

BUCKNER

HEAVYLIFT CRANES

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PROJECT:
LR 1300SX 135' + 144' ST

LOCATION: -----
BUCKNER CONTACT: Dan Ives, PE
Dani@BucknerCompanies.com
LIFT PLAN BY: Dan Ives, PE
Dani@BucknerCompanies.com

DRAWING NOTES:
Title Page

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Assembly and dismantling

Main boom 2821

7.5 Main boom 2821

System-relevant information for main boom 2821:

- Configuration of main boom
 - Installation position of rope guide (type A)
 - Mid-point suspensions installation positions
- Lengths of mid-point suspensions
- Overview of main boom 2821 steel pendant straps
- Overview of main boom 2821 CF pendant straps
- Reeving diagrams main boom head 2821 (load position 1)
- Reeving diagrams main boom head 2821 in single hook mode with 2 winches
- Reeving diagrams auxiliary jib (36 t (79300 lb)) on main boom head 2821 (load position 2)

7.5.1 Configuration of main boom



DANGER

Excess length of main boom!
Structural breakdown.

▶ Check main boom length in load chart for validity.

Main boom length	Configuration of main boom (symbolic)
20 m 66 ft	
23 m 75 ft	
26 m 85 ft	
29 m 95 ft	
32 m 105 ft	
35 m 115 ft	
38 m 125 ft	
41 m 135 ft	
44 m 144 ft	
47 m 154 ft	
50 m 164 ft	

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Assembly and dismantling

Luffing jib 2316

7.14 Luffing jib 2316

System-relevant information for luffing jib 2316:

- Configuration of jib
 - Mid-point suspensions installation positions
- Configuration of main boom
- Lengths of jib mid-point suspensions
- Overview of steel pendant straps on luffing jib 2316
- Overview of CF pendant straps on luffing jib 2316
- Reeving diagrams jib head 2316 (load position 1)
- Reeving diagrams main boom head 2821 (load position 2)
- Reeving diagrams auxiliary jib on jib head 2316 (load position 2)

7.14.1 Configuration of jib



DANGER

Excess length of jib!
Structural breakdown.

▶ Check jib length in load chart for validity.

Jib length	Configuration of jib (symbolic)
20 m 66 ft	
23 m 76 ft	
26 m 85 ft	
29 m 95 ft	
32 m 105 ft	
35 m 115 ft	
38 m 125 ft	
41 m 134 ft	
44 m 144 ft	
47 m 154 ft	
50 m 164 ft	
53 m 174 ft	

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PROJECT:

LR 1300SX 135' + 144' ST

LOCATION: -----

BUCKNER CONTACT: Dan Ives, PE
Dani@BucknerCompanies.com

LIFT PLAN BY: Dan Ives, PE
Dani@BucknerCompanies.com

DRAWING NOTES:
Boom Configuration

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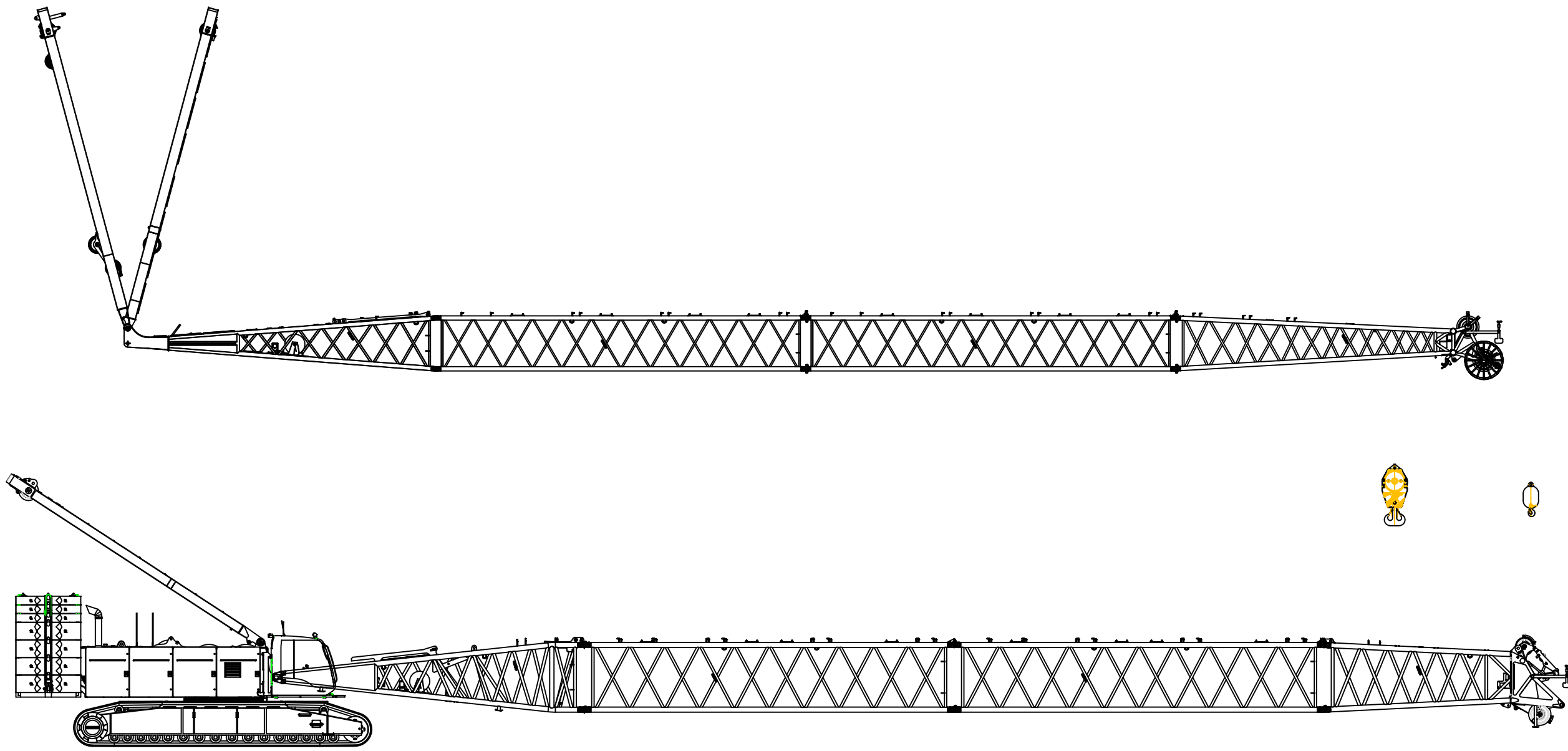
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 Dani@BucknerHeavylift.com
 LIFT PLAN BY: Dan Ives, PE
 Dani@BucknerHeavylift.com

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Assembly and dismantling

Main boom 2821

A) Machine with CF pendant straps with boom configuration main boom 2821 + luffing jib 1916: Do not install any mid-point suspensions with main boom lengths 77 m (253 ft) and 80 m (262 ft).

7.5.3 Overview of main boom 2821 steel pendant straps

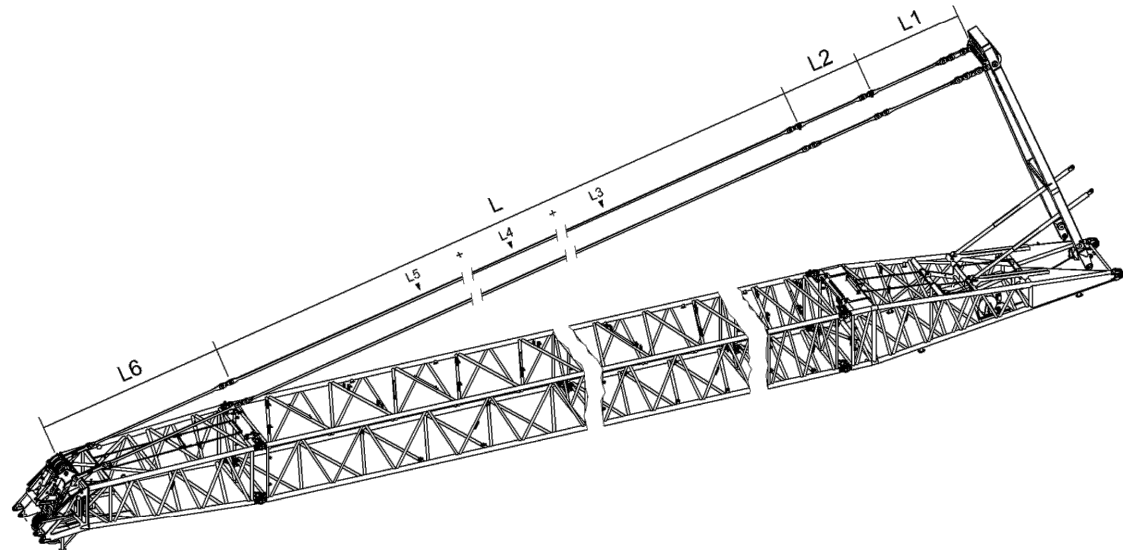


Fig. 2636: Overview of main boom 2821 steel pendant straps

Pendant straps A-frame1 to main boom head 2821

Name	Value
L1 A-frame1 equalizer (For more information see: A-frame1 equalizer, page 65)	3730 mm 12' 3" ft-in
L2 Main boom base section equalizer (For more information see: Equalizer of main boom base section 2821.30, page 165)	2670 mm 8' 9" ft-in
Main boom pendant straps consisting of:	
L L3 Main boom pendant strap 3 m (10 ft) (For more information see: Main boom pendant strap 3 m (10 ft), page 166)	Total L3 +
L4 Main boom pendant strap 6 m (20 ft) (For more information see: Main boom pendant strap 6 m (20 ft), page 168)	Total L4 +
L5 Main boom pendant strap 12 m (40 ft) (For more information see: Main boom pendant strap 12 m (40 ft), page 170)	Total L5

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Assembly and dismantling

Main boom 2821

Name	Value
L6 Main boom pendant strap on main boom head 2821 (For more information see: Main boom pendant strap on main boom head 2821.24, page 171)	6300 mm 20' 8" ft-in

Tab. 390: Pendant straps A-frame1 to main boom head 2821

Configuration of main boom pendant straps (L):

Required number of main boom pendant straps 3 m (10 ft) (L3) corresponds to number of main boom sections 3 m (10 ft).

Required number of main boom pendant straps 6 m (20 ft) (L4) corresponds to number of main boom sections 6 m (20 ft).

Required number of main boom pendant straps 12 m (40 ft) (L5) corresponds to number of main boom sections 12 m (40 ft).



Note

► For the admissible number of main boom sections 3 m (10 ft), 6 m (20 ft), 12 m (40 ft), refer to the following table: (For more information see: 7.5.1 Configuration of main boom, page 1056)

7.5.4 Overview of main boom 2821 CF pendant straps

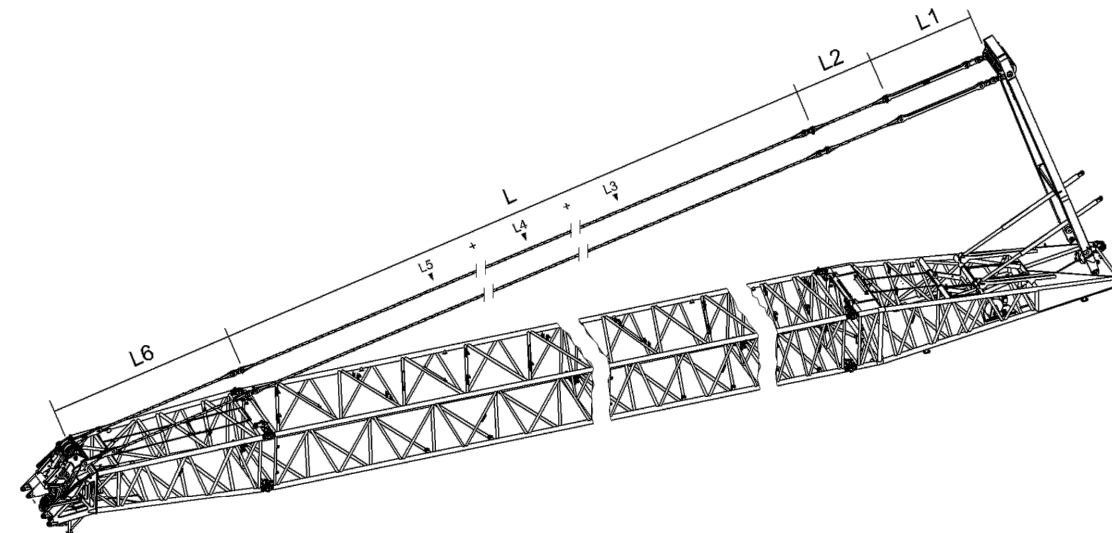


Fig. 2637: Overview of main boom 2821 CF pendant straps

Pendant straps A-frame1 to main boom head 2821

Name	Value
L1 A-frame1 equalizer (For more information see: A-frame1 equalizer, page 66)	3700 mm 12' 2" ft-in

PROJECT:

LR 1300SX 135' + 144' ST

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Dani@BucknerCompanies.com
LIFT PLAN BY: Dan Ives, PE
Dani@BucknerCompanies.com

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Pendant Straps

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Product description

Pulley block/hook*

1.30.3 Pulley block (100 t (220,459 lb))

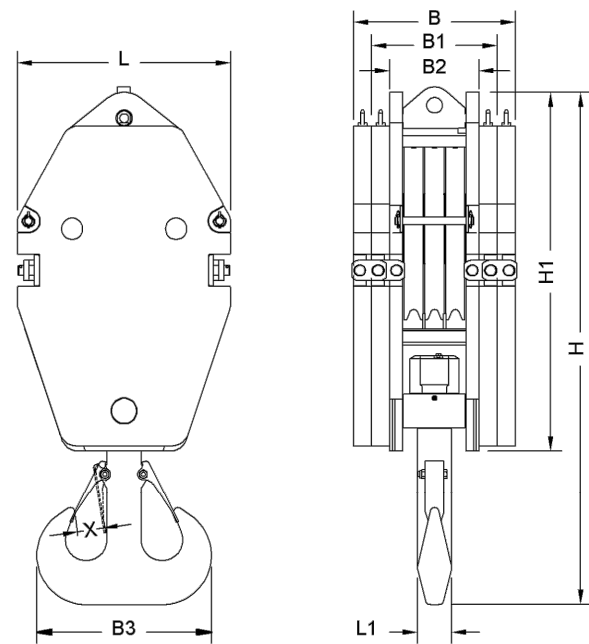


Fig. 453: Pulley block dimensions (100 t (220,459 lb))

Name	Value
L Pulley block length	820 mm 2' 8" ft-in
L1 Hook length	132 mm 5.20" in
B Pulley block width with four additional weights	623 mm 2' 1" ft-in
B1 Pulley block width with two additional weights	483 mm 1' 7" ft-in
B2 Width of pulley block without additional weights	343 mm 1' 2" ft-in
B3 Hook width	672 mm 2' 2" ft-in
H Height of pulley block with hook	1994 mm 6' 7" ft-in
H1 Height of pulley block without hook	1380 mm 4' 6" ft-in
X Jaw width	100 mm 3.94" in

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Product description

Pulley block/hook*

Name	Value
Weight with four additional weights	3000 kg 6,614 lb
Weight with two additional weights	2050 kg 4,519 lb
Weight without additional weights	1100 kg 2,425 lb
Maximum reeving	7
Rope Ø	28 mm 1.10" in

Tab. 279: Technical data pulley block (100 t (220,459 lb))

1.30.4 Pulley block (50 t (110,230 lb))

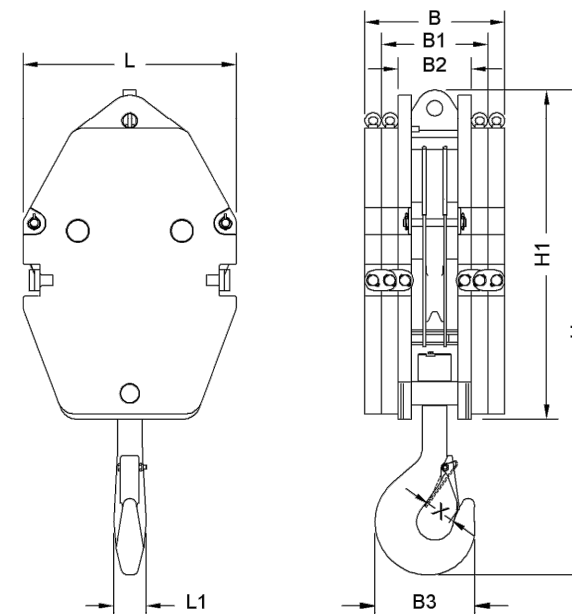


Fig. 454: Pulley block dimensions (50 t (110,230 lb))

Name	Value
L Pulley block length	820 mm 2' 8" ft-in
L1 Hook length	125 mm 4.92" in
B Pulley block width with four additional weights	540 mm 1' 9" ft-in

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PROJECT:
LR 1300SX 135' + 144' ST

LOCATION: -----
BUCKNER CONTACT: Dan Ives, PE
Dani@BucknerHeavylift.com
LIFT PLAN BY: Dan Ives, PE
Dani@BucknerHeavylift.com

DRAWING NOTES:
Main Hook Block

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Product description

Pulley block/hook*

Name	Value
B1 Pulley block width with two additional weights	410 mm 1' 4" ft-in
B2 Width of pulley block without additional weights	280 mm 11.02" in
B3 Hook width	384 mm 1' 3" ft-in
H Height of pulley block with hook	1852 mm 6' 1" ft-in
H1 Height of pulley block without hook	1270 mm 4' 2" ft-in
X Jaw width	100 mm 3.94" in
Weight with four additional weights	2400 kg 5,291 lb
Weight with two additional weights	1600 kg 3,527 lb
Weight without additional weights	800 kg 1,764 lb
Maximum reeving	3
Rope Ø	28 mm 1.10" in

Tab. 280: Technical data pulley block (50 t (110,230 lb))

1.30.5 Hook (16 t (35,273 lb))

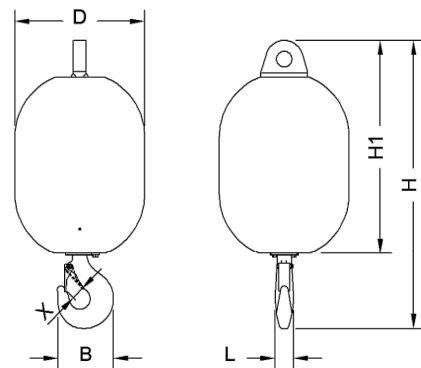


Fig. 455: Hook dimensions (16 t (35,273 lb))

Name	Value
L Hook length	71 mm 2.80" in

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LWNLR.x/V03.04/Auslieferung/2015-11-30/en

Product description

Pulley block/hook*

Name	Value
B Hook width	217 mm 8.54" in
H Height of pulley block with hook	1115 mm 3' 8" ft-in
H1 Height of pulley block without hook	822 mm 2' 8" ft-in
D Hook Ø	500 mm 1' 8" ft-in
X Jaw width	50 mm 1.97" in
Weight	900 kg 1,984 lb
Maximum reeving	1
Suitable for pocket lock for rope Ø	27 mm (1.06" in) to 29 mm (1.14" in)

Tab. 281: Technical data hook (16 t (35,273 lb))

PROJECT:
LR 1300SX 135' + 144' ST

LOCATION: -----

BUCKNER CONTACT: Dan Ives, PE
Dani@BucknerHeavylift.com

LIFT PLAN BY: Dan Ives, PE
Dani@BucknerHeavylift.com

DRAWING NOTES:
Aux Hook Block

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BUCKNER
HEAVYLIFT CRANES

Assembly and dismantling

Luffing jib 2316

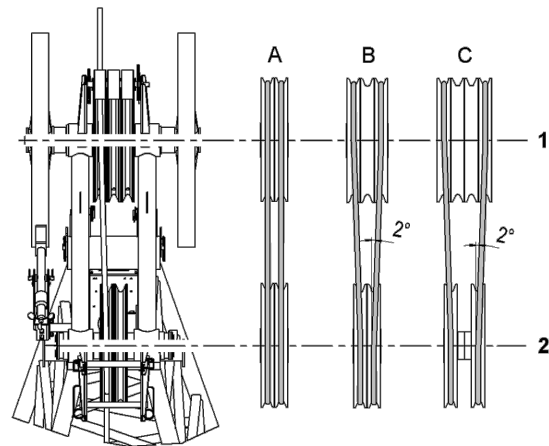


Fig. 3807: Run of the rope when two ropes pass over the jib head section

- 1 Pulley set jib head section 2 Jib head section gantry pulleys

Run of the rope	Type of jib
A	Luffing jib 1008
	Luffing jib 1309
B	Luffing or fixed jib 1713
	Luffing jib 1916
C	Luffing jib 2316

Tab. 444: Run of the rope when two ropes pass over the jib head section

7.14.8 Reeving diagrams jib head 2316 (load position 1)

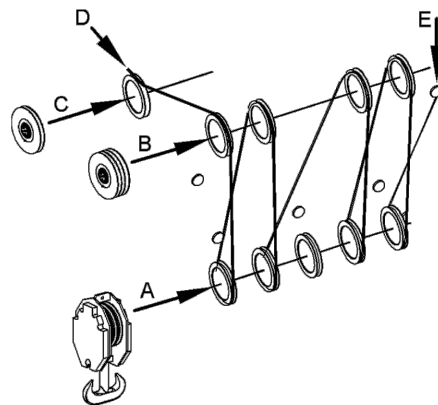


Fig. 3808: Reeving diagram jib head 2316 (load position 1)

- A Pulley set pulley block D Winch1 rope
 B Pulley set jib head E Rope fixing point
 C Gantry pulley jib head

Assembly and dismantling

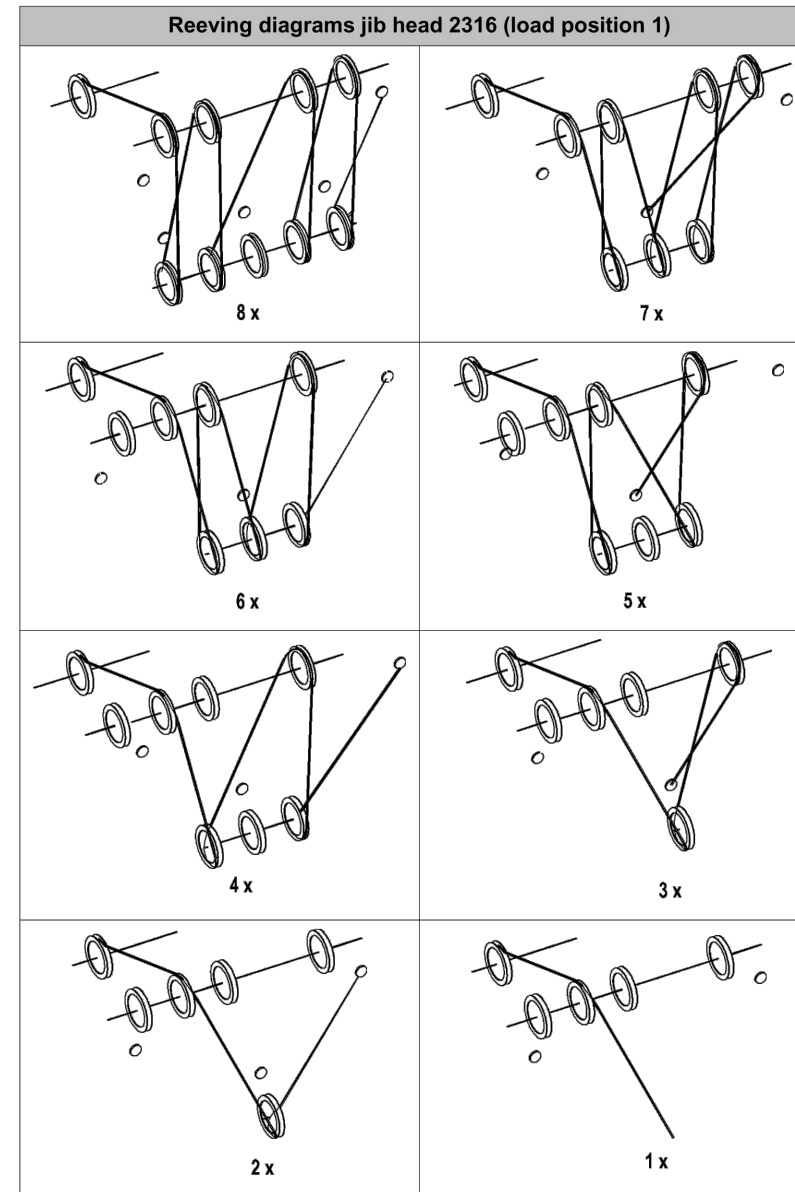
Luffing jib 2316



DANGER

Inadmissible number of reevings!
 Boom damage, machine toppling over.

► Choose correct number of reevings as indicated in load chart.



Tab. 445: Reeving diagrams jib head 2316 (load position 1)

PROJECT:

LR 1300SX 135' + 144' ST

LOCATION: -----

BUCKNER CONTACT: Dan Ives, PE

Dani@BucknerCompanies.com

LIFT PLAN BY: Dan Ives, PE

Dani@BucknerCompanies.com

DRAWING NOTES:

Reeving Main Block

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7.14.10 Reeving diagrams auxiliary jib (30 t (66,000 lb)) on luffing jib head 2316

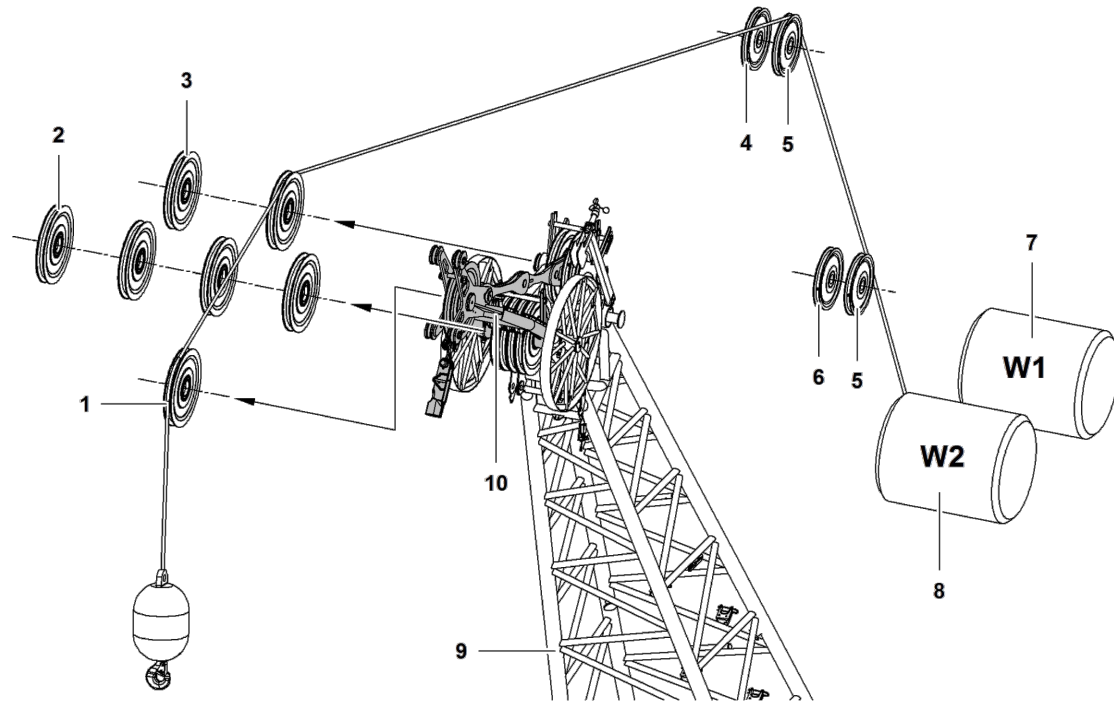


Fig. 3836: Reeving diagram auxiliary jib (30 t (66,000 lb)) on luffing jib head 2316

- | | | |
|----------------------------------|---|------------------------------|
| 1 Pulley of auxiliary jib | 5 Retrofit kit for operation with two ropes across jib head | 9 Jib head |
| 2 Pulley (4x) of jib head | 6 Pulley of A-frame2 | 10 Auxiliary jib on jib head |
| 3 Gantry pulley (2x) of jib head | 7 Winch1 | |
| 4 Pulley of A-frame3 | 8 Winch2 | |



DANGER

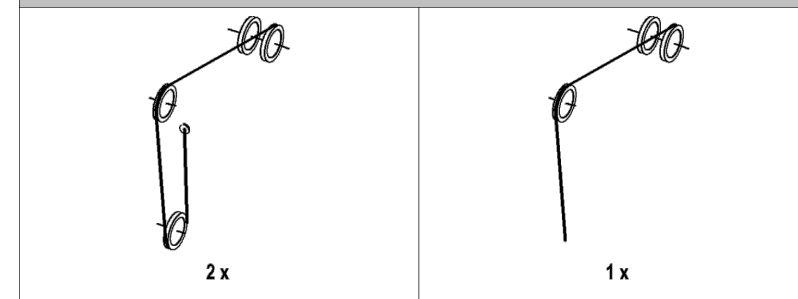
Inadmissible number of reevings!
Structural breakdown, toppling of machine.

► Choose correct number of reevings as indicated in load chart.

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Reeving diagrams auxiliary jib (30 t (66,000 lb)) on luffing jib head 2316



Tab. 447: Reeving diagrams auxiliary jib (30 t (66,000 lb)) on luffing jib head 2316

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LR 1300SX 135' + 144' ST

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BUCKNER CONTACT: Dan Ives, PE
Dani@BucknerCompanies.com
LIFT PLAN BY: Dan Ives, PE
Dani@BucknerCompanies.com

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Reeving Aux Block

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