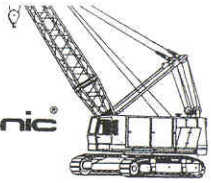
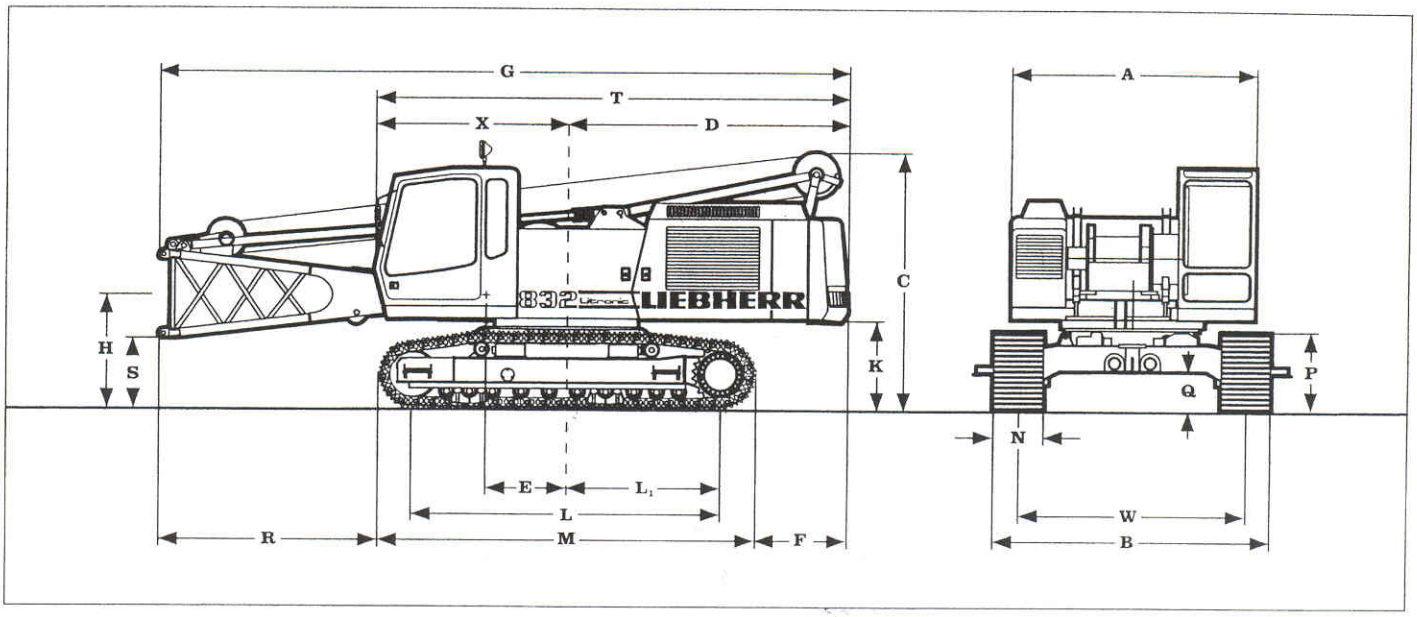
Technical Data
Hydraulic cable excavator HS 832 Litronic



Basic machine



Dimensions

		mm
A	Width of superstructure	3000
C	Clearance height of basic machine	3250
D	Tail reach	3510
	Tail swing radius	3600
E	Boom foot pivot to center of rotation superstructure	1000
F	Distance between rear end of crawler and outside of counterweight	950
G	Overall length of superstructure with lowered boom-foot	8560
H	Ground clearance of boom foot pivot	1455
K	Ground Clearance of superstructure	1120
L	Wheel base (center idler to center tumbler)	4210
L_1	Distance from center of rotation to center of tumbler	2105
M	Length of crawlers	5110
P	Height of crawlers	1015
Q	Ground clearance of crawler	500
R	Distance of horizontal boom foot over crawler	2500
S	Ground clearance of horizontal boom foot	910

		mm
T	Length of basic machine	5880
X	Distance from center of rotation to end of cab	2370
N	Width of track shoes	700
W	Track width	2800
B	Crawler width	3500

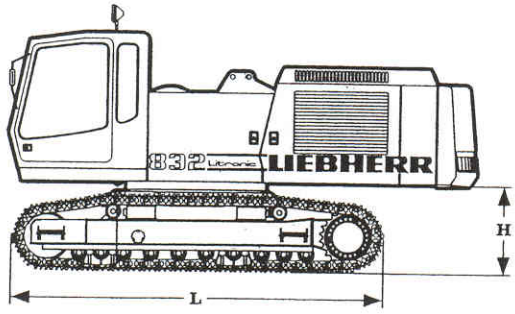
Operating weight and ground pressure

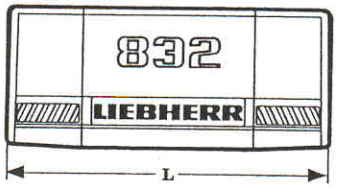
The operating weight includes the basic machine with B60 crawler tracks, 2 main winches 12 t and 8 m boom, consisting of A-frame, boom foot (4 m), boom head (4 m), and 6.3 t counterweight.

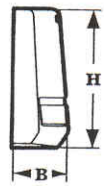
with 700 mm 3-web shoes: 31.9 t – 0.54 kg/cm²

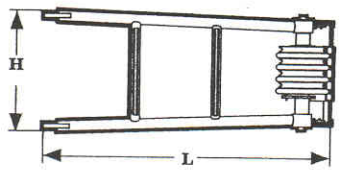
LIEBHERR

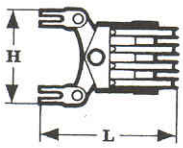
The Better Machine.

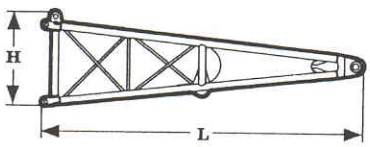


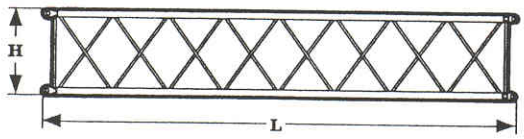


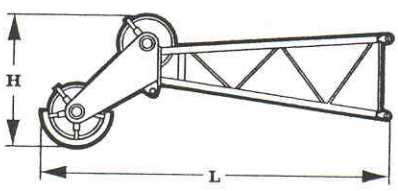












Basic machine

with 4 cylinder motor, standard-undercarriage and 6.3 t counterweight

Shoes	mm	700
Weight	t	29.3

Crawler retracted

Shoes	mm	700
Width	mm	3400
Weight	kg	10600
L Length	mm	5110
H Height	mm	1065

Counterweight 6.3 t

Width	mm	500
Weight	kg	6300
L Length	mm	2980
H Height	mm	1295

A-Frame

Width	mm	600
Weight	kg	600
L Length	mm	2850
H Height	mm	1235

Pulley block

Width	mm	480
Weight	kg	200
L Length	mm	970
H Height	mm	750

Boom foot

Width	mm	1290
Weight	kg	670
L Length	mm	4155
H Height	mm	1200

Tubular boom extension

		3 m	6 m
Width	mm	1290	1290
Weight	kg	310	510
L Length	mm	3110	6110
H Height	mm	1090	1090

Boom head

Width	mm	1300
Weight	kg	1130
L Length	mm	4550
H Height	mm	1530

Transport dimensions and weights

Engine

Liebherr, watercooled diesel, turbo-charged with intercooler. Power rating according DIN 6271 with model D 914 TI in-line 4 cylinder 100 kW (136 HP) or with model D 926 TI in-line 6 cylinder 200 kW (272 HP) at 1800 RPM.
Fuel tank: 540 l with continuous level indicator and reserve warning at approx. 120 l

Noise emission

Special noise protection is resulting in a very low noise level of 72 dB(A) at a 7 m radius.

Hydraulic System

Three main pumps are driven by a distributor gear box. The pumps are of axial piston displacement type supplying oil only when needed. A low loss pressure cut-off protects the pumps and saves energy. The Liebherr developed load-sensing-control in connection with Liebherr's Litronic® load limiting control allows to carry out all possible movements at the same time, using the installed power at it's optimum and lowers fuel consumption.
Winch 1 and 2: Axial piston displacement pumps with 214 l/min ea.
Crawler tracks: Axial piston displacement pumps with 214 l/min ea.
Boom hoist: Axial piston displacement pump with 214 l/min.
Swing gear: Axial piston displacement pump with 193 l/min in a closed circuit.
Max. working pressure: 300 bar
Hydraulic oil tank content generally 500 l.
The use of synthetic environmentally friendly oils is possible.
Optional:
Extended hydraulic systems include ready available packages for rotary drilling, diaphragm wall mills, hydraulic grabs etc.

Main winches

Winch options	8 t	12 t
Line pull (nominal load)	80 kN	120 kN
Rope diameter	20 mm	24 mm
Rope drum diameter	420 mm	505 mm
Line speed 1st layer m/min.	0 – 162	0 – 109

Propulsion through planetary gearbox in oil bath. Load support by hydraulic system and brake valve for lowering motion. Additional security with spring loaded multi-disc brake.
The free fall system uses for clutch and brake functions a well dimensioned multi disc brake which is maintenance free and close to wearless.

The drag and hoist winches use variable oil motors controlled by high pressure. This allows the complete utilization of the installed motor power with partial loads through speed adaption. In clamshell operation the oil motors distribute the load to both winches compensating speed when working in different cable layers.
Optional:
Crane winch 80 kN (8 t)

Swing Drive

Single row ball bearing with external toothing for lower tooth flank pressure. Fixed axial piston oil motor, spring loaded and hydraulically released multi-disc brake, planetary gear box and pinon.

Freewheel moment control of swing motion is resulting in an almost wearless use, since the moment is sustained through the hydraulic system by the diesel engine. Multi disc brake automatically acting at zero swing motion.
Variable swing speed control from 0 – 4.2 RPM.

Boom hoist drive

Winch with internally located planetary gearbox, axial piston oil motor and hydraulically released spring loaded multi-disc brake.
Max. line pull 50 kN (5 t)
Diam. of cable 18 mm, line speed 0 – 67 m/min.

Crawler

Propulsion through axial piston motor, hydraulically released spring-loaded multi-disc brake, maintenance free crawler tracks, hydraulic chain tensioning device, 3-web shoes.
Drive speed 0 – 2.0 km/h.
Optional:
2 speed oil motor for higher speeds.

Control System

The fully hydraulic control system in connection with load-sensing allows precise execution of all movements.
The Liebherr Litronic® protects the diesel engine from overloading at any RPM.
One control lever each for winch I and boom movement as well as winch II and swing motion.

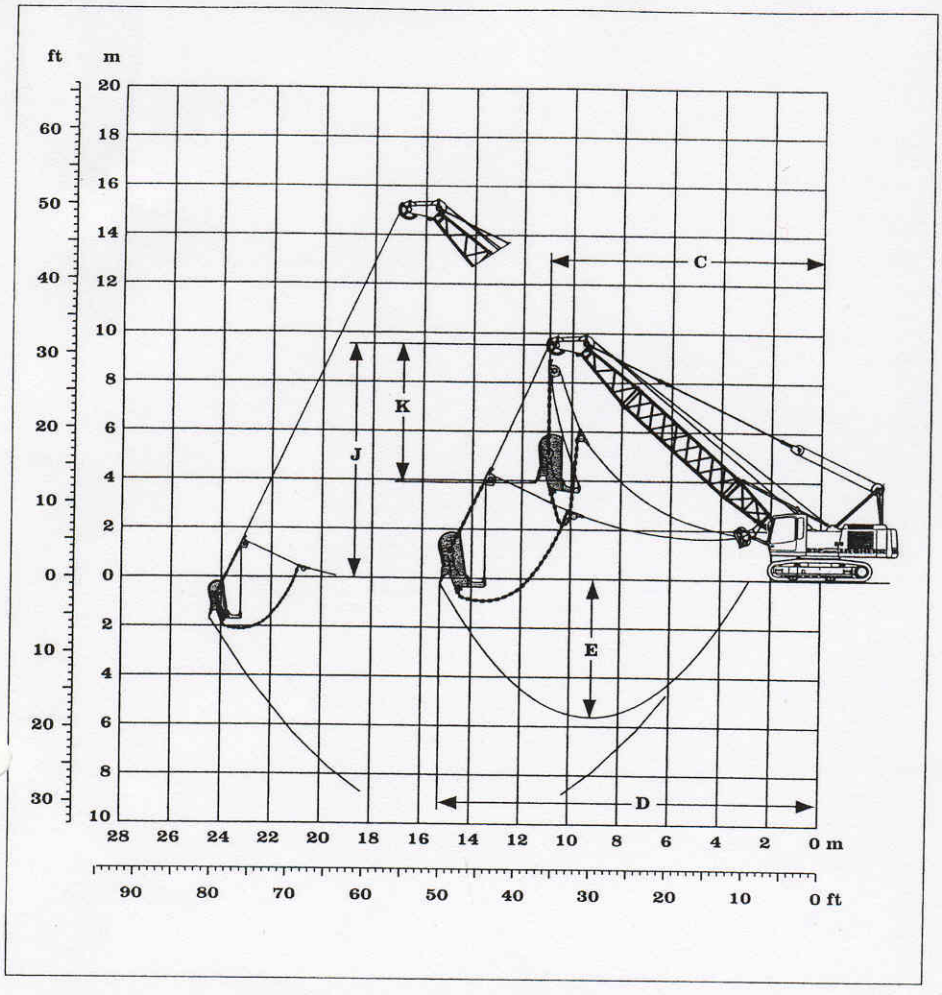
Please ask for details of our patented automatic free-fall device.

Equipment

Boom up to 38 meters length in tubular construction, universal boom head with interchangeable pulleys according to assignment such as crane, dragline or grab jobs.
For dragline operation a fairlead is attached to the boom foot to minimize cable wearout.

Technical Description

6.3 t counterweight



Scope of delivery:

- Basic machine with corresponding track shoes
- Slewing gear with freewheel control
- A-frame
- Pulley block
- Boom foot 4.0 m
- Boom extension 3 m, tubular steel
- Boom extension 6 m, tubular steel
- Universal boom head with interchangeable pulleys
- Stay ropes according to boom length
- Main winches according to specification
- Corresponding fair lead
- Corresponding cables
- Dragline bucket

Digging diagram:

C = Radius/dumping radius
D = Max. digging radius = approx. C + 1/3 to 1/2 of J – K
E = Digging depth = approx. 40% al 50% of C
J = Height of boom head sheave center above ground level
K = Length of dragline bucket (depending on type and capacity of bucket)

Boom length: 11 m to 23 m Counterweight: 6.3 t

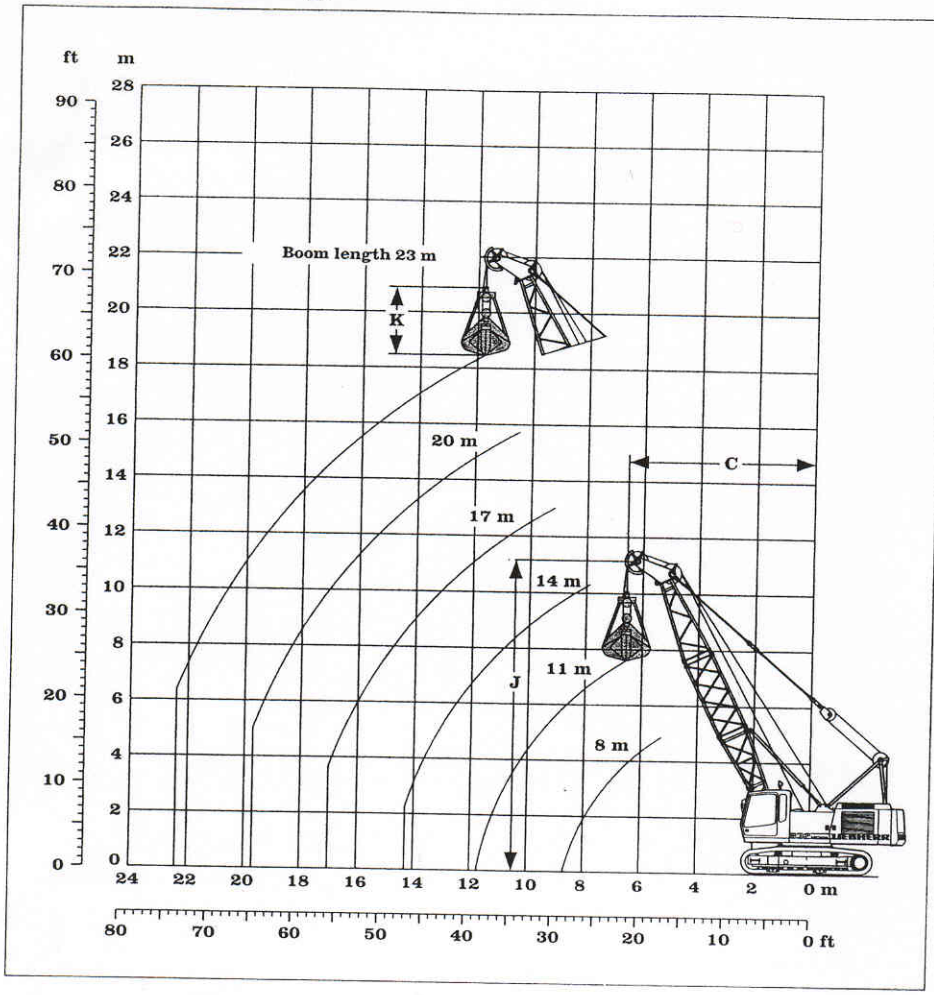
	11 m			14 m			17 m			20 m			23 m		
Boom	C	J		C	J		C	J		C	J		C	J	
angle in °	m	m	t	m	m	t	m	m	t	m	m	t	m	m	t
45	9.5	8.8	6.3	11.7	10.9	4.7	13.8	13.0	3.6	15.9	15.2	2.8	18.0	17.3	2.2
40	10.1	8.1	5.8	12.4	10.0	4.3	14.7	11.9	3.3	17.0	13.8	2.5	19.3	15.8	1.9
35	10.7	7.3	5.4	13.1	9.0	3.9	15.6	10.7	3.0	18.1	12.4	2.3	20.5	14.2	1.7
30	11.2	6.4	5.1	13.8	7.9	3.7	16.3	9.4	2.8	18.9	10.9	2.1	21.5	12.4	1.5
25	11.5	5.6	4.8	14.3	6.8	3.5	17.0	8.1	2.6	19.7	9.4	1.9	22.4	10.6	1.4

Content of dragline bucket					
cu.yd.	2	1 1/2	1	3/4	5/8
m^3	1,58	1,15	0,76	0,57	0,48

Max. lifting capacities in metric tons do not exceed 75 % of tipping load.

Dragline equipment

6.3 t counterweight



Scope of delivery:

- Basic machine with corresponding track shoes
- A-frame
- Pulley block
- Boom foot 4.0 m
- Boom extension 3 m, tubular steel
- Boom extension 6 m, tubular steel
- Universal boom head with interchangeable pulleys
- Stay ropes according to boom length
- Main winches according to specification
- Corresponding cables
- Tagline
- Clamshell
- Load moment limiter
- 4-rope clamshell on request

Digging diagram:

C = Radius/dumping radius
J = Height of boom head sheave center above ground level
K = Length of clamshell (depending on type and capacity of bucket)

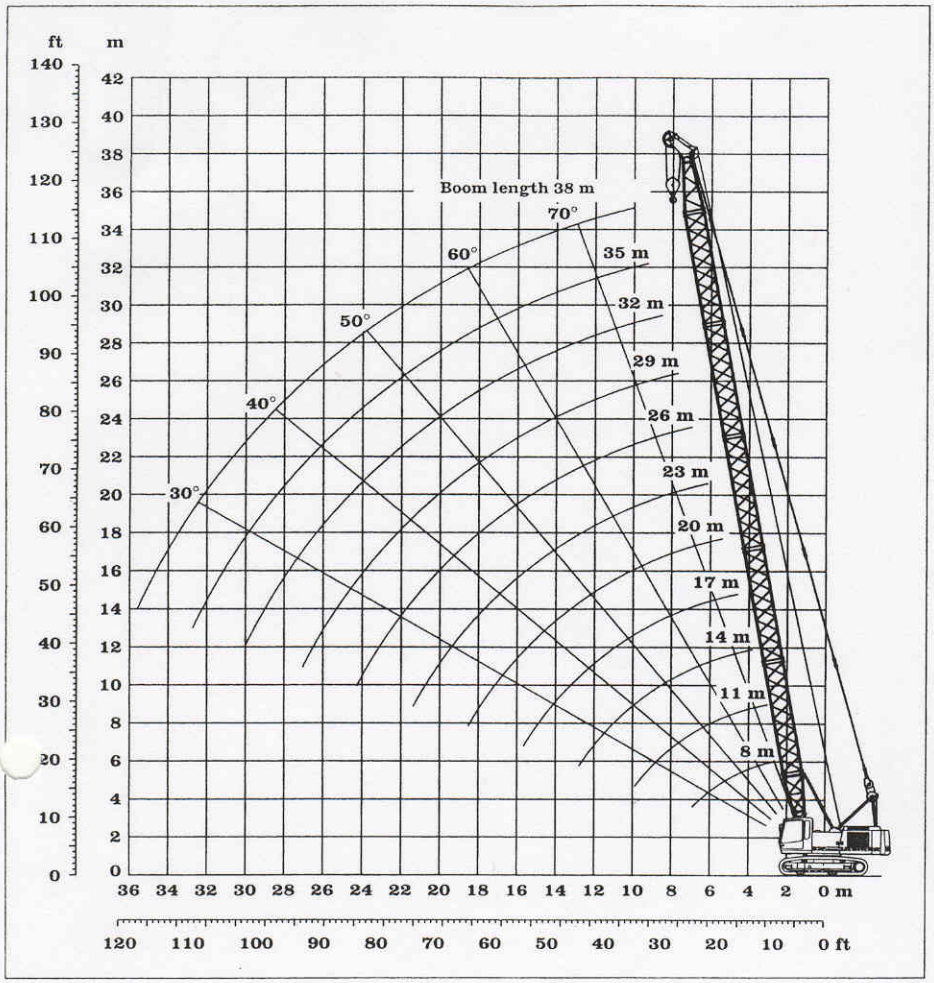
Boom length: 8 m to 23 m **Counterweight: 6.3 t**

Boom angle in °	8 m			11 m			14 m			17 m			20 m			23 m		
	C	J		C	J		C	J		C	J		C	J		C	J	
	m	m	t	m	m	t	m	m	t	m	m	t	m	m	t	m	m	t
65	5.3	8.4	13.8	6.5	11.2	9.6	7.8	13.9	7.4	9.1	16.6	5.9	10.3	19.3	4.8	11.6	22.0	4.0
60	5.8	8.1	13.8	7.3	10.7	8.1	8.8	13.3	6.2	10.3	15.9	4.9	11.8	18.5	3.9	13.3	21.1	3.2
55	6.4	7.7	9.9	8.1	10.1	7.0	9.8	12.6	5.3	11.6	15.0	4.1	13.3	17.5	3.3	15.0	19.9	2.6
50	6.9	7.2	8.8	8.9	9.5	6.2	10.8	11.8	4.7	12.7	14.1	3.6	14.6	16.4	2.8	16.6	18.7	2.2
45	7.4	6.7	8.0	9.5	8.8	5.6	11.7	10.9	4.2	13.8	13.0	3.2	15.9	15.2	2.5	18.0	17.3	1.9
40	7.8	6.1	7.4	10.1	8.1	5.2	12.4	10.0	3.8	14.7	11.9	2.9	17.0	13.8	2.2	19.3	15.8	1.7
35	8.2	5.5	6.9	10.7	7.3	4.8	13.1	9.0	3.5	15.6	10.7	2.6	18.1	12.4	2.0	20.5	14.2	1.5
30	8.6	4.9	6.5	11.2	6.4	4.5	13.8	7.9	3.3	16.3	9.4	2.5	18.9	10.9	1.8	21.5	12.4	1.4
25	8.8	4.3	6.2	11.5	5.6	4.3	14.3	6.8	3.1	17.0	8.1	2.3	19.7	9.4	1.7	22.4	10.6	1.2

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

Clamshell equipment

6.3 t counterweight



Scope of delivery:

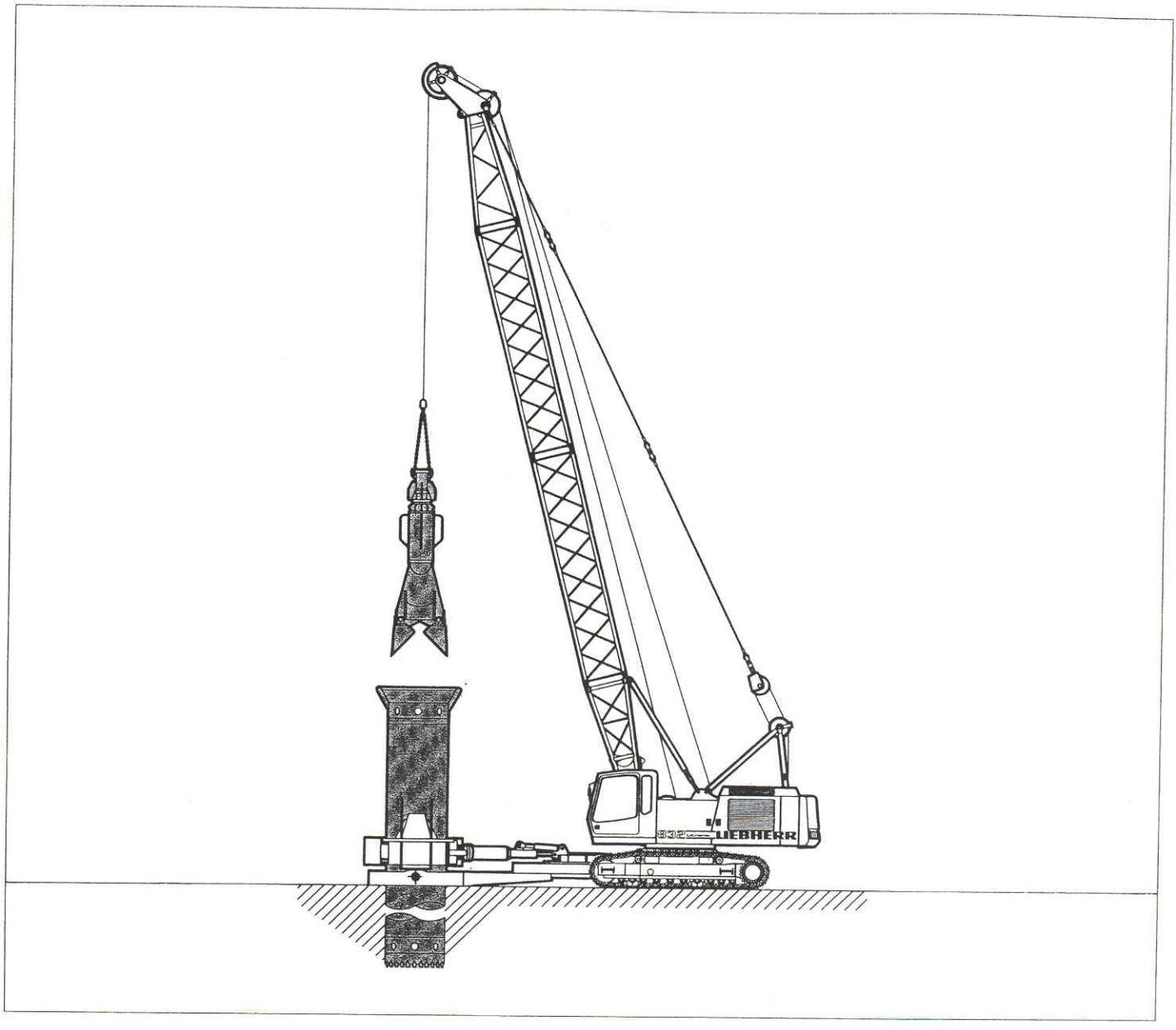
- Basic machine with corresponding track shoes
- A-frame
- Pulley block
- Boom foot 4.0 m
- Boom extension 3 m, tubular steel
- Boom extension 6 m, tubular steel
- Universal boom head with interchangeable pulleys
- Stay ropes according to boom length
- Main winches according to specification
- Hoisting limit switch
- Load moment limiter
- Corresponding hook block

Remarks:

1. The lifting capacities stated do not exeeced 75 % of the tipping load.
2. The lifting capacities are indicated in tons with unlimited swing (360 degrees).
3. The weight of the lifting device must be deducted to arrive at the net load lifting capacity.
4. Working radii are measured from center of swing.
5. Machine standing on firm, level and uniform ground.

Radius m	Boom length m 8	11	14	17	20	23	26	29	32	35	38
3.0	35.0										
3.5	27.6	27.6									
4.0	22.0	22.0	21.9								
4.5	18.3	18.2	18.2	18.5							
5.0	15.6	15.5	15.4	15.4	15.3						
5.5	13.6	13.5	13.4	13.3	13.2	13.2					
6.0	12.0	11.9	11.8	11.7	11.7	11.6	11.5				
6.5	10.7	10.6	10.6	10.5	10.4	10.3	10.2	10.1			
7.0	9.7	9.6	9.5	9.4	9.3	9.2	9.1	9.0	9.0		
7.5	8.8	8.7	8.7	8.6	8.5	8.4	8.3	8.2	8.1	8.0	
8.0	8.1	8.0	7.9	7.8	7.7	7.6	7.5	7.4	7.3	7.2	7.1
9.0		6.8	6.7	6.6	6.5	6.4	6.3	6.2	6.1	6.0	5.9
10.0		5.9	5.8	5.7	5.6	5.5	5.4	5.3	5.2	5.1	5.0
11.0		5.2	5.1	5.0	4.9	4.8	4.7	4.6	4.5	4.4	4.3
12.0			4.5	4.4	4.3	4.2	4.1	4.0	3.9	3.8	3.7
13.0			4.1	4.0	3.9	3.8	3.7	3.5	3.4	3.3	3.2
14.0			3.7	3.6	3.5	3.4	3.2	3.1	3.0	2.9	2.8
15.0				3.2	3.1	3.0	2.9	2.8	2.7	2.6	2.4
16.0				2.9	2.8	2.7	2.6	2.5	2.4	2.2	2.1
17.0				2.7	2.6	2.5	2.3	2.2	2.1	2.0	1.8
18.0					2.3	2.2	2.1	2.0	1.8	1.7	1.6
19.0					2.1	2.0	1.9	1.8	1.6	1.5	1.4
20.0					1.9	1.8	1.7	1.6	1.4	1.3	1.2
22.0						1.5	1.4	1.2	1.1	1.0	0.8
24.0							1.1	1.0	0.8	0.7	0.6
26.0							0.9	0.7	0.6	0.5	0.3
28.0								0.5	0.4	0.3	0.1

Lifting capacity with crane equipment



Casing oscillator

Winch options	2 x 8 t	2 x 12 t
Line pull 2 x	160 kN	240 kN
Line speed 1st layer (m/min.)	0 - 162	0 - 109
Drilling diameter	1300 mm	1300 mm
Grab weight	6 t	10 t
Chisel weight	6 t	10 t
Casing oscillator weight	12 t	12 t

Free fall device with a maintenance free, spring loaded multi-disc brake working in a oil bath.
Simultaneous working of both winches is assured through our hydraulic system.
Hydraulic supply for casing oscillator
q = 2 X 200 l/min
P = 300 bar max.
Mechanical attachment of casing oscillator through 4 bolts to the undercarriage.
Automatic operation for one and two rope grabs (optional).
Hoisting speed will have priority over the casing oscillator while main winches are activated.

Casing oscillator equipment