO. 48998), 2ND COUNTERWEIGHT = 35,800 LBS., AND 3RD COUNTERWEIGHT = 28,500 LBS.

MAXIMUM CAPACITY ON 1-1/8" - 6 X 25 IPS, INRC IS 28,300 LBS. PER LINE.

MAXIMUM BOOM AND JIB LENGTHS LIFTED UNASSISTED			
OVER END OF BLOCKED CRAWLERS		OVER SIDE OF EXTENDED CRAWLERS	
BOOM LGTH.	JIB NO. 123	BOOM LGTH.	JIB NO. 123
220'	---	200'	---
210'	---	190'	---
200'	40'	180'	50'
190'	60'	170'	60'

LOAD BLOCK, HOOK AND WEIGHT BALL ON GROUND AT START.

30 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
110	35	80.1	147.3	40,000*							35
	40	78.0	146.1	40,000*	80.0	145.4	40,000*	79.8	142.5	40,000*	40
	45	76.0	144.7	40,000*	77.9	144.0	40,000*	77.7	140.9	40,000*	45
	50	73.9	143.1	40,000*	75.8	142.4	40,000*	75.6	139.0	40,000*	50
	55	71.7	141.3	40,000*	73.7	140.5	40,000*				55
	60	69.6	139.2	40,000*	71.5	138.5	40,000*	73.4	137.0	40,000*	60
	65	67.4	137.0	40,000*	69.3	136.3	40,000*	71.1	134.7	40,000*	65
	70	65.2	134.5	39,100	67.1	133.8	39,800	68.9	132.2	40,000*	70
	80	60.6	128.8	32,400	62.5	128.0	32,900	64.2	126.3	33,400	80
	90	55.7	121.9	27,300	57.6	121.1	27,700	59.2	119.3	28,100	90
120	100	50.6	113.6	23,300	52.4	112.8	23,600				100
	110	44.9	103.7	20,100	46.7	102.7	20,400				110
	120	38.6	91.4	17,500							120
130	35	80.7	157.5	40,000*							35
	40	78.8	156.4	40,000*	80.7	155.7	40,000*				40
	45	76.9	155.1	40,000*	78.8	154.4	40,000*	80.5	152.9	40,000*	45
	50	75.0	153.6	40,000*	76.8	152.9	40,000*	78.6	151.3	40,000*	50
	55	73.0	151.9	40,000*	74.8	151.2	40,000*	76.6	149.6	40,000*	55
	60	71.0	150.0	40,000*	72.8	149.3	40,000*	74.5	147.7	40,000*	60
	65	69.0	148.0	40,000*	70.8	147.2	40,000*	72.5	145.6	40,000*	65
	70	66.9	145.7	38,500	68.7	144.9	39,200	70.4	143.3	39,900	70
	80	62.7	140.4	31,700	64.5	139.6	32,300	66.1	138.0	32,800	80
	90	58.3	134.2	26,600	60.1	133.4	27,100	61.6	131.6	27,500	90
	100	53.7	126.8	22,600	55.4	125.9	23,000	56.9	124.0	23,400	100
	110	48.7	118.0	19,400	50.4	117.0	19,800				110
	120	43.3	107.4	16,800							120
	130	37.2	94.5	14,600							130

LIFTCRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
OFFSET 4-1/2 DEGREES
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

30 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
130	40	79.5	166.6	40,000*							40
	45	77.7	165.4	40,000*	79.5	164.7	40,000*				45
	50	75.9	164.0	40,000*	77.6	163.3	40,000*	79.3	161.8	40,000*	50
	55	74.1	162.5	40,000*	75.8	161.7	40,000*	77.4	160.2	40,000*	55
	60	72.2	160.7	40,000*	73.9	160.0	40,000*	75.5	158.4	40,000*	60
	65	70.3	158.8	40,000*	72.0	158.0	40,000*	73.6	156.4	40,000*	65
	70	68.4	156.7	38,200	70.1	155.9	38,900	71.7	154.3	39,600	70
	80	64.6	151.8	31,400	66.2	151.0	32,000	67.8	149.4	32,600	80
	90	60.5	146.1	26,300	62.2	145.3	26,800	63.6	143.5	27,300	90
	100	56.3	139.4	22,300	57.9	138.5	22,700	59.3	136.7	23,100	100
	110	51.8	131.5	19,100	53.4	130.5	19,500	54.8	128.6	19,800	110
	120	47.0	122.2	16,500	48.6	121.2	16,800				120
	130	41.8	111.1	14,300							130
140	40	80.1	176.9	40,000*							40
	45	78.5	175.7	40,000*	80.1	175.0	40,000*				45
	50	76.7	174.4	40,000*	78.4	173.7	40,000*	79.9	172.1	40,000*	50
	55	75.0	172.9	40,000*	76.6	172.2	40,000*	78.2	170.6	40,000*	55
	60	73.3	171.3	40,000*	74.9	170.6	40,000*	76.4	169.0	40,000*	60
	65	71.5	169.5	40,000*	73.1	168.8	40,000*	74.7	167.1	40,000*	65
	70	69.8	167.5	37,600	71.4	166.8	38,400	72.9	165.1	39,100	70
	80	66.1	163.0	30,800	67.7	162.2	31,500	69.2	160.6	32,100	80
	90	62.4	157.7	25,700	64.0	156.9	26,200	65.4	155.2	26,700	90
	100	58.5	151.5	21,700	60.1	150.7	22,200	61.4	148.9	22,600	100
	110	54.5	144.3	18,500	56.0	143.4	18,900	57.3	141.5	19,200	110
	120	50.1	136.0	15,800	51.6	135.0	16,200				120
	130	45.5	126.2	13,700	47.0	125.1	13,900				130
	140	40.5	114.6	11,800							140
150	40	80.7	187.1	40,000*							40
	45	79.1	186.0	40,000*	80.6	185.2	40,000*				45
	50	77.5	184.8	40,000*	79.0	184.0	40,000*	80.5	182.4	40,000*	50
	55	75.9	183.4	40,000*	77.4	182.6	40,000*	78.9	181.0	40,000*	55
	60	74.2	181.8	40,000*	75.8	181.1	40,000*	77.2	179.5	40,000*	60
	65	72.6	180.2	40,000*	74.1	179.4	40,000*	75.5	177.8	40,000*	65
	70	70.9	178.3	37,100	72.4	177.5	37,900	73.9	175.9	38,700	70
	80	67.5	174.1	30,300	69.0	173.3	31,000	70.4	171.6	31,600	80
	90	64.1	169.1	25,100	65.5	168.3	25,700	66.9	166.6	26,300	90
	100	60.5	163.4	21,200	61.9	162.5	21,700	63.2	160.8	22,100	100
	110	56.7	156.8	17,900	58.2	155.9	18,400	59.4	154.0	18,800	110
	120	52.8	149.1	15,300	54.2	148.2	15,700	55.4	146.2	16,000	120
	130	48.6	140.3	13,100	50.0	139.3	13,400				130
	140	44.2	130.1	11,300							140
	150	39.3	118.0	9,700							150
160	45	79.7	196.2	40,000*							45
	50	78.1	195.1	40,000*	79.6	194.3	40,000*	81.0	192.7	40,000*	50
	55	76.6	193.8	40,000*	78.1	193.0	40,000*	79.5	191.4	40,000*	55
	60	75.1	192.3	40,000*	76.5	191.5	40,000*	77.9	189.9	40,000*	60
	65	73.5	190.7	40,000*	75.0	189.9	40,000*	76.3	188.3	40,000*	65
	70	72.0	189.0	36,500	73.4	188.2	37,400	74.7	186.5	38,200	70
	80	68.8	185.0	29,700	70.2	184.2	30,400	71.5	182.5	31,100	80
	90	65.5	180.4	24,500	66.9	179.5	25,200	68.2	177.8	25,800	90
	100	62.2	175.0	20,500	63.5	174.2	21,100	64.8	172.4	21,600	100
	110	58.7	168.9	17,300	60.1	168.0	17,800	61.3	166.1	18,200	110
	120	55.1	161.8	14,700	56.4	160.9	15,100	57.6	159.0	15,500	120
	130	51.3	153.8	12,500	52.6	152.8	12,800				130
	140	47.2	144.6	10,600	48.5	143.5	10,900				140
	150	42.9	133.9	9,000							150
	160	38.1	121.3	7,600							160

LIFTCRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
OFFSET 4-1/2 DEGREES
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

30 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB ELEV. FEET	CAPACITY POUNDS	
170	45	80.2	206.5	40,000*	80.1	204.6	40,000*				45
	50	78.7	205.4	40,000*							50
	55	77.3	204.1	40,000*	78.7	203.3	40,000*	80.0	201.7	40,000*	55
	60	75.8	202.7	40,000*	77.2	202.0	40,000*	78.5	200.3	40,000*	60
	65	74.4	201.2	40,000*	75.7	200.4	40,000*	77.0	198.8	40,000*	65
	70	72.9	199.6	36,100	74.3	198.8	37,000	75.5	197.1	37,900	70
	80	69.9	195.8	29,300	71.2	195.0	30,100	72.5	193.3	30,800	80
	90	66.8	191.5	24,200	68.1	190.6	24,800	69.4	188.9	25,500	90
	100	63.7	186.5	20,200	65.0	185.6	20,800	66.2	183.8	21,300	100
	110	60.4	180.7	17,000	61.7	179.8	17,500	62.9	178.0	17,900	110
	120	57.0	174.2	14,300	58.3	173.3	14,800	59.5	171.4	15,200	120
	130	53.5	166.8	12,100	54.8	165.8	12,500				130
	140	49.9	158.3	10,300	51.1	157.3	10,600				140
	150	45.9	148.6	8,700	47.2	147.6	9,000				150
	160	41.7	137.5	7,300							160
	170	37.1	124.5	6,100							170
180	45	80.6	216.6	40,000*	80.6	214.8	40,000*				45
	50	79.3	215.6	40,000*							50
	55	77.9	214.4	40,000*	79.2	213.6	40,000*	80.5	212.0	40,000*	55
	60	76.5	213.1	40,000*	77.8	212.3	40,000*	79.1	210.7	40,000*	60
	65	75.1	211.7	39,900	76.4	210.9	40,000*	77.7	209.2	40,000*	65
	70	73.7	210.1	35,600	75.0	209.3	36,600	76.3	207.7	37,500	70
	80	70.9	206.6	28,800	72.2	205.8	29,600	73.4	204.1	30,400	80
	90	68.0	202.5	23,600	69.3	201.6	24,400	70.4	199.9	25,000	90
	100	65.0	197.7	19,600	66.3	196.9	20,200	67.4	195.1	20,800	100
	110	61.9	192.3	16,400	63.2	191.5	17,000	64.3	189.6	17,400	110
	120	58.8	186.2	13,800	60.0	185.3	14,300	61.1	183.4	14,700	120
	130	55.5	179.3	11,600	56.8	178.4	12,000	57.8	176.4	12,400	130
	140	52.1	171.5	9,700	53.3	170.5	10,100				140
	150	48.6	162.7	8,100	49.7	161.6	8,400				150
	160	44.8	152.6	6,700	45.9	151.5	7,000				160
	170	40.7	141.1	5,500							170
	180	36.2	127.6	4,400							180
190	50	79.8	225.8	40,000*	81.0	225.0	40,000*				50
	55	78.5	224.7	40,000*	79.7	223.9	40,000*	80.9	222.3	40,000*	55
	60	77.1	223.5	40,000*	78.4	222.7	40,000*	79.6	221.0	40,000*	60
	65	75.8	222.1	39,400	77.1	221.3	40,000*	78.3	219.6	40,000*	65
	70	74.5	220.6	35,100	75.7	219.8	36,100	76.9	218.1	37,100	70
	80	71.8	217.2	28,300	73.0	216.4	29,100	74.2	214.7	30,000	80
	90	69.0	213.3	23,100	70.2	212.5	23,900	71.4	210.8	24,600	90
	100	66.2	208.9	19,100	67.4	208.0	19,800	68.5	206.2	20,400	100
	110	63.3	203.8	15,900	64.5	202.9	16,500	65.6	201.1	17,000	110
	120	60.4	198.0	13,300	61.6	197.1	13,800	62.6	195.3	14,200	120
	130	57.3	191.6	11,100	58.5	190.6	11,500	59.5	188.7	11,900	130
	140	54.2	184.3	9,200	55.3	183.3	9,600	56.3	181.3	9,900	140
	150	50.8	176.1	7,600	52.0	175.1	7,900				150
	160	47.4	166.9	6,200	48.5	165.8	6,500				160
	170	43.7	156.5	5,000							170
200	50	80.2	236.0	40,000*	80.2	234.2	40,000*				50
	55	79.0	235.0	40,000*							55
	60	77.7	233.8	40,000*	78.9	233.0	40,000*	80.1	231.3	40,000*	60
	65	76.4	232.5	38,800	77.6	231.7	40,000*	78.8	230.0	40,000*	65
	70	75.2	231.1	34,500	76.4	230.2	35,600	77.5	228.6	36,600	70
	80	72.6	227.9	27,700	73.8	227.0	28,600	74.9	225.3	29,500	80
	90	70.0	224.1	22,500	71.1	223.3	23,300	72.2	221.6	24,100	90
	100	67.3	219.9	18,500	68.5	219.0	19,200	69.5	217.3	19,800	100
	110	64.6	215.1	15,300	65.7	214.2	15,900	66.8	212.4	16,500	110
	120	61.8	209.6	12,700	62.9	208.7	13,200	64.0	206.9	13,700	120
	130	58.9	203.6	10,400	60.0	202.6	10,900	61.0	200.7	11,300	130
	140	55.9	196.8	8,600	57.1	195.8	9,000	58.0	193.8	9,400	140
	150	52.9	189.2	7,000	54.0	188.1	7,300				150
	160	49.6	180.6	5,600	50.7	179.6	5,900				160
	170	46.2	171.1	4,400	47.3	170.0	4,700				170

LIFT CRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
OFFSET 4-1/2 DEGREES
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

40 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
110	40	79.3	156.3	30,000*							40
	45	77.4	155.0	30,000*	79.9	154.2	30,000*				45
	50	75.5	153.6	30,000*	77.9	152.7	30,000*	80.3	150.7	30,000*	50
	55	73.5	151.9	30,000*	75.9	151.0	30,000*	78.3	149.0	30,000*	55
	60	71.5	150.0	30,000*	73.9	149.1	30,000*	76.3	147.1	30,000*	60
	65	69.5	147.9	30,000*	71.9	147.0	30,000*	74.2	145.0	30,000*	65
	70	67.4	145.6	30,000*	69.8	144.7	30,000*	72.1	142.7	30,000*	70
	80	63.2	140.4	30,000*	65.6	139.4	30,000*	67.8	137.3	30,000*	80
	90	58.8	134.1	27,600	61.2	133.1	28,100	63.3	130.9	28,500*	90
	100	54.2	126.7	23,600	56.5	125.6	24,000	58.5	123.3	24,500	100
	110	49.2	118.0	20,400	51.5	116.8	20,800				110
	120	43.8	107.4	17,700							120
	130	37.7	94.5	15,600							130
120	40	80.0	166.6	30,000*							40
	45	78.2	165.4	30,000*	80.5	164.5	30,000*				45
	50	76.4	164.0	30,000*	78.7	163.1	30,000*	80.9	161.1	30,000*	50
	55	74.5	162.4	30,000*	76.8	161.5	30,000*	79.1	159.5	30,000*	55
	60	72.7	160.7	30,000*	75.0	159.7	30,000*	77.2	157.8	30,000*	60
	65	70.8	158.8	30,000*	73.1	157.8	30,000*	75.3	155.8	30,000*	65
	70	68.9	156.6	30,000*	71.2	155.7	30,000*	73.3	153.6	30,000*	70
	80	65.0	151.8	30,000*	67.3	150.8	30,000*	69.4	148.7	30,000*	80
	90	61.0	146.1	26,900	63.2	145.0	27,500	65.2	142.8	28,100	90
	100	56.8	139.3	22,900	58.9	138.2	23,400	60.9	135.9	23,900	100
	110	52.3	131.4	19,700	54.4	130.3	20,100				110
	120	47.5	122.1	17,100	49.6	120.9	17,400				120
	130	42.3	111.0	14,900							130
	140	36.4	97.5	13,000							140
130	40	80.6	176.8	30,000*							40
	45	78.9	175.7	30,000*							45
	50	77.2	174.4	30,000*	79.4	173.4	30,000*				50
	55	75.5	172.9	30,000*	77.6	172.0	30,000*	79.7	170.0	30,000*	55
	60	73.7	171.3	30,000*	75.9	170.3	30,000*	78.0	168.3	30,000*	60
	65	72.0	169.5	30,000*	74.1	168.5	30,000*	76.2	166.5	30,000*	65
	70	70.2	167.5	30,000*	72.3	166.5	30,000*	74.4	164.4	30,000*	70
	80	66.6	163.0	30,000*	68.7	162.0	30,000*	70.7	159.8	30,000*	80
	90	62.8	157.7	26,600	64.9	156.6	27,200	66.9	154.4	27,900	90
	100	59.0	151.5	22,600	61.0	150.4	23,100	62.9	148.1	23,700	100
	110	54.9	144.3	19,400	56.9	143.1	19,900	58.7	140.7	20,300	110
	120	50.6	135.9	16,700	52.6	134.7	17,200				120
	130	46.0	126.1	14,600	47.9	124.8	14,900				130
	140	40.9	114.5	12,700							140
140	45	79.5	186.0	30,000*							45
	50	77.9	184.7	30,000*	80.0	183.8	30,000*				50
	55	76.3	183.3	30,000*	78.3	182.4	30,000*	80.3	180.3	30,000*	55
	60	74.6	181.8	30,000*	76.7	180.8	30,000*	78.7	178.8	30,000*	60
	65	73.0	180.1	30,000*	75.0	179.1	30,000*	77.0	177.1	30,000*	65
	70	71.3	178.3	30,000*	73.4	177.3	30,000*	75.3	175.2	30,000*	70
	80	67.9	174.0	30,000*	70.0	173.0	30,000*	71.8	170.9	30,000*	80
	90	64.5	169.1	25,900	66.4	168.0	26,700	68.3	165.8	27,400	90
	100	60.9	163.4	22,000	62.8	162.3	22,600	64.6	160.0	23,100	100
	110	57.1	156.7	18,700	59.1	155.6	19,300	60.8	153.2	19,800	110
	120	53.2	149.1	16,100	55.1	147.9	16,600	56.8	145.3	17,000	120
	130	49.0	140.3	13,900	50.9	139.0	14,300				130
	140	44.6	130.0	12,100	46.4	128.6	12,400				140
	150	39.7	117.9	10,500							150

MANITOWOC ENGINEERING CO.

Division of the Manitowoc Company, Inc. Manitowoc, Wisconsin 54220

LIFTCRANE JIB CAPACITIESMEETS
ANSI B30.5
REQUIREMENTS**4000W**

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
OFFSET 4-1/2 DEGREES
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

40 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
150	45	80.1	196.2	30,000*							45
	50	78.5	195.0	30,000*	80.5	194.0	30,000*				50
	55	77.0	193.7	30,000*	79.0	192.7	30,000*	80.9	190.7	30,000*	55
	60	75.5	192.3	30,000*	77.4	191.3	30,000*	79.3	189.2	30,000*	60
	65	73.9	190.7	30,000*	75.8	189.7	30,000*	77.7	187.6	30,000*	65
	70	72.3	188.9	30,000*	74.3	187.9	30,000*	76.1	185.8	30,000*	70
	80	69.2	185.0	30,000*	71.1	183.9	30,000*	72.9	181.8	30,000*	80
	90	65.9	180.3	25,400	67.8	179.3	26,200	69.6	177.0	26,900	90
	100	62.5	175.0	21,400	64.4	173.9	22,100	66.1	171.6	22,700	100
	110	59.1	168.8	18,200	60.9	167.7	18,800	62.6	165.3	19,300	110
	120	55.4	161.8	15,600	57.3	160.6	16,100	58.9	158.1	16,500	120
	130	51.6	153.7	13,400	53.4	152.5	13,800				130
	140	47.6	144.5	11,500	49.4	143.1	11,900				140
	150	43.3	133.8	9,900							150
	160	38.5	121.2	8,500							160
160	45	80.6	206.4	30,000*							45
	50	79.1	205.3	30,000*	81.0	204.3	30,000*				50
	55	77.7	204.1	30,000*	79.5	203.1	30,000*				55
	60	76.2	202.7	30,000*	78.1	201.7	30,000*	79.8	199.6	30,000*	60
	65	74.7	201.2	30,000*	76.6	200.2	30,000*	78.4	198.0	30,000*	65
	70	73.3	199.5	30,000*	75.1	198.5	30,000*	76.8	196.4	30,000*	70
	80	70.2	195.8	29,900	72.1	194.7	30,000*	73.8	192.6	30,000*	80
	90	67.2	191.4	24,800	69.0	190.4	25,700	70.7	188.1	26,400	90
	100	64.0	186.4	20,800	65.8	185.3	21,500	67.5	183.0	22,200	100
	110	60.8	180.7	17,600	62.5	179.5	18,200	64.1	177.1	18,800	110
	120	57.4	174.1	15,000	59.2	172.9	15,500	60.7	170.5	16,000	120
	130	53.9	166.7	12,800	55.6	165.5	13,200	57.1	162.9	13,700	130
	140	50.2	158.3	10,900	51.9	156.9	11,300				140
	150	46.3	148.6	9,300	47.9	147.2	9,600				150
	160	42.1	137.5	7,900							160
	170	37.5	124.4	6,700							170
170	45	81.0	216.6	30,000*							45
	50	79.6	215.6	30,000*							50
	55	78.3	214.4	30,000*	80.0	213.4	30,000*				55
	60	76.9	213.1	30,000*	78.6	212.0	30,000*	80.3	209.9	30,000*	60
	65	75.5	211.6	30,000*	77.2	210.6	30,000*	78.9	208.5	30,000*	65
	70	74.1	210.1	30,000*	75.8	209.0	30,000*	77.5	206.9	30,000*	70
	80	71.2	206.5	29,600	73.0	205.5	30,000*	74.6	203.3	30,000*	80
	90	68.3	202.4	24,400	70.0	201.3	25,300	71.7	199.1	26,100	90
	100	65.4	197.7	20,400	67.1	196.6	21,200	68.6	194.3	21,900	100
	110	62.3	192.3	17,200	64.0	191.1	17,900	65.5	188.8	18,500	110
	120	59.2	186.2	14,600	60.8	185.0	15,200	62.3	182.5	15,700	120
	130	55.9	179.3	12,400	57.5	178.0	12,900	59.0	175.5	13,300	130
	140	52.5	171.5	10,500	54.1	170.2	11,000				140
	150	48.9	162.6	8,900	50.5	161.2	9,300				150
	160	45.1	152.6	7,500	46.7	151.1	7,900				160
	170	41.0	141.0	6,300							170
	180	36.5	127.5	5,200							180
180	50	80.1	225.8	30,000*							50
	55	78.8	224.7	30,000*	80.5	223.6	30,000*				55
	60	77.5	223.4	30,000*	79.2	222.4	30,000*	80.8	220.2	30,000*	60
	65	76.1	222.1	30,000*	77.8	221.0	30,000*	79.4	218.8	30,000*	65
	70	74.8	220.6	30,000*	76.5	219.5	30,000*	78.1	217.3	30,000*	70
	80	72.1	217.2	29,000	73.8	216.1	30,000*	75.3	213.9	30,000*	80
	90	69.4	213.3	23,900	71.0	212.2	24,800	72.5	209.9	25,700	90
	100	66.5	208.8	19,900	68.2	207.7	20,700	69.7	205.4	21,400	100
	110	63.7	203.7	16,700	65.3	202.6	17,400	66.8	200.2	18,000	110
	120	60.7	198.0	14,000	62.3	196.8	14,700	63.8	194.4	15,200	120
	130	57.7	191.5	11,800	59.2	190.3	12,400	60.6	187.8	12,900	130
	140	54.5	184.3	10,000	56.0	183.0	10,400	57.4	180.3	10,900	140
	150	51.2	176.1	8,400	52.7	174.7	8,800				150
	160	47.7	166.9	7,000	49.2	165.5	7,300				160
	170	44.0	156.4	5,700							170
	180	40.0	144.5	4,700							180

LIFTCRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
OFFSET 4-1/2 DEGREES
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

40 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
190	50	80.5	236.0	30,000*							50
	55	79.3	234.9	30,000*	80.9	233.9	30,000*				55
	60	78.0	233.7	30,000*	79.6	232.7	30,000*				60
	65	76.8	232.4	30,000*	78.4	231.4	30,000*	79.9	229.2	30,000*	65
	70	75.5	231.0	30,000*	77.1	229.9	30,000*	78.6	227.7	30,000*	70
	80	72.9	227.8	28,500	74.5	226.7	29,700	76.0	224.5	30,000*	80
	90	70.3	224.1	23,400	71.9	223.0	24,400	73.4	220.7	25,300	90
	100	67.6	219.8	19,400	69.2	218.7	20,200	70.6	216.4	21,000	100
	110	64.9	215.0	16,100	66.4	213.9	16,900	67.9	211.5	17,600	110
	120	62.1	209.6	13,500	63.6	208.4	14,200	65.0	206.0	14,800	120
	130	59.2	203.5	11,300	60.7	202.3	11,900	62.1	199.8	12,400	130
	140	56.3	196.7	9,400	57.8	195.4	10,000	59.1	192.8	10,400	140
	150	53.2	189.1	7,800	54.7	187.8	8,300				150
	160	50.0	180.6	6,400	51.4	179.2	6,800				160
	170	46.6	171.0	5,200	48.0	169.5	5,600				170
	180	42.9	160.2	4,100							180
200	50	80.9	246.2	30,000*							50
	55	79.7	245.2	30,000*							55
	60	78.5	244.0	30,000*	80.1	242.9	30,000*				60
	65	77.3	242.8	30,000*	78.9	241.7	30,000*	80.4	239.5	30,000*	65
	70	76.1	241.4	30,000*	77.6	240.3	30,000*	79.1	238.1	30,000*	70
	80	73.6	238.4	27,900	75.2	237.3	29,200	76.6	235.0	30,000*	80
	90	71.1	234.8	22,800	72.7	233.7	23,800	74.1	231.4	24,800	90
	100	68.6	230.8	18,800	70.1	229.6	19,700	71.5	227.3	20,500	100
	110	66.0	226.2	15,600	67.5	225.0	16,300	68.9	222.7	17,100	110
	120	63.4	221.0	12,900	64.8	219.9	13,600	66.2	217.4	14,300	120
	130	60.6	215.3	10,700	62.1	214.1	11,300	63.4	211.6	11,900	130
	140	57.9	208.9	8,800	59.3	207.6	9,400	60.6	205.1	9,900	140
	150	55.0	201.8	7,200	56.4	200.4	7,700	57.6	197.8	8,200	150
	160	52.0	193.8	5,800	53.4	192.5	6,300				160
	170	48.8	185.0	4,600	50.2	183.5	5,000				170

LIFTCRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
OFFSET 4-1/2 DEGREES
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

50 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
110	40	80.6	166.8	20,000*							40
	45	78.8	165.6	20,000*							45
	50	77.0	164.3	20,000*	79.8	163.3	20,000*				50
	55	75.1	162.8	20,000*	78.0	161.8	20,000*	80.9	159.6	20,000*	55
	60	73.3	161.0	20,000*	76.1	160.0	20,000*	79.0	157.8	20,000*	60
	65	71.4	159.2	20,000*	74.3	158.1	20,000*	77.1	155.9	20,000*	65
	70	69.5	157.1	20,000*	72.3	156.0	20,000*	75.1	153.8	20,000*	70
	80	65.6	152.3	20,000*	68.4	151.2	20,000*	71.1	148.9	20,000*	80
	90	61.6	146.6	20,000*	64.4	145.5	20,000*	67.0	143.1	20,000*	90
	100	57.4	140.0	20,000*	60.1	138.9	20,000*	62.7	136.3	20,000*	100
	110	53.0	132.2	20,000*	55.7	131.0	20,000*	58.1	128.3	20,000*	110
	120	48.2	123.1	18,000	50.9	121.7	18,400				120
	130	43.0	112.2	15,800							130
	140	37.2	98.9	14,000							140
120	45	79.4	175.9	20,000*							45
	50	77.7	174.7	20,000*	80.5	173.6	20,000*				50
	55	76.0	173.2	20,000*	78.7	172.2	20,000*				55
	60	74.3	171.6	20,000*	77.0	170.6	20,000*	79.6	168.3	20,000*	60
	65	72.5	169.8	20,000*	75.2	168.8	20,000*	77.9	166.5	20,000*	65
	70	70.8	167.9	20,000*	73.4	166.8	20,000*	76.1	164.5	20,000*	70
	80	67.1	163.5	20,000*	69.8	162.4	20,000*	72.4	160.0	20,000*	80
	90	63.4	158.2	20,000*	66.0	157.1	20,000*	68.5	154.6	20,000*	90
	100	59.6	152.1	20,000*	62.1	151.0	20,000*	64.6	148.4	20,000*	100
	110	55.5	145.0	20,000*	58.1	143.8	20,000*	60.4	141.1	20,000*	110
	120	51.2	136.8	17,400	53.7	135.5	17,900	56.0	132.6	18,300	120
	130	46.6	127.1	15,200	49.1	125.7	15,600				130
	140	41.6	115.7	13,300							140
	150	36.0	101.9	11,700							150
130	45	80.0	186.2	20,000*							45
	50	78.4	185.0	20,000*	81.0	183.9	20,000*				50
	55	76.8	183.6	20,000*	79.4	182.6	20,000*				55
	60	75.2	182.1	20,000*	77.7	181.1	20,000*	80.2	178.8	20,000*	60
	65	73.5	180.5	20,000*	76.1	179.4	20,000*	78.6	177.1	20,000*	65
	70	71.9	178.6	20,000*	74.4	177.6	20,000*	76.9	175.2	20,000*	70
	80	68.5	174.5	20,000*	71.0	173.4	20,000*	73.4	171.0	20,000*	80
	90	65.0	169.6	20,000*	67.5	168.5	20,000*	69.9	166.0	20,000*	90
	100	61.4	163.9	20,000*	63.9	162.8	20,000*	66.2	160.2	20,000*	100
	110	57.7	157.4	19,700	60.1	156.2	20,000*	62.4	153.5	20,000*	110
	120	53.8	149.9	17,000	56.2	148.6	17,600	58.4	145.7	18,000	120
	130	49.6	141.2	14,800	52.0	139.8	15,300				130
	140	45.2	131.1	13,000	47.5	129.6	13,300				140
	150	40.4	119.2	11,400							150
140	45	80.5	196.4	20,000*							45
	50	79.0	195.3	20,000*							50
	55	77.5	194.0	20,000*	79.9	192.9	20,000*				55
	60	76.0	192.6	20,000*	78.4	191.5	20,000*	80.8	189.1	20,000*	60
	65	74.4	191.0	20,000*	76.8	189.9	20,000*	79.2	187.5	20,000*	65
	70	72.8	189.3	20,000*	75.3	188.2	20,000*	77.6	185.8	20,000*	70
	80	69.7	185.4	20,000*	72.1	184.2	20,000*	74.4	181.8	20,000*	80
	90	66.4	180.8	20,000*	68.8	179.7	20,000*	71.0	177.1	20,000*	90
	100	63.1	175.5	20,000*	65.4	174.3	20,000*	67.6	171.7	20,000*	100
	110	59.6	169.5	19,100	61.9	168.2	19,700	64.1	165.5	20,000*	110
	120	56.0	162.5	16,400	58.3	161.2	17,000	60.4	158.4	17,500	120
	130	52.2	154.6	14,200	54.5	153.2	14,700	56.5	150.2	15,200	130
	140	48.2	145.4	12,300	50.4	144.0	12,800				140
	150	43.9	134.9	10,700	46.1	133.3	11,100				150
	160	39.2	122.5	9,300							160

LIFTCRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
OFFSET 4-1/2 DEGREES
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

50 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
150	45	81.0	205.6	20,000*							45
	50	79.6	205.5	20,000*							50
	55	78.1	204.3	20,000*	80.4	203.2	20,000*				55
	60	76.7	203.0	20,000*	79.0	201.9	20,000*				60
	65	75.2	201.5	20,000*	77.5	200.4	20,000*	79.8	198.0	20,000*	65
	70	73.7	199.9	20,000*	76.0	198.7	20,000*	78.3	196.3	20,000*	70
	80	70.7	196.2	20,000*	73.0	195.0	20,000*	75.2	192.6	20,000*	80
	90	67.7	191.9	20,000*	69.9	190.7	20,000*	72.1	188.2	20,000*	90
	100	64.5	186.9	20,000*	66.7	185.7	20,000*	68.9	183.1	20,000*	100
	110	61.3	181.2	18,500	63.5	180.0	19,200	65.6	177.3	19,900	110
	120	57.9	174.8	15,900	60.1	173.5	16,500	62.1	170.7	17,100	120
	130	54.4	167.4	13,700	56.6	166.1	14,200	58.5	163.1	14,700	130
	140	50.8	159.1	11,800	52.9	157.7	12,300				140
	150	46.9	149.6	10,200	49.0	148.0	10,600				150
	160	42.7	138.6	8,800							160
	170	38.1	125.7	7,600							170
160	50	80.1	215.8	20,000*							50
	55	78.7	214.6	20,000*	80.9	213.5	20,000*				55
	60	77.3	213.3	20,000*	79.5	212.2	20,000*				60
	65	75.9	211.9	20,000*	78.1	210.8	20,000*	80.3	208.3	20,000*	65
	70	74.5	210.4	20,000*	76.7	209.2	20,000*	78.8	206.8	20,000*	70
	80	71.7	206.9	20,000*	73.8	205.7	20,000*	75.9	203.2	20,000*	80
	90	68.8	202.8	20,000*	70.9	201.6	20,000*	73.0	199.1	20,000*	90
	100	65.8	198.2	20,000*	67.9	196.9	20,000*	70.0	194.3	20,000*	100
	110	62.8	192.8	17,900	64.9	191.6	18,700	66.9	188.9	19,400	110
	120	59.6	186.8	15,300	61.7	185.5	16,000	63.7	182.7	16,600	120
	130	56.4	180.0	13,100	58.5	178.6	13,700	60.3	175.7	14,200	130
	140	53.0	172.2	11,200	55.0	170.8	11,700	56.9	167.8	12,200	140
	150	49.4	163.5	9,600	51.4	162.0	10,000				150
	160	45.7	153.6	8,200	47.6	152.0	8,600				160
	170	41.6	142.2	7,000							170
	180	37.1	128.9	5,900							180
170	50	80.5	226.0	20,000*							50
	55	79.2	224.9	20,000*							55
	60	77.9	223.7	20,000*	80.0	222.5	20,000*				60
	65	76.6	222.3	20,000*	78.7	221.2	20,000*	80.7	218.7	20,000*	65
	70	75.2	220.9	20,000*	77.3	219.7	20,000*	79.4	217.2	20,000*	70
	80	72.5	217.5	20,000*	74.6	216.4	20,000*	76.6	213.8	20,000*	80
	90	69.8	213.7	20,000*	71.8	212.5	20,000*	73.8	209.9	20,000*	90
	100	67.0	209.3	20,000*	69.0	208.0	20,000*	71.0	205.4	20,000*	100
	110	64.1	204.2	17,500	66.1	203.0	18,400	68.0	200.3	19,100	110
	120	61.2	198.6	14,900	63.2	197.2	15,600	65.0	194.5	16,300	120
	130	58.1	192.2	12,700	60.1	190.8	13,300	61.9	187.9	13,900	130
	140	55.0	185.0	10,800	56.9	183.6	11,400	58.7	180.6	11,900	140
	150	51.7	176.9	9,200	53.6	175.4	9,700				150
	160	48.2	167.8	7,800	50.1	166.2	8,200				160
	170	44.5	157.5	6,600	46.4	155.8	7,000				170
	180	40.6	145.7	5,500							180
	190	36.2	132.0	4,500							190

MANITOWOC ENGINEERING CO.

Division of the Manitowoc Company, Inc. Manitowoc, Wisconsin 54220

S/N: 40767

LIFTCRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
OFFSET 4-1/2 DEGREES
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

50 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
180	50	80.9	236.2	20,000*							50
	55	79.7	235.1	20,000*							55
	60	78.4	234.0	20,000*	80.4	232.8	20,000*				60
	65	77.2	232.7	20,000*	79.2	231.5	20,000*				65
	70	75.9	231.3	20,000*	77.9	230.1	20,000*	79.9	227.6	20,000*	70
	80	73.3	228.1	20,000*	75.3	226.9	20,000*	77.2	224.4	20,000*	80
	90	70.7	224.5	20,000*	72.7	223.2	20,000*	74.6	220.6	20,000*	90
	100	68.0	220.3	20,000*	70.0	219.0	20,000*	71.9	216.4	20,000*	100
	110	65.3	215.5	17,000	67.3	214.2	17,900	69.1	211.5	18,700	110
	120	62.5	210.1	14,400	64.5	208.8	15,100	66.3	206.0	15,800	120
	130	59.7	204.1	12,100	61.6	202.8	12,800	63.3	199.9	13,400	130
	140	56.7	197.4	10,300	58.6	196.0	10,900	60.3	193.0	11,400	140
	150	53.6	189.8	8,700	55.5	188.4	9,200	57.2	185.3	9,700	150
	160	50.4	181.4	7,300	52.3	179.9	7,700				160
	170	47.1	172.0	6,000	48.9	170.3	6,500				170
	180	43.5	161.3	4,900							180
	190	39.6	149.1	4,000							190
190	55	80.1	245.4	20,000*							55
	60	78.9	244.2	20,000*	80.8	243.1	20,000*				60
	65	77.7	243.0	20,000*	79.6	241.8	20,000*				65
	70	76.5	241.7	20,000*	78.4	240.5	20,000*	80.3	237.9	20,000*	70
	80	74.0	238.7	20,000*	75.9	237.4	20,000*	77.8	234.9	20,000*	80
	90	71.5	235.2	20,000*	73.4	233.9	20,000*	75.3	231.3	20,000*	90
	100	69.0	231.2	19,700	70.9	229.9	20,000*	72.7	227.2	20,000*	100
	110	66.4	226.6	16,500	68.3	225.4	17,400	70.0	222.6	18,300	110
	120	63.8	221.6	13,800	65.6	220.2	14,600	67.4	217.4	15,400	120
	130	61.1	215.9	11,600	62.9	214.5	12,300	64.6	211.6	13,000	130
	140	58.3	209.5	9,700	60.1	208.1	10,400	61.7	205.2	11,000	140
	150	55.4	202.5	8,100	57.2	201.0	8,700	58.8	197.9	9,200	150
	160	52.4	194.6	6,700	54.2	193.1	7,200				160
	170	49.3	185.8	5,500	51.0	184.3	6,000				170
	180	46.0	176.0	4,400	47.7	174.4	4,800				180

LIFT CRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
OFFSET 4-1/2 DEGREES
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

60 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
110	45	79.4	176.0	10,000*							45
	50	77.7	174.7	10,000*	81.0	173.7	10,000*				50
	55	76.0	173.3	10,000*	79.3	172.3	10,000*				55
	60	74.2	171.7	10,000*	77.5	170.7	10,000*	80.8	168.4	10,000*	60
	65	72.5	169.9	10,000*	75.8	168.9	10,000*	79.0	166.5	10,000*	65
	70	70.7	168.0	10,000*	74.0	166.9	10,000*	77.2	164.6	10,000*	70
	80	67.1	163.5	10,000*	70.3	162.5	10,000*	73.5	160.0	10,000*	80
	90	63.4	158.3	10,000*	66.6	157.2	10,000*	69.7	154.7	10,000*	90
	100	59.5	152.2	10,000*	62.7	151.1	10,000*	65.7	148.4	10,000*	100
	110	55.5	145.1	10,000*	58.6	143.9	10,000*	61.6	141.1	10,000*	110
	120	51.2	136.8	10,000*	54.3	135.6	10,000*	57.2	132.6	10,000*	120
	130	46.6	127.2	10,000*	49.7	125.9	10,000*				130
	140	41.6	115.8	10,000*	44.6	114.3	10,000*				140
	150	36.0	102.0	10,000*							150
120	45	80.0	186.2	10,000*							45
	50	78.4	185.0	10,000*							50
	55	76.8	183.7	10,000*	79.9	182.7	10,000*				55
	60	75.1	182.2	10,000*	78.2	181.2	10,000*				60
	65	73.5	180.5	10,000*	76.6	179.5	10,000*	79.6	177.1	10,000*	65
	70	71.8	178.7	10,000*	74.9	177.6	10,000*	78.0	175.2	10,000*	70
	80	68.5	174.5	10,000*	71.5	173.5	10,000*	74.5	170.9	10,000*	80
	90	65.0	169.7	10,000*	68.0	168.6	10,000*	71.0	166.0	10,000*	90
	100	61.4	164.0	10,000*	64.4	162.9	10,000*	67.3	160.2	10,000*	100
	110	57.7	157.5	10,000*	60.6	156.3	10,000*	63.5	153.5	10,000*	110
	120	53.8	149.9	10,000*	56.7	148.7	10,000*	59.4	145.7	10,000*	120
	130	49.6	141.2	10,000*	52.5	139.9	10,000*	55.2	136.7	10,000*	130
	140	45.2	131.1	10,000*	48.0	129.7	10,000*				140
	150	40.3	119.2	10,000*							150
	160	34.9	104.9	10,000*							160
130	45	80.5	196.5	10,000*							45
	50	79.0	195.3	10,000*							50
	55	77.5	194.0	10,000*	80.4	193.0	10,000*				55
	60	75.9	192.6	10,000*	78.9	191.6	10,000*				60
	65	74.4	191.1	10,000*	77.3	190.0	10,000*	80.2	187.5	10,000*	65
	70	72.8	189.3	10,000*	75.7	188.3	10,000*	78.6	185.7	10,000*	70
	80	69.6	185.4	10,000*	72.5	184.3	10,000*	75.4	181.8	10,000*	80
	90	66.4	180.9	10,000*	69.3	179.7	10,000*	72.1	177.1	10,000*	90
	100	63.0	175.6	10,000*	65.9	174.4	10,000*	68.6	171.7	10,000*	100
	110	59.6	169.5	10,000*	62.4	168.3	10,000*	65.1	165.5	10,000*	110
	120	56.0	162.6	10,000*	58.8	161.3	10,000*	61.4	158.3	10,000*	120
	130	52.2	154.6	10,000*	55.0	153.3	10,000*	57.5	150.2	10,000*	130
	140	48.2	145.5	10,000*	50.9	144.1	10,000*				140
	150	43.9	135.0	10,000*	46.6	133.4	10,000*				150
	160	39.2	122.6	10,000*							160
140	45	81.0	206.7	10,000*							45
	50	79.6	205.6	10,000*							50
	55	78.1	204.4	10,000*	80.9	203.3	10,000*				55
	60	76.6	203.0	10,000*	79.4	201.9	10,000*				60
	65	75.2	201.5	10,000*	78.0	200.4	10,000*	80.7	197.9	10,000*	65
	70	73.7	199.9	10,000*	76.5	198.8	10,000*	79.2	196.2	10,000*	70
	80	70.7	196.2	10,000*	73.5	195.1	10,000*	76.2	192.5	10,000*	80
	90	67.6	191.9	10,000*	70.4	190.8	10,000*	73.0	188.1	10,000*	90
	100	64.5	187.0	10,000*	67.2	185.8	10,000*	69.8	183.0	10,000*	100
	110	61.3	181.3	10,000*	64.0	180.1	10,000*	66.5	177.2	10,000*	110
	120	57.9	174.8	10,000*	60.6	173.6	10,000*	63.1	170.6	10,000*	120
	130	54.4	167.5	10,000*	57.1	166.2	10,000*	59.5	163.1	10,000*	130
	140	50.8	159.2	10,000*	53.4	157.7	10,000*	55.7	154.5	10,000*	140
	150	46.9	149.6	10,000*	49.4	148.1	10,000*				150
	160	42.7	138.7	9,500	45.2	137.0	9,900				160
	170	38.1	125.8	8,300							170

MANITOWOC ENGINEERING CO.

Division of the Manitowoc Company, Inc. Manitowoc, Wisconsin 54220

LIFTCRANE JIB CAPACITIESMEETS
ANSI B30.5
REQUIREMENTS**4000W**

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
OFFSET 4-1/2 DEGREES
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

60 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
150	50	80.0	215.8	10,000*							50
	55	78.7	214.7	10,000*							55
	60	77.3	213.4	10,000*	80.0	212.3	10,000*				60
	65	75.9	212.0	10,000*	78.5	210.9	10,000*				65
	70	74.5	210.4	10,000*	77.1	209.3	10,000*	79.8	206.7	10,000*	70
	80	71.6	207.0	10,000*	74.3	205.8	10,000*	76.9	203.1	10,000*	80
	90	68.8	202.9	10,000*	71.4	201.7	10,000*	73.9	199.0	10,000*	90
	100	65.8	198.2	10,000*	68.4	197.0	10,000*	70.9	194.2	10,000*	100
	110	62.8	192.9	10,000*	65.3	191.6	10,000*	67.8	188.8	10,000*	110
	120	59.6	186.8	10,000*	62.2	185.6	10,000*	64.6	182.6	10,000*	120
	130	56.4	180.0	10,000*	58.9	178.7	10,000*	61.2	175.6	10,000*	130
	140	53.0	172.3	10,000*	55.5	170.9	10,000*	57.8	167.7	10,000*	140
	150	49.4	163.6	10,000*	51.9	162.1	10,000*				150
	160	45.6	153.6	9,000	48.1	152.1	9,400				160
	170	41.6	142.3	7,800							170
	180	37.1	129.0	6,700							180
160	50	80.5	226.0	10,000*							50
	55	79.2	224.9	10,000*							55
	60	77.9	223.7	10,000*	80.4	222.6	10,000*				60
	65	76.5	222.4	10,000*	79.1	221.2	10,000*				65
	70	75.2	220.9	10,000*	77.7	219.8	10,000*	80.2	217.1	10,000*	70
	80	72.5	217.6	10,000*	75.0	216.4	10,000*	77.5	213.7	10,000*	80
	90	69.8	213.7	10,000*	72.3	212.5	10,000*	74.7	209.8	10,000*	90
	100	67.0	209.3	10,000*	69.4	208.1	10,000*	71.8	205.3	10,000*	100
	110	64.1	204.3	10,000*	66.6	203.0	10,000*	68.9	200.1	10,000*	110
	120	61.1	198.6	10,000*	63.6	197.3	10,000*	65.9	194.3	10,000*	120
	130	58.1	192.2	10,000*	60.5	190.9	10,000*	62.8	187.8	10,000*	130
	140	54.9	185.0	10,000*	57.3	183.6	10,000*	59.5	180.4	10,000*	140
	150	51.7	177.0	9,800	54.0	175.5	10,000*	56.2	172.1	10,000*	150
	160	48.2	167.9	8,400	50.5	166.3	8,900				160
	170	44.5	157.6	7,100	46.8	155.9	7,600				170
	180	40.5	145.8	6,100							180
	190	36.2	132.1	5,100							190
170	50	80.9	236.2	10,000*							50
	55	79.7	235.2	10,000*							55
	60	78.4	234.0	10,000*	80.8	232.9	10,000*				60
	65	77.1	232.7	10,000*	79.6	231.6	10,000*				65
	70	75.9	231.3	10,000*	78.3	230.2	10,000*	80.7	227.5	10,000*	70
	80	73.3	226.2	10,000*	75.7	227.0	10,000*	78.1	224.2	10,000*	80
	90	70.7	224.5	10,000*	73.1	223.3	10,000*	75.4	220.5	10,000*	90
	100	68.0	220.3	10,000*	70.4	219.1	10,000*	72.7	216.2	10,000*	100
	110	65.3	215.6	10,000*	67.7	214.3	10,000*	69.9	211.4	10,000*	110
	120	62.5	210.2	10,000*	64.9	208.9	10,000*	67.1	205.9	10,000*	120
	130	59.7	204.2	10,000*	62.0	202.8	10,000*	64.2	199.7	10,000*	130
	140	56.7	197.4	10,000*	59.0	196.0	10,000*	61.1	192.8	10,000*	140
	150	53.6	189.9	9,400	55.9	188.5	10,000*	58.0	185.1	10,000*	150
	160	50.4	181.5	8,000	52.7	180.0	8,500				160
	170	47.0	172.0	6,800	49.3	170.4	7,200				170
	180	43.5	161.4	5,700	45.6	159.6	6,100				180
	190	39.6	149.2	4,700							190

LIFT CRANE JIB CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4000W

JIB NO. 123 WITH 12'6" STRUT ON
BOOM NO. 22 WITH OPEN THROAT TOP
OFFSET 4-1/2 DEGREES
104,400 LB. COUNTERWEIGHT
24' CRAWLERS EXTENDED
360 DEGREE RATING

60 FOOT JIB

BOOM LGTH. FEET	JIB OPER. RAD. FEET	0 DEGREE OFFSET			10 DEGREE OFFSET			20 DEGREE OFFSET			JIB OPER. RAD. FEET
		BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	BOOM ANG. DEG.	JIB POINT ELEV. FEET	CAPACITY POUNDS	
180	55	80.1	245.4	10,000*							55
	60	78.9	244.3	10,000*							60
	65	77.7	243.1	10,000*	80.0	241.9	10,000*				65
	70	76.5	241.7	10,000*	78.8	240.5	10,000*				70
	80	74.0	238.7	10,000*	76.3	237.5	10,000*	78.6	234.7	10,000*	80
	90	71.5	235.2	10,000*	73.8	234.0	10,000*	76.1	231.2	10,000*	90
	100	69.0	231.2	10,000*	71.3	230.0	10,000*	73.5	227.1	10,000*	100
	110	66.4	226.7	10,000*	68.7	225.4	10,000*	70.8	222.5	10,000*	110
	120	63.8	221.6	10,000*	66.0	220.3	10,000*	68.1	217.3	10,000*	120
	130	61.0	215.9	10,000*	63.3	214.6	10,000*	65.4	211.5	10,000*	130
	140	58.3	209.6	10,000*	60.5	208.2	10,000*	62.5	205.0	10,000*	140
	150	55.4	202.5	8,800	57.6	201.1	9,500	59.6	197.8	10,000*	150
	160	52.4	194.7	7,400	54.6	193.1	8,000	56.5	189.7	8,500	160
	170	49.3	185.9	6,200	51.4	184.3	6,700				170
	180	46.0	176.1	5,100	48.1	174.4	5,600				180
	190	42.5	165.1	4,200							190
190	55	80.5	255.6	10,000*							55
	60	79.3	254.6	10,000*							60
	65	78.2	253.4	10,000*	80.4	252.2	10,000*				65
	70	77.0	252.1	10,000*	79.2	250.9	10,000*				70
	80	74.7	249.2	10,000*	76.9	248.0	10,000*	79.1	245.2	10,000*	80
	90	72.3	245.9	10,000*	74.5	244.6	10,000*	76.6	241.8	10,000*	90
	100	69.9	242.0	10,000*	72.1	240.8	10,000*	74.2	237.9	10,000*	100
	110	67.4	237.7	10,000*	69.6	236.4	10,000*	71.7	233.5	10,000*	110
	120	64.9	232.9	10,000*	67.1	231.6	10,000*	69.1	228.5	10,000*	120
	130	62.3	227.5	10,000*	64.5	226.1	10,000*	66.5	223.0	10,000*	130
	140	59.7	221.5	9,900	61.8	220.1	10,000*	63.8	216.9	10,000*	140
	150	57.0	214.8	8,300	59.1	213.4	9,000	61.0	210.1	9,600	150
	160	54.2	207.5	6,900	56.3	206.0	7,500	58.2	202.6	8,100	160
	170	51.2	199.3	5,700	53.3	197.7	6,200	55.2	194.2	6,700	170
	180	48.2	190.2	4,600	50.2	188.6	5,100				180
	190				47.0	178.3	4,100				190



LOAD LINE SPECIFICATIONS

4000W

**LIFTCRANE — BOOM NO. 22 WITH OPEN THROAT TOP
INLINE OR OFFSET 4-1/2 DEGREES**

BOOM OR BOOM AND JIB LENGTH		WHIP LINE LEFT DRUM				LOAD LINE RIGHT DRUM		MAXIMUM REQUIRED PARTS OF LINE	
		1 PART		2 PART					
FEET	METERS	FEET	METERS	FEET	METERS	FEET	METERS	TOP INLINE	TOP OFFSET
70	21.3	165	50	235	72	985	300	13	11
80	24.4	185	56	265	81	985	300	11	9
90	27.4	205	62	295	90	985	300	9	8
100	30.5	225	69	325	99	985	300	8	8
110	33.5	245	75	355	108	985	300	7	7
120	36.6	265	81	385	117	985	300	6	6
130	39.6	285	87	415	126	985	300	6	6
140	42.7	305	93	445	136	985	300	5	5
150	45.7	325	99	475	145	985	300	5	5
160	48.8	345	105	505	154	985	300	5	5
170	51.8	365	111	535	163	985	300	4	4
180	54.9	385	117	565	172	985	300	4	4
190	57.9	405	123	595	181	985	300	4	4
200	61.0	425	130	625	191	985	300	3	3
210	64.0	445	136	655	200	985	300	3	3
220	67.1	465	142	685	209	985	300	3	3
230	70.1	485	148	715	218				
240	73.2	505	154	745	227				
250	76.2	525	160	----	----				

HOIST REEVING FOR MAIN LOAD BLOCK							
No. Parts of Line	1	2	3	4	5	6	7
Maximum Load — Lbs.	32,500	64,000	95,500	126,200	157,000	186,800	215,900
Maximum Load — Kg	14,740	29,020	43,310	57,240	71,210	84,730	97,930
No. Parts of Line	8	9	10	11	12	13	
Maximum Load — Lbs.	243,000	267,100	289,000	311,000	331,000	350,000	
Maximum Load — Kg	110,220	121,150	131,080	141,060	150,130	158,750	

LOAD LINE: 1-1/8" (28.6mm) — 6 x 31 Warrington-Seale, extra improved plow steel, regular lay, IWRC. Minimum breaking strength 130,000 lb. (58,960 kg). Approx. weight per ft. in lbs. 2.34 (3.48 kg/m)

WHIP LINE: 1-1/8" (28.6mm) — 6 x 25 filler wire, improved plow steel, regular lay, IWRC. Minimum breaking strength 113,000 lb. (51,250 kg). Maximum load = 28,300 lbs./line (12,830 kg). Approx. weight per ft. in lbs. 2.34 (3.48 kg/m).

Refer to drum and lagging chart No. 4865.

S/N: 40767

EQ: 78x3033 / SN: 40767

Courtesy of Crane.Market

S/N: 40767

MANITOWOC ENGINEERING CO.

Division of The Manitowoc Company, Inc. Manitowoc, Wisconsin 54220

**RANGE CHART****4000W****BOOM NO. 22 WITH OPEN THROAT TOP**

OPERATING RADIUS: Operating radius is the horizontal distance from the axis of rotation to the center of vertical hoist line or load block with load freely suspended. Add .36m (1.17') to boom point 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.

RADIUS		BOOM ANGLE IN DEGREES																RADIUS	
		BOOM LENGTH																	
FEET	METERS	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	METERS	FEET
15	4.6	80.7																4.6	15
16	4.9	79.9	81.1															4.9	16
17	5.2	79.0	80.4	81.5														5.2	17
18	5.5	78.2	79.7	80.8														5.5	18
19	5.8	77.3	78.9	80.2	81.2													5.8	19
20	6.1	76.5	78.2	79.5	80.6	81.5												6.1	20
22	6.7	74.8	76.8	78.2	79.4	80.4	81.2											6.7	20
24	7.3	73.1	75.3	76.9	78.3	79.3	80.2	81.0										7.3	24
26	7.9	71.4	73.8	75.6	77.1	78.3	79.3	80.1	80.8	81.4								7.9	26
28	8.5	69.7	72.3	74.3	75.9	77.2	78.3	79.2	80.0	80.7	81.3							8.5	28
30	9.1	67.9	70.8	73.0	74.7	76.1	77.3	78.3	79.2	79.9	80.5	81.1						9.1	30
32	9.8	66.1	69.3	71.7	73.5	75.1	76.3	77.4	78.3	79.1	79.8	80.4	80.9	81.4				9.8	32
34	10.4	64.3	67.7	70.3	72.3	74.0	75.4	76.5	77.5	78.3	79.1	79.7	80.3	80.8	81.3			10.4	34
36	11.0	62.5	66.2	68.9	71.1	72.9	74.4	75.6	76.6	77.6	78.3	79.0	79.7	80.2	80.7	81.1		11.0	36
38	11.6	60.6	64.6	67.6	69.9	71.8	73.4	74.7	75.8	76.8	77.6	78.3	79.0	79.6	80.1	80.6	81.0	11.6	38
40	12.2	58.7	63.0	66.2	68.7	70.7	72.4	73.8	75.0	76.0	76.9	77.7	78.4	79.0	79.5	80.0	80.5	12.2	40
45	13.7	53.8	58.9	62.7	65.6	67.9	69.9	71.5	72.8	74.0	75.0	75.9	76.7	77.4	78.1	78.6	79.2	13.7	45
50	15.2	48.6	54.6	59.0	62.4	65.1	67.3	69.1	70.7	72.0	73.2	74.2	75.1	75.9	76.6	77.3	77.8	15.2	50
55	16.8	42.8	50.1	55.2	59.1	62.2	64.7	66.7	68.5	70.0	71.3	72.4	73.4	74.3	75.1	75.9	76.5	16.8	55
60	18.3	36.4	45.2	51.2	55.7	59.2	62.0	64.3	66.3	67.9	69.4	70.6	71.8	72.8	73.6	74.4	75.2	18.3	60
65	19.8	28.8	39.9	47.0	52.2	56.1	59.3	61.8	64.0	65.9	67.5	68.9	70.1	71.2	72.1	73.0	73.8	19.8	65
70	21.3	18.6	34.0	42.5	48.4	52.9	56.4	59.3	61.7	63.8	65.5	67.0	68.4	69.6	70.6	71.6	72.5	21.3	70
75	22.9		26.9	37.6	44.5	49.6	53.5	56.7	59.4	61.6	63.5	65.2	66.7	67.9	69.1	70.1	71.1	22.9	75
80	24.4		17.4	32.0	40.2	46.1	50.5	54.0	57.0	59.4	61.5	63.3	64.9	66.3	67.6	68.7	69.7	24.4	80
85	25.9			25.4	35.6	42.3	47.3	51.3	54.5	57.2	59.4	61.4	63.1	64.7	66.0	67.2	68.3	25.9	85
90	27.4			16.4	30.3	38.3	44.0	48.4	51.9	54.9	57.3	59.5	61.3	63.0	64.4	65.7	66.9	27.4	90
95	29.0				24.0	33.9	40.4	45.4	49.3	52.5	55.2	57.5	59.5	61.3	62.8	64.2	65.5	29.0	95
100	30.5				15.6	28.9	36.6	42.2	46.5	50.0	53.0	55.5	57.6	59.5	61.2	62.7	64.0	30.5	100
105	32.0					22.9	32.4	38.8	43.6	47.5	50.7	53.4	55.7	57.8	59.6	61.1	62.6	32.0	105
110	33.5						27.6	35.1	40.6	44.9	48.3	51.3	53.8	56.0	57.9	59.6	61.1	33.5	110
115	35.1						21.9	31.1	37.3	42.1	45.9	49.1	51.8	54.1	56.2	58.0	59.6	35.1	115
120	36.6							26.5	33.8	39.1	43.4	46.8	49.7	52.2	54.4	56.4	58.1	36.6	120
125	38.1							21.0	29.9	36.0	40.7	44.5	47.6	50.3	52.7	54.7	56.5	38.1	125
130	39.6								25.5	32.6	37.9	42.0	45.4	48.3	50.8	53.0	55.0	39.6	130
135	41.1								20.3	28.9	34.8	39.4	43.1	46.3	49.0	51.3	53.3	41.1	135
140	42.7									24.6	31.6	36.7	40.8	44.1	47.0	49.5	51.7	42.7	140
145	44.2									19.6	28.0	33.8	38.3	41.9	45.0	47.7	50.0	44.2	145
150	45.7										23.9	30.6	35.6	39.6	43.0	45.8	48.3	45.7	150
155	47.2										18.9	27.1	32.8	37.2	40.8	43.9	46.5	47.2	155
160	48.8											23.1	29.7	34.6	38.6	41.9	44.7	48.8	160
165	50.3												18.4	26.3	31.9	36.2	39.8	50.3	165
170	51.8													22.5	28.9	33.7	37.6	51.8	170
175	53.3													17.9	25.6	31.1		53.3	175
180	54.9														21.9			54.9	180

NOTE: THIS IS A RANGE CHART
NOT A CAPACITY CHART

S/N: 40767

EQ: 78x3033 / SN: 40767

Courtesy of Crane.Market

Manitowoc, Wisconsin

The image contains four technical drawings of crane components:

- Top Left:** A side view of a crane's hammerhead top. It shows a horizontal beam with a hook block hanging from it. Dimensions include a 5'-0" vertical distance from the beam to the hook block, a 10'-4" horizontal distance for the shackle block, and a 10'-5.75" horizontal distance for the hook block.
- Top Right:** A side view of a light tapered top, showing a long, narrow, tapered structure with two horizontal reinforcement bands.
- Bottom Left:** A side view of a single part line with a hook and weight ball. It shows a hook block with a weight ball hanging from it. A dimension of 5'-0" APPROX. is indicated for the vertical distance from the hook block to the weight ball.
- Bottom Right:** A side view of a hammerhead top, showing a horizontal beam with a hook block hanging from it. A dimension of 9'-2.34" is indicated for the vertical distance from the beam to the hook block.

factory for load block to boom point minimum distance.



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Courtesy of Crane.Market