Technical Description
Hydraulic Excavator

A 954 B HD
Litronic®

Machine for Industrial Applications

Operating weight 63,0 – 65,0 t
Engine output 210 kW (286 HP)

LIEBHERR

The Better Machine.

Engine

Rating per ISO 9249	210 kW (286 HP) at 2000 RPM
Model	Liebherr D 926 TI-E
Type	6 cylinder in-line
Bore/stroke	122/142 mm
Displacement	10,0 liters
Engine operation	4-stroke diesel direct injection turbo-charged and after-cooled reduced emissions
Cooling	water-cooled
Air cleaner	dry-type air cleaner with pre-cleaner, primary and safety elements
Fuel tank	706 l
Option	sensor controlled engine idling
Electrical system	
Voltage	24 V
Batteries	2 x 110 Ah/12 V
Alternator	24 V/80 amp

Hydraulic System

Pump for attachment and traveling	Liebherr variable displacement, swash plate, in line double pump
Max. flow	2 x 350 l/min
Max. hydr. pressure	350 bar
Hydraulic pump for swing drive	1 reversible swash plate pump, closed-loop circuit
Max. flow	185 l/min
Max. hydr. pressure	384 bar
Pump regulation	electronic engine speed sensing over entire engine R.P.M range, pressure-compensation, flow compensation, automatic oil flow optimizer
Hydraulic tank capacity	450 l
Hydraulic system capacity	max. 800 l
Hydraulic oil filter	2 full flow filter in return line, 1 high pressure filter for each main pump
Cooler	compact radiator/cooler – consists of an intercooler, gear oil and hydraulic oil cooler, mounted in front of the radiator
Modes	fixed modes, can also be adjusted by the operator to adjust engine and hydraulic performance to match job conditions
LIFT	for precise lifting tasks
FINE	for precision work at high speed i.e. grading
ECO	for most economic performance at best environmental conditions
POWER	for max. output
R.P.M. adjustment	stepless adjustment of engine output via the r.p.m. at each selected mode

Hydraulic Controls

Power distribution	via control valves in single block with integrated primary and secondary safety valves
Flow summation	to boom and stick
Operating controls	
Attachment and swing	proportional via joystick levers
Travel	proportional via foot pedal
Additional functions	via foot pedals or joystick push buttons

Swing Drive

Drive	Liebherr swash plate motor with integrated brake valve
Gear	Liebherr planetary reduction gear
Swing ring	Liebherr, sealed single race ball bearing swing ring, internal teeth
Swing speed	0 – 6,2 RPM
Swing torque	156 kNm
Swing brake	wet discs (spring applied – pressure released)

Operator's Cab

Cab	built from deep drawn components, resiliently mounted, sound insulated, tinted windows, front window stores overhead, door with sliding window
Operator's seat	fully adjustable, shockabsorbing suspension, adjustable to operator's weight
Joysticks	integrated into adjustable seat consoles
Monitoring	menu driven query of current operating conditions via the LCD display. Automatic monitoring, display, warning (acoustical and optical signal) and saving machine data, for example, engine overheating, low engine oil pressure or low hydraulic oil level
Heater/airconditioner	combined hotwater/airconditioner with dust filter for fresh or circulated airflow
Noise emission	L_{pA} (inside cab) = 78 dB(A) L_{wA} (surround noise) = 109 dB(A)

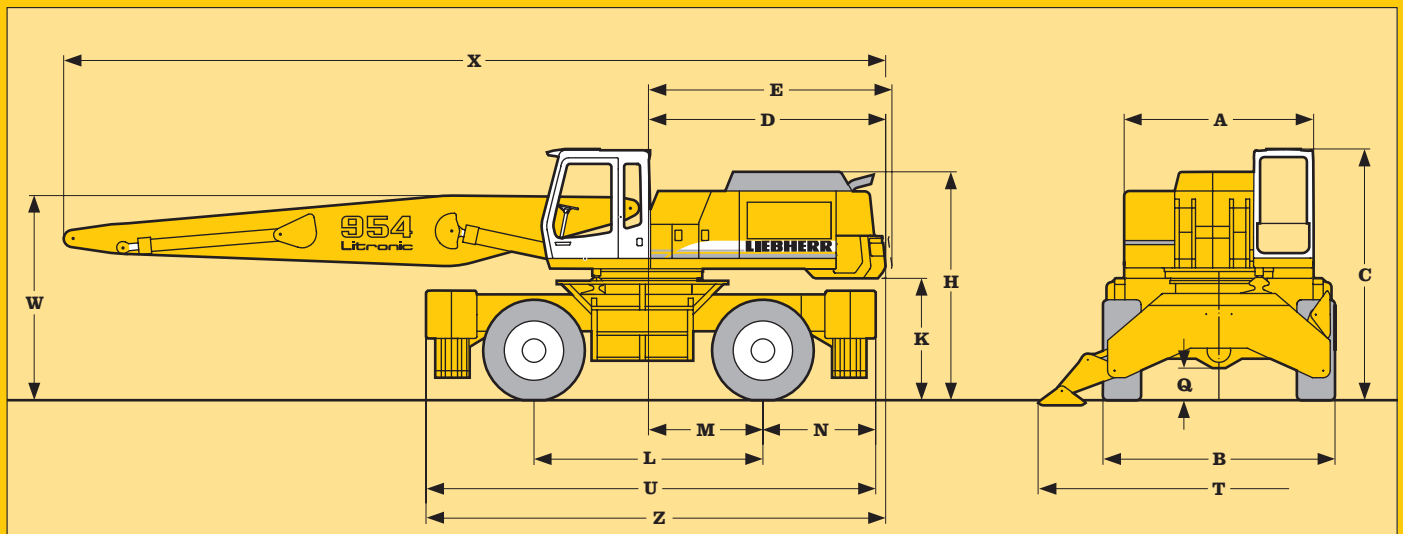
Undercarriage

Drive	axial piston motor with brake valves
Travel speed	0 – 10,0 km/h
Axles	70 t excavator axles; oscillating steering axle with hydraulic lock (in any position)
Brakes	discs brakes hydraulically actuated digging and parking brake
Stabilization	4-point outriggers

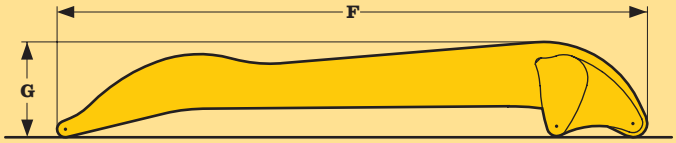
Attachment

Type	combination of resistant steel plates and cast steel components
Hydraulic cylinders	Liebherr cylinders with special seal system. Shock absorption
Pivots	sealed, low maintenance
Lubrication	centralized in easily accessible locations
Hydraulic connections	pipes and hoses equipped with SAE split-flange connections

Technical Data



Tires ∅ 1600 mm, width 600 mm



Industrial sticks

	mm
A	3000
B	3650
C	3950
D	3730
E	3830
H	3590
K	1915
L	3600
M	1800
N	1775
Q	505
T	5690
U	7075
Z	7230

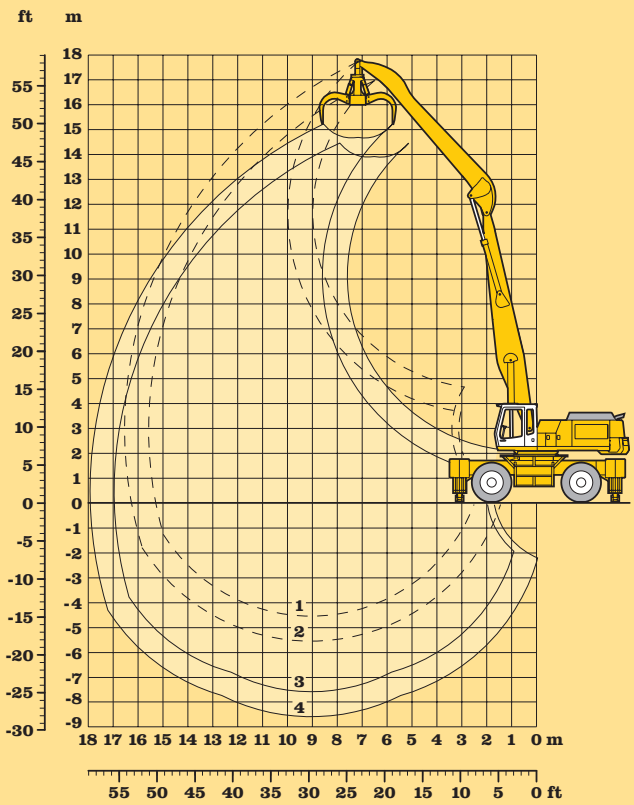
E = tail radius

With industrial-type straight boom	m	8,80	10,30
W	mm	3350	3350
X	mm	13000	14500

Industrial-type stick	m	7,00	8,00	9,50
F	mm	7300	8300	9800
G	mm	1300	1300	1300

Dimensions are with attachment over steering axle

Dimensions



Attachment envelope

Industrial-type straight boom pinned in rear bearing of boom foot bracket

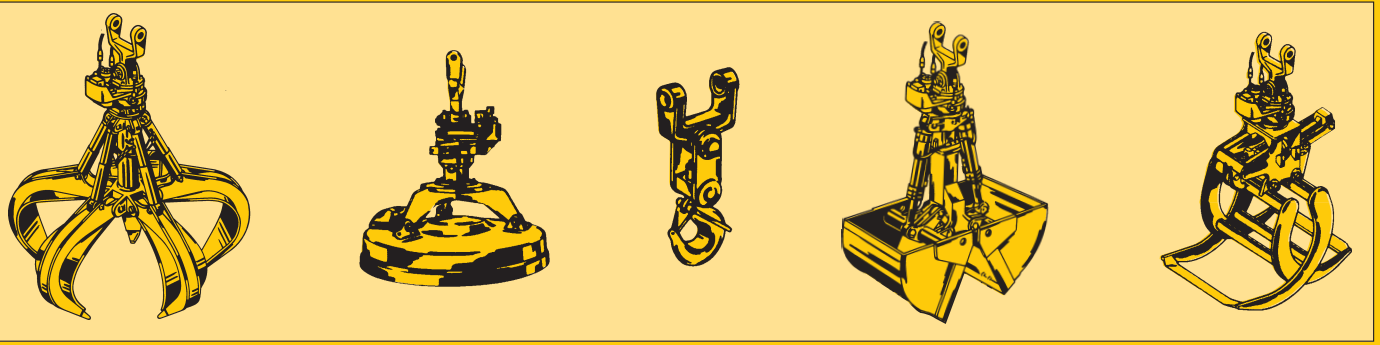
1 with industrial stick 7,00 m
2 with industrial stick 8,00 m
3 with industrial stick 7,00 m and grapple model 72 B
4 with industrial stick 8,00 m and grapple model 72 B

Operating weight

Operating weight includes basic machine and industrial attachment with:

Industrial-Type straight Boom 8,80 m
Industrial stick 7,00 m
Grapple model 72 B/1,40 m³
5 semi-closed tines **63000 kg**

Industrial-Type straight Boom 8,80 m
Industrial stick 8,00 m
Grapple model 72 B/1,40 m³
5 semi-closed tines **63400 kg**



Industrial Attachment with Industrial-Type Straight Boom 8,80 m

with industrial stick 7,00 m

Height m	Undercarriage	Radius of load from centerline of machine in m								
		4,5	6,0	7,5	9,0	10,5	12,0	13,5	15,0	16,5
16,5	4 pt. outriggers raised 4 pt. outriggers down			11,3° (11,3°) 11,3° (11,3°)						
15,0	4 pt. outriggers raised 4 pt. outriggers down				10,8° (10,8°) 10,8° (10,8°)					
13,5	4 pt. outriggers raised 4 pt. outriggers down				11,3+ (11,3+) 11,3+ (11,3+)	9,4 (10,6+) 10,6+ (10,6+)				
12,0	4 pt. outriggers raised 4 pt. outriggers down				11,1+ (11,1+) 11,1+ (11,1+)	9,7 (10,3+) 10,3+ (10,3+)	7,5 (9,1) 9,5° (9,5°)			
10,5	4 pt. outriggers raised 4 pt. outriggers down				11,1+ (11,1+) 11,1+ (11,1+)	9,7 (10,3+) 10,3+ (10,3+)	7,7 (9,3) 9,6+ (9,6+)	6,1 (7,4) 7,6° (7,6°)		
9,0	4 pt. outriggers raised 4 pt. outriggers down				11,3+ (11,3+) 11,3+ (11,3+)	9,4 (10,4+) 10,4+ (10,4+)	7,6 (9,2) 9,6+ (9,6+)	6,2 (7,5) 8,9+ (8,9+)		
7,5	4 pt. outriggers raised 4 pt. outriggers down			13,4+ (13,4+) 13,4+ (13,4+)	11,8+ (11,8+) 11,8+ (11,8+)	9,2 (10,6+) 10,6+ (10,6+)	7,4 (8,9) 9,7+ (9,7+)	6,0 (7,4) 8,9+ (8,9+)	5,1 (6,2) 7,4° (7,4°)	
6,0	4 pt. outriggers raised 4 pt. outriggers down		17,0+ (17,0+) 17,0+ (17,0+)	14,1+ (14,1+) 14,1+ (14,1+)	11,3 (12,3+) 12,3+ (12,3+)	8,9 (10,7) 11,0+ (11,0+)	7,2 (8,7) 9,9+ (9,9+)	5,9 (7,2) 9,0+ (9,0+)	4,9 (6,1) 8,1+ (8,1+)	
4,5	4 pt. outriggers raised 4 pt. outriggers down	23,8+ (23,8+) 23,8+ (23,8+)	18,5+ (18,5+) 18,5+ (18,5+)	14,0 (15,2+) 15,2+ (15,2+)	10,7 (12,9+) 12,9+ (12,9+)	8,5 (10,4) 11,4+ (11,4+)	7,0 (8,5) 10,1+ (10,1+)	5,8 (7,1) 9,1+ (9,1+)	4,8 (6,0) 8,0+ (8,0+)	
3,0	4 pt. outriggers raised 4 pt. outriggers down	23,8° (23,8°) 23,8° (23,8°)	17,8 (20,3+) 20,3+ (20,3+)	13,1 (16,1) 16,2+ (16,2+)	10,1 (12,4) 13,6+ (13,6+)	8,2 (10,0) 11,7+ (11,7+)	6,7 (8,3) 10,3+ (10,3+)	5,6 (6,9) 9,1+ (9,1+)	4,8 (5,9) 7,9+ (7,9+)	
1,5	4 pt. outriggers raised 4 pt. outriggers down	11,2° (11,2°) 11,2° (11,2°)	16,6 (20,9) 21,6+ (21,6+)	12,3 (15,3) 16,9+ (16,9+)	9,6 (11,9) 14,0+ (14,0+)	7,8 (9,7) 11,9+ (11,9+)	6,5 (8,0) 10,3+ (10,3+)	5,5 (6,8) 9,0+ (9,0+)	4,7 (5,8) 7,6+ (7,6+)	
0	4 pt. outriggers raised 4 pt. outriggers down	10,3° (10,3°) 10,3° (10,3°)	15,7 (19,9) 21,6+ (21,6+)	11,7 (14,7) 17,1+ (17,1+)	9,3 (11,5) 14,0+ (14,0+)	7,6 (9,4) 11,9+ (11,9+)	6,3 (7,8) 10,2+ (10,2+)	5,4 (6,7) 8,7+ (8,7+)	4,7 (5,8) 7,1+ (7,1+)	
– 1,5	4 pt. outriggers raised 4 pt. outriggers down	11,1° (11,1°) 11,1° (11,1°)	15,3 (19,5) 20,5° (20,5°)	11,4 (14,4) 16,6+ (16,6+)	9,0 (11,2) 13,6+ (13,6+)	7,4 (9,2) 11,5+ (11,5+)	6,2 (7,7) 9,7+ (9,7+)	5,3 (6,6) 8,0+ (8,0+)	4,7 (5,9) 6,4+ (6,4+)	
– 3,0	4 pt. outriggers raised 4 pt. outriggers down	12,6° (12,6°) 12,6° (12,6°)	15,1 (18,6+) 18,6+ (18,6+)	11,2 (14,2) 15,3+ (15,3+)	8,9 (11,1) 12,7+ (12,7+)	7,3 (9,1) 10,6+ (10,6+)	6,1 (7,7) 8,7+ (8,7+)	5,3 (6,6) 7,1+ (7,1+)		
– 4,5	4 pt. outriggers raised 4 pt. outriggers down			11,2 (13,6+) 13,6+ (13,6+)	8,9 (11,1) 11,1+ (11,1+)	7,3 (9,1) 9,4+ (9,4+)				

with industrial stick 8,00 m

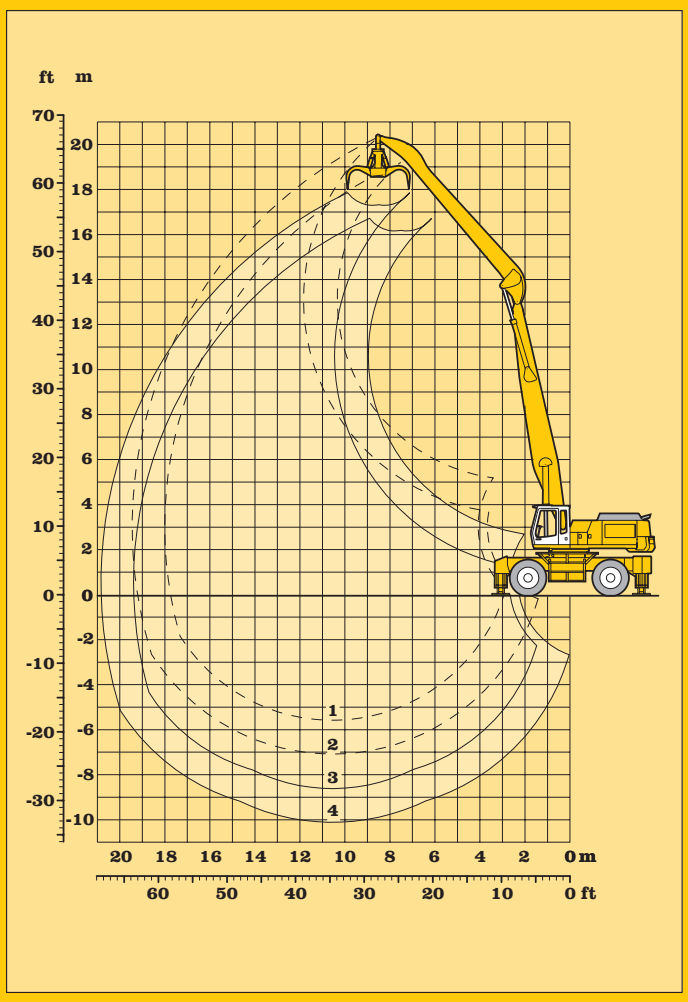
Height m	Undercarriage	Radius of load from centerline of machine in m								
		4,5	6,0	7,5	9,0	10,5	12,0	13,5	15,0	16,5
16,5	4 pt. outriggers raised 4 pt. outriggers down				8,3° (8,3°) 8,3° (8,3°)					
15,0	4 pt. outriggers raised 4 pt. outriggers down					8,4° (8,4°) 8,4° (8,4°)				
13,5	4 pt. outriggers raised 4 pt. outriggers down					9,3+ (9,3+) 9,3+ (9,3+)	7,3 (8,1°) 8,1° (8,1°)			
12,0	4 pt. outriggers raised 4 pt. outriggers down					9,1+ (9,1+) 9,1+ (9,1+)	7,5 (8,6+) 8,6+ (8,6+)	5,8 (6,4°) 6,4° (6,4°)		
10,5	4 pt. outriggers raised 4 pt. outriggers down					9,1+ (9,1+) 9,1+ (9,1+)	7,4 (8,5+) 8,5+ (8,5+)	5,9 (7,2) 8,0+ (8,0+)		
9,0	4 pt. outriggers raised 4 pt. outriggers down					9,3+ (9,3+) 9,3+ (9,3+)	7,3 (8,6+) 8,6+ (8,6+)	5,9 (7,3) 8,0+ (8,0+)	4,7 (5,9) 6,7° (6,7°)	
7,5	4 pt. outriggers raised 4 pt. outriggers down				10,4+ (10,4+) 10,4+ (10,4+)	9,1 (9,5+) 9,5+ (9,5+)	7,2 (8,7+) 8,7+ (8,7+)	5,8 (7,1) 8,1+ (8,1+)	4,7 (5,9) 7,5+ (7,5+)	
6,0	4 pt. outriggers raised 4 pt. outriggers down			12,8+ (12,8+) 12,8+ (12,8+)	11,0+ (11,0+) 11,0+ (11,0+)	8,7 (9,9+) 9,9+ (9,9+)	7,0 (8,5) 9,0+ (9,0+)	5,6 (6,9) 8,2+ (8,2+)	4,6 (5,7) 7,5+ (7,5+)	
4,5	4 pt. outriggers raised 4 pt. outriggers down		16,4+ (16,4+) 16,4+ (16,4+)	13,7+ (13,7+) 13,7+ (13,7+)	10,7 (11,8+) 11,8+ (11,8+)	8,4 (10,2) 10,4+ (10,4+)	6,7 (8,2) 9,2+ (9,2+)	5,5 (6,8) 8,3+ (8,3+)	4,5 (5,6) 7,5+ (7,5+)	3,8 (4,8) 5,7° (5,7°)
3,0	4 pt. outriggers raised 4 pt. outriggers down	24,8+ (24,8+) 24,8+ (24,8+)	18,4 (18,5+) 18,5+ (18,5+)	13,2 (14,9+) 14,9+ (14,9+)	10,1 (12,4) 12,5+ (12,5+)	7,9 (9,8) 10,8+ (10,8+)	6,4 (8,0) 9,5+ (9,5+)	5,3 (6,6) 8,4+ (8,4+)	4,4 (5,5) 7,5+ (7,5+)	3,7 (4,7) 5,9° (5,9°)
1,5	4 pt. outriggers raised 4 pt. outriggers down	17,5° (17,5°) 17,5° (17,5°)	16,9 (20,1+) 20,1+ (20,1+)	12,3 (15,3) 15,9+ (15,9+)	9,5 (11,8) 13,1+ (13,1+)	7,5 (9,4) 11,1+ (11,1+)	6,2 (7,7) 9,7+ (9,7+)	5,1 (6,4) 8,5+ (8,5+)	4,3 (5,4) 7,3+ (7,3+)	3,7 (4,7) 6,1° (6,1°)
0	4 pt. outriggers raised 4 pt. outriggers down	11,5° (11,5°) 11,5° (11,5°)	15,6 (19,9) 21,1+ (21,1+)	11,5 (14,5) 16,4+ (16,4+)	9,0 (11,2) 13,4+ (13,4+)	7,2 (9,1) 11,3+ (11,3+)	5,9 (7,4) 9,7+ (9,7+)	4,9 (6,3) 8,3+ (8,3+)	4,2 (5,3) 7,0+ (7,0+)	
– 1,5	4 pt. outriggers raised 4 pt. outriggers down	11,0° (11,0°) 11,0° (11,0°)	15,0 (19,3) 20,8+ (20,8+)	11,0 (14,0) 16,3+ (16,3+)	8,6 (10,9) 13,3+ (13,3+)	7,0 (8,8) 11,1+ (11,1+)	5,7 (7,3) 9,4+ (9,4+)	4,8 (6,1) 8,0+ (8,0+)	4,1 (5,3) 6,5+ (6,5+)	
– 3,0	4 pt. outriggers raised 4 pt. outriggers down	11,7° (11,7°) 11,7° (11,7°)	14,6 (18,8) 19,5+ (19,5+)	10,7 (13,7) 15,5+ (15,5+)	8,4 (10,6) 12,7+ (12,7+)	6,8 (8,6) 10,6+ (10,6+)	5,6 (7,1) 8,8+ (8,8+)	4,8 (6,1) 7,3+ (7,3+)	4,1 (5,3) 5,7+ (5,7+)	
– 4,5	4 pt. outriggers raised 4 pt. outriggers down		14,5 (17,3+) 17,3+ (17,3+)	10,7 (13,6) 14,0+ (14,0+)	8,3 (10,5) 11,5+ (11,5+)	6,7 (8,5) 9,5+ (9,5+)	5,6 (7,1) 7,8+ (7,8+)	4,8 (6,1) 6,5+ (6,5+)		

Lift capacities are stated in metric tonnes and can be lifted 360° on firm, level supporting surface. The load point is the pin at the stick tip. Loads in (...) can be lifted over end only. Loads with "stabilizers raised" are valid only over steering axle (travel position).
Indicated loads are based on ISO 10567 and do not exceed 75% of tipping or 87% of hydraulic capacity.
Lift capacities do not include the weight of grapple, clamshells or other lifting devices, which must be deducted from the above figures.

+ Rating limited by hoist cylinders
° Rating limited by stick cylinder

Note: When used within the countries of the "European Union" and when lifting a load, this excavator has to be equipped with an overload warning device and its hoist cylinders with automatic check valves, according to the European Standard EN 474-5.

Lift Capacities with Industrial-Type Straight Boom 8,80 m



Attachment envelope

Industrial-type straight boom pinned in rear bearing of boom foot bracket

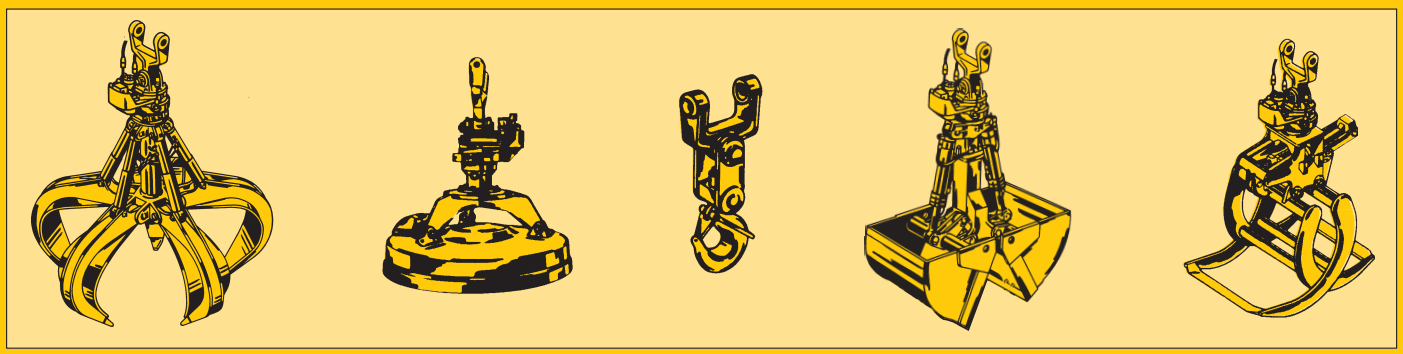
1 with industrial stick 8,00 m
2 with industrial stick 9,50 m
3 with industrial stick 8,00 m and grapple model 72 B
4 with industrial stick 9,50 m and grapple model 72 B

Operating weight

Operating weight includes basic machine and industrial attachment with:

Industrial-Type straight Boom 10,30 m
Industrial stick 8,00 m
Grapple model 72 B/1,40 m³
5 semi-closed tines
hydraulical cab elevation
piston rod protection **64300 kg**

Industrial-Type straight Boom 10,30 m
Industrial stick 9,50 m
Grapple model 72 B/1,40 m³
5 semi-closed tines
hydraulical cab elevation
piston rod protection **65000 kg**



Industrial Attachment with Industrial-Type Straight Boom 10,30 m

with industrial stick 8,00 m

Height m	Undercarriage	Radius of load from centerline of machine in m										
		4,5	6,0	7,5	9,0	10,5	12,0	13,5	15,0	16,5	18,0	19,5
16,5	4 pt. outriggers raised					9,1 (9,1+)	7,1° (7,1°)					
	4 pt. outriggers down					9,1+ (9,1+)	7,1° (7,1°)					
15,0	4 pt. outriggers raised					8,8+ (8,8+)	7,3 (8,2+)					
	4 pt. outriggers down					8,8+ (8,8+)	8,2+ (8,2+)					
13,5	4 pt. outriggers raised					8,7+ (8,7+)	7,4 (8,0+)	5,8 (7,2)				
	4 pt. outriggers down					8,7+ (8,7+)	8,0+ (8,0+)	7,4+ (7,4+)				
12,0	4 pt. outriggers raised					8,7+ (8,7+)	7,4 (8,0+)	5,9 (7,2)	4,6 (5,8)			
	4 pt. outriggers down					8,7+ (8,7+)	8,0+ (8,0+)	7,4+ (7,4+)	6,9+ (6,9+)			
10,5	4 pt. outriggers raised					8,8+ (8,8+)	7,3 (8,0+)	5,9 (7,2)	4,7 (5,9)	3,8 (4,8)		
	4 pt. outriggers down					8,8+ (8,8+)	8,0+ (8,0+)	7,4+ (7,4+)	6,9+ (6,9+)	5,8° (5,8°)		
9,0	4 pt. outriggers raised					9,0+ (9,0+)	7,1 (8,2+)	5,7 (7,1)	4,7 (5,8)	3,8 (4,8)		
	4 pt. outriggers down					9,0+ (9,0+)	8,2+ (8,2+)	7,5+ (7,5+)	6,9+ (6,9+)	6,3+ (6,3+)		
7,5	4 pt. outriggers raised				10,6+ (10,6+)	8,7 (9,3+)	6,9 (8,4+)	5,5 (6,9)	4,5 (5,7)	3,7 (4,7)		
	4 pt. outriggers down				10,6+ (10,6+)	9,3+ (9,3+)	8,4+ (8,4+)	7,6+ (7,6+)	6,9+ (6,9+)	6,3+ (6,3+)		
6,0	4 pt. outriggers raised		16,1+ (16,1+)	13,0+ (13,0+)	10,6 (11,1+)	8,2 (9,7+)	6,6 (8,2)	5,3 (6,7)	4,4 (5,5)	3,6 (4,6)		
	4 pt. outriggers down		16,1+ (16,1+)	13,0+ (13,0+)	11,1+ (11,1+)	9,7+ (9,7+)	8,6+ (8,6+)	7,7+ (7,7+)	7,0+ (7,0+)	6,3+ (6,3+)		
4,5	4 pt. outriggers raised	23,6+ (23,6+)	17,5+ (17,5+)	13,0 (14,0+)	9,9 (11,7+)	7,7 (9,6)	6,2 (7,8)	5,1 (6,4)	4,2 (5,3)	3,5 (4,5)	2,9 (3,9)	
	4 pt. outriggers down	23,6+ (23,6+)	17,5+ (17,5+)	14,0+ (14,0+)	11,7+ (11,7+)	10,1+ (10,1+)	8,8+ (8,8+)	7,8+ (7,8+)	7,0+ (7,0+)	6,3+ (6,3+)	5,5+ (5,5+)	
3,0	4 pt. outriggers raised	7,8° (7,8°)	16,2 (19,2+)	11,8 (14,8)	9,2 (11,5)	7,3 (9,1)	5,9 (7,5)	4,9 (6,2)	4,0 (5,2)	3,4 (4,4)	2,9 (3,8)	
	4 pt. outriggers down	7,8° (7,8°)	19,2+ (19,2+)	14,9+ (14,9+)	12,2+ (12,2+)	10,4+ (10,4+)	9,0+ (9,0+)	7,9+ (7,9+)	7,0+ (7,0+)	6,2+ (6,2+)	5,3+ (5,3+)	
1,5	4 pt. outriggers raised	4,9° (4,9°)	14,7 (15,3°)	11,0 (13,9)	8,6 (10,8)	6,9 (8,7)	5,6 (7,1)	4,7 (6,0)	3,9 (5,0)	3,3 (4,3)	2,8 (3,8)	
	4 pt. outriggers down	4,9° (4,9°)	15,3° (15,3°)	15,4+ (15,4+)	2,6+ (12,6+)	10,6+ (10,6+)	9,1+ (9,1+)	8,0+ (8,0+)	6,9+ (6,9+)	6,0+ (6,0+)	5,1+ (5,1+)	
0	4 pt. outriggers raised	5,0° (5,0°)	11,6° (11,6°)	10,3 (13,2)	8,1 (10,3)	6,5 (8,4)	5,4 (6,9)	4,5 (5,8)	3,8 (4,9)	3,2 (4,2)		
	4 pt. outriggers down	5,0° (5,0°)	11,6° (11,6°)	15,5+ (15,5+)	12,7+ (12,7+)	10,6+ (10,6+)	9,1+ (9,1+)	7,8+ (7,8+)	6,8+ (6,8+)	5,8+ (5,8+)		
– 1,5	4 pt. outriggers raised	6,2° (6,2°)	11,2° (11,2°)	9,9 (12,8)	7,7 (10,0)	6,3 (8,1)	5,2 (6,7)	4,4 (5,7)	3,7 (4,8)	3,2 (4,2)		
	4 pt. outriggers down	6,2° (6,2°)	11,2° (11,2°)	15,1+ (15,1+)	12,4+ (12,4+)	10,4+ (10,4+)	8,8+ (8,8+)	7,6+ (7,6+)	6,4+ (6,4+)	5,3+ (5,3+)		
– 3,0	4 pt. outriggers raised	7,5° (7,5°)	11,7° (11,7°)	9,7 (12,6)	7,6 (9,8)	6,1 (7,9)	5,1 (6,6)	4,3 (5,6)	3,7 (4,8)	3,2 (4,2)		
	4 pt. outriggers down	7,5° (7,5°)	11,7° (11,7°)	14,1+ (14,1+)	11,7+ (11,7+)	9,8+ (9,8+)	8,4+ (8,4+)	7,0+ (7,0+)	5,8+ (5,8+)	4,6+ (4,6+)		
– 4,5	4 pt. outriggers raised		13,0° (13,0°)	9,6 (12,5+)	7,5 (9,7)	6,0 (7,8)	5,0 (6,5)	4,2 (5,5)	3,7 (4,8)			
	4 pt. outriggers down		13,0° (13,0°)	12,5+ (12,5+)	10,5+ (10,5+)	8,9+ (8,9+)	7,5+ (7,5+)	6,2+ (6,2+)	5,2+ (5,2+)			

with industrial stick 9,50 m

Height m	Undercarriage	Radius of load from centerline of machine in m										
		4,5	6,0	7,5	9,0	10,5	12,0	13,5	15,0	16,5	18,0	19,5
16,5	4 pt. outriggers raised						6,8+ (6,8+)	4,6° (4,6°)				
	4 pt. outriggers down						6,8+ (6,8+)	4,6° (4,6°)				
15,0	4 pt. outriggers raised						6,6+ (6,6+)	5,4 (6,2+)	4,1° (4,1°)			
	4 pt. outriggers down						6,6+ (6,6+)	6,2+ (6,2+)	4,1° (4,1°)			
13,5	4 pt. outriggers raised						6,4+ (6,4+)	5,5 (6,0+)	4,3 (5,4)			
	4 pt. outriggers down						6,4+ (6,4+)	6,0+ (6,0+)	5,7+ (5,7+)			
12,0	4 pt. outriggers raised						6,4+ (6,4+)	5,5 (6,0+)	4,3 (5,5)	3,3 (4,4)		
	4 pt. outriggers down						6,4+ (6,4+)	6,0+ (6,0+)	5,6+ (5,6+)	5,0° (5,0°)		
10,5	4 pt. outriggers raised						6,5+ (6,5+)	5,4 (6,1+)	4,3 (5,5)	3,4 (4,4)	2,6 (3,4°)	
	4 pt. outriggers down						6,5+ (6,5+)	6,1+ (6,1+)	5,6+ (5,6+)	5,3+ (5,3+)	3,4° (3,4°)	
9,0	4 pt. outriggers raised						6,7+ (6,7+)	5,4 (6,2+)	4,2 (5,3)	3,3 (4,3)	2,6 (3,5)	
	4 pt. outriggers down						6,7+ (6,7+)	6,2+ (6,2+)	5,7+ (5,7+)	5,3+ (5,3+)	4,6° (4,6°)	
7,5	4 pt. outriggers raised					7,7+ (7,7+)	6,5 (6,9+)	5,2 (6,3+)	4,1 (5,2)	3,2 (4,3)	2,5 (3,4)	
	4 pt. outriggers down					7,7+ (7,7+)	6,9+ (6,9+)	6,3+ (6,3+)	5,8+ (5,8+)	5,3+ (5,3+)	4,8+ (4,8+)	
6,0	4 pt. outriggers raised				9,2+ (9,2+)	8,0 (8,1+)	6,2 (7,3+)	4,9 (6,3)	3,9 (5,1)	3,1 (4,1)	2,4 (3,4)	
	4 pt. outriggers down				9,2+ (9,2+)	8,1+ (8,1+)	7,3+ (7,3+)	6,5+ (6,5+)	5,9+ (5,9+)	5,3+ (5,3+)	4,8+ (4,8+)	
4,5	4 pt. outriggers raised		15,2+ (15,2+)	11,9+ (11,9+)	9,9 (10,1+)	7,6 (8,7+)	6,0 (7,5)	4,7 (6,0)	3,7 (4,9)	3,0 (4,0)	2,4 (3,3)	1,9 (2,7)
	4 pt. outriggers down		15,2+ (15,2+)	11,9+ (11,9+)	10,1+ (10,1+)	8,7+ (8,7+)	7,6+ (7,6+)	6,8+ (6,8+)	6,0+ (6,0+)	5,4+ (5,4+)	4,8+ (4,8+)	3,4° (3,4°)
3,0	4 pt. outriggers raised	22,9+ (22,9+)	16,7+ (16,7+)	12,2 (13,2+)	9,2 (10,9+)	7,1 (8,9)	5,6 (7,2)	4,5 (5,8)	3,6 (4,7)	2,9 (3,9)	2,3 (3,2)	1,8 (2,7)
	4 pt. outriggers down	22,9+ (22,9+)	16,7+ (16,7+)	13,2+ (13,2+)	10,9+ (10,9+)	9,2+ (9,2+)	7,9+ (7,9+)	7,0+ (7,0+)	6,2+ (6,2+)	5,4+ (5,4+)	4,8+ (4,8+)	3,4° (3,4°)
1,5	4 pt. outriggers raised	9,0° (9,0°)	15,7 (18,5+)	11,2 (14,2)	8,6 (10,8)	6,7 (8,5)	5,3 (6,8)	4,2 (5,5)	3,4 (4,6)	2,8 (3,8)	2,2 (3,1)	1,8 (2,7)
	4 pt. outriggers down	9,0° (9,0°)	18,5+ (18,5+)	14,2+ (14,2+)	11,5+ (11,5+)	9,6+ (9,6+)	8,2+ (8,2+)	7,1+ (7,1+)	6,2+ (6,2+)	5,4+ (5,4+)	4,6+ (4,6+)	3,6° (3,6°)
0	4 pt. outriggers raised	5,8° (5,8°)	14,5 (16,2°)	10,5 (13,5)	8,0 (10,3)	6,3 (8,1)	5,0 (6,5)	4,0 (5,3)	3,3 (4,4)	2,6 (3,7)	2,2 (3,1)	
	4 pt. outriggers down	5,8° (5,8°)	16,2° (16,2°)	14,9+ (14,9+)	12,0+ (12,0+)	9,9+ (9,9+)	8,4+ (8,4+)	7,2+ (7,2+)	6,2+ (6,2+)	5,3+ (5,3+)	4,5+ (4,5+)	
– 1,5	4 pt. outriggers raised	5,7° (5,7°)	11,9° (11,9°)	9,9 (12,9)	7,6 (9,8)	6,0 (7,8)	4,8 (6,3)	3,9 (5,2)	3,2 (4,3)	2,6 (3,6)	2,1 (3,0)	
	4 pt. outriggers down	5,7° (5,7°)	11,9° (11,9°)	15,1+ (15,1+)	12,1+ (12,1+)	10,0+ (10,0+)	8,4+ (8,4+)	7,1+ (7,1+)	6,1+ (6,1+)	5,1+ (5,1+)	4,1+ (4,1+)	
– 3,0	4 pt. outriggers raised	6,2° (6,2°)	11,2° (11,2°)	9,6 (12,5)	7,3 (9,5)	5,7 (7,5)	4,6 (6,1)	3,7 (5,0)	3,1 (4,2)	2,5 (3,5)	2,1 (3,0)	
	4 pt. outriggers down	6,2° (6,2°)	11,2° (11,2°)	14,7+ (14,7+)	11,8+ (11,8+)	9,8+ (9,8+)	8,2+ (8,2+)	6,9+ (6,9+)	5,8+ (5,8+)	4,7+ (4,7+)	3,5+ (3,5+)	
– 4,5	4 pt. outriggers raised	7,2° (7,2°)	11,4° (11,4°)	9,4 (12,3)	7,1 (9,3)	5,6 (7,4)	4,5 (6,0)	3,7 (5,0)	3,0 (4,1)	2,5 (3,5)		
	4 pt. outriggers down	7,2° (7,2°)	11,4° (11,4°)	13,7+ (13,7+)	11,2+ (11,2+)	9,2+ (9,2+)	7,7+ (7,7+)	6,4+ (6,4+)	5,3+ (5,3+)	4,1+ (4,1+)		
– 6,0	4 pt. outriggers raised		12,0° (12,0°)	9,4 (12,3)	7,1 (9,3)	5,5 (7,3)	4,5 (6,0)	3,6 (4,9)	3,0 (4,1)			
	4 pt. outriggers down		12,0° (12,0°)	12,4+ (12,4+)	10,0+ (10,0+)	8,4+ (8,4+)	6,9+ (6,9+)	5,7+ (5,7+)	4,5+ (4,5+)			

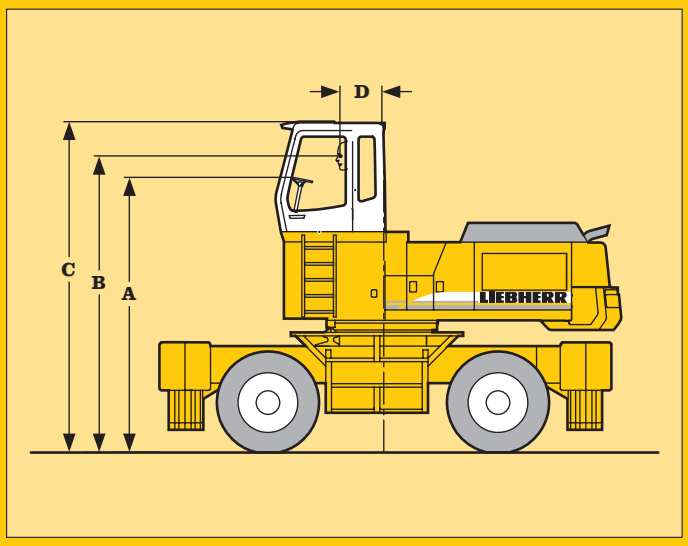
Lift capacities are stated in metric tonnes and can be lifted 360° on firm, level supporting surface. The load point is the pin at the stick tip. Loads in (...) can be lifted over end only. Loads with "stabilizers raised" are valid only over steering axle (travel position). Indicated loads are based on ISO 10567 and do not exceed 75% of tipping or 87% of hydraulic capacity. Lift capacities do not include the weight of grapple, clamshells or other lifting devices, which must be deducted from the above figures.

+ Rating limited by hoist cylinders

° Rating limited by stick cylinder

Note: When used within the countries of the "European Union" and when lifting a load, this excavator has to be equipped with an overload warning device and its hoist cylinders with automatic check valves, according to the European Standard EN 474-5.

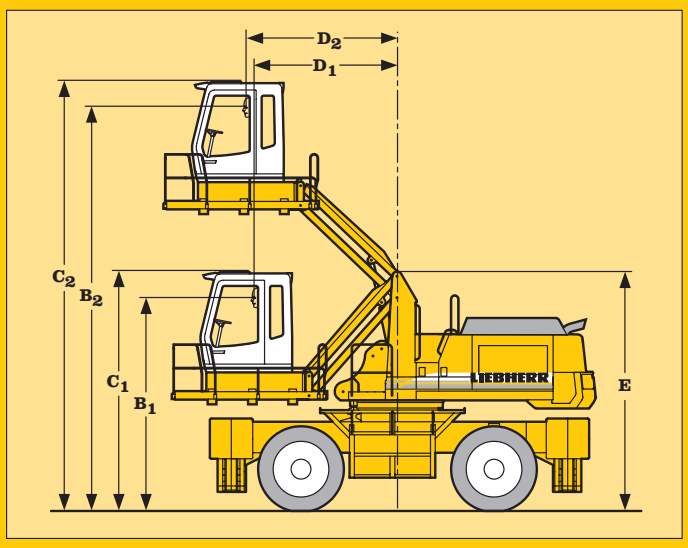
Lift Capacities with Industrial-Type Straight Boom 10,30 m



Rigid Cab Elevation

Height	1200 mm	2000 mm
A	4285 mm	5085 mm
B	4620 mm	5420 mm
C	5150 mm	5950 mm
D	665 mm	665 mm
Weight	600 kg	830 kg

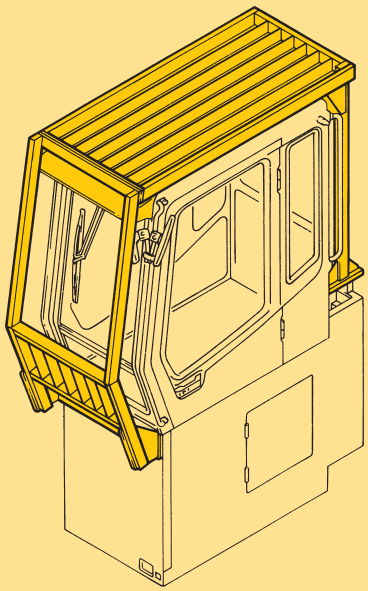
A rigid cab elevation has a fixed eye level height. For a lower transport height the shell of the cab can be removed. The overall height is then dimension A.



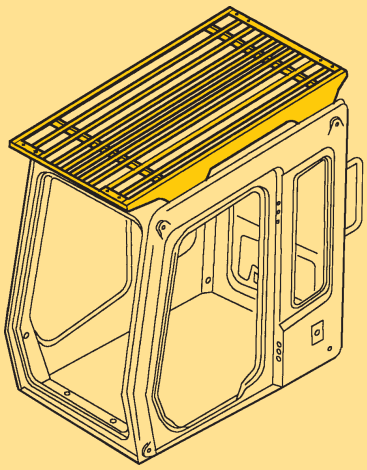
Hydraulical Cab Elevation Parallelogram + distance piece 0,5 m

B1	3930 mm
B2	7500 mm
C1	4467 mm
C2	8037 mm
D1	2660 mm
D2	2800 mm
E	4480 mm
Weight adjustment device	1870 kg

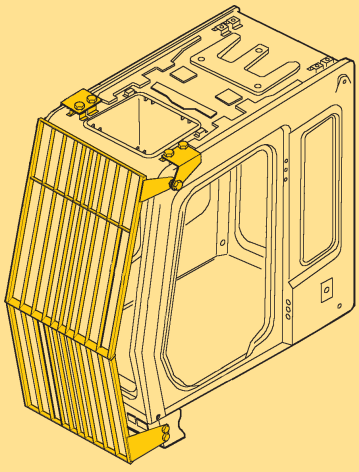
The parallelogram cab raiser allows the operator to choose his eye level between dimensions B1 and B2. For a transport height lower than C1 the shell of the cab can be removed. The overall height is then E.



Cab guard for cab

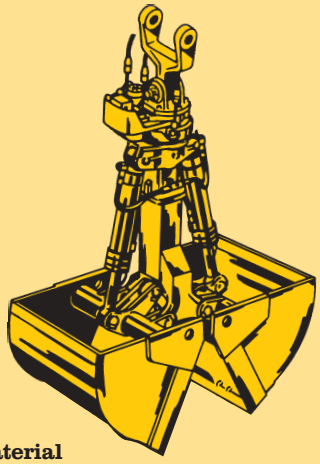


Grille above



Grilles in front

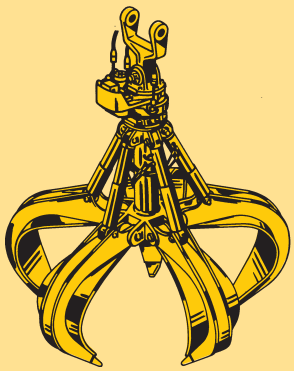
Choice of Cab Elevations and Cab Protections



Shells for loose material

Clamshell model 22

		Shells for loose material with cutting edge, without teeth	
Cutting width of shells	mm	1500	1500
Capacity	m³	1,85	2,20
For loose material, specific weight up to	t/m³	1,5	1,2
Total weight	kg	2290	2340



Multiple Tine Grapples

Grapple model 72 B with 4 tines

		open tines			semi-closed tines			closed tines		
Capacity	m³	1,20	1,40	1,60	1,20	1,40	1,60	1,20	1,40	1,60
Total weight	kg	1930	1945	1965	2130	2170	2190	2390	2450	2490

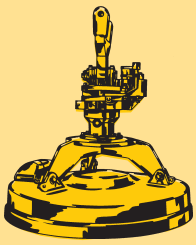
Grapple model 72 B with 5 tines

		open tines			semi-closed tines			closed tines		
Capacity	m³	1,20	1,40	1,60	1,20	1,40	1,60	1,20	1,40	1,60
Total weight	kg	2380	2410	2430	2650	2690	2720	2970	3050	3100

Crane Hook

Crane hook with suspension

Max. load	t	12,5
Height with suspension	mm	1250
Total weight	kg	265



Electric Magnet

Electro magnets with suspension

Magnet information on request

Variety of Tools

Standard Equipment

Undercarriage

- Two circuit travel brake with accumulator
- Proportional power steering with mechanical back up
- Service free parking brake inside transmission
- Auto check valve directly on each stabilizer cylinder

Uppercarriage

- Engine hood with lift help
- Lockable tool box
- Main switch for electric circuit
- Handrails, non slip surfaces
- Tool kit
- Pedal controlled positioning swing brake
- Maintenance-free HD-batteries
- Sound insulation
- Pin lock upper/lower

Hydraulics

- Electronic pump regulation at all R.P.M.
- Four fixed modes, can also be adjusted
- Pressure storage for controlled lowering of attachments with engine turned off
- Hydraulic tank shut-off valve
- Pressure compensation
- Flow compensation
- Filter with partial micro filtration (5 µm)
- Hook ups for pressure checks
- High pressure filter

Engine

- Direct injection
- Turbo charger with load air cooling
- Air filter with pre-cleaner main- and safety element
- Sensor controlled engine idling
- 80 A generator

Operator's cab

- Deep drawn cab shell components
- Air condition
- All tinted windows
- Door with sliding window
- All-round adjustable roof vent
- Rain hood over front window opening
- Wiper/washer
- 6-way adjustable seat
- Seat and consoles independently adjustable
- Cloth hook
- Dome light
- Sun shade
- Inside rear mirror
- Cigarette lighter and ashtray
- Removable customized foot mat
- Storage compartment
- Warning lights
- Digital instruments for oil temp, engine R.P.M. and oil pressure
- Additional mechanical hour meter, readable from outside the cab
- Adjustable steering wheel

Attachment

- Cylinders with shock absorber
- Sealed pivots
- Centralized lube points
- SAE-dbl flange connection for all hi-pressure lines
- Flood lights on boom and cab

Optional Equipment

Undercarriage

- Lockable rust free storage box
- Customized colors
- Piston rod protection
- Increased stabilizer bases (removeable)

Uppercarriage

- Electric fuel tank filler pump
- Extended tool kit
- Customized colors
- Catwalk laterally
- Automatic centralized lubrication system

Hydraulics

- Additional hydraulic circuits
- Bio degradable hydraulic oil
- Full flow micro filtration

Engine

- Cold start aid
- Automatic idling

Operator's cab

- Preparation for radio installation
- Stereo radio
- Airpressure adjustable operator seat with heating and head-rest
- Beacon
- Optical and acoustical warning if outriggers are not fully retracted
- Electronic drive away lock
- Bullet proof window
- Additional flood lights
- Cab guard
- Hydraulic cab elevation with platform
- Rigid cab elevation

Attachment

- Safety check valves
- Overload warning device
- Standard and custom made grapple, shells and tongs
- Customized colors
- Locking of connection for all hi-pressure lines
- Generator for magnet and special grapples

Options and/or special attachments, supplied by vendors other than Liebherr, are only to be installed with the knowledge and approval of Liebherr.

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