LOAD CHARTS

Cranes

Terex 3470
National 990
Broderson IC-200

EICA Testing Purposes Only

These Range Diagrams and Capacity Charts are not to be used for lifting operations.
These Load Charts have been modified from the original manufacturer's charts.

"Note: Data published herein is intended as a guide only and shall not be construed to warrant applicability for lifting purposes. Crane operation is subject to the computer charts and operation manual both supplied with the crane."

TEREX

STINGER 3470 | Boom Truck Crane

BOOM TRUCK CRANE
STINGER 3470

FEATURES

- 34,000 lb (15 422 kg) maximum lifting capacity
- 80’ (24.38 m) maximum sheave height
- 120’ (36.57 m) maximum sheave height with 24-40’ (7.31-12.19 m) jib
- 27-70’ (82.30-21.34 m) three-section full power fully synchronized boom
- Exclusive color coded boom and load charts
- Easy-to-install optional 24’ (7.31 m) one stage or 24-40’ (7.31-12.19 m) two stage telescoping jib, man baskets or work platform increase job capacities
- Electronic Load Moment Indicator and anti-two-block device standard
- Externally located planetary rotation drive for easy accessibility for maintenance
- 2-speed planetary winch has 10,500 lb (4 703 kg) maximum permissible 1 part line, 37,000 lb (16 782 kg) breaking strength, 186 ft/min (57 m/min) maximum line speed
- Dual control station with direct mechanically controlled hydraulic system
- 70 gal (266 L) capacity hydraulic tank

TEREX

BOOM TRUCK CRANE

STINGER 3470

BT MODEL

LOAD RATINGS

CAUTION Do not use this specification sheet as a load rating chart. The format of data is not consistent with the machine chart and may be subject to change.

BOOM LENGTH — Maximum Load Chart in pounds (lbs) with fully extended outrigger

OPERATING RADIUS (FT)	27 FT		34 FT		43 FT		52 FT		61 FT		70 FT	
	LOADED BOOM ANGLE (DEG)	LOAD RATING (LB)	LOADED BOOM ANGLE (DEG)	LOAD RATING (LB)	LOADED BOOM ANGLE (DEG)	LOAD RATING (LB)	LOADED BOOM ANGLE (DEG)	LOAD RATING (LB)	LOADED BOOM ANGLE (DEG)	LOAD RATING (LB)	LOADED BOOM ANGLE (DEG)	LOAD RATING (LB)
5	77	34,000*										
10	66	21,100*	71	17,100*	75	16,000*	78	15,700*				
15	54	15,100*	62	14,000*	68	12,100*	72	11,100*	75	10,800*	77	9,600*
20	39	11,100*	51	10,100*	61	9,100*	66	8,600*	71	8,200*	73	7,300*
25	17	7,900*	40	7,700*	53	7,100*	61	6,900*	66	6,600*	69	5,900*
30			23	6,500*	44	6,100*	54	5,600*	60	5,300*	64	4,900*
35					33	4,800*	47	4,700*	54	4,600*	60	4,150*
40					16	3,500*	38	4,100*	48	3,900*	55	3,550*
45							27	3,250*	41	3,200*	49	3,050*
50							9	2,950*	33	2,800*	44	2,650*
55									23	2,500*	37	2,350*
60											29	1,900*
65											19	1,700*

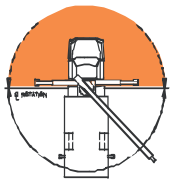
NOTE: STRUCTURAL STRENGTH RATINGS IN CHART ARE INDICATED WIH AN ASTERISK *

STOWED JIB DEDUCTIONS (POUNDS)

450	360	260	230	200	175

AREA OF OPERATION

DO NOT OPERATE IN SHADED AREA WITHOUT OPTIONAL FRONT STABILIZER



Deductions from rate loads for load handling devices BT

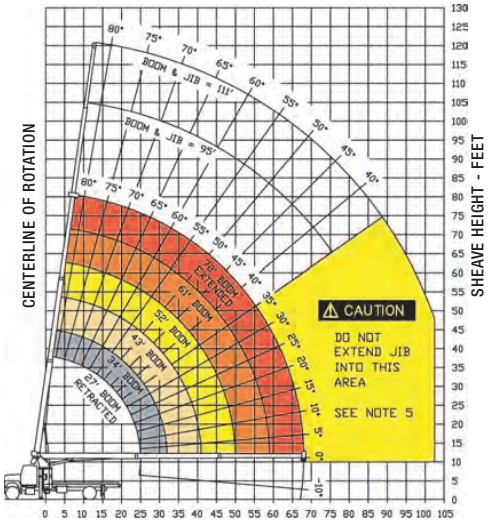
Overhaul Ball	125 lbs
1 Sheave Load Block	200 lbs
2 Sheave Load Block	230 lbs
Aux Sheave	50 lbs

JIB CAPACITIES FOR ALL BOOM LENGTHS

VERIFY OPERATIONAL MODE SETTING ON LMI DISPLAY BEFORE LIFTING WITH JIB

Loaded Boom Angle	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°
Retracted 24 ft Jib	700	825	1,000	1,150	1,340	1,600	1,900	2,300	3,100	4,160
Extended 40 ft Jib	520	580	650	730	810	930	1,080	1,400	1,810	2,260

RANGE DIAGRAM (27 - 70 FT BOOM)



GENERAL NOTES

1. The operator must read and understand the Owner's Manual before operating this crane.
2. Positioning or operation of crane beyond areas shown on this chart is not intended or approved except where specified in Owner's Manual.
3. Loaded boom angles at specified boom lengths give only an approximation of the operating radius. The boom angle before loading should be greater to account for deflections. Do not exceed the operating radius for rated loads.
4. Use rating of next longer boom for boom lengths not shown. Use rating of next greater radius for load radii not shown.
5. Boom must be fully retracted when jib is erected before lowering below minimum angle. Retracted jib has no lifting capacity below a 35° boom angle.
6. Use rating of next lower boom angle for boom angles not shown on jib load rating chart.
7. Lifting off the main boom point while the swing around jib is erected is not intended or approved.
8. Do not lower boom into this area, as hydraulic pressure will not allow raising the boom without retracting boom first.
9. Crane load ratings on outriggers are based on freely suspended loads with the machine leveled and standing on a firm uniform supporting surface. No attempt shall be made to move a load horizontally on the ground in any direction.
10. Practical working loads depend on supporting surface, wind and other factors affecting stability such as hazardous surroundings, experience of personnel, and proper handling, must all be taken into account by the operator.
11. The maximum load which may be telescoped is limited by hydraulic pressure, boom angle, and boom lubrication. It is safe to attempt to telescope any load within the limits of the load rating chart.

INFORMATION

1. Deductions must be made from rated loads for stowed jib, optional attachments, hooks and loadblocks (see deduction chart). Weights of slings and other load handling devices shall be considered a part of the load.
2. Crane load ratings with outriggers are based on outriggers and stabilizers extended and set with all load removed from the carrier wheels.
3. Load ratings do not exceed 85% of tipping load.

DEFINITIONS

1. Operating radius is the horizontal distance from the axis of rotation to the center of the vertical hoist line or load hook with load suspended.
2. Loaded boom angle as shown in the Load Ratings Chart is the included angle between the horizontal and longitudinal axes of the boom base after lifting rated load at rated radius.

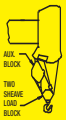
TEREX

BOOM TRUCK CRANE

STINGER 3470

BT MODEL

WINCH DATA

		1 Part Line	2 Part Line	3 Part Line	4 Part Line
					
Winch	Cable Supplied	Lift and Max Speed	Lift and Max Speed	Lift and Max Speed	Lift and Max Speed
Standard Stationary Winch	9/16" Diam IWRC XXIP	10,500 lb 186 fpm	21,000 lb 93 fmp	31,500 lb 62 fpm	34,000 lb 45.5 fpm
	9/16" Diam Rotation Resistant	6,720 lb 186 fpm	13,440 lb 93 fpm	20,160 lb 56.7 fpm	26,880 lb 45.5 fpm

BLOCK TYPE

Overhaul Ball	6.25 ton (5.7 mt)
1 Sheave Block	17.5 ton (15.9 mt)

CAUTION

Overload and anti-two-block systems must be in good operating condition before operating crane. Refer to Owners Manual.

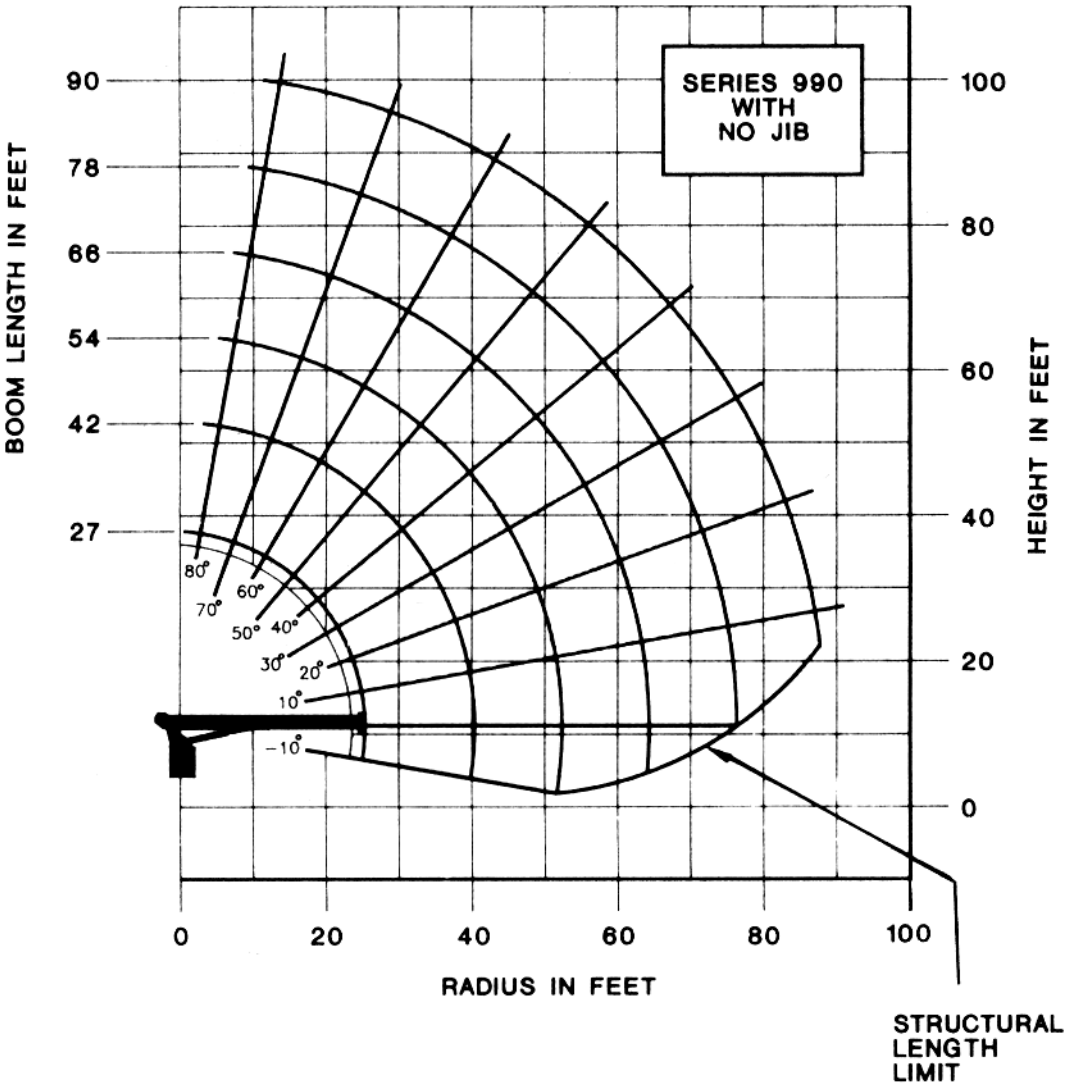
Keep at least 3 wraps of loadline on drum at all times.

Use only 9/16" diameter cable with 37,000 lb. breaking strength on this machine.

"Note: Data published herein is intended as a guide only and shall not be construed to warrant applicability for lifting purposes. Crane operation is subject to the computer charts and operation manual both supplied with the crane.")

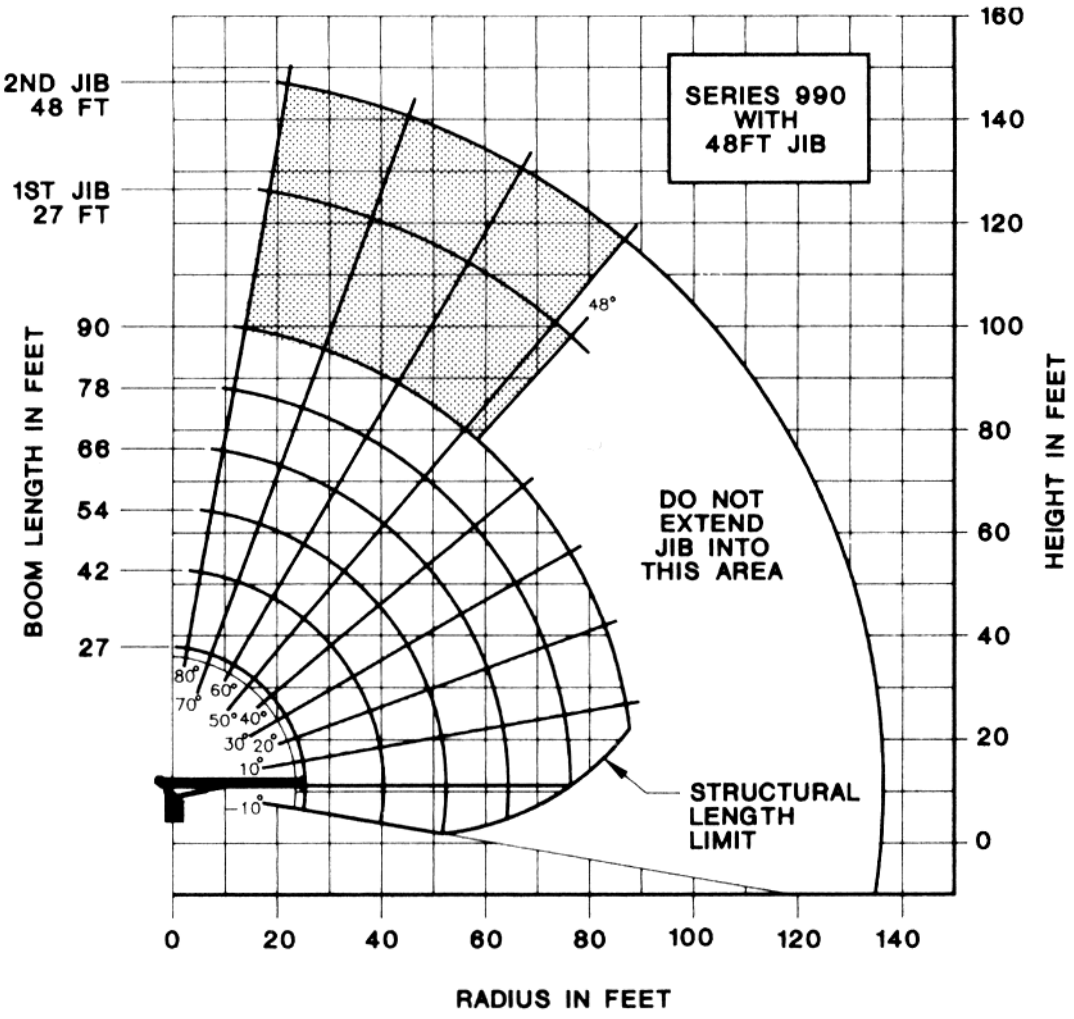
LIFTING CHARTS - Boom Trucks

NATIONAL MODEL 990 - 25 TON CAPACITY



LIFTING CHARTS - Boom Trucks

NATIONAL MODEL 990 - 25 TON CAPACITY



LMI OPERATING CODE SWITCH	
SWITCH POSITION (REF #'17)	**OPERATING MODE**
01	MAIN BOOM - NO JIB STOWED
02	MAIN BOOM - JIB STOWED
03	27 FT TELE JIB
04	48 FT TELE JIB
11	MAN BASKET ON MAIN BOOM
12	MAN BASKET ON 27 FT TELE JIB
13	MAN BASKET ON 48 FT TELE JIB

NOTE:

1. Operate with jib by radius When main boom is fully extended. If necessary increase boom angle to maintain loaded radius.
2. Operate with jib by boom angle when main boom is not fully extended. Do not exceed rated jib-capacities at any reduced boom lengths.

LIFTING CHARTS - Boom Trucks

NATIONAL MODEL 990 - 25 TON CAPACITY

NO JIB LOAD RATINGS

LOAD RADIUS (FEET)	LOADED BOOM ANGLE	27FT BOOM (LBS)	LOADED ANGLE BOOM	42FT BOOM (LBS)	LOADED BOOM ANGLE	54FT BOOM (LBS)	LOADED BOOM ANGLE	66FT BOOM (LBS)	LOADED BOOM ANGLE	78FT BOOM (LBS)	LOADED BOOM ANGLE	90FT BOOM (LBS)	LOADLINE EQUIPMENT DEDUCT
*4.75	79.4	50,000											
5	79	46,000											
8	72	33,000											DOWNHAUL WEIGHT= 150
10	67	27,400	76.5	23,900	80	22,300							
12	62	23,500	73.5	20,900	77.5	19,100							ONE SHEAVE BLOCK=200
14	57	20,500	70.5	18,100	75.5	16,700	79	15,400					
16	51	18,100	67.5	16,100	73.5	14,800	77	13,500	79.5	12,600			TWO SHEAVE BLOCK= 355
20	37	14,500	61	13,100	68.5	12,000	73	11,000	76.5	10,200	79	9,600	
25			52.5	10,500	62.5	9,700	68.5	8,900	72.5	8,200	75.5	7,700	THREE SHEAVE BLOCK= 530
30			43	8,650	56	8,100	63.5	7,300	68.5	6,700	72	6,200	
35			30	6,950	49	6,700	58.5	6,200	64.5	5,650	68.5	5,200	
40					41	5,700	53	5,300	60	4,850	65	4,500	
45					31.5	4,700	47	4,600	55.5	4,200	61.5	3,900	
50					17	3,400	40.5	3,850	51	3,700	57.5	3,350	
55							32.5	3,200	45.5	3,200	53.5	2,900	
60							22	2,450	40	2,700	49	2,500	
65									33	2,250	44.5	2,150	
70									25	1,750	39.5	1,800	
75									11	900	34	1,450	
80											27	1,100	
85											17	600	

*** REQUIRES 6x25 WIRE ROPE OPTION**

LIFTING CHARTS - Boom Trucks

NATIONAL MODEL 990 - 25 TON CAPACITY

WITH 48FT JIB LOAD RATINGS

LOAD RADIUS (FEET)	LOADED BOOM ANGLE	27FT BOOM (LBS)	LOADED ANGLE BOOM	42FT BOOM (LBS)	LOADED BOOM ANGLE	54FT BOOM (LBS)	LOADED BOOM ANGLE	66FT BOOM (LBS)	LOADED BOOM ANGLE	78FT BOOM (LBS)	LOADED BOOM ANGLE	90FT BOOM (LBS)	LOADLINE EQUIPMENT DEDUCT
*4.75	79.4	50,000											
5	79	46,000											
8	72	32,300											DOWNHAUL WEIGHT= 150
10	67	26,700	76.5	23,500	80	22,000							
12	62	22,800	73.5	20,500	77.5	18,800							ONE SHEAVE BLOCK=200
14	57	19,800	70.5	17,700	75.5	16,400	79	15,200					
16	51	17,400	67.5	15,700	73.5	14,500	77	13,300	79.5	12,400			TWO SHEAVE BLOCK= 355
20	37	13,800	61	12,700	68.5	11,700	73	10,800	76.5	10,000	79	9,500	
25			52.5	10,100	62.5	9,400	68.5	8,700	72.5	8,000	75.5	7,600	THREE SHEAVE BLOCK= 530
30			43	8,250	56	7,800	63.5	7,100	68.5	6,500	72	6,100	
35			30	6,550	49	6,400	58.5	6,000	64.5	5,450	68.5	5,100	
40					41	5,400	53	5,100	60	4,650	65	4,400	
45					31.5	4,400	47	4,400	55.5	4,000	61.5	3,800	
50					17	3,100	40.5	3,650	51	3,500	57.5	3,250	
55							32.5	3,000	45.5	3,000	53.5	2,800	
60							22	2,250	40	2,500	49	2,400	
65									33	2,050	44.5	2,050	
70									25	1,550	39.5	1,700	
75									11	700	34	1,350	
80											27	1,000	
85											17	500	
	0	6,500	0	3,000	0	1,600	0	700					
ADD TO CAPACITIES WHEN NO JIB STOWED (LBS)		700		400		300		200		200		100	

*** REQUIRES 6x25 WIRE ROPE OPTION**

LOAD RADIUS (FEET)	LOADED BOOM ANGLE	27FT JIB (LBS)	LOADED ANGLE BOOM	48FT JIB (LBS)
30	77	4,800	79.5	3,100
35	74.5	4,300	77.5	2,900
40	72	3,650	75.5	2,700
45	69.0	3,000	73.5	2,500
50	66.5	2,450	71.5	2,300
55	63.5	2,000	69.5	2,100
60	60.5	1,600	67	1,800
65	57.5	1,300	64.5	1,500
70	54.5	1,000	62	1,250
75	51.5	750	59.5	1,050
80	48	500	57	850
85			54	650
90			51	450

Tech Spec

IC-200-F

Unmatched in Features and Performance

* Rated Capacity Limiter...Standard
* Capacity on outriggers...30,000 lbs.
* Pick and carry capacity... up to 17,000 lbs.
* Height...7' 11-1/2"
* Width...8'
* Sheave height...up to 73'
* Horizontal reach...up to 66'
* Tight turning radius
* 4-Wheel steer...Standard
* 4-Wheel drive...Optional
* Powershift transmission...Standard
* Fully hydraulic controls for smooth precise operation
* Independent outrigger controls
* Dual Fuel Standard, Diesel Optional

BMC BRODERSON Manufacturing Corp.
P.O. Box 14770, Lenexa, KS 66285-4770
14741 West 106th St. • Lenexa, KS 66215-2015
(913) 888-0606 • FAX (913) 888-8431
Website: bmccranes.com

IC-200-3F

CRANE CAPACITY CHART
IC-200-3F

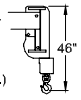
CAPACITIES IN POUNDS FOR OPERATION ON FIRM LEVEL SURFACE								
LOAD RADIUS	MAIN BOOM ONLY				BOOM EXTENSION			
	ON RUBBER		ON OUTRIGGERS		ON RUBBER		ON OUTRIGGERS	
FEET	360°	FRONT	360°	FRONT	360°	FRONT	360°	FRONT
6	16000	16400	30000	30000	---	---	---	---
8	12500	13000	22400	22400	---	---	---	---
10	10000	10500	18500	18500	7500	7500	7500	7500
12	8040	8700	15700	15700	7500	7500	7500	7500
14	6500	7200	13500	13500	7500	7500	7500	7500
16	5330	6200	10800	10800	6140	7500	7500	7500
18	4450	5400	9560	9560	5010	6440	7500	7500
20	3720	4700	8550	8550	4200	5430	7500	7500
22	3140	4200	7700	7700	3580	4650	6850	6850
24	2680	3700	6980	6980	3080	4030	6250	6250
26	2300	3200	6300	6350	2660	3530	5750	5750
28	1980	2800	5550	5800	2290	3100	5300	5300
30	1700	2460	4830	5320	1990	2710	4920	4920
32	1470	2150	4200	4900	1730	2400	4580	4580
34	1260	1850	3700	4520	1510	2130	4270	4270
38	920	1300	2970	3870	1140	1680	3530	3760
42	640	950	2400	3340	840	1320	2960	3340
46	390	650	1840	2890	600	1040	2440	2980
50	0	550	1750	2520	410	800	2040	2630
54	---	---	---	---	0	600	1710	2290
58	---	---	---	---	0	430	1370	2000
62	---	---	---	---	0	290	1140	1740
66	---	---	---	---	0	0	930	1500

BOOM EXT. ANGLE	BOOM EXTENSION - STRAIGHT OR OFFSET MAIN BOOM ANGLE						
	0°	15°	30°	40°	50°	60°	70°
0°	3000	3100	3450	3900	4650	6000	7500
15°	–	3000	3000	3000	3000	3700	5000
30°	–	–	2500	2500	2600	3100	3800

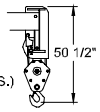
CAUTION BOOM EXTENSION LOADS MUST NOT EXCEED CAPACITIES IN ANGLE CHART AND LOAD RADIUS CHART.

BOOM EXTENSION DEDUCT: 400 LBS. WHEN STOWED ON BASE BOOM;
800 LBS. IN WORK POSITION WITH LOAD ON MAIN BOOM.

USE SINGLE PART LOAD LINE FOR LOADS TO 7500 LBS. (WT. 125 LBS.)



USE TWO PART LOAD LINE FOR LOADS TO 15000 LBS. (WT. 200 LBS.)



USE FOUR PART LOAD LINE FOR LOADS TO 30000 LBS. (WT. 210 LBS.)