

# Technical Description Hydraulic Excavator

**A 934 B**  
Litronic®

## Machine for Industrial Applications

Operating Weight **67,700 - 72,980 lbs**  
Engine Output **197 HP (145 kW)**



# LIEBHERR

# Technical Data



## Engine

Rating per ISO 9249	197 HP (145 kW) at 2000 RPM
Model	Liebherr D 924 TI-E
Type	4 cylinder in-line
Bore/Stroke	4.8/5.6 in
Displacement	402 cu.in
Engine operation	4-stroke diesel direct injection turbo-charged and after-cooled reduced emissions
Cooling	water-cooled and integrated motor oil cooler
Air cleaner	dry-type air cleaner with pre-cleaner, main and safety elements
Fuel tank	103 gal
Electrical system	
Voltage	24 V
Batteries	2 x 110 Ah/12 V
Starter	three phase current 24 V/5.4 kW
Alternator	24 V/80 A
Automatic idling	sensor controlled



## Hydraulic System

Hydraulic pump	
for attachment and travel drive	Liebherr variable flow, swash plate double pump
Max. flow	2 x 61 gpm
Max. pressure	5075 PSI
Pump regulation	electro-hydraulic with electronic engine speed sensing regulation, pressure compensation, flow compensation, automatic oil flow optimizer
Hydraulic pump for swing drive	reversible, variable flow, swash plate pump, closed-loop circuit
Max. flow	31 gpm
Max. pressure	5075 PSI
Hydraulic tank	74 gal
Hydraulic system	138 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
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	0–6.9 RPM
Swing torque	84 kNm
Swing brake	pedal controlled positioning 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	shock absorbing suspension, adjustable to operator's weight, 6-way adjustable seat, safety belt automatic
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 malfunction data, for example, engine overheating, low engine oil pressure or low hydraulic oil level
Heating system	standard air conditioning, combined cooler/heater, additional dust filter in fresh air/recirculated
Noise emission	
ISO 6396	$L_{pA}$ (inside cab) = 77 dB(A)
2000/14/EC	$L_{wA}$ (surround noise) = 105 dB(A)



## Undercarriage

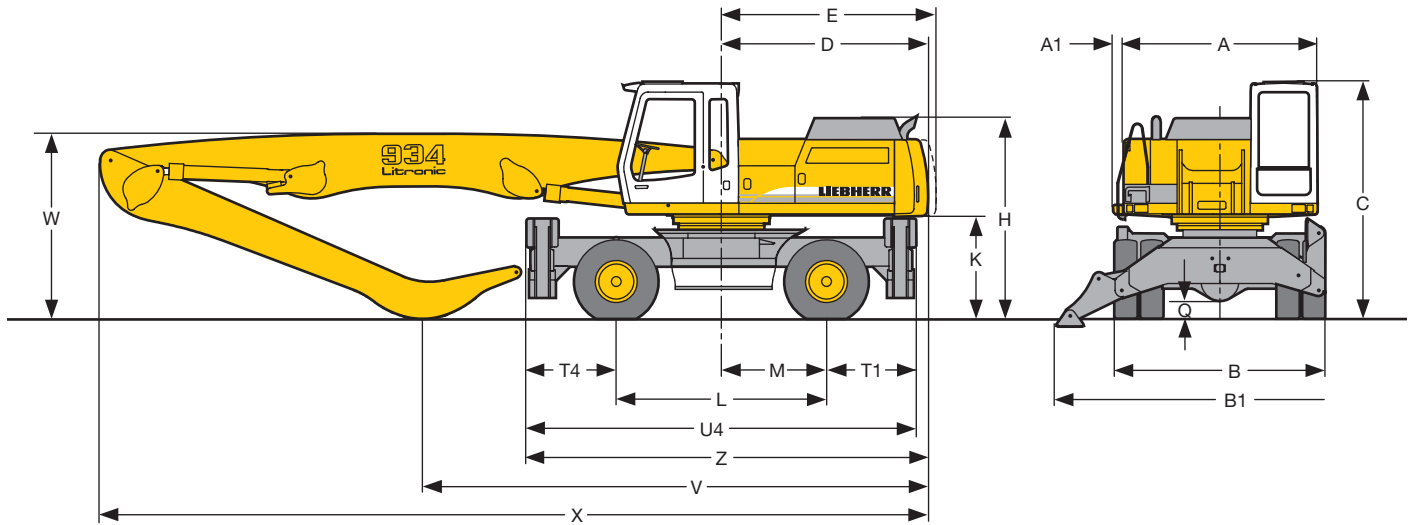
Drive	Liebherr variable flow swashplate motor with automatic brake valves
Transmission	oversized two speed power shift transmission with additional creeper speeds
Travel speed	0– 0.9 mph (creeper speed) 0– 3.0 mph (cross country) 0– 4.0 mph (creeper speed road) 0–12.5 (road travel)
Axles	132,300 lbs excavator axles; automatic or operator controlled front axle oscillation lock
Parking brake	wet discs (spring applied – pressure released)
Stabilization	4-point outriggers



## Attachment

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

# Dimensions



	ft-in
A	9' 0"
A1	6"
B	9' 10"
B1	15' 4"
C	11' 0"
D	9' 8"
E	10' 1"
H	9' 4"
K	4' 9"
L	9' 10"
M	4' 11"
Q	10"
T1	4' 2"
T4	4' 2"
U4	18' 2"
Z	18' 9"

**Tires 12.00-20**

<b>Industrial-Type Straight Boom 24' 11" and Industrial-Type Stick</b>		ft-in	ft-in
V		23' 9"	21' 12"
W		9' 0"	11' 12"
X		35' 11"	35' 9"

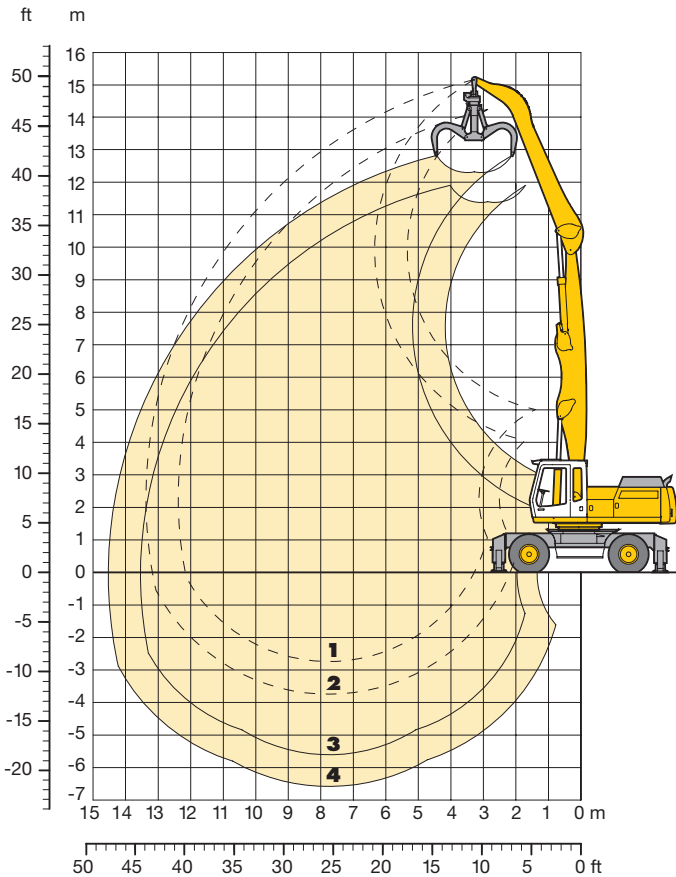
<b>Industrial-Type Straight Boom 28' 2" and Industrial-Type Stick</b>		ft-in	ft-in
V		19' 8"	24' 7"
W		23' 7"	20' 8"
X		39' 1"	38' 5"

<b>Industrial-Type Gooseneck Boom 28' 2" and Industrial-Type Stick</b>		ft-in	ft-in
V		19' 8"	24' 7"
W		22' 12"	18' 6"
X		10' 4"	13' 5"
X		38' 11"	38' 11"

Dimensions are with attachment over steering axle

# Industrial Attachment

with Industrial-Type Straight Boom 24'11"



## Attachment Envelope

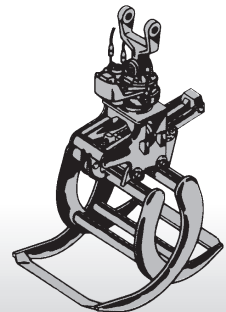
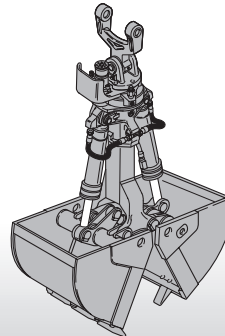
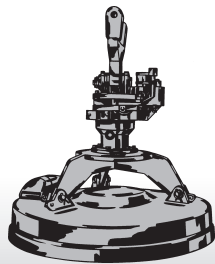
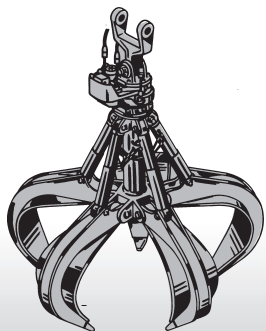
Industrial-type straight boom pinned in rear bearing of boom foot bracket

- 1** with industrial stick 16'5"
- 2** with industrial stick 19'8"
- 3** with industrial stick 16'5" and grapple model 70 C
- 4** with industrial stick 19'8" and grapple model 70 C

## Operating Weight

Operating weight includes basic machine A 934 B Litronic<sup>®</sup> with 4 point outriggers, 8 solid tires plus spacer rings and industrial application with industrial-type straight boom 24'11".

with grapple model 70 C/1.00 cuyd semi-closed tines	Weight
industrial stick 16'5"	68,800 lbs
industrial stick 19'8"	69,130 lbs



# Lift Capacities

with Industrial-Type Straight Boom 24'11"

## Industrial Stick 16'5"

Height (ft)	Undercarriage	Radius of load from centerline of machine (ft)											
		10	15	20	25	30	35	40	45	50			
50	Stabilizers raised 4 pt. outriggers down												
45	Stabilizers raised 4 pt. outriggers down												
40	Stabilizers raised 4 pt. outriggers down			15800 (20700) 22300# (22300#)									
35	Stabilizers raised 4 pt. outriggers down			16300 (21200) 21700# (21700#)		11200 (14500) 18600# (18600#)							
30	Stabilizers raised 4 pt. outriggers down			16300 (21200) 21600# (21600#)		11200 (14600) 18400# (18400#)	8100 (10700) 16100# (16100#)						
25	Stabilizers raised 4 pt. outriggers down			15900 (20700) 22100# (22100#)		11000 (14400) 18600# (18600#)	8000 (10600) 16100# (16100#)	6000 ( 8000 ) 12600 (13900#)					
20	Stabilizers raised 4 pt. outriggers down		23700 (29300#) 29300# (29300#)	15000 (19800) 23100# (23100#)	10500 (13900) 19100# (19100#)	7800 (10300) 16100 (16200#)	5900 ( 7900 ) 12500 (13800#)						
15	Stabilizers raised 4 pt. outriggers down	40600 (47900#) 47900# (47900#)	21300 (29200) 32000# (32000#)	13800 (18500) 24300# (24300#)	9900 (13200) 19600# (19600#)	7400 ( 9900 ) 15600 (16300#)	5700 ( 7700 ) 12300 (13700#)						
10	Stabilizers raised 4 pt. outriggers down	4400# ( 4400#) 4400# ( 4400#)	18500 (26100) 33900# (33900#)	12500 (17100) 25000# (25000#)	9100 (12400) 19800# (19800#)	7000 ( 9500 ) 15200 (16200#)	5400 ( 7500 ) 12000 (13400#)	4300 ( 6000 ) 9800 (10500#)					
5	Stabilizers raised 4 pt. outriggers down	2300# ( 2300#) 2300# ( 2300#)	16400 (22200#) 22200# (22200#)	11400 (15900) 24700# (24700#)	8500 (11700) 19200 (19400#)	6600 ( 9000 ) 14700 (15700#)	5200 ( 7200 ) 11800 (12700#)	4200 ( 5900 ) 9500# ( 9500#)					
0	Stabilizers raised 4 pt. outriggers down		15400 (18300#) 18300# (18300#)	10600 (15100) 22900# (22900#)	8000 (11200) 18200# (18200#)	6200 ( 8700 ) 14400 (14600#)	5000 ( 7100 ) 11500# (11500#)						
- 5	Stabilizers raised 4 pt. outriggers down		15200 (20300#) 20300# (20300#)	10300 (14700) 19300# (19300#)	7700 (10900) 15700# (15700#)	6100 ( 8500 ) 12500# (12500#)	5000 ( 7000 ) 9300# ( 9300#)						
- 10	Stabilizers raised 4 pt. outriggers down												
- 15	Stabilizers raised 4 pt. outriggers down												
- 20	Stabilizers raised 4 pt. outriggers down												

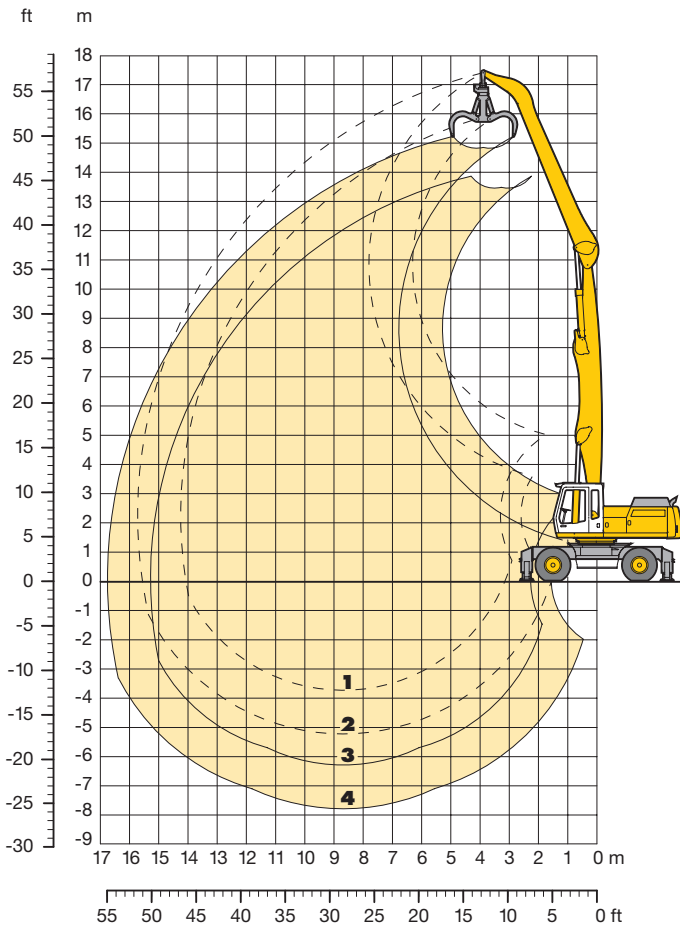
## Industrial Stick 19'8"

Height (ft)	Undercarriage	Radius of load from centerline of machine (ft)											
		10	15	20	25	30	35	40	45	50			
50	Stabilizers raised 4 pt. outriggers down												
45	Stabilizers raised 4 pt. outriggers down			15900 (18000#) 18000# (18000#)									
40	Stabilizers raised 4 pt. outriggers down			16800 (20800#) 20800# (20800#)		11500 (14900) 18000# (18000#)							
35	Stabilizers raised 4 pt. outriggers down					11800 (15200) 17500# (17500#)	8500 (11000) 15500# (15500#)						
30	Stabilizers raised 4 pt. outriggers down					11800 (15200) 17400# (17400#)	8500 (11100) 15300# (15300#)	6300 ( 8300 ) 13000 (13600#)					
25	Stabilizers raised 4 pt. outriggers down			16800 (20600#) 20600# (20600#)		11600 (15000) 17600# (17600#)	8400 (11000) 15400# (15400#)	6300 ( 8300 ) 12900 (13500#)					
20	Stabilizers raised 4 pt. outriggers down			15900 (20800) 21600# (21600#)		11100 (14400) 18200# (18200#)	8100 (10700) 15600# (15600#)	6100 ( 8200 ) 12800 (13600#)	4600 ( 6400 ) 10200 (11700#)				
15	Stabilizers raised 4 pt. outriggers down		23100 (29600#) 29600# (29600#)	14700 (19500) 23000# (23000#)	10300 (13700) 18800# (18800#)	7700 (10200) 15900# (15900#)	5800 ( 7900 ) 12500 (13600#)	4500 ( 6200 ) 10000 (11500#)					
10	Stabilizers raised 4 pt. outriggers down	37300 (49900#) 49900# (49900#)	20200 (27900) 32500# (32500#)	13200 (17900) 24300# (24300#)	9500 (12800) 19400# (19400#)	7100 ( 9700 ) 15400 (16000#)	5500 ( 7600 ) 12100 (13500#)	4400 ( 6100 ) 9800 (11200#)					
5	Stabilizers raised 4 pt. outriggers down	6900# ( 6900#) 6900# ( 6900#)	17400 (24800) 33600# (33600#)	11800 (16400) 24800# (24800#)	8700 (11900) 19500# (19500#)	6700 ( 9200 ) 14800 (15900#)	5200 ( 7300 ) 11800 (13100#)	4200 ( 5900 ) 9700 (10600#)					
0	Stabilizers raised 4 pt. outriggers down	7400# ( 7400#) 7400# ( 7400#)	15700 (22100#) 22100# (22100#)	10800 (15300) 23900# (23900#)	8000 (11200) 18800 (18800#)	6200 ( 8700 ) 14400 (15200#)	5000 ( 7000 ) 11500 (12300#)	4100 ( 5800 ) 9500 ( 9600#)					
- 5	Stabilizers raised 4 pt. outriggers down		14900 (20500#) 20500# (20500#)	10200 (14600) 21500# (21500#)	7600 (10800) 17100# (17100#)	5900 ( 8400 ) 13700# (13700#)	4800 ( 6800 ) 10800# (10800#)	4000 ( 5700 ) 7700# ( 7700#)					
- 10	Stabilizers raised 4 pt. outriggers down			9900 (14300) 17500# (17500#)	7400 (10600) 14200# (14200#)	5800 ( 8300 ) 11300# (11300#)							
- 15	Stabilizers raised 4 pt. outriggers down												
- 20	Stabilizers raised 4 pt. outriggers down												

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

with Industrial-Type Straight Boom 28'2"



## Attachment Envelope

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

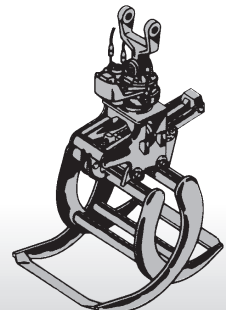
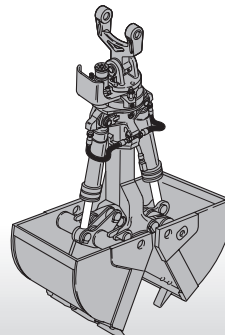
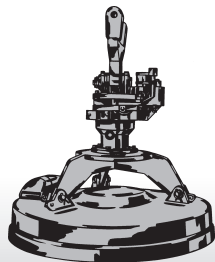
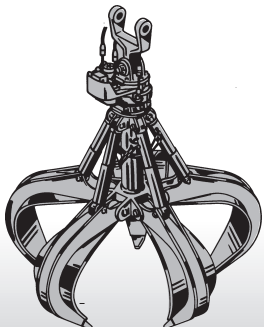
- 1 with industrial stick 19'8"
- 2 with industrial stick 24'7"
- 3 with industrial stick 19'8" and grapple model 65
- 4 with industrial stick 24'7" and grapple model 65

## Operating Weight

Operating weight includes basic machine A 934 B Litronic with 4 point outriggers, hydraulical cab elevation, 8 solid tires plus spacer rings and industrial application with industrial-type straight boom 28'2".

with grapple model 65/0.78 cuyd semi-closed tines	Weight
industrial stick 19'8"	71,990 lbs
industrial stick 24'7"	72,550 lbs

with grapple model 70 C/1.00 cuyd semi-closed tines	Weight
industrial stick 19'8"	72,590 lbs
industrial stick 24'7"	73,100 lbs



# Lift Capacities

with Industrial-Type Straight Boom 28'2"

## Industrial Stick 19'8"

Height (ft)	Undercarriage	Radius of load from centerline of machine (ft)											
		10	15	20	25	30	35	40	45	50			
50	Stabilizers raised 4 pt. outriggers down		21300# (21300#) 21300# (21300#)										
45	Stabilizers raised 4 pt. outriggers down			16600 (20800#) 20800# (20800#)	11200 (14600 ) 17100# (17100#)								
40	Stabilizers raised 4 pt. outriggers down				11700 (15200 ) 17000# (17000#)	8200 (10900 ) 14800# (14800#)							
35	Stabilizers raised 4 pt. outriggers down				11800 (15300 ) 16900# (16900#)	8400 (11000 ) 14600# (14600#)	6100 ( 8200 ) 12800# (12800#)						
30	Stabilizers raised 4 pt. outriggers down			17000 (20200#) 20200# (20200#)	11600 (15100 ) 16900# (16900#)	8300 (10900 ) 14600# (14600#)	6100 ( 8200 ) 12700# (12700#)	4400 ( 6200 ) 10000 (11100#)					
25	Stabilizers raised 4 pt. outriggers down			16200 (20800#) 20800# (20800#)	11100 (14600 ) 17300# (17300#)	8000 (10600 ) 14700# (14700#)	5900 ( 8000 ) 12700 (12800#)	4400 ( 6200 ) 10000 (11100#)					
20	Stabilizers raised 4 pt. outriggers down		24000 (27400#) 27400# (27400#)	15000 (19900 ) 21700# (21700#)	10400 (13800 ) 17700# (17700#)	7600 (10200 ) 14900# (14900#)	5700 ( 7800 ) 12400 (12800#)	4300 ( 6000 ) 9800 (11000#)	3200 (4700 ) 7900 (9100#)				
15	Stabilizers raised 4 pt. outriggers down	39900 (46000#) 46000# (46000#)	20900 (28800 ) 30400# (30400#)	13400 (18200 ) 22800# (22800#)	9500 (12800 ) 18200# (18200#)	7000 ( 9600 ) 15100# (15100#)	5300 ( 7400 ) 12000 (12800#)	4100 ( 5800 ) 9600 (10900#)	3100 (4600 ) 7900 (8900#)				
10	Stabilizers raised 4 pt. outriggers down		17200 (24800 ) 31900# (31900#)	11700 (16300 ) 23400# (23400#)	8500 (11700 ) 18400# (18400#)	6400 ( 8900 ) 14600 (15100#)	4900 ( 7000 ) 11500 (12600#)	3800 ( 5600 ) 9300 (10600#)	3000 (4500 ) 7700 (8500#)				
5	Stabilizers raised 4 pt. outriggers down		13000# (13000#) 13000# (13000#)	10100 (14600 ) 23100# (23100#)	7500 (10800 ) 18100# (18100#)	5800 ( 8300 ) 14000 (14800#)	4500 ( 6600 ) 11100 (12200#)	3600 ( 5300 ) 9100 (10100#)	2900 (4400 ) 7600 (7900#)				
0	Stabilizers raised 4 pt. outriggers down		11200# (11200#) 11200# (11200#)	9100 (13500 ) 21400# (21400#)	6800 (10000 ) 17100# (17100#)	5300 ( 7800 ) 13500 (13900#)	4200 ( 6300 ) 10800 (11400#)	3400 ( 5100 ) 8900 ( 9200#)	2800 (4300 ) 6700# (6700#)				
- 5	Stabilizers raised 4 pt. outriggers down		12700 (12900#) 12900# (12900#)	8600 (13000 ) 18500# (18500#)	6400 ( 9600 ) 15200# (15200#)	5000 ( 7500 ) 12400# (12400#)	4000 ( 6000 ) 10100# (10100#)	3300 ( 5000 ) 7800# ( 7800#)					
- 10	Stabilizers raised 4 pt. outriggers down			8500 (12800 ) 14400# (14400#)	6200 ( 9400 ) 12400# (12400#)	4900 ( 7300 ) 10200# (10200#)	3900 ( 6000 ) 8100# ( 8100#)						
- 15	Stabilizers raised 4 pt. outriggers down												
- 20	Stabilizers raised 4 pt. outriggers down												

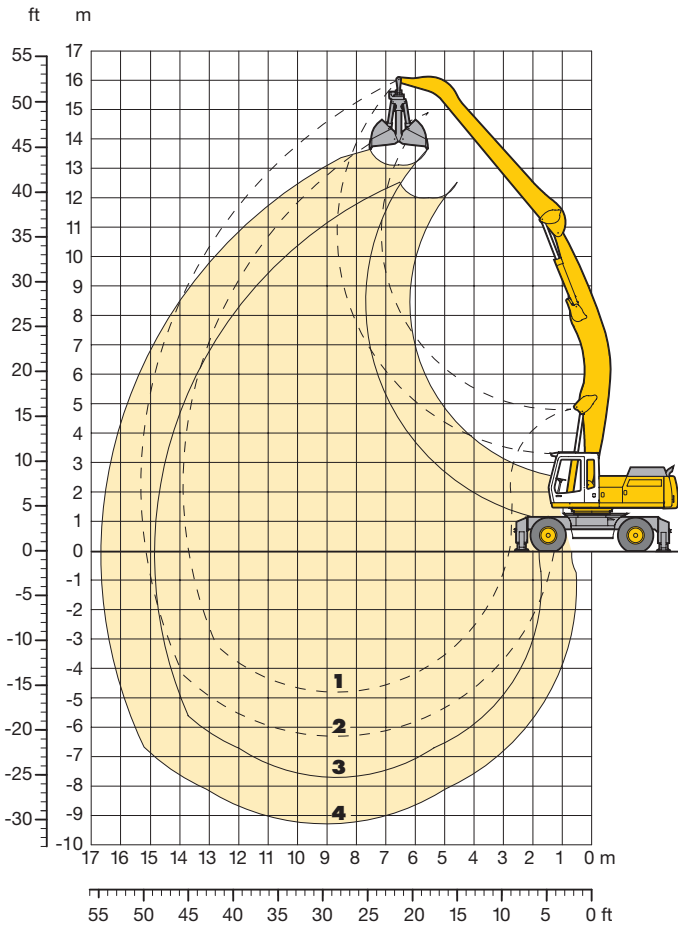
## Industrial Stick 24'7"

Height (ft)	Undercarriage	Radius of load from centerline of machine (ft)											
		10	15	20	25	30	35	40	45	50			
50	Stabilizers raised 4 pt. outriggers down				11700 (14500#) 14500# (14500#)								
45	Stabilizers raised 4 pt. outriggers down				12400 (15900 ) 15900# (15900#)	8800 (11400 ) 13900# (13900#)	6100 ( 8200 ) 9900# ( 9900#)						
40	Stabilizers raised 4 pt. outriggers down					9100 (11700 ) 13600# (13600#)	6500 ( 8700 ) 12100# (12100#)						
35	Stabilizers raised 4 pt. outriggers down					9100 (11800 ) 13500# (13500#)	6700 ( 8800 ) 12000# (12000#)	4800 ( 6600 ) 10500 (10600#)					
30	Stabilizers raised 4 pt. outriggers down					9000 (11700 ) 13500# (13500#)	6600 ( 8700 ) 12000# (12000#)	4800 ( 6600 ) 10500 (10600#)	3500 (5000 ) 8300 (9300#)				
25	Stabilizers raised 4 pt. outriggers down					12100 (15600 ) 15900# (15900#)	8700 (11300 ) 13700# (13700#)	6400 ( 8500 ) 12000# (12000#)	4700 ( 6500 ) 10400 (10600#)	3500 (5000 ) 8300 (9300#)			
20	Stabilizers raised 4 pt. outriggers down					11400 (14900 ) 16400# (16400#)	8200 (10800 ) 14000# (14000#)	6000 ( 8200 ) 12200# (12200#)	4500 ( 6300 ) 10100 (10600#)	3400 (4900 ) 8200 (9200#)	2400 (3800 ) 6600 (7600#)		
15	Stabilizers raised 4 pt. outriggers down		19800# (19800#) 19800# (19800#)	15200 (20100 ) 21000# (21000#)	10400 (13800 ) 17100# (17100#)	7500 (10100 ) 14400# (14400#)	5600 ( 7700 ) 12300# (12300#)	4200 ( 6000 ) 9800 (10600#)	3200 (4700 ) 8000 (9100#)	2400 (3700 ) 6500 (7500#)			
10	Stabilizers raised 4 pt. outriggers down	39400 (45500#) 45500# (45500#)	20600 (28500 ) 29900# (29900#)	13200 (17900 ) 22300# (22300#)	9300 (12600 ) 17700# (17700#)	6800 ( 9400 ) 14600# (14600#)	5100 ( 7200 ) 11800 (12300#)	3900 ( 5700 ) 9500 (10500#)	3000 (4500 ) 7800 (8900#)	2300 (3600 ) 6400 (7200#)			
5	Stabilizers raised 4 pt. outriggers down	6300# ( 6300#) 6300# ( 6300#)	16700 (24200 ) 31200# (31200#)	11200 (15800 ) 22900# (22900#)	8100 (11400 ) 17900# (17900#)	6100 ( 8600 ) 14400 (14600#)	4700 ( 6700 ) 11300 (12200#)	3600 ( 5300 ) 9100 (10300#)	2800 (4300 ) 7500 (8500#)	2200 (3500 ) 6300 (6700#)			
0	Stabilizers raised 4 pt. outriggers down	5200# ( 5200#) 5200# ( 5200#)	14000 (16500#) 16500# (16500#)	9700 (14100 ) 22500# (22500#)	7100 (10300 ) 17600# (17600#)	5400 ( 7900 ) 13600 (14300#)	4200 ( 6300 ) 10800 (11800#)	3300 ( 5000 ) 8800 ( 9800#)	2600 (4100 ) 7300 (7900#)	2100 (3400 ) 5800# (5800#)			
- 5	Stabilizers raised 4 pt. outriggers down	6800# ( 6800#) 6800# ( 6800#)	12600 (14100#) 14100# (14100#)	8600 (13000 ) 20800# (20800#)	6400 ( 9600 ) 16500# (16500#)	4900 ( 7400 ) 13100 (13400#)	3900 ( 5900 ) 10400 (11000#)	3100 ( 4800 ) 8600 ( 8900#)	2500 (4000 ) 7000# (7000#)				
- 10	Stabilizers raised 4 pt. outriggers down		12000 (14800#) 14800# (14800#)	8100 (12400 ) 18000# (18000#)	6000 ( 9100 ) 14600# (14600#)	4600 ( 7100 ) 11900# (11900#)	3600 ( 5700 ) 9600# ( 9600#)	2900 ( 4700 ) 7600# ( 7600#)	2400 (3900 ) 5400# (5400#)				
- 15	Stabilizers raised 4 pt. outriggers down			7900 (12300 ) 14000# (14000#)	5800 ( 8900 ) 11700# (11700#)	4400 ( 6900 ) 9600# ( 9600#)	3500 ( 5600 ) 7600# ( 7600#)						
- 20	Stabilizers raised 4 pt. outriggers down												

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

with Industrial-Type Gooseneck Boom 28'2"



## Attachment Envelope

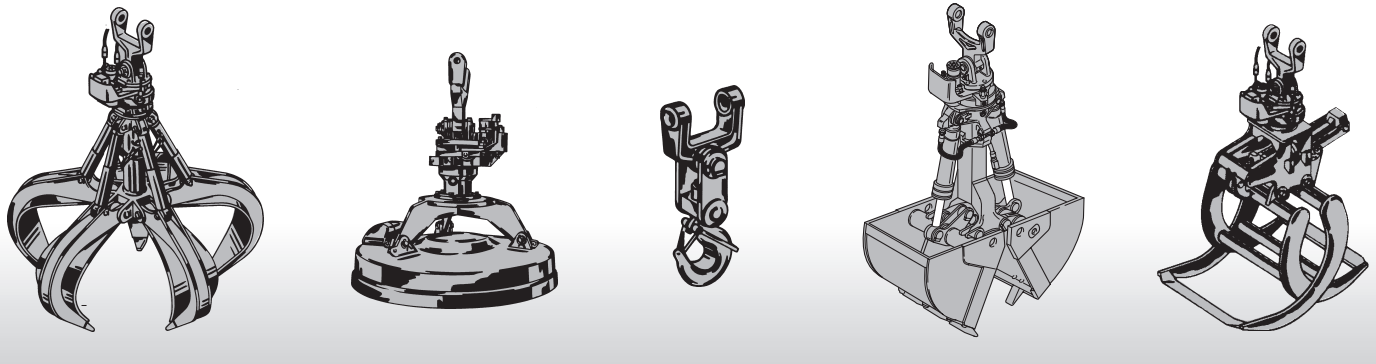
Industrial-type straight boom pinned in rear bearing of boom foot bracket

- 1** with industrial stick 19'8"
- 2** with industrial stick 24'7"
- 3** with industrial stick 19'8" and grapple model 20 B
- 4** with industrial stick 24'7" and grapple model 20 B

## Operation Weight

Operating weight includes basic machine A 934 B Litronic with 4 point outriggers, 8 solid tires plus spacer rings and industrial application with industrial-type gooseneck boom 28'2".

with clamshell model 20 B/1.70 cuyd shells for loose material	Weight
industrial stick 19'8"	67,700 lbs
industrial stick 24'7"	68,800 lbs





# Lift Capacities

with Industrial-Type Gooseneck Boom 28'2"

## Industrial Stick 19'8"

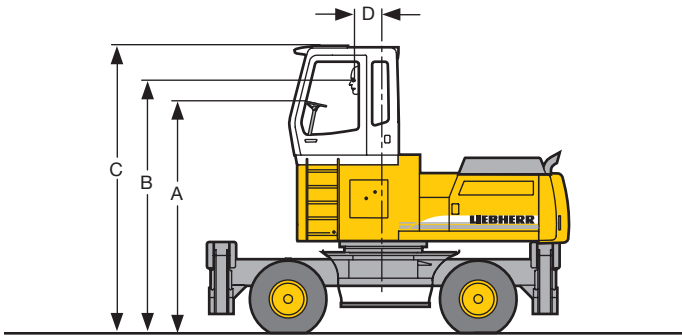
Height (ft)	Undercarriage	Radius of load from centerline of machine (ft)																		
		10	15	20	25	30	35	40	45	50										
50	Stabilizers raised 4 pt. outriggers down																			
45	Stabilizers raised 4 pt. outriggers down						11100 (13000#) 13000# (13000#)													
40	Stabilizers raised 4 pt. outriggers down						11700 (14400#) 14400# (14400#)	8100 (10600 ) 12900# (12900#)												
35	Stabilizers raised 4 pt. outriggers down						11800 (14200#) 14200# (14200#)	8300 (10800 ) 12700# (12700#)	6000 ( 7900 ) 11500# (11500#)											
30	Stabilizers raised 4 pt. outriggers down						11600 (14300#) 14300# (14300#)	8300 (10700 ) 12700# (12700#)	6000 ( 8000 ) 11400# (11400#)											
25	Stabilizers raised 4 pt. outriggers down						11100 (14300 ) 14800# (14800#)	7900 (10400 ) 12900# (12900#)	5800 ( 7800 ) 11500# (11500#)	4300 ( 5900 ) 9500 (10400#)										
20	Stabilizers raised 4 pt. outriggers down			15000 (18500#) 18500# (18500#)		10300 (13500 ) 15500# (15500#)	7400 ( 9900 ) 13300# (13300#)	5500 ( 7500 ) 11700# (11700#)	4100 ( 5700 ) 9300 (10400#)											
15	Stabilizers raised 4 pt. outriggers down	39500# (39500#) 39500# (39500#)	20600 (26300#) 26300# (26300#)	13200 (17700 ) 20000# (20000#)	9300 (12400 ) 16300# (16300#)	6800 ( 9200 ) 13700# (13700#)	11400 (11900#)	9100 (10500#)												
10	Stabilizers raised 4 pt. outriggers down	7900# ( 7900#) 7900# ( 7900#)	16700 (23800 ) 29200# (29200#)	11300 (15700 ) 21400# (21400#)	8200 (11300 ) 17000# (17000#)	6100 ( 8500 ) 13900 (14100#)	4700 ( 6600 ) 10900 (12100#)	3600 ( 5200 ) 8800 (10500#)	2700 (4100 ) 7200 (9000#)											
5	Stabilizers raised 4 pt. outriggers down	4600# ( 4600#) 4600# ( 4600#)	13500 (19200#) 19200# (19200#)	9600 (13800 ) 22200# (22200#)	7200 (10200 ) 17300 (17400#)	5500 ( 7800 ) 13200 (14300#)	4300 ( 6200 ) 10400 (12100#)	3300 ( 4900 ) 8500 (10400#)	2600 (4000 ) 7000 (8700#)											
0	Stabilizers raised 4 pt. outriggers down	6900# ( 6900#) 6900# ( 6900#)	11900 (15400#) 15400# (15400#)	8400 (12500 ) 22000# (22000#)	6300 ( 9300 ) 16300 (17400#)	4900 ( 7200 ) 12500 (14200#)	3900 ( 5800 ) 10000 (11900#)	3100 ( 4700 ) 8200 (10000#)												
- 5	Stabilizers raised 4 pt. outriggers down		11300 (15900#) 15900# (15900#)	7700 (11800 ) 20800# (20800#)	5800 ( 8700 ) 15700 (16700#)	4500 ( 6800 ) 12100 (13700#)	3600 ( 5500 ) 9700 (11400#)	2900 ( 4500 ) 8000 ( 9400#)												
- 10	Stabilizers raised 4 pt. outriggers down		11200 (17500#) 17500# (17500#)	7400 (11500 ) 18700# (18700#)	5500 ( 8400 ) 15300# (15300#)	4300 ( 6600 ) 11800 (12600#)	3500 ( 5300 ) 9500 (10300#)	2800 ( 4400 ) 7900 ( 8200#)												
- 15	Stabilizers raised 4 pt. outriggers down				5500 ( 8400 ) 13000# (13000#)	4200 ( 6500 ) 10700# (10700#)														
- 20	Stabilizers raised 4 pt. outriggers down																			

## Industrial Stick 24'7"

Height (ft)	Undercarriage	Radius of load from centerline of machine (ft)																			
		10	15	20	25	30	35	40	45	50											
50	Stabilizers raised 4 pt. outriggers down					11100# (11100#) 11100# (11100#)															
45	Stabilizers raised 4 pt. outriggers down							8700 (11200 ) 11400# (11400#)													
40	Stabilizers raised 4 pt. outriggers down							9100 (11500#) 11500# (11500#)	6500 ( 8500 ) 10500# (10500#)												
35	Stabilizers raised 4 pt. outriggers down							9100 (11300#) 11300# (11300#)	6600 ( 8600 ) 10300# (10300#)	4700 ( 6400 ) 9500# ( 9500#)											
30	Stabilizers raised 4 pt. outriggers down							9000 (11400#) 11400# (11400#)	6600 ( 8600 ) 10400# (10400#)	4800 ( 6400 ) 9500# ( 9500#)											
25	Stabilizers raised 4 pt. outriggers down							8700 (11200 ) 11700# (11700#)	6300 ( 8300 ) 10500# (10500#)	4700 ( 6300 ) 9500# ( 9500#)	3400 (4800 ) 7900 (8700#)										
20	Stabilizers raised 4 pt. outriggers down						11400 (13800#) 13800# (13800#)	8100 (10600 ) 12100# (12100#)	6000 ( 8000 ) 10800# (10800#)	4400 ( 6100 ) 9700# ( 9700#)	3200 (4700 ) 7700 (8700#)										
15	Stabilizers raised 4 pt. outriggers down			15100 (17700#) 17700# (17700#)		10300 (13600 ) 14700# (14700#)	7500 ( 9900 ) 12600# (12600#)	5500 ( 7500 ) 11100# (11100#)	4100 ( 5800 ) 9400 ( 9800#)	3100 (4500 ) 7500 (8700#)											
10	Stabilizers raised 4 pt. outriggers down	39000 (39000#) 39000# (39000#)	20300 (25800#) 25800# (25800#)	13000 (17500 ) 19500# (19500#)	9100 (12300 ) 15700# (15700#)	6700 ( 9100 ) 13200# (13200#)	5000 ( 6900 ) 11300 (11400#)	3800 ( 5400 ) 9000 (10000#)	2800 (4200 ) 7300 (8800#)												
5	Stabilizers raised 4 pt. outriggers down	12900# (12900#) 12900# (12900#)	16100 (23200 ) 28500# (28500#)	10900 (15200 ) 20900# (20900#)	7800 (10900 ) 16500# (16500#)	5900 ( 8200 ) 13600# (13600#)	4400 ( 6400 ) 10700 (11600#)	3400 ( 5000 ) 8600 (10000#)	2600 (4000 ) 7000 (8700#)												
0	Stabilizers raised 4 pt. outriggers down	9100# ( 9100#) 9100# ( 9100#)	13100 (19800 ) 22100# (22100#)	9100 (13300 ) 21600# (21600#)	6700 ( 9700 ) 16900 (16900#)	5100 ( 7500 ) 12800 (13800#)	3900 ( 5900 ) 10100 (11600#)	3100 ( 4700 ) 8200 ( 9900#)	2400 (3800 ) 6800 (8500#)												
- 5	Stabilizers raised 4 pt. outriggers down		11400 (17500#) 17500# (17500#)	7900 (12000 ) 21400# (21400#)	5900 ( 8900 ) 15900 (16800#)	4500 ( 6800 ) 12100 (13700#)	3500 ( 5400 ) 9700 (11400#)	2800 ( 4400 ) 7900 ( 9700#)	2200 (3600 ) 6600 (8100#)												
- 10	Stabilizers raised 4 pt. outriggers down	11100# (11100#) 11100# (11100#)	10600 (17000 ) 17100# (17100#)	7200 (11200 ) 20200# (20200#)	5300 ( 8300 ) 15200 (16100#)	4100 ( 6400 ) 11700 (13100#)	3200 ( 5100 ) 9300 (10900#)	2600 ( 4200 ) 7700 ( 9000#)	2100 (3500 ) 6500 (7300#)												
- 15	Stabilizers raised 4 pt. outriggers down		10400 (16800 ) 17800# (17800#)	6900 (10900 ) 18100# (18100#)	5000 ( 8000 ) 14700# (14700#)	3900 ( 6200 ) 11400 (12000#)	3100 ( 5000 ) 9200 ( 9900#)	2500 ( 4100 ) 7600 ( 8000#)													
- 20	Stabilizers raised 4 pt. outriggers down				5000 ( 7900 ) 12400# (12400#)	3800 ( 6100 ) 10200# (10200#)															

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

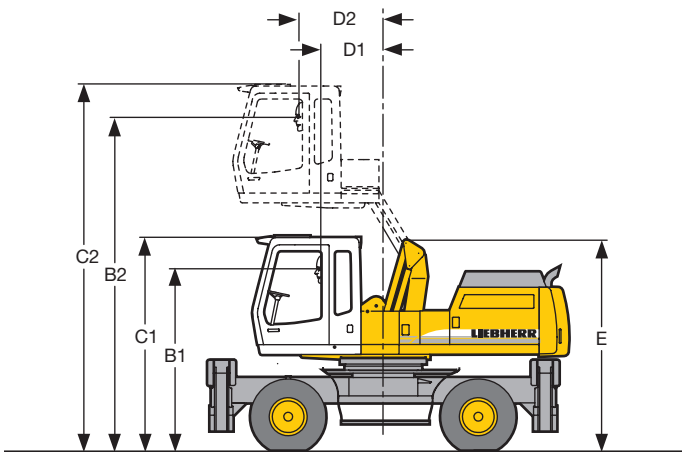


## Rigid Cab Elevation

Height	2' 7"	3' 11"	4' 11"	6' 7"
A	10' 9"	12' 1"	13' 1"	14' 9"
B	11' 11"	13' 2"	14' 2"	15' 10"
C	13' 8"	14' 11"	15' 11"	17' 7"
D	1' 5"	1' 5"	1' 5"	1' 5"

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.

For additional protection of the operator a cab guard with or without screen cab guard and a front window screen are available.



## Hydraulic Cab Elevation (Parallelogram)

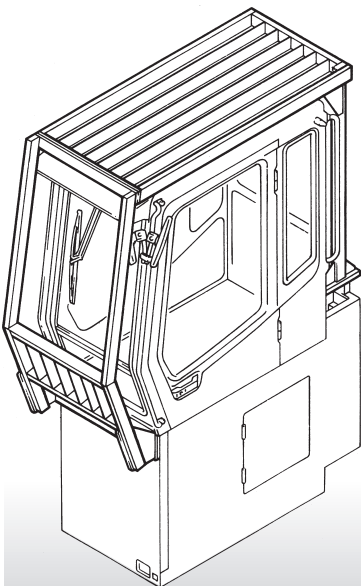
B1	9' 3"
B2	17' 2"
C1	11' 0"
C2	18' 11"
D1	3' 5"
D2	4' 5"
E	10' 10"

The parallelogram cab raiser allows the operator to choose his eye level between dimensions B1 and B2.

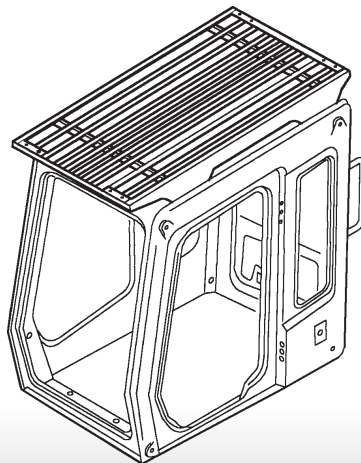
For a transport height lower than C1 the shell of the cab can be removed. The overall height is then E.

As cab protection a front window screen can be installed.

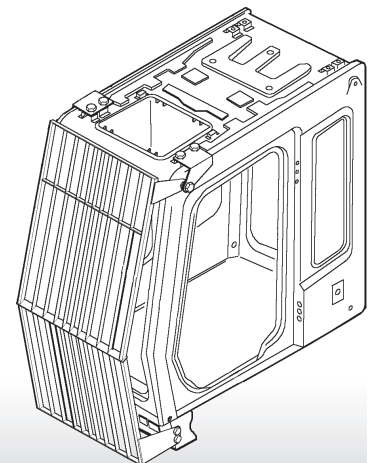
## Cab guard for cab with elevation



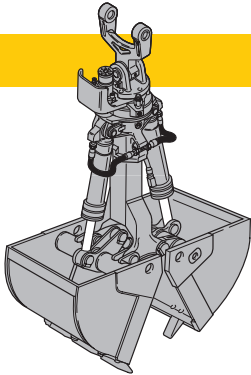
## Grille above



## Grilles in front



# Variety of Tools

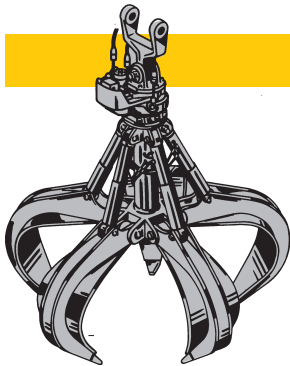


## Shells for Loose Material

### Clamshell Model 20 B

Shells for loose material with cutting edge (without teeth)

Cutting width of shells	in	39	47	63
Capacity	cuyd	1.70	2.00	2.60
For loose material, specific weight up to	lb/cuyd	2500	2500	2500
Total weight	lbs	2870	3000	3290



## Multiple Tine Grapples

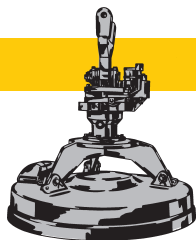
open tines      semi-closed tines      closed tines

Grapple Model	Capacity	cuyd	open tines	semi-closed tines	closed tines			
<b>Grapple Model 64</b> (4 Tines)	Capacity	cuyd	0.52	0.78	0.52	0.78		
	Total weight	lbs	2300	2450	2750	2900		
<b>Grapple Model 65</b> (5 tines)	Capacity	cuyd	0.52	0.78	0.52	0.78		
	Total weight	lbs	2580	2780	2950	3200	3150	3500
<b>Grapple Model 69</b> (4 tines)	Capacity	cuyd	1.00	1.44	1.00	1.44	1.00	1.44
	Total weight	lbs	2600	2930	3200	3950	3920	4280
<b>Grapple Model 70 C</b> (5 tines)	Capacity	cuyd	1.00	1.44	1.00	1.44	1.00	1.44
	Total weight	lbs	3300	3350	3770	4040	4190	4480



## Crane Hook with Suspension

Max. load	lbs	2760
Height with suspension	ft-in	3'3"
Total weight	lbs	290



## Electro Magnets with Suspension

Generator	kW	10	20
Dia of magnet	ft-in	4' 3"	4'11"
Height with suspension	ft-in	4'10"	5' 0"
Total weight	lbs	3750	5160

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 inside transmission	•	
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	•	



## Uppercarriage

	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 on boom		•
Hydr. lines for clam operation on stick		•
Industrial-type gooseneck sticks with remote hydraulic pin puller		•
Sealed pivots		•
Safety lift hook on hoe buckets		
Liebherr line of clams		•
Safety check valves on hoist cylinder	•	
Safety check valves on stick cylinder	•	
SAE-dbl flange connection for all hi-pressure lines	•	
Hose quick connection		•
Centralized lube points	•	
Manual quick change tool		•
Customized colors		•
Special buckets and other tools		
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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