

LIEBHERR

LTM 1030/1

001788008

Load chart manual

Edition: 25.03.2010

*Internal documentation!
Intended exclusively for Liebherr customer service.*

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I. INFORMATION FOR USING THE LOAD CAPACITY TABLES

WARNING: The specifications contained in the operating instructions are of vital importance for crane operation. Failure to observe these instructions may lead to ACCIDENTS!

1. Explanations

- 1.1 The load capacity values in the tables are stated in metric tons [t].
- 1.2 The working radius is the horizontal gravity center distance of the load from the rotational axis of the crane superstructure measured at the ground. The radius stated is valid under load conditions, i.e. including boom flexure.
- 1.3 Boom positions differing from those given in the load capacity tables are not permissible.
- 1.4 Even without a load, the boom may only be moved inside those areas for which load capacity values are stated, otherwise there is a danger of tilting. In normal operation, this hazard is prevented by the overload safety device. After switching to "Assembly" mode (with the "assembly" key-operated switch), the boom must not be lowered or topped outside the range of the working radius.
- 1.5 The stated load capacities contain the weights of the load bearing, lifting and slinging tackle. The possible weight for the load to be lifted is therefore reduced according to the weights of the afore-mentioned tackle.

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 (to a uniform length on both sides) to the extent stated in the appliroppe 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.
- 2.7 When the crane is lowered back down onto the wheels, the axle suspension must be switched on as soon as the wheels contact the ground.

3. Crane operating mode "Free-standing on tires"

The crane can be operated in this mode if the following instructions are observed:

- 3.1 The telescopic boom may be extended to a maximum length of 14.3 m.
- 3.2 The ground beneath the crane must be in a position to securely bear the maximum operating weight of the crane supplemented by the weight of the load.
- 3.3 The ground beneath the crane must be level and not sloping.
- 3.4 The suspension of all axles must be locked.
- 3.5 If possible, the sliding arms should be extended and the support jacks, with support pads mounted, lowered to a location slightly above the ground, so that the crane can rest on the supports if the ground gives way.
- 3.6 The air pressure of all tires must conform to the pressure specified for crane operation:

Tire equipment	air pressure for road travel	air pressure for crane operation
14.00-25	10 bar	10 bar
16.00-25	9 bar	10 bar

WARNING: Failure to comply with these pressures may lead to accidents

4. Crane travel with load

The crane can be driven with a suspended load if the instructions given under point 3 are observed. The following supplementary rules apply:

- 4.1 The crane must be driven very slowly (1st gear).
- 4.2 Abrupt travel movements must be avoided.
- 4.3 The load must be kept close to the ground and safeguarded against pendulum motion.

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

- 5.1 if the loads, boom lengths and radii indicated in the appropriate load chart are not strictly adhered to;
- 5.2 if the load begins to swing due to improper control of crane movements;
- 5.3 if 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.
- 5.4 if there is insufficient distance from trenches, cellars, and holes;
- 5.5 if in operating condition "crane supported":
 - 5.5.1 the crane is not properly supported on all 4 hydraulic supports and the crane is not adjusted horizontally;
 - 5.5.2 the sliding outrigger arms are not extended to the exact length stated in the applicable load chart (to a uniform length on both sides);
 - 5.5.3 the sliding arms are not secured with pins;
 - 5.5.4 the support pads are not provided with a suitable foundation of stable material in accordance with the relevant ground conditions;
- 5.6 if in operating condition "crane freestanding on tires, working over rear":
 - 5.6.1 the telescopic boom is extended to a length of more than 14.3 m;
 - 5.6.2 the axle suspension is not blocked;
 - 5.6.3 the ground is not capable of bearing the max. operating weight of the crane supplemented by the weight of the load.
 - 5.6.4 the ground is not level and not without inclination;
 - 5.6.5 the crane is driven too fast with a load suspended, and braking or other movements are sudden.

6. Telescopic boom

- 6.1 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.
- 6.2 The specifications for the telescopic sections to be extended according to load and required boom length must be observed under all circumstances.
- 6.3 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.
- 6.4 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.

WARNING: Failure to observe this regulation may lead to accidents

7. Rope winches

- 7.1 Winch 1 (main hoisting gear)

Winch 1 is designed for a maximum rope tension of 27 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).
- 7.2 Winch 2 (Auxiliary hoisting gear)

The information given under point 7.1 applies here also.
- 7.3 Prevention of rope slack formation:
 - 7.3.1 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.
 - 7.3.2 The rope guides on the winches must be supervised by a member of the workforce when additional equipment is being mounted.

8. Hoisting rope reeving

- 8.1 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.
- 8.2 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. 27 kN, only 255.4 kN (25.54 t) can be pulled with a 10-fold line reeving, instead of 270 kN (27 t).
- 8.3 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.
- 8.4 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.

9. Changing between material handling and installation operation

- 9.1 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 range increases. 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.

10. 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.

- 10.1 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").
- 10.2 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.
- 10.3 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.
- 10.4 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.
- 10.5 Gear cam limit switches on the rope winches ensure that 3 safety turns remain on the rope drums. When the final rope 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 rope has been changed, then the corresponding limit switch must be reset before resuming operation.
- 10.6 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.

11. Hook blocks and load hooks

Load [t]	own weight [t]	Number of rope pulleys
30.0	0.20	5
18.3	0.14	3
8.1	0.12	1
2.8	0.06	--

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

- 12.1 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.
- 12.2 If the folding fly jib is mounted (**0°**, **15°**, **30°**) on the telescopic boom, the possible loads which the boom can lift are reduced according to the values given in the table below. The weight of the hook block for TK operation of 120 kg and 60 kg respectively, must be considered

Position of the folding jib	T-8,4	T-14,3	T-20,1	T-24,2	T-26,0
Entire folding jib sideways on the jib pivoting section	0,30	0,20	0,15	0,10	0,10
K- 8.1 m on the jib head, the rest on the jib pivoting section	1,00	0,80	0,75	0,70	0,70
K- 14.3 m on the jib head	1,30	1,05	0,95	0,90	0,90
Tele I	0	33	66	90	100
Tele II	0	33	66	90	100
Tele III	0	33	66	90	100
Extension state of telescopic sections [%]					

13. Working platform

- 13.1 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.
- 13.2 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.

14. Observation of wind conditions

14.1 Crane operation is permissible up to the wind velocity stated in the load capacity table corresponding to the current boom length.

WARNING : The crane operator must consult the local meteorological office for information on the expected wind velocity prior to commencing operations. If unacceptable wind velocities are forecast, it is not permissible to lift a load. Failure to observe this precaution may result in accidents.

14.2 The wind surface A_w of the load must not exceed certain values. These values are stated in Diagram 1 (see next page). If the wind surface of the load exceeds the diagram values, the wind velocity up to which crane operation is permissible is reduced correspondingly (note example below).

WARNING : Even if the wind surface of the load is smaller than the reference surface, it is prohibited to operate the crane if wind velocity exceeds the limits stated in the load capacity tables! Failure to observe this rule will lead to risk of accidents

14.3 Example:

- Weight of load to be lifted	m	=	50.0 t
- Permissible wind velocity acc. to load capacity table	v	=	9.0 m/s
- Actual wind surface of load:	A_{wr}	=	100.0 m ²
- Permiss. load wind surface acc. to Diag. 1	A_{wz}	=	55.0 m ²
- Diagram 2 yields for v = 9 m/s the impact pressure	p	=	50.0 N/m ²

Hence a load with the permissible wind surface $A_{wz} = 55 \text{ m}^2$ is influenced by a force F:

$$F = \text{impact pressure } p \times \text{Windfläche } A_{wz} = 50 \text{ N/m}^2 \times 55 \text{ m}^2 = 2750 \text{ N}$$

For the actual wind surface $A_{wr} = 100 \text{ m}^2$, a permissible impact pressure p results for the same force F:

$$p = F \div A_{wr} = 2750 \text{ N} \div 100 \text{ m}^2 = 27,5 \text{ N/m}^2$$

For $p = 27.5 \text{ N/m}^2$, Diagram 2 yields a maximum permissible wind velocity of $v = 6.7 \text{ m/s}$

Diagramm 1

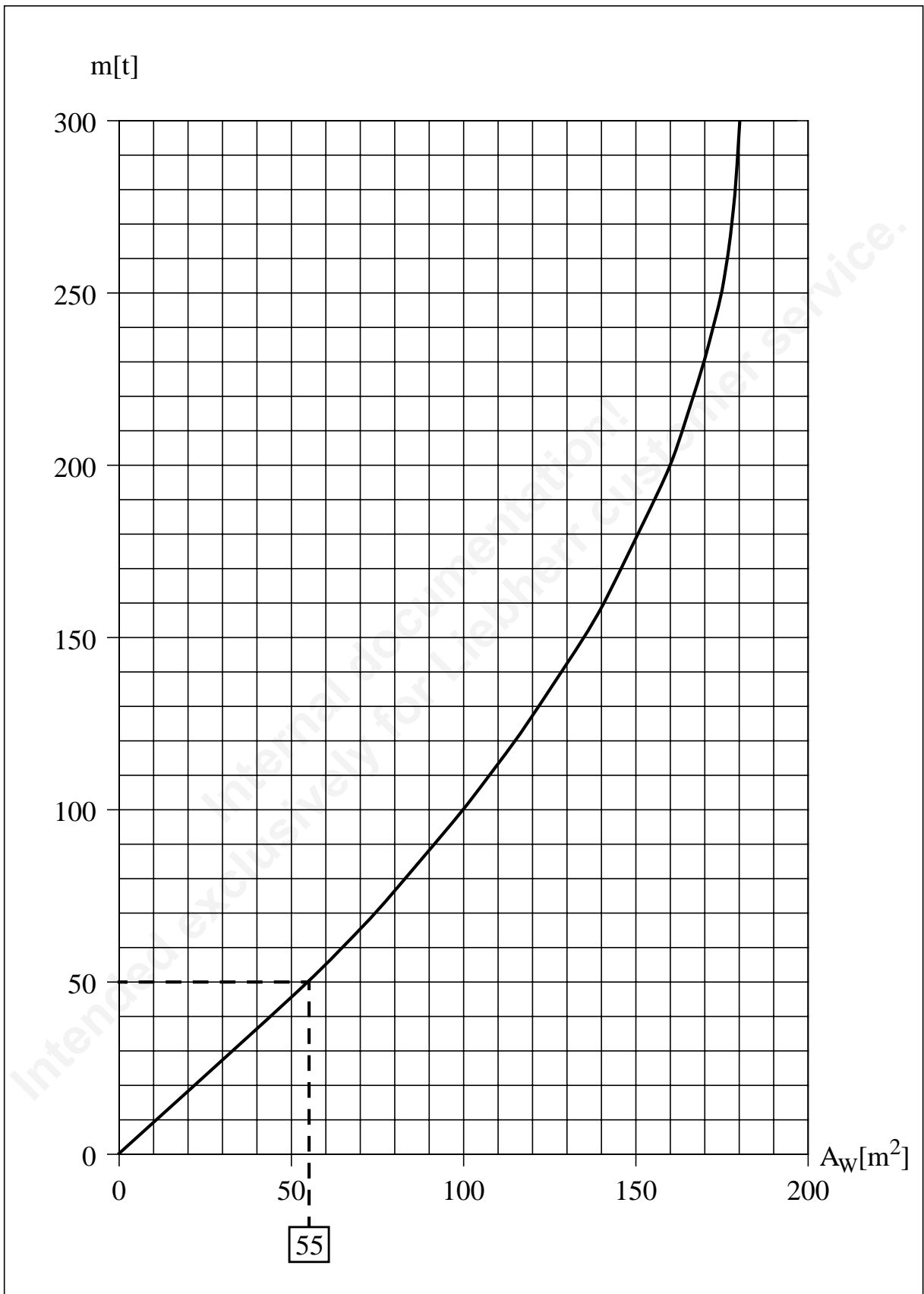
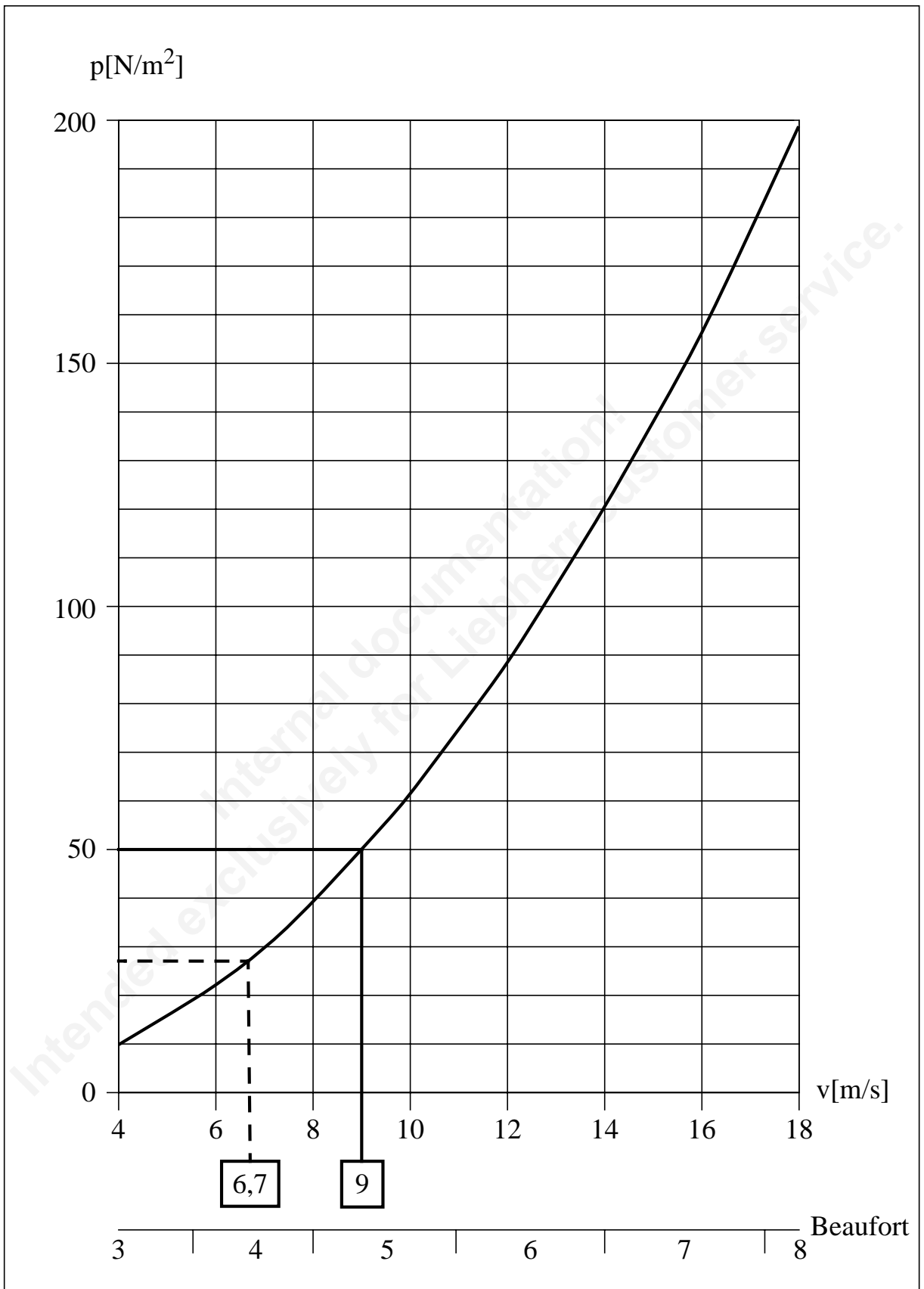
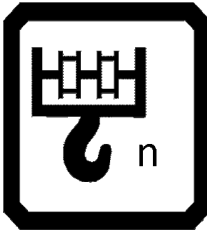


Diagramm 2





3

26 m T	--
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4

26 m T	K 0° 8.2m
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19

26 m T	K 15° 8.2m
--------	---------------



21

26 m T	K 30° 8.2m
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23

26 m T	K 0° 14.4m
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25

26 m T	K 15° 14.4m
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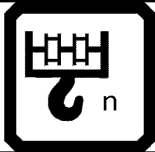

27

26 m T	K 30°
	14.4m



29

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1x	3.0
2x	5.9
3x	8.8
4x	11.6
5x	14.5
6x	17.2
7x	20.0
8x	22.6
9x	25.3
10x	27.9
11x	30.4
12x	33.0

66% NEN
75% DIN

26 m T	--
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0017880

TAB 81293

02.00

CODE >26< **TD81 0100**

	8.4	14.3											
m	8.4	14.3											
2.5	8.4												
3.0	7.0	6.1											
3.5	6.0	5.1											
4.0	4.9	4.3											
4.5	4.0	3.6											
5.0	3.4	3.1											
6.0	2.4	2.2											
7.0		1.5											
8.0		1.0											
9.0		0.7											
* n *	12	7											
%	1 2 3	0 0 0	33 33 33										
m/s	7.0	7.0											

	26 m T	--	2.1 t	17" 8	360°		
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66% NEN
75% DIN

26 m T	--
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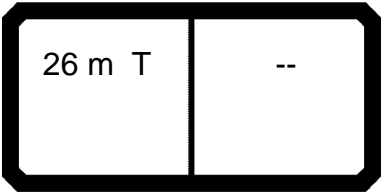
TAB 81291

02.00

			CODE >24<					TD81 0100							
	8.4	14.3													
2.5	10.5														
3.0	8.3	7.2													
3.5	6.9	6.1													
4.0	5.7	5.1													
4.5	4.7	4.3													
5.0	4.0	3.7													
6.0	3.0	2.7													
7.0		2.0													
8.0		1.4													
9.0		1.1													
10.0		0.8													
* n *	12	7													
	1	0	33												
	2	0	33												
	3	0	33												
m/s	7.0	7.0													

	26 m T	--	3.3 t	17" 8	360°		
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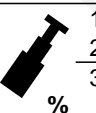

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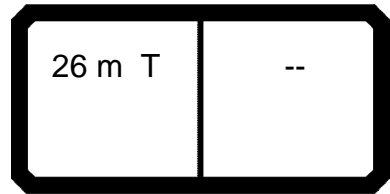
TAB 81290

02.00

 m		 m > < t		CODE >23<										TD81 0100			
		8.4	14.3														
2.5		11.9															
3.0		10.0	9.0														
3.5		8.4	7.5														
4.0		7.0	6.2														
4.5		5.9	5.3														
5.0		5.1	4.5														
6.0		3.8	3.4														
7.0			2.7														
8.0			2.1														
9.0			1.6														
10.0			1.3														
12.0			0.9														
* n *	12	7															
 %	1	0	33														
	2	0	33														
	3	0	33														
 m/s	7.0	7.0															





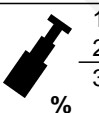

66% NEN
75% DIN

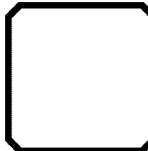
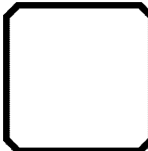
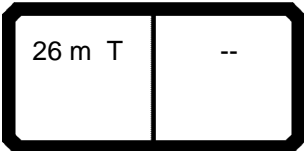
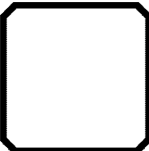


0017880

TAB 81287

02.00

  $m > t$		CODE >16<														TD81 0100	
m	8.4	14.3															
2.5	13.8																
3.0	12.3	10.4															
3.5	10.4	8.9															
4.0	8.5	7.7															
4.5	7.1	6.8															
5.0	6.1	6.0															
6.0	4.6	4.7															
7.0		3.7															
8.0		3.0															
9.0		2.4															
10.0		2.0															
12.0		1.5															
* n *	12	7															
 1 0 33 2 0 33 3 0 33 %																	
 m/s 7.0 7.0																	



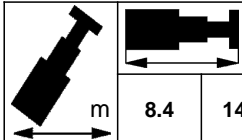
66% NEN
75% DIN

26 m T	--
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0017880

TAB 81291

02.00



m > t

CODE >44< **TD81 0100**

	8.4	14.3												
2.5	10.5													
3.0	8.3	7.2												
3.5	6.9	6.1												
4.0	5.7	5.1												
4.5	4.7	4.3												
5.0	4.0	3.7												
6.0	3.0	2.7												
7.0		2.0												
8.0		1.4												
9.0		1.1												
10.0		0.8												
Internal documentation for Liebherr exclusively for Liebherr Customer Service.														
* n *	12	7												
1	0	33												
2	0	33												
3	0	33												
%														
m/s	7.0	7.0												

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26 m T

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3.3
t



17" 8



!0°

--

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66% NEN
75% DIN




26 m T	--
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0017880

TAB 81286

02.00

				CODE >15<										TD81 0100			
		8.4	14.3														
2.5	13.9																
3.0	12.4	12.1															
3.5	11.1	10.4															
4.0	9.9	9.1															
4.5	8.3	8.0															
5.0	7.1	7.1															
6.0	5.4	5.6															
7.0		4.5															
8.0		3.7															
9.0		3.0															
10.0		2.6															
12.0		1.9															
* n *	12	7															
 1	0	33															
2	0	33															
3	0	33															
%																	
 m/s	7.0	7.0															

	26 m T	--	 5.3 t	 17'' 8	 !0°		
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
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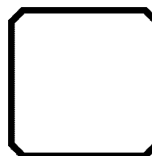



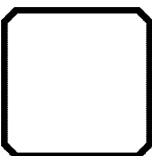
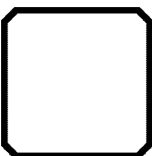
26 m T	--
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0017880

TAB 81290

02.00

 m	8.4	14.3	CODE >43<											TD81 0100						
2.5	11.9																			
3.0	10.0	9.0																		
3.5	8.4	7.5																		
4.0	7.0	6.2																		
4.5	5.9	5.3																		
5.0	5.1	4.5																		
6.0	3.8	3.4																		
7.0		2.7																		
8.0		2.1																		
9.0		1.6																		
10.0		1.3																		
12.0		0.9																		
* n *	12	7																		
 %	1 2 3	0 0 0	33 33 33																	
 m/s		7.0	7.0																	

	26 m T	--	 5.3 t	 17" 8	 ! 0°		
---	--------	----	---	---	---	---	---

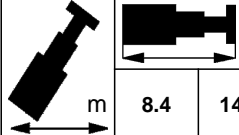
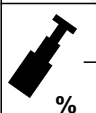

66% NEN
75% DIN





26 m T	--
--------	----

0017880

TAB 81271

02.00

 m	m > t					CODE >10<	TD81 0100						
	8.4	14.3	20.1	24.2	26.0								
2.5	23.4												
3.0	20.8	15.6											
3.5	18.7	15.9	13.2										
4.0	16.5	13.3	11.3	10.1									
4.5	13.3	11.3	9.7	8.9									
5.0	10.7	9.8	8.5	7.8	7.5								
6.0	7.5	7.6	6.7	6.3	6.1								
7.0		5.9	5.5	5.1	5.0								
8.0		4.6	4.5	4.3	4.2								
9.0		3.7	3.8	3.6	3.5								
10.0		3.1	3.1	3.1	3.0								
12.0		2.2	2.2	2.2	2.1								
14.0			1.6	1.6	1.6								
16.0			1.2	1.2	1.2								
18.0			0.9	0.9	0.9								
20.0				0.6	0.6								
* n *	12	7	6	5	4								
 %	1	0	33	66	90	100							
	2	0	33	66	90	100							
	3	0	33	66	90	100							
 m/s	7.0	7.0	7.0	7.0	7.0								

	26 m T	--	 2.1 t	 6.25 x 4.4 m	 360°		
---	--------	----	---	---	--	---	---

66% NEN
75% DIN

26 m T	--
--------	----

0017880

TAB 81267

02.00

m	CODE >06<					TD81 0100								
	8.4	14.3	20.1	24.2	26.0									
2.5	25.0													
3.0	22.7	15.6												
3.5	20.6	15.9	14.4											
4.0	18.5	16.2	14.3	12.0										
4.5	16.5	15.6	13.4	11.8										
5.0	14.5	13.6	11.8	10.9	10.0									
6.0	10.2	10.5	9.5	8.8	8.5									
7.0		8.0	7.8	7.3	7.1									
8.0		6.4	6.5	6.2	6.1									
9.0		5.3	5.4	5.3	5.2									
10.0		4.4	4.5	4.5	4.5									
12.0		3.2	3.3	3.3	3.3									
14.0			2.5	2.5	2.4									
16.0			1.9	1.9	1.9									
18.0			1.5	1.5	1.5									
20.0				1.2	1.2									
22.0				1.0	0.9									
24.0					0.8									
* n *	12	7	6	5	4									
1	0	33	66	90	100									
2	0	33	66	90	100									
3	0	33	66	90	100									
%														
m/s	7.0	7.0	7.0	7.0	7.0									



	26 m T	--		6.25 x 5.6 m			
--	--------	----	--	--------------------	--	--	--

26 m T	--
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0017880


TAB 81295


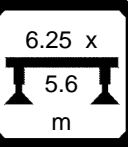
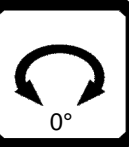
02.00



 $m > t$

CODE >02<

TD81 0100

m	8.4																
2.5	33.0																
3.0	25.0																
3.5	22.7																
4.0	20.7																
4.5	18.5																
5.0	16.6																
6.0	13.7																
* n *	12																
$\%$	1 2 3	0 0 0															
m/s		7.0															

	26 m T	--					
--	--------	----	---	---	--	--	--



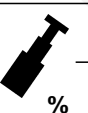

85% PCSA


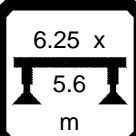

26 m T	--
--------	----

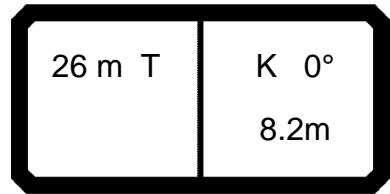
0017880

TAB 81294

02.00

		 $m > t$			CODE >01<							TD81 0100		
	m	8.4												
2.5		33.0												
3.0		25.1												
3.5		22.8												
4.0		20.7												
4.5		18.9												
5.0		17.3												
6.0		13.7												
* n *		12												
		1	0											
		2	0											
		3	0											
		%												
		m/s	7.0											



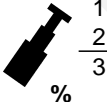
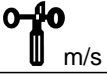
	26 m T	--	 5.3 t	 6.25 x 5.6 m	 0°		
--	--------	----	---	---	--	--	--

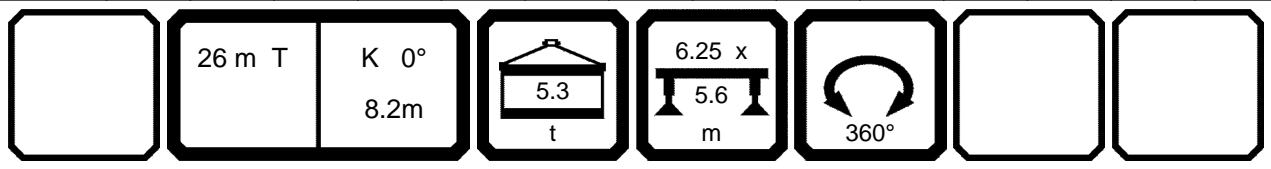


0017880

TAB 81298

02.00

			CODE >27<										TD81 0110					
	m > < t		24.2	26.0														
7.0	4.5	4.0																
8.0	4.4	3.7																
9.0	4.3	3.5																
10.0	4.2	3.5																
12.0	3.9	3.2																
14.0	3.4	2.9																
16.0	3.1	2.7																
18.0	2.6	2.4																
20.0	2.2	2.1																
22.0	1.8	1.8																
24.0	1.5	1.5																
26.0	1.3	1.3																
28.0	1.1	1.1																
30.0	1.0	0.9																
* n *	2	2																
	1	90	100															
	2	90	100															
	3	90	100															
%																		
	m/s	7.0	7.0															



85% PCSA

26 m T	K 15°
	8.2m

0017880

TAB 81301

02.00

 m	24.2	26.0	CODE >30<										TD81 0120			
	m	m	m													
9.0	3.3	2.8														
10.0	3.1	2.7														
12.0	2.9	2.5														
14.0	2.7	2.3														
16.0	2.5	2.2														
18.0	2.2	2.1														
20.0	1.8	1.8														
22.0	1.5	1.4														
24.0	1.2	1.2														
26.0	1.0	1.0														
28.0	0.8	0.8														
30.0		0.6														
* n *	2	1														
 %	1	90	100													
	2	90	100													
	3	90	100													
 m/s	7.0	7.0														

	26 m T	K 15°		6.25 x					
		8.2m	3.3	5.6	m	360°			
			t						

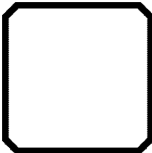
26 m T	K 15°
	8.2m

0017880

TAB 81300

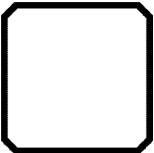
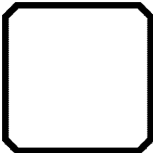
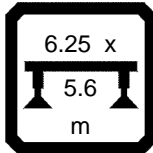
02.00

			CODE >29<										TD81 0120							
	m	24.2	26.0																	
9.0	3.3	2.8																		
10.0	3.1	2.7																		
12.0	2.9	2.5																		
14.0	2.7	2.3																		
16.0	2.5	2.2																		
18.0	2.4	2.1																		
20.0	2.3	1.9																		
22.0	1.9	1.8																		
24.0	1.6	1.6																		
26.0	1.4	1.3																		
28.0	1.2	1.1																		
30.0		0.9																		
* n *	2	1																		
	1	90	100																	
	2	90	100																	
	3	90	100																	
%																				
m/s	7.0	7.0																		



26 m T

K 15°
8.2m








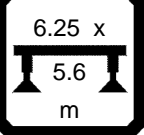

26 m T	K 15°
	14.4m

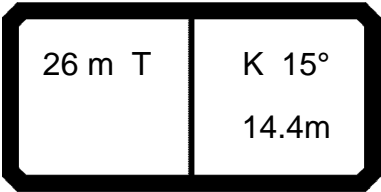
0017880

TAB 81301

02.00

 m	 m > < t		CODE >36<										TD81 0150					
	24.2	26.0																
12.0	1.5	1.5																
14.0	1.5	1.5																
16.0	1.4	1.4																
18.0	1.4	1.3																
20.0	1.3	1.3																
22.0	1.3	1.2																
24.0	1.2	1.1																
26.0	1.1	1.1																
28.0	0.9	0.9																
30.0	0.8	0.7																
32.0	0.6	0.6																
34.0	0.5	0.5																
* n *	1	1																
 %	1 2 3	90 90 90	100 100 100															
 m/s		7.0	7.0															

		26 m T	K 15°	 3.3 t	 6.25 x 5.6 m	 360°		
--	--	--------	-------	--	--	---	--	--

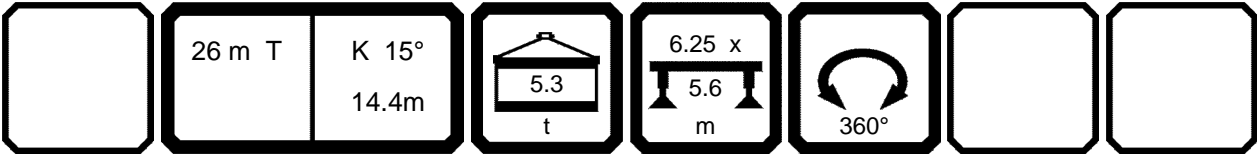


0017880

TAB 81300

02.00

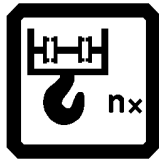
			CODE >35<										TD81 0150		
	24.2	26.0													
12.0	1.5	1.5													
14.0	1.5	1.5													
16.0	1.4	1.4													
18.0	1.4	1.3													
20.0	1.3	1.3													
22.0	1.3	1.2													
24.0	1.2	1.1													
26.0	1.2	1.1													
28.0	1.1	1.0													
30.0	1.1	0.9													
32.0	0.9	0.9													
34.0	0.8	0.7													
36.0		0.6													
* n *	1	1													
	1	90	100												
	2	90	100												
	3	90	100												
	m/s	7.0	7.0												



III - Supplement

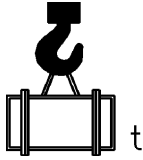
Explanation of symbols LTM 1030/1

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Internal documentation!*



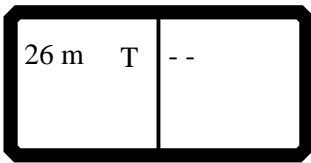
Hoisting rope reeving

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.

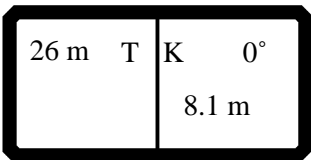


Operating mode

2part symbol

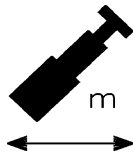
left side = Main boom mode

- Length of the main boom ex. : 26 m
- Main boom type ex.: T=Telescopic boom



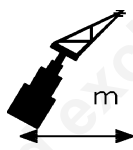
right side = Additional jib mode

- Additional jib type ex.: K=folding fly jib
- Angle of the additional jib ex.: 0° = 0 deg. offset from main boom
- Additional jib length ex.: 8.1 m



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, par example “ m> <t“ means that all lenggths 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).

Short code

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

CODE > **03** <

Hoisting rope reeving

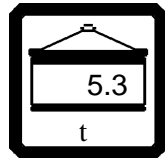
* n *

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.



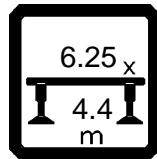
Extension conditions of the telescopic boom sections

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.



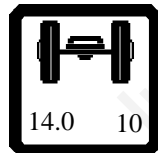
Counterweight

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.: 6.2 m x 4.4 m = length x 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.



Crane operations "Crane freestanding on tires"

Indication of the tire dimensions ex.: 14.00= 14.00-25
Indication of required tire pressure ex.: 10= 10 bar



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

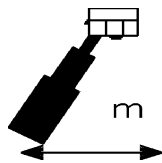
0° = working range to the rear

The appearance of !0° indicates that a load chart also exists for the 360° working range for the same equipment mode. If the slewing platform locking is not engaged, the LICCON automatically switches to the weaker load chart for the 360° working range. The displayed abbreviated code is different for the !0° working range and the 360° working range. If 0° appears, this means that there is no corresponding 360° load capacity table. In this case, if the slewing platform lock is not engaged, crane operation is not possible.



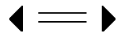
Permissible wind speed

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.

Internal documentation
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