

Technical Description Hydraulic Excavator

A 924 B
Litronic®

Machine for Industrial Applications

Operating Weight 44,950 - 58,000 lbs

Engine Output 173 HP (127 kW)



LIEBHERR

Technical Data



Engine

Rating per ISO 9249	173 HP (127 kW) at 2000 RPM
Model	Liebherr D 924 TI-E
Type	4 cylinder in-line
Bore/Stroke	4.8/5.6 in
Displacement	1.74 gal
Engine operation	4-stroke diesel direct injection turbo-charged after-cooled reduced emissions
Cooling system	water radiator with integrated engine oil cooler
Air cleaner	dry-type air cleaner with pre-cleaner, primary and safety elements
Fuel tank	95 gal
Engine idling	sensor controlled
Electrical system	
Voltage	24 V
Batteries	2 x 110 Ah/12 V
Starter	24 V/5.4 kW
Alternator	24 V/55 A



Hydraulic System

Hydraulic pump	Liebherr, variable displacement, swash-plate pump
Max. flow	2 x 53 gpm
Max. hydr. pressure	5075 PSI
Hydraulic pump regulation and control	Liebherr-Synchron-Comfort-system (LSC) with electronic engine speed sensing regulation, pressure and flow compensation, load sensing and torque controlled swing drive priority
Hydraulic tank	61 gal
Hydraulic system	max. 116 gal
Hydraulic oil filter	1 full flow filter in return line with integrated fine filter area (5 µm)
Hydraulic oil cooler	compact cooler, consisting of a water cooler, sandwiched with hydraulic oil cooler and after-cooler cores and hydrostatically driven fan
MODE selection	adjustment of machine performance and the hydraulics via a mode selector to match application
LIFT	for lifting
FINE	for precision work and lifting through very sensitive movements
ECO	for especially economical and environmentally friendly operation
POWER	for maximum digging power and heavy duty jobs
Super-Finish	adjustable working speed for precision work
R.P.M. adjustment	stepless adjustment of engine output via the r.p.m. at each selected mode
Additional menu	4 adjustable oil flows, for optional accessories



Hydraulic Controls

Power distribution	via control valve with integrated safety valves, simultaneous and independent operation of travel drive, swing drive and work
Control type	
Attachment and swing	proportional via joystick levers
Travel	proportional via foot pedal
Additional functions	via switch and/or proportional foot pedals



Swing Drive

Drive	Liebherr swashplate motor with integrated brake valve and torque control
Transmission	Liebherr compact planetary reduction gear
Swing ring	Liebherr sealed single race ball bearing swing ring, internal teeth
Swing speed	0–8,0 R.P.M.
Swing torque	74 kNm
Holding brake	wet discs (spring applied – pressure released)
Option	pedal controlled positioning brake



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 and size, 6-way adjustable seat
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	
ISO 6396	L_{pA} (inside cab) = 75 dB(A)
2000/14/EC	L_{wA} (surround noise) = 104 dB(A)



Undercarriage

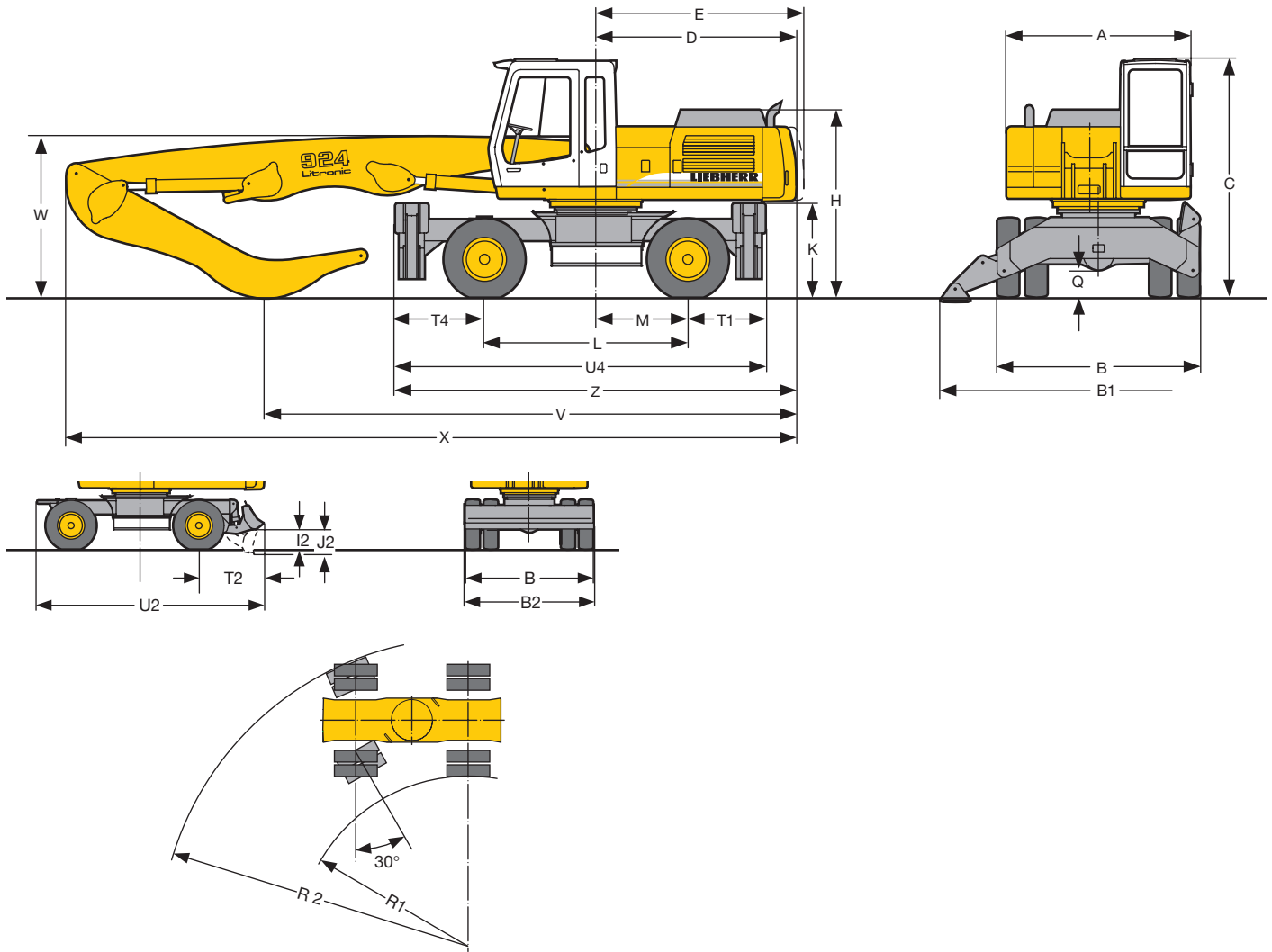
Drive	variable flow swashplate motor with automatic brake valve
Transmission	oversized two speed power shift transmission with additional creeper speed
Travel speed	0– 1.6 mph (creeper speed off road) 0– 3.1 mph (off road) 0– 5.6 mph (creeper speed on road) 0–12.4 mph (road travel)
Axles	88,200 lbs excavator axles; automatic or operator controlled front axle oscillation lock
Brakes	wet, maintenance-free multi disc brakes act as travel brakes or digging locks. Spring applied/pressure released
Stabilization	prop up blade (adjustable during travel for dozing) 2 point outriggers 4 point outriggers



Attachment

Type	resistant steel plates
Hydraulic cylinders	Liebherr cylinders with special seal system. Shock absorption
Pivots	sealed, low maintenance
Lubrication	via grease distributor and a grease nipple installed on the uppercarriage

Dimensions



	ft-in
A	8' 2"
B	9' 0"
B1	13'12"
B2	9' 0"
C	10' 6"
D	8'11"
E	9' 3"
H	8' 4"
I2	1' 5"
J2	1' 9"
K	4' 3"
L	9' 0"
M	4' 1"
Q	1' 2"
R1	13'11"
R2	24'10"
T1	3' 5"
T2	4' 7"
T4	3'11"
U2	16' 1"
U4	16' 4"
Z	17' 9"
Z ¹⁾	16' 3"

1) 4 point outriggers
E = Tail radius

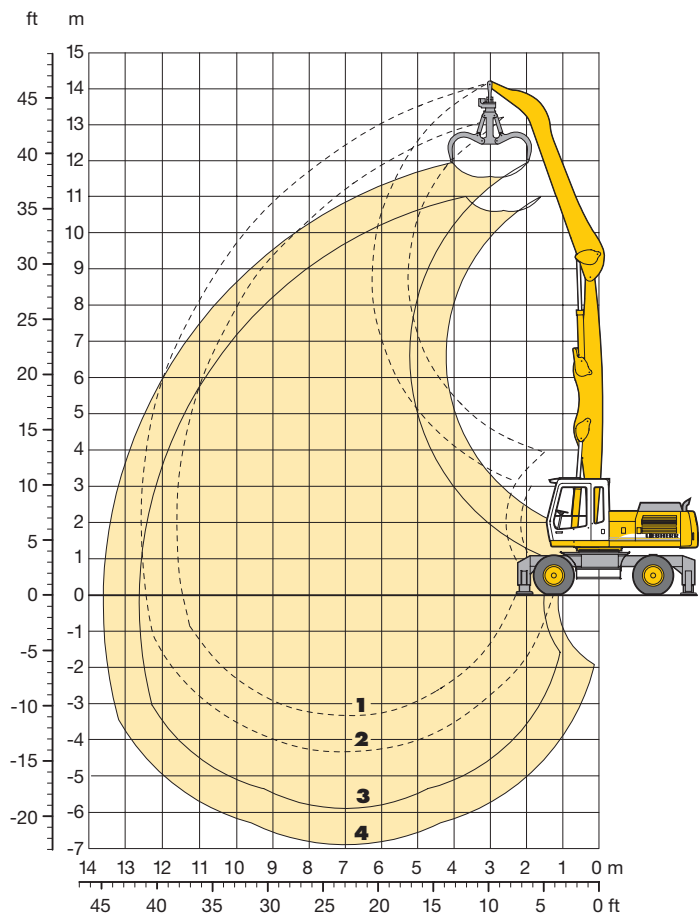
	Indus- trial Stick	Industrial-Type Straight Boom 22'3"	Industrial-Type Gooseneck Boom 21'4"
		Prop up blade	4 pt. outr.
	ft-in	ft-in	ft-in
V	13'11"	—	—
	16'5"	20' 4"	20'8"
	19'8"	18' 8"	18'6"
W	13'11"	—	—
	16'5"	7' 9"	8'8"
	19'8"	12'10"	12'4"
X	13'11"	—	—
	16'5"	32' 8"	32'8"
	19'8"	32' 2"	32'4"

Dimensions are with attachment over steering axle
* Attachment over digging axle for shorter transport dimensions

Tires 11.00-20

Industrial Attachment

for Scrap Handling with Straight Boom 22'3"



Attachment Envelope

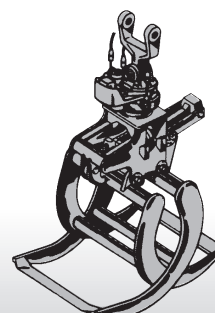
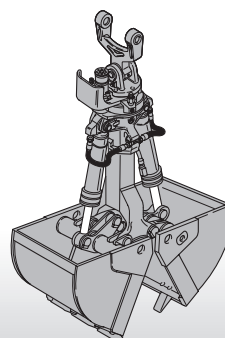
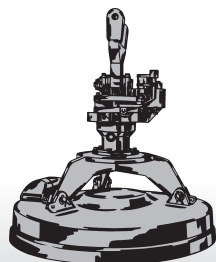
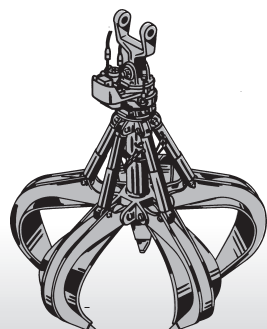
Industrial-type straight boom pinned in rear bearing of boom foot bracket

- 1** with industrial stick 16'5"
- 2** with industrial stick 19'8"
- 3** with industrial stick 16'5" and grapple model 65
- 4** with industrial stick 19'8" and grapple model 65

Operating Weight

The operating weight includes basic machine with 4 pt. outriggers, hydr. cab elevation, 8 solid tires plus spacer rings, and industrial application with industrial-type straight boom 22'3".

with grapple model 65/0.80 cuyd semi-closed tines	Weight
and industrial stick 16'5"	54,680 lbs
and industrial stick 19'8"	55,100 lbs



Lift Capacities

for Scrap Handling with Straight Boom 22'3"

Industrial Stick 16'5"

Height (ft)	Undercarriage	Radius of load from centerline of machine (ft)						
		10	15	20	25	30	35	40
40	Stabilizers raised 4 pt. outriggers down		17300# (17300#) 17300# (17300#)					
35	Stabilizers raised 4 pt. outriggers down			11600 (16700) 17100# (17100#)	7800 (11300) 11500# (11500#)			
30	Stabilizers raised 4 pt. outriggers down			11900 (16900) 17100# (17100#)	8100 (11700) 14900# (14900#)			
25	Stabilizers raised 4 pt. outriggers down			11700 (16800) 17100# (17100#)	8100 (11600) 14900# (14900#)	5900 (8500) 11900 (13000#)		
20	Stabilizers raised 4 pt. outriggers down		17900 (21700#) 21700# (21700#)	11300 (16300) 17800# (17800#)	7900 (11400) 15100# (15100#)	5800 (8400) 11800 (13100#)	4300 (6400) 9100 (11000#)	
15	Stabilizers raised 4 pt. outriggers down	21400# (21400#) 21400# (21400#)	16600 (24100#) 24100# (24100#)	10600 (15600) 18900# (18900#)	7500 (11000) 15400 (15600#)	5600 (8200) 11500 (13200#)	4200 (6400) 9000 (11100#)	
10	Stabilizers raised 4 pt. outriggers down	26800 (41000#) 41000# (41000#)	14800 (22800) 26700# (26700#)	9800 (14600) 20000# (20000#)	7000 (10400) 14800 (16000#)	5300 (7900) 11200 (13200#)	4100 (6200) 8900 (10800#)	
5	Stabilizers raised 4 pt. outriggers down	6000# (6000#) 6000# (6000#)	13000 (20800) 27900# (27900#)	8900 (13700) 19900 (20500#)	6500 (9900) 14200 (16000#)	5000 (7600) 10900 (12900#)	3900 (6100) 8700 (10300#)	
0	Stabilizers raised 4 pt. outriggers down	6600# (6600#) 6600# (6600#)	11900 (19500) 22400# (22400#)	8200 (12900) 19100 (19700#)	6100 (9500) 13800 (15300#)	4800 (7400) 10600 (12100#)	3800 (6000) 8600 (9300#)	
- 5	Stabilizers raised 4 pt. outriggers down		11500 (19000) 20400# (20400#)	7900 (12500) 17400# (17400#)	5900 (9200) 13500 (13600#)	4600 (7200) 10500 (10500#)	3800 (5900) 7300# (7300#)	
- 10	Stabilizers raised 4 pt. outriggers down			7800 (12400) 13700# (13700#)	5800 (9200) 10800# (10800#)			

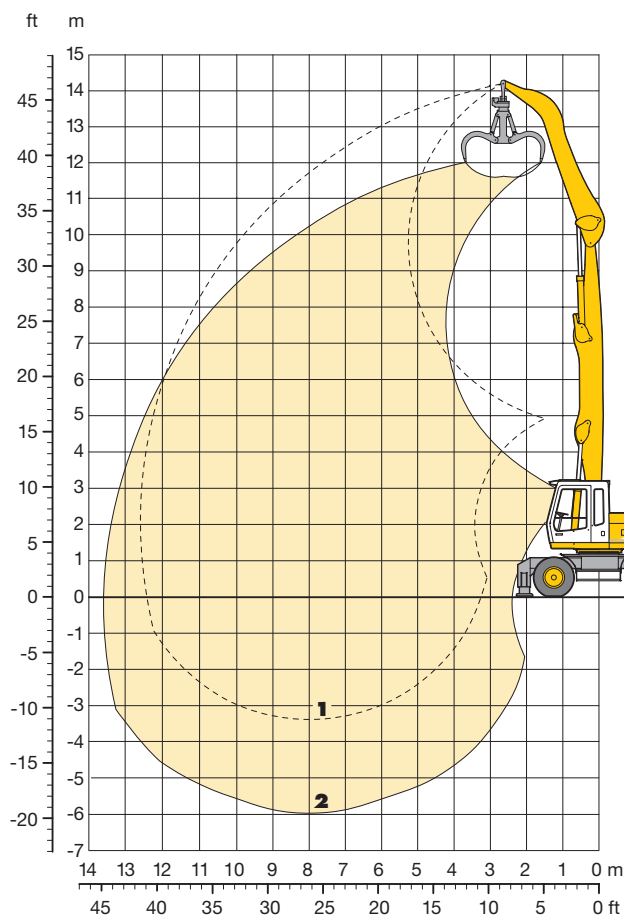
Industrial Stick 19'8"

Height (ft)	Undercarriage	Radius of load from centerline of machine (ft)						
		10	15	20	25	30	35	40
40	Stabilizers raised 4 pt. outriggers down			11800 (14100#) 14100# (14100#)				
35	Stabilizers raised 4 pt. outriggers down			12300 (15800#) 15800# (15800#)	8400 (12000) 13600# (13600#)			
30	Stabilizers raised 4 pt. outriggers down				8600 (12200) 13800# (13800#)	6100 (8800) 12200 (12400#)		
25	Stabilizers raised 4 pt. outriggers down				8500 (12100) 13800# (13800#)	6200 (8900) 12200 (12300#)	4500 (6700) 9300 (10800#)	
20	Stabilizers raised 4 pt. outriggers down			12000 (16300#) 16300# (16300#)	8300 (11800) 14200# (14200#)	6000 (8700) 12000 (12500#)	4500 (6600) 9300 (11000#)	
15	Stabilizers raised 4 pt. outriggers down		17600# (17600#) 17600# (17600#)	11300 (16300) 17500# (17500#)	7800 (11400) 14800# (14800#)	5800 (8400) 11800 (12700#)	4300 (6500) 9200 (11000#)	3300 (5100) 7300 (8700#)
10	Stabilizers raised 4 pt. outriggers down	20500# (20500#) 20500# (20500#)	16000 (24200) 24600# (24600#)	10300 (15200) 18900# (18900#)	7300 (10800) 15200 (15400#)	5400 (8100) 11400 (12900#)	4200 (6300) 8900 (10900#)	3200 (5000) 7200 (8900#)
5	Stabilizers raised 4 pt. outriggers down	16800# (16800#) 16800# (16800#)	13900 (21800) 27100# (27100#)	9300 (14100) 20000# (20000#)	6700 (10100) 14500 (15800#)	5100 (7700) 11000 (13000#)	3900 (6100) 8700 (10700#)	3100 (4900) 7100 (8400#)
0	Stabilizers raised 4 pt. outriggers down	8000# (8000#) 8000# (8000#)	12300 (20000) 27300# (27300#)	8400 (13100) 19400 (20000#)	6200 (9600) 13900 (15600#)	4800 (7400) 10700 (12600#)	3800 (5900) 8500 (10100#)	3100 (4900) 7000 (7400#)
- 5	Stabilizers raised 4 pt. outriggers down	9200# (9200#) 9200# (9200#)	11400 (19000) 22100# (22100#)	7800 (12500) 18700 (18700#)	5800 (9200) 13500 (14600#)	4500 (7100) 10400 (11500#)	3600 (5800) 8400 (8900#)	
- 10	Stabilizers raised 4 pt. outriggers down		11100 (18600) 20500# (20500#)	7600 (12200) 16000# (16000#)	5700 (9000) 12500# (12500#)	4400 (7000) 9700# (9700#)	3600 (5700) 6800# (6800#)	

The lift capacities are stated in lbs on the lifting gear's stick tip, and can be lifted 360° on firm, level supporting surface with closed steering axle. Capacities shown in brackets are valid when the undercarriage is in longitudinal position and are established over the steering axle (travel position) with stabilizers raised, and over rigid axle with stabilizers down. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (#). Lift capacities do not include the weight of a grapple, clamshells, magnet or other lifting devices, which must be deducted from the above figures. Lifting capacity of the excavator is limited by machine stability, hydraulic capacity and maximum permissible load of the load hook.

Industrial Attachment

for Scrap Handling with Straight Boom 25'7"



Attachment Envelope

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

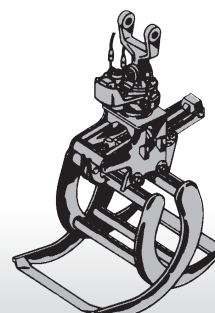
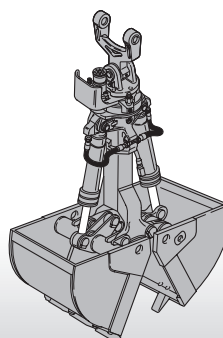
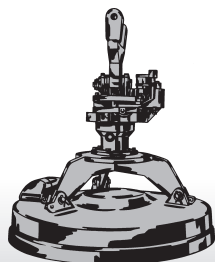
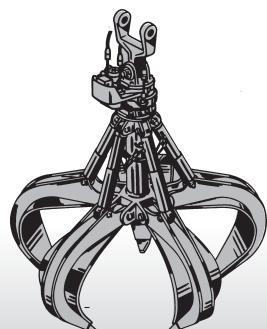
1 with industrial stick 16'5"

2 with industrial stick 16'5" and grapple model 65

Operating Weight

The operating weight includes basic machine with 4 pt. outriggers, hydr. cab elevation, 8 solid tires plus spacer rings, and industrial application with industrial-type straight boom 25'7".

with grapple model 65/0.80 cuyd semi-closed tines	Weight
and industrial stick 16'5"	58,000 lbs



Lift Capacities

for Scrap Handling with Straight Boom 25'7"

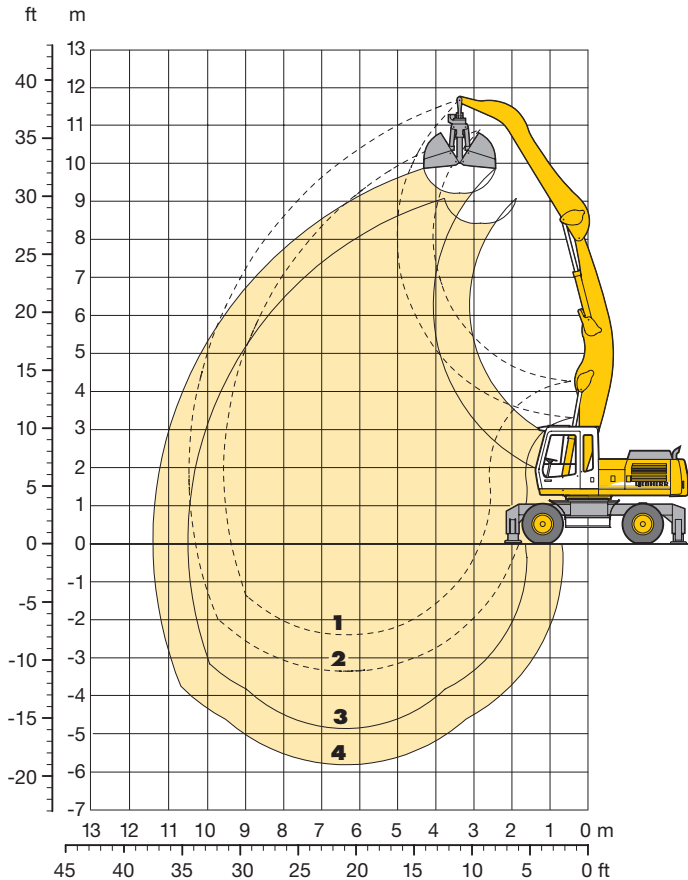
Industrial Stick 16'5"

Height (ft)	Undercarriage	Radius of load from centerline of machine (ft)						
		10	15	20	25	30	35	40
40	Stabilizers raised 4 pt. outriggers down			11400 (16300#) 16300# (16300#)				
35	Stabilizers raised 4 pt. outriggers down			11900 (16800#) 16800# (16800#)	8100 (11600) 14400# (14400#)			
30	Stabilizers raised 4 pt. outriggers down			11900 (16700#) 16700# (16700#)	8100 (11700) 14300# (14300#)	5800 (8500) 11800 (12400#)		
25	Stabilizers raised 4 pt. outriggers down			11500 (16600) 17100# (17100#)	7900 (11500) 14400# (14400#)	5700 (8400) 11800 (12400#)	4200 (6400) 9000 (10700#)	
20	Stabilizers raised 4 pt. outriggers down		17100 (22700#) 22700# (22700#)	10900 (15900) 17900# (17900#)	7600 (11100) 14700# (14700#)	5500 (8200) 11500 (12500#)	4100 (6300) 8900 (10700#)	
15	Stabilizers raised 4 pt. outriggers down	28500 (37500#) 37500# (37500#)	15200 (23400) 24900# (24900#)	9900 (14800) 18800# (18800#)	7000 (10500) 14900 (15200#)	5200 (7900) 11200 (12600#)	3900 (6100) 8700 (10600#)	3000 (4800) 7000 (8700#)
10	Stabilizers raised 4 pt. outriggers down		12900 (20800) 26600# (26600#)	8800 (13600) 19500# (19500#)	6400 (9800) 14200 (15400#)	4800 (7500) 10800 (12600#)	3700 (5900) 8500 (10400#)	2900 (4700) 6900 (8400#)
5	Stabilizers raised 4 pt. outriggers down		11100 (12400#) 12400# (12400#)	7800 (12500) 18700 (19300#)	5800 (9200) 13500 (15100#)	4500 (7100) 10400 (12200#)	3500 (5700) 8300 (10000#)	2800 (4600) 6800 (7700#)
0	Stabilizers raised 4 pt. outriggers down		10300 (10400#) 10400# (10400#)	7200 (11800) 17900# (17900#)	5400 (8700) 13000 (14200#)	4200 (6800) 10100 (11400#)	3400 (5500) 8100 (9100#)	2800 (4600) 6600# (6600#)
- 5	Stabilizers raised 4 pt. outriggers down		10100 (12100#) 12100# (12100#)	6900 (11500) 15300# (15300#)	5200 (8500) 12500# (12500#)	4000 (6600) 9900 (10000#)	3300 (5400) 7700# (7700#)	
- 10	Stabilizers raised 4 pt. outriggers down				5100 (8400) 9900# (9900#)	4000 (6600) 7800# (7800#)		

The lift capacities are stated in lbs on the lifting gear's stick tip, and can be lifted 360° on firm, level supporting surface with closed steering axle. Capacities shown in brackets are valid when the undercarriage is in longitudinal position and are established over the steering axle (travel position) with stabilizers raised, and over rigid axle with stabilizers down. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (#). Lift capacities do not include the weight of a grapple, clamshells, magnet or other lifting devices, which must be deducted from the above figures. Lifting capacity of the excavator is limited by machine stability, hydraulic capacity and maximum permissible load of the load hook.

Industrial Attachment

for Loose Material with Gooseneck Boom 21'4"



Attachment Envelope

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

- 1** with industrial stick 13'1"
- 2** with industrial stick 16'5"
- 3** with industrial stick 13'1" and clamshell model 10 B
- 4** with industrial stick 16'5" and clamshell model 10 B

Operating Weight

The operating weight includes basic machine with 4 pt. outriggers, 8 tires plus spacer rings and industrial application with industrial-type gooseneck boom 21'4".

with clamshell model 10 B/1.30 cuyd shells for loose material	Weight
and industrial stick 13'1"	49,400 lbs
and industrial stick 16'5"	49,600 lbs

Lift Capacities

for Loose Material with Gooseneck Boom 21'4"

Industrial Stick 13'1"

Height (ft)	Undercarriage	Radius of load from centerline of machine (ft)						
		10	15	20	25	30	35	40
40	Stabilizers raised 4 pt. outriggers down							
35	Stabilizers raised 4 pt. outriggers down		15900# (15900#) 15900# (15900#)					
30	Stabilizers raised 4 pt. outriggers down		17300 (20200#) 20200# (20200#)	10900 (15600) 17100# (17100#)				
25	Stabilizers raised 4 pt. outriggers down		17200 (20200#) 20200# (20200#)	10900 (15600) 17200# (17200#)	7500 (10700) 14800 (15100#)			
20	Stabilizers raised 4 pt. outriggers down		16600 (21500#) 21500# (21500#)	10600 (15200) 17800# (17800#)	7400 (10600) 14700 (15300#)			
15	Stabilizers raised 4 pt. outriggers down	28900 (34500#) 34500# (34500#)	15300 (23000) 24100# (24100#)	9900 (14500) 18900# (18900#)	7000 (10200) 14300 (15700#)	5200 (7600) 10700 (13400#)		
10	Stabilizers raised 4 pt. outriggers down	20600# (20600#) 20600# (20600#)	13700 (21100) 27000# (27000#)	9200 (13600) 19600 (20100#)	6600 (9800) 13800 (16200#)	5000 (7400) 10500 (13300)		
5	Stabilizers raised 4 pt. outriggers down	7800# (7800#) 7800# (7800#)	12200 (19400) 28100# (28100#)	8400 (12800) 18600 (20700#)	6200 (9400) 13400 (16200#)	4800 (7200) 10200 (13100)		
0	Stabilizers raised 4 pt. outriggers down	10300# (10300#) 10300# (10300#)	11400 (18500) 26500# (26500#)	7900 (12200) 18000 (20000#)	5900 (9000) 13000 (15600#)	4600 (7000) 10000 (12200#)		
- 5	Stabilizers raised 4 pt. outriggers down		11200 (18200) 22700# (22700#)	7600 (12000) 17700 (17800#)	5700 (8800) 12800 (13900#)	4500 (6900) 10000 (10300#)		
- 10	Stabilizers raised 4 pt. outriggers down							

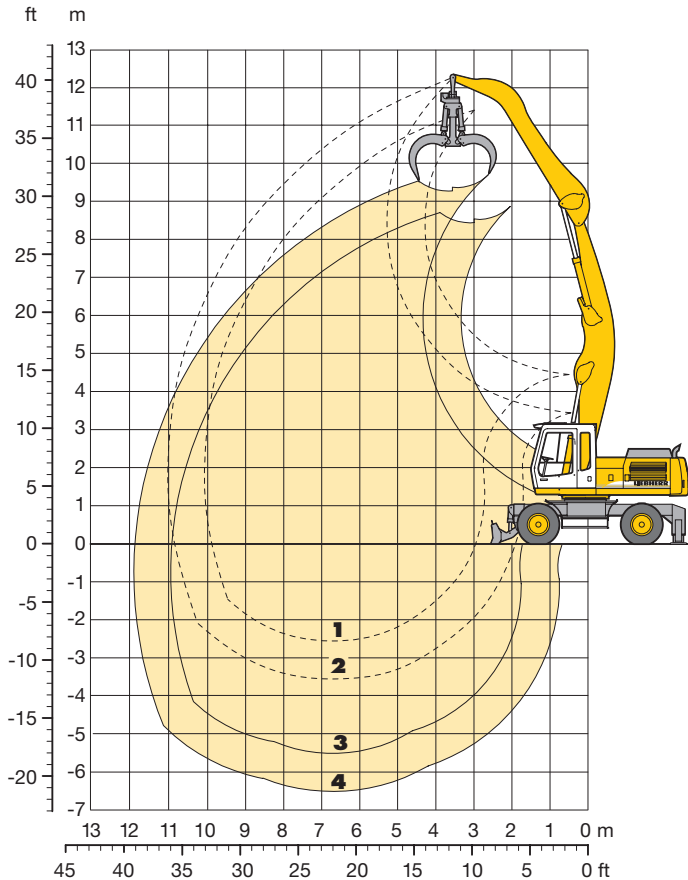
Industrial Stick 16'5"

Height (ft)	Undercarriage	Radius of load from centerline of machine (ft)						
		10	15	20	25	30	35	40
40	Stabilizers raised 4 pt. outriggers down							
35	Stabilizers raised 4 pt. outriggers down			11200 (12900#) 12900# (12900#)				
30	Stabilizers raised 4 pt. outriggers down			11500 (15500#) 15500# (15500#)	7800 (11100) 12700# (12700#)			
25	Stabilizers raised 4 pt. outriggers down			11500 (15500#) 15500# (15500#)	7900 (11200) 13900# (13900#)	5600 (8100) 10800# (10800#)		
20	Stabilizers raised 4 pt. outriggers down			11100 (15800) 16200# (16200#)	7700 (11000) 14200# (14200#)	5600 (8000) 11100 (12600#)		
15	Stabilizers raised 4 pt. outriggers down		16400 (21400#) 21400# (21400#)	10500 (15100) 17400# (17400#)	7300 (10600) 14700 (14800#)	5400 (7800) 10900 (12800#)	4000 (6000) 8400 (9300#)	
10	Stabilizers raised 4 pt. outriggers down	27100 (37100#) 37100# (37100#)	14700 (22200) 24800# (24800#)	9600 (14100) 19000# (19000#)	6800 (10000) 14100 (15500#)	5100 (7500) 10600 (13100#)	3900 (5900) 8300 (10600)	
5	Stabilizers raised 4 pt. outriggers down	15600# (15600#) 15600# (15600#)	12800 (20100) 27300# (27300#)	8700 (13100) 19000 (20100#)	6300 (9500) 13500 (16000#)	4800 (7200) 10300 (13100#)	3700 (5700) 8100 (10400)	
0	Stabilizers raised 4 pt. outriggers down	11700# (11700#) 11700# (11700#)	11600 (18700) 27500# (27500#)	8000 (12300) 18100 (20300#)	5900 (9000) 13000 (15800#)	4500 (7000) 10000 (12700#)	3600 (5600) 8000 (10000#)	
- 5	Stabilizers raised 4 pt. outriggers down	13100# (13100#) 13100# (13100#)	11000 (18000) 25200# (25200#)	7500 (11800) 17600 (19100#)	5600 (8700) 12700 (14900#)	4400 (6800) 9800 (11600#)		
- 10	Stabilizers raised 4 pt. outriggers down		10800 (17800) 20900# (20900#)	7300 (11700) 16300# (16300#)	5500 (8600) 12600 (12700#)			

The lift capacities are stated in lbs on the lifting gear's stick tip, and can be lifted 360° on firm, level supporting surface with closed steering axle. Capacities shown in brackets are valid when the undercarriage is in longitudinal position and are established over the steering axle (travel position) with stabilizers raised, and over rigid axle with stabilizers down. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (#). Lift capacities do not include the weight of a grapple, clamshells, magnet or other lifting devices, which must be deducted from the above figures. Lifting capacity of the excavator is limited by machine stability, hydraulic capacity and maximum permissible load of the load hook.

Industrial Attachment

for Wood Handling with Gooseneck Boom 21'4"



Attachment Envelope

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

- 1** with industrial stick 13'1"
- 2** with industrial stick 16'5"
- 3** with industrial stick 13'1" and wood grapple
- 4** with industrial stick 16'5" and wood grapple

Operating Weight

The operating weight includes basic machine with prop-up blade, 8 tires plus spacer rings and industrial application with industrial-type gooseneck boom 21'4".

with wood grapple 5.3 sqft rotary drive with 2 motors	Weight
with industrial stick 13'1"	44,950 lbs
with industrial stick 16'5"	45,200 lbs

with wood grapple 8.6 sqft rotary drive with 2 motors	Weight
with industrial stick 13'1"	45,200 lbs
with industrial stick 16'5"	45,500 lbs

Lift Capacities

for Wood Handling with Gooseneck Boom 21'4"

Industrial Stick 13'1"

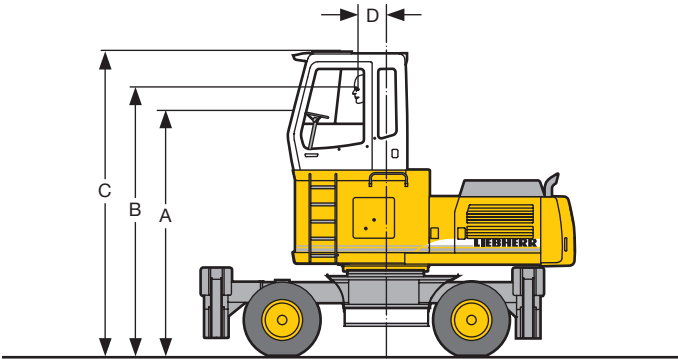
Height (ft)	Undercarriage	Radius of load from centerline of machine (ft)						
		10	15	20	25	30	35	40
40	Stabilizers raised Prop up blade down 2 pt. outriggers down							
35	Stabilizers raised Prop up blade down 2 pt. outriggers down		15700 (15900#) 15900# (15900#) 15900# (15900#)					
30	Stabilizers raised Prop up blade down 2 pt. outriggers down		16300 (20100#) 17700 (20100#) 20100# (20100#)	10200 (15100) 11100 (17000#) 13700 (17000#)				
25	Stabilizers raised Prop up blade down 2 pt. outriggers down		16200 (20100#) 17600 (20100#) 20100# (20100#)	10200 (15100) 11100 (17100#) 13700 (17100#)	6900 (10400) 7600 (15100#) 9400 (15100#)			
20	Stabilizers raised Prop up blade down 2 pt. outriggers down		15500 (21500#) 17000 (21500#) 21300 (21500#)	9800 (14700) 10700 (17700#) 13300 (17700#)	6800 (10200) 7400 (15200#) 9300 (15200#)			
15	Stabilizers raised Prop up blade down 2 pt. outriggers down	27000 (34400#) 30200 (34400#) 34400# (34400#)	14300 (22200) 15700 (24100#) 19900 (24100#)	9200 (14000) 10100 (18900#) 12700 (18900#)	6500 (9900) 7100 (15700#) 9000 (15700#)	4700 (7300) 5200 (12900) 6700 (11800)		
10	Stabilizers raised Prop up blade down 2 pt. outriggers down	20600# (20600#) 20600# (20600#) 20600# (20600#)	12600 (20300) 14000 (26900#) 18100 (26900#)	8400 (13100) 9300 (20100#) 11800 (20100#)	6000 (9400) 6700 (16100#) 8500 (15500)	4500 (7100) 5000 (12600) 6400 (11600)		
5	Stabilizers raised Prop up blade down 2 pt. outriggers down	7700# (7700#) 7700# (7700#) 7700# (7700#)	11200 (18700) 12500 (28100#) 16500 (28100#)	7700 (12300) 8500 (20600#) 11100 (20600#)	5600 (9000) 6300 (16200#) 8100 (15000)	4300 (6900) 4800 (12400) 6200 (11300)		
0	Stabilizers raised Prop up blade down 2 pt. outriggers down	10300# (10300#) 10300# (10300#) 10300# (10300#)	10400 (17800) 11700 (26500#) 15700 (26500#)	7200 (11800) 8000 (19900#) 10500 (19900#)	5300 (8600) 6000 (15600#) 7800 (14600)	4100 (6700) 4600 (12200#) 6000 (11100)		
- 5	Stabilizers raised Prop up blade down 2 pt. outriggers down		10200 (17500) 11500 (22700#) 15400 (22700#)	6900 (11500) 7800 (17800#) 10200 (17800#)	5200 (8500) 5800 (13800#) 7600 (13800#)	4100 (6600) 4600 (10300#) 6000 (10300#)		
- 10	Stabilizers raised Prop up blade down 2 pt. outriggers down							

Industrial Stick 16'5"

Height (ft)	Undercarriage	Radius of load from centerline of machine (ft)						
		10	15	20	25	30	35	40
40	Stabilizers raised Prop up blade down 2 pt. outriggers down							
35	Stabilizers raised Prop up blade down 2 pt. outriggers down			10400 (12800#) 11300 (12800#) 12800# (12800#)				
30	Stabilizers raised Prop up blade down 2 pt. outriggers down			10700 (15400#) 11700 (15400#) 14400 (15400#)	7300 (10700) 7900 (12600#) 9800 (12600#)			
25	Stabilizers raised Prop up blade down 2 pt. outriggers down			10700 (15400#) 11600 (15400#) 14300 (15400#)	7300 (10800) 7900 (13800#) 9800 (13800#)	5100 (7800) 5600 (10700#) 7100 (10700#)		
20	Stabilizers raised Prop up blade down 2 pt. outriggers down			10300 (15300) 11300 (16100#) 13900 (16100#)	7100 (10600) 7700 (14100#) 9600 (14100#)	5100 (7700) 5600 (12600#) 7000 (12300)		
15	Stabilizers raised Prop up blade down 2 pt. outriggers down		15300 (21300#) 16800 (21300#) 21100 (21300#)	9700 (14600) 10600 (17400#) 13200 (17400#)	6700 (10200) 7400 (14700#) 9200 (14700#)	4900 (7500) 5400 (12800#) 6800 (12000)	3600 (5700) 4000 (9200#) 5200 (9200#)	
10	Stabilizers raised Prop up blade down 2 pt. outriggers down	25200 (37000#) 28300 (37000#) 37000# (37000#)	13600 (21500) 15000 (24700#) 19200 (24700#)	8800 (13600) 9700 (18900#) 12300 (18900#)	6200 (9600) 6900 (15400#) 8700 (15400#)	4600 (7200) 5100 (12800) 6500 (11700)	3500 (5600) 3900 (9900) 5100 (9100)	
5	Stabilizers raised Prop up blade down 2 pt. outriggers down	15600# (15600#) 15600# (15600#) 15600# (15600#)	11800 (19400) 13100 (27300#) 17200 (27300#)	7900 (12600) 8800 (20100#) 11400 (20100#)	5700 (9100) 6400 (15900#) 8200 (15100)	4300 (6900) 4800 (12400) 6200 (11400)	3300 (5400) 3700 (9800) 4900 (8900)	
0	Stabilizers raised Prop up blade down 2 pt. outriggers down	11700# (11700#) 11700# (11700#) 11700# (11700#)	10500 (18000) 11900 (27500#) 15800 (27500#)	7200 (11900) 8100 (20200#) 10600 (20200#)	5300 (8600) 5900 (15800#) 7800 (14600)	4100 (6700) 4600 (12100) 6000 (11100)	3200 (5300) 3600 (9600) 4800 (8800)	
- 5	Stabilizers raised Prop up blade down 2 pt. outriggers down	13100# (13100#) 13100# (13100#) 13100# (13100#)	9900 (17300) 11200 (25300#) 15200 (25300#)	6800 (11400) 7600 (19000#) 10100 (19000#)	5000 (8300) 5700 (14800#) 7500 (14300)	3900 (6500) 4400 (11600#) 5800 (10900)		
- 10	Stabilizers raised Prop up blade down 2 pt. outriggers down		9800 (17100) 11100 (20900#) 15000 (20900#)	6600 (11200) 7500 (16300#) 9900 (16300#)	4900 (8200) 5500 (12700#) 7300 (12700#)			

The lift capacities are stated in lbs on the lifting gear's stick tip, and can be lifted 360° on firm, level supporting surface with closed steering axle. Capacities shown in brackets are valid when the undercarriage is in longitudinal position and are established over the steering axle (travel position) with stabilizers raised, and over rigid axle with stabilizers down. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (#). Lift capacities do not include the weight of a grapple, clamshells, magnet or other lifting devices, which must be deducted from the above figures. Lifting capacity of the excavator is limited by machine stability, hydraulic capacity and maximum permissible load of the load hook.

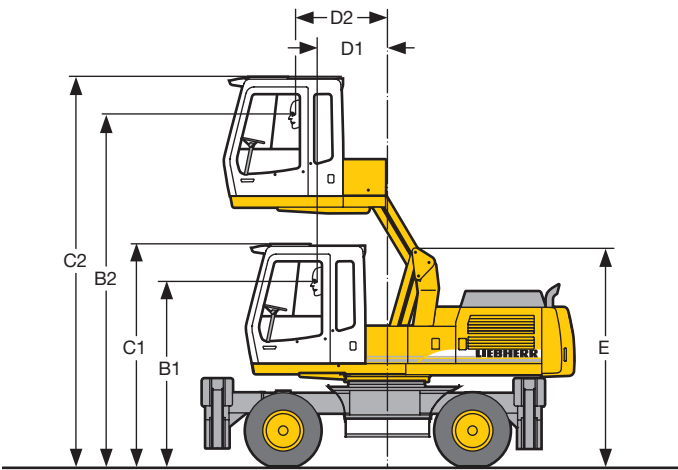
Choice of Cab Elevations and Cab Protections



Rigid Cab Elevation

Height	2'7"	3'11"	4'11"
A	10'4"	11' 7"	12' 7"
B	11'5"	12' 8"	13' 8"
C	13'2"	14' 5"	15' 5"
D	1'4"	1' 4"	1' 4"

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.

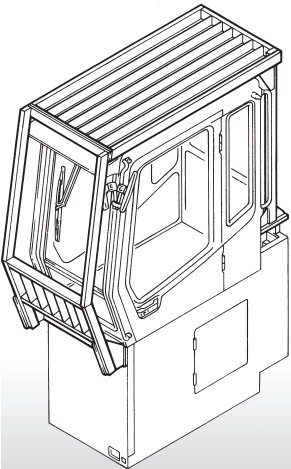


Hydraulic Cab Elevation (Parallelogram)

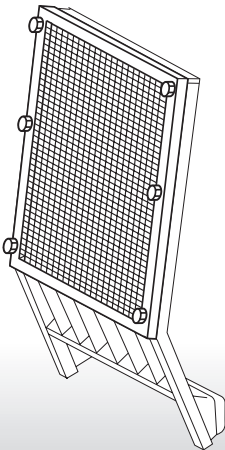
B1	8'9"
B2	16'8"
C1	10'6"
C2	18'5"
D1	3'3"
D2	4'6"
E	10'4"

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 with rigid elevation

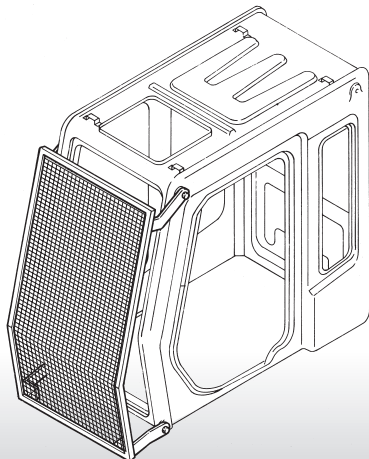


Screen for cab guard



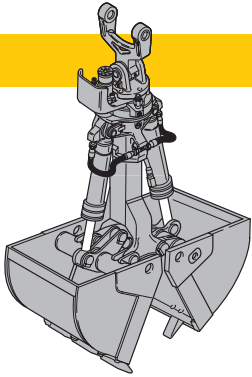
Note: This screen protects the front window and fits only the cab guard for cab with rigid elevation. Front window can still be opened.

Front window screen



Note: Fits all cabs, front window can still be opened.

Variety of Tools

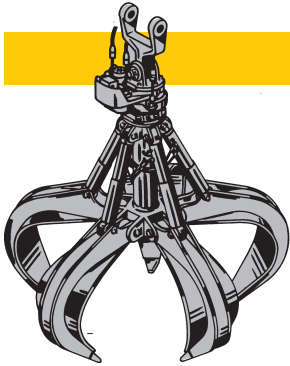


Shells for Loose Material

Clamshell Model 10 B

Shells for loose material with cutting edge (without teeth)

Cutting width of shells	in	39	59	70
Capacity	cuyd	1.3	2.00	2.35
For loose material, specific weight up to lb/cuyd		2500	2500	2500
Total weight	lbs	2200	2490	2760



Multiple Tine Grapples

open tines

semi-closed tines

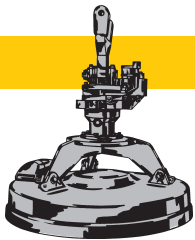
closed tines

Grapple Model 64 (4 tines)	Capacity cuyd	0,50	0,80	0,50	0,80	0,50	0,80
	Weight lbs	2337	2490	2800	2950	2800	3175
Grapple model 65 (5 tines)	Capacity cuyd	0,50	0,80	0,50	0,80	0,50	0,80
	Weight lbs	2620	2820	3000	3240	3200	3550



Crane Hook with Suspension

Max. load	lbs	27,560
Height with suspension	in	39
Weight	lbs	290



Electro Magnets with Suspension

Generator	kW	9	12
Dia of magnet	ft-in	3' 7"	4' 3"
Height with suspension	ft-in	4'10"	4'10"
Weight	lbs	2930	3770

For further information see "Attachment-Information – Liebherr Hydraulic Clamshells and Grapples". To operate a magnet the installation of a generator is required; please contact your Liebherr dealer or the factory for further information.

Equipment



Undercarriage

	s	o
Two circuit travel brake with accumulator	•	
Travel motor protection		•
Outrigger cylinder rod guards		
Creeper speed electrically switchable from cab	•	
New tires	•	
Service free parking brake	•	
Independent outrigger control		•
Choice of tires		•
Auto check valve directly on each stabilizer cylinder	•	
Proportional power steering with mechanical back up	•	
Customized colors		•
Two lockable storage boxes	•	
Lockable storage box additional		
Two-speed power shift transmission	•	



Upper Carriage

	s	o
Electric fuel tank filler pump		•
Maintenance-free swing brake lock	•	
Handrails, Non slip surfaces	•	
Main switch for electric circuit	•	
Engine hood with lift help	•	
Pedal controlled positioning swing brake		•
Reverse travel warning system		•
Sound insulation	•	
Customized colors		•
Pin lock upper/lower	•	
Maintenance-free HD-batteries	•	
Extended tool kit		•
Lockable tool box	•	
Tool kit	•	



Hydraulics

	s	o
Hydraulic tank shut-off valve	•	
Extra hydr. control for hydr. swivel	•	
Pressure compensation	•	
Hook up for pressure checks	•	
Pressure storage for controlled lowering of attachments with engine turned off	•	
Filter with partial micro filtration (5 µm)	•	
Electronic pump regulation	•	
Stepless mode system (ECO)	•	
Flow compensation	•	
Four mixed modes, can also be adjusted	•	
Full flow micro filtration		•
Bio degradable hydraulic oil		•
Pressure compensation		
Flow summation		
Additional hydraulic circuits		•



Engine

	s	o
Turbo charger	•	
Direct injection	•	
Cold start aid		•
Sensor controlled engine idling	•	
Air filter with pre-cleaner main- and safety element	•	



Operator's Cab

	s	o
Storage tray	•	
Displays for engine operating condition	•	
Mechanical hour meters, readable from outside the cab	•	
Roof hatch		
All-round adjustable roof vent	•	
6-way adjustable seat	•	
Airpressure operator seat with heating and head-rest		•
Seat and consoles independently adjustable	•	
Extinguisher		•
Removable customized foot mat	•	
Dome light	•	
Inside rear mirror	•	
Hydraulic cab elevation		•
Rigid cab elevation		•
Cab heater with defroster	•	
Cloth hook	•	
Air conditioning	•	
Electric cool box		•
Steering wheel adjustable	•	
Bullet proof window (fixed installation – can not be opened)		•
Stereo radio		•
Preparation for radio installation		•
Rain hood over front window opening	•	
Beacon	•	
All tinted windows	•	
Door with sliding window	•	
Optical and acoustical warning if outriggers are not fully retracted		•
Auxiliary heating		•
Sun shade	•	
Sun roller blind		
Electronic drive away lock		•
Wiper/washer	•	
Cigarette lighter and ashtray	•	
Additional flood lights		•



Attachment

	s	o
Flood lights	•	
Hydr. lines for clam operation in stick	•	
Industrial-type gooseneck sticks with remote hydraulic pin puller		•
Sealed pivots	•	
Safety lift hook	•	
Liebherr line of clams		•
Safety check valves on hoist cylinder	•	
Safety check valves on stick cylinder	•	
Hose quick connection	•	
Centralized lube point (uppercarriage/attachment)	•	
Manual/hydraulic quick change tool adapter		•
Customized colors		•
Special buckets and other tools		•
Stick cylinder limit switch	•	
Overload warning device		•
Two way valves for bucket/clam use		•
Locking of connections for clam operation		•
Cylinders with shock absorber	•	

S = Standard, O = Option

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

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