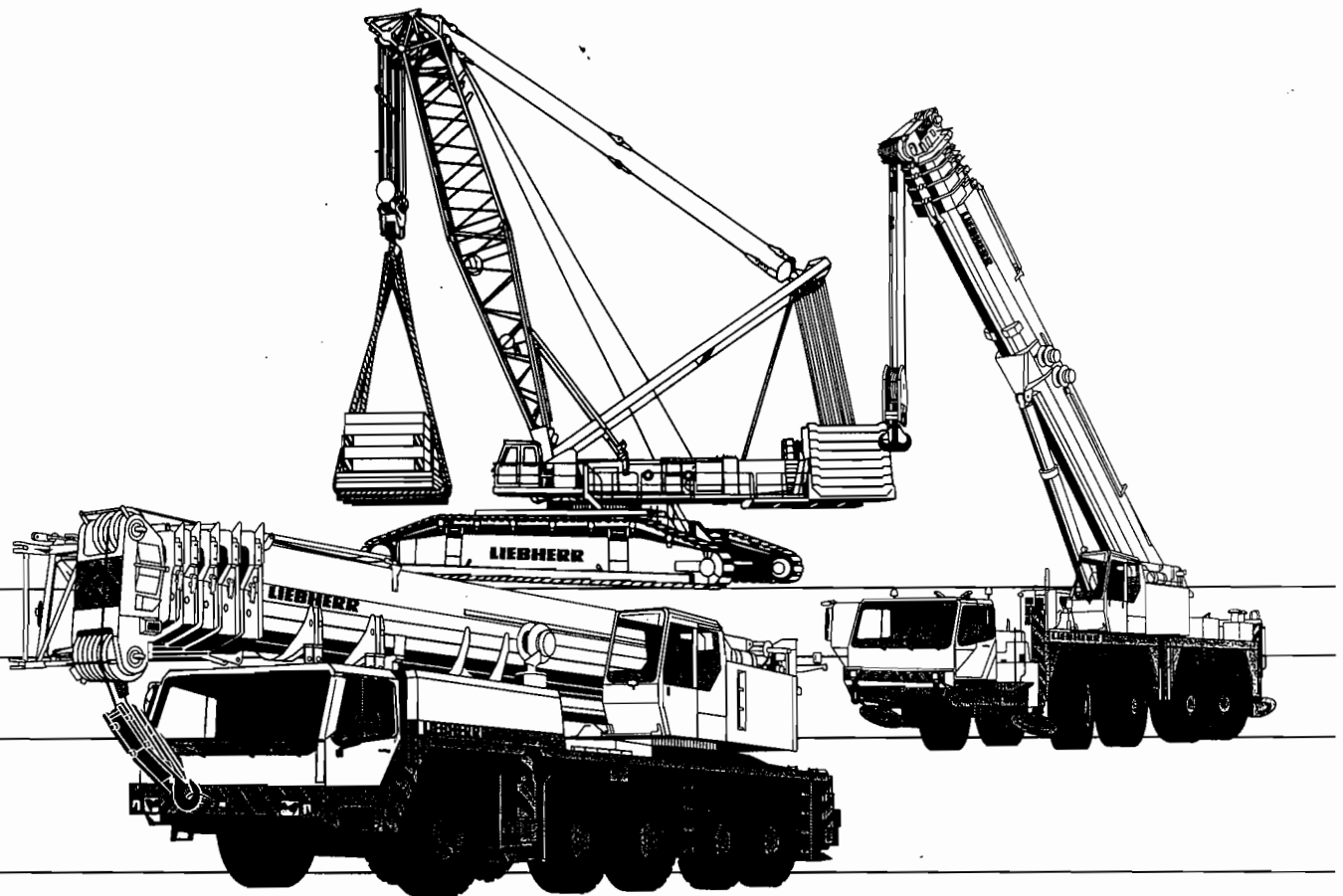


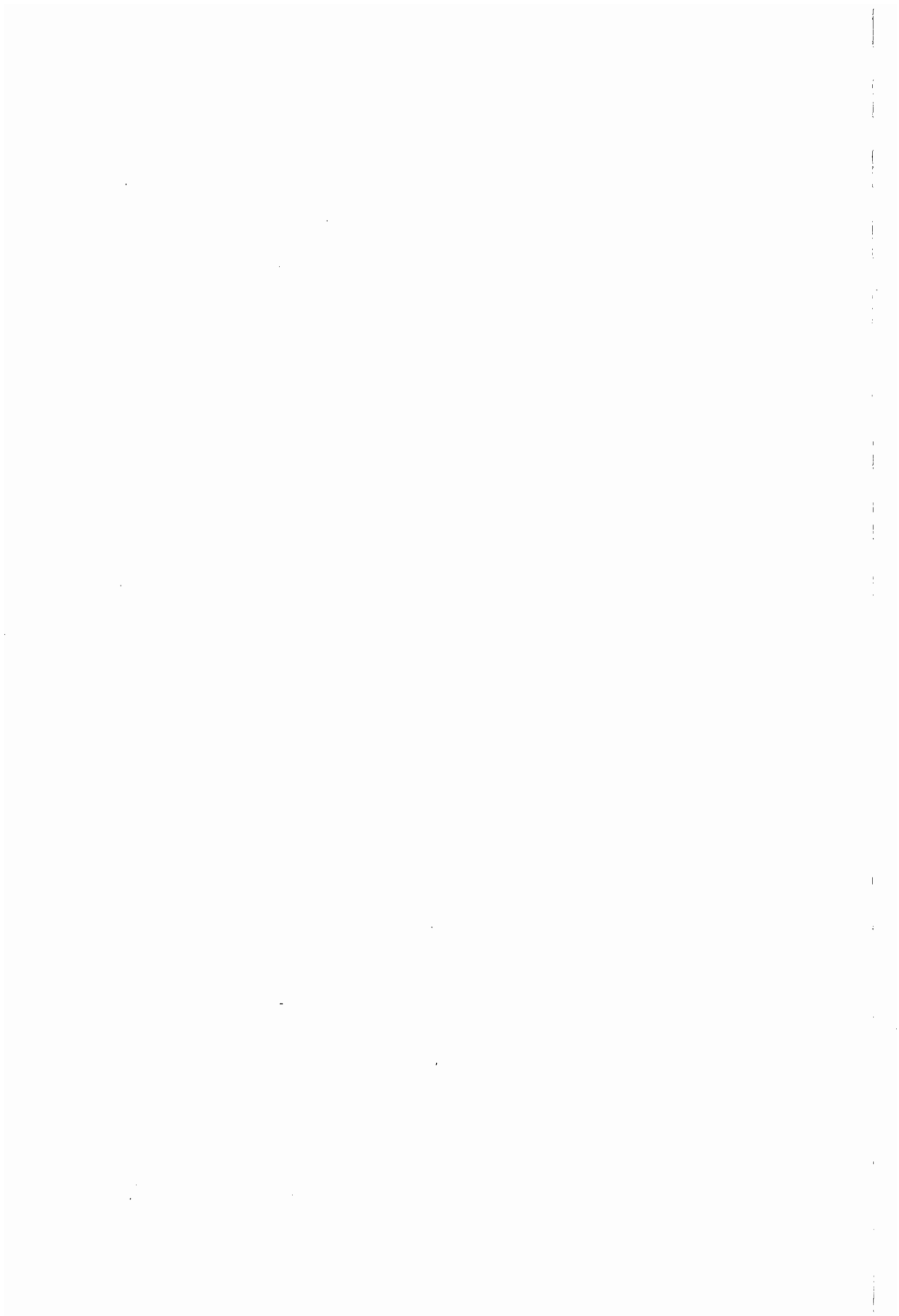
LTM 1120

Load charts
Traglasttabellen



02

LIEBHERR



LIEBHERR
TELESCOPIC BOOM- MOBILE CRANE

TYPE LTM 1120

**Load charts
and notes for using the load charts**

I. INFORMATION FOR USING THE LOAD CAPACITY TABLES

DANGER: The regulations specifications in the operating instructions for crane operations are decisive and final. If these are not observed, there is an extremely high risk of ACCIDENTS!

1. Explanations

- 1.1 The load capacity value in the load capacity tables are indicated in metric tons.
- 1.2 The working radius is the horizontal distance between the center of gravity of the load from the slewing axis of the crane superstructure as measured from the ground. This also applies when the crane is subjected to loads; i.e., this includes boom flexure.
- 1.3 Crane operations are only permitted with the crane supported. Here, the sliding arms must always be extended to the dimensions specified in the respective load capacity table.
- 1.4 Boom positions other than those specified in the load capacity tables are prohibited.
- 1.5 The boom must only be moved in those ranges for which load capacity values are given, even without a load, as otherwise the crane can topple. In normal operations, this is prevented by the overload safety device. When "Assembly" is engaged, (with the assembly key-operated switch), the boom must only be luffed or lowered within the specified working radius ranges.
- 1.6 The given load capacities include the weight of the slinging tackle, hoisting and take-up tackle. The possible weight of the load to be hoisted is thus less than the weights above.
- 1.7 The number values in the table "Extension condition of the telescopic section in percent" indicate how far the individual telescopic sections must be extended in order to reach a certain boom length (0 = completely retracted, 100 = completely extended). Any extension conditions other than those indicated are prohibited.
- 1.8 If the crane is equipped with tires of size 14.00-25, an additional central ballast is mounted on the crane chassis.

2. Crane operating mode "Crane supported"

- 2.1 Before the crane is raised on its supports, the axle suspension must be blocked.
- 2.2 The sliding arms of the hydraulic support jack must be extended (simultaneously on both sides) to the precise dimension specified in the applicable load capacity table.
- 2.3 The sliding arms must be secured by pins.
- 2.4 It is necessary to place stable underlay material under the support pads of the support jacks over a large surface area according to ground conditions.
- 2.5 All wheels must be raised clear of the ground.
- 2.6 The crane must be aligned horizontally with the aid of the level gauges. The horizontal crane position must be checked occasionally, and if necessary corrected, during crane operation.

3. There is a danger of overloading or toppling the crane if:

- 3.1 the crane is unsupported and the slewing platform is rotated out of the crane's longitudinal axis. Before slewing the superstructure, the crane must be supported;
- 3.2 the crane is not properly supported on all 4 hydraulic supports and aligned;
- 3.3 the sliding arms are not extended to the precise dimension specified in the correct load capacity table (simultaneously on both sides);
- 3.4 the sliding arms are not secured with pins;
- 3.5 the support pads are not provided with a suitable foundation of stable material in accordance with the relevant ground conditions;
- 3.6 the load specified in the load capacity tables and/or working radii are not strictly adhered to;
- 3.7 there is insufficient distance from trenches, cellars, and holes;
- 3.8 the load begins to swing due to improper control of crane movements;
- 3.9 loads are pulled at an angle. Pulling diagonally to the boom's longitudinal axis is the most dangerous movement, and must never be carried out. Pulling at an angle is prohibited.

4. Telescopic boom

- 4.1 The lifting capacity of the telescopic boom with its 3 extendable telescopic sections is limited. The loads stated in the load capacity tables must not be exceeded.
- 4.2 The specifications for the telescopic sections to be extended according to load and required boom length must be observed under all circumstances.
- 4.3 As a general rule, the boom should first be extended to the required length, and then loaded. However, it is possible to extend and retract the boom under partial load. The weight of this partial load is dependent on bearing pad lubrication and the available useable lengths of the telescopic sections.
- 4.4 Even without a load, the telescopic boom may only be moved within the working radius ranges for which values are listed in the load capacity table.

DANGER : Failure to observe this regulation may lead to accidents

5. Rope winches

5.1 Winch 1 (main hoisting gear)

Winch 1 is designed for a maximum rope tension of 78.5 kN. This rope tension must not be exceeded under any circumstances. Accordingly, the minimum number of hoisting rope lines (rope reeving) should be selected according to the weight of the load to be lifted (see Table "Hoisting rope reeving" in Chapter II).

5.2 Winch 2 (Auxiliary hoisting gear)

The information given under point 7.1 applies here also.

5.3 Prevention of rope slack formation:

- 5.3.1 When retracting the telescopic boom, the winch must be operated in the direction of lifting simultaneously, in order to prevent the hook block from descending to the ground and creating rope slack. The speed of the hoisting rope movement should be matched to that used for retraction.
- 5.3.2 The rope guides on the winches must be supervised by a member of the workforce when additional equipment is being mounted.

6. Hoisting rope reeving

6. The hoisting rope must be reeved in between boom head and hook block in accordance with the maximum rope tension of the winch and the weight of the load to be lifted.
- 6.2 If several hoisting rope lines are reeved in, the efficiency of the hook block is reduced due to pulley friction and rope flexure.
In consequence, with a rope tension of e.g. 78.5 kN, only 742 kN (74.2 t) can be pulled with a 10-fold line reeving, instead of 785 kN (78.5 t).
- 6.3 Consult the table "Hoisting rope reeving" in Chapter II of this manual for the maximum loads in dependence on the number of hoisting rope lines.
- 6.4 The number of hoisting rope lines reeved must be set on the control and display unit of the LICCON overload safety device according to the current hoisting rope reeving total.

7. Changing between material handling and installation operation

7.1 Load carrying capacity of the crane

The load carrying members of the crane have been designed according to the load criteria for installation /set up operations (load collective classification = "light" = Q1 or L1). Stress collective S1 according to DIN 15018 Part 3 and stress margin range N1 according to DIN 15018 Part 1 or ISO 4301, group A1.

If an installation / set up crane is used material handling, the stress margin ranges increase. Therefore the loads must be reduced since a higher stress group now be applicable. This is especially true if the calculated loads are limited by strength values.

CAUTION: For crane value calculation, it has been assumed that the crane will be utilized as an installation crane (load collective classification = "light" = Q1 or L1). If the crane is also used in material handling application, premature wear of all drive sections must be expected, and cracks may occur in load carrying steel members. We therefore strongly recommend, that if the crane is utilized in material handling application, the load values are reduced by 50 %, as compared to the data given in the corresponding load carrying capacity chart.

For details, have material handling data ready and then contact your Liebherr Service Dept.

The size of the cables as well as drive sections of hoist gears are configured according to the load collectives applicable for installation operation (load collective classification = "light" = Q1 or L1):

ISO 4301/2 or 4308/2
Group A1
Hoist gears M3
Intake gears M2

If an installation / set up crane is used material handling (load collective classification = "light" = Q1 or L1), the stress margin range increases, the rope runs must therefore be reduced. If this is not assured, then the hoist rope wear out rate will be reached much earlier, and / or the hoist gear must be rebuilt / serviced much earlier.

Please refer to the information regarding wear out criteria for ropes according to DIN 15020, part 2 or ISO 4309 in chapter 8.01 "Repeat crane inspections" in the crane's Operating Instructions.

NOTE: In order to keep wear out rate of hoist ropes as low as possible during material handling operation (load collective classification = "medium" or higher), we recommend the use of a special length rope, so that during material handling operation the rope is rolled onto drum of the hoist winch in only one rope layer

If several layers are on the rope drum, the wear rate increases. In addition, the winch drive will run cooler, if the crane is operated with only one rope layer.

8. LICCON Overload safety device and Limit switch

If the permissible load moment is exceeded, the electronic LICCON overload safety device shuts down the hoisting, boom topping and boom extension movements. It is possible to decrease the load by means of movements in the opposite direction. The LICCON overload safety device must be checked for correct operation on each occasion before operating the crane.

- 8.1 The LICCON overload safety device must be set to the current equipment mode of the crane by means of function keys or by entering the corresponding 2-digit code (see separate operating instructions "LICCON Overload Safety Device for Liebherr Mobile Cranes").
- 8.2 The LICCON overload limit switch is a safety device and must not be used as a shutdown device for operating purposes. The crane operator must assure himself of the weight of a load before attempting to lift it. The fact that the crane is equipped with the LICCON overload safety device does not free the operator from responsibility with regard to operating safety.
- 8.3 The control and display unit of the LICCON overload safety device indicates among other things the working radius, boom length, pulley height, load and degree of crane load utilization. This provides the operator with a constant overview of the working range and crane utilization.
- 8.4 Hoisting limit switches at the head of the telescopic boom and folding fly jib prevent the hook block from running up against the boom head. The hoisting limit switches must be checked for correct operation on each occasion before the crane is operated.
- 8.5 Gear cam limit switches on the cable winches ensure that 3 safety turns remain on the rope drums. When the final cable layer is reached, a visual check is also necessary to ensure that the 3 safety turns are available. If the hoisting gears have been overturned in the lifting direction, or if the hoisting cable has been changed, then the corresponding limit switch must be reset before resuming operation.
- 8.6 The crane operator must check correct operation of the LICCON overload safety device on each occasion before operating the crane. The crane manufacturer will accept no liability for damage to the crane and consequential damage resulting from non-function or disactivation of the LICCON overload safety device.

9. Hook blocks and load hooks

Load [t]	Own weight [t]	Number of rope pulley
125	1.08	9
100	1.00	7
80	0.80	5
63	0.56	3
25	0.44	1
8.5	0.12	---

10. Reductions in load capacity of telescopic boom when folding fly jib is fitted

- 10.1 The load capacity values stated for the telescopic boom in the load capacity tables apply to the boom without installation of a folding fly jib for transport or operating purposes.
- 10.2 If the folding fly jib is mounted on the telescopic boom, the possible loads which the boom can lift are reduced according to the values given in the table below.

Location of the folding fly jib	T-14,0	T-18,8	T-22,0	T-23,5	T-28,3	T-32,0	T-37,8	T-42,5	T-45,0
Complete folding fly jib at the side of pivot section	0,95	0,71	0,60	0,56	0,47	0,40	0,35	0,31	0,30
Folding fly jib K-12 at pulley head of telescopic boom, rest at the side of pivot section	2,71	2,46	2,36	2,32	2,22	2,15	2,10	2,06	2,04
Folding fly jib K-18 at pulley head of telescopic boom	2,91	2,64	2,52	2,48	2,37	2,29	2,23	2,19	2,17
Folding fly jib K-24 at pulley head of telescopic boom	4,00	3,54	3,35	3,27	3,09	2,96	2,87	2,79	2,76

11. Working platform

- 11.1 If the crane is equipped with a working platform, refer to Chapter II for working radius tables for operation with a working platform. Never exceed or undershoot the working range specified in the working radius tables.
- 11.2 The maximum permissible burden and number of persons which the working platform can carry is stated on the identification plate of the platform. These limits must be observed under all circumstances.

Diagramm 1

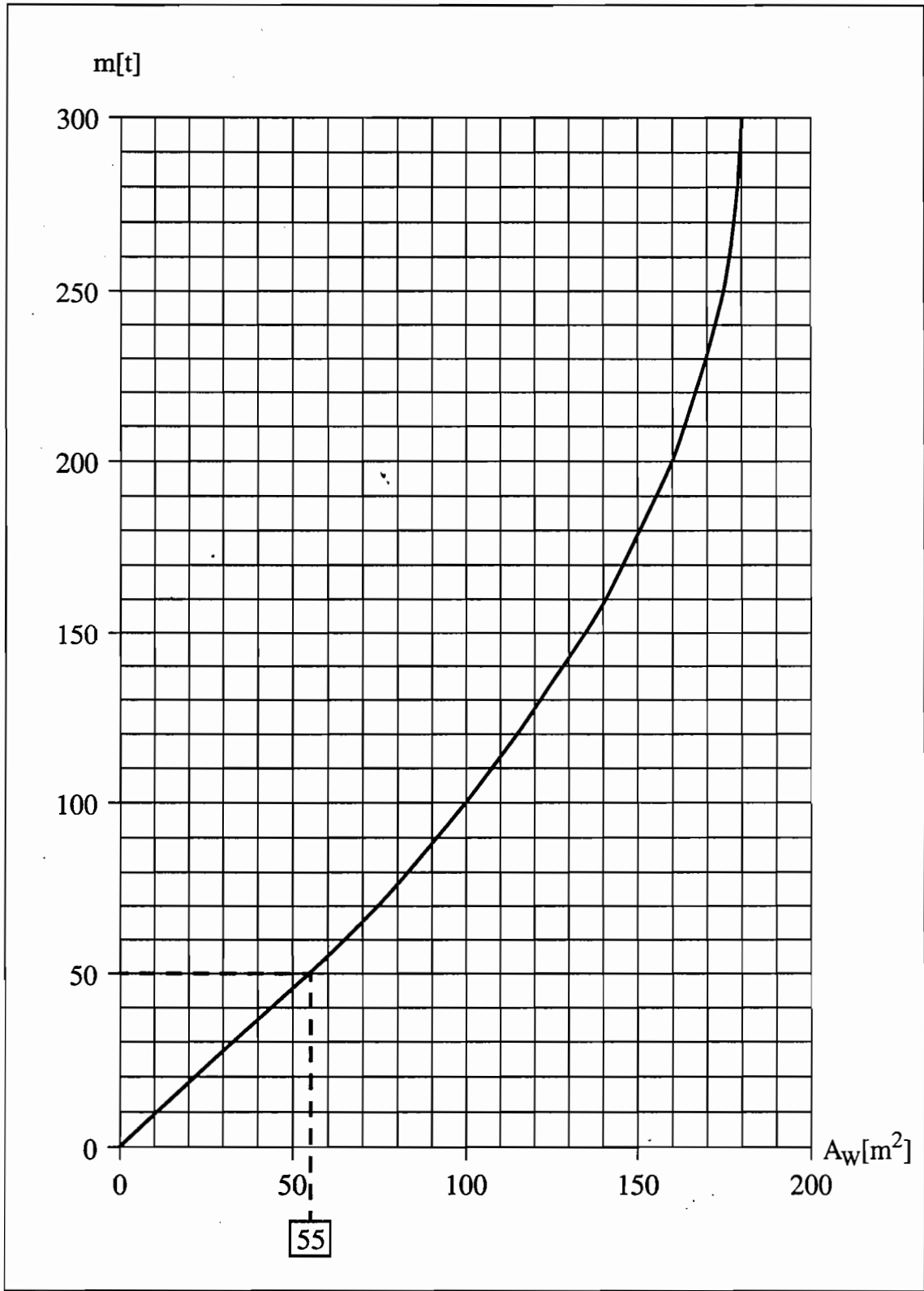
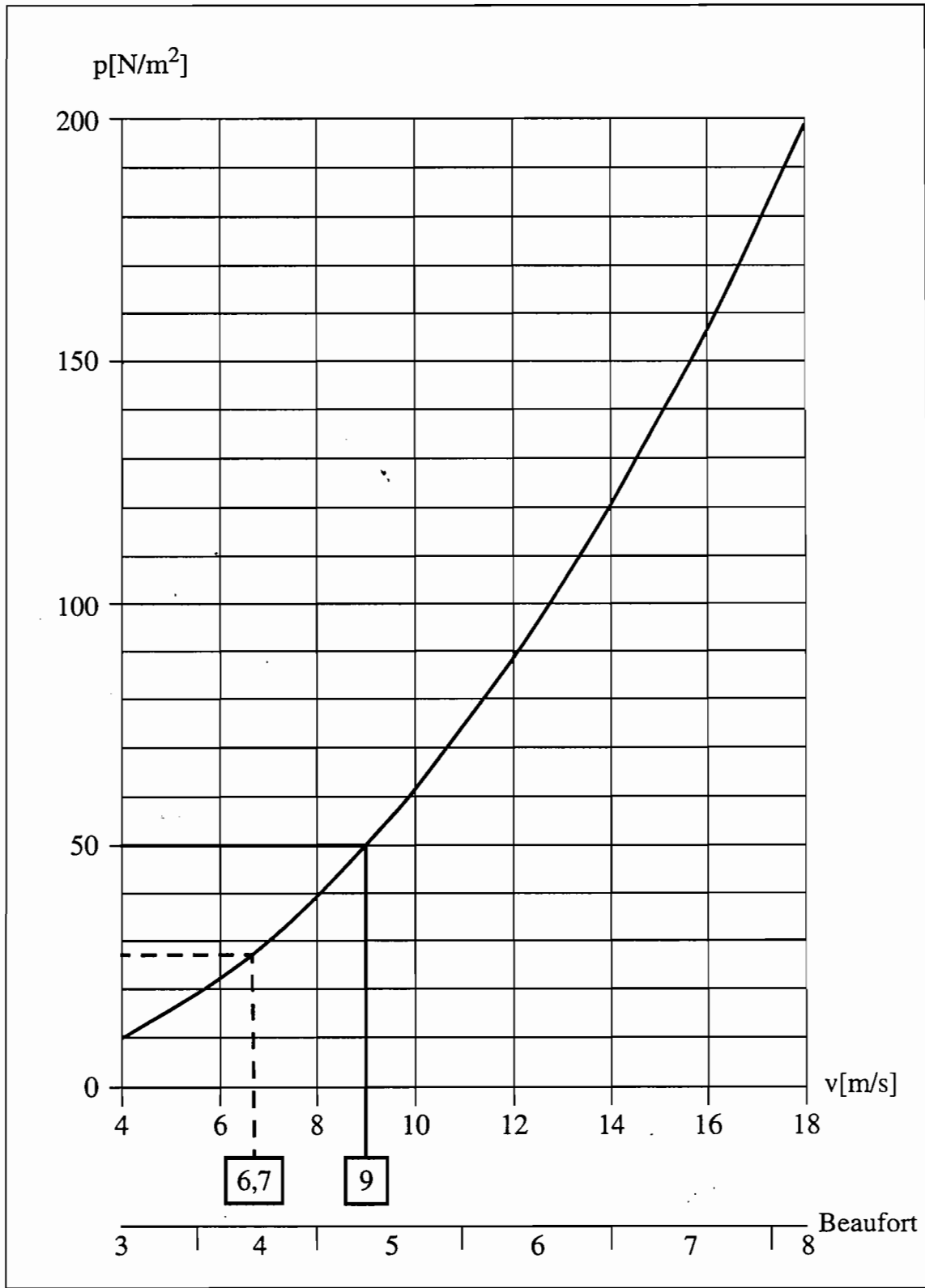
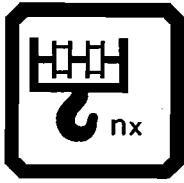
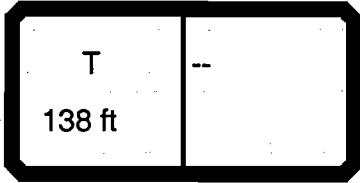


Diagramm 2

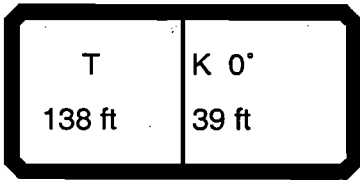




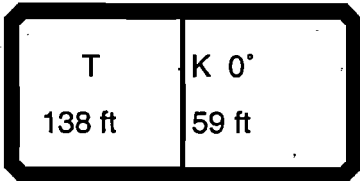
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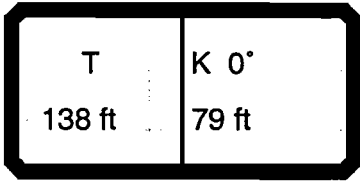
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15



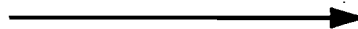
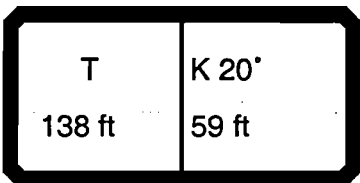
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27



33





39

T	K 20°
138 ft	79 ft

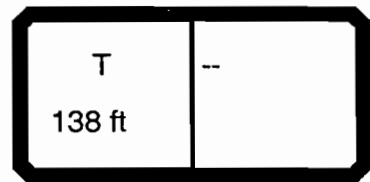


45

	
1	18900
2	37900
3	56400
4	74500
5	92800
6	110400
7	127800
8	145000
9	161800
10	178600
11	195100
12	211400
13	227000
14	242900
15	258300
16	273500
17	288500
18	303500

75 % DIN BS

WII + 4klbs
 2.75klbs + 4klbs
 WII + 35.3klbs

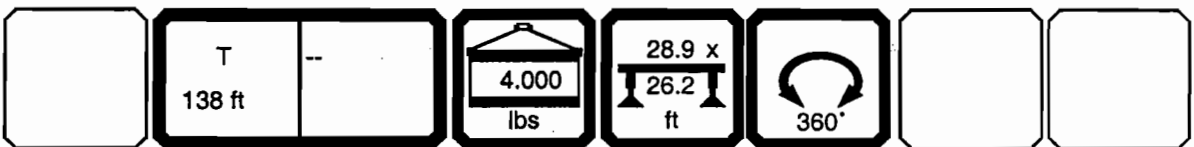


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TAB 83099

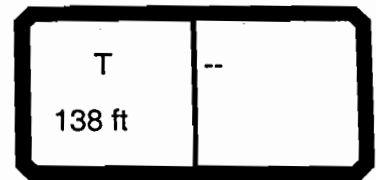
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 ft	ft > lbs		CODE >009<			TL83 0000 .x(x)			
	44	73	73	91	106	106	130	138	
10	190,000								
11	179,000								
12	169,000								
13	160,000								
14	152,000								
15	144,000	125,000	79,500						
16	137,000	115,000	79,500						
17	130,000	106,000	79,500						
18	123,000	98,500	79,500						
20	108,000	84,500	79,000	79,000	71,000	56,900			
22	94,000	73,500	75,500	70,000	65,000	54,200			
24	81,000	64,500	71,500	62,500	59,300	51,700			
26	70,000	57,300	66,500	55,700	53,200	49,200			
28	61,500	51,500	60,500	50,400	48,500	47,100	40,800	33,100	
30	53,800	46,200	55,100	45,600	44,100	45,000	40,400	33,100	
32	48,100	41,900	50,600	41,500	40,300	43,300	38,800	33,100	
34		38,000	46,500	38,000	37,000	41,200	36,500	32,200	
36		34,600	42,800	34,800	33,900	39,000	33,600	30,700	
38		31,100	39,100	31,500	30,800	36,800	30,800	29,200	
40		27,900	35,800	28,600	28,000	34,600	28,200	27,600	
45		21,900	29,000	23,100	22,800	28,800	23,000	22,500	
50		16,900	23,800	18,800	18,600	24,200	18,900	18,500	
55		12,900	19,700	15,200	15,100	20,500	15,500	15,200	
60				12,100	12,300	17,400	12,800	12,600	
65				9,600	10,000	15,100	10,600	10,400	
70				7,300	8,100	13,000	8,900	8,700	
75				5,500	6,300	11,300	7,400	7,200	
80					4,700	9,800	6,100	5,900	
85					3,400	8,300	4,900	4,700	
90						7,100	3,900	3,700	
95							3,000	2,900	
* n *	11	7	5	5	4	4	3	2	
 %	1	0	92	0	92	100	0	92	100
	2	0	0	46	30	50	100	92	100
	3	0	0	46	30	50	100	92	100
 ft/s		47	47	47	47	42	36	36	36



75 % DIN BS

WII + 19.6klbs
 2.75klbs + 19.6klbs
 WII + 56.2klbs

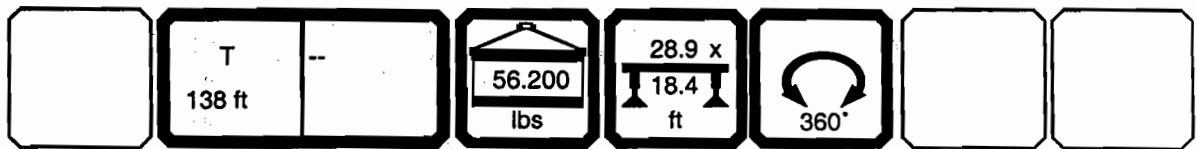


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TAB 83098

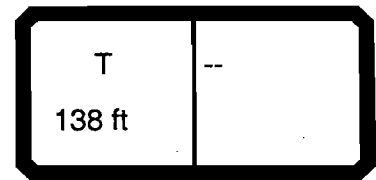
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ft	ft > lbs								CODE >003<		TL83 0000 .x(x)	
	44	73	73	91	106	106	130	138				
10	192,000											
11	182,000											
12	172,000											
13	162,000											
14	154,000											
15	146,000	140,000	79,500									
16	139,000	134,000	79,500									
17	133,000	128,000	79,500									
18	128,000	122,000	79,500									
20	117,000	108,000	79,000	89,000	71,500	56,900						
22	107,000	95,500	75,500	86,000	71,500	54,200						
24	97,500	84,500	72,000	80,500	70,500	51,700						
26	88,000	75,000	67,500	72,500	68,500	49,200						
28	78,500	68,000	65,500	66,000	63,500	47,100	43,000	35,300				
30	69,000	61,500	64,000	60,000	57,800	45,000	43,000	35,300				
32	62,000	56,200	61,000	55,100	53,200	43,300	43,000	35,300				
34		51,500	57,800	50,800	49,200	41,700	42,200	35,300				
36		47,400	53,800	46,900	45,500	40,300	41,000	35,300				
38		43,200	49,700	43,000	41,800	38,900	39,700	35,300				
40		39,300	45,900	39,500	38,400	37,500	38,000	34,700				
45		31,100	37,900	32,600	31,900	34,500	31,400	30,400				
50		24,900	31,600	26,900	26,500	31,100	26,400	25,900				
55		19,900	26,600	22,300	22,200	27,400	22,300	21,800				
60				18,600	18,600	23,700	18,900	18,500				
65				15,200	15,800	20,700	16,200	16,000				
70				12,600	13,400	18,200	14,000	13,700				
75				10,400	11,200	16,100	12,100	11,800				
80					9,300	14,100	10,400	10,200				
85					7,600	12,500	8,900	8,700				
90					6,200	11,100	7,700	7,500				
95							6,600	6,400				
100							5,600	5,500				
105							4,600	4,600				
110							3,800	3,800				
115							3,000	3,000				
* n *	11	8	5	5	4	4	3	2				
1	0	92	0	92	100	0	92	100				
2	0	0	46	30	50	100	92	100				
3	0	0	46	30	50	100	92	100				
ft/s	47	47	47	47	42	36	36	36				



75.% DIN BS

WII + 19.6klbs
 2.75klbs + 19.6klbs
 WII + 56.2klbs

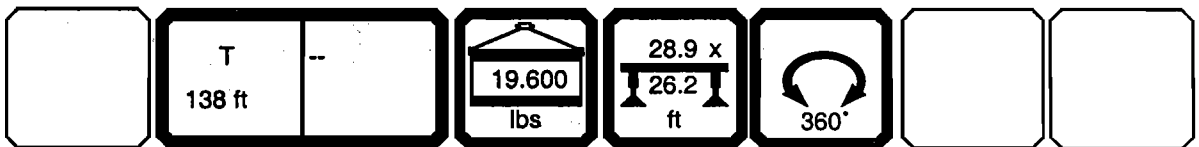


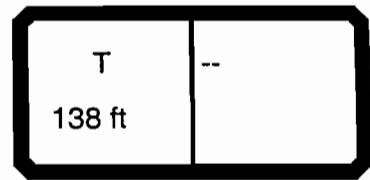
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TAB 83098

01.00

ft	ft > < lbs		CODE >007< TL83 0000 .x(x)						
	44	73	73	91	106	106	130	138	
10	192,000								
11	182,000								
12	172,000								
13	162,000								
14	154,000								
15	146,000	140,000	79,500						
16	139,000	134,000	79,500						
17	133,000	128,000	79,500						
18	128,000	122,000	79,500						
20	117,000	108,000	79,000	89,000	71,500	56,900			
22	107,000	95,500	75,500	86,000	71,500	54,200			
24	97,500	84,500	72,000	80,500	70,500	51,700			
26	88,000	75,000	67,500	72,500	68,500	49,200			
28	78,500	68,000	65,500	66,000	63,500	47,100	43,000	35,300	
30	69,000	61,500	64,000	60,000	57,800	45,000	43,000	35,300	
32	62,000	56,200	61,000	55,100	53,200	43,300	43,000	35,300	
34		51,500	57,800	50,800	49,200	41,700	42,200	35,300	
36		47,400	53,800	46,900	45,500	40,300	41,000	35,300	
38		43,200	49,700	43,000	41,800	38,900	39,700	35,300	
40		39,300	45,900	39,500	38,400	37,500	38,000	34,700	
45		31,100	37,900	32,600	31,900	34,500	31,400	30,400	
50		24,900	31,600	26,900	26,500	31,100	26,400	25,900	
55		19,900	26,600	22,300	22,200	27,400	22,300	21,800	
60				18,600	18,600	23,700	18,900	18,500	
65				15,200	15,800	20,700	16,200	16,000	
70				12,600	13,400	18,200	14,000	13,700	
75				10,400	11,200	16,100	12,100	11,800	
80					9,300	14,100	10,400	10,200	
85					7,600	12,500	8,900	8,700	
90					6,200	11,100	7,700	7,500	
95							6,600	6,400	
100							5,600	5,500	
105							4,600	4,600	
110							3,800	3,800	
115							3,000	3,000	
* n *	11	8	5	5	4	4	3	2	
1	0	92	0	92	100	0	92	100	
2	0	0	46	30	50	100	92	100	
3	0	0	46	30	50	100	92	100	
ft/s	47	47	47	47	42	36	36	36	



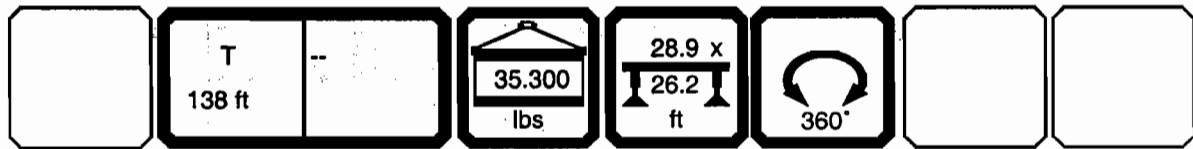


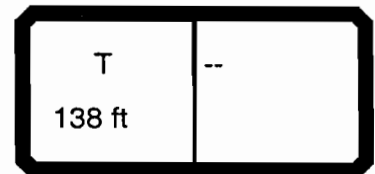
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TAB 83112

01.00

ft	ft > lbs								CODE >004<		TL83 0000 .x(x)	
	44	73	73	91	106	106	130	138				
10	241,000											
11	229,000											
12	216,000											
13	202,000											
14	191,000											
15	180,000	153,000	87,000									
16	170,000	149,000	87,000									
17	161,000	145,000	87,000									
18	152,000	140,000	87,000									
20	137,000	130,000	86,500	97,500	79,500	62,500						
22	125,000	118,000	83,000	95,000	79,500	59,600						
24	114,000	108,000	79,000	91,500	78,000	56,800						
26	105,000	98,000	74,500	87,500	75,500	54,100						
28	97,000	90,500	72,000	84,500	73,000	51,800	50,900	46,100				
30	90,000	83,000	70,000	81,000	71,000	49,600	50,900	46,000				
32	83,000	75,500	67,000	73,500	68,500	47,600	50,600	45,600				
34		69,500	65,000	67,500	64,500	45,800	49,700	45,000				
36		63,500	62,500	62,500	60,000	44,300	48,300	44,300				
38		57,800	60,500	57,100	55,400	42,700	47,000	43,700				
40		52,600	58,200	52,500	51,200	41,200	45,600	42,900				
45		43,400	51,500	43,700	43,000	37,900	41,900	40,200				
50		36,500	44,400	37,100	36,500	35,100	36,700	35,700				
55		30,700	37,900	31,600	31,200	32,300	31,800	31,200				
60				27,100	26,900	26,900	27,600	27,100				
65				23,400	23,400	27,400	24,200	23,800				
70				20,400	20,400	25,600	21,500	21,000				
75				17,800	17,900	23,500	19,000	18,600				
80					15,600	21,100	16,700	16,500				
85					13,800	18,900	14,900	14,700				
90					12,100	17,000	13,200	13,000				
95							11,700	11,500				
100							10,500	10,200				
105							9,500	9,000				
110							8,300	8,200				
115							7,200	7,200				
120								6,300				
* n *	14	9	5	6	5	4	3	3				
1	0	92	0	92	100	0	92	100				
2	0	0	46	30	50	100	92	100				
3	0	0	46	30	50	100	92	100				
ft/s	47	47	47	47	42	36	36	36				



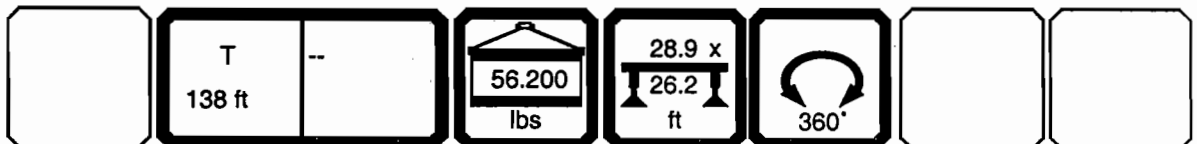


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TAB 83111

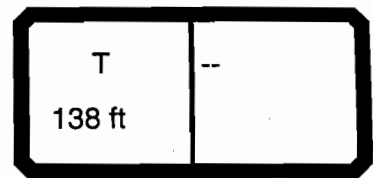
01.00

ft	ft > < lbs		CODE >001< TL83 0000 .x(x)						
	44	73	73	91	106	106	130	138	
10	241,000								
11	230,000								
12	220,000								
13	211,000								
14	199,000								
15	187,000	153,000	87,000						
16	178,000	149,000	87,000						
17	169,000	146,000	87,000						
18	161,000	142,000	87,000						
20	146,000	135,000	86,500	97,500	79,500	62,500			
22	132,000	126,000	83,000	95,000	79,500	59,600			
24	120,000	116,000	79,000	91,500	78,000	56,800			
26	110,000	106,000	74,500	87,500	75,500	54,100			
28	103,000	97,500	72,000	85,500	73,000	51,800	50,900	46,100	
30	95,500	90,000	70,000	83,000	71,000	49,600	50,900	46,000	
32	88,500	83,000	67,000	80,500	68,500	47,600	50,600	45,600	
34		77,500	65,000	77,000	66,000	45,800	49,700	45,000	
36		73,000	62,500	73,000	64,000	44,300	48,300	44,300	
38		68,500	60,500	69,000	61,500	42,700	47,000	43,700	
40		64,000	58,600	65,000	59,600	41,200	45,600	42,900	
45		54,800	54,700	55,600	54,500	37,900	42,100	40,200	
50		47,500	50,900	48,200	47,700	35,100	39,100	37,400	
55		40,900	46,500	41,900	41,300	32,300	36,400	34,600	
60				36,400	36,000	29,600	33,700	32,000	
65				32,100	31,800	27,400	31,400	29,800	
70				28,100	28,200	25,600	28,700	27,900	
75				24,800	25,200	24,200	26,000	25,600	
80					22,500	22,900	23,300	23,000	
85					20,000	21,900	21,100	20,900	
90					17,800	21,200	19,100	18,800	
95							17,200	17,000	
100							15,600	15,500	
105							14,100	14,100	
110							12,900	12,800	
115							11,800	11,500	
120								10,400	
* n *	14	9	5	6	5	4	3	3	
1	0	92	0	92	100	0	92	100	
2	0	0	46	30	50	100	92	100	
3	0	0	46	30	50	100	92	100	
ft/s	47	47	47	47	42	36	36	36	



85 % PCSA


WII + 35.3klbs
2.75klbs + 35.3klbs

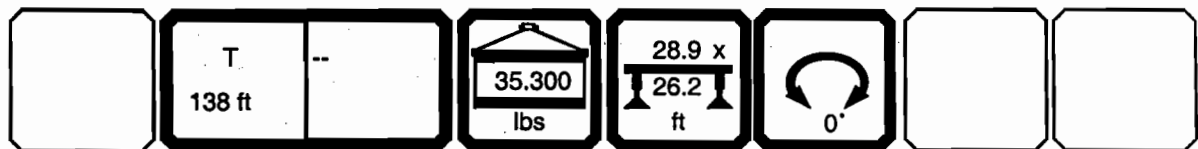


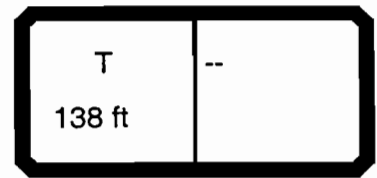
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TAB 83112

01.00

 ft	ft > lbs								CODE >005<		TL83 0000 .x(x)	
	44	73	73	91	106	106	130	138				
10	261,000											
11	241,000											
12	223,000											
13	207,000											
14	193,000											
15	180,000	153,000	87,000									
16	170,000	149,000	87,000									
17	161,000	145,000	87,000									
18	152,000	140,000	87,000									
20	137,000	130,000	86,500	97,500	79,500	62,500						
22	125,000	118,000	83,000	95,000	79,500	59,600						
24	114,000	108,000	79,000	91,500	78,000	56,800						
26	105,000	98,000	74,500	87,500	75,500	54,100						
28	97,000	90,500	72,000	84,500	73,000	51,800	50,900	46,100				
30	90,000	83,000	70,000	81,000	71,000	49,600	50,900	46,000				
32	84,000	75,500	67,000	73,500	68,500	47,600	50,600	45,600				
34		69,500	65,000	67,500	64,500	45,800	49,700	45,000				
36		63,500	62,500	62,500	60,000	44,300	48,300	44,300				
38		57,800	60,500	57,100	55,400	42,700	47,000	43,700				
40		52,600	58,200	52,500	51,200	41,200	45,600	42,900				
45		43,400	51,500	43,700	43,000	37,900	41,900	40,200				
50		36,500	44,400	37,100	36,500	35,100	36,700	35,700				
55		30,700	37,900	31,600	31,200	32,300	31,800	31,200				
60				27,100	26,900	26,900	27,600	27,100				
65				23,400	23,400	27,400	24,200	23,800				
70				20,400	20,400	25,600	21,500	21,000				
75				17,800	17,900	23,500	19,000	18,600				
80					15,600	21,100	16,700	16,500				
85					13,800	18,900	14,900	14,700				
90					12,100	17,000	13,200	13,000				
95							11,700	11,500				
100							10,500	10,200				
105							9,500	9,000				
110							8,300	8,200				
115							7,200	7,200				
120								6,300				
* n *	16	9	5	6	5	4	3	3				
1	0	92	0	92	100	0	92	100				
2	0	0	46	30	50	100	92	100				
3	0	0	46	30	50	100	92	100				
ft/s	47	47	47	47	42	36	36	36				



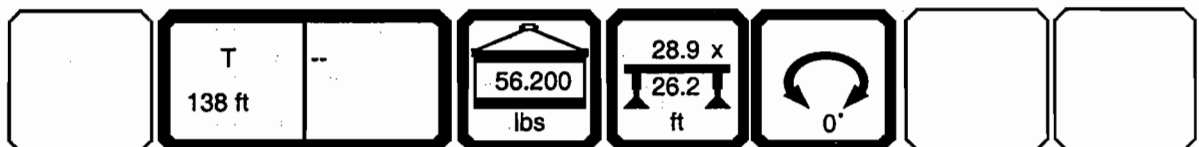


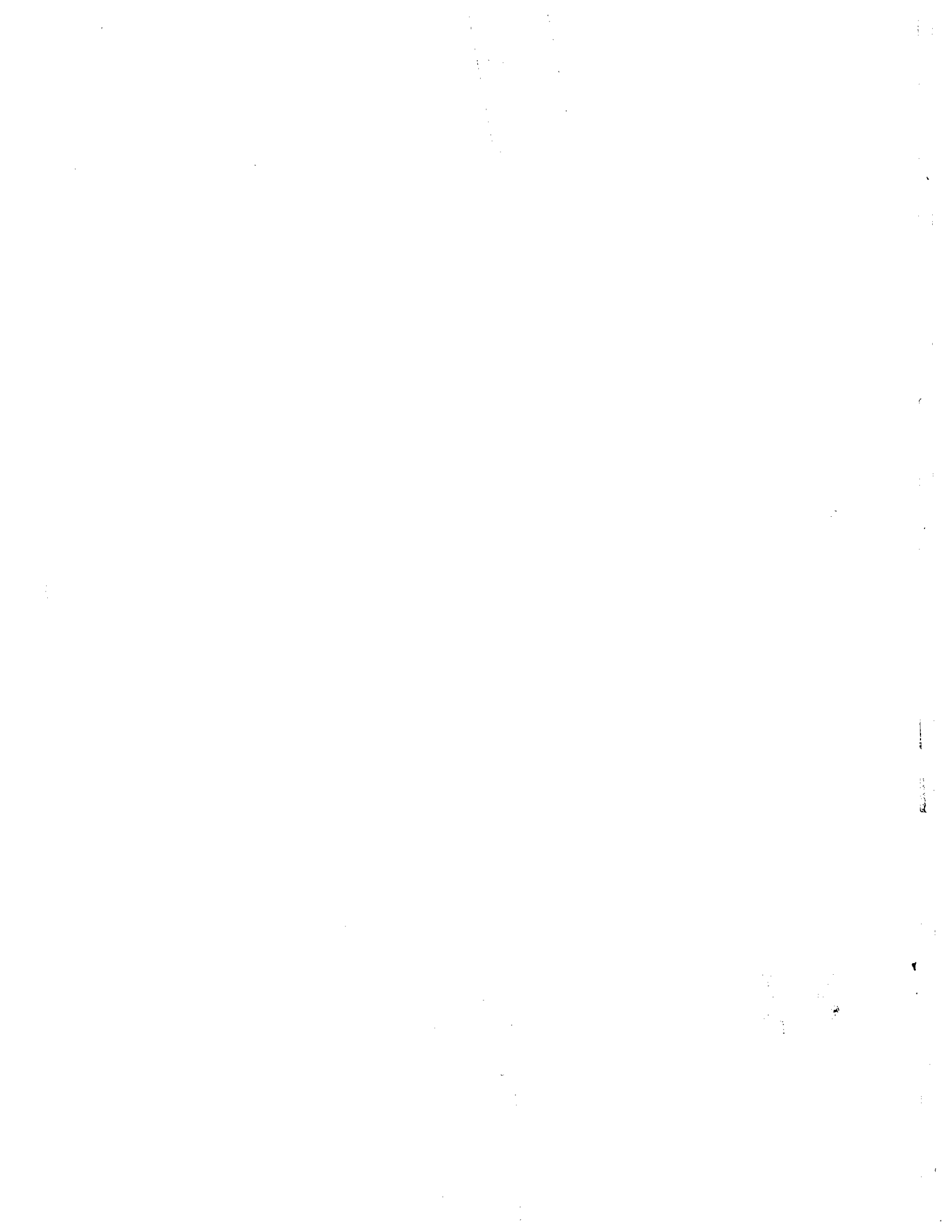
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TAB 83111

01.00

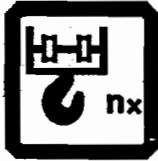
ft	ft > < lbs		CODE >002<		TL83 0000 .x(x)					
	44	73	73	91	106	106	130	138		
10	283,000									
11	257,000									
12	236,000									
13	218,000									
14	204,000									
15	191,000	153,000	87,000							
16	181,000	149,000	87,000							
17	171,000	146,000	87,000							
18	162,000	142,000	87,000							
20	146,000	135,000	86,500	97,500	79,500	62,500				
22	132,000	126,000	83,000	95,000	79,500	59,600				
24	120,000	116,000	79,000	91,500	78,000	56,800				
26	110,000	106,000	74,500	87,500	75,500	54,100				
28	103,000	97,500	72,000	85,500	73,000	51,800	50,900	46,100		
30	95,500	90,000	70,000	83,000	71,000	49,600	50,900	46,000		
32	88,500	83,000	67,000	80,500	68,500	47,600	50,600	45,600		
34		77,500	65,000	77,000	66,000	45,800	49,700	45,000		
36		73,000	62,500	73,000	64,000	44,300	48,300	44,300		
38		68,500	60,500	69,000	61,500	42,700	47,000	43,700		
40		64,000	58,600	65,000	59,600	41,200	45,600	42,900		
45		54,800	54,700	55,600	54,500	37,900	42,100	40,200		
50		47,500	50,900	48,200	47,700	35,100	39,100	37,400		
55		40,900	46,500	41,900	41,300	32,300	36,400	34,600		
60				36,400	36,000	29,600	33,700	32,000		
65				32,100	31,800	27,400	31,400	29,800		
70				28,100	28,200	25,600	28,700	27,900		
75				24,800	25,200	24,200	26,000	25,600		
80					22,500	22,900	23,300	23,000		
85					20,000	21,900	21,100	20,900		
90					17,800	21,200	19,100	18,800		
95							17,200	17,000		
100							15,600	15,500		
105							14,100	14,100		
110							12,900	12,800		
115							11,800	11,500		
120								10,400		
* n *	17	9	5	6	5	4	3	3		
1	0	92	0	92	100	0	92	100		
2	0	0	46	30	50	100	92	100		
3	0	0	46	30	50	100	92	100		
ft/s	47	47	47	47	42	36	36	36		





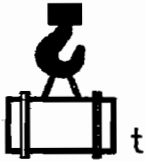
III - Supplement

Explanation of symbols LTM 1120



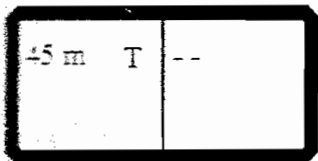
Hoisting rope reeving

This symbol appears on the hoisting rope reeving table (1st table of chapter II) and indicates the required number of hoisting rope reeving to achieve a certain load capacity.



Load capacity in metric tons [t]

This symbol appears on the hoisting rope reeving table (1st table of chapter II) and indicates the max. permissible load capacity depending on hoisting rope reeving.



Operating mode

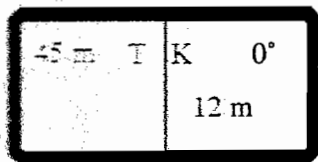
2part symbol

left side = Main boom mode

- Length of the main boom
- Main boom type

ex. : 40m

ex.: T=Telescopic boom



right side = Additional jib mode

- Additional jib type
- Angle of the additional jib
- Additional jib length

ex.: K=folding fly jib

ex.: 0° = 0 deg. offset from main boom

ex.: 12m



Working radius of the telescopic boom

The working radius is the horizontal distance of the center of gravity of the load to the slewing axis of the crane superstructure as measured from the ground beneath the load.



Working radius of the additional jib

The working radius is the horizontal distance of the center of gravity of the load to the slewing axis of the crane superstructure as measured from the ground beneath the load.



Telescopic boom length /units of measurement

In the row beneath this symbol the different boom length of the crane are indicated in columns. The letters next to the symbol indicate the units of measurement in the actual load chart, for example "m" <" means that all lengths are given in meters [m] and all weights are given in metric tons [t]. Other possible units of measurement are feet [ft] and pounds [lbs] (lifting capacities in [kips] = 1000 lbs).

CODE > 03 <

Short code

2-place short code; can be directly entered into the LICCON overload safety device in order to call up the corresponding load chart.

* n *

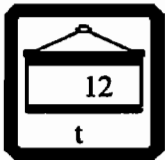
Hoisting rope reeving

Appears in the load charts as a line below the load capacity values. Indicates the number of hoisting rope reevings required to hoist the maximum load in the corresponding load chart column.



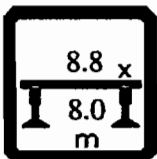
Extension conditions of the telescopic boom sections

Indications i percent for the individual telescopic sections (Tele 1 / Tele 2 / Tele 3 / Tele 4). Indication 0 = completely retracted, 100 = completely extended. Extension conditions other than those specified in the load charts are prohibited.



Counterweight

In this symbol, the size of the counterweight is indicated in metric tons [t] which must be on the crane superstructure in order to achieve the values of the given load chart. In diesem Symbol ist die Größe des Gegengewichts in Tonnen [t] angegeben, das sich am Kranoberwagen befinden muß, um die Werte der vorliegenden Tabelle erreichen zu können.



Crane operations "Crane supported"

Indication of the support base (ex.: 8.8m x 8.0m = length width). The hydraulic supports of the crane must be extended to the dimensions specified in this symbol and pinned when the corresponding load chart is being worked with.



Slewing range

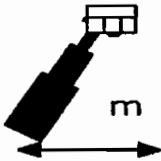
Slewing range data of the crane superstructure for the corresponding load capacity table:

- 360° = unlimited slewing permissible
- 0° = working range to the rear



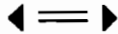
Permissible wind speed

Indication of wind speed in [m/s] up to which crane operation is permissible depending on boom length. If the wind speed exceeds the indicated value, crane operations must be terminated, and if necessary, equipment must be removed from the crane.



Working radius with the working platform

The working radius for operations with the working platform concern the pulley assembly in the boom head and are measured from the slewing midpoint. By variably positioning the working platform, their working radii are correspondingly larger.



Working radius range

Indication of the permissible working radius range in the working radius tables for crane operations with working platform.

