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Port of Brownsville, TX 78521

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2649 Main St.
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TRUCK CRANE 550-TC

CRANE RENTAL

DIVISION

FOR CRANE FILE

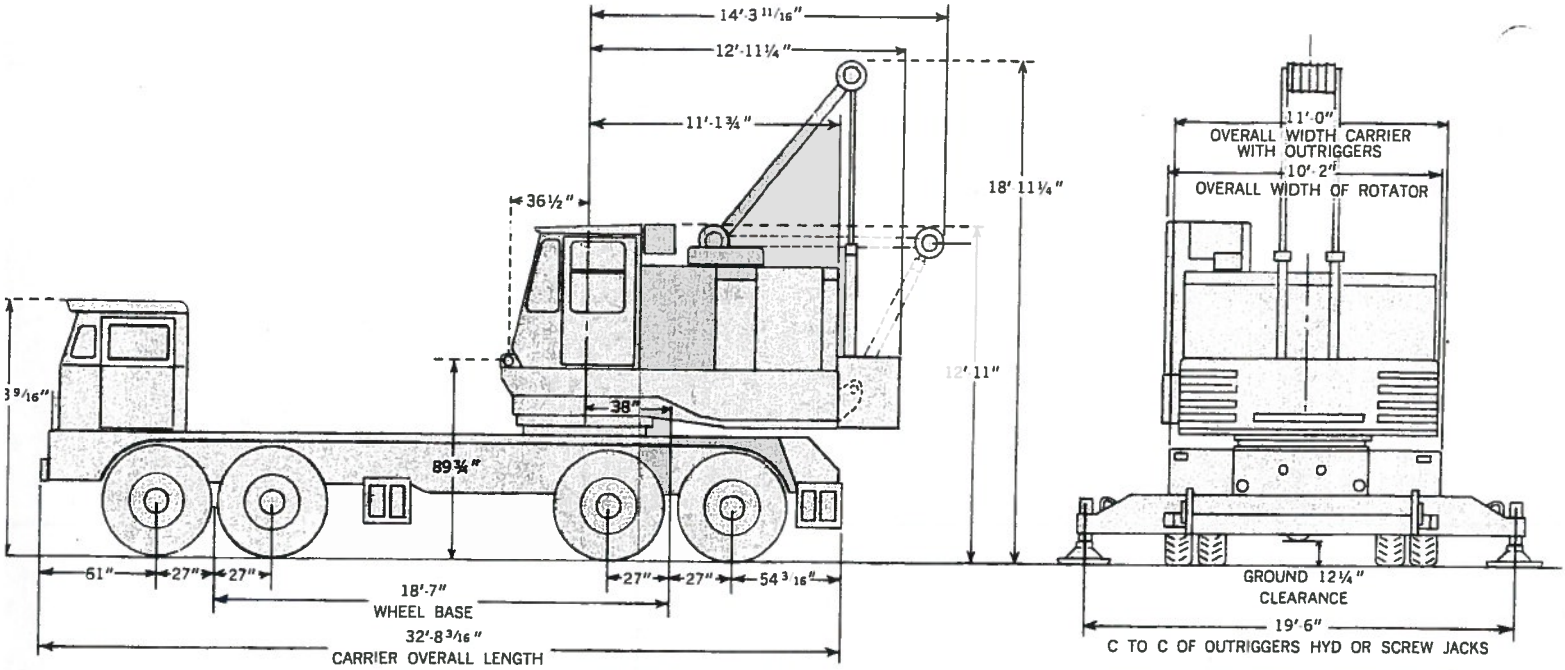
550-TC

TRUCK CRANE SPECIFICATIONS

Total Weight:
104,605 +

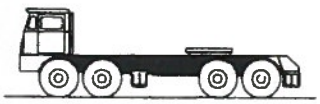
Boom Hoist for

CLEARANCE AND DIMENSIONS



WEIGHTS OF COMPONENT PARTS

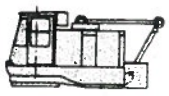
CARRIER
T-1



Total Weight of Carrier with Standard Engine and Outriggers.

49,390 Lbs.*

ROTATOR
R-1



Total Weight of Rotating Assembly with Standard Engine and Counterweight.

43,260 Lbs.*

CRANE ATTACHMENT
A-2

Total Weight of Crane Attachment with 40' Tubular Boom; 4 Point Sheaves; 10 Part Crossover, Boom Stop, Boom Angle Indicator, Necessary Drums and Cables.
6,645 Lbs.*

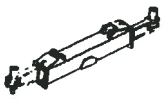
MISCELLANEOUS

Hook Block	1000 Lbs.
Boom Stop	540 Lbs.
Ball & Hook (5 Ton)	340 Lbs.

BOOM HOIST WIRE ROPES

Boom Hoist Rope	400 Lbs.
Crossover and Basic Pendants—	
10 Part Line	580 Lbs.
12 Part Line	610 Lbs.
Mid-Point Suspension	
150' & 160' Boom	415 Lbs.
170' & 180'	475 Lbs.

OUTRIGGER BOXES, BEAMS AND FLOATS



HYDRAULIC OUTRIGGERS:

Outrigger Box (2)	2245 Lbs. Each
Outrigger Beams (4)	1355 Lbs. Each
Floats (4)	110 Lbs. Each

Note: Also add 670 Lbs. for miscellaneous items when figuring truck weight with hydraulic outriggers.

BUMPER CWT. 6600 Lbs.

For Third Drum (Add)	840 Lbs.
For Power Load Lowering (Add)	340 Lbs.
For Full Width Front Drum w/PLL Add & Ratchet	1065 Lbs.

GANTRIES:

Telescopic Back-Hitch Gantry—1975 Lbs

Basic Gantry—760 Lbs.

Note: Weight of Gantry is Included In Rotating Assembly

ROTATING REAR CWT. 18,370 Lbs.

BOOM & BOOM EXTENSIONS

20' Point Section	2030 Lbs.*
20' Base Section	1605 Lbs.
10' Extension	765 Lbs.
20' Extension	1145 Lbs.
30' Extension	1610 Lbs.
40' Extension	2060 Lbs.

*Main Sheave and Guidesheaves Included in Point Section Weight.
All Extension Weight Includes Pendants

STANDARD JIB

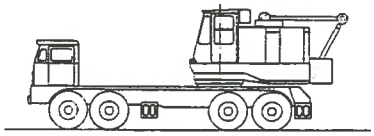
20' Basic Jib Assembly on Basic Boom Including	1700 Lbs.
10' Jib Extension	420 Lbs.
20' Jib Extension	690 Lbs.
Maximum Jib Length	60 Ft.

NOTE: For each additional 10' of boom length add 20 lbs. to Jib Assembly.

Generating Cables	Basic Weight	For Each Additional 10 Ft. of Boom—Add
Crane (Main Hoist)	620 Lbs.	—
Crane (Aux. Hoist)	100 Lbs.	20 Lbs.
Dragline	170 Lbs.	25 Lbs.
Clamshell	240 Lbs.	20 Lbs.

A-3 Dragline Attachment (Less Bucket)	
Tubular Boom	4705 Lbs.
Deck mounted Fairlead	745 Lbs.
Additional Rotating Parts	660 Lbs.
Total Attachment Weight	6110 Lbs
A-4 Clamshell Attachment (Less Bucket)	
Tublar Boom	4880 Lbs.
Tagline Winder	325 Lbs.
Additional Rotating Parts	660 Lbs
Total Attachment Weight	5865 Lbs.

urrent Price List Description



TOTAL WEIGHT OF T-1, R-1 & A-2 = 99,295 Lbs.

TOTAL WEIGHT OF T-1 & R-1 = 92,650 Lbs.

WORKING WEIGHTS (Approximate in pounds)

	HYDRAULIC OUTRIGGERS
LIFTING CRANE	99,295 Lbs.
CLAMSHELL (Less Bucket)	98,515 Lbs.
DRAGLINE (Less Bucket)	98,760 Lbs.

DESCRIPTIVE DATA (ROTATING ASSEMBLY)

Basic Standard and Optional Components

ROTATING BASE: Fabricated with integral machinery frames. Fuel tank built in.

SHAFTING: All shafting heat treated alloy steel ground to size. Involute splines used extensively.

VERTICAL SWING SHAFT: The vertical swing shaft and pinion is one piece, mounted on ball and roller bearings.

HORIZONTAL SWING SHAFT: This shaft is mounted on anti-friction bearings, geared to the front and rear drum shafts. It supplies power to the vertical swing shaft through a bevel pinion.

SWING BRAKE: A swing brake operates on the outside of the front swing clutch housing for use as a lock brake.

SWING BRAKE WITH SNUBBER: Same as swing brake except an additional control valve on swing lever provided for momentarily holding while setting loads.

JACK SHAFT: This shaft is mounted on ball bearings, and supplies power through a pinion gear to the power lowering shaft. Lube oil pump is belt driven from right hand end of jack shaft.

FRONT DRUM SHAFT: Supported by self-aligning anti-friction bearings and ball bearings. Mounted on the right hand end of this shaft is a swing clutch geared to the horizontal swing shaft. The right hand drum is a split lagging design, either smooth or grooved. All drums are mounted on ball bearings. Refer to "lagging data" table for specifications.

REAR DRUM SHAFT: Supported by self-aligning anti-friction and ball bearings. Mounted on the right hand end of this shaft is a swing clutch geared to the horizontal swing shaft. The right hand or boom hoist drum is solid-type design. The left hand drum is a split lagging design, either smooth or grooved. All drums are mounted on ball bearings. Refer to "lagging data" table for specifications.

HOIST BRAKES: Are external contracting friction band type, mechanically operated by pedals mounted on anti-friction bearings for maximum ease of operation. Hoist brakes have a foot-controlled lock.

CLUTCHES: All clutches are air actuated. All clutches are of the internal expanding friction band type with the exception of the swing clutches which are of the internal two shoe design.

BOOM HOIST: The boom hoist located on the rear drum shaft is of the spur gear and chain design with power up and power down control. Hoisting control is through an air actuated clutch with a spring set, air released holding brake. The brake automatically releases when hoisting or lowering. The lowering is controlled through an air actuated clutch mounted on the power lowering shaft and chain connected to the boom hoist drum. Lowering speed is reduced considerably resulting in a very smooth, precision, lowering operation. A ratchet and pawl device is supplied for added safety.

BOOMS AND JIBS: Extensible type with tubular chords — refer to boom and jib data.

BOOM STOP: Telescopic with or without automatic air cut-off of boom hoist clutch.

FAIRLEAD: Deck mounted, full revolving.

BOOM SUSPENSION: Crossover with 10 or 12 parts of line or 10 and 12 parts with mid-point suspension depending on boom length.

THIRD DRUM: One piece high capacity lagging running on ball bearings, located at left hand side of front drum shaft. Actuated by air operated clutch and brake. Refer to "lagging data" table for specifications.

FULL WIDTH FRONT DRUM: High capacity drum located on the front shaft, mounted on ball bearings and equipped with planetary controlled load lowering. Refer to "Lagging Data" table for specifications. (Third drum not available with this equipment.)

POWER LOWERING SHAFT: This shaft is located behind the rear hoist drum shaft and accommodates the power boom lowering and power load lowering.

POWER LOAD LOWERING: The power load lowering, air actuated clutch is chain connected to the left hand rear main hoist drum. The load lowering speed is reduced considerably, resulting in a very smooth precision, lowering operation.

COUNTERWEIGHT: One piece cast iron counterweight mounted at rear of rotating frame. Readily removable for weight reduction of machine for transporting.

COUNTERWEIGHT REMOVAL EQUIPMENT: Includes sheaves in base section of boom, lifting slings, and boom stop. Hoist cable over sheaves in boom base is used to load or unload counterweight from auxiliary truck. Gantry power up and down feature is used to position counterweight with slings provided.

GANTRY: The gantry consists of a basic low gantry to which is attached a high gantry having telescopic back legs with three set positions. Gantry can be (1) pinned in low position at cab height for traveling with boom in rest, (2) pinned in mid-position for traveling with boom suspended over rear of carrier, and (3), raised to full height for machine operation.

CONTROLS: All controls are air except hoist brakes which are mechanical.

OPERATOR'S CAB: Machine equipped with environmental operator's cab lined with sound barrier and deadening material, cuts noise level by an estimated 50 percent. Cab can be heated or air conditioned. Controls are grouped for maximum operator convenience, comfort and efficiency. Side and front windows slide up and down for ventilation. Numerous hatches and doors are provided for access to machinery and power plant. Hoist drums are not covered.

GEARING AND CHAIN DRIVES: All gearing, except rotating pinion and gear, is fully enclosed, running in oil with pump circulation for positive lubrication. The four chain sprockets for boom hoist and load lowering device require hand lubrication. Power take-off chain drive is fully enclosed, running in an oil bath.

REDUCTION GEAR FOR 2 SPEED OPERATION: This Cotta reduction gear unit will permit direct drive for normal machine speeds, plus a selective gear to obtain reduced machine speeds (approximately 50 to 60 percent) with no reduction in engine R.P.M. and power, for crane work.

MISCELLANEOUS ACCESSORIES: Ball and hook, hook block, electric signal horn, running board (short hook on type).

POWER TAKE-OFF: Disconnect clutch, precision roller chain.

LIMA 550-T DRAGLINE AND CLAMSHELL WORKING RANGES

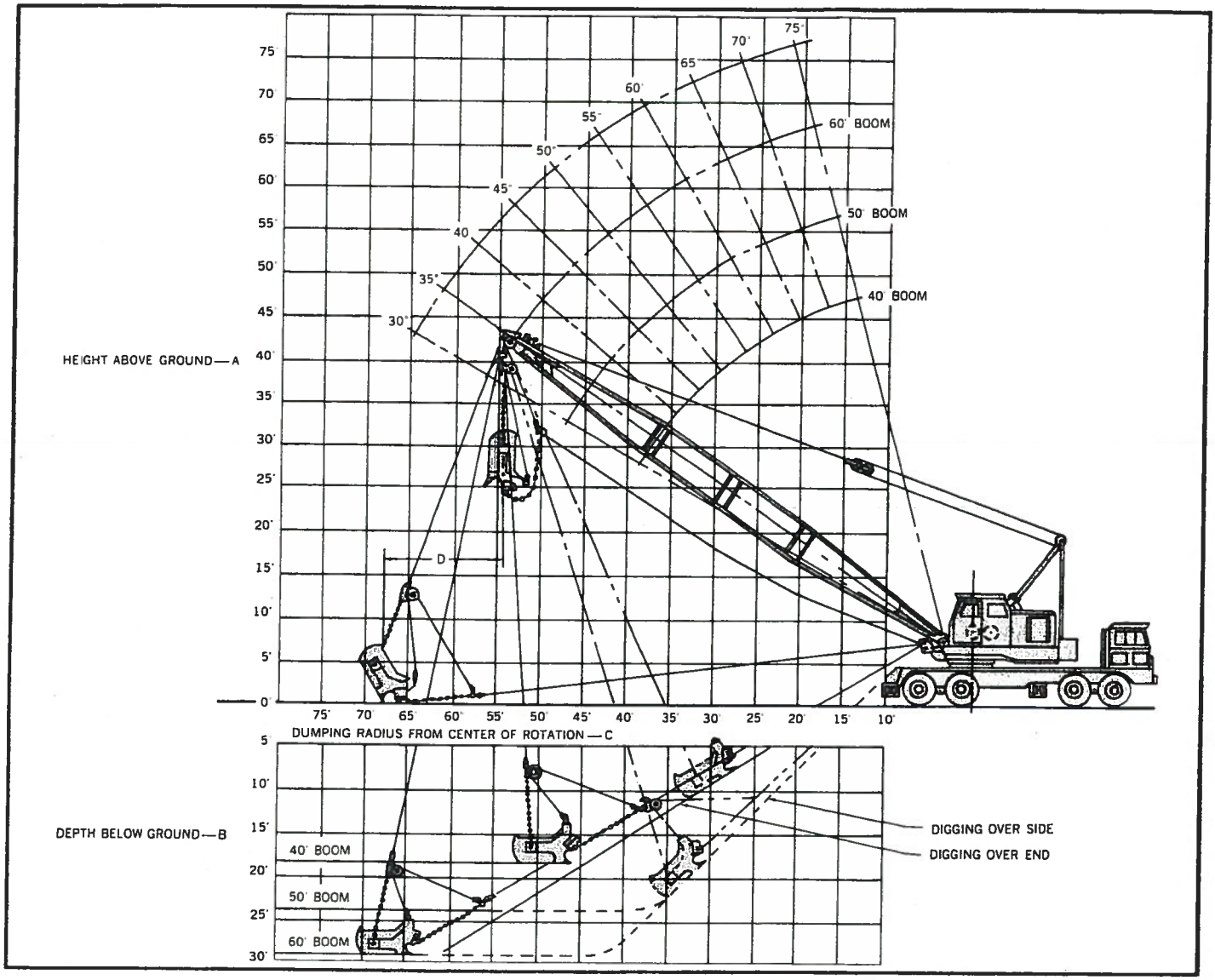


CHART REFERENCE AND NOTES

B—Digging depth—digging depths obtained are with standard wire rope lengths. These depths cannot be guaranteed because of type of material, size and type of bucket and digging conditions.

C—Dumping radius—depends upon boom length and boom angle. (See chart above.)

D—Bucket throw—depends upon skill of the operator and working conditions. (Usually 1/3 of the dumping height.)

DRAGLINE - CLAMSHELL - MAGNET CAPACITIES WITH OR LESS OUTRIGGERS

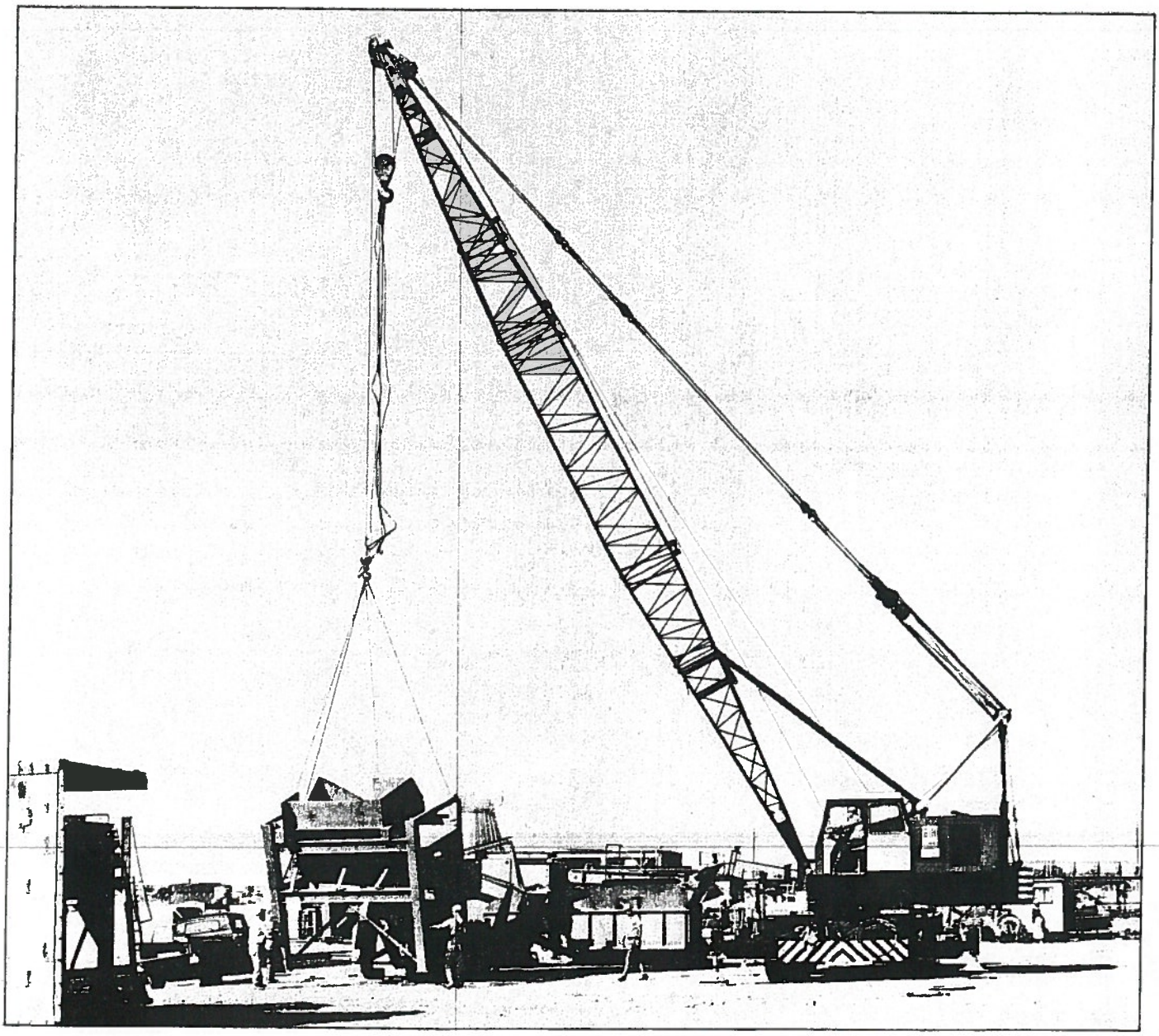
Load Radius	Boom Length and Boom Angle					
	40′	∠°	50′	∠°	60′	∠°
20′	28,900	65	28,850	70	28,800	74
25′	21,400	57	21,350	64	21,250	69
30′	16,850	48	16,750	57	16,650	63
35′	13,800	37	13,650	50	13,500	58
40′	11,550	22	11,400	42	11,300	52
45′			9,750	33	9,600	46
50′			8,400	20	8,250	38
55′					7,200	30
60′					6,350	18

NOTE: To maintain normal operating speeds the loaded bucket or magnet weight must not exceed 9,000#. Loads greater than 9000# require multiple reeving of the hoist line. Digging and footing conditions, together with skill of the operator, will determine whether or not the maximum loading conditions stated above can be used.

MATERIAL WEIGHTS

Material To Be Moved		Weight Per Cu. Ft.	Weight Per Cu. Yd.	Material To Be Moved		Weight Per Cu. Ft.	Weight Per Cu. Yd.
Coal	Broken, Loose	55	1485	Gypsum	Crushed 1" to 5"	100	2700
Coal	Solid	84	2268	Iron Ore		170	4590
Clay	Damp, Plastic	130	3510	Limestone	Loose	96	2592
Clay & Gravel	Dry	105	2835	Rock	Trap Rock Crushed	110	2970
Earth	Loam, Loose	80	2160	Sand	Damp, Packed	130	3510
Earth	Loam, Packed	100	2700	Sand	Dry	100	2700
Earth	Mud, Packed	110	2970	Stone	Loose	100	2700
Gravel		100	2700	Slag	Wet, Granulated	58	1566

Refer To Manufacturer's Information For Weight of Dragline or Clamshell Buckets.



State 45000 #s

AXLE LOADING AND WEIGHTS

EQUIPPED AS FOLLOWS: 14:00 x 20" tires; outrigger beams; 40 ft. tubular boom; G.M. 6171-N power plant in truck; G.M. 4-71 with direct drive power plant in rotating assembly. Includes laggings, boom stops and cables. Does not include third drum or power load lowering.

Weight Combinations	Boom Position	Front Tandem	Rear Tandem	Total
COMPLETE MACHINE (CRANE)	F	17,200	82,095	99,295
	R	42,140	57,155	99,295
MACHINE LESS COUNTERWEIGHT	F	25,565	55,360	80,925
	R	27,515	53,410	80,925
MACHINE LESS COUNTERWEIGHT, BOXES, BEAMS AND FLOATS	F	23,685	46,890	70,575
	R	25,635	44,940	70,575
MACHINE LESS COUNTERWEIGHT, BOXES, BEAMS, FLOATS, BOOM POINT SECTION.	F	18,950	49,365	68,315
	R	27,340	40,975	68,315
MACHINE LESS COUNTERWEIGHT, BOXES, BEAMS, FLOATS, COMPLETE BOOM.	F	16,380	48,170	64,550
	R	28,625	35,925	64,550

F—DENOTES BOOM EXTENDED FORWARD
R—DENOTES BOOM EXTENDED REARWARD
NOTE: Any deviation from the equipment listed above will affect the weights shown proportionately and compensation must be made accordingly.

POWER PLANT DATA (CARRIER)

	Make	Model	Fuel	Cyl.	Bore & Stroke	Rated H.P.
TRUCK CARRIER	Cummins	NHF-240	Diesel	6	5½" x 6"	240 @ 2,300
	GM	6171-N	Diesel	6	4¼" x 5"	244 @ 2,300

PERFORMANCE DATA (CARRIER)

TURNING RADIUS — 49 Feet (On Center Outside Front Tire)

Engine Make & Model	Carrier Equipped With 5 Speed Main & 3 Speed Auxiliary Trans.			
	Low Range*		High Range**	
	Grade	MPH	Grade	MPH
Cummins NHF-240	40%	1.3	1.0%	42.1
GM 6171-N	40%	1.3	1.1%	42.1

The above is based on a machine equipped with a 5 speed Fuller main transmission and Spicer 3 speed auxiliary transmission with Clark Planetary DB 50-70 axles.
*Based on fully equipped machine weighing 99,295#, with max. engine torque.
**Based on stripped machine weighing 62,290# with max. engine speed.

DESCRIPTIVE DATA (Carrier)

Basic and Optional Components

FRAME: Carrier frame of heavy-duty, all welded construction. Two main members, each of deep box section, are joined together by bumper and box section cross members. Tow hooks, front and rear. 100,000 P.S.I. steel is used in highly stressed members of frame.

SWING CIRCLE: A large diameter, single row, anti-friction bearing assembly with integral swing gear. Bearing is well sealed with close fitting races, eliminating all rocking motion of rotating assembly on carrier.

OUTRIGGER BOXES: The two outrigger boxes are fabricated from steel plates. Boxes are of the pin-on design for ease of removal.

OUTRIGGER BEAMS: Four, box section extensible beams mounted two in each outrigger box are fabricated with 100,000 P.S.I. steel.

HYDRAULIC OUTRIGGERS: Independent control valves for extending each beam and for lowering each hydraulic jack with floats provide precise leveling of truck. Control valve station on carrier at ground level.

REMOTE CONTROLLED CARRIER: Controls provided in cab of rotating assembly that can start, steer, brake, clutch, shift transmission (low and reverse) and control throttle. (Optional.)

FRONT TANDEM SUSPENSION: Front tandem axles are suspended by two alloy steel underslung equalizers, direct-connected to chassis frame. Two radius rods on each axle maintain proper positioning of axles.

FRONT AXLES: Two tubular—high clearance type, rating 17,000 # each. Wheels are mounted on roller bearings.

REAR AXLES: Planetary drive with inter-axle differential. No spin differential is available.

REAR TANDEM SUSPENSION: Rear tandem axles are suspended by two alloy steel underslung equalizers, direct-connected to chassis frame. One torque rod on each axle maintains proper positioning of axles.

WHEELS: Heavy-duty 20 x 10.0 rims, four singles in front, four duals in rear, making a total of twelve wheels.

TIRES: Twelve 14.00 x 20—18 ply rating.

FUEL CAPACITY: 85 gallons.

FENDERS: Fenders are of the combination fender-deck design, providing a flat full width—full length walkway.

SERVICE BRAKES: Air brakes on all wheels. Front brake shoes are 17¼" diameter x 4" wide. Rear brake shoes are 17¼" diameter x 5½" wide.

SAFETY BRAKES: Spring set, air released brake cylinders on rear axles lock brakes in case of air loss or for parking. An auxiliary air reservoir and controls allow brakes to be released and reapplied several times after loss of regular air supply.

OPERATING BRAKE: A hand-operated air valve applies the service brakes when required for holding the machine when operating on rubber.

STEERING: Hydraulic steering with Ross roller mounted cam and twin lever type steering gear powered by engine driven pump, double acting cylinders and hydraulic control valve built into draglink.

TRANSMISSION: Main transmission is a Fuller Model T-905-C with five speeds forward and one reverse.

AUXILIARY TRANSMISSION: Spicer Model R-8031-R with three speeds giving 15 speeds forward and three reverse.

CLUTCH: Lipe Rollway 14"-2-DLB.

CAB: One-man type, with visor type top. All steel construction, amply ventilated for summer or winter. Adjustable seat. Instrument cluster contains speedometer, odometer, ammeter, oil pressure gauge, water temperature gauge, fuel gauge and pilot light. Instrument panel contains air gauge, light switches, ignition and starter switch.

BUMPER COUNTERWEIGHT: Not to be used to affect lifting capacity. Used only to improve horizontal boom and jib handling abilities. See table, Page 7.

MISCELLANEOUS ACCESSORIES: Inflating hose and tire pressure gauge, boom rest, rear view mirror, two beam headlights, stop and tail light, front, middle and rear marker lights and parking lights, electric directional signals, spare rim with or without tire, air or electric windshield wipers, air and electric dual horns, fender, flaps, heater and defrosters.

POWER PLANT DATA (ROTATOR)

	Make	Model	Fuel	Cyl.	Bore & Stroke	Gross Rated H.P.	Mech. Drive *H.P. @ Gov. erned R.P.M.	Torque Conv. H.P. @ Gov. erned R.P.M.
ROTATING ASSEMBLY	Cummins	H-743-PI60	Diesel	6	5⅛" x 6"	160 @ 1,800	130 @ 1,800	135 @ 1,800
	GM	4081	Diesel	4	4¼" x 5"	150 @ 2,300	—	130 @ 2,100
	GM	4055C	Diesel	4	4¼" x 5"	150 @ 2,300	127 @ 2,000	—

*Two speed transmission or mechanical drive does not affect H.P. rating.

CLUTCH AND BRAKE DATA

	CLUTCHES				BRAKES			
FUNCTION	Type	Width	Diameter	Area	Type	Width	Diameter	Area
Main Hoist	Band	5"	24"	337 Sq. In.	Band	4½"	30"	338 Sq. In..
Auxiliary Hoist	Band	5"	24"	337 Sq. In.	Band	4½"	30"	338 Sq. In.
3rd Drum Hoist	Band	5"	24"	337 Sq. In.	Band	4½"	30"	338 Sq. In.
Boom Hoist	Band	5"	24"	337 Sq. In.	Band	4½"	30"	338 Sq. In.
Swing	2 Shoe	4½"	24"	290 Sq. In.	Band	4½"	30"	338 Sq. In.
Boom Lowering	Band	4½"	20"	248 Sq. In.				
Load Lowering	Band	4½"	20"	248 Sq. In.	Band*	4"	26"	240 Sq. In.
*Front Drum	Band	5"	24"	337 Sq. In.	Band	4½"	30"	338 Sq. In.

*Full width front drum with planetary load lowering.

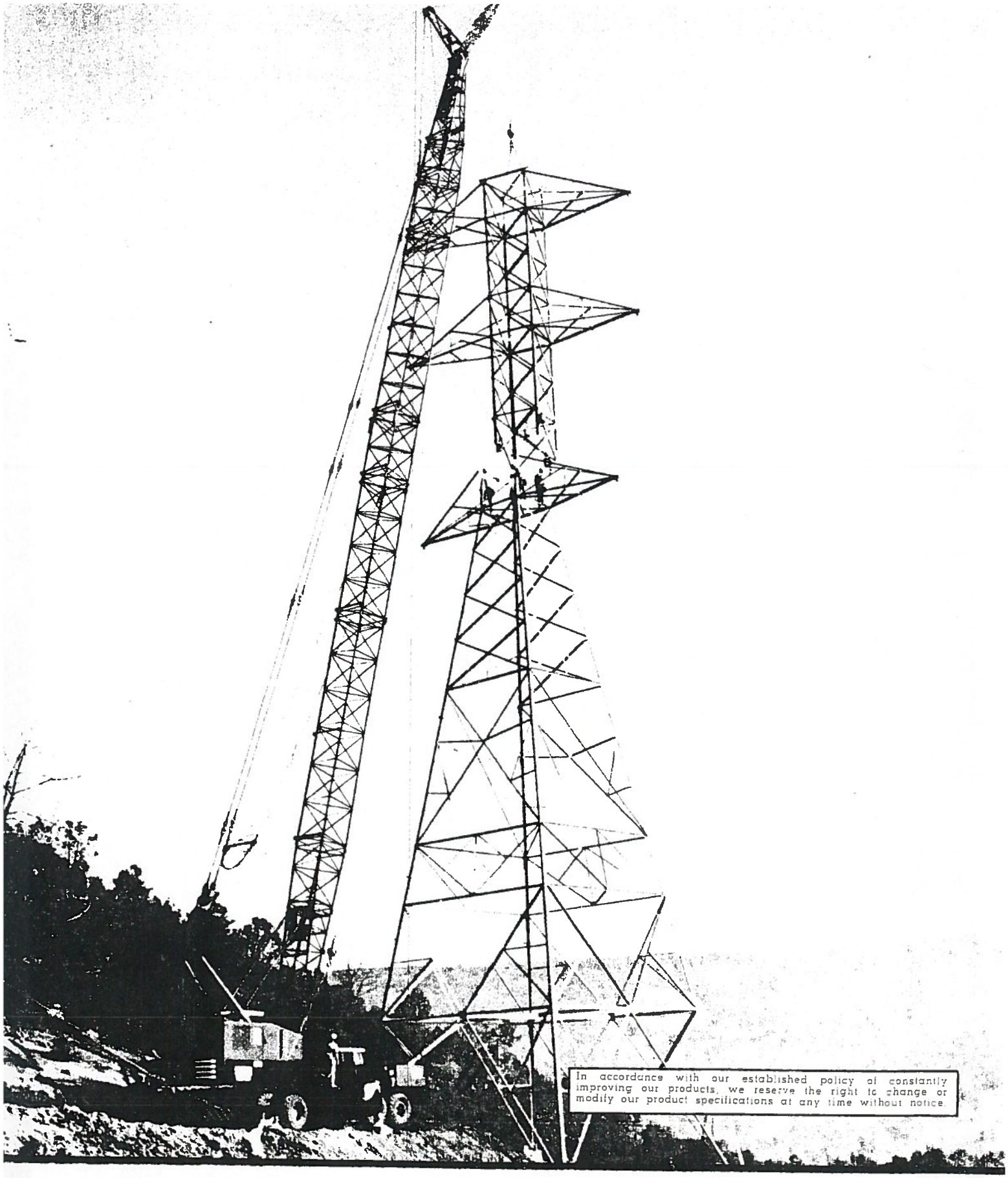
LAGGING DATA

Lagging Location	Usage	Lagging P. D.	Lagging Width	Type of Lagging	Eff. Capy. 1st Layer	Maximum Capy. & Layers	Wire Rope Size	Line Speed (F.P.M.)	*Line Pull (Approx.)
L. H. Front	Third Drum	14"	11"	Smooth	45'	464' in 7	¾"	138'	14,500#
R. H. Front	Crane Auxiliary Hoist	16"	14½"	Smooth	71'	569' in 6	¾"	157'	21,000#
R. H. Front	Dragline Drag	16⅛"	14½"	Grooved	48'	—	⅞"	159'	20,835#
L. H. Rear	Dragline Hoist	16"	14½"	Grooved	48'	—	¾"	157'	21,000#
L. H. Rear	Main Hoist	16"	14½"	Smooth	71'	569' in 6	¾"	157'	21,000#
R. H. Front	Clamshell Holding	16"	14½"	Grooved	48'	—	¾"	157'	21,000#
L. H. Rear	Clamshell Closing	16"	14½"	Grooved	48'	—	¾"	157'	21,000#
R. H. Rear	Boom Hoist	12"	8½"	Smooth	28'	372' in 8	¾"	118'	28,000#
Full Width Front Drum	Main or Aux. Hoist	16"	24"	Smooth	123'	959' in 6	¾"	157'	21,000#

*Line pulls are based on the first layer on drum and full rated engine H.P., see recommended reeving for limitation of single line load.

MISCELLANEOUS DATA (ROTATOR)

Swing Speed	3.0 RPM	Fuel Capacity 210 Gallons



In accordance with our established policy of constantly improving our products, we reserve the right to change or modify our product specifications at any time without notice.

CLARK EQUIPMENT

CLARK EQUIPMENT COMPANY

LIMA DIVISION

LIMA OHIO 45802

CRANE LIFTING CAPACITIES

60 Ton Class 15-325 — **Lifting Capacities 85% of Tipping Loads** — **Maximum CWT.—18,370#**

Boom Lgth.	Rad.	∠°	On Outriggers Side or Rear	On Tires Side	On Tires Rear
40′	15	73	120,000*	55,175	57,925
	20	65	89,700*	36,800	39,900
	25	57	67,375	27,275	30,125
	30	48	50,050	21,450	24,000
	35	37	39,600	17,500	19,800
	40	22	32,600	14,675	16,725
50′	15	76	109,750*	55,000	57,850
	20	70	89,450*	36,625	39,775
	25	64	67,350	27,075	29,975
	30	57	50,025	21,250	23,825
	35	50	39,550	17,300	19,625
	40	42	32,500	14,475	16,550
	45	33	27,475	12,325	14,200
	50	20	23,700	10,650	12,375
60′	15	79	109,500*	54,925	57,725
	20	74	89,125*	36,475	39,600
	25	69	67,325	26,925	29,800
	30	63	50,000	21,050	23,625
	35	58	39,450	17,100	19,400
	40	52	32,400	14,250	16,325
	45	46	27,325	12,125	14,000
	50	38	23,525	10,425	12,150
	55	30	20,575	9,075	10,650
	60	18	18,200	7,975	9,425
70′	20	76	89,025*	36,450	39,575
	25	72	67,300	26,875	29,750
	30	67	49,975	21,025	23,575
	35	63	39,425	17,050	19,350
	40	58	32,375	14,200	16,275
	45	53	27,300	12,050	13,925
	50	48	23,500	10,375	12,075
	55	42	20,550	9,025	10,600
	60	36	18,175	7,925	9,375
	65	28	16,225	7,000	8,350
	70	17	14,600	6,200	7,475
80′	20	78	88,700*	36,325	39,400
	25	74	67,275	26,700	29,550
	30	70	49,950	20,825	23,375
	35	66	39,350	16,850	19,125
	40	62	32,250	14,000	16,050
	45	58	27,150	11,825	13,700
	50	54	23,325	10,150	11,850
	55	49	20,350	8,800	10,350
	60	45	17,975	7,675	9,125
	65	39	16,025	6,750	8,100
	70	33	14,400	5,975	7,225
	75	26	13,000	5,275	6,475
	80	16	11,825	4,700	5,800
90′	25	76	67,250	26,600	29,425
	30	73	49,900	20,725	23,250
	35	69	39,275	16,750	19,000
	40	66	32,175	13,875	15,925
	45	63	27,075	11,725	13,575
	50	59	23,250	10,025	11,725
	55	55	20,275	8,675	10,225
	60	51	17,875	7,575	9,000
	65	47	15,925	6,625	7,975
	70	43	14,300	5,850	7,100
	75	38	12,900	5,175	6,350
	80	32	11,725	4,575	5,700
	85	26	10,700	4,075	5,125
	90	17	9,800	3,625	4,600
100′	30	74	49,825	20,575	23,100
	35	71	39,200	16,600	18,850
	40	68	32,075	13,725	15,775
	45	65	26,975	11,575	13,425
	50	62	23,125	9,875	11,575
	55	59	20,150	8,525	10,075
	60	55	17,750	7,400	8,850
	65	52	15,800	6,475	7,825
	70	47	14,150	5,675	6,925
	75	44	12,775	5,000	6,175
	80	40	11,575	4,425	5,525
	85	35	10,550	3,900	4,950
	90	30	9,650	3,450	4,450
	95	23	8,850	3,050	3,975
	100	14	8,150	2,675	3,575

Boom Lgth.	Rad.	∠°	On Outriggers Side or Rear	On Tires Side	On Tires Rear
110′	30	76	49,800	20,475	23,000
	35	73	39,150	16,500	18,750
	40	70	32,000	13,625	15,650
	45	68	26,900	11,450	13,300
	50	65	23,050	9,775	11,450
	55	62	20,050	8,400	9,950
	60	59	17,650	7,300	8,725
	65	56	15,700	6,350	7,700
	70	52	14,050	5,575	6,825
	75	49	12,675	4,900	6,050
	80	46	11,475	4,300	5,400
	85	42	10,450	3,775	4,825
	90	38	9,550	3,325	4,325
	95	33	8,750	2,925	3,850
	100	28	8,050	2,550	3,450
	105	22	7,400	2,225	3,075
	110	14	6,850	1,925	2,750
120′	35	75	39,050	16,300	18,525
	40	72	31,875	13,425	15,425
	45	70	26,750	11,250	13,075
	50	67	22,900	9,550	11,225
	55	64	19,875	8,175	9,725
	60	62	17,475	7,050	8,475
	65	59	15,500	6,125	7,450
	70	56	13,850	5,325	6,575
	75	53	12,475	4,650	5,825
	80	50	11,275	4,075	5,150
	85	47	10,250	3,550	4,575
	90	44	9,325	3,075	4,075
	95	40	8,525	2,675	3,625
	100	36	7,825	2,325	3,200
	105	32	7,200	1,975	2,825
	110	27	6,625	1,700	2,500
	115	21	6,100	— —	2,200
	120	13	5,625	— —	1,925
130′	35	76	38,925	16,150	18,375
	40	73	31,750	13,275	15,275
	45	71	26,625	11,100	12,925
	50	69	22,750	9,400	11,050
	55	66	19,750	8,025	9,550
	60	64	17,325	6,900	8,325
	65	62	15,375	5,975	7,300
	70	59	13,725	5,175	6,400
	75	56	12,325	4,500	5,650
	80	54	11,125	3,900	5,000
	85	51	10,100	3,375	4,425
	90	48	9,175	2,925	3,900
	95	45	8,375	2,525	3,450
	100	42	7,675	2,150	3,050
	105	38	7,025	1,825	2,675
	110	35	6,450	1,525	2,350
	115	31	5,950	— —	2,025
	120	26	5,475	— —	1,750
	125	20	5,050	— —	1,500
	130	12	4,650	— —	— —
140′	35	77	38,800	15,975	18,200
	40	75	31,625	13,100	15,100
	45	73	26,475	10,900	12,725
	50	70	22,600	9,200	10,875
	55	68	19,600	7,850	9,375
	60	66	17,175	6,725	8,150
	65	64	15,200	5,775	7,100
	70	61	13,550	5,000	6,225
	75	59	12,150	4,300	5,475
	80	57	10,975	3,725	4,800
	85	54	9,925	3,200	4,225
	90	52	9,025	2,750	3,725
	95	49	8,225	2,325	3,250
	100	46	7,500	1,975	2,850
	105	43	6,875	1,650	2,475
	110	40	6,300	— —	2,150
	115	37	5,775	— —	1,850
	120	33	5,300	— —	1,575
	125	29	4,875	— —	— —
	130	25	4,475	— —	— —
	135	20	4,100	— —	— —
	140	12	3,775	— —	— —
150′	40	76	31,550	12,925	14,900
	45	74	26,375	10,725	12,525
	50	72	22,475	9,025	10,675

Boom Lgth.	Rad.	∠°	On Outriggers Side or Rear	On Tires Side	On Tires Rear
150′	55	70	19,450	7,650	9,175
	60	68	17,025	6,525	7,925
	65	66	15,050	5,575	6,875
	70	64	13,375	4,775	6,000
	75	61	11,975	4,100	5,250
	80	59	10,775	3,500	4,575
	85	57	9,725	2,975	4,000
	90	55	8,825	2,525	3,475
	95	52	8,025	2,100	3,025
	100	50	7,300	1,725	2,625
	105	47	6,650	— —	2,250
	110	45	6,075	— —	1,900
	115	42	5,550	— —	1,600
	120	39	5,075	— —	— —
	125	36	4,650	— —	— —
	130	32	4,250	— —	— —
	135	28	3,875	— —	— —
	140	24	3,550	— —	— —
	145	19	3,225	— —	— —
	150	12	2,950	— —	— —
160′	40	77	31,400	— —	— —
	45	75	26,225	— —	— —
	50	73	22,325	— —	— —
	55	71	19,275	— —	— —
	60	69	16,850	— —	— —
	65	67	14,850	— —	— —
	70	65	13,200	— —	— —
	75	63	11,800	— —	— —
	80	61	10,575	— —	— —
	85	59	9,525	— —	— —
	90	57	8,625	— —	— —
	95	55	7,800	— —	— —
	100	53	7,100	— —	— —
	105	50	6,450	— —	— —
	110	48	5,875	— —	— —
	115	46	5,350	— —	— —
	120	43	4,875	— —	— —
	125	40	4,425	— —	— —
	130	37	4,025	— —	— —
	135	34	3,675	— —	— —
	140	31	3,325	— —	— —
	145	28	3,025	— —	— —
	150	24	2,725	— —	— —
	155	19	2,450	— —	— —
	160	12	2,200	— —	— —
170′	45	76	26,075	— —	— —
	50	74	22,175	— —	— —
	55	72	19,125	— —	— —
	60	70	16,675	— —	— —
	65	69	14,675	— —	— —
	70	67	13,025	— —	— —
	75	65	11,600	— —	— —
	80	63	10,400	— —	— —
	85	61	9,350	— —	— —
	90	59	8,425	— —	— —
	95	57	7,625	— —	— —
	100	55	6,900	— —	— —
	105	53	6,250	— —	— —
	110	51	5,675	— —	— —
	115	49	5,150	— —	— —
	120	47	4,675	— —	— —
	125	44	4,225	— —	— —
	130	42	3,825	— —	— —
	135	39	3,475	— —	— —
	140	36	3,125	— —	— —
	145	33	2,800	— —	— —
	150	30	2,525	— —	— —
	155	27	2,250	— —	— —
	160	23	2,000	— —	— —
	165	18	1,750	— —	— —
	170	11	1,525	— —	— —
180′	45	77	25,925	— —	— —
	50	75	22,000	— —	— —
	55	73	18,950	— —	— —
	60	72	16,525	— —	— —
	65	70	14,525	— —	— —
	70	68	12,850	— —	— —
	75	66	11,450	— —	— —
	80	65	10,225	— —	— —

Boom Lgth.	Rad.	∠°	On Outriggers Side or Rear	On Tires Side	On Tires Rear
180′	85	63	9,175	— —	— —
	90	61	8,250	— —	— —
	95	59	7,450	— —	— —
	100	57	6,725	— —	— —
	105	56	6,075	— —	— —
	110	54	5,500	— —	— —
	115	52	4,975	— —	— —
	120	49	4,500	— —	— —
	125	47	4,050	— —	— —
	130	45	3,650	— —	— —
	135	43	3,300	— —	— —
	140	40	2,950	— —	— —
	145	38	2,625	— —	— —
	150	35	2,350	— —	— —
	155	33	2,075	— —	— —
	160	30	1,825	— —	— —
	165	26	1,575	— —	— —

CAPACITIES BELOW INCL. JIB (See Jib Data)

Capacities Over Side or Rear on Outrigger

Boom Lgth.	Jib Rad.	Jib Capacity
190′ (170′ +20′)	45	26,000
	50	22,250
	60	16,525
	70	12,700
	80	9,950
	90	7,900
	100	6,300
	110	5,025
	120	3,975
	130	3,100
	140	2,350
	150	1,725
200′ (180′ +20′)	45	26,000
	50	22,125
	60	16,375
	70	12,525
	80	9,775
	90	7,725
	100	6,125
	110	4,825
	120	3,775
	130	2,900
	140	2,175
	150	1,525
210′ (180′ +30′)	60	16,350
	70	12,500
	80	9,750
	90	7,700
	100	6,100
	110	4,800
	120	3,750
	130	2,875
	140	2,150
	150	1,500
220′ (160′ +60′)	70	8,000
	80	8,000
	90	7,675
	100	6,075
	110	4,775
	120	3,725
	130	2,850
	140	2,125

This capacity chart is based upon:

1. Loads marked by * are the maximum allowable loads permitted by structural strength of the parts, and are not based on the stability of the machine.
2. All other loads are based on stability, and do not exceed 85% of tipping in the least stable direction.
3. Machine to be leveled on firm solid support; shock and size loading are to be prevented.
4. Machine equipped with hydraulic outriggers.
5. All hook blocks, lifting tackle, or jib attachments are considered a part of the load to be lifted.
6. "With Outriggers," capacities are based upon having all tires within boundary of outriggers free of ground.
7. "Less Outriggers," capacities are not recommended for traveling (refer to Lima for travel load rating).
8. Exceeding these capacities, or altering the counterweight nullifies all warranties.
9. Loads should not be handled over front of carrier.
10. Capacities above dotted line require a wire rope of length greater than furnished as standard with the machine.

* Capacities per SAE Code J765

** Class Designation per U.S. Department of Commerce Standards

MAXIMUM LENGTH BOOM OR BOOM AND JIB COMBINATION THAT CAN BE HANDLED HORIZONTALLY WITH OR WITHOUT BUMPER COUNTERWEIGHT AS INDICATED

Over Rear With OR.		Over Side With OR.		Over Rear Less OR.		Over Side Less OR.	
L/B Cwt.	W/B Cwt.	L/B Cwt.	W/B Cwt.	L/B Cwt.	W/B Cwt.	L/B Cwt.	W/B Cwt.
170′ + 20′	180′ + 20′	160′ + 20′	160′ + 20′	120′ + 20′	130′ + 20′	100′ + 20′	100′ + 20′
160′ + 30′	180′ + 30′	150′ + 30′	160′ + 30′	110′ + 30′	130′ + 30′	100′ + 30′	100′ + 30′
150′ + 40′	170′ + 40′	150′ + 40′	150′ + 40′	100′ + 40′	120′ + 40′	90′ + 40′	100′ + 40′
150′ + 50′	160′ + 50′	140′ + 50′	150′ + 50′	100′ + 50′	110′ + 50′	90′ + 50′	80′ + 60′
150′ + 60′	160′ + 60′	140′ + 60′	140′ + 60′	90′ + 60′	110′ + 60′	80′ + 60′	80′ + 60′

LB=Less Bumper Counterweight.
WB=With Bumper Counterweight.

BOOM AND JIB DATA

Boom, Tubular Pin Connected	
Type Service	Crane - Drag - Clamshell
Suspension	Cross Over and Pendants
Gantry	High Back Hitch (Telescoping Type)
Quan. Sheaves at Point Shaft	1 - 2 - 4
Convertibility	Cranes - Draglines - Clamshell
Dia. Point Sheaves	15-3/4" P.D. - 3/4" Cable
Basic Boom Length	40′
Type Chords	2-7/8" O.D. 100,000 P.S.I. Steel
Extensions	10′, 20′, 30′ and 40′ Straight (51" x 56-5/8" Sec.)
Max. Boom Length	Crane 180′ Drag. & Clam. 60′.

Jib, Tubular Pin Connected	
Basic Length	20′ (25-1/2" x 34-1/2")
Max. Length	60′
Chord Size	2-1/2" O.D.
Chord Material	100,000 #P.S.I. Yield
Quan. Sheaves at Point	One (1)
P.D. Point Sheave	15-3/4" P.D. (3/4" Cable)
Capacity—20′-0"	13 Ton
30′-0"	10 Ton
40′-0"	7 Ton
50′-0"	5 Ton
60′-0"	4 Ton

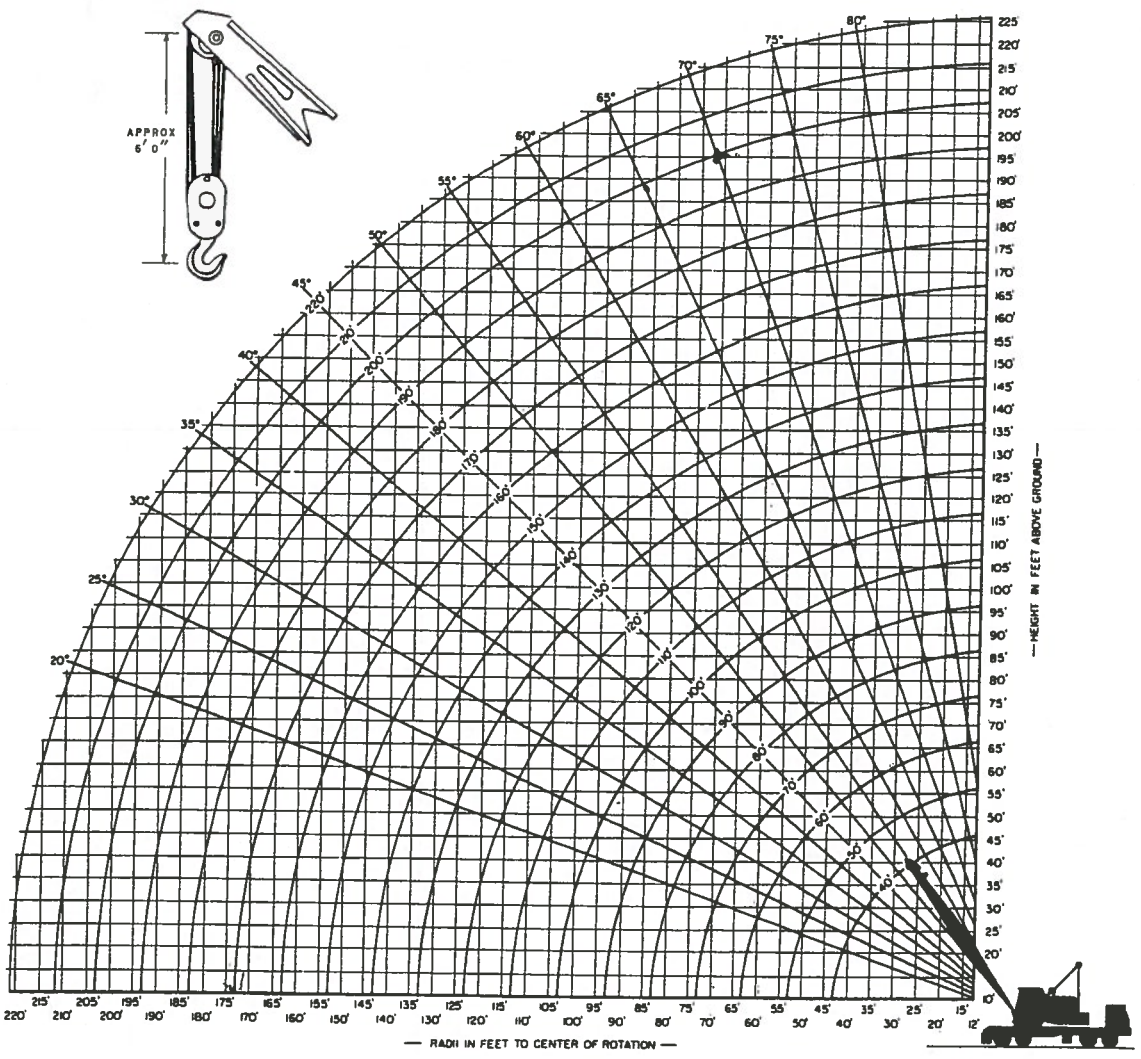
BOOM HOIST SUSPENSION DATA

*Boom Length	Reeving Required	Mid-Point Suspension Location
Up to 140′	10 or 12 Part Crossover	None
150′ thru 160′	10 or 12 Part w/Mid-Point Suspension	80′ From Boom Foot Pin
170′ thru 180′	12 Part w/Mid-Point Suspension	90′ From Boom Foot Pin

*Boom length determines suspension required. Jib does not affect requirement.

Time required to raise or lower a 40′ boom from 20° above horizontal to 70° above horizontal with 10 part boom hoist reeving.	To Raise	To Lower
	45 Sec.	74 Sec.

CRANE WORKING RANGES



For Boom or Jib specifications, descriptions, maximum lengths and applications, refer to Boom and Jib Data chart.

Recommended Wire Rope Reeving For Hook Blocks	
Load in Pounds	**No. Part Line**
Over 14,500	2
Over 29,000	3
Over 43,500	4
Over 58,000	5
Over 72,500	6
Over 87,000	7
Over 101,500	8

Requires ¾" dia. wire rope having a minimum breaking strength of 58,800 lbs.

Jib (25½" x 34½" Sec.)			
Jib Length	Rating	Offset	Effective Weight
20′	13 Ton	6′-10"	2,250#
30′	10 Ton	12′-1"	2,750#
40′	7 Ton	17′-4"	3,250#
50′	5 Ton	22′-7"	3,700#
60′	4 Ton	27′-10"	4,300#

Jib Capacities are approximately the same as Boom Capacities at any given radius, but not to exceed the rating listed above. Effective Jib Weight to be subtracted from Boom Capacity Chart if load is raised on boom point when jib is assembled on boom.