

Construction Machine

# HS 8300 HD

Litronic®

EN

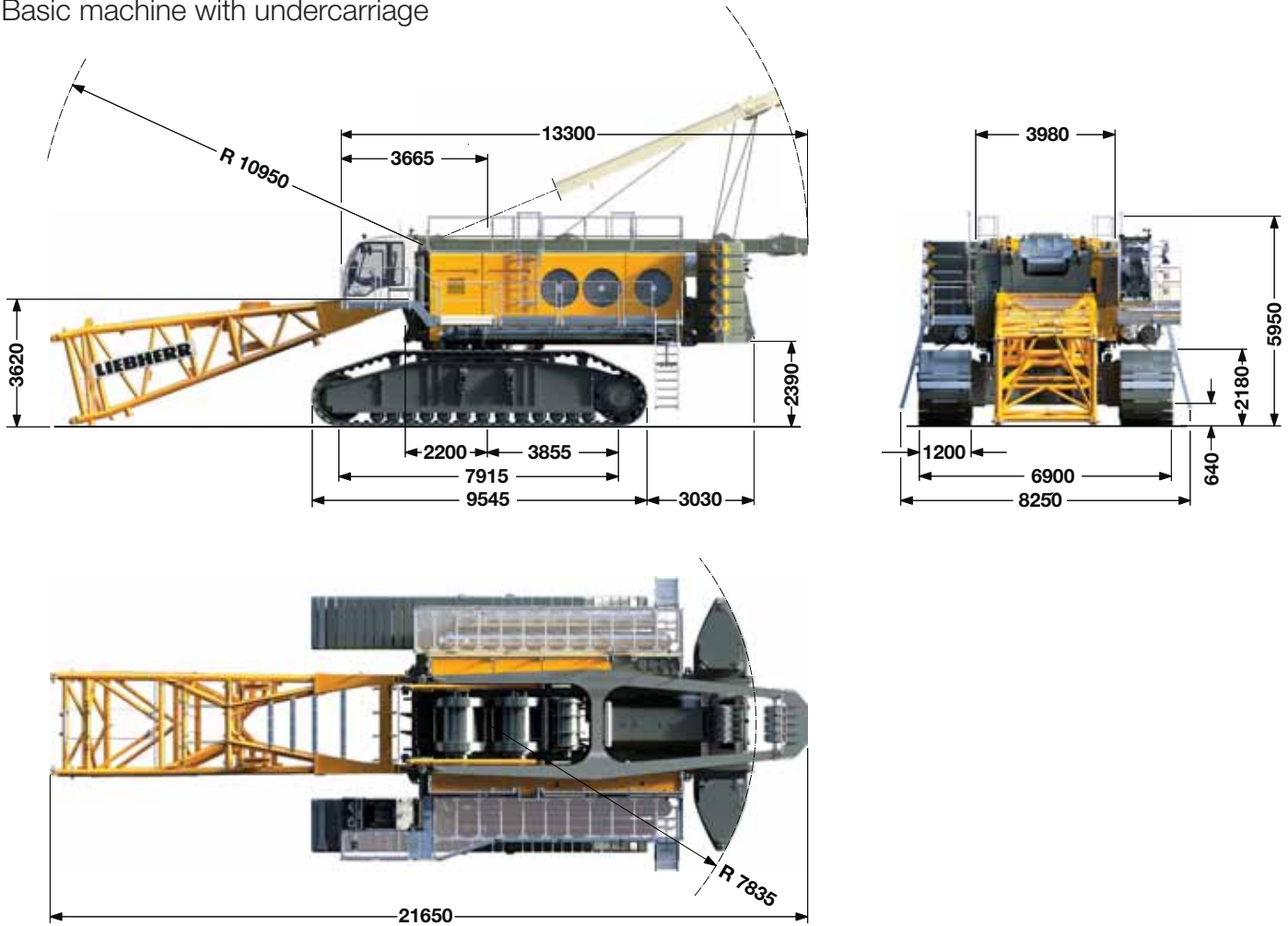
HS 8008.01



# LIEBHERR

# Dimensions

Basic machine with undercarriage



## Operating weight

The operating weight includes the basic machine with HD undercarriage, 2 main winches 500 kN including wire ropes (250 m) and 20 m main boom, consisting of A-frame, boom foot (10 m) and boom head (10 m), 78.7 t basic counterweight, 1200 mm track pads and 300 t hook block.

Total weight \_\_\_\_\_ approx. 352 t

## Equipment

Main boom (No. 2724.35) max. length \_\_\_\_\_ 68 m  
Modular designed equipment for lifting operation, with dragline or clamshell.

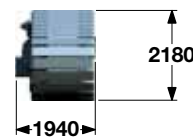
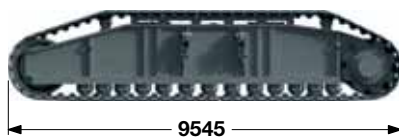
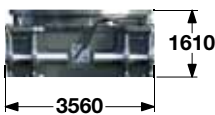
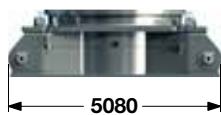
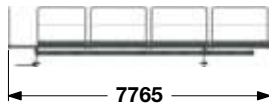
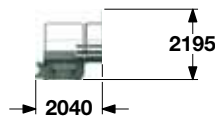
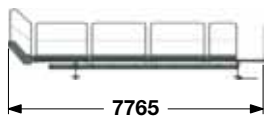
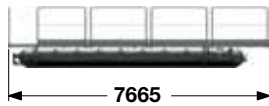
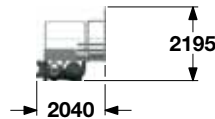
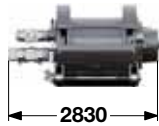
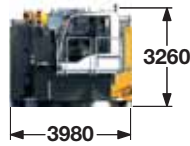
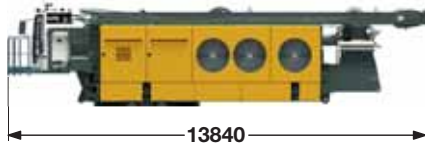
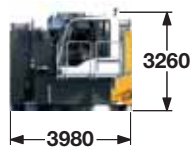
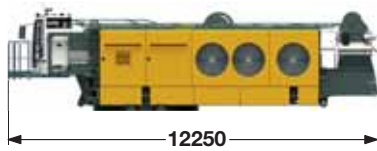
For dragline operation, a rotating fairlead is fitted into the boom foot. This minimizes the rope angle to drum, which results in lower rope wear.

## Remarks

1. Liebherr cable excavator HS 8008.01
2. Designed according to EN 474-1 and EN 474-12.
3. Machine standing on firm, horizontal ground.
4. The weight of the lifting device (hoist ropes, hook block, shackle etc.) must be deducted from the gross lifting capacity to obtain a net lifting value.
5. Additional equipment on boom (e.g. boom catwalks, auxiliary jib) must be deducted to get the net lifting capacity.
6. For max. wind speed please refer to lift chart in operator's cab or manual.
7. Working radii are measured from centre of swing and under load.
8. The lifting capacities are valid for 360 degrees of swing.

# Transport dimensions and weights

## Basic machine



### Basic machine

without HD undercarriage, boom, boom backstops, A-frame, main winches (2x 500 kN), walkways and counterweight.

Weight 68950 kg

### Basic machine

with A-frame, boom backstops, main winches (2x 500 kN) without wire ropes (250 m), without walkways, HD undercarriage, boom and counterweight.

Weight 99900 kg

### A-frame

Weight 7400 kg

### Main winches

2x

Weight winch I without wire ropes 12000 kg

Weight winch II without wire ropes 12000 kg

### Walkway with Pactronic® (left)

option

Weight 6550 kg

### Walkway with Pactronic® (right)

option

Weight 6450 kg

### Standard walkway (left)

Weight 670 kg

### Standard walkway (right)

Weight 630 kg

### Centre section of undercarriage

Weight 36250 kg

### Crawlers

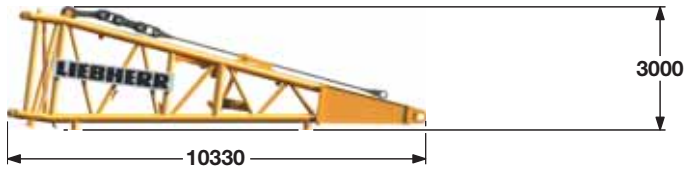
2x

Weight of crawler left (track pads 1200 mm) 46400 kg

Weight of crawler right (track pads 1200 mm) 46400 kg

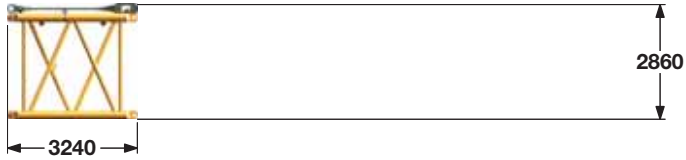
# Transport dimensions and weights

Main boom (No. 2724.35)



## Boom foot (No. 2724.35)

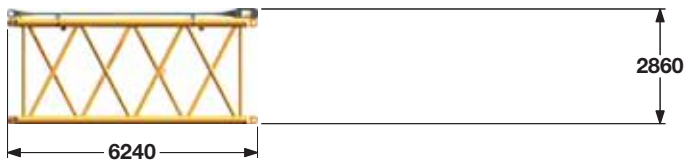
Width	3090 mm
Weight*	10300 kg



## Boom section (No. 2724.35)

**3 m**

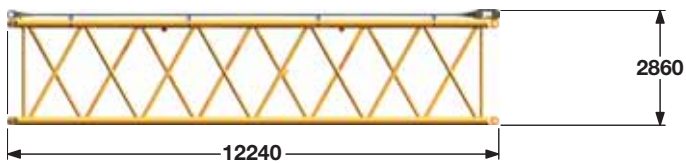
Width	2940 mm
Weight*	2500 kg



## Boom section (No. 2724.35)

**6 m**

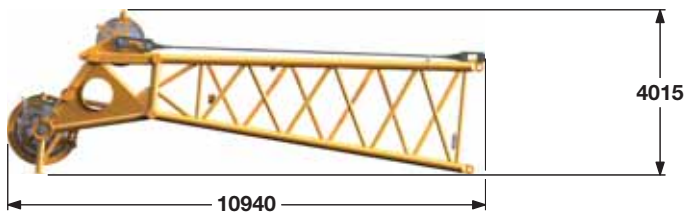
Width	2940 mm
Weight*	3600 kg



## Boom section (No. 2724.35)

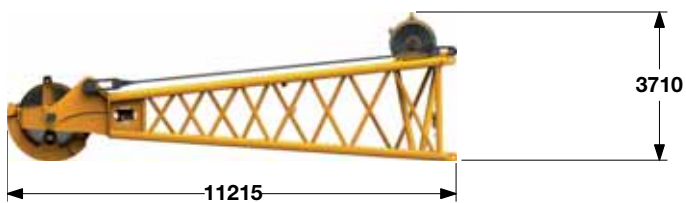
**12 m**

Width	2940 mm
Weight*	6300 kg



## Boom head\*\* (No. 2724.35)

Width	2940 mm
Weight*	10100 kg



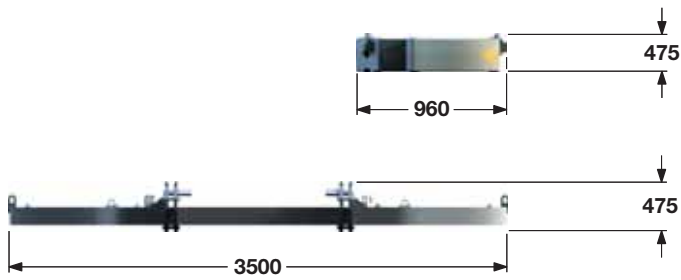
## Special boom head\*\* (No. 2724.35)

Width	2940 mm
Weight*	9300 kg

\*) Including pendant ropes, without auxiliary equipment

\*\*) Steel sheaves

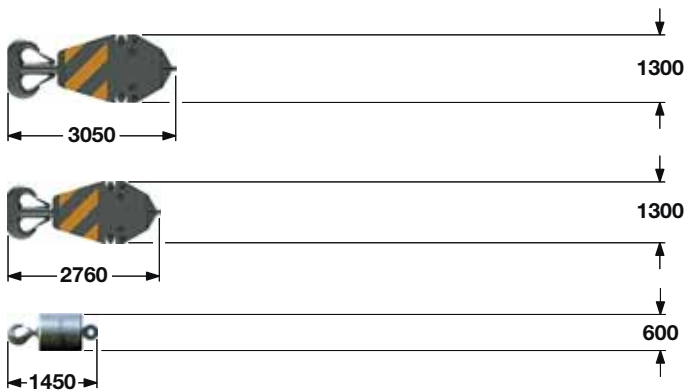
## Counterweight



Counterweight	12 x
Width	850 mm
Weight	5000 kg

Counterweight	1 x
Width	1050 mm
Weight	18700 kg

## Hooks



300 t hook block - 4 sheaves	
Width	840 mm
Weight	4000 kg

150 t hook block - 1 sheave	
Width	630 mm
Weight	3000 kg

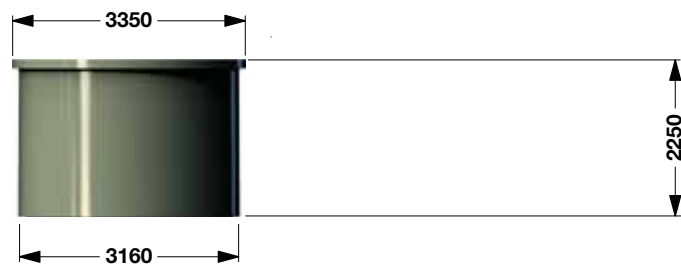
50 t single hook	
Width	600 mm
Weight	1600 kg

## Boom section with hydraulics



Boom section with hydraulics	3 m
Width	4300 mm
Weight*	7700 kg

## Pedestal



Pedestal	
Width	3160 mm
Weight	14760 kg

# Liebherr machine HS 8300 HD Hybrid

## Powerful, energy-efficient hybrid drive

The new HS 8300 HD is fitted with the Pactronic® system developed by Liebherr. This innovative hybrid drive based on hydraulics offers both economic and ecological advantages. Storing and subsequent regenerating of surplus power allows to increase turnover and to significantly lower fuel consumption. The proven technology of the hydraulic accumulator ensures low maintenance requirements and maximum reliability. The decreased energy consumption considerably lowers emissions and thus improves environmental compatibility.

### Pactronic® - Lowering mode

- A secondary energy source is added to the drive system.
- The accumulator is charged by regenerating the reverse power while lowering the load.
- The additional surplus power of the primary energy source is used for charging.

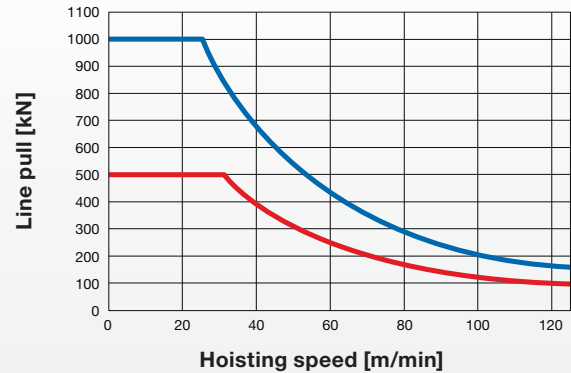
### Pactronic® - Hoisting mode

- Stored energy is transferred to the system when the machine requires peak power for hoisting.
- The total hoisting power is the sum of the conventional hydrostatic power and the secondary energy from the accumulator.

### Key advantages of Pactronic®

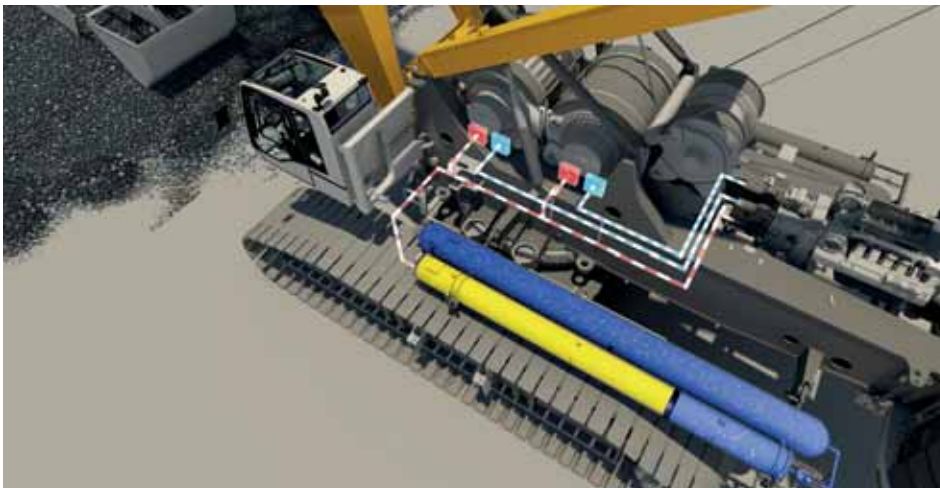
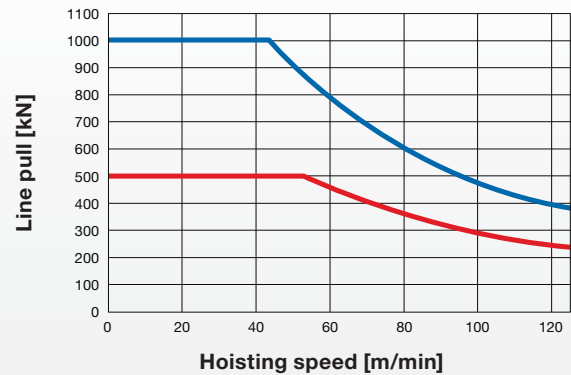
- 725 kW diesel engine combined with Pactronic® allows to achieve a system power comparable to a conventional drive system with 1,250 kW
- Effective hoisting power of 800 kW
- Reduced fuel consumption resulting in less CO<sub>2</sub> emission
- Lower noise emission
- Increased hoisting power
- Increased lowering power
- Higher turnover with identical prime mover

Winch diagram without Pactronic®



- 2-winch operation
- 1-winch operation

Winch diagram with Pactronic®



Machine class	300 t
Engine power Tier 4i according to EPA/CARB	725 kW
System power with Pactronic®	1250 kW
Winches	500 kN
Boom - lifting operation	68 m
Boom - clamshell	68 m

# Technical description



## Engine

Power rating according to ISO 9249, 750 kW (1005 hp) at 1700 rpm  
Engine type \_\_\_\_\_ Liebherr D 9512 A7-00  
Fuel tank \_\_\_\_\_ 1170 l capacity with continuous level  
\_\_\_\_\_ indicator and reserve warning  
AdBlue tank \_\_\_\_\_ 230 l capacity with continuous level  
\_\_\_\_\_ indicator and reserve warning

Power rating according to ISO 9249, 750 kW (1005 hp) at 1700 rpm  
Modell \_\_\_\_\_ Liebherr D 9512 A7-04  
Fuel tank \_\_\_\_\_ 1170 l capacity with continuous level  
\_\_\_\_\_ indicator and reserve warning  
AdBlue tank \_\_\_\_\_ 230 l capacity with continuous level  
\_\_\_\_\_ indicator and reserve warning

Engine complies with NRMM exhaust certification EPA/CARB Tier 4f.

### ECO-Silent-Mode:

For work not requiring high engine power, the diesel engine can be operated in the ECO-Silent-Mode (e.g. for inserting reinforcement cages, for dragline or lifting operation).

Due to the ECO-Silent-Mode which can be preselected by the operator the engine runs with optimum fuel efficiency. This lowers consumption and reduces noise emission.



## Hydraulic system

The main pumps are operated by a distributor gearbox. Axial piston displacement pumps work in closed and open circuits supplying oil only when needed (flow control on demand). To minimize peak pressure an automatically working pressure cut-off is integrated. This spares pumps and saves energy. The hydraulic oil is cleaned through electronically controlled pressure and return filters. Possible contamination is signaled in the cabin.

Ready made hydraulic retrofit kits are available to customize requirements e.g. powering casing oscillators, VM vibrators, hydraulic grabs, fixed leaders etc.

Working pressure \_\_\_\_\_ max. 400 bar  
Oil tank capacity \_\_\_\_\_ 2800 l



## Boom winch

Line pull \_\_\_\_\_ max. 150 kN  
Rope diameter \_\_\_\_\_ 24 mm  
Boom up \_\_\_\_\_ 130 sec. from 15° to 84°



## Crawlers

The track width of the undercarriage is changed hydraulically. Propulsion through axial piston motor, hydraulically released spring loaded multi-disc brake, maintenance-free crawler tracks, hydraulic chain tensioning device.

Track pads \_\_\_\_\_ 1200 mm  
Track pads (option) \_\_\_\_\_ 1500 mm  
Drive speed \_\_\_\_\_ 0 – 1.4 km/h



## Main winches

### Winch options:

Line pull (nom. load) \_\_\_\_\_ 500 kN  
Rope diameter \_\_\_\_\_ 46 mm  
Drum diameter \_\_\_\_\_ 1100 mm  
Rope speed \_\_\_\_\_ 0-125 m/min  
Rope capacity 1st layer \_\_\_\_\_ 69.1 m

The winches are outstanding in their compact design and easy assembly. Clutch and braking functions on the free-fall system are provided by a compact designed, low wear and maintenance-free multi-disc brake. The drag and hoist winches use pressure controlled, variable flow hydraulic motors. This system features sensors that automatically adjust oil flow to provide max. winch speed depending on load.



## Swing

Consists of rollerbearing with external teeth for lower tooth flank pressure, fixed axial piston hydraulic motor, spring loaded and hydraulically released multi-disc holding brake, planetary gearbox and pinion.

Swing speed from 0–3.6 rpm continuously variable, selector for 3 speed ranges to increase swing precision.

Standard:  
4 swing drives



## Control

The core of the Liebherr machines is the Litronic control system.

Developed and manufactured by Liebherr, this comprehensive system encompasses all control and monitoring functions and is designed to withstand extreme temperature changes and the rough heavy duty tasks common in the construction industry. Complete machine operating data, warnings and failure indications are clearly displayed in the required language on the high resolution monitor in the operator's cab.

Documentation of operating data (PDE) enables optimum diagnosis as well as early detection and prevention of more serious defects.

An electro-hydraulic proportional control allows several movements to be performed simultaneously. This ensures that all categories of loads can be positioned with utmost precision.

### Options:

- PDE: Process data recording
- GSM/GPRS telematics module
- Special demolition control system



## Noise emission

Noise emissions correspond with 2000/14/EC directive.

Guaranteed sound pressure level  $L_{PA}$  in the cabin \_\_\_\_\_ 72.3 dB(A)

Guaranteed sound power level  $L_{WA}$  \_\_\_\_\_ 115 dB(A)

Vibration transmitted to the hand-arm system of the machine operator \_\_\_\_\_ < 2.5 m/s<sup>2</sup>

Vibration transmitted to the whole body of the machine operator \_\_\_\_\_ < 0.5 m/s<sup>2</sup>

# Equipment

Orange peel grab and clamshell



HS 8300 HD orange peel grab



HS 8300 HD clamshell

## Orange peel grab

Winch options 2 x 500 kN

### Maximum capacity in duty cycle operation with standard ropes

Line pull (1st layer)	500 kN
Rope diameter	46 mm
Minimum breaking load	1760 kN
Line pull - 1-rope duty cycle operation	500 kN
Line pull - 2-rope duty cycle operation <sup>1)</sup>	758 kN

Capacities in duty cycle operation are for reference only and are not programmed in the LMI system.

All loads and counterweight configurations are max. values and must not be exceeded.

Weight of additional equipment on boom (e.g. walkways, hose drums etc.) must be deducted to get the net capacity.

## Clamshell

Winch options 2 x 500 kN

- 1) Lifting a load exceeding the line pull of one winch is only allowed if it can be ensured that each individual winch is not overloaded. When working with a mechanical 2-rope grab the total load to be lifted is limited by the line pull of one winch. Rigging and ropes are part of the load. Max. capacities in metric tonnes do not exceed 66.7% of tipping load.



# Load chart for rock handling

Main boom No. 2724.35 with 78.7 t counterweight

Capacities in metric tonnes for boom lengths (20 m - 68 m) with 500 kN winches and 78.7 t counterweight

Radius (m)	Boom length in (m)																Radius (m)	
	20	23	26	29	32	35	38	41	44	47	50	53	56	59	62	65		68
5.5	200.0																	5.5
6	200.0	200.0																6
7	200.0	200.0	200.0	194.2	184.1													7
8	200.0	200.0	195.1	185.5	176.0	165.3	156.5	148.6	139.5									8
9	182.5	182.5	182.5	177.7	167.3	158.0	150.1	141.5	134.3	127.5	121.6	113.4						9
10	155.1	155.0	155.0	154.8	154.6	151.2	142.8	135.2	129.0	121.9	115.4	109.5	104.6	99.2	92.8			10
12	118.4	118.4	118.3	118.0	117.9	117.6	117.3	117.0	116.7	111.3	105.7	100.3	95.9	90.9	86.0	81.5	77.9	12
16	79.4	79.3	79.2	79.0	78.8	78.5	78.2	77.8	77.5	77.2	76.8	76.4	76.0	75.6	74.2	72.2	69.2	16
20	58.0	58.0	58.0	57.8	57.7	57.3	57.0	56.6	56.3	55.9	55.5	55.1	54.7	54.3	53.9	53.5	53.1	20
22	50.4	50.6	50.7	50.5	50.4	50.1	49.8	49.3	49.1	48.6	48.2	47.8	47.4	47.0	46.6	46.1	45.7	22
24		44.6	44.8	44.5	44.5	44.2	43.9	43.4	43.2	42.7	42.3	41.9	41.5	41.1	40.7	40.2	39.8	24
28			35.4	35.4	35.5	35.1	34.9	34.4	34.2	33.7	33.3	32.9	32.5	32.1	31.6	31.2	30.7	28
30				31.7	31.9	31.6	31.3	30.9	30.7	30.2	29.8	29.4	29.0	28.5	28.1	27.6	27.2	30
34					24.6	25.8	25.6	25.2	25.0	24.6	24.2	23.7	23.3	22.9	22.4	21.9	21.5	34
36						23.4	23.2	22.8	22.7	22.2	21.8	21.4	21.0	20.5	20.1	19.6	19.2	36
38							21.1	20.7	20.6	20.1	19.8	19.3	19.0	18.5	18.0	17.5	17.1	38
42								16.7	17.0	16.6	16.2	15.8	15.4	15.0	14.5	14.0	13.6	42
44									15.4	15.0	14.7	14.2	13.9	13.5	13.0	12.5	12.1	44
48										10.5	12.0	11.6	11.3	10.8	10.4	9.9	9.5	48
50											10.4	10.4	10.2	9.7	9.3	8.7	8.4	50
55													6.9	7.0	6.5	5.8	5.3	55
60															3.3	3.0	2.5	60

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# Load chart for clamshell

Main boom No. 2724.35 with 78.7 t counterweight

Capacities in metric tonnes for boom lengths (20 m - 68 m) with 500 kN winches and 78.7 t counterweight

Radius (m)	Boom length in (m)																Radius (m)	
	20	23	26	29	32	35	38	41	44	47	50	53	56	59	62	65		68
6.7			75.8															6.7
7	75.8	75.8	75.8	75.8														7
8	75.8	75.8	75.8	75.8	75.8	75.8	75.8											8
9	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8								9
10	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8					10
12	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.1	74.5	70.2	66.1	62.1	58.8	12
14	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.4	75.4	75.8	70.9	68.4	64.6	61.0	57.1	53.6	14
16	75.8	75.8	75.2	75.8	75.8	73.5	74.6	75.8	74.7	70.5	69.4	65.6	63.5	60.2	56.7	53.1	49.9	16
18	67.3	67.3	67.3	67.0	66.9	66.5	66.2	65.8	65.5	65.1	62.6	58.0	55.0	52.4	51.3	50.0	47.3	18
20	58.0	58.0	58.0	57.8	57.7	57.3	57.0	56.6	56.3	55.9	55.5	52.4	48.3	44.6	43.5	42.4	41.4	20
22	40.4	50.6	50.7	50.5	50.4	50.1	49.8	49.3	49.1	48.3	47.7	45.8	43.0	38.8	37.4	36.3	35.2	22
24		40.7	44.8	44.5	44.5	44.2	43.9	43.4	43.2	40.7	40.5	39.4	37.6	34.4	33.0	31.6	30.3	24
28			25.7	32.6	35.5	35.1	34.9	34.4	33.8	31.8	30.9	30.1	29.3	27.4	25.9	24.6	23.4	28
30				24.9	30.0	30.9	31.0	30.7	30.0	28.4	27.6	26.7	26.2	24.8	23.2	21.7	20.6	30
34					17.6	22.0	23.9	23.8	23.8	23.2	22.2	21.2	20.6	19.7	18.6	17.3	16.2	34
36						16.9	20.1	20.9	21.0	20.6	20.0	19.0	18.3	17.3	16.4	15.3	14.4	36
38							15.9	17.9	18.1	17.4	16.8	16.0	15.6	14.8	14.1	13.3	12.6	38
42								11.0	12.3	11.6	11.1	10.3	9.9	9.1	8.4	7.6	7.1	42
44									9.7	9.1	8.6	7.8	7.4	6.6	6.0	5.2	4.6	44
48										4.5	4.1	3.4	3.1	3.0	3.0	2.9	2.8	48
50											3.0	2.9	2.9	2.8	2.7	2.6	2.6	50
55													2.4	2.3	2.2	2.1	2.1	55

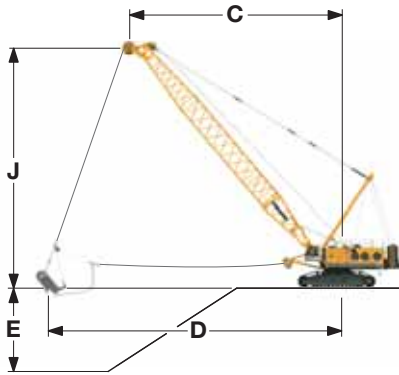
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Max. lifting capacity with mechanical grab is 50 metric tonnes. For higher lifting capacities a hydraulic grab with multi-reeving is required.

Above load chart is for reference only. For actual lift duty please refer to load chart in operator's cab or manual. Capacities in duty cycle operation are for reference only and are not programmed in the LMI system.

# Equipment

Dragline bucket with standard boom head



## Digging diagram

- C = Radius / dumping radius
- D = Max. digging radius = approx. C + 1/3 to 1/2 J
- E = Digging depth = approx. 40 - 50 % of C
- J = Height to centre rope pulley boom head

## Dragline bucket

Winch options

2 x 500 kN

# Load chart for dragline equipment (standard)

Main boom No. 2724.35 with 78.7 t counterweight

## Capacities in metric tonnes for boom lengths (26 m - 50 m) with 500 kN winches and 78.7 t counterweight

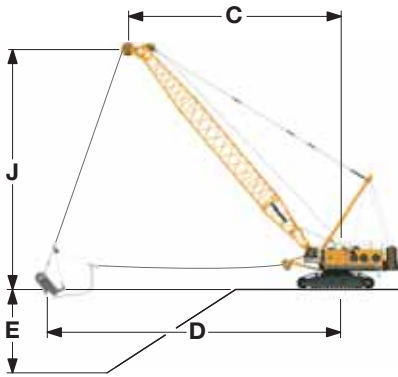
Boom length in (m)

	26			32			35			38			41			44			50		
	C	J	t	C	J	t	C	J	t	C	J	t	C	J	t	C	J	t	C	J	t
alpha	(m)	(m)	t	(m)	(m)	t	(m)	(m)	t	(m)	(m)	t	(m)	(m)	t	(m)	(m)	t	(m)	(m)	t
60	16.9	25.5	<b>50.0</b>	19.9	30.7	<b>50.0</b>	21.4	33.3	<b>50.0</b>	22.9	35.9	<b>50.0</b>	24.4	38.5	<b>44.8</b>	25.9	41.1	<b>38.7</b>	28.9	46.3	<b>29,4</b>
55	18.7	24.2	<b>50.0</b>	22.2	29.2	<b>50.0</b>	23.9	31.6	<b>48.1</b>	25.6	34.1	<b>41.7</b>	27.3	36.5	<b>36.3</b>	29.0	39.0	<b>31.8</b>	32.5	43.9	<b>24,0</b>
50	20.5	22.8	<b>50.0</b>	24.3	27.4	<b>49.1</b>	26.2	29.7	<b>40.6</b>	28.2	32.0	<b>34.9</b>	30.1	34.3	<b>30.5</b>	32.0	36.6	<b>26.9</b>	35.9	41.2	<b>20,2</b>
45	22.1	21.2	<b>50.0</b>	26.3	25.4	<b>41.4</b>	28.4	27.5	<b>34.7</b>	30.5	29.6	<b>29.9</b>	32.7	31.8	<b>25.9</b>	34.8	33.9	<b>22.7</b>	39.0	38.1	<b>15,2</b>
40	23.5	19.4	<b>49.7</b>	28.1	23.3	<b>35.4</b>	30.4	25.2	<b>30.0</b>	32.7	27.1	<b>25.9</b>	35.0	29.1	<b>22.3</b>	37.3	31.0	<b>19.2</b>	41.9	34.8	<b>11,2</b>
35	24.8	17.6	<b>43.4</b>	29.7	21.0	<b>30.8</b>	32.2	22.7	<b>26.5</b>	34.6	24.4	<b>22.9</b>	37.1	26.2	<b>19.5</b>	39.6	27.9	<b>15.7</b>	44.5	31.3	<b>8,0</b>
30	25.9	15.6	<b>37.2</b>	31.1	18.6	<b>26.5</b>	33.7	20.1	<b>22.6</b>	36.3	21.6	<b>19.4</b>	38.9	23.1	<b>16.3</b>	41.5	24.6	<b>12.9</b>	46.7	27.6	<b>5,5</b>
25	26.9	13.5	<b>32.0</b>	32.3	16.1	<b>22.9</b>	35.1	17.3	<b>19.3</b>	37.8	18.6	<b>16.4</b>	40.5	19.9	<b>13.6</b>	43.2	21.1	<b>10.7</b>	48.6	23.7	<b>3,5</b>

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Max. capacities in metric tonnes do not exceed 75% of tipping load. Capacities in duty cycle operation are for reference only and are not programmed in the LMI system. The size of the bucket has to be determined according to local conditions.

## Dragline bucket with special boom head



### Digging diagram

- C = Radius / dumping radius
- D = Max. digging radius = approx. C + 1/3 to 1/2 J
- E = Digging depth = approx. 40 - 50 % of C
- J = Height to centre rope pulley boom head



### Dragline bucket

Winch options

2 x 500 kN

## Load chart for dragline equipment (special boom head)

Main boom No. 2724.35 with 78.7 t counterweight

### Capacities in metric tonnes for boom lengths (26 m - 50 m) with 500 kN winches and 78.7 t counterweight

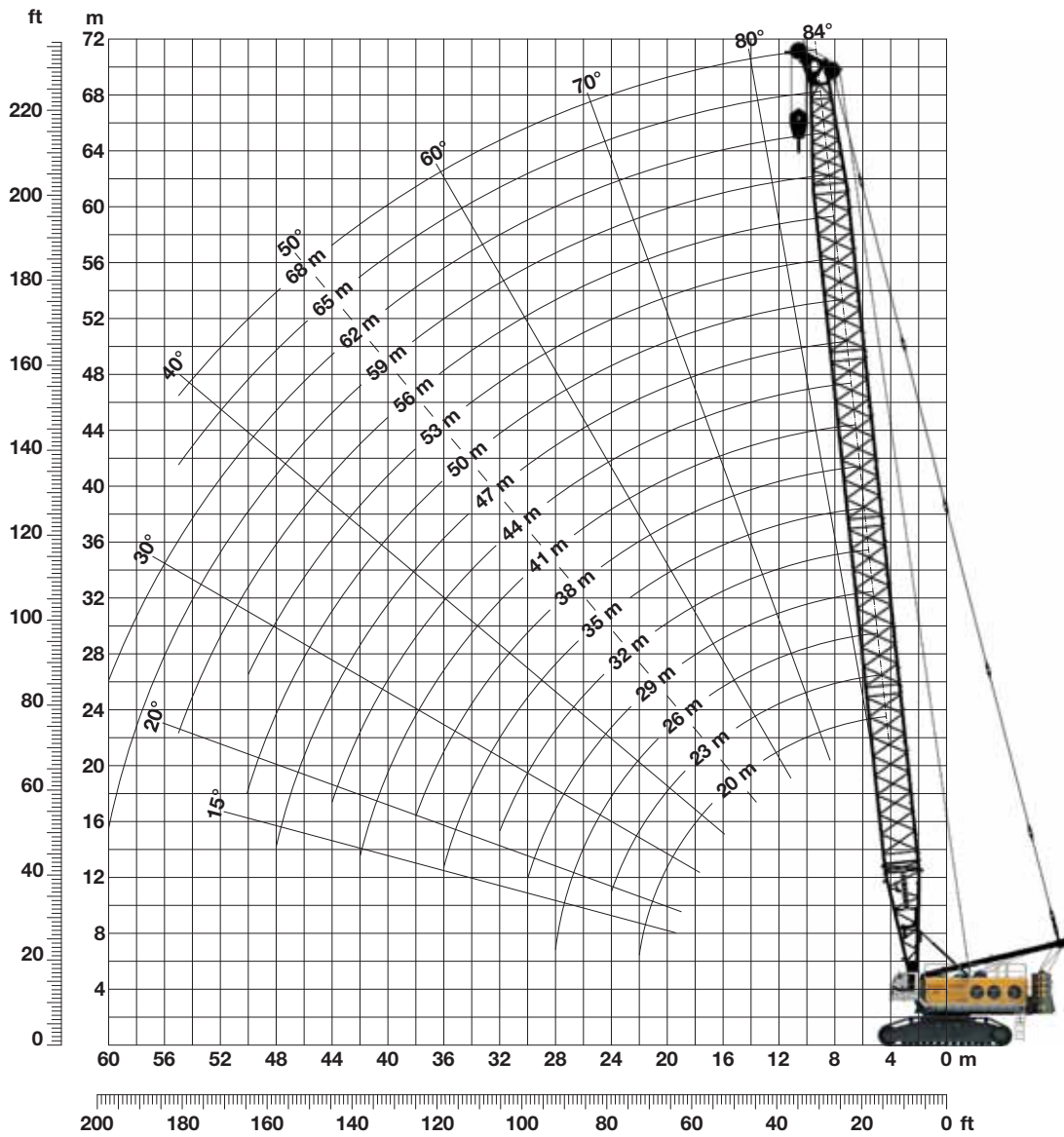
	Boom length in (m)																				
	26		32		35		38		41		44		50								
alpha	C (m)	J (m)	t	C (m)	J (m)	t	C (m)	J (m)	t	C (m)	J (m)	t	C (m)	J (m)	t	C (m)	J (m)	t	C (m)	J (m)	t
60	16.0	26.1	<b>50.0</b>	19.0	31.3	<b>50.0</b>	20.5	33.9	<b>50.0</b>	22.0	36.5	<b>50.0</b>	23.5	39.1	<b>49.8</b>	25.0	41.7	<b>43.7</b>	28.0	46.9	<b>32.2</b>
55	17.9	24.9	<b>50.0</b>	21.3	29.8	<b>50.0</b>	23.1	32.3	<b>50.0</b>	24.8	34.8	<b>45.4</b>	26.5	37.2	<b>39.9</b>	28.2	39.7	<b>35.2</b>	31.7	44.6	<b>26.5</b>
50	19.7	23.5	<b>50.0</b>	23.5	28.1	<b>50.0</b>	25.5	30.4	<b>45.4</b>	27.4	32.7	<b>37.7</b>	29.3	35.0	<b>33.3</b>	31.3	37.3	<b>29.4</b>	35.1	41.9	<b>22.4</b>
45	21.4	22.0	<b>50.0</b>	25.6	26.3	<b>45.4</b>	27.7	28.4	<b>38.4</b>	29.9	30.5	<b>32.3</b>	32.0	32.6	<b>28.3</b>	34.1	34.7	<b>24.9</b>	38.3	39.0	<b>17.6</b>
40	22.9	20.3	<b>50.0</b>	27.5	24.2	<b>38.4</b>	29.8	26.1	<b>32.8</b>	32.1	28.1	<b>28.1</b>	34.4	30.0	<b>24.4</b>	36.7	31.9	<b>21.4</b>	41.3	35.8	<b>13.4</b>
35	24.3	18.5	<b>48.3</b>	29.2	22.0	<b>33.2</b>	31.7	23.7	<b>28.6</b>	34.1	25.4	<b>24.9</b>	36.6	27.1	<b>21.4</b>	39.0	28.9	<b>18.0</b>	43.9	32.3	<b>10.1</b>
30	25.5	16.6	<b>41.1</b>	30.7	19.6	<b>28.6</b>	33.3	21.1	<b>24.5</b>	35.9	22.6	<b>21.2</b>	38.5	24.1	<b>18.0</b>	41.1	25.6	<b>15.0</b>	46.3	28.6	<b>7.4</b>
25	26.5	14.6	<b>35.0</b>	32.0	17.1	<b>24.7</b>	34.7	18.4	<b>21.1</b>	37.4	19.7	<b>18.1</b>	40.1	21.0	<b>15.2</b>	42.9	22.2	<b>12.7</b>	48.3	24.8	<b>5.4</b>

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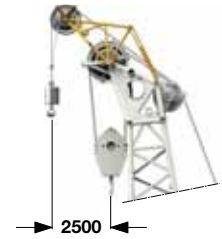
Max. capacities in metric tons do not exceed 75% of tipping load. Capacities in duty cycle operation are for reference only and are not programmed in the LMI system. The size of the bucket has to be determined according to local conditions.

# Working range - main boom 84° - 15°

Main boom No. 2724.35 with 78.7 t counterweight



Auxiliary jib 50 t



The maximum capacity of the auxiliary jib is 50 t. The corresponding load chart is programmed in the LMI system.

## Main boom

from 20 m to 68 m (table 1 - No. 2724.35)

	Length	Configuration for boom lengths																
		20	23	26	29	32	35	38	41	44	47	50	53	56	59	62	65	68
Boom foot	10.0 m	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Boom section	3.0 m		1		1		1		1		1		1		1		1	
Boom section	6.0 m			1	1			1	1		1	1			1	1		1
Boom section	12.0 m					1	1	1	1	2	2	2	2	3	3	3	3	4
Boom head	10.0 m	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<b>Boom length (m)</b>		<b>20</b>	<b>23</b>	<b>26</b>	<b>29</b>	<b>32</b>	<b>35</b>	<b>38</b>	<b>41</b>	<b>44</b>	<b>47</b>	<b>50</b>	<b>53</b>	<b>56</b>	<b>59</b>	<b>62</b>	<b>65</b>	<b>68</b>
Auxiliary jib applicable		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

# Load chart for lifting operation

Main boom No. 2724.35 with 78.7 t counterweight

Capacities in metric tonnes for boom lengths (20 m - 68 m) with 500 kN winches and 78.7 t counterweight

Radius (m)	Boom length in (m)																Radius (m)	
	20	23	26	29	32	35	38	41	44	47	50	53	56	59	62	65		68
	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	
5.5	300.0*																	5.5
6	300.0*	286.7																6
7	273.2	263.1	253.1	243.7	234.8													7
8	230.9	223.0	215.5	208.3	201.6	195.2	189.0	183.1	177.6									8
9	199.3	193.1	187.2	181.5	176.2	171.0	166.0	161.2	156.5	152.1	147.8	143.7						9
10	175.0	169.9	165.2	160.5	156.1	151.8	147.6	143.6	139.7	135.9	132.2	128.7	125.2	121.9	118.6			10
12	136.7	136.3	133.0	129.5	126.5	123.2	120.2	117.1	114.2	111.3	108.5	105.7	103.0	100.4	97.8	95.3	92.8	12
14	109.4	109.2	109.1	107.9	105.6	103.0	100.6	98.1	95.8	93.4	91.1	88.8	86.7	84.5	82.3	80.2	78.1	14
16	90.5	90.3	90.2	89.8	89.6	87.9	85.9	83.8	81.9	79.9	77.9	76.0	74.1	72.2	70.4	68.6	66.8	16
18	76.4	76.4	76.3	75.9	75.8	75.2	74.5	72.6	71.0	69.2	67.5	65.8	64.2	62.5	60.9	59.2	57.7	18
20	65.5	65.6	65.6	65.2	65.1	64.6	64.2	63.6	62.3	60.7	59.1	57.5	56.1	54.6	53.1	51.6	50.2	20
22	38.4	57.0	57.1	56.7	56.7	56.2	55.7	55.1	54.8	53.6	52.2	50.7	49.5	48.0	46.7	45.3	44.0	22
24		49.9	50.2	49.8	49.8	49.3	48.9	48.3	47.9	47.3	46.4	45.0	43.8	42.5	41.2	39.9	38.7	24
26			44.3	44.1	44.1	43.6	43.2	42.6	42.3	41.7	41.1	40.1	39.1	38.3	37.1	35.8	34.7	26
28			38.4	39.2	39.3	38.8	38.5	38.3	37.9	37.3	36.8	36.2	35.4	34.2	33.0	31.8	30.8	28
30				35.3	35.6	35.1	34.8	34.2	33.9	33.2	32.7	32.1	31.6	30.6	29.5	28.3	27.3	30
32					31.9	31.5	31.2	30.6	30.3	29.7	29.2	28.5	28.1	27.4	26.3	25.2	24.3	32
34					28.6	28.3	28.1	27.5	27.2	26.6	26.1	25.4	25.0	24.3	23.6	22.5	21.6	34
36						25.5	25.3	24.7	24.5	23.9	23.4	22.7	22.3	21.6	21.0	20.0	19.1	36
38							22.7	22.3	22.0	21.4	20.9	20.3	19.9	19.2	18.6	17.8	16.9	38
40								20.0	19.9	19.3	18.8	18.1	17.7	17.0	16.5	15.8	14.9	40
42								17.9	17.9	17.3	16.8	16.2	15.8	15.1	14.5	13.8	13.1	42
44									16.0	15.5	15.0	14.4	14.0	13.3	12.8	12.1	11.5	44
46										13.8	13.4	12.8	12.4	11.7	11.2	10.5	10.0	46
48											12.3	11.9	11.3	10.9	10.3	9.7	9.0	48
50												10.5	9.9	9.6	8.9	8.4	7.7	50
55														6.6	6.0	5.4	4.7	55
60															3.4	2.9	2.3	60

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

\*) Only possible with special heavy duty boom head.

# Equipment

## Dredging



### Dredging

Winch options

2 x 500 kN

### Maximum capacity in duty cycle operation with standard ropes

Line pull (1st layer)	500 kN
Rope diameter	46 mm
Minimum breaking load	1775 kN
Line pull - 1-rope duty cycle operation	500 kN
Line pull - 2-rope duty cycle operation <sup>1)</sup>	758 kN

- 1) Lifting a load exceeding the line pull of one winch is only allowed if it can be ensured that each individual winch is not overloaded. When working with a mechanical 2-rope grab the total load to be lifted is limited by the line pull of one winch. Rigging and ropes are part of the load.

Max. capacities in metric tonnes do not exceed 66.7% of tipping load.

Capacities in duty cycle operation are for reference only and are not programmed in the LMI system.

All loads and counterweight configurations are max. values and must not be exceeded.

Weight of additional equipment on boom (e.g. walkways, hose drums etc.) must be deducted to get the net capacity.

# Load chart for dredging equipment

Main boom No. 2724.35 with 78.7 t counterweight

Capacities in metric tonnes for boom lengths (20 m - 68 m) - with 500 kN winches and 78.7 t counterweight

Radius (m)	Boom length in (m)																Radius (m)	
	20	23	26	29	32	35	38	41	44	47	50	53	56	59	62	65		68
	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	
6.7			75.8															6.7
7	75.8	75.8	75.8	75.8														7
8	75.8	75.8	75.8	75.8	75.8	75.8	75.8											8
9	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8								9
10	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8					10
12	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.1	74.5	70.2	66.1	62.1	58.8	12
14	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.4	75.4	75.8	70.9	68.4	64.6	61.0	57.1	53.6	14
16	75.8	75.8	75.2	75.8	75.8	73.5	74.6	75.8	74.7	70.5	69.4	65.6	63.5	60.2	56.7	53.1	49.9	16
18	73.0	75.8	73.2	71.5	75.8	70.6	67.6	68.6	71.7	66.9	62.6	58.0	55.0	52.4	51.3	50.0	47.3	18
20	67.9	65.5	71.5	65.1	66.2	66.5	62.2	59.6	59.9	58.0	56.5	52.4	48.3	44.6	43.5	42.4	41.4	20
22	40.4	56.8	58.2	59.8	57.4	56.2	55.4	52.8	50.5	48.3	47.7	45.8	43.0	38.8	37.4	36.3	35.2	22
24		40.7	47.2	49.2	50.4	47.7	47.2	46.0	43.6	40.7	40.5	39.4	37.6	34.4	33.0	31.6	30.3	24
26			36.9	40.1	42.5	41.2	40.5	39.8	38.4	35.6	34.8	34.1	33.0	30.6	29.2	27.9	26.6	26
28			25.7	32.6	35.7	35.8	35.3	34.7	33.8	31.8	30.9	30.1	29.3	27.4	25.9	24.6	23.4	28
30				24.9	30.0	30.9	31.0	30.7	30.0	28.4	27.6	26.7	26.2	24.8	23.2	21.7	20.6	30
32					23.9	26.9	27.2	27.0	26.9	25.7	24.7	23.8	23.2	22.2	21.0	19.4	18.2	32
34					17.6	22.0	23.9	23.8	23.8	23.2	22.2	21.2	20.6	19.7	18.6	17.3	16.2	34
36						16.9	20.1	20.9	21.0	20.6	20.0	19.0	18.3	17.3	16.4	15.3	14.4	36
38							15.9	17.9	18.1	17.4	16.8	16.0	15.6	14.8	14.1	13.3	12.6	38
40								14.5	15.1	14.4	13.8	13.0	12.6	11.8	11.1	10.3	9.8	40
42								11.0	12.3	11.6	11.1	10.3	9.9	9.1	8.4	7.6	7.1	42
44									9.7	9.1	8.6	7.8	7.4	6.6	6.0	5.2	4.6	44
46										6.7	6.3	5.5	5.1	4.3	3.7	3.1	3.1	46
48										4.5	4.1	3.4	3.1	3.0	3.0	2.9	2.8	48
50											3.0	2.9	2.9	2.8	2.7	2.6	2.6	50
55													2.4	2.3	2.2	2.1	2.1	55

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Max. lifting capacity with mechanical grab is 50 metric tonnes. For higher lifting capacities a hydraulic grab is required.

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