

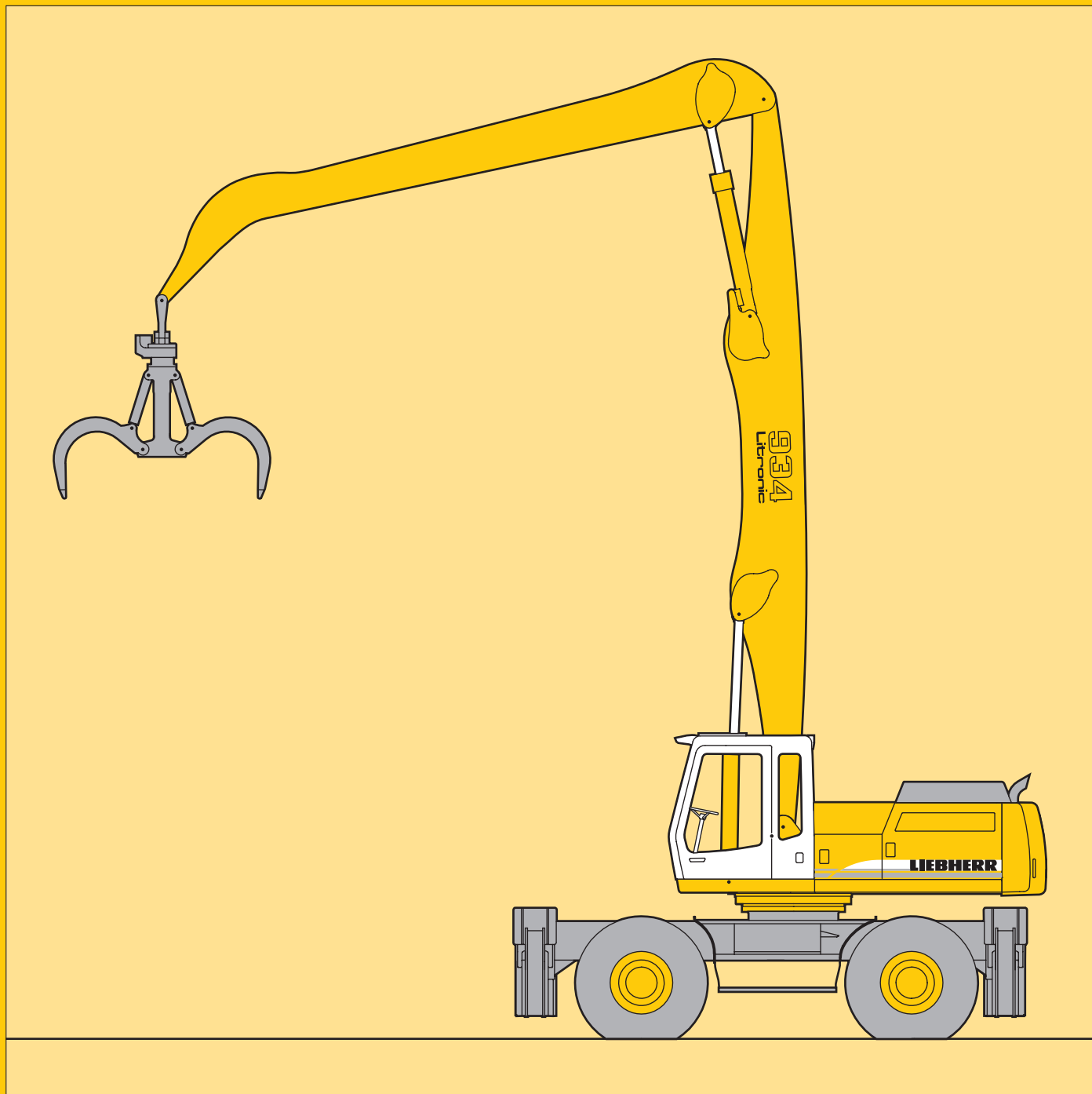
Technical Description Hydraulic Excavator

A 934 B HD
Litronic®

Machine for Industrial Applications

Operating weight 78300 – 82690 lb

Engine output 145 kW (197 HP)



LIEBHERR

The Better Machine.



Engine

Rating per ISO 9249	145 kW (197 HP) 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 attachmend and travel drive	Liebherr variable flow, swash plate double pump
Max. flow	2 x 60 gpm
Max. pressure	5075 PSI
Pump regulation	electro-hydraulic with electronic engine speed sensing regulation, pressure compensation, flow compen- sation, automatic oil flow optimizer
Hydraulic pump for swing drive	reversible, variable flow, swash plate pump, closed-loop circuit
Max. flow	319 gpm
Max. pressure	5075 PSI
Hydraulic tank	74 gal
Hydraulic system	137 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 selec- tor to match application
LIFT	for lifting
FINE	for precision work and lifting through very sensitive movements
ECO	for especially economical and envi- ronmentally 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 inte- grated 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, resi- liently 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. Auto- matic monitoring, display, warning (acoustical and optical signal) and saving machine malfunction data, for example, engine overheating, low engine oil pre- sure 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

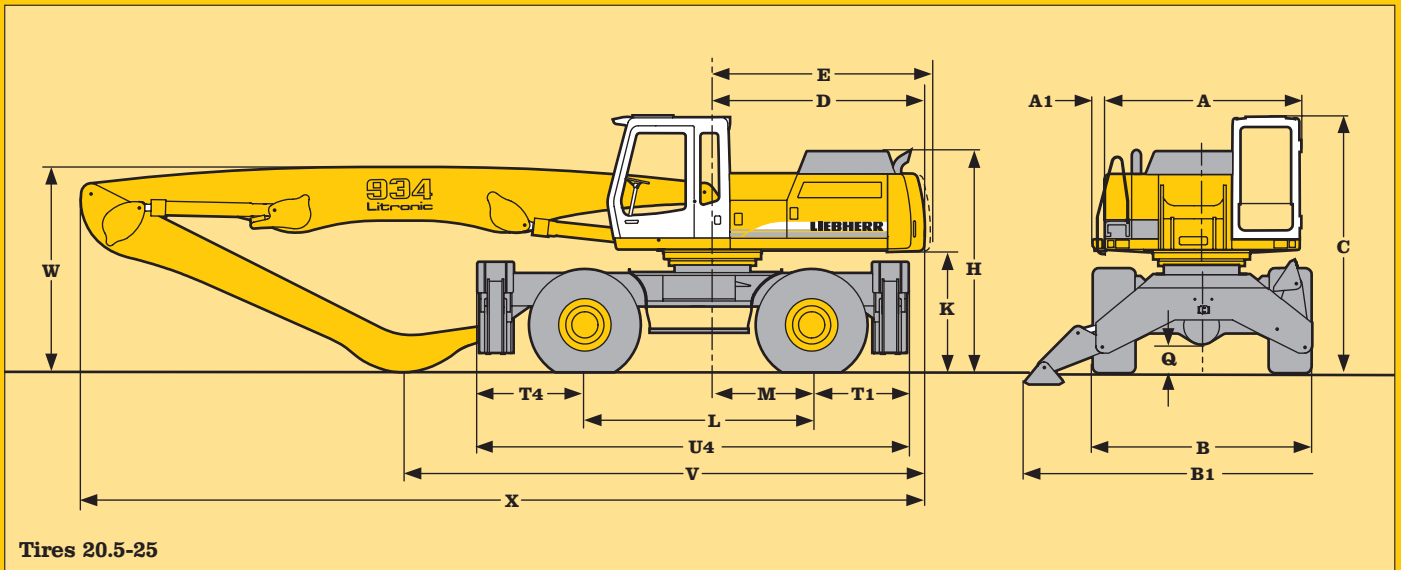
Drive	Liebherr variable flow swashplate motor with automatic brake valves
Transmission	oversized two speed power shift trans- mission with additional creeper speeds
Travel speed	0 - 1.5 mph (creeper speed) 0 - 3.1 mph (cross country) 0 - 5.6 mph (creeper speed road) 0 - 10.9 mph (road travel)
Axles	154350 lb 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 sealed, low maintenance
Pivots	centralized in easily accessible locations
Lubrication	centralized in easily accessible locations
Hydraulic connections	pipes and hoses equipped with SAE split- flange connections

Technical Data



Tires 20.5-25

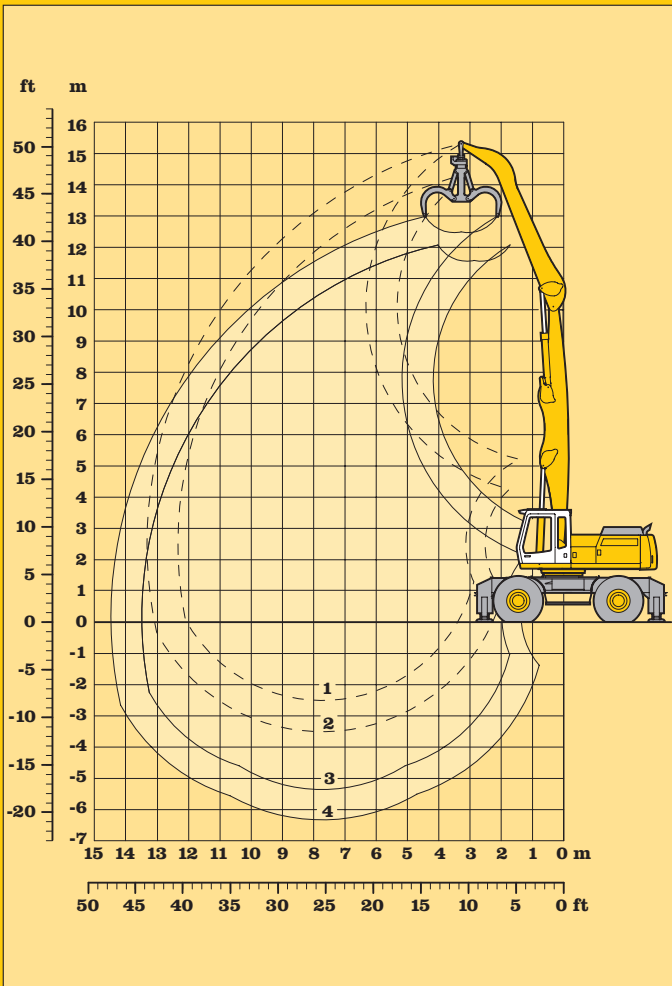
A	ft-in	9' 0"	With industrial-type straight boom 24'11" and industrial-type stick	
A1		0' 6"	ft-in	16' 5" 19' 8"
B		10' 1"	V	ft-in 24' 3" 21' 11"
B1		16' 3"	W	ft-in 9' 10" 10' 2"
C		11' 10"	X	ft-in 36' 1" 37' 1"
D		9' 10"	With industrial-type straight boom 28'2" and industrial-type stick	
E		10' 2"	ft-in	19' 8" 24' 7"
H		10' 1"	V	ft-in 24' 1" 21' 0"
K		5' 7"	W	ft-in 9' 10" 12' 5"
L		10' 6"	X	ft-in 39' 4" 40' 2"
M		4' 7"	Dimensions are with attachment over steering axle	
Q		1' 3"	* Attachment over digging axle for better transport dimensions	
T1		4' 5"		
T4		4' 11"		
U4		19' 11"		

Dimensions

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 HD Litroneid with 4 point outriggers, 4 solid tires
and industrial-type gooseneck boom 24'11".

with grapple model

		70 C/1.00 cuyd semi-closed tines
industrial stick 16'5"	lb	78300
industrial stick 19'8"	lb	78700



Industrial Attachment with Industrial-Type Gooseneck Boom 24'11"

with industrial stick 16'5"										
Height ft	Undercarriage	Radius of load from centerline of machine in ft								
		10	15	20	25	30	35	40	45	50
55	Stabilizers raised 4 pt. outriggers down									
50	Stabilizers raised 4 pt. outriggers down									
45	Stabilizers raised 4 pt. outriggers down		22500# (22500#) 22500# (22500#)							
40	Stabilizers raised 4 pt. outriggers down			19000 (23000#) 23000# (23000#)						
35	Stabilizers raised 4 pt. outriggers down			19400 (25100#) 25100# (25100#)	13500 (18800) 21800# (21800#)	9700 (13700) 14800# (14800#)				
30	Stabilizers raised 4 pt. outriggers down			19300 (25100#) 25100# (25100#)	13500 (18800) 21600# (21600#)	9900 (13900) 18700 (19000#)				
25	Stabilizers raised 4 pt. outriggers down			18800 (25900#) 25900# (25900#)	13200 (18500) 21900# (21900#)	9800 (13800) 18600 (19000#)	7500 (10600) 14400 (16600#)			
20	Stabilizers raised 4 pt. outriggers down		28000 (34500#) 34500# (34500#)	17900 (25700) 27200# (27200#)	12700 (18000) 22600# (22600#)	9500 (13500) 18300 (19200#)	7400 (10500) 14300 (16500#)			
15	Stabilizers raised 4 pt. outriggers down	48800 (57400#) 57400# (57400#)	25500 (38100#) 38100# (38100#)	16700 (24400) 28800# (28800#)	12000 (17200) 23300# (23300#)	9100 (13000) 17800 (19400#)	7200 (10300) 14100 (16400#)			
10	Stabilizers raised 4 pt. outriggers down		22800 (35900) 40400# (40400#)	15400 (22900) 29800# (29800#)	11300 (16500) 22900 (23600#)	8700 (12600) 17400 (19400#)	6900 (10000) 13800 (16100#)	5600 (8200) 11300 (12600#)		
5	Stabilizers raised 4 pt. outriggers down	2600# (2600#) 2600# (2600#)	20600# (20600#) 20600# (20600#)	14300 (21700) 29400# (29400#)	10700 (15800) 22100 (23200#)	8300 (12200) 16900 (18800#)	6700 (9800) 13600 (15200#)	5500 (8100) 11200 (11400#)		
0	Stabilizers raised 4 pt. outriggers down		18400# (18400#) 18400# (18400#)	13700 (21000) 27100# (27100#)	10200 (15300) 21600 (21600#)	8000 (11900) 16600 (17400#)	6500 (9600) 13400 (13700#)			
- 5	Stabilizers raised 4 pt. outriggers down			13400 (20600) 22800# (22800#)	10000 (15000) 18600# (18600#)	7900 (11700) 14800# (14800#)	6500 (9600) 11000# (11000#)			
- 10	Stabilizers raised 4 pt. outriggers down									
- 15	Stabilizers raised 4 pt. outriggers down									

with industrial stick 19'8"										
Height ft	Undercarriage	Radius of load from centerline of machine in ft								
		10	15	20	25	30	35	40	45	50
55	Stabilizers raised 4 pt. outriggers down									
50	Stabilizers raised 4 pt. outriggers down									
45	Stabilizers raised 4 pt. outriggers down			18900# (18900#) 18900# (18900#)						
40	Stabilizers raised 4 pt. outriggers down			20000 (21600#) 21600# (21600#)	13800 (18500#) 18500# (18500#)					
35	Stabilizers raised 4 pt. outriggers down				14100 (19500) 20300# (20300#)	10300 (14300) 17700# (17700#)				
30	Stabilizers raised 4 pt. outriggers down				14000 (19500) 20300# (20300#)	10300 (14300) 18000# (18000#)	7800 (11000) 14800 (15900#)			
25	Stabilizers raised 4 pt. outriggers down			19700 (24000#) 24000# (24000#)	13700 (19100) 20700# (20700#)	10100 (14200) 18200# (18200#)	7700 (10900) 14700 (16100#)	5900 (8600) 11300# (11300#)		
20	Stabilizers raised 4 pt. outriggers down			18800 (25400#) 25400# (25400#)	13200 (18500) 21500# (21500#)	9800 (13800) 18500# (18500#)	7500 (10700) 14500 (16200#)	5900 (8500) 11700 (14000#)		
15	Stabilizers raised 4 pt. outriggers down	26100# (26100#) 26100# (26100#)	27300 (34900#) 34900# (34900#)	17500 (25300) 27300# (27300#)	12500 (17700) 22400# (22400#)	9400 (13300) 18100 (18900#)	7300 (10400) 14200 (16300#)	5800 (8400) 11500 (13900#)		
10	Stabilizers raised 4 pt. outriggers down	23300# (23300#) 23300# (23300#)	24300 (37800) 38800# (38800#)	16100 (23700) 28900# (28900#)	11600 (16800) 23100# (23100#)	8900 (12800) 17600 (19200#)	7000 (10100) 13900 (16200#)	5600 (8200) 11300 (13500#)		
5	Stabilizers raised 4 pt. outriggers down	6500# (6500#) 6500# (6500#)	21700 (34700) 35600# (35600#)	14700 (22200) 29500# (29500#)	10900 (16000) 22400 (23300#)	8400 (12300) 17000 (19000#)	6700 (9800) 13600 (15700#)	5500 (8000) 11200 (12800#)		
0	Stabilizers raised 4 pt. outriggers down	7700# (7700#) 7700# (7700#)	20200 (21300#) 21300# (21300#)	13800 (21100) 28500# (28500#)	10200 (15300) 21700 (22500#)	8000 (11900) 16600 (18200#)	6500 (9500) 13300 (14800#)	5300 (7900) 11000 (11500#)		
- 5	Stabilizers raised 4 pt. outriggers down		19600 (20600#) 20600# (20600#)	13200 (20500) 25500# (25500#)	9900 (14900) 20400# (20400#)	7800 (11600) 16300 (16400#)	6300 (9400) 12900# (12900#)			
- 10	Stabilizers raised 4 pt. outriggers down			13100 (20300) 20700# (20700#)	9700 (14700) 16900# (16900#)	7700 (11500) 13400# (13400#)				
- 15	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 blocked oscillating 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.

Lift Capacities A 934 B HD Litronic® with Industrial-Type Gooseneck Boom 24'11"

Attachment envelope

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

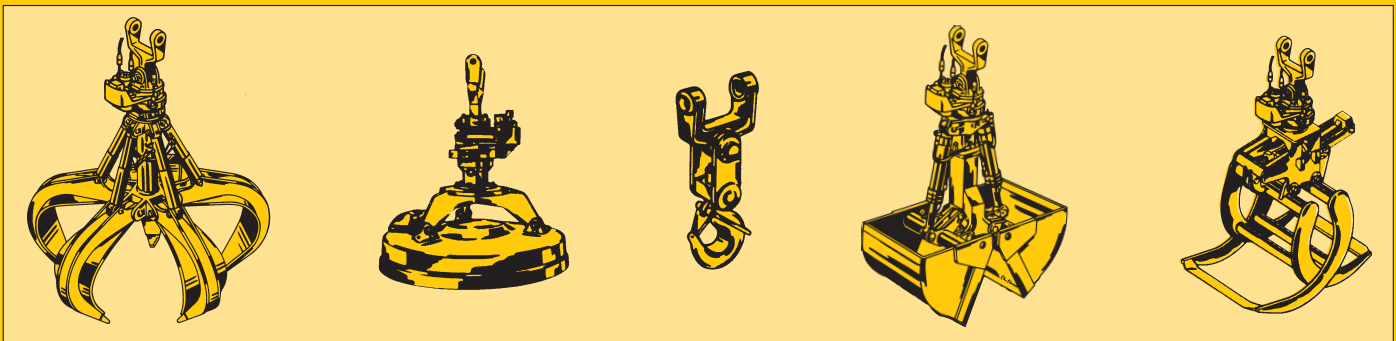
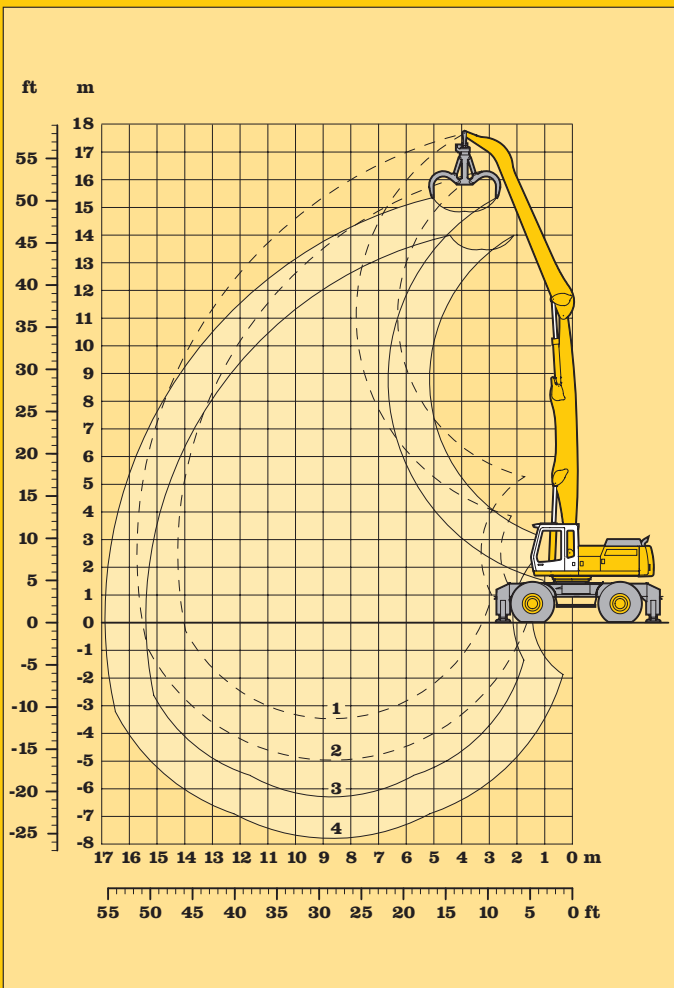
- 1 with industrial stick 19'8"
- 2 with industrial stick 24'7"
- 3 with industrial stick 19'8" and grapple model 70 C
- 4 with industrial stick 24'7" and grapple model 70 C

Operating weight

Operating weight includes basic machine
A 934 B HD Litronic with 4 point outriggers, hydraulical cab elevation, 4 solid tires and industrial-type gooseneck boom 28'2".

with grapple model

		70 C/1.00 cuyd semi-closed tines
industrial stick 19'8"	lb	82245
industrial stick 24'7"	lb	82690



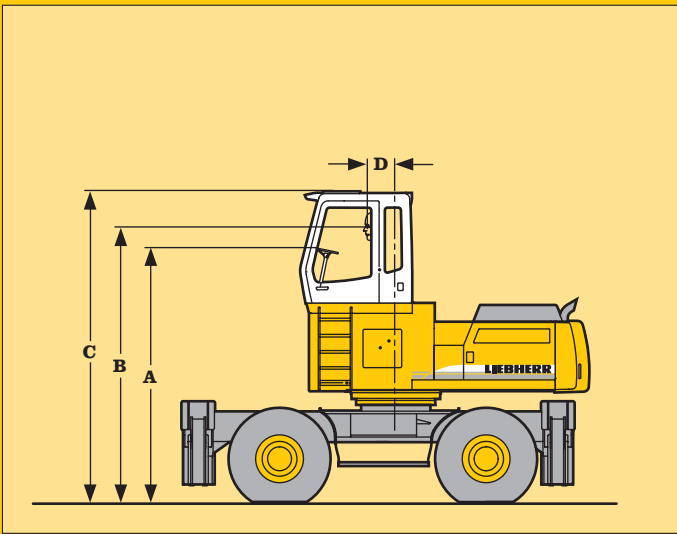
Industrial Attachment with Industrial-Type Gooseneck Boom 28'2"

with industrial stick 19'8"										
Height ft	Undercarriage	Radius of load from centerline of machine in ft								
		10	15	20	25	30	35	40	45	50
55	Stabilizers raised 4 pt. outriggers down									
50	Stabilizers raised 4 pt. outriggers down			17200# (17200#) 17200# (17200#)						
45	Stabilizers raised 4 pt. outriggers down			19900 (21100#) 21100# (21100#)	13600 (17900#) 17900# (17900#)					
40	Stabilizers raised 4 pt. outriggers down				14100 (19600) 19900# (19900#)	10200 (14200) 17500# (17500#)				
35	Stabilizers raised 4 pt. outriggers down				14100 (19600) 19800# (19800#)	10300 (14400) 17300# (17300#)	7700 (10900) 14700 (15400#)			
30	Stabilizers raised 4 pt. outriggers down			20000 (23500#) 23500# (23500#)	13900 (19400) 20000# (20000#)	10200 (14200) 17400# (17400#)	7600 (10900) 14700 (15300#)	5800 (8400) 11600 (13500#)		
25	Stabilizers raised 4 pt. outriggers down			19200 (24400#) 24400# (24400#)	13400 (18800) 20500# (20500#)	9800 (13900) 17600# (17600#)	7500 (10700) 14500 (15400#)	5800 (8400) 11600 (13500#)		
20	Stabilizers raised 4 pt. outriggers down		28400 (28800#) 28800# (28800#)	17900 (25800#) 25800# (25800#)	12600 (18000) 21200# (21200#)	9400 (13400) 18000# (18000#)	7200 (10400) 14200 (15500#)	5600 (8200) 11400 (13400#)	4400 (6600) 9300 (11300#)	
15	Stabilizers raised 4 pt. outriggers down	47800 (55400#) 55400# (55400#)	25000 (36400#) 36400# (36400#)	16300 (24100) 27300# (27300#)	11700 (16900) 21900# (21900#)	8800 (12700) 17600 (18200#)	6800 (10000) 13800 (15500#)	5400 (8000) 11200 (13300#)	4300 (6500) 9200 (11000#)	
10	Stabilizers raised 4 pt. outriggers down		21500 (30300#) 30300# (30300#)	14600 (22100) 28200# (28200#)	10700 (15800) 22300# (22300#)	8200 (12100) 16900 (18300#)	6400 (9600) 13400 (15400#)	5100 (7800) 10900 (13000#)	4200 (6400) 9100 (10600#)	
5	Stabilizers raised 4 pt. outriggers down		12300# (12300#) 12300# (12300#)	13100 (20400) 27900# (27900#)	9800 (14900) 21200 (22000#)	7600 (11500) 16200 (17900#)	6100 (9200) 13000 (14900#)	4900 (7500) 10700 (12400#)	4100 (6300) 9000 (9700#)	
0	Stabilizers raised 4 pt. outriggers down		11400# (11400#) 11400# (11400#)	12200 (19400) 25900# (25900#)	9100 (14200) 20500 (20800#)	7200 (11000) 15700 (17000#)	5800 (8900) 12600 (14000#)	4700 (7300) 10500 (11300#)	4000 (6200) 8400# (8400#)	
- 5	Stabilizers raised 4 pt. outriggers down		13300# (13300#) 13300# (13300#)	11700 (18900) 22400# (22400#)	8700 (13800) 18500# (18500#)	6900 (10700) 15200# (15200#)	5600 (8700) 12400# (12400#)	4600 (7200) 9700# (9700#)		
- 10	Stabilizers raised 4 pt. outriggers down				8600 (13600) 15100# (15100#)	6800 (10600) 12500# (12500#)	5500 (8600) 9900# (9900#)			
- 15	Stabilizers raised 4 pt. outriggers down									

with industrial stick 24'7"										
Height ft	Undercarriage	Radius of load from centerline of machine in ft								
		10	15	20	25	30	35	40	45	50
55	Stabilizers raised 4 pt. outriggers down			14800# (14800#) 14800# (14800#)						
50	Stabilizers raised 4 pt. outriggers down				14200 (15000#) 15000# (15000#)	10000 (10800#) 10800# (10800#)				
45	Stabilizers raised 4 pt. outriggers down				14800 (16700#) 16700# (16700#)	10700 (14600#) 14600# (14600#)	7800 (10800#) 10800# (10800#)			
40	Stabilizers raised 4 pt. outriggers down					11000 (15100) 16000# (16000#)	8100 (11400) 13900# (13900#)	6000 (8700) 9500# (9500#)		
35	Stabilizers raised 4 pt. outriggers down					11000 (15200) 15900# (15900#)	8200 (11500) 14300# (14300#)	6200 (8900) 12100 (12800#)		
30	Stabilizers raised 4 pt. outriggers down				14900 (18100#) 18100# (18100#)	10800 (15000) 16000# (16000#)	8100 (11400) 14300# (14300#)	6200 (8900) 12100 (12900#)	4700 (7000) 9700 (10600#)	
25	Stabilizers raised 4 pt. outriggers down				14400 (18700#) 18700# (18700#)	10500 (14600) 14500# (14500#)	7900 (11100) 14500# (14500#)	6000 (8700) 11900 (12900#)	4600 (6900) 9600 (11400#)	
20	Stabilizers raised 4 pt. outriggers down			19700 (20000#) 20000# (20000#)	13600 (19100) 19500# (19500#)	10000 (14000) 16800# (16800#)	7500 (10800) 14700 (14700#)	5800 (8500) 11700 (13000#)	4500 (6800) 9500 (11400#)	3500 (5500) 7800 (8300#)
15	Stabilizers raised 4 pt. outriggers down		21200# (21200#) 21200# (21200#)	18000 (25000#) 25000# (25000#)	12600 (18000) 20500# (20500#)	9300 (13300) 17300# (17300#)	7100 (10300) 14200 (14900#)	5500 (8200) 11400 (13000#)	4400 (6600) 9300 (11300#)	3400 (5400) 7700 (9400#)
10	Stabilizers raised 4 pt. outriggers down	47100 (54900#) 54900# (54900#)	24700 (35900#) 35900# (35900#)	16000 (23800) 26800# (26800#)	11400 (16700) 21400# (21400#)	8600 (12600) 17400 (17700#)	6600 (9800) 13600 (15100#)	5200 (7900) 11000 (12900#)	4200 (6400) 9100 (11000#)	3300 (5300) 7600 (9000#)
5	Stabilizers raised 4 pt. outriggers down	5600# (5600#) 5600# (5600#)	20900 (33300#) 33300# (33300#)	14100 (21600) 27700# (27700#)	10300 (15500) 21800# (21800#)	7900 (11800) 16600 (17800#)	6200 (9300) 13100 (15000#)	4900 (7500) 10700 (12700#)	4000 (6200) 8900 (10600#)	3200 (5200) 7500 (8400#)
0	Stabilizers raised 4 pt. outriggers down	5300# (5300#) 5300# (5300#)	15600# (15600#) 15600# (15600#)	12600 (19900) 27200# (27200#)	9400 (14500) 20800 (21400#)	7200 (11100) 15900 (17400#)	5700 (8900) 12600 (14500#)	4600 (7200) 10400 (12100#)	3800 (6000) 8700 (9900#)	3100 (5100) 7300# (7300#)
- 5	Stabilizers raised 4 pt. outriggers down	7100# (7100#) 7100# (7100#)	14100# (14100#) 14100# (14100#)	11700 (18900) 25300# (25300#)	8700 (13700) 20000 (20200#)	6800 (10600) 15300 (16400#)	5400 (8500) 12300 (13500#)	4400 (7000) 10100 (11100#)	3700 (5900) 8600 (8700#)	
- 10	Stabilizers raised 4 pt. outriggers down		15000# (15000#) 15000# (15000#)	11200 (18300) 21900# (21900#)	8300 (13300) 17900# (17900#)	6500 (10300) 14600# (14600#)	5200 (8300) 11900# (11900#)	4300 (6900) 9500# (9500#)	3600 (5800) 6900# (6900#)	
- 15	Stabilizers raised 4 pt. outriggers down				8100 (13100) 14500# (14500#)	6300 (10200) 11900# (11900#)	5100 (8200) 9500# (9500#)			

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 blocked oscillating 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.

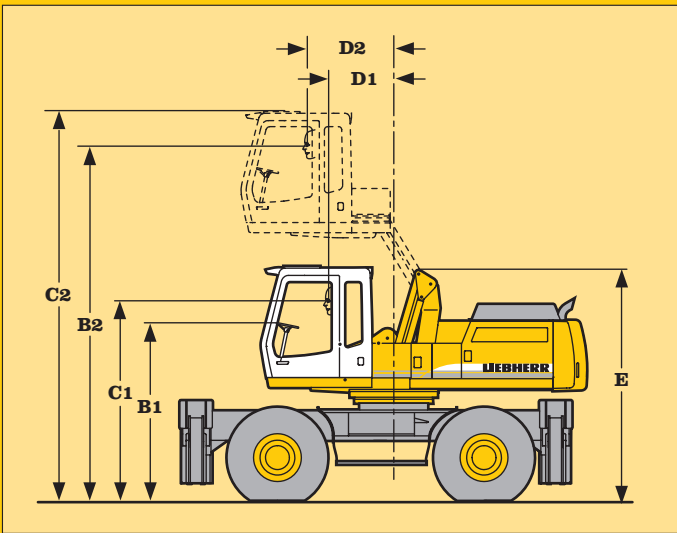
Lift Capacities A 934 B HD Litronic® with Industrial-Type Gooseneck Boom 28'2"



Rigid Cab Elevation

Height	ft-in	2'7"	3'11"	4'11"	6'6"
A	ft-in	11'7"	12'11"	13'11"	15'6"
B	ft-in	12'8"	14' 0"	14'11"	16'6"
C	ft-in	14'5"	15' 9"	16' 9"	18'4"
D	ft-in	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.

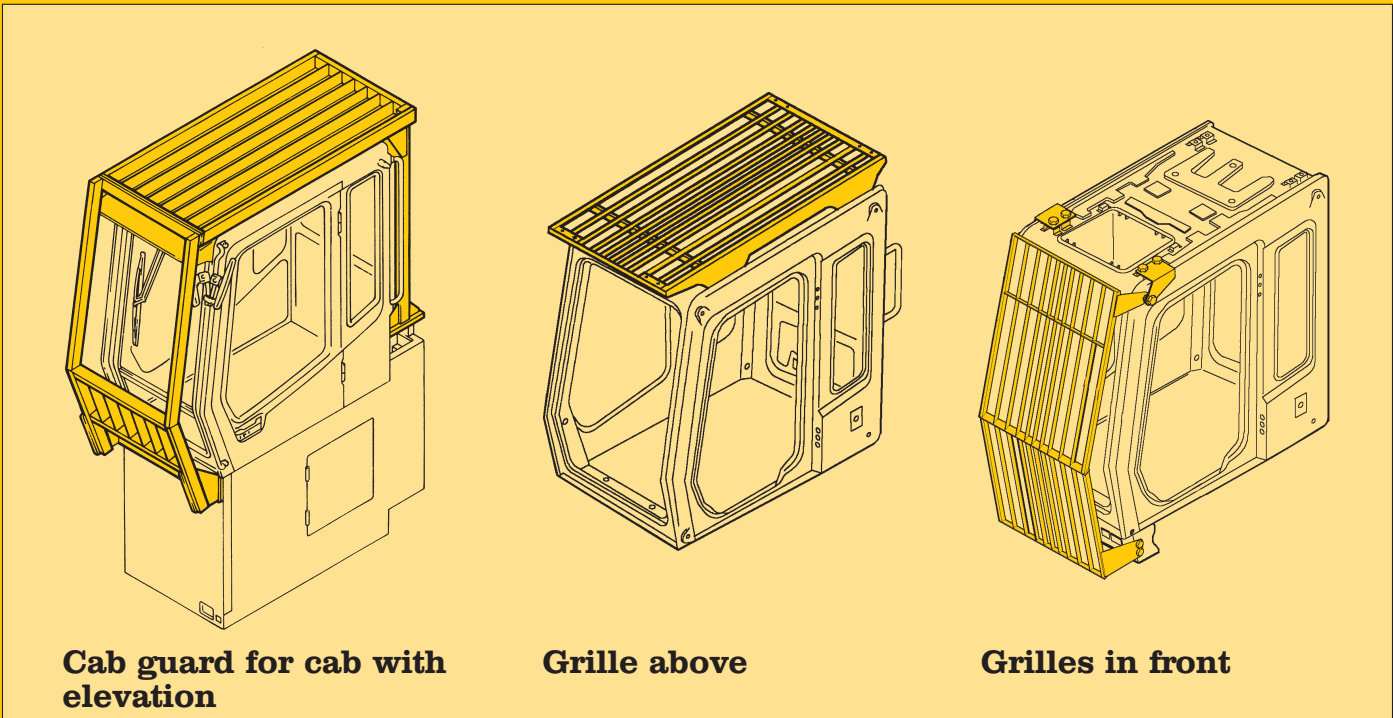


Hydraulic Cab Elevation

(Parallelogram)

B1	_____	10' 1" ft-in
B2	_____	17'11" ft-in
C1	_____	11'10" ft-in
C2	_____	19' 8" ft-in
D1	_____	3' 5" ft-in
D2	_____	4' 5" ft-in
E	_____	11' 7" ft-in

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.

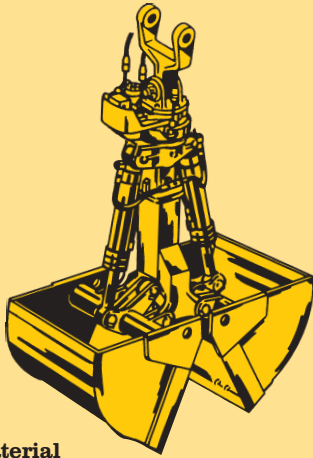


Cab guard for cab with elevation

Grille above

Grilles in front

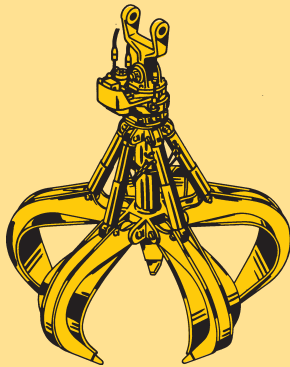
Choice of Cab Elevations and Cab Protections



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 lb	2870	3000	3290



Multiple Tine Grapples

Grapple model 64 (4 tines)

	open tines		semi-closed tines		closed tines	
Capacity cuyd	0.52	0.78	0.52	0.78	0.52	0.78
Total weight lb	2300	2450	2750	2900	2750	2900

Grapple model 65 (5 tines)

Capacity cuyd	0.52	0.78	0.52	0.78	0.52	0.78
Total weight lb	2580	2780	2950	3200	3150	3500

Grapple model 69 (4 tines)

Capacity cuyd	1.00	1.44	1.00	1.44	1.00	1.44
Total weight lb	2600	2930	3200	3950	3920	4280

Grapple model 70 C (5 tines)

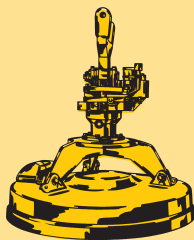
Capacity cuyd	1.00	1.44	1.00	1.44	1.00	1.44
Total weight lb	3300	3350	3770	4040	4190	4480



Crane Hook

Crane hook with suspension

Max. load lb	2760
Height with suspension ft-in	3-03
Total weight lb	290



Electric Magnet

Electro magnets with suspension

Generator kW	10	20
Dia of magnet ft-in	4-11	4-11
Height with suspension ft-in	5-80	4-11
Total weight lb	4300	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.

Variety of Tools

Undercarriage

	Standard	Optional
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

	Standard	Optional
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

	Standard	Optional
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	●	
Steppless 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

	Standard	Optional
Turbo charger	●	
Direct injection	●	
Cold start aid		●
Sensor controlled engine idling	●	
Air filter with pre-cleaner main- and safety element	●	

Operator's cab

	Standard	Optional
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

	Standard	Optional
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	●	
Hydraulic or manual quick change tool adapter		●
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	●	

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.

LIEBHERR Construction Equipment Co., 4100 Chestnut Avenue, Newport News, VA 23607, USA,
☎ (757) 245-5251, Fax (757) 928-8700, www.liebherr.com, E-Mail: info@lce.liebherr.com

With compliments: