

Grua hidráulica de rastos
Hydraulic Crawler Crane

Marca e Modelo / Make and Model

Liebherr LR 1160

Características técnicas:

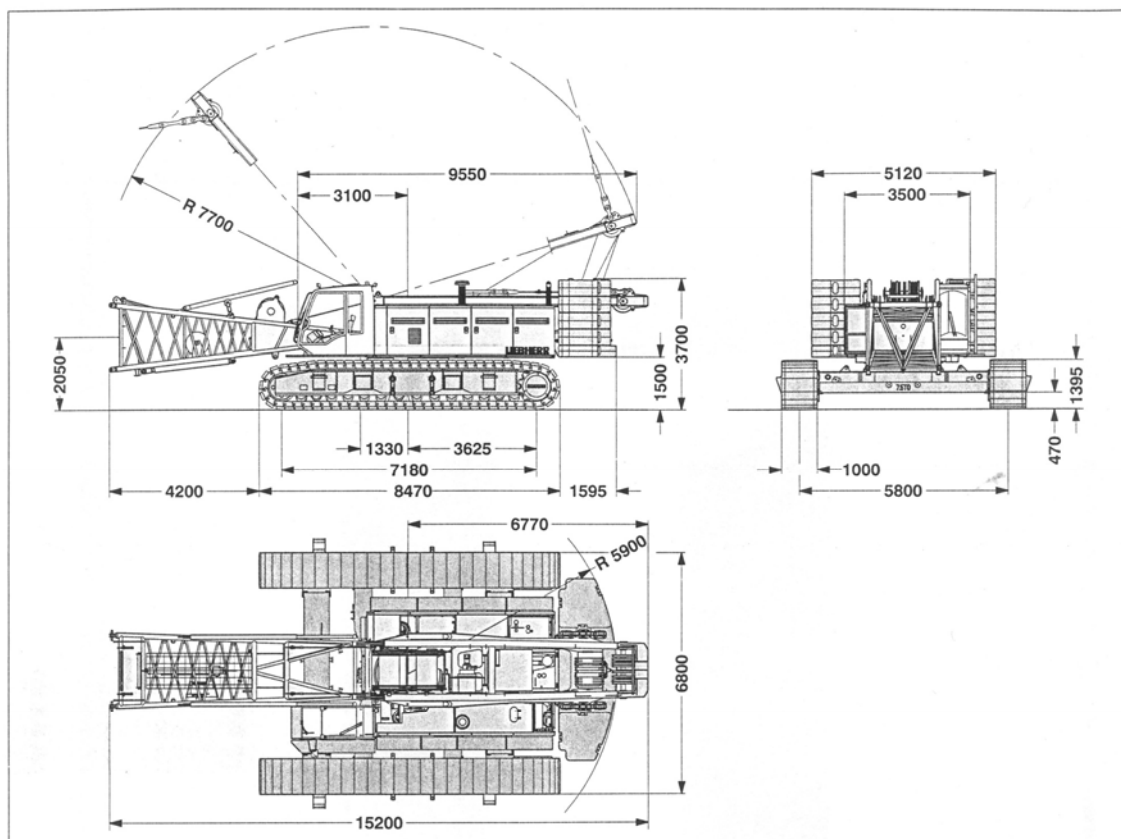
Tipo:	Grua hidráulica de rastos
Motor:	Liebherr, tipo D 926 T1
Capacidade máxima:	160 ton
Tipo de lança:	Treliçada com 49,1 m de comprimento (3 tramos de 11,7m)
Peso operacional:	156 ton

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 _____ appr. 156.0 t
Ground pressure

 Ground bearing pressure _____ 1.09 kg/cm²
Equipment

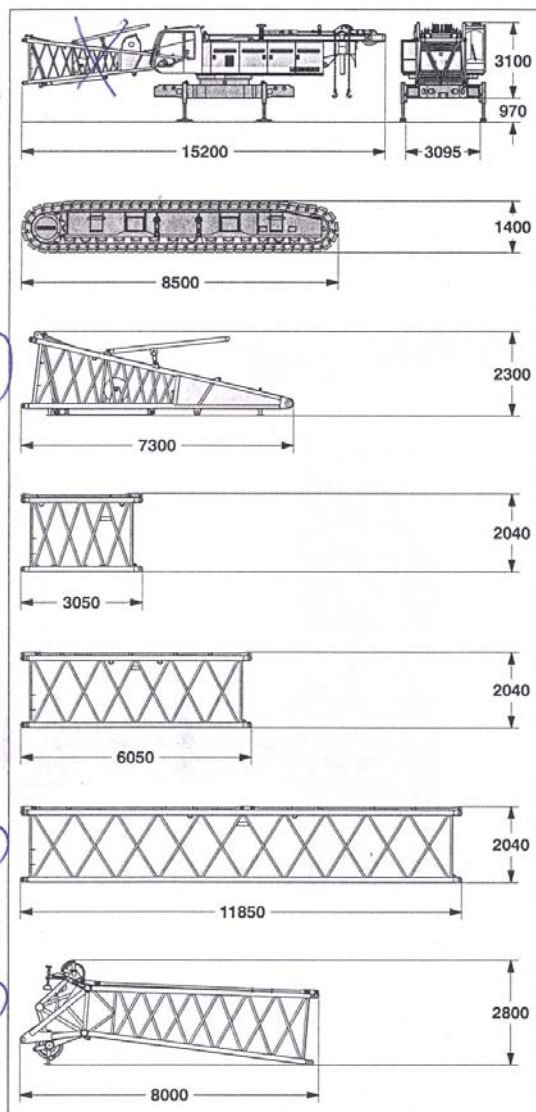
Main boom (No. 2018.xx) max. length	87.5 m
High reach (No. 2018.xx and 1309.xx)	104.9 m
Luffing jib (No. 1309.xx) max. length	78.5 m
Max. combination	boom 52.1 m and luffing jib 78.5 m
Luffing jib (No. 1713.xx) max. length	83.0 m
Max. combination	boom 49.1 m and luffing jib 83.0 m
Fixed jib (No. 0806.xx)	11 m – 32 m
Fixed jib (No. 1008.xx)	11 m – 26 m
Auxiliary jib 24 t lifting capacity (option 36 t)	

Remarks

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

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Liebherr LR 1160**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	38500
		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

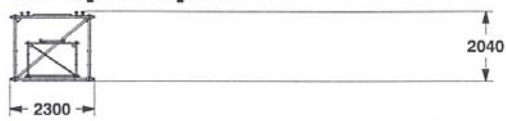
Width	mm	2280
Weight*	kg	1100

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

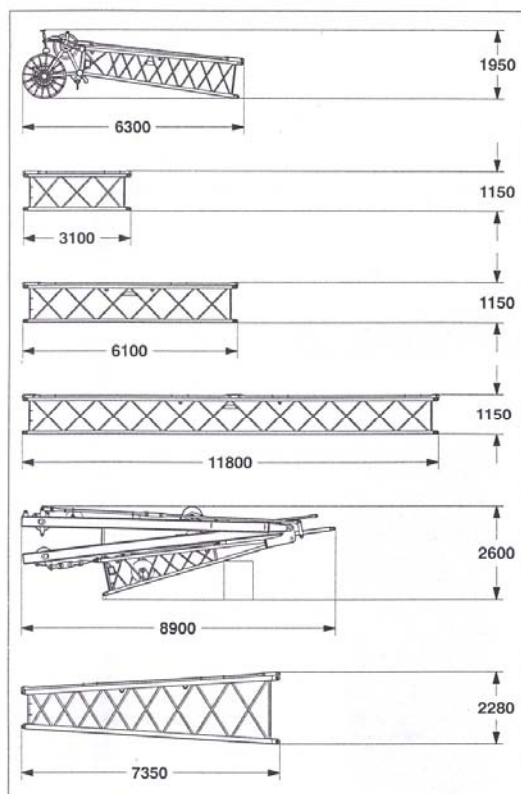
*) Including pendants

Boom - luffing jib transport option11.7 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
		11850
Weight*	kg	1740
		3160

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Liebherr LR 1160**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**

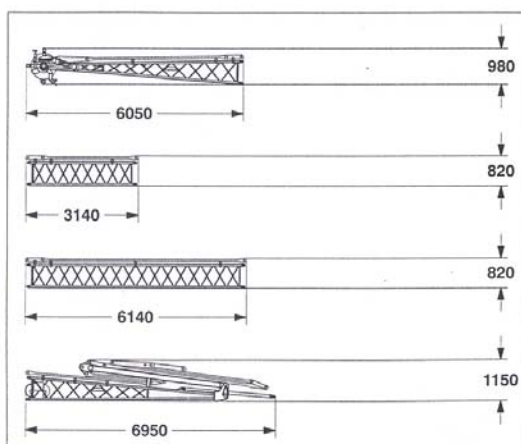
Width	mm	1500
Weight*	kg	960

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

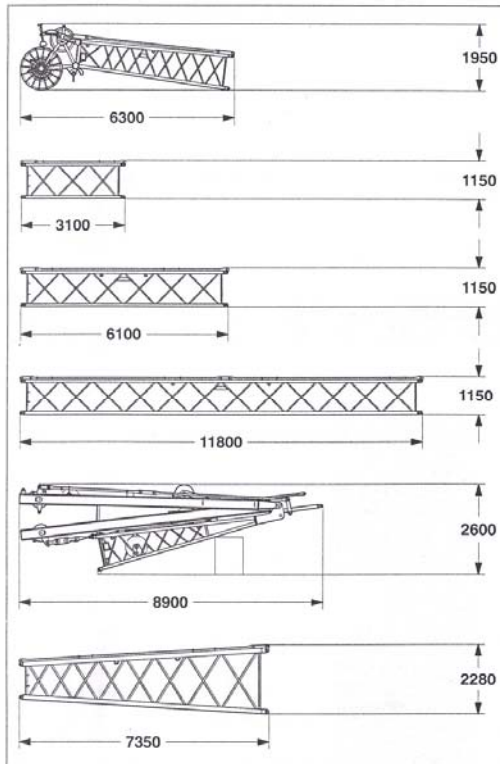
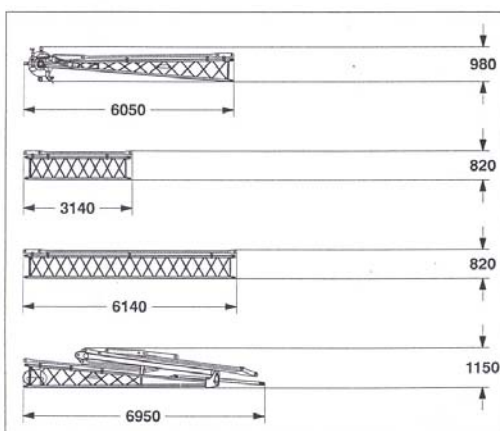
Fixed jib foot with A-frame (No. 0806.xx)

Width	mm	1500
Weight*	kg	930

*) Including pendants

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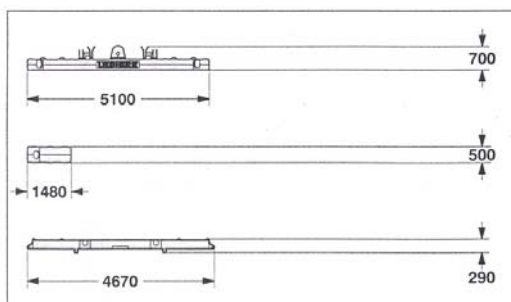
Liebherr LR 1160**Luffing jib (No. 1309.xx)****Luffing jib head (No. 1309.xx)**
 Width _____ mm _____ 1500
 Weight* _____ kg _____ 1135
Luffing jib section (No. 1309.xx) 3 m
 Width _____ mm _____ 1500
 Weight* _____ kg _____ 420
Luffing jib section (No. 1309.xx) 6 m
 Width _____ mm _____ 1500
 Weight* _____ 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

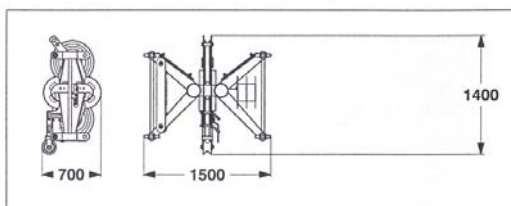


Counterweight		1x
Width	mm	1600
Weight	kg	14300

Counterweight		8x
Width	mm	1360
Weight	kg	5100

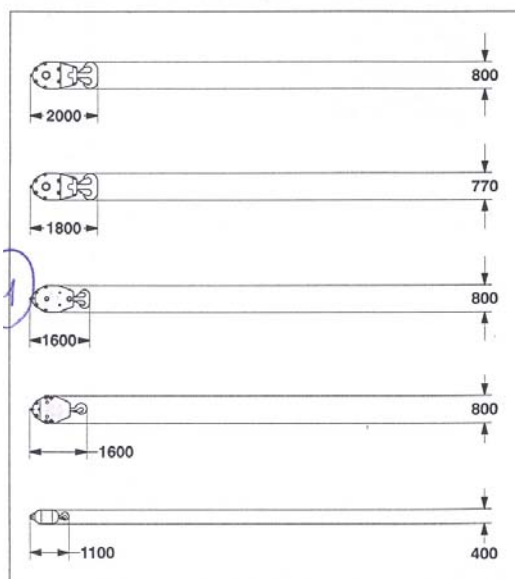
Carbody counterweight		2x
Width	mm	700
Weight	kg	7500

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.