

88-Ton Liftcrane ■ 20,000-Lb. Clamshell ■ 18,000-Lb. Dragline

LOWERWORKS

CARBODY: Single-piece steel fabrication. Integral turret provides mounting for inner race of turntable bearing. Wings on carbody mate with pockets in crawler frames.

CRAWLER ASSEMBLIES: Two reinforced steel fabrications, each supporting a front idler roller, 12 intermediate rollers, hydraulic drive motor, fully-enclosed travel planetary, crawler tumbler, and tread. Abrasion-resistant steel slide rails along crawler frame top.

FRONT IDLER ROLLER: Double-flanged, 33" (838mm) diameter, fabricated steel roller is mounted on stationary shaft supported at both ends by crawler frame.

INTERMEDIATE ROLLERS: Double-flanged, 12" (305mm) diameter rollers are mounted along underside of crawler frame. Each roller is mounted on a 2 1/4" (70mm) diameter stationary shaft whose ends are supported by welded frames and held in place by keeper bars.

CRAWLER DRIVE TUMBLER: Planetary driven tumbler transmits drive torque to crawler tread. Tumbler is supported at both ends by crawler frame.

CRAWLER TREADS: 30" (762mm) wide, 49 pads per crawler assembly. Adjacent pads connected by two high-carbon steel pins. Each pad is cast alloy steel with center driving lug.

INDEPENDENT TRAVEL POWER: Two pressure-compensated, variable-displacement hydraulic motors, one driving each crawler. System enables each crawler to be rotated independently in either direction at variable speed.

TURNTABLE BEARING: 66 1/4" (1.68M) diameter single-row ball bearing bolted to carbody and rotating bed provides circle for swing. Ring gear with machine-cut teeth is integral part of bearing's inner race.



FULL-WIDTH TANDEM DRUMS

UPPERWORKS

ROTATING BED: Single-piece, welded-steel fabrication with vertical side frames and internal framing provides support for mounting all other upperworks components. Bed rotates on 66 1/4" (1.68M) diameter turntable bearing. Complete upperworks can be mounted on carbody or truck chassis.

DRUM SHAFTS: Two full-width drums are provided for the main hoist and whip lines. Main hoist drum is 21 1/4" (543mm) wide, and has a 19" (483mm) diameter grooved barrel with 37" (940mm) diameter flanges. Whip line drum is 21 1/4" (543mm) wide, and has a 23" (584mm) diameter grooved barrel with 37" (940mm) diameter flanges. Each drum is antifriction-bearing mounted on a heat-treated alloy steel shaft that is antifriction-bearing mounted on rotating bed. Each drum shaft is driven independently by a fixed-displacement, low-speed, high-torque, radial-piston motor. Gears are fully enclosed and operate in oil. Clutches are spring-set, air-released, internal-expanding, band type. Service brakes are external-contracting, air-applied, spring-released, band type. Parking brakes are spring-set, air-released. Rated line pulls to 20,000 pounds (9,072kg).

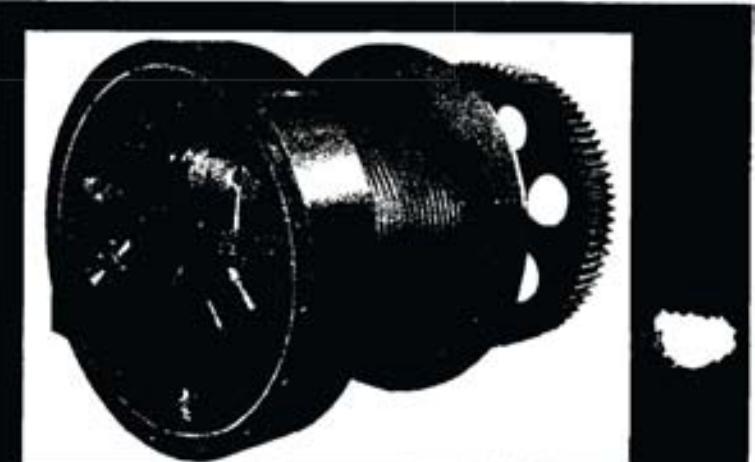
INDEPENDENT SWING: Driven by two fixed-displacement hydraulic motors coupled to planetary reducer. Reducer is splined to swing pinion that engages ring gear on turntable bearing's inner race. Manually-controlled parking brake on one hydraulic motor. Hydraulically-controlled, spring-loaded, gear-segment-type lock engages ring gear for positive locking.

INDEPENDENT BOOM HOIST: Dual drums welded to single shaft antifriction-bearing mounted on rear of rotating bed. Boom hoist drum shaft driven independently by fixed-displacement hydraulic motor coupled to internal brake and planetary reducer. Ratchet and pawl standard.

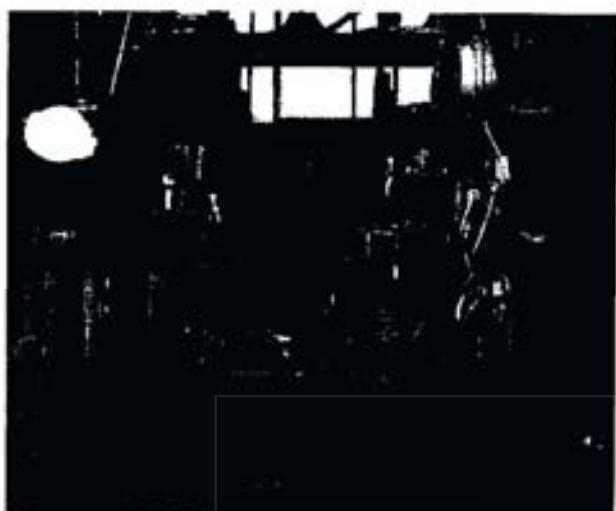
POWER PLANT ASSEMBLY: Welded steel frame supports engine, radiator, hydraulic pump drive and pumps, fuel tank, and hydraulic reservoir.

POWER TRANSMISSION: Diesel driven, hydrostatic system. Each function driven by its own pump and motor, providing totally independent operation.

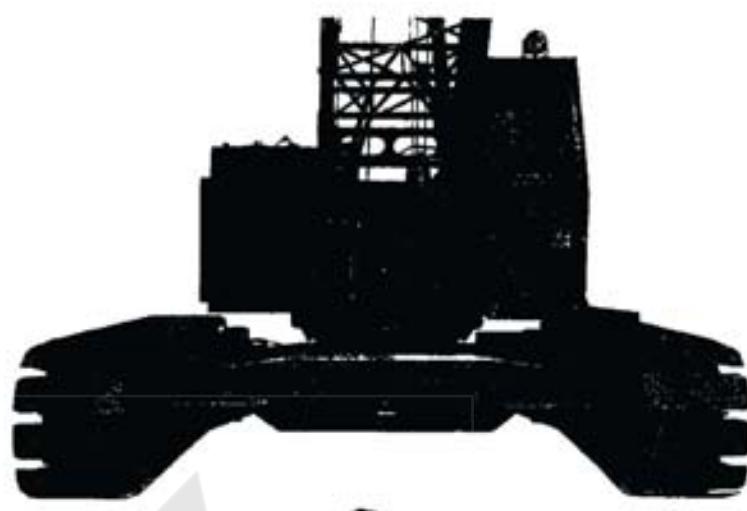
POWER LOWERING: An integral function of system. Pump and motor provide hydraulically-powered rotation in either direction, resulting in loads being hoisted and lowered under power for positive control.



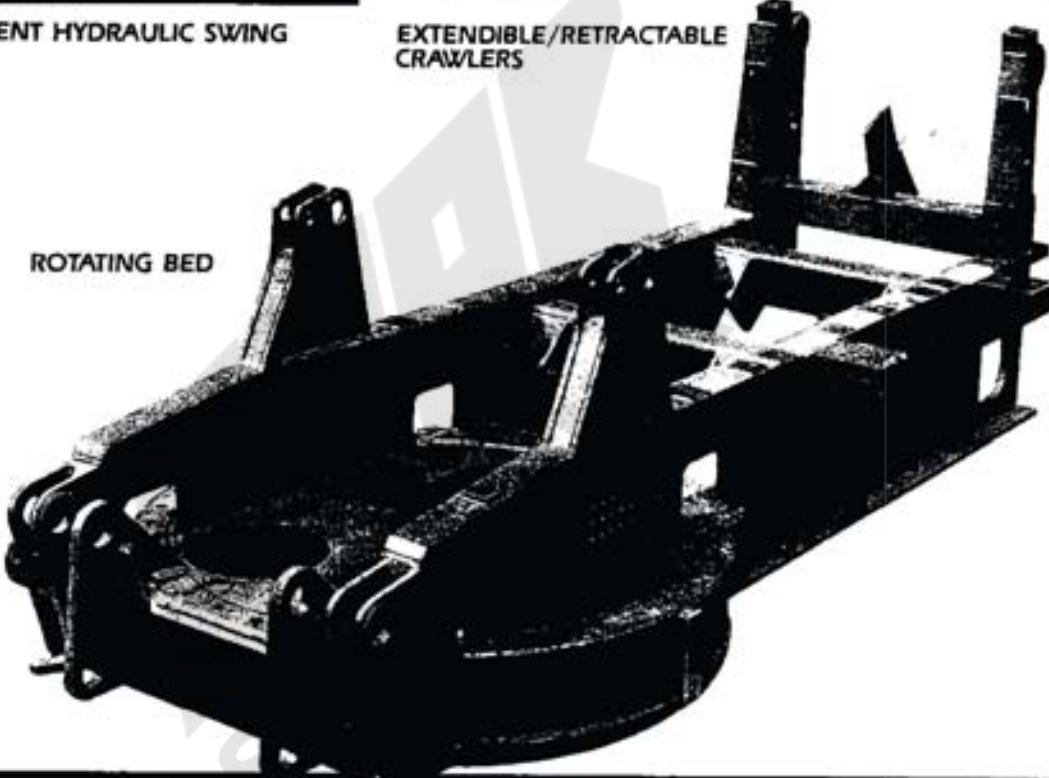
FULL-POWER/FREE-FALL DRUM



INDEPENDENT HYDRAULIC SWING



EXTENDIBLE/RETRACTABLE CRAWLERS



ROTATING BED



FULLY-ENCLOSED UPPERWORKS MACHINERY



WIDE-VIEW OPERATOR'S C

FRONT END ATTACHMENTS

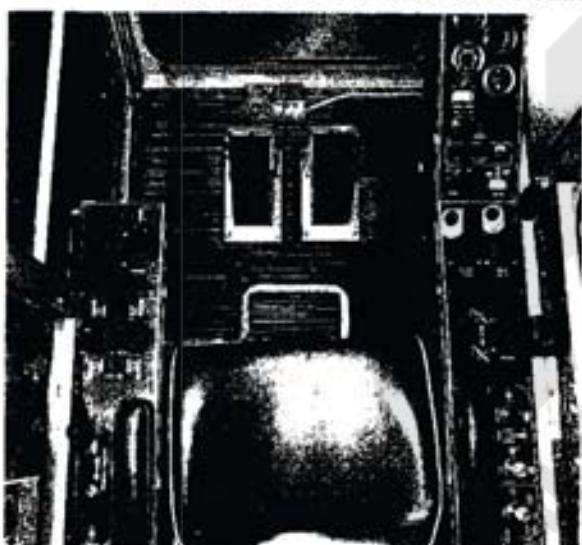
NO. 42 BOOM: 19' (5.79M) butt; 10' (3.05M), 20' (6.10M), and 40' (12.20M) inserts; 21' (6.40M) open throat top. Rectangular box-section design. All-welded construction with tubular chords and lacings. All boom sections are 51" (1.30M) wide x 54½" (1.38M) deep at pin-connected joints. Each insert matched with two 1¼" (32mm) diameter, single-length pendants. Lower boom point equipped with four 20" (508mm) diameter nylon sheaves. Optional, detachable, upper boom point has one 20" (508mm) diameter nylon sheave. All sheaves are antifriction bearing mounted. Total boom length 40' (12.20M); maximum length 200' (60.95M).

BOOM RIGGING: Single line reeved from boom hoist drums through sheaves on gantry and equalizer forms 10-part rigging. Equalizer is connected to boom point by two 1¼" (32mm) diameter pendants. Rigging used to raise or lower gantry for counterweight installation and removal.

GANTRY AND BACKHITCH: Gantry is fabricated plate with parallel box-section legs. Supported on pins by rotating bed. Link-type backhitch pin-connects to gantry and rotating bed. Nylon gantry sheaves are antifriction-bearing mounted.

EQUALIZER: Fabricated steel frame supports four vertical sheaves and two horizontal sheaves, all made of nylon and antifriction-bearing mounted.

ERGONOMIC CONTROL CONSOLES



AUTOMATIC BOOM STOP: Boom contacts push rod, stopping boom hoist operation when boom angle reaches 82° from horizontal.

TELESCOPIC BOOM STOP: Hydraulically-cushioned telescoping tubes pinned to boom and rotating bed start cushioning at 75° boom angle and provide positive physical stop at 85° from horizontal. Standard on liftcrane.

WIRE ROPE GUIDE: Two floating sheaves bushing-mounted in steel frame on upper side of boom trip.

WIRE ROPE ROLLER GUIDES: Optional. Mounted on top of boom inserts. Rollers are induction hardened tubing, anti-friction-bearing mounted.

NO. 128 JIB: Optional. 10-ton (9.07-metric ton) maximum capacity. 30' (9.15M) basic length extendible to 40' (12.20M), 50' (15.25M), or 60' (18.30M) with 10' (3.05M) inserts and matching pendants.

Jib offset angle adjustable to 0, 10, or 20 degrees. All-welded construction with tubular chords and lacings. Rectangular box-section 21½" (546mm) wide x 21½" (546mm) deep at pin-connected joints. Jib point has 20" (508mm) OD, nylon sheave, antifriction-bearing mounted. Maximum boom-and-jib combination, 180' (54.86M) + 60' (18.30M).

GENERAL

MACHINERY ENCLOSURES: Steel housings along sides of crane protect engine and hydraulic components. Enclosures swing open to permit access for service. Catwalks and railings, optional.

OPERATOR'S STATION: Fully enclosed and insulated steel module mounted at left front corner of rotating bed on vibration-absorbing rubber cushions. Large, rubber-mounted safety glass windows on all sides and in ceiling provide clear, wide-angle view. Sliding door on left side; large window on right side. Conveniently-located controls. Electric signal horn, heater, windshield wiper, and circulating fan, standard.

CONTROLS: All functions operated by electric-over-hydraulic controls, with speed directly proportional to control lever movement. First movement of boom hoist and travel controls releases a parking brake; further movement increases speed. Movement of swing control lever immediately regulates power, and free swing exists when lever is in neutral position. Swing parking brake applied by separate switch.

Controls for hoisting drums can be operated in "full-power" [liftcrane] or "free-fall" [excavator] modes as applications require. Operator selects each mode by positioning switch on control console. In "full-power" [liftcrane] mode, drum clutches always remain fully applied and loads are powered down using hydraulic system. In "free-fall" [excavator] mode, drum clutches release automatically when control levers are in neutral position, and all lowering is controlled by pedal-operated service brakes. Additionally, mode-selector switch offers a "clamshell" setting that permits both drums to be controlled simultaneously with one lever. In any mode, hoisting speeds can be doubled by engaging selector switches that divert flow from travel pumps to drum motors.

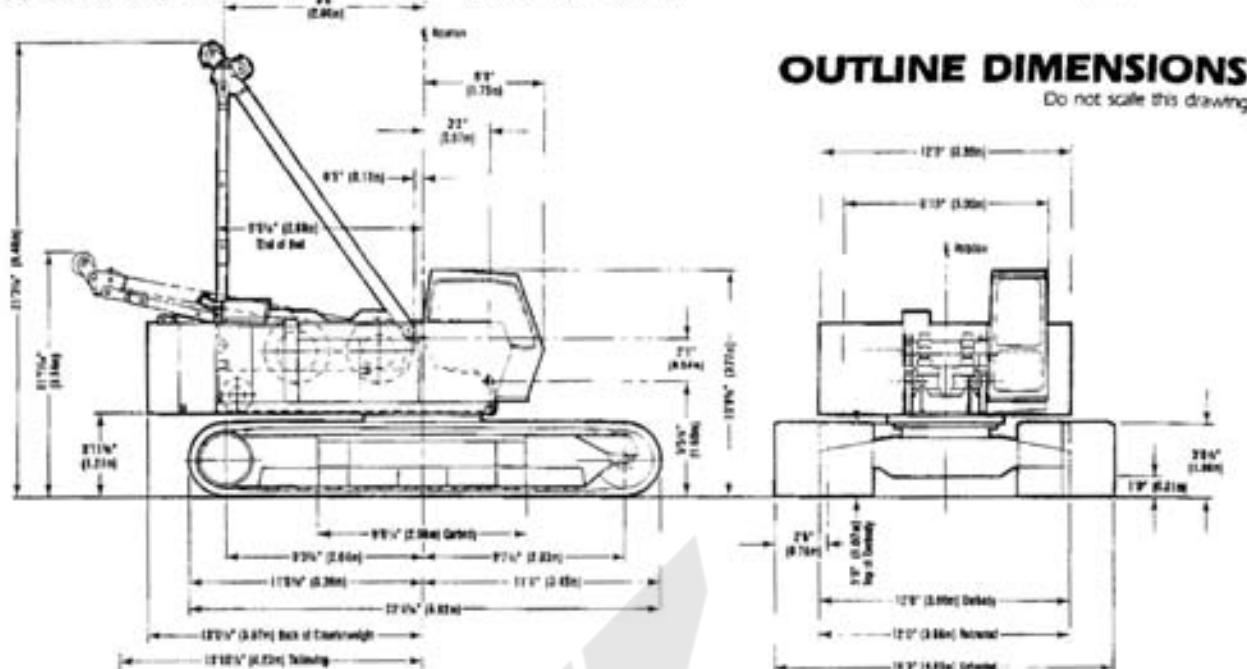
SWING SPEED: Variable, 3.4 RPM maximum.

TRAVEL SPEED: Variable, 10 MPH (16.1 KPH) maximum.

GRADEABILITY: 30%.



FOUR-TRUCK SHIPABILITY

**OUTLINE DIMENSIONS**

Do not scale this drawing

WEIGHTS

LIFTCRANE, complete with 40' (12.20M) No. 42 boom, gantry and backhitch, boom hoist rigging and pendants, front and rear drums with load lines, swing machinery, telescopic boom stop, 22'4" [6.81M] long crawlers, 30" [762mm] wide treads, counterweight, hook and weight ball, and 8-ton (80MT) capacity hook block

	Pounds	Kilograms
LIFTCRANE, complete with 40' (12.20M) No. 42 boom, gantry and backhitch, boom hoist rigging and pendants, front and rear drums with load lines, swing machinery, telescopic boom stop, 22'4" [6.81M] long crawlers, 30" [762mm] wide treads, counterweight, hook and weight ball, and 8-ton (80MT) capacity hook block	149,255	67,701

REMOVABLE COUNTERWEIGHT, (2-piece)

	Pounds	Kilograms
Inner	28,500	12,927
Outer	24,800	11,249
Total	53,300	24,176

CARBODY AND UPPERWORKS, complete with operator's cab, front and rear drums with load lines, boom hoist wire rope, power plant, gantry, backhitch, equalizer, boom butt, and telescopic boom stops

CRAWLER ASSEMBLIES (2), with 30" [762mm] wide treads, each assembly 16,625 lbs. (7,541 kgs.)

BOOM NO. 42:
Butt, 19' (5.79M)

Top, 21' (6.40M) with lower point and wire rope guide

Inserts:
10' (3.05M)

Pounds	Kilograms
565	256

20' (6.10M)

Pounds	Kilograms
1,040	472

40' (12.20M)

Pounds	Kilograms
1,915	869

POWER PLANTS

Model		Cylinder	Bore	Stroke	Cubic Inch Displacement	Net HP @ RPM (at flywheel)
BASIC	Detroit Diesel 8V-8.2T	8	4.25" (108mm)	4.41" (112mm)	500.9 (8,208cc)	230 @ 2,600
OPTION	Cummins 6 CTA 8.3	6	4.49" (114mm)	5.31" (135mm)	504.6 (8,270cc)	230 @ 2,200

DRUMS AND LAGGINGS

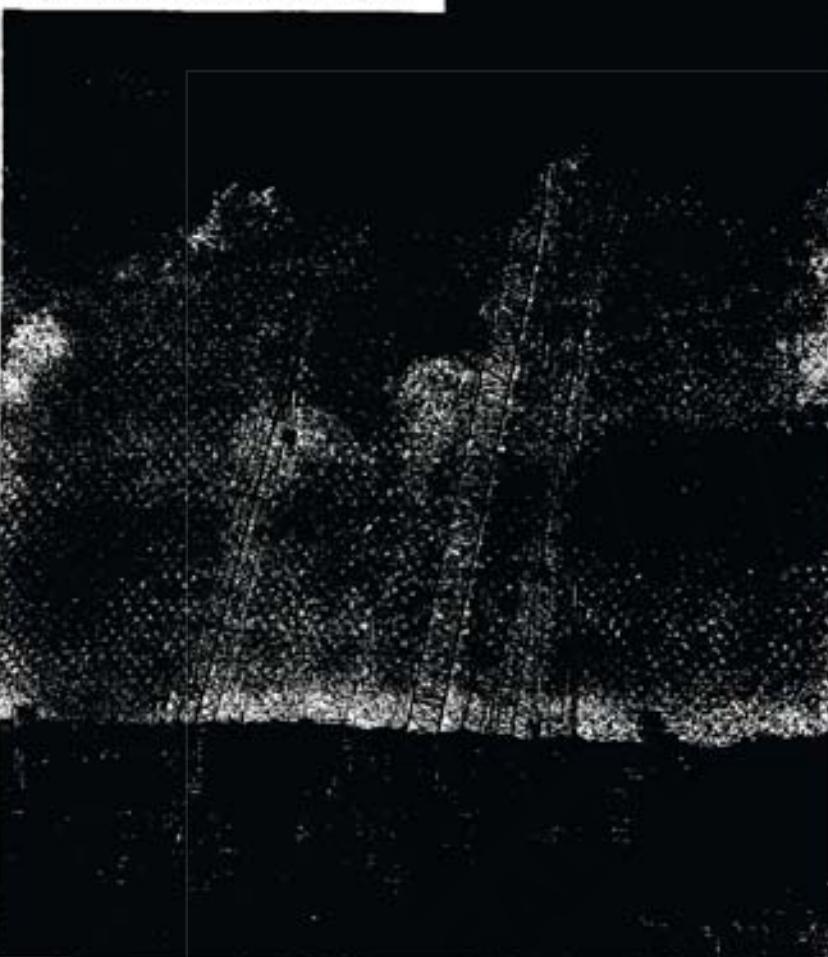
Application	Drum	Drum Diameter	Drum Width	Type of Drum Or Lagging	Wire Rope Size	Spooling Capacity		
						1st Layer	Layers	Maximum
LIFTCRANE Hoist Whip Whip (Optional)	Front	19" (483mm)	21 1/8" (543mm)	Grooved Drum	1/8" (22.2mm)	115' (35.1M)	7	1,013' (308.8M)
	Rear	23" (584mm)	21 1/8" (543mm)	Grooved Drum	1/8" (22.2mm)	138' (42.1M)	5	788' (240.2M)
	Rear	29" (737mm)	21 1/8" (543mm)	Grooved Lag.	1/8" (22.2mm)	172' (52.5M)	2	354' (107.9M)
CLAMSHELL Closing Holding	Front	19" (483mm)	21 1/8" (543mm)	Grooved Drum	1/8" (22.2mm)	115' (35.1M)	—	—
	Rear	23" (584mm)	21 1/8" (543mm)	Grooved Drum	1/8" (22.2mm)	138' (42.1M)	—	—
DRAGLINE Drag Hoist	Front	19" (483mm)	21 1/8" (543mm)	Grooved Drum	1/8" (22.2mm)	90' (27.4M)	—	—
	Rear	23" (584mm)	21 1/8" (543mm)	Grooved Drum	1/8" (22.2mm)	130' (42.1M)	—	—

¹Spooling capacity limited by fleetting.

NEW MODELS ... MORE CHOICES ... from MANITOWOC!

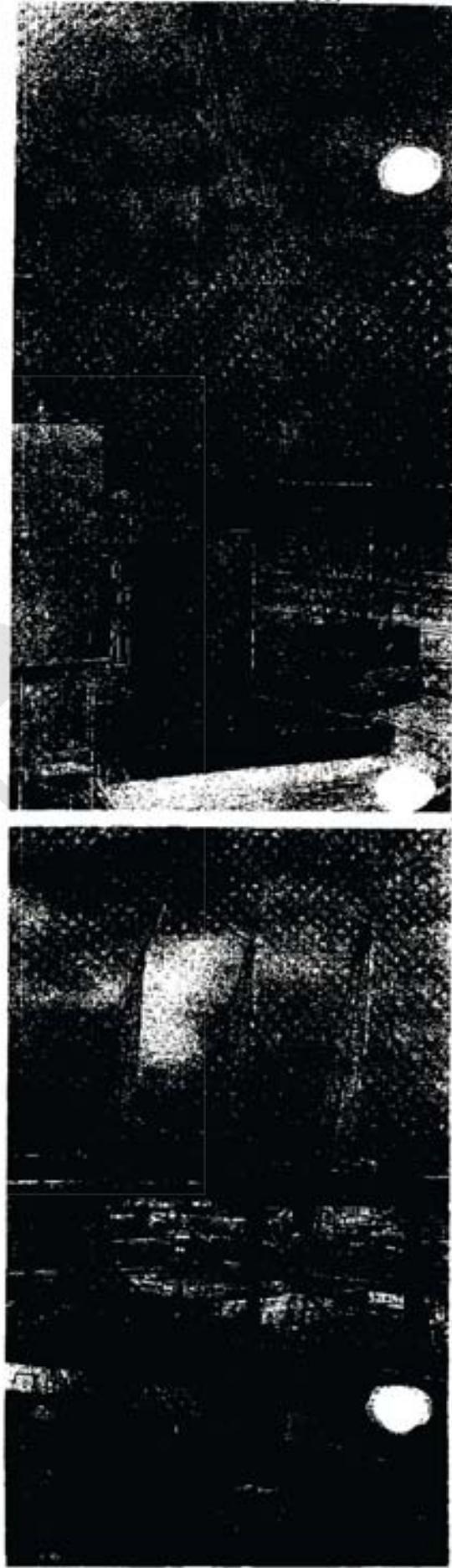
To complement its field-proven line-up of VICON®-powered liftcranes and excavators, Manitowoc has recently introduced its new M-Series cranes. Now, contractors worldwide can select a 'traditional' Manitowoc, a remanufactured Manitowoc, or an M-Series Manitowoc to meet their specific applications or project requirements.

Right: In addition to the 88-ton capacity M-80W, Manitowoc's M-Series product line includes the 55-ton capacity M-50W. In the coming months, Manitowoc will also introduce other M-Series cranes, including 70-ton, 110-ton, and 300-ton units.



Above: Developed as a quality, cost-attractive alternative, every remanufactured Manitowoc is rebuilt to our original equipment specifications, is identified with a new serial number and model year designation, is covered by a 12-month, 2,000-hour warranty, and is backed by a worldwide parts and service network.

Right: Ranging in capacity from 100 to 1,000 tons, Manitowoc's 'traditional' crawler cranes, exemplified by two 4100W's and a 4000W, are recognized as industry standards for versatility, dependability, and lifting performance.



Manitowoc M-Series
*...the new generation of
liftcrane performance!*

MANITOWOC ENGINEERING CO.
500 South 16th Street, Manitowoc, WI 54221 USA
Telephone: 414-684-6621 ■ Telefax: 414-683-6277

MANITOWOC ENGINEERING CO.

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



LIFTCRANE CAPACITIES

**BOOM NO. 42 WITH OPEN THROAT TOP
53,300 LB. COUNTERWEIGHT
22'4" CRAWLERS EXTENDED
360 DEGREE RATING**

MEETS
ANSI B30.5
REQUIREMENTS

M-80W

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 IS 20,000 LBS. IN ALL CASES, UPPER BOOM POINT CAPACITIES CANNOT EXCEED THOSE LISTED FOR THE MAIN BOOM CAPACITY.

WEIGHT OF JIB, ALL LOAD BLOCKS, HOOKS, WEIGHT BALL, SLINGS, HOIST LINES, ETC., BEHIND 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 CRAWLERS FULLY EXTENDED AND GANTRY UP. REFER TO BOOM RIGGING NO. 164236 AND WIRE ROPE SPECIFICATION CHART NO. 7486-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.

MACHINE MAY BE OPERATED IN WINDS UP TO 15 MPH PROVIDED CRANE OPERATOR JUDGMENT IS USED TO ALLOW FOR WIND EFFECT ON THE LIFTED LOAD AND OTHER CONSIDERATIONS NOTED ON THE CAPACITY CHART ARE FOLLOWED. WIND WILL HAVE A CONSIDERABLE EFFECT ON A LOAD WITH A LARGE 'SAIL AREA' AND MUST BE COMPENSATED FOR ACCORDINGLY BY REDUCING LOAD RATINGS, REDUCING OPERATING SPEEDS OR BY A COMBINATION OF BOTH. RECOMMEND STOPPING OPERATION WHEN WIND IS ABOVE 15 MPH AND TIEING OFF OR LOWERING BOOM WHEN WIND IS ABOVE 35 MPH.

MACHINE TO TRAVEL ON A FIRM, LEVEL AND UNIFORMLY SUPPORTING SURFACE AND BOOM WITHIN THE BOOM ANGLE RANGE SHOWN IN CAPACITY CHART.

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 22'4" EXTENDABLE CRAWLERS, 30° OR 36° TREADS, 15'6" RETRACTABLE GANTRY, 10 PART BOOM HOIST REEVING, TWO 1-1/4" BOOM PENDANTS, 1ST COUNTERWEIGHT = 28,500 LBS., AND 2ND COUNTERWEIGHT = 24,800 LBS.

MAXIMUM BOOM AND JIB LENGTHS LIFTED UNASSISTED				DEDUCT FROM CAPACITIES WHEN JIB IS ATTACHED			
OVER END OF CRAWLERS		OVER SIDE OF EXTENDED CRAWLERS		JIB LENGTH		JIB NO. 128	
BOOM LGTH. FEET	JIB NO. 128	BOOM LGTH. FEET	JIB NO. 128	30'	35'	40'	45'
200'	---	200'	---	30'	1,700 LBS.	2,100 LBS.	2,600 LBS.
190'	40'	190'	40'	30'	1,700 LBS.	2,100 LBS.	2,600 LBS.
180'	60'	180'	60'	30'	1,700 LBS.	2,100 LBS.	2,600 LBS.
LOAD BLOCK, HOOK AND WEIGHT BALL ON GROUND AT START.							

CONSULT JIB CHART FOR JIB CAPACITIES.

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM POINT ANG. DEG. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM POINT ANG. DEG. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM POINT ANG. DEG. FEET	CAPACITY POUNDS
12	77.8	44.5	176,400*	12	80.2	54.7	153,600*	12	81.9	54.8	145,400*
13	76.3	44.2	162,600*	13	79.1	54.5	149,400*	13	80.9	54.6	140,900*
14	74.8	44.0	151,000*	14	77.9	54.3	145,200*	14	79.9	54.5	136,800*
15	73.3	43.7	140,900*	15	76.7	54.0	140,900*	15	79.0	54.3	132,900*
16	71.8	43.3	132,100*	16	75.5	53.8	132,100*	16	78.0	54.1	129,300*
17	70.3	43.0	124,400*	17	74.4	53.5	124,400*	17	77.0	53.6	124,400*
18	68.8	42.6	115,000	18	73.2	53.2	114,800	18	76.0	53.6	114,700
19	67.2	42.2	105,100	19	72.0	52.9	105,000	19	75.0	53.3	104,800
20	65.6	41.7	96,800	20	70.7	52.5	96,700	20	74.1	53.0	96,500
22	62.4	40.7	83,500	22	68.3	51.8	83,300	22	72.1	52.4	83,200
24	59.1	39.6	73,300	24	65.8	50.9	73,200	24	70.0	51.7	73,000
26	55.7	38.3	65,300	26	63.2	49.9	65,200	26	68.0	50.9	65,000
28	52.1	36.8	58,900	28	60.6	48.9	58,700	28	65.9	50.1	58,500
30	48.4	35.1	53,500	30	58.0	47.6	53,300	30	63.8	50.1	53,100
32	44.4	33.2	49,000	32	55.2	46.3	48,800	32	61.6	50.1	48,600
34	40.1	30.9	45,200	34	52.3	44.8	45,000	34	59.4	50.9	44,800
36	35.4	28.3	41,900	36	49.4	43.2	41,700	36	57.2	50.7	41,500
38	30.0	25.1	39,000	38	46.3	41.3	38,800	38	54.9	54.3	38,600
40	23.5	21.1	36,500	40	43.0	39.3	36,300	40	52.5	52.8	36,100
				45	33.6	32.8	31,200	45	46.1	48.5	30,900
				50	20.9	23.0	27,200	50	39.0	43.0	27,000
				55	30.6	35.7	23,900	55	30.6	35.7	23,900
				60	19.0	24.7	21,300	60	19.0	24.7	21,300

THIS CAPACITY CHART IS FOR MANITOWOC LIFTCRANE USE ONLY.
DO NOT USE FOR A SPECIFIC SERIAL NUMBER CRANE. SERIAL NUMBERED
LAMINATED CAPACITY CHARTS FOR A SPECIFIC CRANE CAN BE PURCHASED FROM
AN AUTHORIZED MANITOWOC DISTRIBUTOR.

MANITOWOC ENGINEERING CO.

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



LIFTCRANE CAPACITIES

BOOM NO. 42 WITH OPEN THROAT TOP

53,300 LB. COUNTERWEIGHT

22'4" CRAWLERS EXTENDED

360 DEGREE RATING

 MEETS
 ANSI B30.5
 REQUIREMENTS

M-80W

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
70	14	81.4	74.6	128,600*	90	17	81.4	94.4	104,500*	110	70	52.8	92.8	16,500
	15	80.6	74.5	124,900*		18	80.7	94.2	101,800*		75	49.4	88.8	15,000
	16	79.7	74.3	121,300*		19	80.1	94.1	99,100*		80	45.9	84.2	13,700
	17	78.9	74.1	118,100*		20	79.5	93.9	96,100		85	42.1	79.0	12,600
	18	78.1	73.9	114,600		22	78.2	93.5	82,700		90	38.1	73.0	11,600
	19	77.2	73.6	104,700		24	76.8	93.0	72,500		95	33.6	66.0	10,700
	20	76.4	73.4	96,400		26	75.5	92.5	64,400		100	28.5	57.6	9,900
	22	74.7	72.9	83,000		28	74.2	92.0	57,900		105	22.4	47.1	9,200
	24	73.0	72.3	72,800		30	72.9	91.4	52,600		22	81.1	124.0	77,000*
	26	71.3	71.6	64,800		32	71.5	90.7	46,000		24	80.2	123.6	72,000
80	28	69.5	70.9	56,300		34	70.2	90.0	44,200		26	79.2	123.3	64,000
	30	67.8	70.1	53,000		36	68.8	89.3	40,900		28	78.2	122.9	57,400
	32	66.0	69.2	48,500		38	67.5	88.4	38,000		30	77.3	122.4	52,100
	34	64.2	68.3	44,600		40	66.1	87.6	35,500		32	76.3	121.9	47,500
	36	62.3	67.3	41,300		45	62.5	85.4	30,300		34	75.3	121.4	43,700
	38	60.5	66.2	38,400		50	58.9	82.3	26,400		36	74.3	120.9	40,400
	40	58.6	65.0	35,900		55	55.1	79.0	23,200		38	73.3	120.3	37,500
	45	53.6	61.6	30,800		60	51.1	74.2	20,700		40	72.3	119.7	35,000
	50	48.3	57.5	26,800		65	46.8	70.9	18,600		45	69.8	117.9	29,800
	55	42.5	52.5	23,700		70	42.3	65.7	16,800		50	67.2	115.9	25,800
100	60	36.0	46.3	21,200		75	37.3	59.7	15,300		55	64.6	113.7	22,700
	65	28.3	36.3	19,100		80	31.6	52.3	14,000		60	61.9	111.1	20,100
	70	17.6	26.3	17,300		85	24.8	42.9	12,900		65	59.2	108.3	18,000
	15	81.8	84.6	117,500*		90	15.5	29.4	11,900		70	56.3	105.1	16,300
	16	81.0	84.4	114,200*		16	81.7	104.4	97,600*		75	53.4	101.6	14,700
	17	80.3	84.3	111,100*		19	81.1	104.2	95,100*		80	50.4	97.6	13,400
	18	79.6	84.1	108,100*		20	80.5	104.0	92,700*		85	47.2	93.2	12,300
	19	78.8	83.9	104,600		22	79.4	103.7	82,600		90	43.6	86.3	11,300
	20	78.1	83.7	96,200		24	78.2	103.3	72,400		95	40.2	82.7	10,400
	22	76.6	83.2	82,800		26	77.0	102.5	64,300		100	36.4	76.3	9,600
110	24	75.2	82.7	72,600		28	75.8	102.3	57,800		105	32.1	68.9	8,900
	26	73.7	82.1	64,600		30	74.6	101.8	52,500		110	27.3	60.1	8,300
	28	72.2	81.5	58,100		32	73.5	101.2	47,900		115	21.4	49.0	7,700
	30	70.7	80.8	52,300		34	72.3	100.6	44,100		22	81.8	134.1	70,800*
	32	69.1	80.1	48,200		36	71.0	99.9	40,800		24	80.9	133.8	68,900*
	34	67.6	79.3	44,400		38	69.8	99.2	37,900		26	80.0	133.4	63,800
	36	66.0	78.4	41,100		40	68.6	98.4	35,400		28	79.1	133.1	57,300
	38	64.4	77.5	38,200		45	65.5	96.3	30,200		30	78.2	132.7	51,900
	40	62.8	76.5	35,700		50	62.3	93.8	26,300		32	77.3	132.2	47,300
	45	58.7	73.6	30,500		55	59.0	91.0	23,100		34	76.4	131.7	43,500
130	50	54.4	70.3	26,600		60	55.6	87.7	20,600		36	75.5	131.2	40,200
	55	49.9	66.4	23,400		65	52.0	84.1	18,500		38	74.6	130.7	37,300
	60	45.0	61.8	20,900		70	48.3	74.8	16,700		40	73.7	130.1	34,700
	65	39.6	56.2	18,800		75	44.3	75.0	15,200		45	71.4	126.5	29,500
	70	33.6	49.4	17,000		80	40.0	69.5	13,900		50	69.0	126.7	25,600
	75	26.4	40.7	15,500		85	35.3	62.9	12,800		55	66.7	124.7	22,500
	80	16.4	27.7	14,200		90	29.9	55.1	11,800		60	64.2	122.4	19,900
	95	23.5	45.0	10,900		95	61.8	119.6	12,800		65	59.2	117.0	16,000
	19	81.9	114.3	88,500*		100	56.6	13.8	14,500		70	59.2	117.0	16,000
	20	81.4	114.2	87,200*		105	53.9	110.3	13,200		75	56.6	113.8	14,500
	22	80.3	113.8	82,500		110	51.1	106.5	12,100		80	53.9	110.3	13,200
	24	79.3	113.5	72,200		115	48.3	102.2	11,100		85	51.1	106.5	12,100
	26	78.2	113.1	64,200		120	45.9	97.6	10,200		90	45.9	97.6	10,200
	28	77.1	112.6	57,700		125	42.0	92.2	9,400		100	42.0	92.2	9,400
	30	76.1	112.1	52,300		130	38.6	86.3	8,700		105	38.6	86.3	8,700
	32	75.0	111.6	47,800		135	34.9	79.6	8,100		110	34.9	79.6	8,100
	34	73.9	111.0	43,900		140	30.8	71.7	7,500		115	30.8	71.7	7,500
	36	72.8	110.4	40,600		145	26.2	62.5	6,900		150	20.6	50.8	6,500
	38	71.7	109.8	37,700		155	20.6	49.6	6,400		160	16.4	36.8	5,800
	40	70.6	109.1	35,200		165	16.4	33.8	5,400		170	12.2	28.8	4,800
	45	67.8	107.2	30,000		175	12.2	25.8	4,400		180	8.0	22.8	3,800
	50	65.0	105.0	26,100		185	8.0	20.8	3,400		190	4.8	17.8	3,000
	55	62.1	102.5	22,900		195	4.8	14.8	2,800		200	1.6	11.8	2,400
	60	59.1	99.6	20,400		205	1.6	11.8	2,400		210	1.6	11.8	2,400
	65	56.0	96.4	18,300		215	1.6	11.8	2,400		220	1.6	11.8	2,400

NOTICE: This capacity chart is for reference use only and must not be used for a specific serial number crane. Serial numbered laminated capacity charts for a specific crane can be purchased from an authorized Manitowoc Distributor.

MANITOWOC ENGINEERING CO.

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



LIFTCRANE CAPACITIES

BOOM NO. 42 WITH OPEN THROAT TOP
53,300 LB. COUNTERWEIGHT
22'4" CRAWLERS EXTENDED
360 DEGREE RATING

MEETS
ANSI B30.5
REQUIREMENTS

M-80W

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM POINT ELEV. FEET	CAPACITY POUNDS								
24	81.6	143.9	63,300*	60	69.3	155.0	19,300	100	57.6	157.2	8,400								
25	80.8	143.6	61,700*	65	67.4	153.0	17,200	105	55.7	153.9	7,600								
28	79.9	143.2	57,100	70	65.4	150.8	15,400	110	53.7	150.3	7,000								
30	79.1	142.9	51,700	75	63.5	148.4	13,900	115	51.7	146.5	6,400								
32	78.3	142.5	47,200	80	61.4	145.8	12,600	120	49.6	142.4	5,900								
140																			
34	77.4	142.0	43,300	85	59.4	142.9	11,400	125	47.5	138.0	5,400								
36	76.6	141.6	40,000	90	57.3	139.8	10,400	130	45.3	133.2	4,900								
38	75.7	141.1	37,100	95	55.1	136.5	9,600	135	43.0	126.0	4,500								
40	74.9	140.5	34,600	100	52.9	132.8	8,800	140	40.6	122.4	4,200								
45	72.8	139.1	29,400	105	50.6	128.9	8,100	145	38.1	116.3	3,800								
50	70.6	137.4	25,400	110	48.2	124.6	7,400	150	35.5	109.6	3,500								
55	68.4	135.5	22,300	115	45.8	119.9	6,800	155	32.6	102.1	3,200								
60	66.2	133.4	19,800	120	43.2	114.8	6,300	160											
65	63.9	131.1	17,600	125	40.5	109.2	5,800	30	82.0	193.6	31,600*								
70	61.6	126.5	15,900	130	37.7	103.0	5,400	32	81.4	193.3	31,300*								
75	59.3	125.6	14,400	135	34.6	96.1	5,000	34	80.8	192.9	31,000*								
80	56.9	122.5	13,100	140	31.3	88.4	4,600	36	80.2	192.6	30,700*								
85	54.4	119.1	11,900	145	27.7	79.5	4,200	38	79.5	192.2	30,500*								
90	51.8	115.3	10,900	150	23.5	69.0	3,900	40	78.9	191.9	30,200*								
95	49.2	111.1	10,000	155	18.5	55.9	3,600	45	77.4	190.8	28,400								
100	46.4	106.6	9,200	170															
105	43.5	101.5	8,500	28	81.7	173.6	39,800*	28	81.7	173.6	39,800*								
110	40.4	95.9	7,900	30	81.0	173.3	39,500*	30	81.0	173.3	39,500*								
115	37.1	89.7	7,300	32	80.4	173.0	39,200	32	80.4	173.0	39,200								
120	33.6	82.6	6,800	34	79.7	172.6	38,800	34	79.7	172.6	38,800								
125	29.7	74.4	6,300	36	79.0	172.3	38,500	36	79.0	172.3	38,500								
130	25.2	64.7	5,800	180															
135	19.8	52.6	5,400	38	78.3	171.9	36,500	38	78.3	171.9	36,500								
150												40	77.6	171.4	34,000				
26	81.4	153.7	53,200*	40	77.6	171.4	34,000	45	75.9	170.2	28,800								
28	80.6	153.4	52,800*	50	74.1	168.9	24,800	55	72.4	167.4	21,600								
30	79.8	153.0	51,500	55	70.6	165.7	19,700	60	67.1	165.1	16,600								
32	79.1	152.7	47,000	65	68.6	163.8	17,000	65	69.5	163.3	14,800								
34	78.3	152.3	43,200	70	67.0	161.8	15,200	75	67.9	161.4	13,300								
36	77.5	151.6	39,800	75	65.1	159.5	13,700	80	66.3	159.2	12,000								
38	76.7	151.4	36,900	80	63.3	157.1	12,400	85	64.6	156.9	10,800								
40	75.9	150.9	34,400	85	61.3	154.5	11,200	90	62.9	154.5	9,800								
45	73.9	149.5	29,200	90	59.4	151.6	10,200	95	61.2	151.8	8,900								
50	71.9	148.0	25,200	95	57.4	148.5	9,300	100	59.5	148.9	8,100								
55	69.9	146.2	22,100	100	55.4	145.2	8,500	105	57.7	145.9	7,400								
60	67.9	144.3	19,500	105	53.3	141.6	7,800	110	55.9	142.6	6,800								
65	65.8	142.1	17,400	110	51.2	137.7	7,200	115	54.1	139.1	5,200								
70	63.7	139.7	15,700	115	49.0	133.5	6,600	120	52.2	135.3	5,700								
75	61.5	137.1	14,100	120	46.7	128.9	6,100	125	50.2	131.3	5,200								
80	59.3	134.3	12,800	125	44.3	124.0	5,600	130	48.2	126.9	4,700								
85	57.1	131.2	11,700	130	41.9	118.7	5,100	135	46.2	124.3	4,300								
90	54.8	127.8	10,700	135	39.3	112.8	4,700	140	44.0	127.3	3,900								
95	52.4	124.1	9,800	140	36.5	106.3	4,300	145	41.6	131.9	3,600								
100	49.9	120.0	9,000	145	33.6	99.2	4,000	150	39.5	126.0	3,200								
105	47.4	115.6	8,300	150	30.4	91.1	3,700	190											
110	44.7	110.8	7,700	155	26.9	81.9	3,400	32	81.8	203.4	27,000*								
115	41.9	105.4	7,100	160	22.8	71.1	3,100	34	81.2	203.1	26,900*								
120	39.0	99.5	6,600	200															
125	35.8	93.0	6,100	30	81.5	163.4	36,100*	36	80.7	202.7	26,800*								
130	32.4	85.5	5,600	32	80.9	163.1	35,800*	38	80.1	202.4	26,700*								
135	28.6	77.0	5,200	34	80.3	162.8	35,400*	40	79.5	202.0	26,400*								
140	24.3	66.9	4,800	36	79.6	162.4	35,100*	160											
145	19.1	54.3	4,500	38	79.0	162.1	34,800*	45	78.0	201.0	25,700*								
26	81.9	163.8	46,000*	40	78.3	181.6	33,800	50	76.6	199.9	24,200								
28	81.2	163.5	45,700*	45	76.7	180.5	32,600	55	75.1	198.6	21,000								
30	80.5	163.2	45,400*	50	75.0	179.3	31,600	60	73.6	197.2	18,500								
32	79.7	162.8	45,000*	55	73.4	177.6	31,500	65	72.1	195.7	16,300								
34	79.0	162.5	42,900	60	71.7	176.3	31,900	70	70.6	194.0	14,600								
36	78.3	162.1	39,600	65	70.0	174.8	31,600	75	69.1	192.1	13,000								
38	77.6	161.6	36,700	70	68.3	172.6	31,000	80	67.5	190.1	11,700								
40	76.8	161.2	34,200	75	66.6	170.5	31,500	85	66.0	188.0	10,600								
45	75.0	159.9	29,000	80	64.8	168.2	32,200	90	64.4	185.6	9,600								
50	73.1	158.5	25,000	85	63.1	165.8	31,000	95	62.8	183.1	8,700								
55	71.2	156.8	21,900	90	61.3	163.1	30,000	100	61.1	180.5	7,900								
180												105	59.5	177.6	7,200				
36	78.3	162.1	39,600	110	57.8	174.5	6,500	115	56.1	171.3	5,900								
38	77.6	161.6	36,700	120	54.4	167.8	5,400	125	52.6	164.1	4,900								
40	76.8	161.2	34,200	130	50.7	160.1	4,500	135	48.9	155.9	4,100								
45	75.0	159.9	29,000	140	46.9	151.3	3,700	145	44.9	146.5	3,300								
50	73.1	158.5	25,000	150	42.9	141.3	3,000	200											
55	71.2	156.8	21,900	95	59.4	160.3	9,200	160											

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MANITOWOC ENGINEERING CO.

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



LIFTCRANE CAPACITIES

**BOOM NO. 42 WITH OPEN THROAT TOP
53,300 LB. COUNTERWEIGHT
22'4" CRAWLERS EXTENDED
360 DEGREE RATING**

MEETS
ANSI B30.5
REQUIREMENTS

M-80W

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 IS 20,000 LBS. IN ALL CASES, UPPER BOOM POINT CAPACITIES CANNOT EXCEED THOSE LISTED FOR THE MAIN BOOM CAPACITY.

WEIGHT OF JIB, ALL LOAD BLOCKS, HOOKS, WEIGHT BALL, SLINGS, HOIST LINES, ETC., BEHIND 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 CRAWLERS FULLY EXTENDED AND GANTRY UP. REFER TO BOOM RIGGING NO. 164238 AND WIRE ROPE SPECIFICATION CHART NO. 7487-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.

MACHINE MAY BE OPERATED IN WINDS UP TO 15 MPH PROVIDED CRANE OPERATOR JUDGMENT IS USED TO ALLOW FOR WIND EFFECT ON THE LIFTED LOAD AND OTHER CONSIDERATIONS NOTED ON THE CAPACITY CHART ARE FOLLOWED. WIND WILL HAVE A CONSIDERABLE EFFECT ON A LOAD WITH A LARGE 'SAIL AREA' AND MUST BE COMPENSATED FOR ACCORDINGLY BY REDUCING LOAD RATINGS, REDUCING OPERATING SPEEDS OR BY A COMBINATION OF BOTH. RECOMMEND STOPPING OPERATION WHEN WIND IS ABOVE 15 MPH AND TIEING OFF OR LOWERING BOOM WHEN WIND IS ABOVE 35 MPH.

MACHINE TO TRAVEL ON A FIRM, LEVEL AND UNIFORMLY SUPPORTING SURFACE AND BOOM WITHIN THE BOOM ANGLE RANGE SHOWN IN CAPACITY CHART.

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 22'4" EXTENDIBLE CRAWLERS, 30" OR 36" TREADS, 15'6" RETRACTABLE GANTRY, 10 PART BOOM HOIST REEVING, TWO 1-1/4" BOOM PENDANTS, 1ST COUNTERWEIGHT = 28,500 LBS., AND 2ND COUNTERWEIGHT = 24,800 LBS.

MAXIMUM BOOM AND JIB LENGTHS LIFTED UNASSISTED				DEDUCT FROM CAPACITIES WHEN JIB IS ATTACHED	
OVER END OF CRAWLERS		OVER SIDE OF EXTENDED CRAWLERS		JIB LGTH.	JIB NO. 128
BM. LGTH.	JIB NO. 128	BM. LGTH.	JIB NO. 128	30'	1,700 LBS.
200'	---	200'	---	40'	2,100 LBS.
190'	40'	190'	40'	50'	2,600 LBS.
180'	60'	180'	60'	60'	3,100 LBS.
LOAD BLOCK, HOOK AND WEIGHT BALL ON GROUND AT START.					

CONSULT JIB CHART FOR JIB CAPACITIES.

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
40	12	77.8	44.5	176,400*	50	12	80.2	54.7	153,800*	60	12	81.9	64.8	145,400*
	13	76.3	44.2	162,600*		13	79.1	54.5	149,400*		13	80.9	64.6	140,900*
	14	74.8	44.0	151,000*		14	77.9	54.3	145,200*		14	79.9	64.5	136,800*
	15	73.3	43.7	140,900*		15	76.7	54.0	140,900*		15	79.0	64.3	132,900*
	16	71.8	43.3	132,100*		16	75.5	53.8	132,100*		16	78.0	64.1	129,300*
	17	70.3	43.0	124,400*		17	74.4	53.5	124,400*		17	77.0	63.8	124,400*
	18	68.8	42.6	115,000		18	73.2	53.2	114,800		18	76.0	63.6	114,700
	19	67.2	42.2	105,100		19	72.0	52.9	105,000		19	75.0	63.3	104,800
	20	65.6	41.7	96,800		20	70.7	52.5	96,700		20	74.1	63.0	96,500
	22	62.4	40.7	83,500		22	68.3	51.8	83,300		22	72.1	62.4	83,200
40	24	59.1	39.6	73,300		24	65.8	50.9	73,200		24	70.0	61.7	73,000
	26	55.7	38.3	65,300		26	63.2	49.9	65,200		26	68.0	60.9	65,000
	28	52.1	36.8	58,900		28	60.6	48.9	58,700		28	65.9	60.1	58,500
	30	48.4	35.1	53,500		30	58.0	47.6	53,300		30	63.8	59.1	53,100
	32	44.4	33.2	49,000		32	55.2	46.3	48,800		32	61.6	58.1	48,600
	34	40.1	30.9	45,200		34	52.3	44.8	45,000		34	59.4	56.9	44,800
	36	35.4	28.3	41,900		36	49.4	43.2	41,700		36	57.2	55.7	41,500
	38	30.0	25.1	39,000		38	46.3	41.3	38,800		38	54.9	54.3	38,600
	40	23.5	21.1	36,500		40	43.0	39.3	36,300		40	52.5	52.8	36,100
	45					45	33.6	32.8	31,200		45	46.1	48.5	30,900
	50					50	20.9	23.0	27,200		50	39.0	43.0	27,000

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22'4" CRAWLERS EXTENDED
360 DEGREE RATING

MEETS
ANSI B30.5
REQUIREMENTS

M-80W

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM POINT ANG. DEG.	BOOM ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM POINT ANG. DEG.	BOOM ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM POINT ANG. DEG.	BOOM ELEV. FEET	CAPACITY POUNDS
70	14	81.4	74.6	128,600*	90	17	81.4	94.4	104,500*	110	70	52.8	92.8	16,500
	15	80.6	74.5	124,900*		18	80.7	94.2	101,800*		75	49.4	88.8	15,000
	16	79.7	74.3	121,300*		19	80.1	94.1	99,100*		80	45.9	84.2	13,700
	17	78.9	74.1	118,100*		20	79.5	93.9	96,100		85	42.1	79.0	12,600
	18	78.1	73.9	114,600		22	78.2	93.5	82,700		90	38.1	73.0	11,600
	19	77.2	73.6	104,700		24	76.8	93.0	72,500		95	33.6	66.0	10,700
	20	76.4	73.4	96,400		26	75.5	92.5	64,400		100	28.5	57.6	9,900
	22	74.7	72.9	83,000		28	74.2	92.0	57,900		105	22.4	47.1	9,200
	24	73.0	72.3	72,800		30	72.9	91.4	52,600		22	81.1	124.0	77,000*
	26	71.3	71.6	64,800		32	71.5	90.7	48,000		24	80.2	123.6	72,000
	28	69.5	70.9	58,300		34	70.2	90.0	44,200		26	79.2	123.3	64,000
	30	67.8	70.1	53,000		36	68.8	89.3	40,900		28	78.2	122.9	57,400
	32	66.0	69.2	48,500		38	67.5	88.4	38,000		30	77.3	122.4	52,100
	34	64.2	68.3	44,600		40	66.1	87.6	35,500		32	76.3	121.9	47,500
	36	62.3	67.3	41,300		45	62.5	85.1	30,300		34	75.3	121.4	43,700
80	38	60.5	66.2	38,400		50	58.9	82.3	26,400		36	74.3	120.9	40,400
	40	58.6	65.0	35,900		55	55.1	79.0	23,200		38	73.3	120.3	37,500
	45	53.6	61.6	30,800		60	51.1	75.2	20,700		40	72.3	119.7	35,000
	50	48.3	57.5	26,800		65	46.8	70.9	18,600		45	69.8	117.9	29,800
	55	42.5	52.5	23,700		70	42.3	65.7	16,800		50	67.2	115.9	25,800
	60	36.0	46.3	21,200		75	37.3	59.7	15,300		55	64.6	113.7	22,700
	65	28.3	38.3	19,100		80	31.6	52.3	14,000		60	61.9	111.1	20,100
	70	17.6	26.3	17,300		85	24.8	42.9	12,900		65	59.2	108.3	18,000
	15	81.8	84.6	117,500*	100	18	81.7	104.4	97,600*		70	56.3	105.1	16,300
	16	81.0	84.4	114,200*		19	81.1	104.2	95,100*		75	53.4	101.6	14,700
	17	80.3	84.3	111,100*		20	80.5	104.0	92,700*		80	50.4	97.6	13,400
	18	79.6	84.1	108,100*		22	79.4	103.7	82,600		85	47.2	93.2	12,300
	19	78.8	83.9	104,600		24	78.2	103.3	72,400		90	43.8	88.3	11,300
	20	78.1	83.7	96,200		26	77.0	102.8	64,300		95	40.2	82.7	10,400
	22	76.6	83.2	82,800		28	75.8	102.3	57,800		100	36.4	76.3	9,600
	24	75.2	82.7	72,600		30	74.6	101.8	52,500		105	32.1	68.9	8,900
	26	73.7	82.1	64,600		32	73.5	101.2	47,900		110	27.3	60.1	8,300
	28	72.2	81.5	58,100		34	72.3	100.6	44,100		115	21.4	49.0	7,700
	30	70.7	80.8	52,700		36	71.0	99.9	40,800		22	81.8	134.1	70,800*
	32	69.1	80.1	48,200		38	69.8	99.2	37,900		24	80.9	133.8	68,900*
	34	67.6	79.3	44,400		40	68.6	98.4	35,400		26	80.0	133.4	63,800
	36	66.0	78.4	41,100		45	65.5	96.3	30,200		28	79.1	133.1	57,300
	38	64.4	77.5	38,200		50	62.3	93.8	26,300		30	78.2	132.7	51,900
110	40	62.8	76.5	35,700		55	59.0	91.0	23,100		32	77.3	132.2	47,300
	45	58.7	73.6	30,500		60	55.6	87.7	20,600		34	76.4	131.7	43,500
	50	54.4	70.3	26,600		65	52.0	84.1	18,500		36	75.5	131.2	40,200
	55	49.9	66.4	23,400		70	48.3	79.8	16,700		38	74.6	130.7	37,300
	60	45.0	61.8	20,900		75	44.3	75.0	15,200		40	73.7	130.1	34,700
	65	39.6	56.2	18,800		80	40.0	69.5	13,900		45	71.4	128.5	29,600
	70	33.6	49.4	17,000		85	35.3	62.9	12,800		50	69.0	126.7	25,600
	75	26.4	40.7	15,500		90	29.9	55.1	11,800		55	66.7	124.7	22,500
	80	16.4	27.7	14,200		95	23.5	45.0	10,900		60	64.2	122.4	19,900
	19	81.9	114.3	88,500*		26	78.2	113.1	64,200		65	61.8	119.8	17,800
	20	81.4	114.2	87,200*		28	77.1	112.6	57,700		70	59.2	117.0	16,000
	22	80.3	113.8	82,500		30	76.1	112.1	52,300		75	56.6	113.8	14,500
	24	79.3	113.5	72,200		32	75.0	111.6	47,800		80	53.9	110.3	13,200
	26	78.2	113.1	64,200		34	73.9	111.0	43,900		85	51.1	106.5	12,100
	28	77.1	112.6	57,700		36	72.8	110.4	40,600		90	48.3	102.2	11,100
	30	76.1	112.1	52,300		38	71.7	109.8	37,700		95	45.2	97.5	10,200
	32	75.0	111.6	47,800		40	70.6	109.1	35,200		100	42.0	92.2	9,400
	34	73.9	111.0	43,900		45	67.8	107.2	30,000		105	38.6	86.3	8,700
	36	72.8	110.4	40,600		50	65.0	105.0	26,100		110	34.9	79.5	8,100
	38	71.7	109.8	37,700		55	62.1	102.5	22,900		115	30.8	71.7	7,500
	40	70.6	109.1	35,200		60	59.1	99.6	20,400		120	26.2	62.5	6,900
	45	67.8	107.2	30,000		65	56.0	96.4	18,300		125	20.6	50.8	6,500

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MANITOWOC ENGINEERING CO.

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



LIFTCRANE CAPACITIES

BOOM NO. 42 WITH OPEN THROAT TOP
53,300 LB. COUNTERWEIGHT
22'4" CRAWLERS EXTENDED
360 DEGREE RATING

MEETS
ANSI B30.5
REQUIREMENTS

M-80W

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
140	24	81.6	143.9	63,300*	160	60	69.3	155.0	19,300	180	100	57.6	157.2	8,400
	26	80.8	143.6	61,700*		65	67.4	153.0	17,200		105	55.7	153.9	7,600
	28	79.9	143.2	57,100		70	65.4	150.8	15,400		110	53.7	150.3	7,000
	30	79.1	142.9	51,700		75	63.5	148.4	13,900		115	51.7	146.5	6,400
	32	78.3	142.5	47,200		80	61.4	145.8	12,600		120	49.6	142.4	5,900
	34	77.4	142.0	43,300		85	59.4	142.9	11,400		125	47.5	138.0	5,400
	36	76.6	141.6	40,000		90	57.3	139.8	10,400		130	45.3	133.2	4,900
	38	75.7	141.1	37,100		95	55.1	136.5	9,600		135	43.0	128.0	4,500
	40	74.9	140.5	34,600		100	52.9	132.8	8,800		140	40.6	122.4	4,200
	45	72.8	139.1	29,400		105	50.6	128.9	8,100		145	38.1	116.3	3,800
	50	70.6	137.4	25,400		110	48.2	124.6	7,400		150	35.5	109.6	3,500
	55	68.4	135.5	22,300		115	45.8	119.9	6,800		155	32.6	102.1	3,200
	60	66.2	133.4	19,800		120	43.2	114.8	6,300		30	82.0	193.6	31,600*
	65	63.9	131.1	17,600		125	40.5	109.2	5,800		32	81.4	193.3	31,300*
	70	61.6	128.5	15,900		130	37.7	103.0	5,400		34	80.8	192.9	31,000*
	75	59.3	125.6	14,400		135	34.6	96.1	5,000		36	80.2	192.6	30,700*
	80	56.9	122.5	13,100		140	31.3	88.4	4,600		38	79.5	192.2	30,500*
	85	54.4	119.1	11,900		145	27.7	79.5	4,200		40	78.9	191.9	30,200*
	90	51.8	115.3	10,900		150	23.5	69.0	3,900		45	77.4	190.8	28,400
	95	49.2	111.1	10,000		155	18.5	55.9	3,600		50	75.8	189.6	24,400
051	100	46.4	106.6	9,200		28	81.7	173.6	39,800*		55	74.3	188.3	21,200
	105	43.5	101.5	8,500		30	81.0	173.3	39,500*		60	72.7	186.8	18,700
	110	40.4	95.9	7,900		32	80.4	173.0	39,200*		65	71.1	185.1	16,600
	115	37.1	89.7	7,300		34	79.7	172.6	38,800*		70	69.5	183.3	14,800
	120	33.6	82.6	6,800		36	79.0	172.3	38,500*		75	67.9	181.4	13,300
	125	29.7	74.4	6,300		38	78.3	171.9	36,500		80	66.3	179.2	12,000
	130	25.2	64.7	5,800		40	77.6	171.4	34,000		85	64.6	176.9	10,800
	135	19.8	52.6	5,400		45	75.9	170.2	28,800		90	62.9	174.5	9,800
	26	81.4	153.7	53,200*		50	74.1	168.9	24,800		95	61.2	171.8	8,900
	28	80.6	153.4	52,800*		55	72.4	167.4	21,600		100	59.5	168.9	8,100
	30	79.8	153.0	51,500		60	70.6	165.7	19,100		105	57.7	165.9	7,400
	32	79.1	152.7	47,000		65	68.8	163.8	17,000		110	55.9	162.6	6,800
	34	78.3	152.3	43,200		70	67.0	161.8	15,200		115	54.1	159.1	6,200
	36	77.5	151.8	39,800		75	65.1	159.5	13,700		120	52.2	155.3	5,700
	38	76.7	151.4	36,900		80	63.3	157.1	12,400		125	50.2	151.3	5,200
	40	75.9	150.9	34,400		85	61.3	154.5	11,200		130	48.2	146.9	4,700
	45	73.9	149.5	29,200		90	59.4	151.6	10,200		135	46.2	142.3	4,300
	50	71.9	148.0	25,200		95	57.4	148.5	9,300		140	44.0	137.3	3,900
	55	69.9	146.2	22,100		100	55.4	145.2	8,500		145	41.8	131.9	3,600
	60	67.9	144.3	19,500		105	53.3	141.6	7,800		150	39.5	126.0	3,200
	65	65.8	142.1	17,400	051	110	51.2	137.7	7,200		32	81.8	203.4	27,000*
	70	63.7	139.7	15,700		115	49.0	133.5	6,600		34	81.2	203.1	26,900*
	75	61.5	137.1	14,100		120	46.7	128.9	6,100		36	80.7	202.7	26,800*
	80	59.3	134.3	12,800		125	44.3	124.0	5,600		38	80.1	202.4	26,700*
	85	57.1	131.2	11,700		130	41.9	118.7	5,100		40	79.5	202.0	26,400*
	90	54.8	127.8	10,700		135	39.3	112.8	4,700		45	78.0	201.0	25,700*
	95	52.4	124.1	9,800		140	36.5	106.3	4,300		50	76.6	199.9	24,200
	100	49.9	120.0	9,000		145	33.6	99.2	4,000		55	75.1	198.6	21,000
	105	47.4	115.6	8,300		150	30.4	91.1	3,700		60	73.6	197.2	18,500
	110	44.7	110.8	7,700		155	26.9	81.9	3,400		65	72.1	195.7	16,300
	115	41.9	105.4	7,100		160	22.8	71.1	3,100		70	70.6	194.0	14,600
	120	39.0	99.5	6,600		30	81.5	183.4	36,100*		75	69.1	192.1	13,000
	125	35.8	93.0	6,100		32	80.9	183.1	35,800*		80	67.5	190.1	11,700
	130	32.4	85.5	5,600		34	80.3	182.8	35,400*		85	66.0	188.0	10,600
	135	28.6	77.0	5,200		36	79.6	182.4	35,100*		90	64.4	185.6	9,600
	140	24.3	66.9	4,800		38	79.0	182.1	34,800*		95	62.8	183.1	8,700
	145	19.1	54.3	4,500		40	78.3	181.6	33,800		100	61.1	180.5	7,900
061	26	81.9	163.8	46,000*		45	76.7	180.5	28,600		105	59.5	177.6	7,200
	28	81.2	163.5	45,700*		50	75.0	179.3	24,600		110	57.8	174.5	6,500
	30	80.5	163.2	45,400*		55	73.4	177.8	21,500		115	56.1	171.3	5,900
	32	79.7	162.8	45,000*		60	71.7	176.3	18,900		120	54.4	167.8	5,400
	34	79.0	162.5	42,900		65	70.0	174.5	16,800		125	52.6	164.1	4,900
	36	78.3	162.1	39,600		70	68.3	172.6	15,000		130	50.7	160.1	4,500
	38	77.6	161.6	36,700		75	66.6	170.5	13,500		135	48.9	155.9	4,100
	40	76.8	161.2	34,200		80	64.8	168.2	12,200		140	46.9	151.3	3,700
	45	75.0	159.9	29,000		85	63.1	165.8	11,000		145	44.9	146.5	3,300
	50	73.1	158.5	25,000		90	61.3	163.1	10,000		150	42.9	141.3	3,000
	55	71.2	156.8	21,900		95	59.4	160.3	9,200					

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