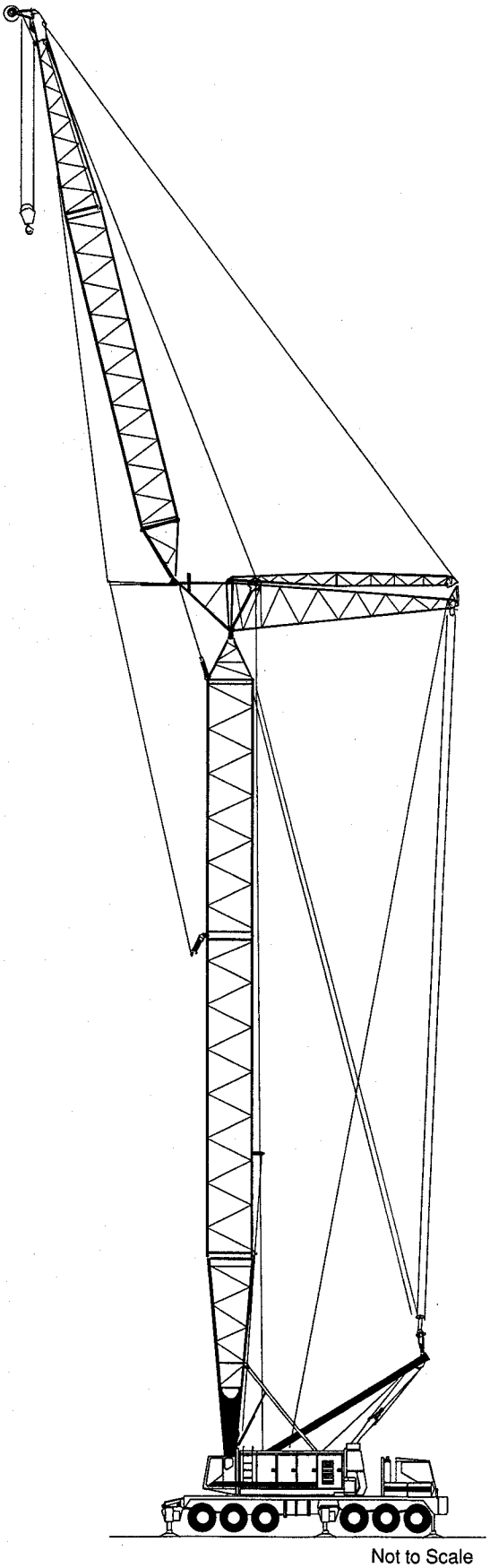
Link-Belt
CONSTRUCTION EQUIPMENT

Specifications

Lattice Boom Truck Crane With Luffing Attachment

HC-268

42.5-Ton *(38.58 metric ton)*



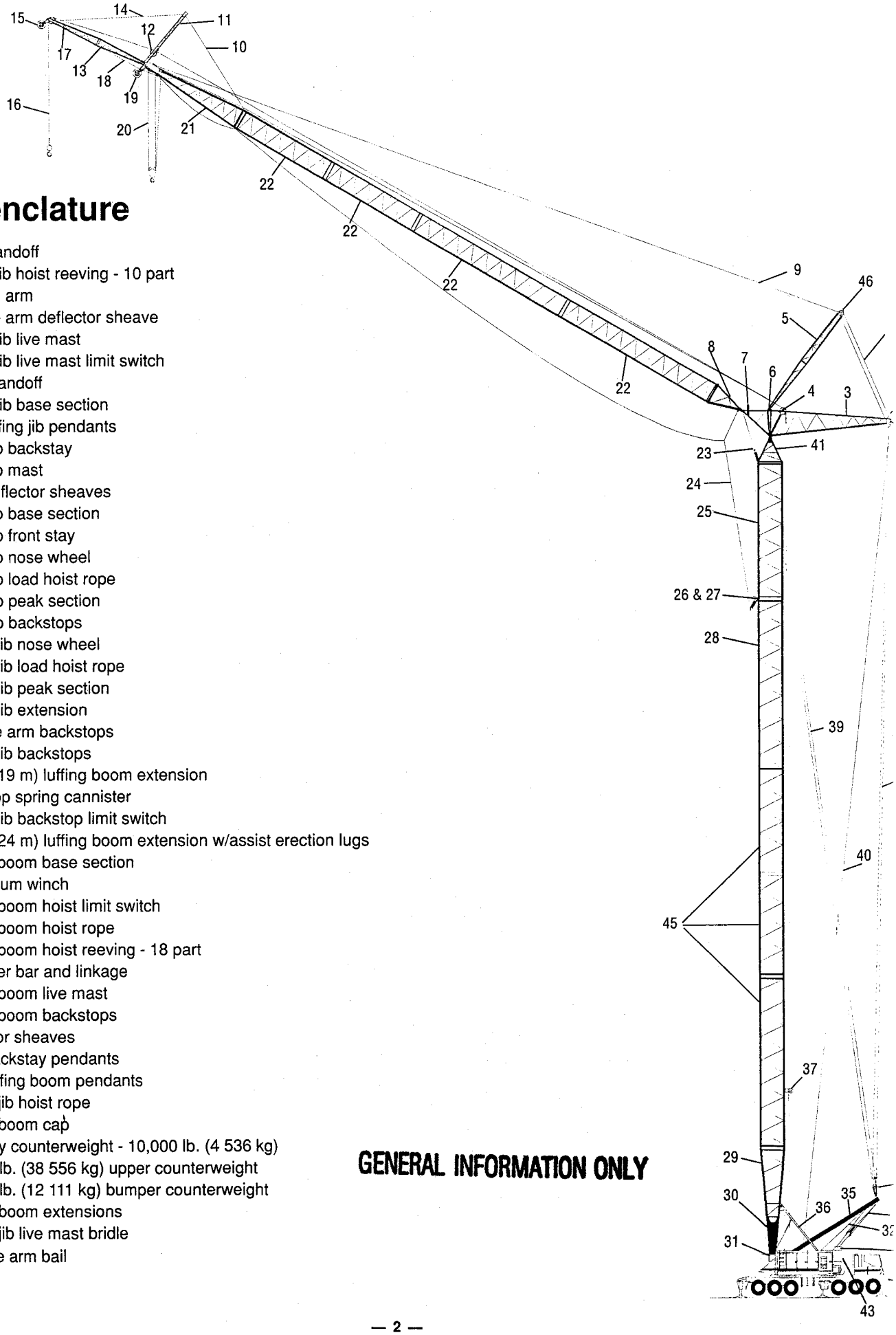
Not to Scale

Luffing Boom - Luffing Jib - Fixed Jib Combinations	Feet	Meters
Basic & maximum luffing boom lengths	140'/250'	42.67/76.20
Basic & maximum luffing jib lengths	100'/200'	30.48/60.96
Basic & maximum fixed jib lengths	30'/30'	9.14/9.14
Maximum luffing boom and luffing jib combination lengths; assist erected	250' + 200'	76.20 + 60.96
Maximum height - center luffing jib head sheave @ 80' (24.38 m) radius	446'	135.9
Maximum horizontal reach - center luffing jib load hook @ max. chart radius w/luffing boom @ 85° offset	233'	71.02
Maximum luffing boom, luffing jib, and fixed jib combination lengths; assist erected	250' + 200' + 30'	76.20 + 60.96 + 9.14
Maximum height - center fixed jib peak sheave @ 80' (24.38 m) radius	477'	145.39
Maximum horizontal reach - center fixed jib load hook @ max. chart radius w/ luffing boom @ 85° offset	263'	80.16
Maximum luffing boom, luffing jib, and fixed jib combination lengths; non-assist erected	200' + 200' + 30'	60.96 + 60.96 + 9.14
Maximum height - center fixed jib head sheave @ 75' (22.86 m) radius	428'	130.45
Maximum horizontal reach - center fixed jib load hook @ max. chart radius w/luffing boom @ 85° offset	259'	78.94

General Dimensions - 90° Luffing Boom	Feet	Meters
Luffing boom live mast	35' 0"	10.66
Overall height, top of turntable bearing	5' 5"	1.65
Ground clearance under counterweight	5' 5"	1.65
Minimum ground clearance	9"	.22
Overall height - live mast vertical	44' 5"	13.53
Overall truck length	43' 7"	13.28
Tailswing of counterweight (at corners)	18' 9"	5.72
Tailswing of balance arm and luffing boom live mast	32' 10"	10.00
Overall width of counterweight	11' 10"	3.60
Radius of luffing jib hinge pin	11' 2"	3.40
Radius of luffing boom hinge pin	3' 2"	.96
Height of luffing boom hinge pin (on outriggers)	8' 0"	2.44
Overall length - attachment removed but with luffing boom mast lowered horizontal	68' 6"	20.87
Height of luffing jib foot pin (140' - 42.67 m - luffing boom)	148' 0"	45.11
Centerline of luffing boom to end of balance arm	36' 0"	10.97
Luffing jib hinge pin to centerline of luffing boom	8' 0"	2.44

Litho in U.S.A 3/92

Nomenclature



1. Rear standoff
2. Luffing jib hoist reeving - 10 part
3. Balance arm
4. Balance arm deflector sheave
5. Luffing jib live mast
6. Luffing jib live mast limit switch
7. Front standoff
8. Luffing jib base section
9. Dual luffing jib pendants
10. Fixed jib backstay
11. Fixed jib mast
12. Mast deflector sheaves
13. Fixed jib base section
14. Fixed jib front stay
15. Fixed jib nose wheel
16. Fixed jib load hoist rope
17. Fixed jib peak section
18. Fixed jib backstops
19. Luffing jib nose wheel
20. Luffing jib load hoist rope
21. Luffing jib peak section
22. Luffing jib extension
23. Balance arm backstops
24. Luffing jib backstops
25. 40' (12.19 m) luffing boom extension
26. Backstop spring cannister
27. Luffing jib backstop limit switch
28. 50' (15.24 m) luffing boom extension w/assist erection lugs
29. Luffing boom base section
30. Third drum winch
31. Luffing boom hoist limit switch
32. Luffing boom hoist rope
33. Luffing boom hoist reeving - 18 part
34. Spreader bar and linkage
35. Luffing boom live mast
36. Luffing boom backstops
37. Deflector sheaves
38. Dual backstay pendants
39. Dual luffing boom pendants
40. Luffing jib hoist rope
41. Luffing boom cap
42. Auxiliary counterweight - 10,000 lb. (4 536 kg)
43. 85,000 lb. (38 556 kg) upper counterweight
44. 26,700 lb. (12 111 kg) bumper counterweight
45. Luffing boom extensions
46. Luffing jib live mast bridle
47. Balance arm bail

GENERAL INFORMATION ONLY

General Specifications

Luffing Boom
Tubular; 100" (2.54 m) wide, 85" (2.16 m) deep at connections. Alloy steel round tubular chords 5-1/4" (.13 m) outside diameter.

Luffing Boom Base Section
35' (10.67 m) long. Luffing boom feet on 66" (1.67 m) centers. Hydraulic powered luffing boom foot pin removal system standard.

Luffing Boom Extensions
Available in 20' (6.10 m), 30' (9.14 m), 40' (12.19 m) and 50' (15.24 m) lengths with appropriate length pendants.

Luffing Boom Connections
In-line pin connections

Luffing Boom Cap
7' 6" (2.29 m) long; tubular construction, pin connected to the top luffing boom extension.

Balance Arm
Provides an offset luffing jib connection to allow for a full 165° of luffing jib angle variation from erection to minimum radius operating position. Transfers the resultant of the luffing jib foot thrust to the luffing boom centerline so that all four chords are loaded equally. Tubular construction, front chords span 8' 0" (2.44 m) from luffing boom centerline and rear chords span 35' 0" (10.67 m) from luffing boom centerline to the luffing jib hoist bail shaft.

Luffing Boom Stops
Dual lever type, spring cushioned. Adjustable levers pin to luffing boom base section; backstops anchor to the upper revolving frame. Required for all luffing boom lengths.

Luffing Boom Hoist Bridle
The bridle contains nine 15" (.38 m) root dia. sheaves (18-part reeving) and two 15" (.38 m) root dia. auxiliary load hoist sheaves which enable the mast to be used as an auxiliary boom for machine assembly and disassembly.

Luffing Boom Live Mast
Welded plate/tube construction 35' 0" (10.67 m) long, required for all luffing boom/luffing jib lengths; supports luffing jib hoist bridle. (Same live mast as on standard crane.)

Balance Arm Stops
Prevent the balance arm from angling past a line perpendicular to the centerline of the luffing boom during erection.

Wire Rope
See chart on page 4.

Basic Luffing Boom
140' (42.67 m) long; contains one 35' 0" (10.67 m) base section, one 40' 0" (12.19 m), one 50' 0" (15.24 m) extension, 7' 6" (2.29 m) tapered luffing boom cap and 7' 6" (2.29 m) balance arm. (Includes bail, live mast, hoist bridle and live mast stops.)

Maximum Luffing Boom
No assist luffing boom erection; 200' (60.96 m) luffing boom for use with maximum 200' (60.96 m) luffing jib and 30' (9.14 m) fixed jib.

Assist luffing boom erection; 250' (76.20 m) luffing boom for use with maximum 200' (60.96 m) luffing jib and 30' (9.14 m) fixed jib.

Luffing Jib
Tubular; basic luffing jib 100' (30.48 m) long; 80" (2.03 m) wide, 68" (1.72 m) deep at connections. Alloy steel round tubular chords 4-1/4" (.10 m) outside diameter.

Luffing Jib Base Section
10' 0" (3.04 m) long; 100" (2.54 m) wide at luffing jib foot. 68" (1.72 m) deep and 80" (2.03 m) wide at pin connections.

Luffing Jib Extensions
Available in 10' (3.04 m), 20' (6.10 m), 30' (9.14 m), 40' (12.19 m) and 50' (15.24 m) lengths with appropriate length pendants. (Standard luffing jib extensions.)

Luffing Jib Connections
In-line pin connections.

Top Section
Open throat, 30' (9.14 m) long. (Standard luffing jib top section, modified to accept nose wheel.)

Luffing Jib Live Mast
35' (10.67 m) long, required for all luffing jib/fixed jib lengths.

Luffing Jib Point Machinery
Six 21" (.53 m) root diameter sheaves. Sheaves mounted on anti-friction bearings.

Luffing Jib Sheave Guards
Tubular upper guard, steel rod lower guard.

Deflector Rollers
Deflect load hoist wire rope off luffing boom/luffing jib. Steel rollers mounted on anti-friction pillow block bearings.

Luffing Jib Backstop System
3/4" (19 mm) wire rope type "N" pendants. Contains spring canisters and a limit switch to prevent luffing jib from exceeding max. operating angle.

Luffing Jib Hoist
1" (25 mm) type "N" luffing jib hoist line runs from the rear drum to the balance arm bail. Ten part reeving hoists luffing jib from -90° to 0° during erection and from 0° to 73° during operation.

Luffing Jib Hoist Limiting Device
The balance arm is equipped with a luffing jib hoist limit switch used to avoid hoisting above minimum radius. Brakes apply automatically.

Drum Rotation Indicators
Standard for front drum (load hoist) and rear drum (luffing jib hoist).

Luffing Jib Lengths
Luffing jib lengths from 100' (30.48 m) to 200' (60.96 m) may be used on all luffing boom lengths from 140' (42.67 m) to 250' (76.20 m) with luffing boom at 85° or 90° angles.

Luffing Jib Nose Wheels
Pin-connected to end of luffing jib top section; support luffing jib peak on ground during luffing boom and luffing jib erection. Dual 8.35 x 15 (12-ply) rating tires.

Luffing Boom And Luffing Jib Angle Indicators
Electronic type standard. Read out unit conveniently located in crane operator's cab.

Auxiliary Counterweight
The luffing attachment utilizes an auxiliary 10,000 lb. (4 536 kg) counterweight in addition to the 85,000 lb. (38 556 kg) "AB" upper counterweight. This counterweight is secured to the top of the 38,000 lb. (17 237 kg) "B" counterweight with an eye bolt and pin arrangement.

General Specifications (con't)

Fixed Jib
Tubular; basic two-piece 30' (9.14 m) long; 32" (.81 m) wide; 24" (.51 m) deep at connections. Alloy steel round tubular chords 2-1/4" (57 mm) outside diameter. (Same jib as used on standard boom.)

Base Section
15' 0" (4.57 m) long.

Jib Connections
In-line pin connections.

Tip section
15' 0" (4.57 m) long; equipped with single 21" (.53 m) root diameter sheave, mounted on anti-friction bearings.

Jib Adapter
Connects to the fixed jib lower section and the luffing jib upper section. Allows the fixed jib to pivot 90° to the luffing jib for erection purposes.

Jib Mast
17' 10" (5.43 m) long. Single jib load hoist rope (whipline) deflector sheave, 21" (.53 m) root diameter, mounted on anti-friction bearings. Two stayline equalizer sheaves mount at end of mast.

Jib Stops
Wire rope type; pin to fixed jib peak and to the 30' (9.14 m) luffing jib head section.

Jib Staylines
Front and back staylines 7/8" dia. (22 mm) attach jib head shaft and luffing jib tip section to the jib mast respectively. Connections at the jib mast employ equalizing sheaves for both stays.

Fixed Jib Lengths And Offset Angles
30' (9.14 m) only; 5° offset only.

Jib Folding Wheel
Pin connected to jib peak; supports jib peak on ground during luffing boom/ luffing jib/fixed jib erection. Implement type tire with tube - 6.50 x 16 (6 ply) rating.

3rd Drum Winch
Optional; used in conjunction with 30' (9.14 m) fixed jib as a whipline function. Bolts in the luffing boom base section, 7' 0" (2.13 m) from the luffing boom foot pin. The winch drive consists of a variable displacement bent axis piston motor with an integral multi-disk brake and planetary. This drum is grooved for 1" (25.4 mm) rope.

Hydraulic power to the winch is supplied by the conventional boom hoist pump. The rotary valve selection in the operator's cab allows the luffing boom hoist drum and the third drum winch to share the pump function during erection and operation of the luffing attachment.

Quick disconnects at the outside of the machinery house allow the winch to be transported in the luffing boom lower section.

The hydraulic circuit contains a holding valve, which when coupled with the winch multi-disk brake will prevent load droop when initiating a hoist function. A ratchet-pawl system is not available.

Wire Rope and Rope Drum Data

Wire Rope: size and type

Wire rope application	Size: diameter		Type
	inches	mm	
Luffing boom hoist	1	25	W
Luffing jib hoist	1	25	N
Main load hoist	1-1/8	28	N
Jib load hoist (1-part)	1	25	RB,P
Jib load hoist (2-part)	1	25	N
Luffing boom pendants (dual)	1-1/4	32	N
Backstay pendants (dual)	1-1/8	28	N
Luffing jib pendants (dual)	1-1/8	28	N
Jib front stay line	7/8	22	N
Jib back stay line	7/8	22	N
Luffing jib backstop pendants	3/4	19	N
Fixed jib backstop pendants	1/2	13	N
Assist lift pendant	1-1/4	32	N

Wire Rope: types available

- Type "N" - 6 x 25 (6 x 19 class) filler wire, extra improved plow steel, preformed, independent wire rope center, right lay, regular lay.
- Type "W" - 6 x 26 extra improved plow steel, preformed, independent wire rope center, right lay, alternate lay.
- Type "RB" - 19 x 19 rotation resistant.
- Type "P" - 19 x 7 non-rotating, extra improved plow steel, preformed, wire center core.

GENERAL INFORMATION ONLY

Drum Functions

Description	Lift Crane Function	Luffing Attachment Function
Front drum	Main load line	Main load line or whip line
Rear drum	Whip line	Luffing jib hoist
Boom hoist drum	Boom hoist	Luffing boom hoist
3rd drum	n/a	Whip line

Load Hoisting Performance

GENERAL INFORMATION ONLY

Line speed and pull

Rope layer	Third Drum - 1" (25 mm) wire rope - No Load							
	Low speed				High speed			
	Line Pull		Line Speed		Line Pull		Line Speed	
	lb.	kg	fpm	m/min	lb.	kg	fpm	m/min
1	0	0	218	66.4	0	0	440	134.1
2	0	0	237	72.2	0	0	479	146.0
3	0	0	256	78.0	0	0	517	157.6
4	0	0	275	83.8	0	0	556	169.5
5	0	0	294	89.6	0	0	595	181.4

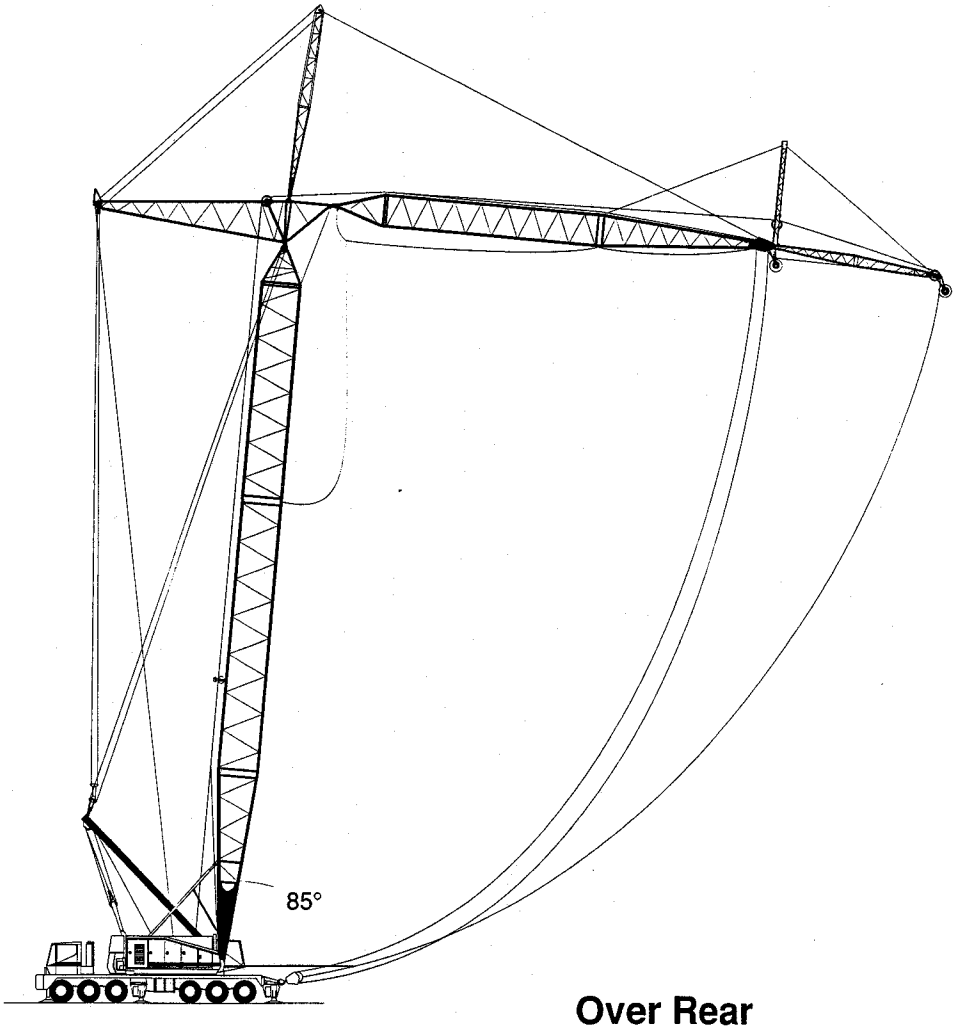
Rope layer	Third Drum - 1" (25 mm) wire rope - With Full Load							
	Low speed				High speed			
	Line Pull		Line Speed		Line Pull		Line Speed	
	lb.	kg	fpm	m/min	lb.	kg	fpm	m/min
1	23,600	10 714	184	56.1	9,700	4 404	368	112.2
2	21,700	9 852	200	61.0	8,900	4 041	401	122.2
3	20,100	9 125	217	66.1	8,300	3 768	433	132.0
4	18,700	8 490	233	71.0	7,700	3 496	466	142.0
5	17,500	7 945	249	75.9	7,200	3 269	498	151.8

Jobsite Travel

(without load)

The HC-268 with luffing attachment may be moved on the jobsite with all combinations of luffing boom, luffing jib, and fixed jib. This can be done with the upper facing either over the front or rear of the carrier.

See page 6 for over front configuration



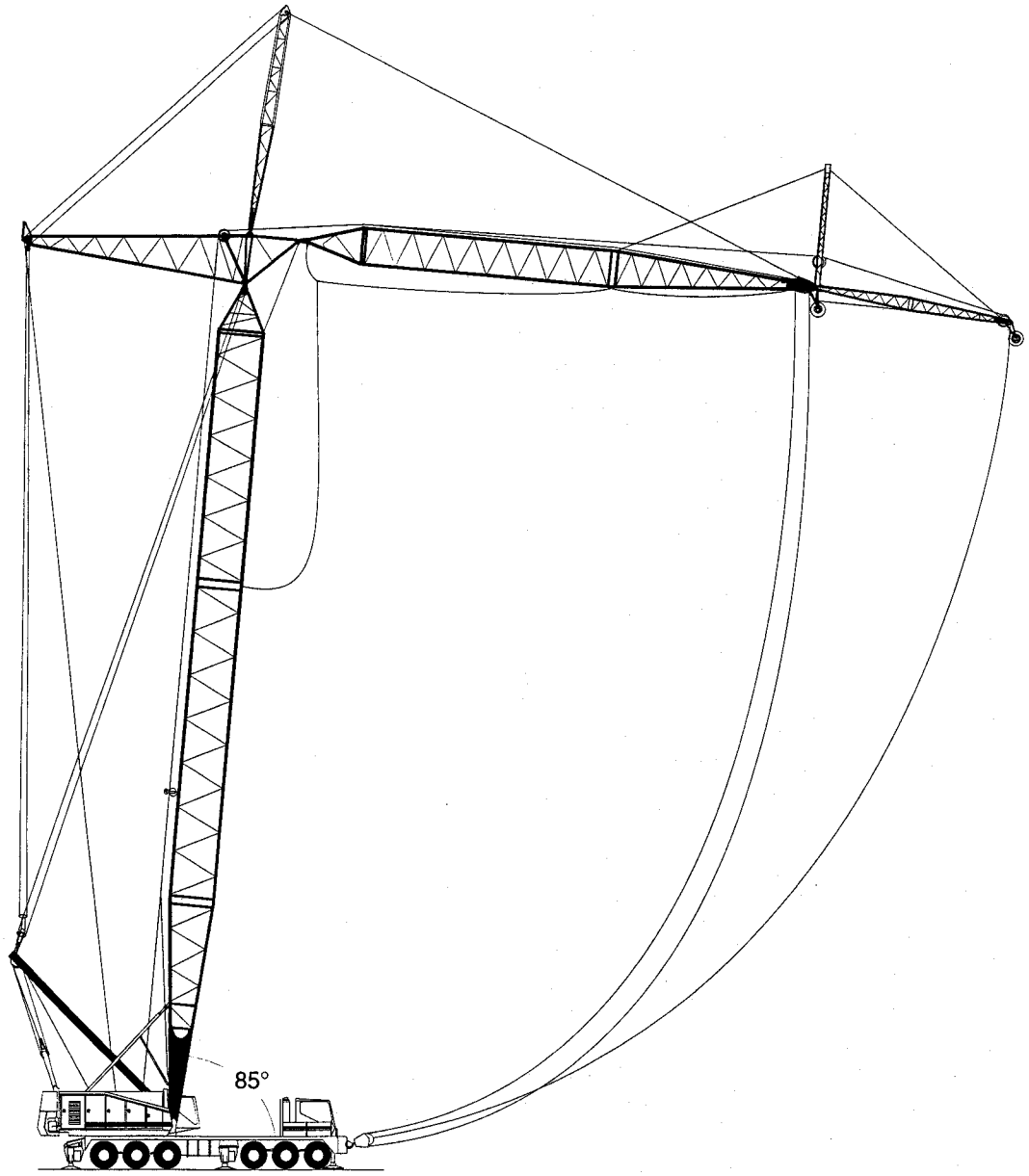
Over Rear

Jobsite Travel (without load) con't

The HC-268 with luffing attachment may be moved on the jobsite with all combinations of luffing boom, luffing jib, and fixed jib. This can be done with the upper facing either over the front or rear of the carrier.

See page 5 for over rear configuration.

GENERAL INFORMATION ONLY



Over Front

Link-Belt Construction Equipment Company
A unit of Sumitomo Construction Machinery Co., Ltd.