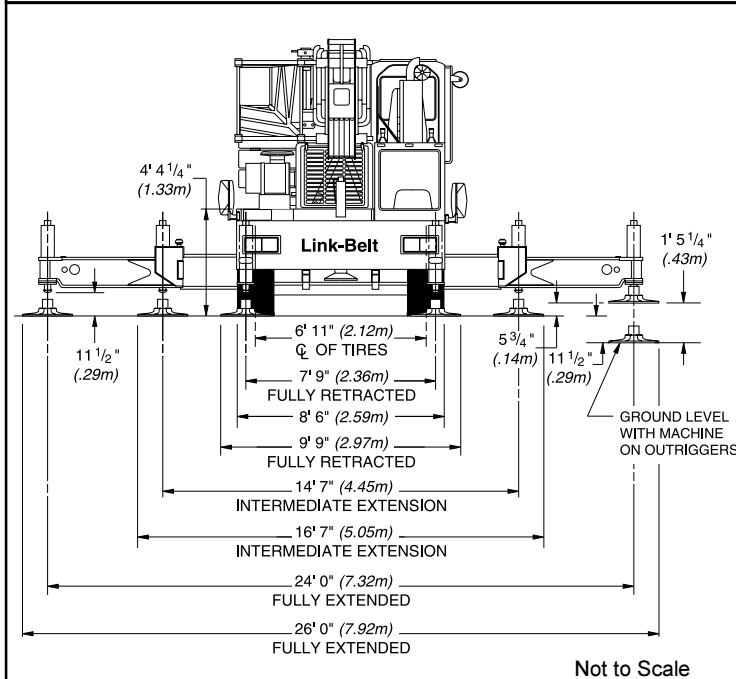
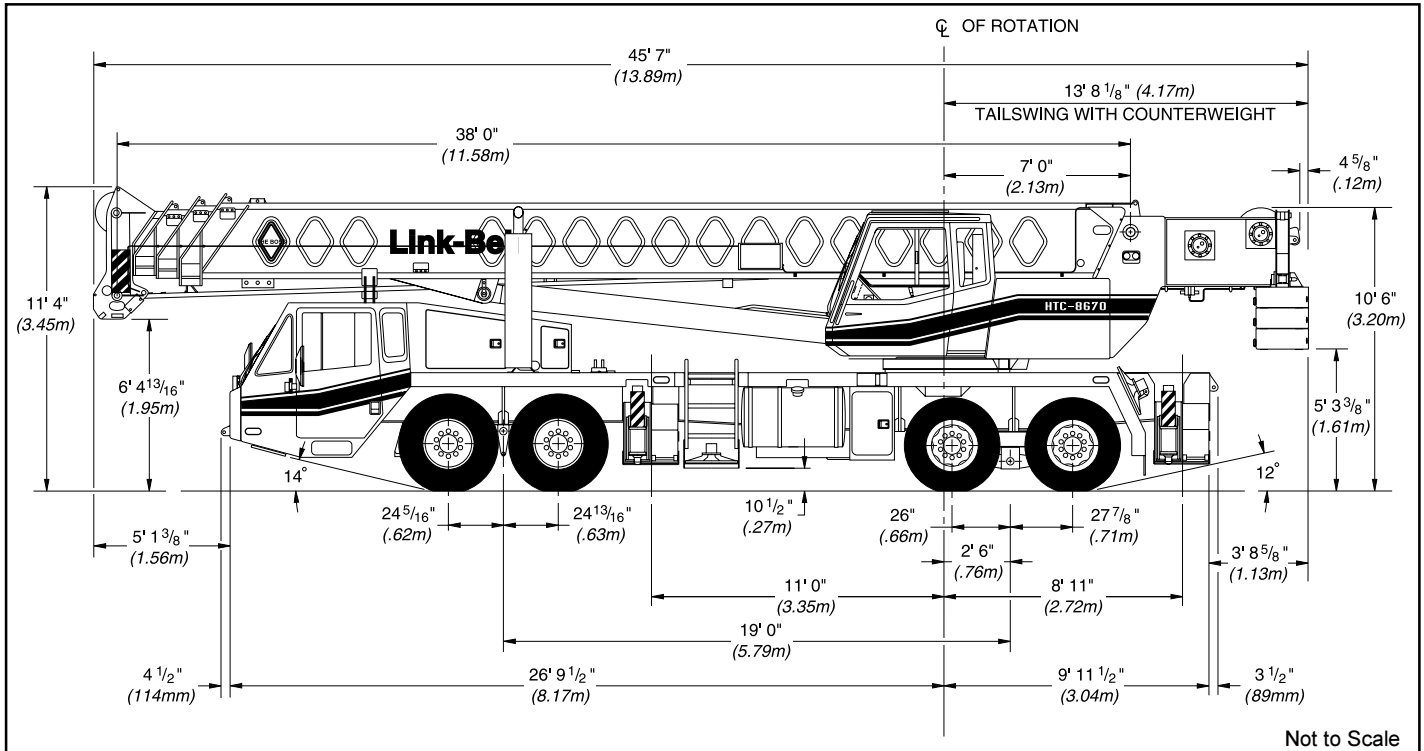


STERLING CRANE



LIFTING CHARTS - Hydraulic Truck Cranes

LINK-BELT MODEL HTC-8670 - 70 TON CAPACITY



General Dimensions	feet	meters
Turning radius (curb to curb)	38' 10"	11.84
Turning radius (wall to wall)	44' 10-1/2"	13.69
Ground clearance	13-1/4"	.34
Tailswing	13' 9"	4.19

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WARNING

READ AND UNDERSTAND THE OPERATOR'S AND SAFETY MANUAL AND THE FOLLOWING INSTRUCTIONS AND CHART VALUES BEFORE OPERATING THE CRANE. OPERATION WHICH DOES NOT FOLLOW THESE INSTRUCTIONS MAY RESULT IN AN ACCIDENT.

OPERATING INSTRUCTIONS

GENERAL:

1. Rated lifting capacities in pounds as shown on lift charts pertain to this crane as originally manufactured and normally equipped. Modifications to the crane or use of optional equipment other than that specified can result in a reduction of capacity.
2. Construction equipment can be dangerous if improperly operated or maintained. Operation and maintenance of this crane must be in compliance with the information in the Operator's, Parts and Safety Manuals supplied with this crane. If these manuals are missing, order replacements through the distributor.
3. The operator and other personnel associated with this crane shall read and fully understand the latest applicable American National Standards Institute (ANSI) safety standards for cranes.
4. The maximum allowable lifting capacities are based on crane standing level on firm supporting surface.

SET UP:

1. The crane shall be leveled on a firm supporting surface. Depending on the nature of the supporting surface, it may be necessary to have structural supports under the outrigger pontoons or tires to spread the load to a larger bearing surface.
2. When making lifts on outriggers, all tires must be free of supporting surface. All outrigger beams must be extended to the same length; fully retracted, intermediate extended, or fully extended. The front bumper outrigger must be properly extended.
3. When operating on fully retracted outriggers, do not exceed 64° maximum boom angle with 16,000# counterweight, or 71° maximum boom angle with 12,000# counterweight. Loss of backward stability will occur causing a backward tipping condition.
4. When making lifts on tires, they must be inflated to the recommended pressure. (See Operation note 18 and Tire Inflation.)
5. Before swinging boom to over side position on tires, or on fully retracted outriggers where capacities are not published, boom sections must be fully retracted and 45° boom angle maintained.
6. For required parts of line, see Wire Rope Strength and Winch Performance.

OPERATION:

1. Rated lifting capacities at rated radius shall not be exceeded. Do not tip the crane to determine allowable loads. For concrete bucket operation, weight of bucket and load shall not exceed 80% of rated lifting capacities. For clamshell bucket operation, weight of bucket and bucket contents is restricted to a maximum weight of 7,000 pounds or 80% of rated lifting capacity, whichever is less. For magnet operation, weight of magnet and load is restricted to a maximum weight of 7,000 pounds or 80% of rated lifting capacity, whichever is less. For clamshell and magnet operation, maximum boom length is restricted to 55 feet and the boom angle is restricted to a minimum of 35 degrees. Lifts with either fly erected or boom in mode "A" are prohibited for both clam and magnet operation.
2. The crane capacities shown on fully extended outriggers do not exceed 85% of the tip load. The crane capacities shown on intermediate extended or fully retracted outriggers are determined by the formula, rated load = (tipping load - 0.1 X load factor)/1.25. The crane capacities shown on tires do not exceed 75% of the tip load. Tipping loads are determined by SAE crane stability test code J-765.
3. The crane capacities in the shaded areas above the bold lines, are based on structural strength or hydraulic limitations and have been tested to meet minimum requirements of SAE J-1063 cantilevered boom crane structures—method of test. The crane capacities below the bold lines are based on stability ratings. Some capacities are limited by a maximum obtainable 78° boom angle.
4. Rated lifting capacities include the weight of the hook block, slings, bucket, magnet and auxiliary lifting devices. Their weights must be subtracted from the listed rated capacity to obtain the net load which can be lifted. Also, see Capacity Deductions For Auxiliary Load Handling Equipment.
5. Rated lifting capacities are based on freely suspended loads. No attempt shall be made to move a load horizontally on the ground in any direction.
6. Rated lifting capacities are for lift crane service only.
7. Do not operate at any radii or boom lengths (minimum or maximum) where capacities are not listed. At these positions, the crane can tip or cause boom failure.

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8. The maximum loads which can be telescoped are not definable because of variation in loadings and crane maintenance, but it is permissible to attempt retraction and extension within the limits of the applicable load rating chart.
9. For main boom capacities when either boom length and/or radius are between values listed, proceed as follows:
 - a. For boom lengths not listed, use rating for next longer boom length or next shorter boom length, whichever is smaller.
 - b. For load radii not listed, use rating for next larger radius.
10. The user shall operate at reduced ratings to allow for adverse job conditions, such as: soft or uneven ground, out of level conditions, wind, side loads, pendulum action, jerking or sudden stopping of loads, hazardous conditions, experience of personnel, two machine lifts, traveling with loads, electrical wires, etc. Side load on boom or fly is extremely dangerous.
11. When making lifts with auxiliary head machinery, the effective length of the boom increases by 2 feet.
12. Power sections of boom must be extended in accordance with boom mode "A" or "B". In boom mode "B" all power sections must be extended or retracted equally.
13. Rated lifting capacities are based on correct reeving. Deduction must be made for excessive reeving. Any reeving over minimum required (see wire rope strength) is considered excessive and must be accounted for when making lifts. Use working range diagram to estimate the extra feet of rope then deduct 1 lb for each extra foot of wire rope before attempting to lift a load.
14. The loaded boom angle combined with the boom length give only an approximation of the operating radius. The boom angle, before loading, should be greater to account for deflection. For main boom capacities, the loaded boom angle is for reference only. For fly capacities, the load radius is for reference only.
15. For fly capacities with main boom length less than 115 ft. and greater than 95 ft., the rated loads are determined by the boom angle using the 115 ft. boom and fly chart. For angles not shown use the next lower boom angle to determine the allowable capacity.
16. For fly capacities with main boom length less than 95 ft., the rated loads are determined by the boom angle only using the 95 ft. boom and fly chart. For angles not shown, use the next lower boom angle to determine the allowable capacity.
17. The 38 ft. boom length capacities are based on boom fully retracted. If the boom is not fully retracted, do not exceed capacities shown for the 45 ft. boom length.
18. Crane capacities on tires depend on tire capacity, condition of tires, and tire air pressure. On tire picks require lifting from main boom head only on a smooth and level surface. Pick and carry operations are restricted to a maximum speed of 1 MPH. The boom must be centered over the rear of the crane with two position travel swing lock engaged and the load must be restrained from swinging. Lifts with either fly erected on tires are prohibited. For correct tire pressure see Tire Inflation.

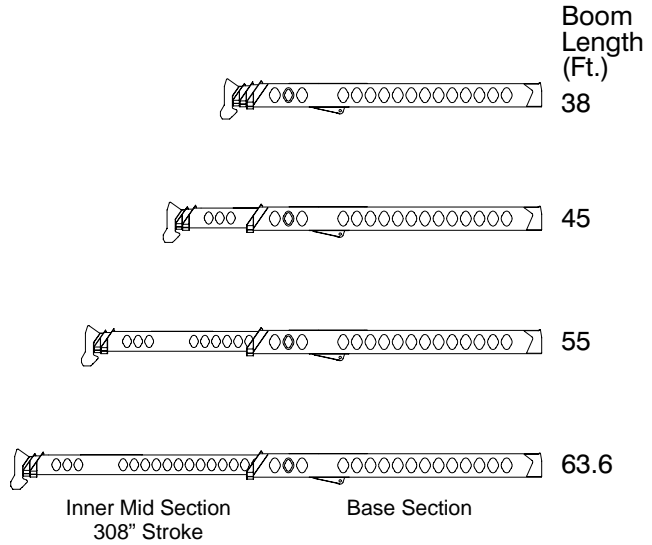
DEFINITIONS:

1. Load Radius: Horizontal distance from a projection of the axis of rotation to the supporting surface before loading to the center of the vertical hoist line or tackle with load applied.
2. Loaded Boom Angle: The angle between the boom base section and horizontal after lifting the load at the rated radius.
3. Working Area: Area measured in a circular arc about the center line of rotation as shown on the working area diagram.
4. Freely Suspended Load: Load hanging free with no direct external force applied except by the hoist line.
5. Side Load: Horizontal side force applied to the lifted load either on the ground or in the air.
6. No Load Stability Limit – The stability limit radius is the radius beyond which it is not permitted to position the boom plus load handling equipment, because the crane can overturn without any load on the hook.
7. Load Factor: Load applied at the boom tip which gives the same moment effect as the boom mass.

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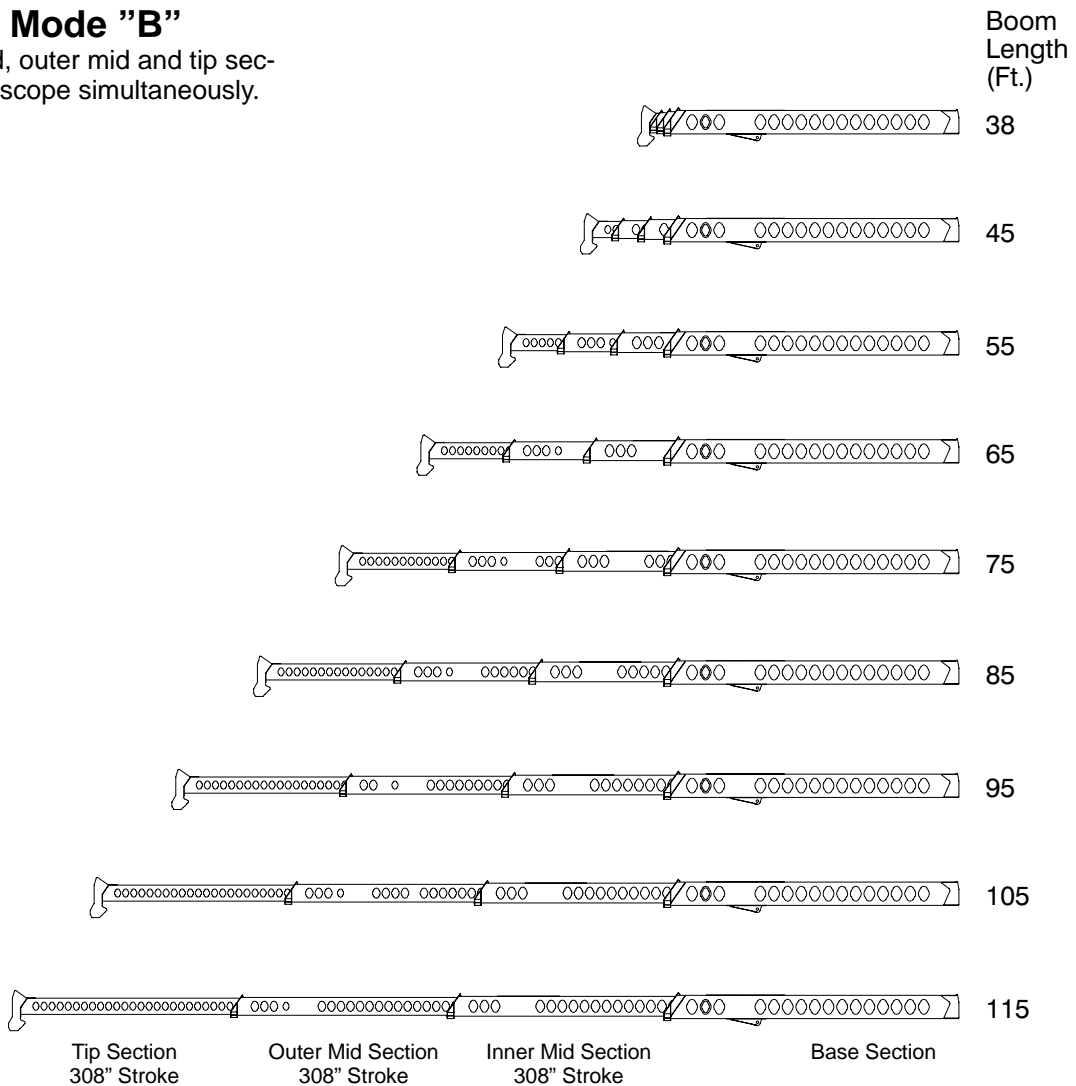
Boom Mode "A"

Only inner mid section telescopes.



Boom Mode "B"

Inner mid, outer mid and tip sections telescope simultaneously.



WINCH PERFORMANCE

Winch Line Pulls			Drum Rope Capacity (Ft.)	
Two Speed Winch				
Wire Rope Layer	Low Speed	High Speed	Layer	Total
	Available Lbs.*	Available Lbs.		
1	16,805	8,290	110	110
2	15,620	7,710	118	228
3	14,590	7,200	126	354
4	13,690	6,760	134	488
5	12,890	6,360	143	631
6	12,190	6,020	151	782

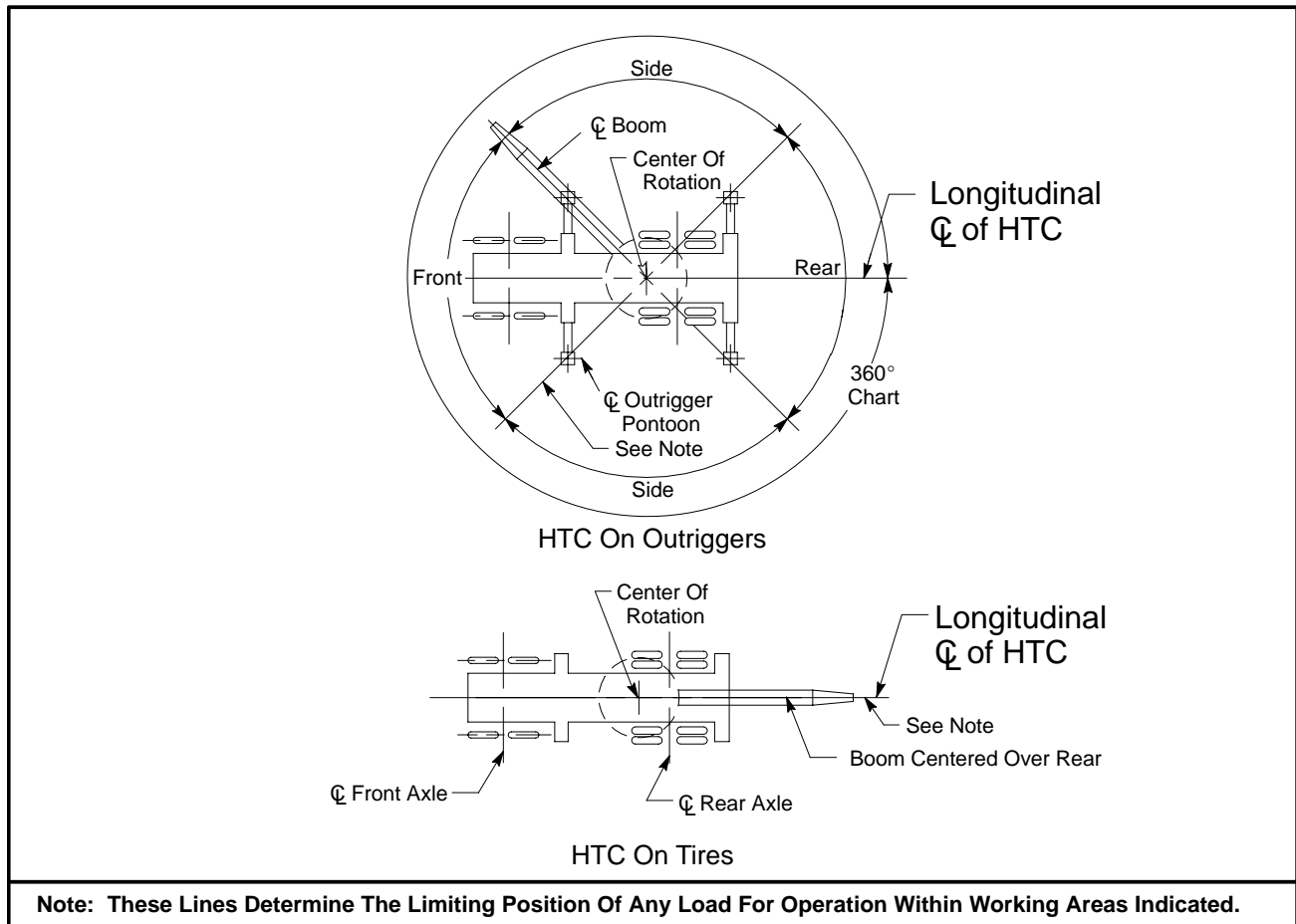
*Maximum lifting capacity: Type RB Rope=12,920 Type ZB Rope=15,600

WIRE ROPE STRENGTH

Maximum Lifting Capacities Based On Wire Rope Strength			
Parts of Line	3/4"	3/4"	Notes
	Type RB	Type ZB	
1	12,920*	15,600	Capacities shown are in pounds and working loads must not exceed the ratings on the capacity charts in the Crane Rating Manual. Study Operator's Manual for wire rope inspection procedures. *Use of swivel end with 1 part of line is not recommended.
2	25,840	31,200	
3	38,760	46,800	
4	51,680	62,400	
5	64,600	78,000	
6	77,520	93,600	
7	90,440	109,200	
8	103,360	124,800	
9	116,280	140,400	
10	129,200	156,000	
LBCE	DESCRIPTION		
TYPE RB	18 X 19 Rotation Resistant – Extra Improved Plow Steel – Preformed Right Lay – Regular Lay, Swaged		
TYPE ZB	36 X 7 Rotation Resistant – Extra Improved Plow Steel – Right Lay – Regular Lay		

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WORKING AREAS



HYDRAULIC CIRCUIT PRESSURE SETTINGS

Function	Pressure (PSI)
Front And Rear Winch	3,500
Outriggers	3,000
Boom Hoist	3,500
Telescope	3,000
Swing	1,500
Steering	1,600
Bumper Outrigger	650
Pilot Control	500
Counterweight Removal	1,700
Swing Park Brake Release	250

CAPACITY DEDUCTIONS FOR AUXILIARY LOAD HANDLING EQUIPMENT

Load Handling Equipment	Weight (Lbs.)
Auxiliary Head Attached	150
70 Ton Hook Block 5 Sheave (See Hook Block For Actual Weight)	1,400
40 Ton Hook Block 4 Sheave (See Hook Block For Actual Weight)	720
8.5 Ton Hook Ball (See Hook Ball For Actual Weight)	360
Lifting From Main Boom With:	
24.5 Ft. Fly Tip Stowed On Boom Base	300
36.5 Ft. Offset Fly Stowed On Boom Base	900
36.5 Ft. Offset Fly Erected But Not Used	6,100
61 Ft. Offset Fly Stowed On Boom Base	1,200
61 Ft. Offset Fly Erected But Not Used	7,600
Lifting From 36.5 Ft. Offset Fly With:	
24.5 Ft. Fly Tip Stowed On Boom Base	300
24.5 Ft. Tip Erected But Not Used	PROHIBITED
24.5 Ft. Tip Stowed On 36.5 Ft. Offset Fly	PROHIBITED
Note: Capacity deductions are for Link-Belt supplied equipment only.	

TIRE INFLATION

Tire Size	Operation	Tire Pressure (PSI)
12 R 22.5	1 mph	120
	Stationary	120

PONTOON LOADINGS

Maximum Pontoon Load:	Maximum Pontoon Ground Bearing Pressure:
97,400 Lbs.	215 PSI

OUTRIGGER SPREAD

Position	Distance
Fully Retracted	93" – (7'-9")
Intermediate Extended	175" – (14'-7")
Fully Extended	288" – (24'-0")