

Grua hidráulica de rastos**Hydraulic Crawler Crane**

Marca e Modelo / Make and Model

Liebherr LR 1160**Características técnicas:**

Tipo:	Grua hidráulica de rastos
Motor:	Liebherr, tipo D 926 TI
Capacidade máxima:	160 ton
Tipo de lança:	Treliçada com 49 m de comprimento + jib de 46 m
Peso operacional:	156 ton

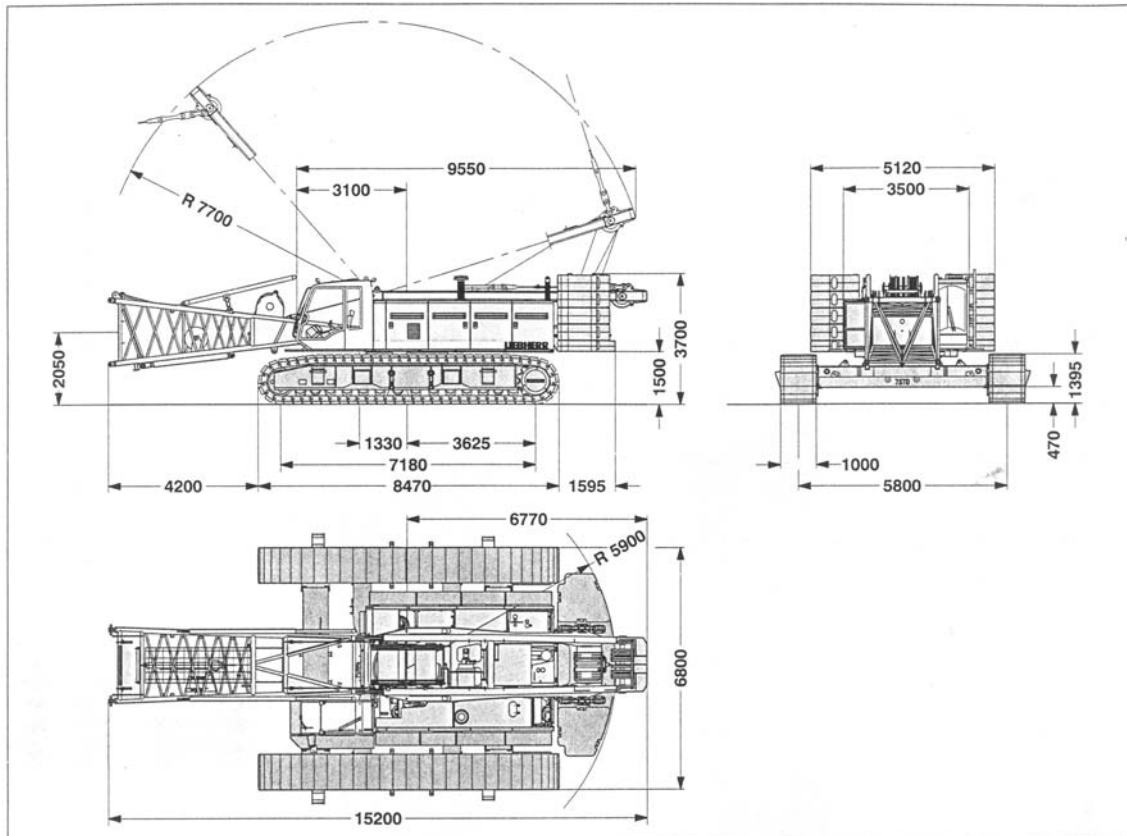
Aplicação:

Elevação de cargas.

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Operating weight

The operating weight includes the basic machine with crawlers, 2 main winches 120 kN and 17 m main boom, consisting of A-frame, boom foot (7 m), boom head (10 m), 50.5 t basic counterweight, 15 t carbony counterweight and 140 t hook block.

Total weight

Ground pressure

Ground bearing pressure

Equipment

Main boom (No. 2018.xx) max. length
 High reach (No. 2018.xx and 1309.xx)
 Luffing jib (No. 1309.xx) max. length
 Max. combination
 Luffing jib (No. 1713.xx) max. length
 Max. combination
 Fixed jib (No. 0806.xx)
 Fixed jib (No. 1008.xx)
 Auxiliary jib 24 t lifting capacity (option 36 t)

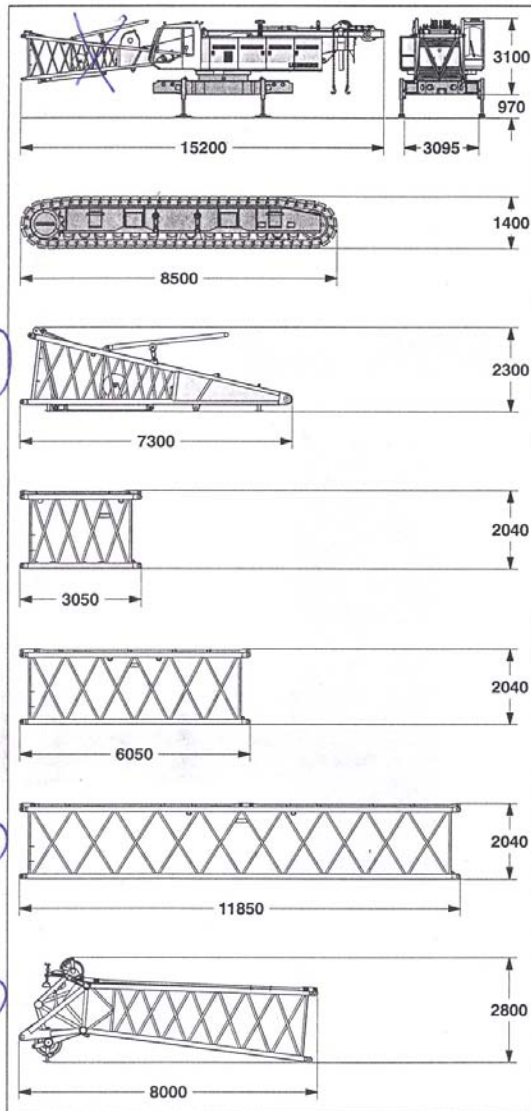
Remarks

1. The lifting capacities stated are valid for lifting operation only (corresponds with crane classification according to F.E.M. 1.001, crane group A1).
2. Crane standing on firm, horizontal ground.
3. The weight of the lifting device (hoisting ropes, hook block, shackle etc.) must be deducted from the gross lifting capacity to obtain a net lifting value.
4. Additional equipment on boom (e.g. boom walkways, auxiliary jib) must be deducted to get the net lifting capacity.
5. For max. wind speed please refer to lift chart in operator's cab or manual.
6. Working radii are measured from centre of swing and under load.
7. The lifting capacities are valid for 360 degrees of swing.
8. Calculation of stability under load is based on DIN 15019 / part 2 / chart 1 and ISO 4305 Table 1 + 2, tipping angle 4°.
9. The structures are calculated according to F.E.M. 1.001 - 1998 (prEN 13001 / T2 / 1997).

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Basic machine

with A-frame, 2x 120 kN crane winches and boom foot, without hoisting ropes, basic counterweight and crawlers *and boom foot*

Width	mm	3500
Weight	kg	38599

35300

Crawler

2x

Flat track shoes	mm	1200
Width	mm	1400
Weight	kg	18800

Boom foot (No. 2018.xx) without winches

Width	mm	2420
Weight	kg	3200

Boom section (No. 2018.xx)

3 m

Width	mm	2280
Weight*	kg	760

Boom section (No. 2018.xx)

6 m

Width	mm	2280
Weight*	kg	1100

Boom section (No. 2018.xx)

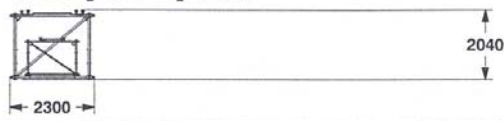
11.7 m

Width	mm	2280
Weight*	kg	1900

Boom head No. 2018.xx)

Width	mm	2280
Weight*	kg	2700

Transport option



*) Including pendants

Boom - luffing jib transport option

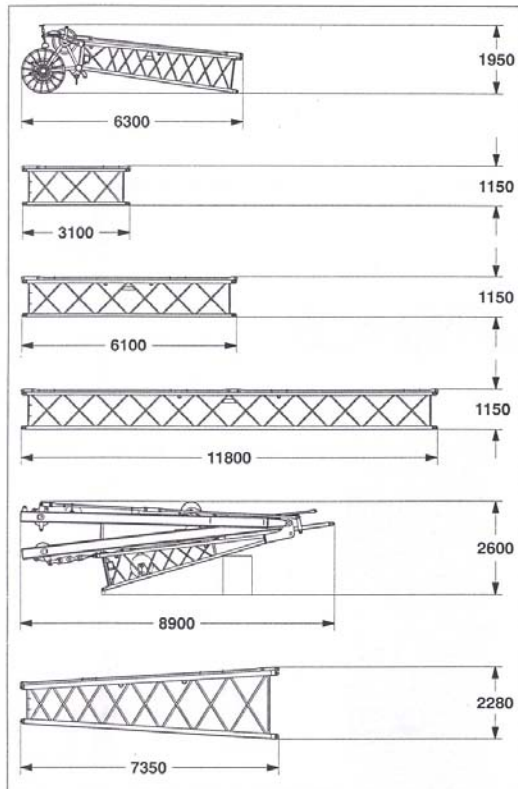
11.7 m boom - and 11.7 m jib extension
6 m boom - and 6.0 m jib extension

(No. 2018.xx / 1309.xx)	6m/6m	11.7m/11.7m
Length	mm	6150
Weight*	kg	1740
		3160

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Luffing jib (No. 1309.xx)



Luffing jib head (No. 1309.xx)

Width _____ mm _____ 1500
Weight* _____ kg _____ 1135

Luffing jib section (No. 1309.xx) 3 m

Width _____ mm _____ 1500
Weight* _____ kg _____ 420

Luffing jib section (No. 1309.xx) 6 m

Width _____ mm _____ 1500
Weight* _____ kg _____ 520

Luffing jib section (No. 1309.xx) 11.7 m

Width _____ mm _____ 1500
Weight* _____ kg _____ 960

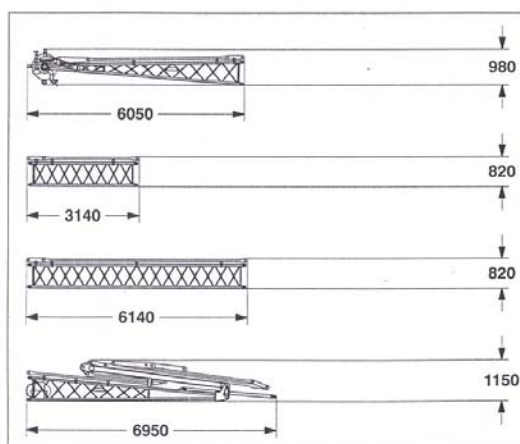
Luffing jib foot with A-frames (No. 1309.xx)

Width _____ mm _____ 1700
Weight* _____ kg _____ 4800

Boom section tapered (No. 2018/1309.xx) 7.2 m

Width _____ mm _____ 2280
Weight* _____ kg _____ 1225

Fixed jib (No. 0806.xx)



Fixed jib head (No. 0806.xx)

Width _____ mm _____ 1140
Weight* _____ kg _____ 445

Fixed jib section (No. 0806.xx) 3 m

Width _____ mm _____ 950
Weight* _____ kg _____ 110

Fixed jib section (No. 0806.xx) 6 m

Width _____ mm _____ 950
Weight* _____ kg _____ 195

Fixed jib foot with A-frame (No. 0806.xx)

Width _____ mm _____ 1500
Weight* _____ kg _____ 930

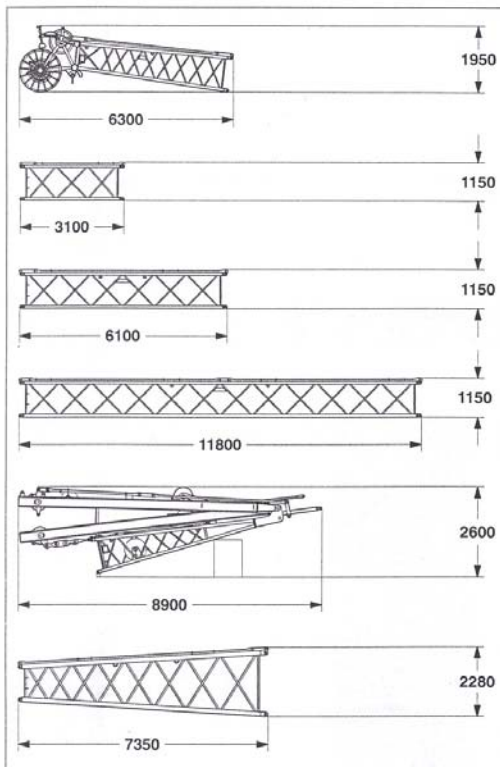
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Luffing jib (No. 1309.xx)



Luffing jib head (No. 1309.xx)		
Width	mm	1500
Weight*	kg	1135

Luffing jib section (No. 1309.xx) 3 m		
Width	mm	1500
Weight*	kg	420

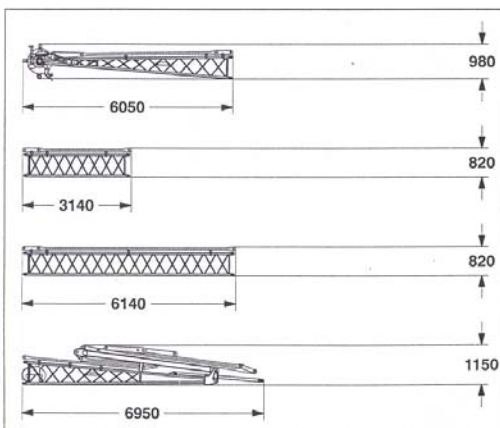
Luffing jib section (No. 1309.xx) 6 m		
Width	mm	1500
Weight*	kg	520

Luffing jib section (No. 1309.xx) 11.7 m		
Width	mm	1500
Weight*	kg	960

Luffing jib foot with A-frames (No. 1309.xx)		
Width	mm	1700
Weight*	kg	4800

Boom section tapered (No. 2018/1309.xx) 7.2 m		
Width	mm	2280
Weight*	kg	1225

Fixed jib (No. 0806.xx)



Fixed jib head (No. 0806.xx)		
Width	mm	1140
Weight*	kg	445

Fixed jib section (No. 0806.xx) 3 m		
Width	mm	950
Weight*	kg	110

Fixed jib section (No. 0806.xx) 6 m		
Width	mm	950
Weight*	kg	195

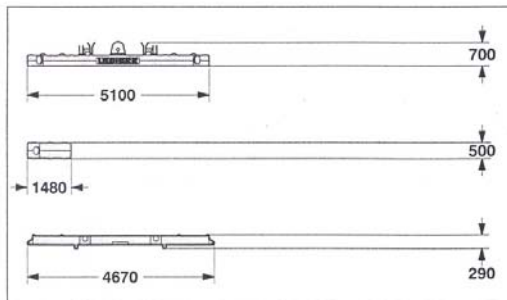
Fixed jib foot with A-frame (No. 0806.xx)		
Width	mm	1500
Weight*	kg	930

*) Including pendants

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Transport dimensions and weights
Counterweights and hooks

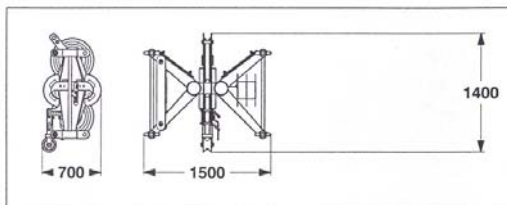


Counterweight	1x
Width	mm 1600
Weight	kg 14300

Counterweight	8x
Width	mm 1360
Weight	kg 5100

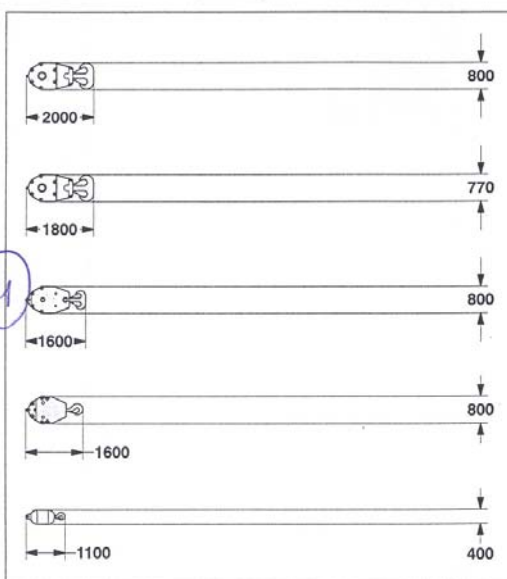
Carbody counterweight	2x
Width	mm 700
Weight	kg 7500

Mid fall (option)



Mid fall section (No. 1309.xx)	0.35 m
Width	mm 700
Weight	kg 270

Hooks



140 t hook block - 7 sheaves	
Width	mm 850
Weight	kg 2500

100 t hook block - 5 sheaves	
Width	mm 540 640 770
Weight	kg 1300 1800 2300

80 t hook block - 3 sheaves	
Width	mm 560
Weight	kg 2000

40 t hook block - 1 sheave	
Width	mm 300 400 500
Weight	kg 700 1100 1500

12 t single hook	
Width	mm 400
Weight	kg 600

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Lift chart for main boom (No. 2018.xx) 

Capacities in metric tons for boom lengths (20 m – 87.5 m) – with 120 kN winches
55.0 t counterweight and 15 t carbody counterweight

Radius (m)	Boom length in (m)												Radius (m)	
	20	28.7	34.7	40.4	46.4	52.1	58.1	63.8	69.8	75.5	81.5	87.5		
3.7	160.0*													3.7
5	137.2	136.2	126.4											5
6	136.1	126.7	115.9	102.4	86.4	69.5								6
7	118.1	106.6	98.6	92.1	82.7	68.2	57.0	45.4						7
8	102.2	90.7	85.7	79.0	75.7	64.7	55.3	44.9	37.9	31.5	26.1			8
9	88.7	78.5	75.7	71.5	67.5	61.6	53.3	43.6	36.9	31.0	26.0	21.4		9
10	78.3	71.7	67.3	64.2	60.9	56.8	51.2	42.3	34.6	30.2	25.4	21.1		10
12	61.3	57.6	55.7	53.2	50.7	48.4	44.5	38.9	32.8	28.7	24.1	20.0		12
14	49.4	49.4	46.3	45.2	43.2	41.4	39.6	33.4	30.8	27.2	22.5	18.9		14
16	41.2	41.2	40.7	39.1	37.5	36.0	33.9	31.3	28.9	25.7	21.3	17.8		16
18	35.1	35.2	35.0	34.4	33.0	31.8	30.5	29.0	27.0	24.4	20.1	16.6		18
20	30.4	30.5	30.4	30.2	29.4	28.3	27.1	26.1	25.0	22.4	19.2	15.7		20
22		26.9	26.7	26.6	26.3	25.4	24.4	23.2	22.5	21.4	18.3	15.0		22
24		23.9	23.7	23.6	23.3	23.0	22.0	21.2	20.3	19.5	17.3	14.2		24
26		21.4	21.3	21.1	20.9	20.6	20.0	19.3	18.4	17.7	16.3	13.4		26
28		19.3	19.2	19.1	18.8	18.6	18.3	17.6	16.8	16.1	15.3	12.6		28
30			17.4	17.3	17.0	16.8	16.5	16.1	15.3	14.7	14.0	12.2		30
32			15.9	15.8	15.5	15.3	15.0	14.7	14.1	13.4	12.8	11.1		32
34			14.5	14.5	14.2	14.0	13.7	13.4	12.9	12.3	11.7	10.8		34
36				13.3	13.0	12.8	12.5	12.2	11.6	11.4	10.8	10.1		36
38				12.2	12.0	11.8	11.5	11.2	10.9	10.5	9.9	9.3		38
40				11.3	11.1	10.9	10.6	10.3	10.0	9.7	9.1	8.5		40
42					10.3	10.0	9.7	9.5	9.2	8.9	8.3	7.8		42
44					9.5	9.3	9.0	8.7	8.4	8.1	7.7	7.1		44
46					8.8	8.6	8.3	8.0	7.7	7.4	7.1	6.5		46
48						8.0	7.7	7.4	7.1	6.8	6.5	5.9		48
50						7.4	7.1	6.8	6.5	6.2	5.9	5.4		50
55							5.8	5.6	5.3	5.0	4.7	4.3		55
60								4.6	4.2	4.0	3.6	3.3		60
65									3.4	3.1	2.8	2.4		65
70										2.3	2.0			70

Above lift chart is for reference only. For actual lift duty please refer to lift chart in operator's cab or manual.

* Capacities over 140 t require a special heavy duty boom head.