

Limma

type

**1200-S
C**

General

SPECIFICATIONS

WORKING RANGES

CAPACITIES

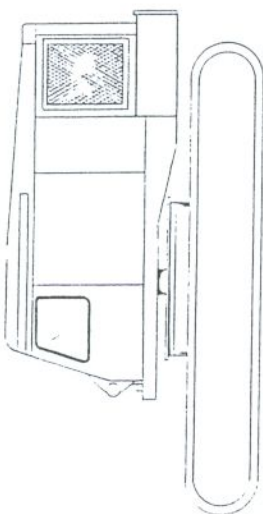
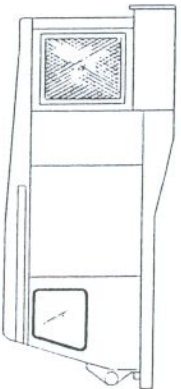

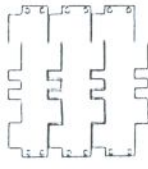
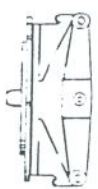
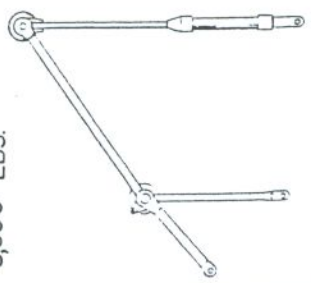
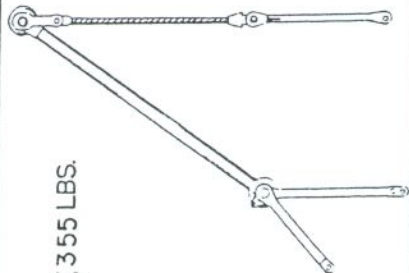
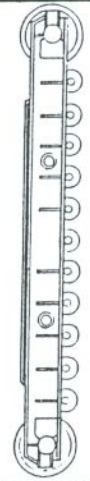

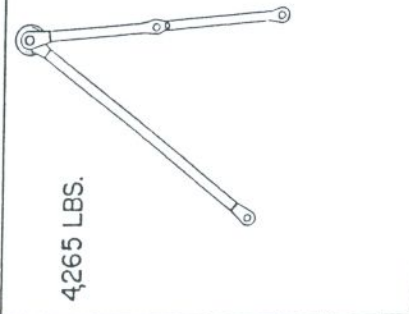
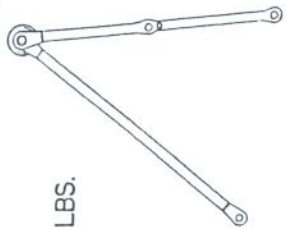
SPECIAL CRANE

DRAGLINE

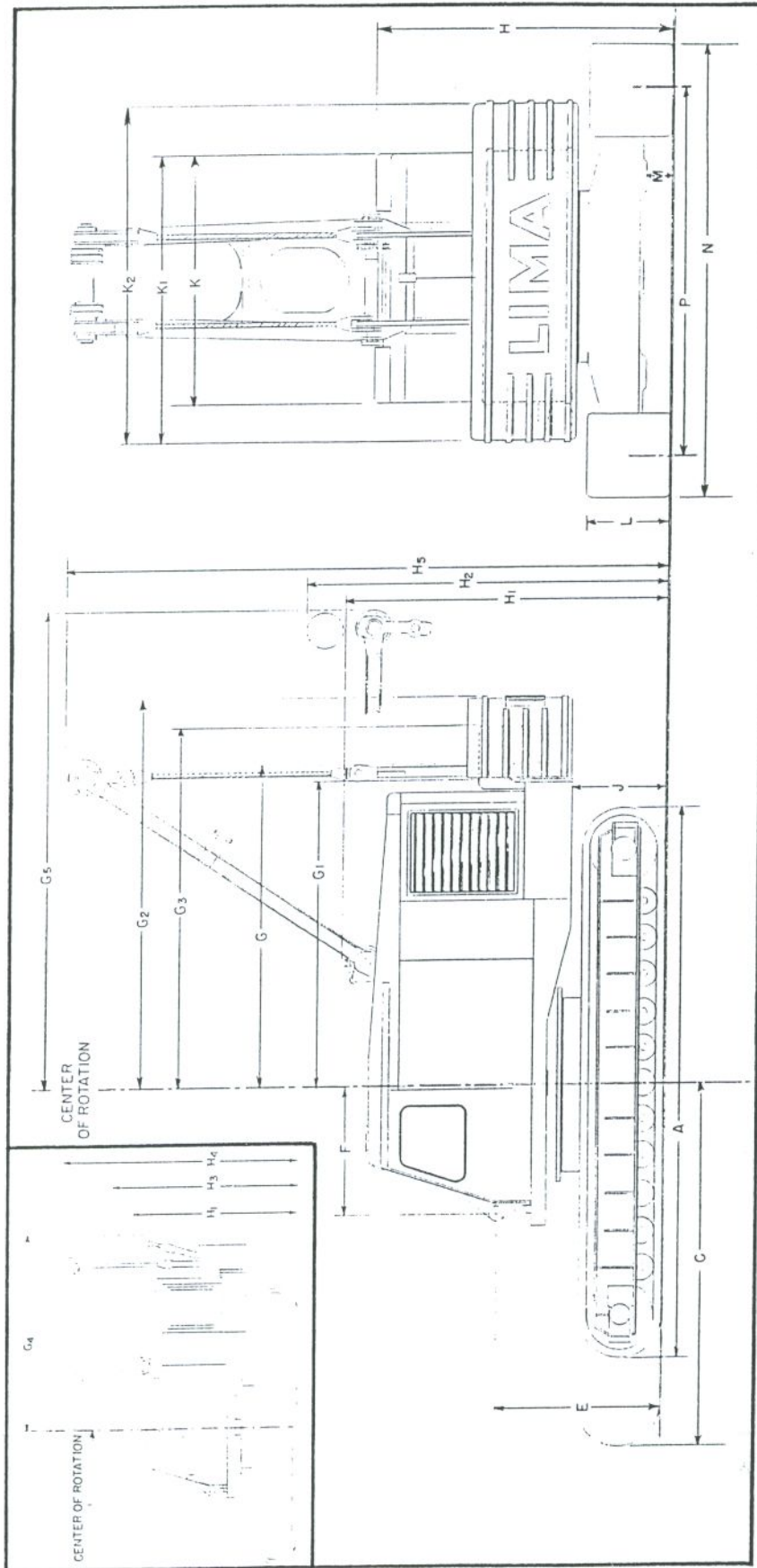
CLAMSHELL

BLH

WEIGHTS OF COMPONENT PARTS

<p>TRUCK BASE ASS'Y:</p>  <p>BASIC MACHINE WITH 32" TREADS - LESS COUNTERWEIGHT, GANTRY AND FRONT END EQUIPMENT--124,940 LBS.</p>	<p>ROTATING ASS'Y:</p>  <p>BASIC ROTATING ASSEMBLY-- LESS COUNTERWEIGHT AND GANTRY----- 49,340 LBS.</p>	<p>COUNTERWEIGHT:</p>  <p>A- CWT.-----32,500 LBS. B- CWT.-----38,000 LBS.</p> <p>CLAMSHELL-(A)--32,600 LBS DRAGLINE--(A)--32,600 LBS. CRANE--(A+B)--70,600 LBS</p>	<p>CRAWLER TREADS:</p>  <p>52 TREADS PER BELT 32" TREADS----- -----10,660 LBS PER BELT 42" TREADS----- -----13,160 LBS. PER BELT</p>
<p>TRUCK BASE ASS'Y:</p>  <p>COMPLETE----- 32,100 LBS.</p>	<p>TELESCOPIC BACK HITCH GANTRY:</p>  <p>5,600 LBS.</p>	<p>BACK HITCH CABLE TYPE GANTRY:</p>  <p>7,355 LBS.</p>	<p>COMPLETE FRONT END EQUIPMENT:</p> <p>CRANE (BASIC BOOM WITH PENDULUM-LESS HOOK BLOCK AND BALL & HOOK)-----12,275 LBS. ADDITIONAL ROTATING PARTS----- -----1,645 LBS. HOOK BLOCK-----1,395 LBS. BALL AND HOOK-----530 LBS. PENDULUM-----1,320 LBS. CLAMSHELL (WITH BASIC BOOM- LESS BUCKET)-----10,770 LBS. ADDITIONAL ROTATING PARTS----- -----1,785 LBS.</p> <p>DRAGLINE (WITH BASIC BOOM- (LESS BUCKET)-----9,450 LBS. ADDITIONAL ROTATING PARTS----- ----- 3,645 LBS.</p> <p>BOOM EXTENSIONS WITH SLINGS - 10 FT.-----1,470 LBS 15 FT.-----1,974 LBS 25 FT.-----2,726 LBS. 50 FT.-----4,640 LBS.</p>
<p>TRUCK BASE ASS'Y:</p>  <p>COMPLETE WITH SPROCKETS AND DRIVE ROLLERS (EACH)--13,590 LBS.</p>	<p>SIDE FRAME ASS'Y:</p>  <p>COMPLETE WITH SPROCKETS AND DRIVE ROLLERS (EACH)--13,590 LBS.</p>	<p>BACK HITCH CABLE TYPE GANTRY:</p>  <p>4,265 LBS.</p>	<p>HIGH RIGID GANTRY:</p>  <p>4,265 LBS.</p>

CLEARANCE AND DIMENSIONS



A	Overall Length of Crawlers (42" Treads - Std.)	22'-11"	H ₃	Overall Height (Telescopic Back Hitch)	14'-9"
C	Over Corner of Crawlers (32" Treads - Opt.)	15'-1 3/4"	H ₄	Gantry Mid-Position (High Rigid Gantry)	19'-0"
E	Ground to Centerline of Boom Foot Pin	14'-5 1/2"	H ₅	Overall Height (Telescopic Back Hitch Gantry)	19'-0"
F	Center of Rotation to Center of Boom Foot Pin	6'-11"	J	Overall Height (Cable Type Back Hitch)	24'-8"
G	Rear End Clearance Over Gantry Brackets	5'-3 1/2"	K	Ground to Rotating Base	3'-11 1/2"
G ₁	Rear End Tail Swing - Less Counterweight	13'-6 1/2"	K ₁	Overall Width of Cab with L.H.	10'-4 1/4"
G ₂	Rear End Tail Swing - With 70,600 lbs. cwt.	13'-10"	K ₂	Overall Width of Cab with L.H. and R.H.	12'-1"
G ₃	Rear End Tail Swing - With 32,600 lbs. cwt.	16'-4 1/2"	L	Running Boards	13'-9 3/4"
G ₄	Rear End Tail Swing - (Telescopic Back Hitch Gantry Lowered)	15'-2"	M	Ground to Top of Crawlers	3'-5 1/2"
G ₅	Rear End Tail Swing (Cable Type Back Hitch Gantry Lowered)	15'-10 1/4"	N	Ground Clearance	12 1/4"
H	Overall Height (Top of Cab)	19'-11 1/4"	P	Overall Width of Crawlers (42" Treads - Std.)	18'-6"
H ₁	Overall Height (Gantries Lowered)	12'-6 1/2"		Overall Width of Crawlers (32" Treads - Opt.)	17'-8"
H ₂	Overall Height (Cable Type Back Hitch Gantry Mid-Position)	13'-3 3/4"		Center to Center of Drive Rollers	15'-0"

POWER PLANT DATA

MAKE	MODEL	FUEL	CYL.	BORE & STROKE	GROSS RATED H. P.	NET H. P.	TORQUE CONV.
G.M.	8V-71	Diesel	8	4 1/4" x 5"	350 @ 2300	263 @ 2100	Yes
Cummins	NHRS-6	Diesel	6	5 1/8" x 6"	300 @ 2100	270 @ 2100	Yes

For Electric Motor Installation, Refer to Factory.

BOOM AND JIB DATA

BOOM, TUBULAR BUTT CONNECTED		
Type Service	Crane	Drag., Clam.
Suspension	Crossover	
Gantries	Cable Type Back Hitch Telescopic Back Hitch High Rigid	Telescopic Back Hitch High Rigid
Quan. Sheaves at Point Shalt	2	1 - 2
Quan. of Sheaves in Pendulum	4	—
Convertibility	Cranes - Dragline - Clamshell	
Dia. Point Sheaves	45" P.D. - 1" Cable	
Basic Boom Length	50' (60 3/4" x 60 3/4" Section)	
Type Chords	3 3/4" O.D. — 3 1/4" I.D. 100,000 P.S.I. Steel	
Extensions	10' — 15' — 25' — 50'	
Max. Boom Lengths	32,600# Cwt. - 190' 70,600# Cwt. - 200'	130'

JIB, TUBULAR EXTENSIBLE	
Basic Length	30'
Max. Length	50'
Chord Size	2" O.D. - 1 1/8" I.D.
Chord Material	40,000# P.S.I. Yield
Max. Width and Depth	20" x 24"
Quan. Sheaves at Point	One (1)
P.D. Point Sheave	16" P.D.
Capacity	30' - 10 Ton 40' - 7 1/2 Ton 50' - 5 Ton

MAXIMUM LENGTH BOOM OR BOOM PLUS JIB THAT CAN BE HANDLED HORIZONTALLY

CWT.	OVER SIDE		OVER END		OVER END WITH CRAWLERS BLOCKED	
	With Pendulum	Less Pendulum	With Pendulum	Less Pendulum	With Pendulum	Less Pendulum
32,600 LBS.	160' 150' + 30' 140' + 50'	170' 150' + 50'	160' 150' + 30' 140' + 50'	170' 150' + 50'	180' 160' + 50'	190' 170' + 50'
70,600 LBS.	200' 180' + 40' 170' + 50'	200' 190' + 40' 180' + 50'	200' 180' + 40' 170' + 50'	200' 190' + 40' 180' + 50'	200' 200' + 50'	200' 200' + 50'

BOOM HOIST SUSPENSION DATA

BOOM LENGTH	REEVING REQUIRED	MID-POINT SUSPENSION LOCATION
Up to 140'	10 Part Crossover	None
150' and Up	10 Part w/ Mid-Point Suspension	100' From Boom Foot Pin

LAGGING DATA

LAGGING LOCATION	USAGE	LAGGING DIAMETER	LAGGING WIDTH	TYPE OF LAGGING	EFF. CAPY. 1ST LAYER	MAXIMUM CAPY. & LAYERS	CABLE SIZE	LINE SPEED (F.P.M.)	LINE FULL (APPROX.)
L. H.	Dragline Hoist	30"	16 3/8"	Grooved	98'	471' in 4	1"	202'	28,925=
R. H.	Dragline Drag	24"	19 7/8"	Grooved	84'	556' in 5	1 1/8"	162'	36,150=
R. H.	Clamshell Closing	24"	19 7/8"	Grooved	98'	935' in 7	1"	162'	36,150=
L. H.	Clamshell Hold	24"	16 3/8"	Grooved	78'	758' in 7	1"	162'	36,150=
R. H.	Crane Main Hoist	24"	19 7/8"	Smooth	109'	1,028' in 7	1"	162'	36,150=
L. H.	Crane Auxiliary Hoist	24"	16 3/8"	Smooth	87'	836' in 7	1"	162'	36,150=
—	Boom Hoist	14"	10 3/8"	Smooth	42'	512' in 8	3/4"	139'	39,750=
—	Third Drum	11 3/8"	9 5/8"	Smooth	—	187' in 4 111' in 3	3/8" 3/4"	186'	10,000=

CLUTCH AND BRAKE DATA

CLUTCHES					BRAKES			
FUNCTION	Type	Width	Diameter	Area	Type	Width	Diameter	Area
Hoist	Band	5 1/2"	40"	587 Sq. In.	Band	6"	46"	713 Sq. In.
Swing	2 Shoe	5 1/2"	32"	424 Sq. In.				
Swing Snubber					Band	3 1/2"	33 1/2"	299 Sq. In.
Propel	2 Shoe	5 1/2"	32"	424 Sq. In.	Band	5"	27"	422 Sq. In.
Independent Propel	2 Shoe	5 1/2"	32"	424 Sq. In.				
Third Boom	Band	3 1/2"	18"	174 Sq. In.	Band	4"	22"	207 Sq. In.
Lower Lowering	Band	4 1/2"	24"	283 Sq. In.				
Boom Hoist	Band	5 1/2"	30"	445 Sq. In.	Band	4"	32"	302 Sq. In.
* Boom Lowering					Band	4"	32"	302 Sq. In.

* On Precision Boom Lowering Only

PERFORMANCE DATA

Swing Speed 3 R.P.M.	Gradeability 30%	Travel Speed97 M.P.H.
Time Required To Raise 50' Boom From Horizontal (10 Part Line)	With Back Hitch Gantry 100 Sec.	With High Rigid Gantry 80 Sec.

Planetary Boom Hoist Lowers At Half The Hoist Speed.

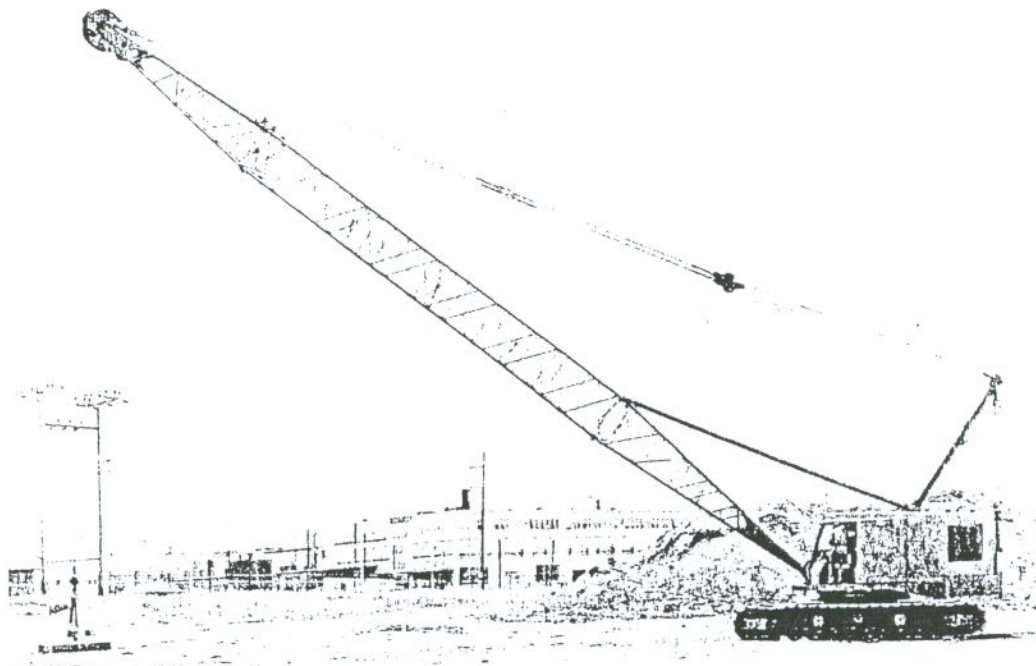
MATERIAL WEIGHTS

Material To Be Moved	Weight Per		Material To Be Moved	Weight Per	
	Cu. Ft.	Cu. Yd.		Cu. Ft.	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	96	2592
CLAY & GRAVEL DRY	105	2835	ROCK TRAP ROCK CRUSHED	110	2970
EARTH LOAM, LOOSE	80	2160	SAND DAMP, PACKED	130	3510
	100	2700	DRY	100	2700
	110	2970	STONE	100	2700
GRAVEL MUD, PACKED	100	2700	SLAG	58	1566
	100	2700			

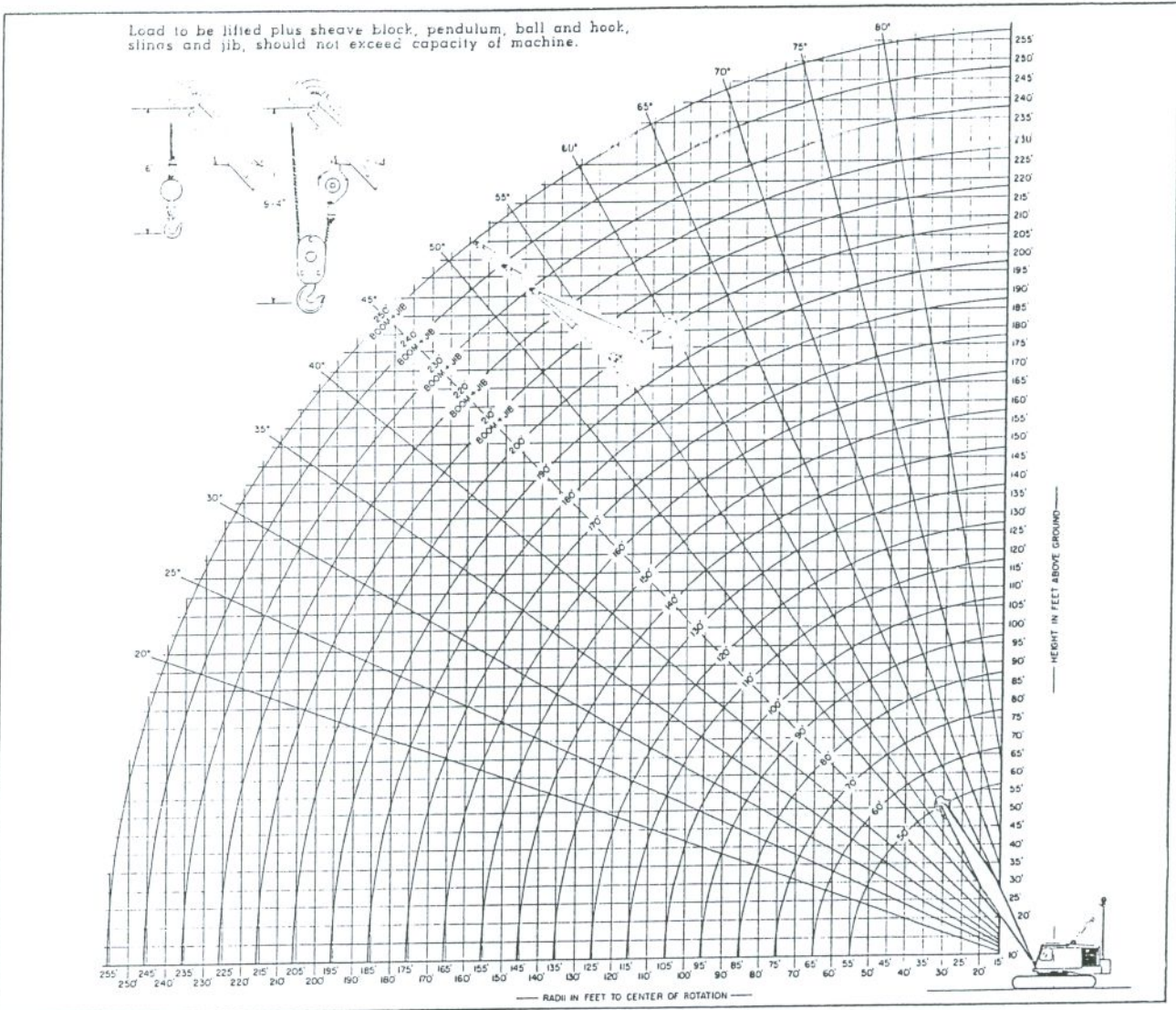
Refer To Manufacturer's Information For Weight of Dragline or Clamshell Buckets.

WORKING WEIGHTS (Approximate in pounds)

Weights based on 32" treads, Cummins NHRS-6 Diesel Power Plant, 50' basic boom and necessary cables and controls.	
CRANE	(With ball and hook, hook block, pendulum, back hitch cable type gantry and 70,600 pounds counterweight) 218,740 Lbs.
CLAMSHELL	(With tagline winder, telescopic back hitch gantry and 32,600 pounds counterweight — Less bucket) 175,695 Lbs.
DRAGLINE	(With fairlead, high rigid gantry and 32,600 pounds counterweight — Less bucket) 174,900 Lbs.

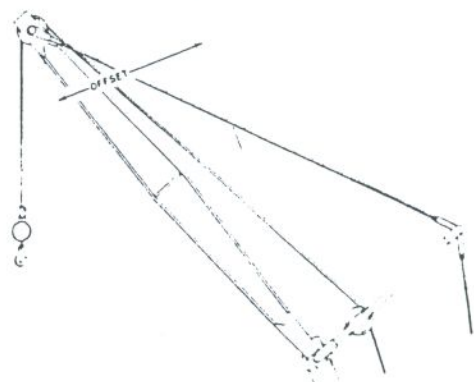


CRANE WORKING RANGES



For Boom or Jib specifications, descriptions, maximum lengths and applications, refer to Boom and Jib Data in back of book.

CABLE REEVING FOR HOOK BLOCK	
Load In Pounds	No. Part Line
To 22,000	1
Over 22,000	2
Over 44,000	3
Over 66,000	4
Over 88,000	5
Over 110,000	6
Over 132,000	7
Over 154,000	8
Over 176,000	9
Over 198,000	10



JIB LENGTH	RATING	OFFSET	WEIGHT
30'	10 Ton	10'-3"	2,025 #
40'	7½ Ton	13'-9"	2,350 #
50'	5 Ton	17'-3"	2,675 #

Jib capacities are the same as boom capacities, at any given radius, but not to exceed the maximum rating listed above. Weight of ball and hook, hook block, and lifting tackle must be deducted from weights on capacity chart.

TUBULAR CHORD BOOM WITH PENDULUM

CRAWLER CRANE LIFTING CAPACITIES

42" TREADS

CAPACITIES SHOWN ARE BASED ON 75% OF SIDE OVERTURNING LOADS

Table with columns for Load Rad., Boom Length (50' to 200'), and Capacity (50,000 to 250,000 lbs).

CAPACITIES SHOWN ARE BASED ON 85% OF SIDE OVERTURNING LOADS

Table with columns for Load Rad., Boom Length (50' to 200'), and Capacity (50,000 to 250,000 lbs).

CAPACITIES SHOWN ARE BASED ON 67% OF SIDE OVERTURNING LOADS

Table with columns for Load Rad., Boom Length (50' to 200'), and Capacity (50,000 to 250,000 lbs).

These capacities are based on the strength and stability of the machine. Exceeding these capacities or altering the counterweight nullifies all warranties.

All hook blocks, lifting tackle, pendulum (1.325#), and jib attachments must be considered part of the load on the boom point shaft. All hook blocks, lifting tackle and pendulum (1.325#), must be considered part of the load on the jib.

Midpoint suspension must be used with booms exceeding 140' with or less jib. Midpoint slings anchor 100' from boom foot.

MAXIMUM LENGTH BOOM OR BOOM PLUS JIB THAT CAN BE HANDLED HORIZONTALLY

Table showing maximum boom length for different counterweights and configurations.

JIB CAPACITIES ARE THE SAME AS BOOM CAPACITIES, AT ANY GIVEN RADIUS, BUT NOT TO EXCEED THE MAXIMUM RATINGS LISTED BELOW.

Table showing jib capacities for different lengths and ratings.

CABLE REEVING DATA FOR HOOK BLOCK

Table showing cable reeving data for different load capacities.

DATE: MARCH, 1967

LIMA 1200 SC