



LIMA

75-C

CRANE

DRAGLINE • CLAMSHELL

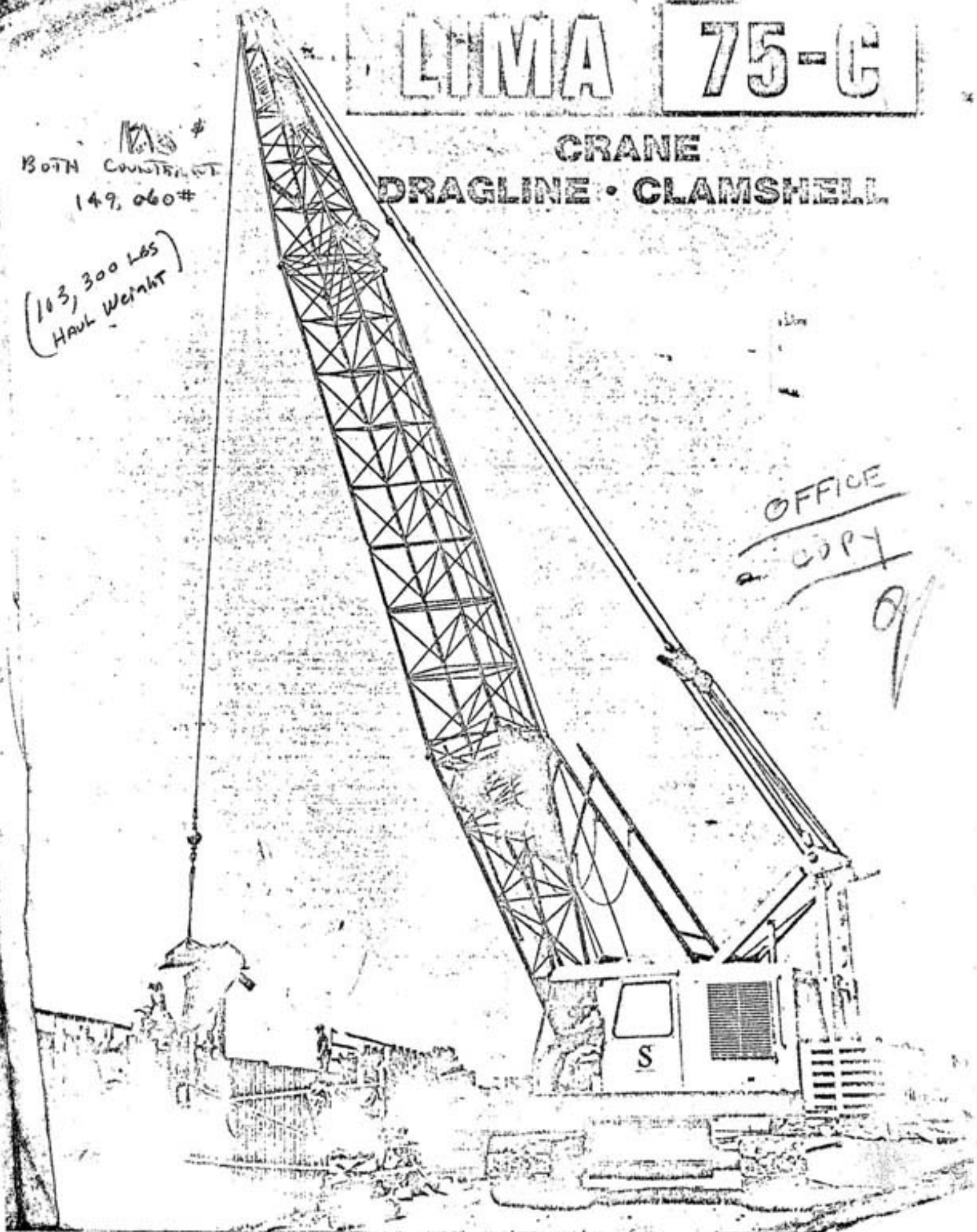
173 #
BOTH COUNTERS
149,060#

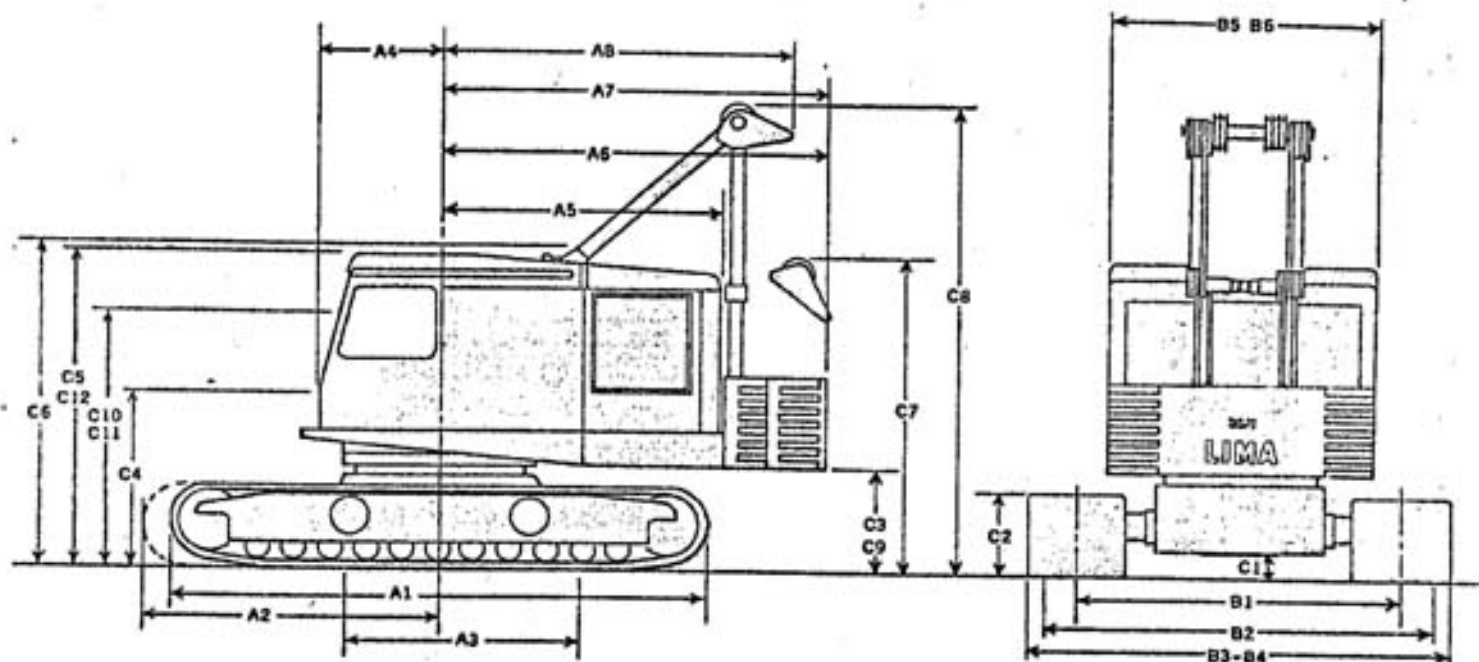
(103,300 LBS)
HAUL WEIGHT

OFFICE

copy

9



**FRONT TO BACK**

A1.	Crawler Length	19'-0"
A2.	Over Corner Crawlers Retract—30" Trd's	11'-0 ¹¹ / ₁₆ "
	Over Corner Crawlers Retract—35" Trd's	11'-3 ¹ / ₄ "
	Over Corner Crawlers Retract—42" Trd's	11'-7"
	Over Corner Crawlers Extend.—30" Trd's	11'-9"
	Over Corner Crawlers Retract—35" Trd's	12'-0"
	Over Corner Crawlers Extend.—42" Trd's	12'-1 ¹ / ₈ "
A3.	Truck Base Length	9'-9 ³ / ₄ "
A4.	C Boom Foot to C Rotation	3'-4 ¹⁵ / ₁₆ "
A5.	Rear End Swing—Corner of Cab	11'-1 ¹ / ₄ "
A6.	Rear End Swing—23,100# C'w't	12'-4 ³ / ₄ "
	Rear End Swing—40,800# C'w't	13'-8 ³ / ₄ "
A7.	C Rotation to Rear Telescopic Backhitch Gantry Lowered	13'-10"
A8.	C Rotation to Rear Telescopic Backhitch Gantry Raised	12'-5 ³ / ₈ "

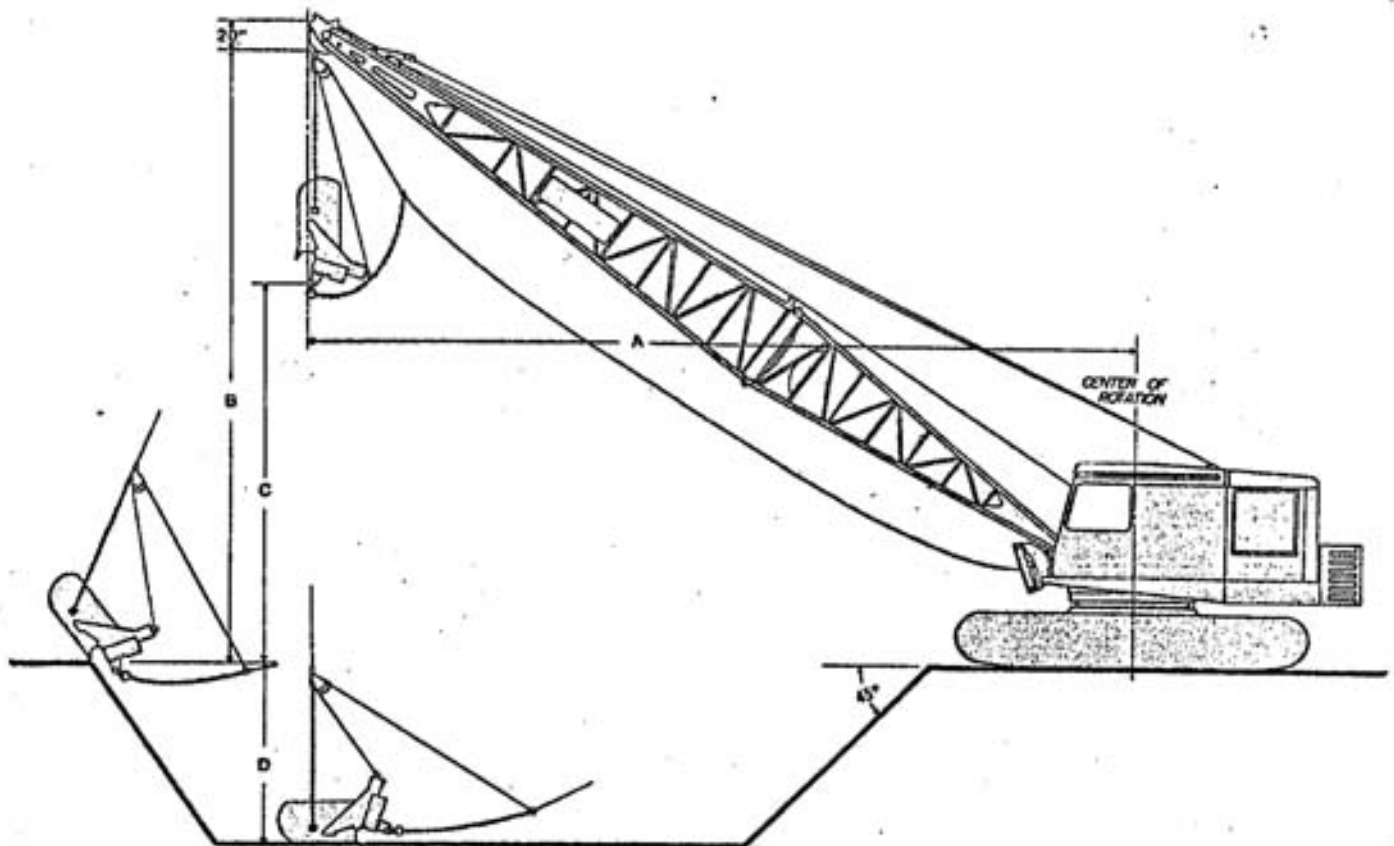
SIDE TO SIDE

B1.	C to C Tread Rollers—Cawlers Retract. 30" and 35" Treads		8'-11"
	C to C Tread Rollers—Crawlers Retract. 42" Treads		9'-8"
	C to C Tread Rollers—Crawlers Extend.		11'-6"
B2.	Overall Length of Axles		11'-4"
B3.	Overall Width Crawlers Retracted	30" Treads	11'-2"
		35" Treads	12'-0"
		42" Treads	13'-2"
B4.	Overall Width Crawlers Extended	30" Treads	13'-9"
		35" Treads	14'-7"
		42" Treads	15'-0"
B5.	Overall Width Cab		9'-7 ³ / ₈ "
B6.	Overall Width Rot. Unit and C'w't		9'-5"

VERTICAL

C1.	Ground Clearance	11"
C2.	Ground to Top of Crawlers	3'-1"
C3.	Ground to Bottom of Counterweight	3'-10"
C4.	Ground to C of Boom Foot Pin	6'-5"
C5.	Ground to Top of Cab	11'-6 ⁵ / ₈ "
C6.	Ground to Top of Low Gantry	11'-8"
C7.	Overall Height Telescopic Backhitch Gantry Lowered	11'-9 ¹ / ₄ "

C8.	Overall Height Telescopic Backhitch Gantry Raised	17'-2 ⁵ / ₈ "
C9.	Ground to Bottom of Rot. Unit	3'-10"
C10.	Eye Level Standard Cab	9'-8"
C11.	Eye Level Elevated Cab	14'-3"
C12.	Overall Height Elevated Cab	16'-4 ³ / ₄ "

**DRAGLINE-CLAMSHELL WORKING RANGES**

Boom Lengths	50'				60'				70'			
Boom $\angle^\circ$	30°	35°	40°	45°	30°	35°	40°	45°	30°	35°	40°	45°
A. Dumping Radius	46'-5"	44'-4"	41'-8"	38'-9"	53'-5"	52'-6"	49'-3"	45'-9"	64'-0"	60'-9"	56'-11"	52'-11"
B. Height (to bottom of Point Sheave)	30'-4"	34'-2"	37'-8"	40'-9"	35'-5"	40'-0"	44'-2"	47'-11"	40'-6"	45'-8"	50'-6"	55'-0"
C. Clear Dump Height (Dragline)	15'-9"	19'-7"	23'-1"	26'-2"	20'-10"	25'-5"	29'-7"	33'-4"	25'-11"	31'-1"	35'-11"	40'-5"
C. Clear Dump Height (Clamshell)	20'-8"	24'-6"	28'-0"	31'-1"	25'-9"	30'-4"	34'-6"	38'-3"	30'-10"	36'-0"	40'-10"	45'-4"
D. Normal Digging Depth	34'-0"	31'-8"	29'-0"	26'-2"	42'-9"	39'-10"	36'-8"	33'-3"	51'-5"	48'-0"	44'-3"	40'-3"

Dragline digging depths shown are theoretical. They are based on the first layer of drum capacity and may be altered by digging and job conditions.

DRAGLINE—CLAMSHELL—MAGNET LIFTING CAPACITIES

Machine On Firm Level Ground

Load Radius in Feet	BOOM LENGTH AND BOOM ANGLE						23,100# C'w't
	50'	$\angle^\circ$	60'	$\angle^\circ$	70'	$\angle^\circ$	
30	21,400	58	—	—	—	—	—
35	17,300	51	17,175	58	—	—	—
40	14,300	42	14,250	52	14,100	58	—
45	12,200	34	12,075	46	11,900	53	—
50	10,550	21	10,375	39	10,175	48	—
55	—	—	9,025	31	8,825	43	—
60	—	—	7,925	19	7,725	36	—
65	—	—	—	—	6,800	28	—
70	—	—	—	—	6,025	18	—

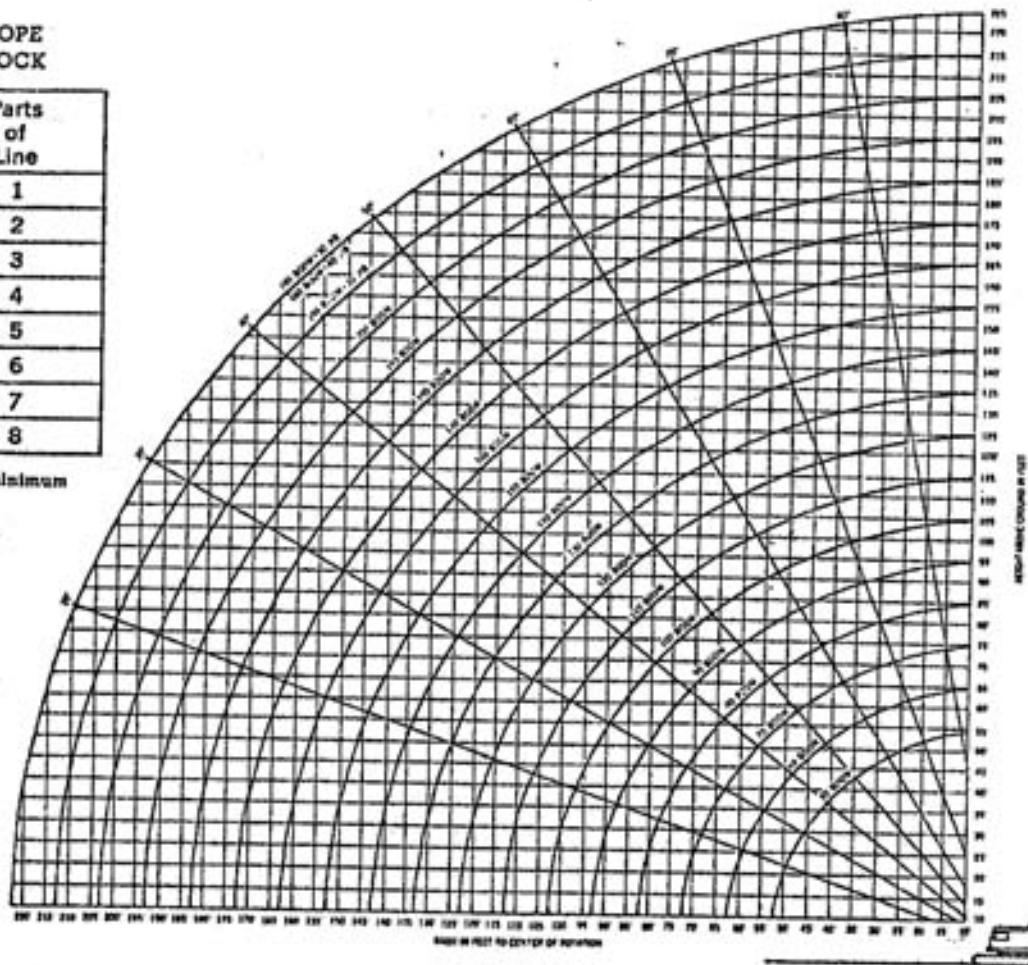
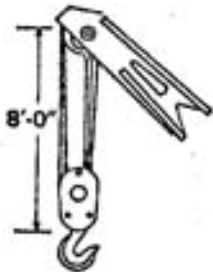
To maintain normal operating speeds, the loaded bucket or magnet weight must not exceed 12,000 lbs. (Loads greater than this require multiple reeving at the hoist line for Magnet Duty.)

Digging and footing conditions, together with the skill of the operator, will determine whether or not maximum loading conditions stated above can be used.

RECOMMENDED WIRE ROPE
REEVING FOR HOOK BLOCK

Load in Pounds	Parts of Line
To 19,000	1
Over 19,000	2
Over 38,000	3
Over 57,000	4
Over 76,000	5
Over 95,000	6
Over 114,000	7
Over 133,000	8

Requires $\frac{3}{8}$ " wire rope having minimum breaking strength of 69240#. Based on 100% efficiency of equipment



JIB DATA

Length	Rating	Effective Weight	Offset
20'	7 Ton	2,050#	6'-0"
30'	5 Ton	2,350#	11'-0"
40'	3½ Ton	2,650#	15'-10"

Jib capacities are 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.

Maximum Length Boom, Or Boom Plus Jib That Can Be Handled Horizontally

With 23,100# Counterweight				With 40,800# Counterweight*			
Over Side		Over Rear		Over Side		Over Rear	
Crawlers Retracted	Crawlers Extended	Without Wedges	With Wedges	Crawlers Retracted	Crawlers Extended	Without Wedges	With Wedges
150'	170'	170'	190'	---	190'	200'	200'
130'+20'	150'+20'	150'+20'	170'+20'	---	170'+20'	170'+20'	190'+20'
130'+30'	140'+30'	150'+30'	160'+30'	---	170'+30'	170'+30'	190'+30'
120'+40'	140'+40'	140'+40'	160'+40'	---	160'+40'	170'+40'	180'+40'

*With 40,800# counterweight, crawlers must always be in extended position.



CRANE LIFTING CAPACITIES

75% Of Side Overturning Loads

75 Ton Class 12-283** Tubular Boom (50' Basic)						Chart No. 993-SA-797 Crawler Crane Lifting Capacities										30" Treads Machine On Firm Level Ground*										
Boom			Crawlers Extended			Crawlers Retracted			Boom			Crawlers Extended			Crawlers Retracted			Boom			Crawlers Extended			Crawlers Retracted		
Length	Load Radius	Angle	40,800# C'W'T	23,100# C'W'T	23,100# C'W'T	Length	Load Radius	Angle	40,800# C'W'T	23,100# C'W'T	23,100# C'W'T	Length	Load Radius	Angle	40,800# C'W'T	23,100# C'W'T	23,100# C'W'T	Length	Load Radius	Angle	40,800# C'W'T	23,100# C'W'T	23,100# C'W'T			
50'	12'	80	150,000	132,175	92,950	120'	70'	56	12,550	8,775	6,800	180'	35'	80	31,400	23,075	18,050	190'	45'	77	22,000	15,800	12,275			
	15'	77	144,025	127,175	85,050		80'	50	10,325	7,075	5,400		60'	72	22,000	15,800	12,275		50'	75	18,900	13,425	10,350			
	20'	71	72,300	55,025	42,975		90'	44	8,650	5,775	4,300		70'	68	14,425	9,975	7,525		60'	72	14,425	9,975	7,525			
	25'	64	52,600	39,675	31,725		100'	36	7,325	4,750	3,450		80'	65	11,375	7,600	5,575		80'	65	11,375	7,600	5,575			
	30'	58	41,100	31,025	24,975		110'	27	6,250	3,925			90'	61	9,125	6,075	4,500		90'	61	9,125	6,075	4,500			
	35'	51	33,575	25,250	20,450		120'	14	5,375	3,250			100'	58	7,425	4,975	3,600		100'	58	7,425	4,975	3,600			
	40'	43	28,275	21,175	17,200								110'	50	6,075	4,100	3,000		110'	50	6,075	4,100	3,000			
60'	15'	80	113,950	87,025	64,925	130'	30'	78	39,700	29,650	23,450	190'	40'	79	25,800	18,700	14,525	200'	40'	80	25,500	18,500	14,300			
	20'	75	72,175	54,900	42,775		35'	76	32,150	23,825	18,900		45'	77	26,000	18,900	14,750		45'	77	26,000	18,900	14,750			
	25'	70	52,425	39,700	31,550		40'	74	26,825	19,700	15,625		60'	72	22,000	15,800	12,275		60'	72	22,000	15,800	12,275			
	30'	65	40,925	30,850	24,775		45'	71	22,850	16,650	13,175		70'	68	18,900	13,425	10,350		70'	68	18,900	13,425	10,350			
	35'	59	35,400	25,075	20,225		50'	69	19,775	14,300	11,275		80'	65	14,425	9,975	7,525		80'	65	14,425	9,975	7,525			
	40'	53	28,075	20,075	16,575		55'	64	15,375	10,900	8,550		90'	61	11,375	7,600	5,575		90'	61	11,375	7,600	5,575			
	45'	47	24,125	17,950	14,525		60'	59	12,325	8,550	6,575		100'	58	9,125	6,075	4,500		100'	58	9,125	6,075	4,500			
70'	50'	40	21,075	15,600	12,625	140'	70'	48	8,425	5,550	4,075	200'	40'	80	25,500	18,500	14,300	210'	45'	79	24,000	18,000	14,000			
	55'	34	18,275	13,500	10,900		80'	42	7,075	4,525	3,225		45'	77	26,000	18,900	14,750		50'	76	22,000	15,800	12,275			
	60'	20	16,675	12,200	9,850		90'	35	6,000	3,675	2,525		60'	72	22,000	15,800	12,275		60'	72	18,700	13,200	10,125			
							100'	26	5,125	3,000	1,950		70'	68	18,900	13,425	10,350		70'	68	14,225	9,750	7,300			
							110'	13	4,375	2,425			80'	65	14,425	9,975	7,525		80'	65	11,125	7,600	5,575			
													90'	61	11,375	7,600	5,575		90'	61	8,900	6,300	4,600			
													100'	58	9,125	6,075	4,500		100'	58	7,175	5,225	3,800			
80'	20'	77	72,000	54,725	42,550	150'	30'	79	39,500	29,425	23,225	200'	40'	80	25,500	18,500	14,300	210'	45'	79	24,000	18,000	14,000			
	25'	73	52,225	39,950	31,325		35'	77	31,950	23,625	18,675		45'	77	26,000	18,900	14,750		50'	76	22,000	15,800	12,275			
	30'	69	40,700	30,650	24,525		40'	75	26,625	19,500	15,425		60'	72	22,000	15,800	12,275		60'	72	18,700	13,200	10,125			
	35'	63	33,175	24,850	19,975		45'	73	22,650	16,450	12,975		70'	68	18,900	13,425	10,350		70'	68	14,225	9,750	7,300			
	40'	58	27,650	20,750	16,725		50'	71	19,600	14,100	11,075		80'	65	14,425	9,975	7,525		80'	65	11,125	7,600	5,575			
	45'	55	23,500	17,700	14,275		55'	66	15,175	10,700	8,300		90'	61	11,375	7,600	5,575		90'	61	8,900	6,300	4,600			
	50'	49	20,850	15,350	12,375		60'	62	12,125	8,350	6,375		100'	58	9,125	6,075	4,500		100'	58	7,175	5,225	3,800			
90'	55'	43	18,425	13,900	10,900	160'	70'	57	9,925	6,650	4,975	200'	40'	80	25,500	18,500	14,300	210'	45'	79	24,000	18,000	14,000			
	60'	37	16,425	12,400	9,600		80'	52	8,225	5,350	3,875		45'	77	26,000	18,900	14,750		50'	76	22,000	15,800	12,275			
	65'	30	14,425	10,475	8,075		90'	46	6,900	4,325	3,025		60'	72	22,000	15,800	12,275		60'	72	18,700	13,200	10,125			
	70'	25	12,400	9,600	7,575		100'	40	5,825	3,500	2,325		70'	68	18,900	13,425	10,350		70'	68	14,225	9,750	7,300			
	75'	19	10,900	7,775	6,125		110'	34	4,950	2,825	1,750		80'	65	14,425	9,975	7,525		80'	65	11,125	7,600	5,575			
							120'	25	4,200	2,250			90'	61	11,375	7,600	5,575		90'	61	8,900	6,300	4,600			
							130'	13	3,575	1,775			100'	58	9,125	6,075	4,500		100'	58	7,175	5,225	3,800			
100'	20'	80	71,875	54,375	42,150	170'	30'	80	39,350	29,275	23,050	200'	40'	80	25,500	18,500	14,300	210'	45'	79	24,000	18,000	14,000			
	25'	77	51,875	39,150	30,925		35'	78	31,775	23,425	18,475		45'	77	26,000	18,900	14,750		50'	76	22,000	15,800	12,275			
	30'	74	40,350	30,275	24,125		40'	76	26,425	19,325	15,225		60'	72	22,000	15,800	12,275		60'	72	18,700	13,200	10,125			
	35'	70	32,800	24,475	19,600		45'	74	22,450	16,325	12,225		70'	68	18,900	13,425	10,350		70'	68	14,225	9,750	7,300			
	40'	67	27,475	20,375	16,325		50'	72	19,375	13,900	10,850		80'	65	14,425	9,975	7,525		80'	65	11,125	7,600	5,575			
	45'	63	23,525	17,325	13,900		55'	68	16,350	11,900	9,075		90'	61	11,375	7,600	5,575		90'	61	8,900	6,300	4,600			
	50'	60	20,475	14,975	11,975		60'	64	14,350	10,475	8,075		100'	58	9,125	6,075	4,500		100'	58	7,175	5,225	3,800			
110'	55'	53	18,050	13,575	10,500	180'	70'	57	9,925	6,650	4,975	200'	40'	80	25,500	18,500	14,300	210'	45'	79	24,000	18,000	14,000			
	60'	42	16,050	12,075	9,200		80'	55	8,000	5,125	3,650		45'	77	26,000	18,900	14,750		50'	76	22,000	15,800	12,275			
	65'	38	14,025	10,075	7,925		90'	48	6,500	4,100	2,775		60'	72	22,000	15,800	12,275		60'	72	18,700	13,200	10,125			
	70'	33	12,025	8,925	7,275		100'	40	5,575	3,250	2,100		70'	68	18,900	13,425	10,350		70'	68	14,225	9,750	7,300			
	75'	27	10,025	7,425	6,075		110'	33	4,700	2,575	1,525		80'	65	14,425	9,975	7,525		80'	65	11,125	7,600	5,575			
	80'	23	8,025	5,825	4,775		120'	25	3,950	2,000	1,225		90'	61	11,375	7,600	5,575		90'	61	8,900	6,300	4,600			
	85'	17	6,025	4,225	3,475		130'	12	3,275	1,625			100'	58	9,125	6,075	4,500		100'	58	7,175	5,225	3,800			
120'	25'	78	51,675	38,950	30,700	190'	35'	79	31,750	23,400	18,450	200'	40'	80	25,500	18,500	14,300	210'	45'	79	24,000	18,000	14,000			
	30'	75	40,150	30,875	23,925		40'	77	26,400	19,300	15,175		45'	77	26,000	18,900	14,750		50'	76	22,000	15,800	12,275			
	35'	72	32,625	24,275	19,400		45'	75	22,400	16,200	12,700		60'	72	22,000	15,800	12,275		60'	72	18,700	13,200	10,125			
	40'	69	27,300	20,200	16,150		50'	73	19,325	13,825	10,775		70'	68	18,900	13,425	10,350		70'	68	14,225	9,750	7,300			
	45'	65	23,350	17,150	13,700		55'	69	16,850	11,775	7,950		80'	65	14,425	9,975	7,525		80'	65	11,125	7,600	5,575			
	50'	62	20,275	14,800	11,800		60'	66	14,300	10,425	8,025		90'	61	11,375	7,600	5,575		90'	61	8,900	6,300	4,600			
	55'	58	18,275	13,400	10,825		65'	63	12,300	8,400	6,400		100'	58	9,125	6,075	4,500		100'	58	7,175	5,225	3,800			



TABLE 1
CRANE LAGGING AND CABLE REQUIREMENTS

Lagging Location	Usage	Lagging P.D.	Lagging Width	Type of Lagging	Eff. Cap'y. 1st Layer	Maximum Cap. & Layers	Wire Rope Dia.	**Line Speed (F.P.M.)	*Line Pull (Approx.)
R. H.	Dragline Drag	16"	18 3/4"	Grooved	58'	621' In 6	3/4"	154	23,045#
L. H.	Dragline Hoist	18"	13 3/4"	Grooved	66'	456' In 5	3/4"	173	20,485#
R. H.	Clamshell Closing	18"	18 3/4"	Grooved	95'	794' In 6	3/4"	173	20,485#
L. H.	Clamshell Holding	18"	13 3/4"	Grooved	66'	456' In 5	3/4"	173	20,485#
R. H.	Crane-Main Hoist less or with Power Load Lowering	16"	18 3/4"	Smooth	78'	641' In 6	3/4"	154	23,045#
L. H.	Crane Aux. Hoist less Power Load Lowering	16"	12 3/4"	Smooth	51'	529' In 7	3/4"	154	23,045#
		18 1/8"	13 3/4"		61'	311' In 4		175	20,345#
L. H.	Crane Aux. Hoist with Power Load Lowering	16"	11 3/4"	Smooth	44'	386' In 6	3/4"	154	23,045#
		18 1/8"	11 3/4"		50'	340' In 5		175	20,345#
Boom Hoist Shaft	Boom Hoist	11 1/4"	10"	Smooth	32'	428' In 8	3/4"	137	25,240#
Third Drum Shaft	Third Drum	13 1/2"	17 3/4"	Smooth	73'	366' In 4	3/4"	163	14,500#
		13 3/4"	17 3/4"	Smooth	62'	321' In 4	3/4"	165	19,500#

*Theoretical Line Pull and Speed are based on the first layer on Drum and with full load engine power. See Crane, Drag or Clam Chart for recommended use. (Above table is an average and not necessarily applicable to any particular engine.)

**With Torque Converter applications line speeds will vary dependent on line pull.

BASIC MACHINE

B-1	Equipment includes: fabricated truck and rotating base; standard removable crawler side frames (19'0" overall length) with hydraulic extension system; 30" treads; ball bearing swing circle and swing gear; engine (See Item Nos. BO-100 thru BO-105); one drum planetary gear driven boom hoist; positive swing lock; air controls; mechanical hoist brakes; telescopic backhitch gantry. (No laggings or counterweight.)	87,780#
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FOR ADDITIONAL OPTIONAL EQUIPMENT OVER STANDARD—ADD:

A.	Swing Snubber	90#	E.	Power Controlled Load Lower.—R. H.	875#
B.	Cab-Elevated	2,065#	F.	Power Controlled Load Lower.—L. H.	885#
C.	Counterweight 1. Two (2) Pieces	40,800#	G.	Power Controlled Load Lower.—Both Sides	1,220#
	2. One (1) Piece	23,100#	H.	Independent Propel	2,285#
D.	Crawler Treads 1. 35" in Place of 30"	1,860#	I.	Counterweight Handling Kit	270#
	2. 42" in Place of 30"	3,530#	J.	Running Boards—Left and Right Hand	275#
			K.	Third Drum (less cable)	W/Ind Propel 1,905#
					WO/Ind. Propel 1,955#

FOR REMOVAL OF:

A.	30" Treads per Side	5,145#	E.	Side Frame Assembly Less Treads and Chains per Side	8,415#
B.	35" Treads per Side	6,075#	F.	Truck Base with Ring Gear and Swing Circle but Less Side Frames and Treads	23,465#
C.	42" Treads per Side	6,910#	G.	Telescopic Backhitch Gantry	3,200#
D.	Drive Chain per Side	395#			



OPTIONAL CRANE ACCESSORIES—ADD

A-2	Equipment includes: 50' pin connected tubular boom (60 1/4" x 65 1/4") with 4 point sheaves with wire rope guards; 10 part boom hoist crossover and swaged type pendants for basic boom; 18" L.H. smooth lagging (3/4"); 16" R.H. smooth lagging (3/4"); foot accelerator; swing snubber; pantograph boomstop with air shutoff; boom angle indicator; controls; wire rope and 40,800# counterweight.	49,635#
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When machine is equipped as a Crane, the following parts included above are installed in the Rotator and can be deducted from the above weight to obtain correct reduction for removing the front.

1. 18" L.H. Smooth Lagging (3/4")	395#
2. 16" R.H. Smooth Lagging (3/4")	395#
3. Swing Snubber	90#
4. Boom Stop	905#
5. Accelerator, controls and Wire Ropes	1,305#
6. Counterweight	40,800#
Total Rotator Crane Parts	43,890#

BOOM AND SUSPENSION

1. Base Section	2,085#
2. Point Section with Sheaves	2,555#
3. 10 Part Boom Hoist Crossover	765#
4. Pendants for Basic Boom	340#
Total of Above Four (4) Items	5,745#

OPTIONAL CRANE ACCESSORIES — ADD

1. Boom Extensions (With Pendants)	
A. 10' Extension	815#
B. 20' Extension	1,365#
C. 30' Extension	1,735#
D. 40' Extension	2,365#
2. Jib—Heavy Duty—Tubular—Pin Connected Max. Length 60'	
A. Jib Base	410#
B. Jib Point and Point Shaft	500#
C. 10' Extension with Pendants	390#
D. 20' Extension with Pendants	690#
E. Basic Wire Ropes and Pendants	270#
F. Strut	670#

3. Jib—Tubular—Pin Connected—Standard Max. Length—40'	
A. Jib Base	315#
B. Jib Point and Point Shaft	450#
C. 10' Extension with Pendants	270#
D. Basic Wire Ropes and Pendants	245#
E. Strut	475#
4. Midpoint Suspension	
A. Tubular Boom (160', 170' and 180')	440#
B. Tubular Boom (190' and 200') Add	45#
5. Mast Assembly (Req'd on all Booms 160' in Length or Over)	760#

DRAGLINE ATTACHMENT

A-3	Equipment includes: 50' pin connected tubular boom (60 1/4" x 65 1/4") with 1 point sheave wire rope guard; 10 part crossover and swaged type pendants for basic boom; 18" L.H. grooved lagging (3/4"); 10" R.H. grooved lagging (3/4"); full revolving fairlead; drag wire rope guard; controls; wire ropes and 23,100# counterweight. (Less Dragline bucket.)	31,165#
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When machine is equipped as a Dragline, the following parts included above are installed in the Rotator and can be deducted from the above weight to obtain correct reduction for removing the front.

**DRAGLINE ATTACHMENT (CONTINUED)**

1. Full Revolving Fairlead and Drag Wire Rope Guard	1,115#
2. Wire Ropes	625#
3. 18" L.H. grooved lagging (3/4")	410#
4. 16" R.H. grooved lagging (7/8")	405#
5. Counterweight	23,100#
Total Rotator Dragline Parts	25,655#

BOOM AND SUSPENSION

1. Base Section and Planking	2,085#
2. Point Section with Sheaves	2,320#
3. Pendants for Basic Boom	340#
4. 10 Part Boom Hoist Crossover	765#
Total of Above Four (4) Items	5,510#

OPTIONAL DRAGLINE ACCESSORIES

1. Boom Extensions (with Pendants)	
A. 10' Extension	815#
B. 20' Extension	1,365#

CLAMSHELL ATTACHMENT

A-4	Equipment includes: 50' pin connected tubular boom (60 1/2" x 63 1/2") with 2 point sheaves and wire rope guards; 10 part crossover and swaged type pendants for basic boom; 18" L.H. and R.H. grooved laggings (3/4"); Model 6-48 Rudomatic tagline winder; controls; wire ropes and 23,100# counterweight. (Less Clamshell bucket.)	30,660#
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When machine is equipped as a Clamshell, the following parts included above are installed in the Rotator and can be deducted from the above weight to obtain correct reduction for removing the front:

1. Rudomatic Tagline Winder	360#
2. Wire Ropes	715#
3. Counterweight	23,100#
4. 18" R.H. grooved lagging (3/4")	440#
5. 18" L.H. grooved lagging (3/4")	410#
Total Rotator Clamshell Parts	25,025#

NOTE: Boom, suspension and accessories are the same as Dragline, but with 2 point sheaves add 125#.



CRAWLER TRUCK

TRUCK BASE: The truck base is all welded construction, with machined hubs to receive round alloy steel axles.

CRAWLER SIDE FRAMES: Crawler side frames are all welded construction with machined hubs, for assembly to truck axles. Side frames feature hydraulic extension and retraction. Hydraulic cylinders and controls are standard.

VERTICAL PROPEL SHAFT: One piece hollow shaft mounted in bronze bearings in center pintle of crawler base. Powered by gear type jaw clutch connection with horizontal gear train in rotating assembly. Bevel gear transmits power to horizontal propel shaft.

HORIZONTAL PROPEL SHAFT: The shaft is in three (3) pieces mounted in bearing hubs bored in the base. Assembly is made by threading the shafts thru the outside bore. Shaft includes, bevel gear drive from upper works, steering jaw clutches, and truck lock brakes.

INDEPENDENT PROPEL SHAFT: Clutch shaft mounted on anti-friction bearings; driven by hoist gears. Air operated clutches, mounted outboard of right hand machinery frame, transmit power through a bevel gear to the idler shaft which drives the vertical

propel shaft. Forward and reverse is achieved by engaging the appropriate clutch on the independent propel shaft.

STEERING AND TRUCK LOCK: Steering is controlled by multiple jaw clutches, engaging for either drive or positive lock. Either crawler may be positively locked while the other is driven. Two large diameter and wide face brakes serve as digging locks and safety propel brake. Brakes are spring-set and air-released and each is **AT ALL TIMES** directly connected to its crawler, regardless of whether driving jaw clutches are engaged or disengaged. With this design it is impossible for machine to "run away" on grades due to accidentally disengaging driving jaw clutches. Air controls permit independent control of the two jaw clutches and the digging and safety brakes. Air cylinders for actuating jaw clutches and brakes are mounted high in the truck base. Air control valves are located at operator's station.

TREAD ROLLERS: Cast steel rollers run on bronze bushings. The roller wear surface or outer rim is hardened.

CRAWLER BELTS: Trends have wide connecting lugs, hinged together with hardened pins. trends are available in 30"-35"-42" widths. Each belt is independently driven by a roller chain.

UPPER MACHINERY

ROTATING BASE: Heavy duty rotating base with integral machinery frames. Steel plate welded fabrication with horizontal gear train housing and fuel tank built in. Fuel tank capacity 100 gallon.

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

VERTICAL SWING SHAFT: The vertical swing shaft and pinion is of one-piece design, made from alloy steel, heat treated and hardened forging. The shaft is mounted on ball and roller bearings.

POSITIVE SWING LOCK: Manually operated mechanical lock engages in truck ring gear teeth.

SWING SNUB: Operates on the outside of the swing clutch housing for momentarily holding, while setting loads.

REVERSING CLUTCH SHAFT: This shaft is mounted on ball bearings. The reversing bevel gears, which carry the clutch housings, are mounted on ball bearings. Clutches are of the two-shoe design, air actuated.

SWING SHAFT EXTENSION: This shaft is chain driven from engine and is coupled to the swing clutch shaft by means of a flexible coupling. This type of design permits easy removal of the swing clutch shaft without disturbing chain case and chain drive.

Extension shaft is mounted on ball bearings and carries hoist spur pinion, boom hoist chain sprocket, main drive chain sprocket and V-belt pulley driving lubricating oil pump.

HOIST DRUM SHAFT: This shaft is mounted on ball bearings. Hoist brake drums are well finned for cool operation. High capacity internal expanding hoist clutches are air actuated. Both drums are split logging design, either smooth or grooved, are mounted on self aligning, anti-friction bearings.

HOIST BRAKES: The hoist brakes are of the external contracting, friction band type, mechanically operated by pedals. Pedals are mounted on needle bearings for maximum ease of operation.

BOOM HOIST: This shaft is chain driven from the swing shaft extension and is mounted on anti-friction bearings. Mounted on this shaft are the boom hoist drum, planetary lowering brake, boom hoist holding brake, boom hoist clutch, and the safety ratchet. Lowering brake and hoisting clutch are air set and holding brake is spring, plus air, set—air released. The brake is automatically controlled by the boom hoist control valve, being engaged when control lever is in neutral and released when lever is in hoisting or lowering position. The safety ratchet is independently air operated.

BOOMS AND JIB: Refer to boom and jib data.

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

BOOM SUSPENSION: Ten part line with crossover, crossover and mid-point or mast with mid-point depending on boom length.

THIRD DRUM: One piece high capacity drum running on ball bearings, mounted on right hand machinery frame. Actuated by air operated clutch and brake. Refer to "lagging data" table for specifications.

LOAD LOWERING DEVICE: This device is geared to either drum or to both drums and provides controlled precision lowering with speeds reduced considerably without the use of the hoist brakes. The device is equipped with clutches which may be disengaged at any time, permitting full release of load in cases of emergency or when control of load by brakes is desirable. Clutches are air set—spring released.

SWING CIRCLE: Large diameter anti-friction bearing with shielded ball race. The outer race bolts to the upper unit whereas the inner race is welded to the truck base. The swing gear is a separate part welded to the truck base.

COUNTERWEIGHT: Two pieces of cast iron counterweight. Castings have lifting eyes and assembly hooks cast integral. NO bolts required.

COUNTERWEIGHT REMOVAL EQUIPMENT: 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. Gantry can be pinned in low position at cab height for traveling or raised to full height for machine operation. Boom hoist cable provides power up and down for positioning gantry.

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

CAB: The cab is of all steel construction and is equipped with full vision, rubber set windows. Roller mounted doors are located at right hand and left hand sides and at rear. A sliding window is located at right hand side of operator's compartment. A high tower cab is available as an option, raising the operator's position 50" and provides a 360° view.

GEARING AND CHAIN DRIVES: All deck gears and reversing bevel gears are fully enclosed and lubricated by an oil bath, pump circulated. The boom hoist planetary gears are fully enclosed, oil bath lubricated.

Main machinery drive chain and boom hoist drive chain are fully enclosed in oil tight casing, oil bath lubricated. The hoist gear and mating spur pinion are well guarded and hand lubricated with gear compound. All anti-friction bearings and bronze bushed bearings are pressure gun lubricated.



SECTION 101.00 CRANE SPECIFICATIONS
 101.00.00 CRANE SPECIFICATIONS

Function	Clutches				Brakes			
	Type	Width	Diameter	Area	Type	Width	Diameter	Area
Hoist or Drag	Band	4"	27"	309 In ²	Band	4"	36"	349 In ²
Swing	2 Shoe	5½"	23"	348 In ²				
Propel	2 Shoe	5½"	23"	348 In ²				
Independent Propel	Band	4½"	20"	248 In ²				
Third Drum	Band	4½"	20"	248 In ²	Band	4"	26"	257 In ²
Power Lowering	Band	4"	18"	199 In ²				
Boom Hoist	Band	4"	22½"	251 In ²	Band	3"	24"	163 In ²
Swing Snubber					Band	2½"	27¼"	171 In ²
Steering Brake					2 Shoe	4"	21"	255 In ²

BOOM DATA

Backhitch Gantry
Backhitch Gantry Required With All Boom Lengths.

Mast, and Mid-Point Suspension
Mast, and Mid-Point Suspension Required on Boom Lengths 160' and Over.

Boom Can Be Furnished With 1 or 2 Sheaves With Guard For Dragline or Clamshell Service.

Boom Description	Tubular
Type Service	Drag-Clam-Crane
Type Boom Point	Straight
Quantity Point Sheaves	1, 2, or 4
Quantity Sheaves at Second Shaft	2
Diameter Point Sheaves	15½" P.D.
Basic Boom Length	50'-0"
Type Connections	Pin
Maximum Length	200'
Extensions	10', 20', 30', 40'
Cross Section	60¼" x 65¼" Over Chords
Type Chords	Tube
Chord Material P.S.I. Yield	100,000

POWER PLANT DATA

Make	Model	Fuel	Cyl.	Bore and Stroke	Gross Rated H.P.	Torque Conv. Engine H.P. @ Governed R.P.M.
G.M. w/T. C.	6030-C	Diesel	6	4¼" x 5"	196 @ 2,300	167 @ 2,000
Cumm. w/T.C.	H-743-190	Diesel	6	5½" x 6"	190 @ 2,000	150 @ 2,000
Cat. w/T. C.	D-333-C	Diesel	6	4¾" x 6"	300 @ 2,200	153 @ 2,000

Fuel Tank Capacity—100 Gal.