

BUCKNER

HEAVYLIFT CRANES

Build Package – Liebherr LR 1400/1 – CR4409

Contents	
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001	Title Page
002	Build Sheet
003	Rod Plan
004	CWT Arrangement
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006	Aux Reeving
007	Main Reeving
008	Erection & Take Down 1
009	Load Charts

Note: Crane technician MUST verify all information contained in this document matches what is provided by the manufacturer for the specific crane being used. Contact Andy Moore with questions: andym@bucknerheavylift.com Cell: 713 705 5726

PROJECT: LR1400/1 S 42m (138')

LOCATION: Goodyear, AZ

BUCKNER CONTACT: Andy Moore, P.E.
AndyM@BucknerHeavylift.com

LIFT PLAN BY: Andy Moore, P.E.
AndyM@BucknerHeavylift.com

DRAWING NOTES:
Title Page

LR1400/1	
Operating Mode	S
Main Boom Length	42m (138')
Luffing Jib Length	N/A
Derrick Length	N/A
Superstructure CWT	155t (342k)
Carbody CWT	43t (95k)
Ballast Tray CWT	N/A

PRELIMINARY

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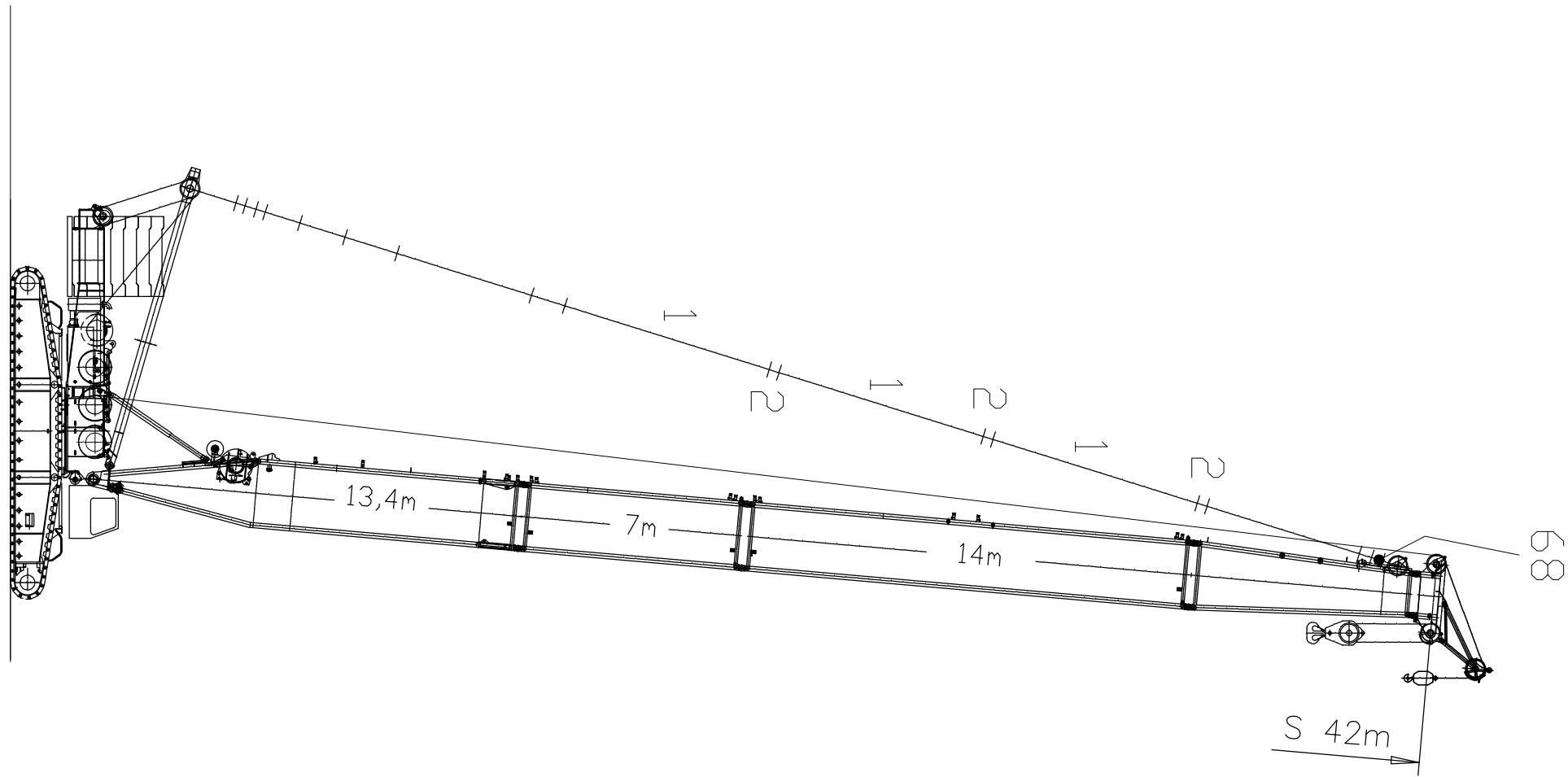
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PROJECT:
LR1400/1 S 42m (138')

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Pos. Artikel	Bezeichnung	Description
1 963497808	STANGE MIT SCHILD	ROD WITH BOARD
2 925173308	LASCHE KPL.	BRACKET COMPL.
3 963493508	STANGE	ROD
4 925173008	LASCHE KPL.	BRACKET COMPL.
9 925184408	SCHWINGE SCHWK.	ROCKER WELDED
16 921344408	STANGE KPL.	ROD CPL.
23 773424508	SEIL	ROPE
25 954383508	BOLZEN	PIN
27 921137508	STANGE KPL.	ROD CPL.
28 954385708	BOLZEN	PIN
29 433105008	SICHERUNGSFEDER	RETAINING SPRING
32 921129608	STANGE KPL.	ROD CPL.
35 948638308	BOLZEN	PIN
36 773386108	SEIL	ROPE
44 948359608	BOLZEN	PIN
51 529001508	AUFSTELLWAGEN	SET-UP CARRIAGE
52 963490108	STANGE MIT SCHILD	ROD WITH BOARD
68 692307908	ZUGMESSLASCHE	TENSION DYNAMOMETER
76 921406808	STANGE KPL.	ROD CPL.
77 921406908	LASCHE KPL.	BRACKET COMPL.
78 921407008	STANGE KPL.	ROD CPL.
79 921407208	STANGE KPL.	ROD CPL.
80 921407308	SCHWINGE SCHWK.	ROCKER WELDED
82 921425408	STANGE MIT SCHILD	ROD WITH BOARD
83 921425508	STANGE KPL.	ROD CPL.
86 923626908	LASCHE SCHWK.	CONNECTING LINK WELDED
87 923627008	LASCHE SCHWK.	CONNECTING LINK WELDED
88 923627108	LASCHE SCHWK.	CONNECTING LINK WELDED
89 773433908	SEIL	ROPE
90 773434008	SEIL	ROPE
91 956097408	BOLZEN	PIN
92 421202408	SCHEIBE	WASHER
93 955998208	BOLZEN	PIN
94 421102808	SCHEIBE	WASHER
95 433102508	SICHERUNGSFEDER	RETAINING SPRING
96 740023808	KETTE	CHAIN
98 921125208	TRAVERSE SCHWK.	CROSS-MEMBER
99 921129208	STANGE KPL.	ROD CPL.
103 970079008	BOLZEN	PIN
104 921137308	STANGE KPL.	ROD CPL.

Pos. Artikel	Bezeichnung	Description
106 433010308	SPLINT	SPLIT PIN
1000 983017408	STANGEN	RODS / PULL RODS

27.4.2009	LIEBHERR LR 1400/2 (074257) STANGEN RODS / PULL RODS	910536008 _ 002 Seite: 12
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27.4.2009	LIEBHERR LR 1400/2 (074257) STANGEN RODS / PULL RODS	910536008 _ 002 Seite: 13
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PROJECT:
LR1400/1 S 42m (138')

LOCATION: Goodyear, AZ
BUCKNER CONTACT: Andy Moore, P.E.
AndyM@BucknerHeavyLift.com
LIFT PLAN BY: Andy Moore, P.E.
AndyM@BucknerHeavyLift.com

DRAWING NOTES:
Rod Plan

LR1400/1	
Operating Mode	S
Main Boom Length	42m (138')
Luffing Jib Length	N/A
Derrick Length	N/A
Superstructure CWT	155t (342k)
Carbody CWT	43t (95k)
Ballast Tray CWT	N/A



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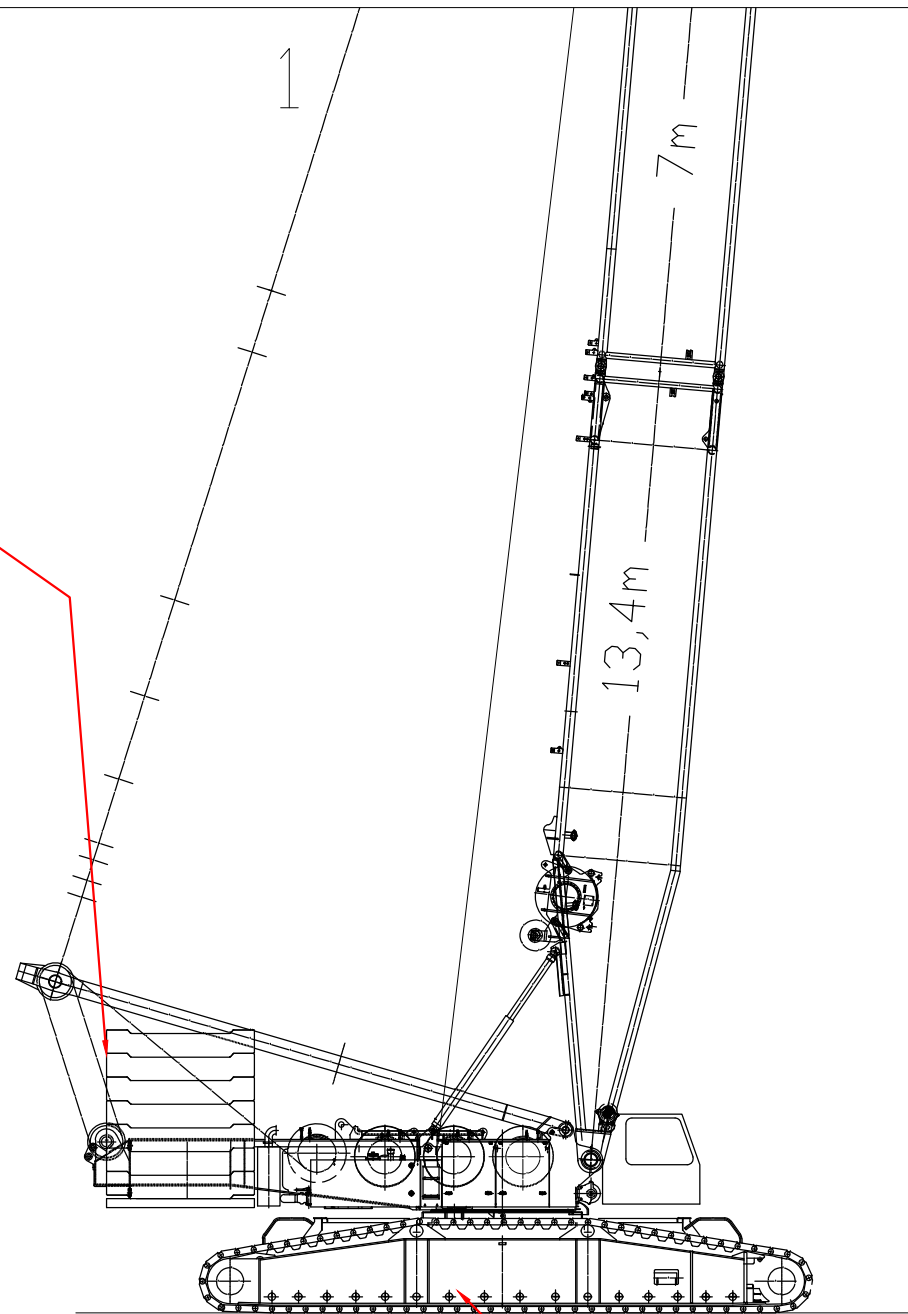
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UPPER CWT: 155t
15t Base Slab + (x14) 10t Rocks



CARBODY CWT: 43t
(x4) 8t Ballast Plates + (x2) 5.5t Rocks

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DRAWING NOTES:
CWT Arrangement

LR1400/1	
Operating Mode	S
Main Boom Length	42m (138')
Luffing Jib Length	N/A
Derrick Length	N/A
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7.4.1 Load hook 12.5 E (0 rope pulleys / 27.6 kips (12.5 t) load)

Number of rope runs	Maximum possible overall jib length [ft] with hook block weight [lbs]		
	1.5 kips without additional weight		
1	551		

Pulley block	Number of rope pulleys	Number of rope runs	Maximum possible overall boom length [ft] with pulley block weight [kps]
176.4 kps	3	5.7 kps	
		7	253
		6	299
		5	390
		4	482
		3	551
		2	551
		1	551

7.4 Load hook and hook block for crane operation with 1 hoist rope winch in single operation
Hoist rope lengths: 3280 ft (1000 m)

Crane data		
Rope diameter:	0.0820 ft	[25 mm]
Rope weight:	2.08	[lbs/ft]
Boom sections:	23	[ft]
Boom length min.:	69	[ft]
Boom length max.:	551	[ft]
Number of hoist winches:	1	
Hoist rope length:	3280	[ft]
Derrick to hoist rope deflection:	65.6	[ft]
Min. height above ground:	0.0	[ft]

	 x 1000 lb
1x	27.8
2x	54.9
3x	81.8
4x	108.3
5x	134.3
6x	159.8
7x	185.2
8x	210.1
9x	234.6
10x	258.8
11x	282.6
12x	306.0
13x	329.2
14x	351.9
15x	374.1
16x	396.2
17x	418.0
18x	439.4
19x	460.6
20x	481.3
21x	501.6
22x	521.9
23x	541.7
24x	561.3
25x	580.5
26x	599.5
27x	618.2
28x	636.5
29x	654.6
30x	672.4
31x	690.1
32x	707.5
33x	726.0
34x	741.2
35x	757.8
36x	771.6

Aux. Ball (Winch 2)	
Ball 12.5E (0 Sheave) 25mmØ	
Parts of Line	1
Reeving Cap. (EN 13000)	27 800 lb
Block Wt.	1 500 lb

Main Hook Block (Winch 1)	
Hook Block 80DM (3 Sheave) 25mmØ	
Parts of Line	7
Reeving Cap. (EN 13000)	185 200 lb
Block Wt.	5 700 lb

PROJECT: LR1400/1 S 42m (138')

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DRAWING NOTES:
Hookblock

LR1400/1	
Operating Mode	S
Main Boom Length	42m (138')
Luffing Jib Length	N/A
Derrick Length	N/A
Superstructure CWT	155t (342k)
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Ballast Tray CWT	N/A

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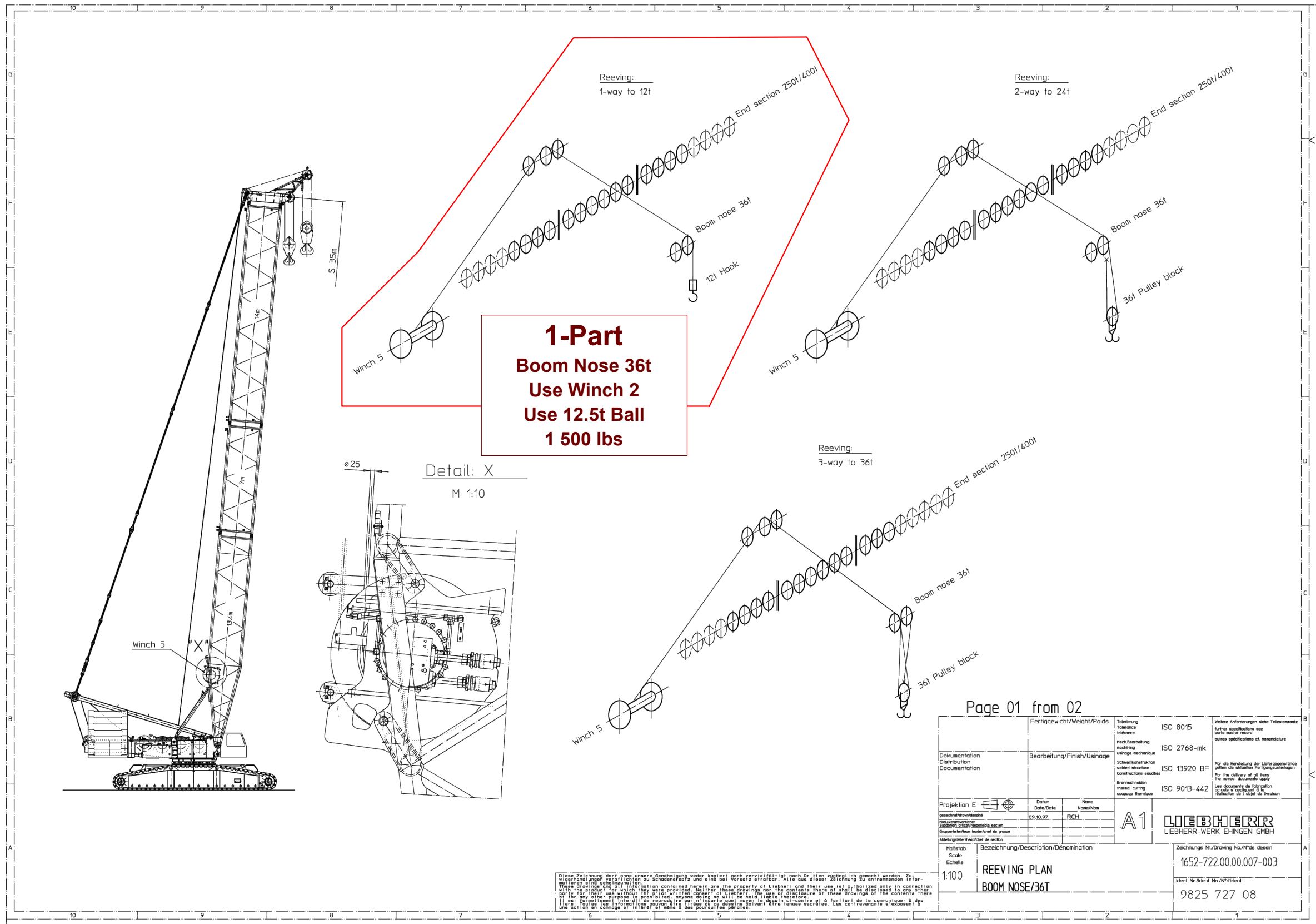
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**1-Part
Boom Nose 36t
Use Winch 2
Use 12.5t Ball
1 500 lbs**

Detail: X
M 1:10

Page 01 from 02

Fertiggewicht/Weight/Poids		Tolerierung Tolerance tolérance	ISO 8015	Weitere Anforderungen siehe Teilleistungsset Further specifications see parts master record autres spécifications cf. nomenclature	
Bearbeitung/Finish/Usinage		Mech.Bearbeitung machining usinage mécanique	ISO 2768-mk	Für die Herstellung der Liefergegenstände gelten die aktuellen Fertigungsunterlagen For the delivery of all items the latest documents apply Les documents de fabrication actuels s'appliquent à la réalisation de l'objet de livraison	
Schweißstruktur welded structure Construction soudees		ISO 13920 BF			
Strukturart thermal cutting coupage thermique		ISO 9013-442			
Projektion E	Datum Date/Date	Notiz Note/Nota			
09.10.97	RCH				
A1		LIEBHERR LIEBHERR-WERK EHINGEN GMBH			
Bezeichnung/Description/Dénomination		Zeichnungs-Nr./Drawing No./N°de dessin			
REEVING PLAN		1652-722.00.007-003			
BOOM NOSE/36T		Ident. Nr./Ident No./N°Ident			
1:100		9825 727 08			

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DRAWING NOTES:
Aux Reeving

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LIFT PLAN BY: Andy Moore, P.E.

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DRAWING NOTES:

Main Reeving

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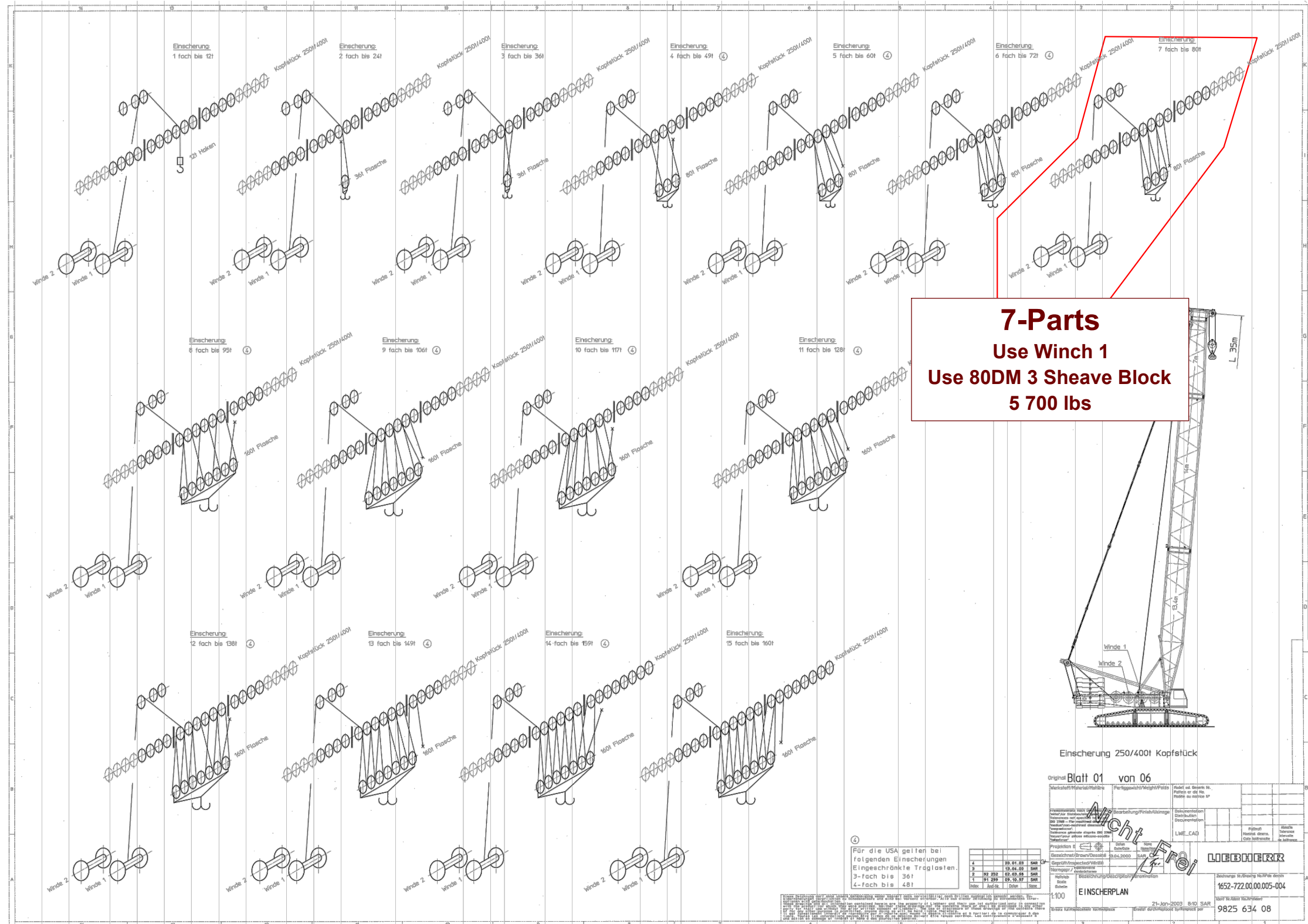
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RAISING - AND LOWERING CHARTS

S - mode
with 250 / 350 t head section

TAB: 12400014
System: S 2620.20

Note: raising, lowering 360°
Supporting base 7,80 m×7,50 m×1,20 m, **without** additional supports

Operating mode	Slewing platform-/ central ballast	Main boom	max. permissible hook block weight on main boom
		S (m)	[t]
S	155 / 43	21 - 63	8,0
		70	7,2
		77	3,6
	135 / 43	21 - 63	8,0
		70	5,0
		77	1,5
	95 / 43	21 - 49	8,0
		56	7,6
		63	3,9
	55 / 43	21 - 42	8,0
		49	5,8
		56	2,0
	0 / 43	21 - 28	8,0
		35	3,5
95 / 11	21 - 49	8,0	
	56	5,9	
	63	2,4	
55 / 11	21 - 35	8,0	
	42	7,8	
	49	3,8	
0 / 11	21	8,0	
	28	4,6	

PROJECT:

LR1400/1 S 42m (138')

LOCATION: Goodyear, AZ

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DRAWING NOTES:
Erection & Take Down 1

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SHEET: 008 OF 009



ISO DIN



0015086

*** 056

06.01

		ft >< lbs		CODE > 0022 <		L124 7300 .x(x)	
ft	lbs						
23	581,000						
24	561,000						
26	519,000						
28	485,000						
30	453,000						
32	425,000						
34	401,000						
36	378,000						
38	359,000						
40	340,000						
45	301,000						
50	268,000						
55	238,000						
60	212,000						
65	189,000						
70	171,000						
75	155,000						
80	141,000						
85	129,000						
90	119,000						
95	111,000						
100	103,000						
105	95,500						
110	89,500						
115	84,000						
120	79,000						
* n *	26						
ft /s	47						



PROJECT:

LR1400/1 S 42m (138')

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DRAWING NOTES:

Load Charts

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