Log Loader







Operating Weight:	97,350 lb
Engine Output (SAE J1349):	255 HP / 190 kW
Engine Output (ISO 9249):	258 HP / 190 kW

Performance

Liebherr wood handlers are designed to deliver the highest productivity and performance. They are built to provide high lifting capacities and quick cycle times for a smooth and efficient workflow on material handling operations. A wide range of attachments and task specific configurations make these machines ideally suited to a wide range of applications.

Reliability

Liebherr hydraulic excavators are designed and built to operate in the most extreme material handling environments. Their innovative and rugged design ensures maximum performance and longevity.

Comfort

The spacious and ergonomically designed Liebherr operator's cab provides a wide view to the working area. The operator's seat can be individually adjusted for maximum comfort and all tool controls and displays have been carefully arranged for ease of operation. Air conditioning is also a standard feature that maintains a comfortable work environment during working shifts.

Economy

The Liebherr Litronic System increases machine performance, reduces fuel consumption and minimizes service and maintenance related costs. Liebherr's full line of material handlers ensures a machine sized to handle the task requirements for any material handling operation.





Liebherr diesel engine

- High lifting capacities, quick cycle times and proven reliability
- Stage IIIA / Tier 3 Compliant
- Specially developed for construction and industrial machinery operations
- Oil supply even with 100 % tilt angle
- Excellent torque





Performance

The A 944 C HD Litronic has been designed for maximum productivity. Precisely engineered, the Liebherr developed and Liebherr manufactured components including the diesel engine, hydraulic pumps and motors, as well as swing gear and cylinders, guarantee maximum performance. This results in a high lifting capacity with fast working cycles.

Innovative solutions

Multiple Attachments	Liebherr can provide a machine for any material han- dling application. A straight or angled industrial mono boom can be combined with various industrial sticks and a wide array of attachments to handle any task.		
High lifting capacities	Efficient handling of soft woods, chippings and hard woods is all part of the day's work for Liebherr wood handling equipment and is guaranteed due to opti- mized kinematics.		
Rapid Work Cycles	High swing torque is possible because Liebherr uses a separate hydraulic circuit to make sure the swing is independent to the other controls. Rapid work cycles are achieved through this.		
Performance without compromise	The intelligent electronics, interacting with the matched hydraulics, make for maximum performance and maximum power – all the time.		
ReGenerationPlus	The new ReGenerationPlus system reduces energy con- sumption when lowering the attachment. It allows for faster movements resulting in shorter cycle times and		

Robust undercarriage

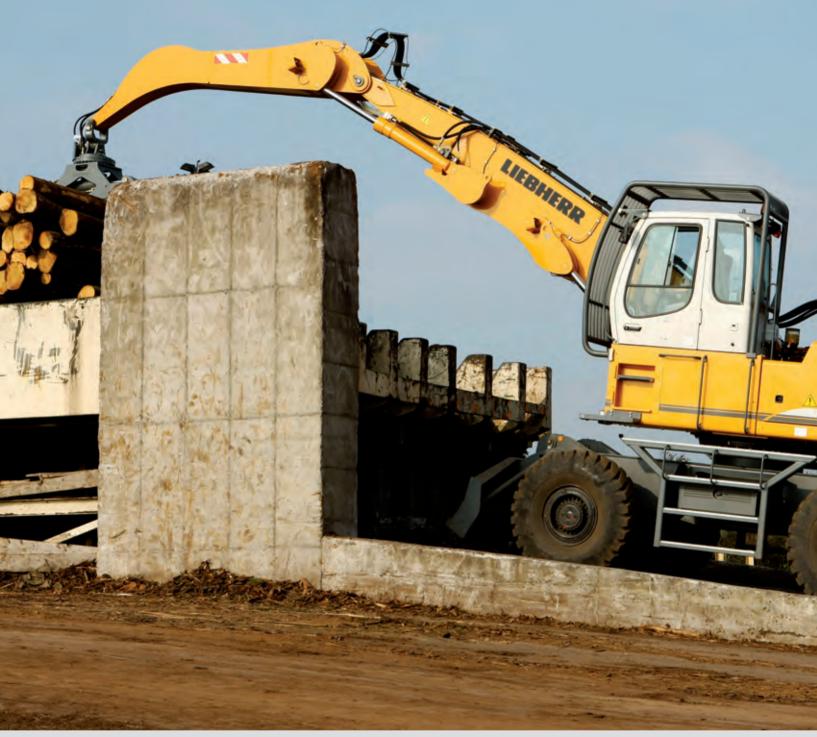
- A special undercarriage concept results in a low noise level, with standard travel motor protection and secure access arrangement integrated in the undercarriage
- A stabilizer blade is part of the standard range of equipment, a second one is available as an option
- 2-range power shift transmission for stepless acceleration and creeper speed



Litronic-System

improves economy through reduced oil circulation.

- Increases productivity of the excavator
- Reduces fuel consumption
- Reduces service costs and eases operation
- Allows maximum sensitivity and as many overlapping movements as are required





Features

- High-strength steel plates at highlystressed points for the toughest requirements
- Stable storage of attachments and cylinders
- Maximum resistance, even when lifting heavy loads



Reliability

Liebherr log loaders prove themselves day in and day out in a variety of applications throughout the world. Many years of experience as the world's largest manufacturer of wheeled excavators along with continuous product development with the latest technology, have enabled Liebherr to offer a safe and reliable product to the market. With its rugged design and quality Liebherr products, the A 944 C HD Litronic has been designed for performance and longevity.

Quality to the last detail

Liebherr Components Liebherr develops, tests and manufactures components such as the diesel engine, slewing gear, hydraulic cylinders and electronics specifically for the material handling market. Parts, such as the engine and pumps, are being synchronized with each other as early as the initial build stage to ensure a constant standard of quality. A magnetic bar is fitted into the hydraulic tank as standard to help increase the operating life of the hydraulic system.

> Safety oriented components are built as standard into the base units by Liebherr. The operator can concentrate fully on the task at hand knowing that the integrated on board electronics are performing a constant check using pre-defined data to keep the operator and others on the job site safe.

Rugged attachments

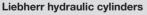
Working Attachments

Piping

Functional Safety

The attachments are designed for the harshest applications and have a long service life. All components have been optimized using the FE method. Stress reducing two sided cylinder bearings on mono boom and stick connections. Liebherr has integrated large diameter torsion tube for the best possible force absorption by the attachment components.

Routing of the hydraulic lines in the stick offers the best protection against damage. The electric cabling is made with the highest grade of materials. This guar-



- Specific size for each machine
- High-grade surface coating of the piston rods
- All Liebherr cylinders feature special long-life sealing systems
- Shock absorption at both sides in the working cylinders

Functional safety

- Essential operating data is stored and can be recalled at any time
- Control and monitoring functions increase functional safety of the machine

antees a reliable connection for the customer.

- Four fixed working modes for output discharge facilitate an effective and efficient operation:
- ECO-Mode: High handling and loading performance coupled with low fuel consumption
- POWER-Mode: For maximum handling and loading performance under severe conditions
- LIFT-Mode: for precise handling of heavy loads
- FINE-Mode: for fine control at precision work









Large-sized cab

- Adjustable steering column
- Operator's seat, adjustable in height and can also be adapted to the individual weight of the operator
- Consoles with or without possibility of horizontal adjustment
- Large roof window
- Single-piece side screen on the right
- Sun blinds





Comfort

The excavator operator is provided with an ergonomically arranged working area within the Liebherr cabs. All switches and functions are logically laid out. The operator's seat, steering column and controls can be individually adjusted to guarantee comfortable working environment so the operator can maintain maximum productivity for the entire shift.

Mobile comfort

Easy Access	The operator has wide steps, ergonomically positioned handles and adjustable steering column to allow easy access into the Liebherr cab.	
Optimum Visibility	Liebherr has designed a well thought out design for the upper carriage. The cab features large glass pan- els and rounded edges to increase overall visibility and guarantees a safe overview of the entire working area.	
Pleasant surroundings	Reduced engine speed together with elaborate sound insulation, as well as optimised hydraulic components, allow a comfortable noise level both inside and out. The noise level is comparable with that of modern cars.	

Maintenance features

Simple Maintenance	The Liebherr excavators come standard with a semi-au- tomatic lubrication system for the boom, stick attach- ments as well as the slewing gear.
Ease of operation	A shut-off valve, fitted to the hydraulic tank as stan- dard, disconnects the system and guarantees ease of maintenance to the hydraulic system.
Easy Access	Large, lockable maintenance doors allow easy and safe access to all of the maintenance points.

Storage compartment – Everything has its place

- Ample storage space for a commercially-approved cooler box behind the operator's seat
- Drinks holder and storage compartment in operator's cab
- Large storage box behind the operator's cab
- Two standard tool boxes in the undercarriage



Fully-automatic air-conditioning system

- Air-conditioning comes standard, offering the same comfort as that of a regular car
- Two sensors for precise temperature regulation
- Ventilation flaps are controlled via keys
- Defrost function for quick dehumidifying / defrosting of the windshield





Hydrostatic fan drive

- Accelerated warm-up period
- Guaranteed constant oil quality as a result of constant oil temperature
- Increased life expectancy of drive components
- The fan only runs at the output required, thus conserving fuel and reducing the noise level considerably
- Thermostatic control



Economy

Liebherr offers a wide range of Log Loader models to maximize productivity in any application. Easy access to components and service points on the Liebherr Log Loader allow for quick maintenance and minimal downtime reducing operating costs and maximizing production.

Low operating costs

Liebherr Engine

The A 944 C HD is powered by a Liebherr made engine which is specifically designed to maximum power and performance through the cycle with maximum fuel economy. This minimizes power loss, boosts productivity and lowers fuel consumption. Therefore, the carbon footprint is minimized and per hour operating costs are lower.

Automatic Engine Idle A great feature of the Liebherr Material Handler is the Auto Engine Idle. The machine will automatically idle the engine if a hydraulic or engine function is not used over a period of time. The joysticks contain a proximity switch that once the operator is range of the joystick the engine will automatically return to operating RPM. This again reduces fuel consumption and carbon emissions saving the owner money.

> The state-of-the-art hydraulic system allows conversion of the maximum engine output into high force or speed, as required. The maximum possible forces are available at all times.

Investment for the future

Extensive service offer

management

High resale values

Intelligent hydraulic

Proven service offers assured by our service personnel trained directly at the manufacturing plants, and endorsed by our tight-knit network of dealers, provide services in all required areas.

Liebherr Material Handlers are designed with the highest grade materials possible and our Material Handlers are designed to last. You can take comfort in having the highest quality, longest lasting, best fuel economy Material Handler available today. When time comes to exchange for the next Liebherr, rest assured that a Liebherr Material Handler commands the best residual value in the Material Handling Industry.



A wide range

- Comprehensive and well balanced Liebherr grab program
- A wide range of grapple shapes for the most widely differing operational situations



Service oriented

- Engine service points such as the filter or capacity displays - easily to access and reach via a catwalk
- The magnet bar in the hydraulic oil tank acts as a service indicator and increases the service life of the oil
- Liebherr semi-automatic central lubricating systems for the slewing gear and main attachment components fitted as standard for quick and targeted maintenance

Technical Data



	255 HP (190 kW) at 1,800 rpm
	258 HP (190 kW) at 1,800 rpm
Model	Liebherr D 936 L according to level IIIA/Tier 3
Туре	6 cylinder in-line
Bore/Stroke	4.8/5.9 in
Displacement	640 in ³
Engine operation	4-stroke diesel
0	unit pump system
	turbo-charged and after-cooled
	reduced emissions
Cooling	water-cooled and integrated motor oil cooler
Air cleaner	dry-type air cleaner with pre-cleaner, primary and
	safety elements, automatic dust discharge
Fuel tank	174 gal
Standard	sensor controlled engine idling
Electrical system	
Voltage	24 V
Batteries	2 x 170 Ah/12 V
Starter	24 V/6.6 kW
	three phase current 28 V/80 A

Hydraulic System

Hydraulic pump for attachment and	
	two Liebherr variable flow, swash plate pumps
Max. flow Max. pressure	
	 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	54 gpm
Max. pressure	
Hydraulic tank	
Hydraulic system	
Hydraulic oil filter	2 full flow filters in return line with integrated fine filter area (5 μm)
Cooling system	_ cooler unit, consisting of radiator for engine coolant with after-cooler core, sandwiched with cooler for hydraulic fluid and fuel with hydro- statically controlled fan drive
MODE selection	 adjustment of machine performance and the hydraulics via mode selector to match job appli- cation
ECO	for economical operation
POWER	for maximum digging power and heavy duty jobs
LIFT	
	for precision work and lifting
RPM adjustment	stepless adjustment of engine output via rpm at each selected mode
Tool Control (Option)	ten pre-adjustable pump flows and pressures for add on tools



	via control valves in single block with integrated safety valves
Flow summation	
Closed-loop circuit	for uppercarriage swing drive
Servo circuit	
Attachment and swing	proportional via joystick levers
Travel	proportional via foot pedal
Additional functions	via joystick push buttons or foot pedals



Swing Drive

Drive	 Liebherr swash plate motor with integrated brake valves
Transmission	Liebherr compact planetary reduction gear
Swing ring	Liebherr, sealed single race ball bearing swing ring, internal teeth
Swing speed	_ 0 – 8.0 rpm stepless
Swing torque	_ 92,195 lbf ft
Holding brake	_ wet multi-disc (spring applied, pressure released), pedal controlled positioning brake

Operator's Cab

Cab	resiliently mounted, sound insulated, tinted windows, front window stores overhead, door with sliding window
Operator's seat	- fully adjustable, shock absorbing suspension, adjustable to operator's weight and size, 6-way adjustable Liebherr seat
Joysticks	integrated into adjustable consoles
Monitoring	menu driven query of current operating condi- tions 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
Air conditioning	standard air conditioning, combined cooler/ heater, additional dust filter in fresh air/recircu- lated
Noise emission ISO 6396 2000/14/EC	L _{pA} (inside cab) = 75 dB(A) L _{WA} (surround noise) = 105 dB(A)

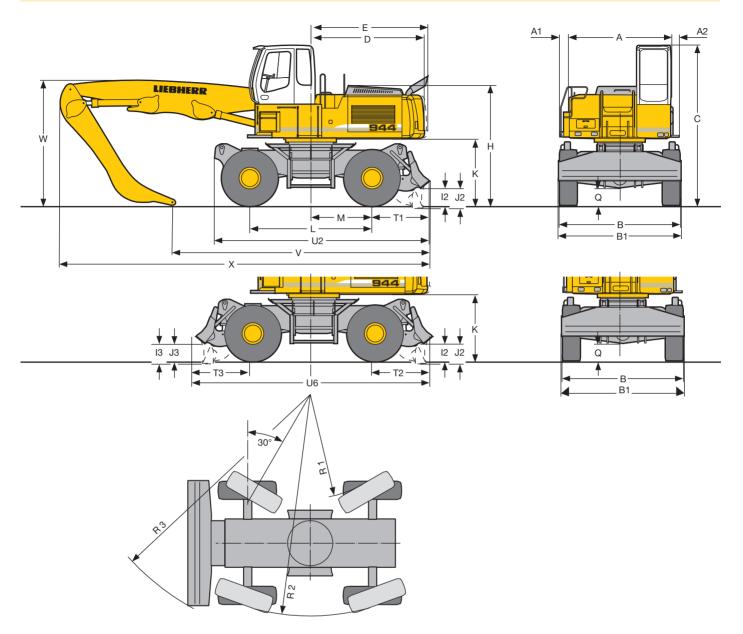


Drive	_ Liebherr variable flow swash plate motor with
Transmission	automatic brake valves
	oversized two speed power shift transmission with additional creeper speeds
Travel speed	_ 0 – 1.9 mph (creeper speed)
	0 – 3.1 mph (cross country)
	0 - 7.1 mph (creeper speed road)
	0 – 12.4 mph (road travel)
Axles	 154,324 lb excavator axles; automatic or operator controlled front axle oscillation lock
Brakes	_ discs brakes
	hydraulically actuated digging and parking brake
Stabilization	_ stabilizer blade (rigid axle)
	opt. stabilizer blade (steering axle)
	_ standard
Steering reversal control	_ standard



Туре	high-strength steel plates at highly stressed points for the toughest requirements. Complex and stable mountings of attachment and cylin- ders. Unrivalled strength, even at high loads
Hydraulic cylinders	Liebherr cylinders with special seal system. Shock absorbing
Pivots	sealed, low maintenance
Lubrication	Liebherr semi-automatic central lubrication system

Dimensions



	ft in		ft in
A	9'10"	L	11'10"
A1	11"	Μ	5'11"
A2	10"	Q	1'8"
В	11'8"	R1	9'10"
B1	11'10"	R2	21'
C	15' 5"	R3	23'1"
D	11'	T1	5'7"
E	11'	T2	5'7"
н	11'6"	T3	5'7"
12	1'8"	U2	20' 9"
13	1'8"	U6	22'11"
J2	1'10"	V	24'10"
J3	1'10"	W	12'6"
К	6'6"	Х	36'1"

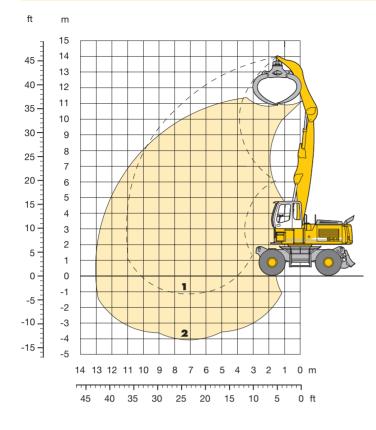
E = Tail radius

Dimensions are with attachment over steering axle

Tires 18.00-25

Industrial Attachment

with Industrial-Type Straight Boom 22'12"



Attachment Envelope

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

1 with industrial stick 14'9"

2 with industrial stick 14'9" and wood grapple

Operating Weight

Operating weight includes basic machine A 944 C HD Litconic with prop-up blade, industrial application for wood with industrial-type straight boom 22'12" and industrial stick 14'9".

with wood grapple and mechanism with 2 hydr. motors	Weight
industrial stick 14'9"	97,350 lb



Lift Capacities

with Industrial-Type Straight Boom 22'12"

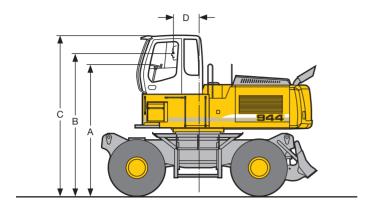
Industrial Stick 14'9"

\sim		10 ft 15 ft		20 ft 25 ft			30 ft		35	35 ft						
3	Undercarriage		Ľ		Ŀ		Ŀ		Ŀ		Ľ		Ŀ		Ľ	ft i
	Stabilizers raised													30,400*	30,400*	
5	Stabil. blade down													30,400*	30,400*	8'
	Stabil. blades down													30,400*	30,400*	
	Stabilizers raised			26,400*	26,400*	20,300*	20,300*							20,200*	20,200*	
)	Stabil. blade down			26,400*			20,300*							20,200*	20,200*	20'
	Stabil. blades down			26,400*	26,400*	20,300*	20,300*							20,200*	20,200*	
	Stabilizers raised			28,300*	28,300*	25,800*	25,800*	20,000*	20,000*					17,700*	17,700*	
	Stabil. blade down			28,300*	28,300*	25,800*	25,800*	20,000*	20,000*					17,700*	17,700*	26'
	Stabil. blades down			28,300*	28,300*	25,800*	25,800*	20,000*	20,000*					17,700*	17,700*	
	Stabilizers raised			29,300*	29,300*	28,700*	28,700*	21,500	25,300*	15,900	17,100*			15,700	16,600*	
	Stabil. blade down			29,300*	29,300*	28,700*	28,700*	22,500	25,300*	16,600	17,100*			16,400	16,600*	30'
	Stabil. blades down			29,300*	29,300*	28,700*	28,700*	25,100	25,300*	17,100*	17,100*			16,600*	16,600*	
	Stabilizers raised			31,600*	31,600*	30,200	30,900*	21,200	26,300	15,900	19,700			13,500	16,100*	
	Stabil. blade down			31,600*	31,600*	30,900*	30,900*	22,200	26,500*	16,600	23,200*			14,100	16,100*	33'
	Stabil. blades down			31,600*	31,600*	30,900*	30,900*	24,800	26,500*	18,500	23,200*			15,800	16,100*	
	Stabilizers raised	32,700*	32,700*	40,100*	40,100*	29,000	32,700*	20,600	25,700	15,600	19,400			12,200	15,300	
)	Stabil. blade down	32,700*	32,700*	40,100*	40,100*	30,500	32,700*	21,600	27,300*	16,300	23,400*			12,800	16,100*	34'
	Stabil. blades down	32,700*	32,700*	40,100*	40,100*	32,700*	32,700*	24,100	27,300*	18,300	23,400*			14,400	16,100*	
	Stabilizers raised			42,600	45,800*	27,500	34,800*	19,800	24,900	15,100	19,000	12,000	15,100	11,500	14,400	
	Stabil. blade down			45,100	45,800*	28,900	34,800*	20,800	28,200*	15,900	23,700*	12,600	19,900*	12,000	16,400*	36'
	Stabil. blades down			45,800*	45,800*	32,500	34,800*	23,300	28,200*	17,800	23,700*	14,200	19,900*	13,500	16,400*	
	Stabilizers raised			39,300	48,900*	26,000	33,200	19,000	24,000	14,700	18,500	11,800	14,800	11,100	14,000	
)	Stabil. blade down			41,700	48,900*	27,400	36,100*	20,000	28,700*	15,400	23,600*	12,400	19,300*	11,700	17,100*	36'
	Stabil. blades down			47,800	48,900*	30,900	36,100*	22,500	28,700*	17,400	23,600*	13,900	19,300*	13,200	17,100*	
	Stabilizers raised			26,500*	26,500*	24,800	32,000	18,300	23,300	14,300	18,100	11,600	14,700	11,100	14,100	
5	Stabil. blade down			26,500*	26,500*	26,200	35,800*	19,300	28,200*	15,000	22,700*	12,200	17,800*	11,700	16,400*	36'
	Stabil. blades down			26,500*	26,500*	29,700	35,800*	21,800	28,200*	17,000	22,700*	13,800	17,800*	13,200	16,400*	
	Stabilizers raised			25,500*	25,500*	24,200	31,300	17,900	22,800	14,100	17,900			12,400	15,700	
)	Stabil. blade down			25,500*	25,500*	25,500	33,000*	18,900	26,100*	14,800	20,600*			13,100	17,400*	33'
	Stabil. blades down			25,500*	25,500*	29,100	33,000*	21,300	26,100*	16,700	20,600*			14,800	17,400*	

🎶 Height 🛯 🛁 Can be slewed through 360° 🖞 In longitudinal position of undercarriage 👘 🖓 Max. reach 🔹 Limited by hydr. capacity

The lift capacities are stated in pounds (lb) on the stick tip without attachment and are valid on firm, level supporting surface with blocked oscillating axle. These capacities can be lifted 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/- 15°) are specified over the steering axle with the stabilizers raised and over the rigid axle with the stabilizers down. Indicated loads comply with the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity.

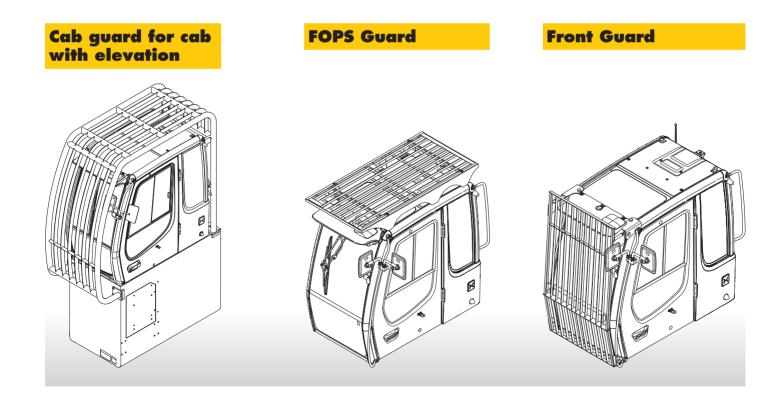
Choice of Cab Elevations and Cab Protections



Rigid Cab Elevation

Height	2'7"
A B	12'8"
В	13'10"
C	15' 5"
D	2'6"

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.



Equipment

•=• Undercarriage

.	
Two circuit travel brake with accumulator	•
Four wheel steering	•
Travel motor protection	•
Outrigger cylinder rod guards	-
Travel speed switch	•
Steering reversal control	•
Service free parking brake	•
Choice of tires	-
Auto check valve on each stabilizer cylinder	•
Proportional power steering	•
Customized colors	+
Two lockable storage boxes	•
Two-speed power shift transmission	•

Uppercarriage

Electric fuel tank filler pump	+
Maintenance-free swing brake lock	•
Handrails, non slip surfaces	•
Main switch for electric circuit	•
Engine hood with lift assistance	•
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

Hydraulic tank shut-off valve	•
Extra hydr. control for hydr. swivel	+
Pressure compensation	•
Hook up for pressure checks	٠
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	٠
Full flow micro filtration	+
Bio degradable hydraulic oil	+
Tool Control	+
Additional hydraulic circuits	+

Engine Turbo charger

After-cooled	•
Sensor controlled engine idling	•
Unit pump system	•
Air filter with pre-cleaner main- and safety element	•

Operator's Cab Storage tray Displays for engine operating condition Mechanical hour meters, reader outside cab Roof hatch Adjustable roof vent 6-way adjustable seat Air suspension seat with heating and head-rest Seat and consoles independently adjustable Extinguisher Removable customized foot mat Dome light Rigid cab Cab heater with defroster Coat hook Air conditioning Electric cooler Adjustable steering wheel Bullet proof window (fixed installation - can not be opened) Radio stereo Radio installation Rain visor over front window opening

•

•

•

•

+

•

+

•

٠

+

٠

•

•

+

.

+

+ +

+

•

٠

+

Sun shade	+
Sun blinds	•
Electronic theft protection	+
Wiper blades	•
Cigarette lighter and ashtray	•
Additional flood lights	+
Attachment	
Flood lights	•
Hydr. lines for clam operation in sticks	•
Industrial-type gooseneck sticks with remote hydraulic pin puller	+
Sealed pivots	•
Safety lift hook	+
	+
Liebherr line of clams	
Liebherr line of clams Liebherr semi-automatic central lubrication system	•
	•

Liebherr fully-automatic central lubrication system	+
LIKUFIX	+
Safety check valves on hoist cylinder	•
Safety check valves on stick cylinder	•
Hose quick connection	•
Hydraulic or manual quick change tool adapter	+
Customized colors	+
Special buckets and tools	+
Overload warning device	+
Two way valves for bucket/clam use	+
Locking of connections for clam operation	+
Cylinders with shock absorber	•

• = Standard, + = Option, - = not available

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.

Beacon

Tinted windows

Auxiliary heating

Door with sliding window

All illustrations and data may differ from standard equipment. Subject to change without notice.

The Liebherr Group of Companies

Wide Product Range

The Liebherr Group is one of the largest construction equipment manufacturers in the world. Liebherr's highvalue products and services enjoy a high reputation in many other fields, too. The wide range includes domestic appliances, aerospace and transportation systems, machine tools and maritime cranes.

Exceptional Customer Benefit

Every product line provides a complete range of models in many different versions. With both their technical excellence and acknowledged quality, Liebherr products offer a maximum of customer benefits in practical application.

State-of-the-art Technology

To provide consistent, top quality products, Liebherr attaches great importance to each product area, its components and core technologies. Important modules and components are developed and manufactured inhouse, for instance the entire drive and control technology for construction equipment and mining trucks.

Worldwide and Independent

Hans Liebherr founded the Liebherr family company in 1949. Since that time, the enterprise has steadily grown to a group of more than 100 companies with over 32,000 employees located on all continents. The corporate headquarters of the Group is Liebherr-International AG in Bulle, Switzerland. The Liebherr family is the sole owner of the company.

www.liebherr.us

Printed in Germany by Eberl RG-BK-RP LHB/VF 10471486-1-02.11_enUS

Liebherr Construction Equipment Co.

4100 Chestnut Avenue, Newport News, VA 23607, USA 2 +1 (757) 245 5251, Fax +1 (757) 928 8701 www.liebherr.us, E-Mail: info.lce@liebherr.com