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# LR 636 Litronic

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## LIEBHERR

Crawler Loader



#### Generation

8

#### Operating weight

21,690 – 23,047 kg  
47,818 – 50,810 lb

#### Engine output

ISO 9249	SAE J1349
135 kW / 181 HP	135 kW / 184 HP
Stage V	Tier 4f

#### Bucket rated capacity

1.9 – 4.6 m<sup>3</sup> / 2.5 – 6.0 yd<sup>3</sup>

# Technical data



## Diesel engine

<b>Liebherr Diesel engine</b>	D 934 EVO Emission regulations according to 97/68/EC, 2016/1628/EU Stage V, EPA/CARB Tier 4f
<b>Rated power (net)</b> ISO 9249 SAE J1349	135 kW / 184 HP 135 kW / 181 HP
<b>Maximum power (net)</b> ISO 9249 SAE J1349	160 kW / 218 HP 160 kW / 215 HP
<b>Rated speed</b>	1.800 1/min.
<b>Displacement</b>	7.0 l / 427 in <sup>3</sup>
<b>Bore / stroke</b>	122 mm (4.80 in) / 150 mm (5.91 in)
<b>Design</b>	4 cylinder in-line engine, water-cooled, turbocharged, air-to-air intercooler
<b>Injection system</b>	Direct fuel injection, Common Rail, electronic control
<b>Lubrication</b>	Pressurized lube system, engine lubrication guaranteed for inclinations up to 45°, on all sides
<b>Operating voltage</b>	24 V
<b>Alternator</b>	140 A
<b>Starter</b>	7.8 kW / 11 HP
<b>Batteries</b>	2 x 180 Ah / 12 V
<b>Air cleaner</b>	Dry-type air cleaner with pre-cleaner and automatic dust ejector, main and safety elements with radial seal
<b>Cooling system</b>	Combination cooler with single cooling units for water, hydraulic oil and intake charge air
<b>Cooling fan</b>	Hydrostatically driven, thermostatically controlled



## Hydraulics

<b>Hydraulic system</b>	Load-sensing demand control
<b>Pump type</b>	Variable displacement pump (swash-plate design)
<b>Pump flow max.</b>	234 l/min. / 61.8 gpm / 51.5 Imp.gpm
<b>Pressure limitation</b>	260 bar / 3,770 psi
<b>Filter system</b>	Return filter with magnetic rod in hydraulic tank
<b>Control</b>	Single joystick implement control for all bucket functions, with magnetic detent functions for float position as well as for automatic bucket positioner and for automatic lift kickout
<b>Control block *</b>	Additional hydraulic circuit front and rear for attachments optionally available

\* Not available in combination with 4-in-1 bucket or rear ripper



## Travel drive, control

<b>Transmission system</b>	Closed-loop infinitely variable hydrostatic travel drive powered by two axial piston variable displacement pumps and two axial piston variable displacement motors in swash-plate design, each track is driven independently from each other
<b>Travel speed*</b>	Sinfinitely variable electronic speed control, V-max via step switch on the encoder adjustable (V1, V2, V3) 2.5 – 6.0 kmh ( 4.0 kmh) / 1.5 – 3.7 mph (2.5 mph) 2.5 – 6.0 kmh ( 4.5 kmh) / 1.5 – 3.7 mph (2.8 mph) 4.0 – 8.0 kmh ( 6.0 kmh) / 2.5 – 5.0 mph (3.7 mph) 4.0 – 8.0 kmh ( 8.0 kmh) / 2.5 – 5.0 mph (5.0 mph) 6.5 – 10.0 kmh (10.0 kmh) / 4.0 – 6.2 mph (6.2 mph) 6.5 – 10.0 kmh (10.0 kmh) / 4.0 – 6.2 mph (6.2 mph)
V1-max (default): V1-max (default): V2-max (default): V2-max (default): V3-max (default): V3-max (default):	
<b>Electronic control</b>	The load limit control monitors electronically the speed of the diesel engine and controls the Diesel engine torque as a function of necessary driving force
<b>Steering</b>	Hydrostatic, unlimited manoeuvrability for full power turns and counterrotation
<b>Service brake</b>	Hydrostatic, dynamic braking effect from travel drive system
<b>Parking/emergency brake</b>	Multi-disc brake, wear-free, automatically applied with neutral joystick position
<b>Cooling system</b>	Hydraulic oil cooler integrated into combination cooler
<b>Filter system</b>	Micro cartridge filters in replenishing circuit
<b>Final drive</b>	Combination spur gear with planetary gear, double sealed (duo cone seals) with electronic seal-integrity indicator
<b>Control</b>	Single joystick for all travel and steering functions, as well as for counterrotation

\* Travel speed ranges can be set on the travel joystick



## Operator's cab

<b>Cab</b>	Resiliently mounted cab with positive pressure ventilation, can be tilted with hand pump 40° to the rear. With integrated ROPS Rollover Protective Structure (EN ISO 3471) and FOPS Falling Objects Protective Structure (EN ISO 3449).
<b>Heating and air conditioning</b>	Air conditioning meets requirements according to ISO 10263, air is distributed over 12 air vents and 10 blower levels, 6 air routing modes can be set on the control panel
<b>Operator's seat</b>	Air-suspended comfort seat, fully adjustable
<b>Glazing</b>	- Windscreen / Laminated Safety Glass Optional: Polycarbonate - Side window / Tempered Safety Glass Optional: with sliding window (individually selectable on each side) - Rear Window / Tempered Safety Glass Optional: Polycarbonate
<b>Monitoring</b>	Touch screen: display of current machine information, automatic monitoring of operating conditions. Individual setting of machine parameters
<b>Work lights</b>	- LED-Standard (1200 lm each) 4 front side, 2 rear side Optional: 4 front side, 4 rear side - LED-HD (4200 lm each) 4 front side, 2 rear side Optional: 4 front side, 4 rear side
<b>Vibration emission</b>	
Hand / arm vibrations	< 2.5 m/s <sup>2</sup> , according with ISO 5349-1:2001
Whole-body vibrations	0.26 – 1.18 m/s <sup>2</sup> , complies with technical report ISO/TR 25398:2006
Measuring inaccuracy	According with standard EN 12096:1997

## Undercarriage

<b>Mounting</b>	Pivot shafts and equalizer bar (cushion mounted)
<b>Track chains</b>	Sealed and oil lubricated, chain tension through compression spring and grease clamping cylinder, optional oil-lubricated sleeve chain with FTB available
<b>Links, each side</b>	38
<b>Sprocket segments, each side</b>	5
<b>Track rollers, each side</b>	6
<b>Carrier rollers, each side</b>	1
<b>Track shoes, standard</b>	560 mm / 22", double grouser
<b>Track shoes, optional</b>	508 mm / 20", double grouser, FTB 560 mm / 22", double grouser with trapezoidal hole or FTB 610 mm / 24", double grouser with trapezoidal hole 710 mm / 28", double grouser Wider track shoes available on demand.
<b>Grouser height</b>	42.5 mm / 1.67 in

## Sound levels

<b>Operator sound exposure ISO 6396</b> L <sub>pA</sub> (in the cab)	78 dB(A)
<b>Exterior sound pressure 2000/14/EC</b> L <sub>WA</sub> (to the environment)	110 dB(A)

## Refill capacities

<b>Fuel tank</b>	400 l / 105.7 gal / 88 Imp.gal
<b>Diesel Exhaust Fluid (DEF) tank</b>	45 l / 11.9 gal / 9.9 Imp.gal
<b>Cooling system</b>	38 l / 10 gal / 8.4 Imp.gal
<b>Engine oil, with filter</b>	29 l / 7.7 gal / 6.4 Imp.gal
<b>Hydraulic tank</b>	93 l / 24.6 gal / 20.5 Imp.gal
<b>Pivot shaft, each side</b>	4.5 l / 1.2 gal / 1 Imp.gal
<b>Final drive, each side</b>	20 l / 5.3 gal / 4.4 Imp.gal
<b>Duo cone seal, each side</b>	9.5 l / 2.5 gal / 2.1 Imp.gal

## Cycle times

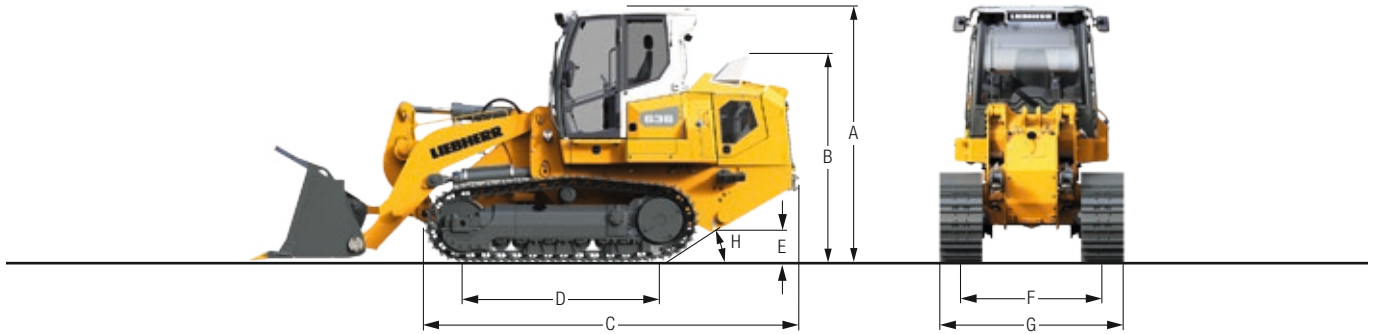
<b>Lifting</b>	5.4 s
<b>Dumping</b> (maximum cylinder stroke)	2.2 s
<b>Dumping (at max. height)</b>	1.5 s
<b>Tilting back</b> (maximum cylinder stroke)	2.9 s
<b>Tilting back (at max. height)</b>	2.0 s
<b>Lowering<sup>1)</sup></b>	2.4 s

<sup>1)</sup> Float position and empty bucket

## Drawbar pull

<b>Max.</b>	280 kN
<b>at 1.5 km/h</b>	277 kN
<b>at 3.0 km/h</b>	138 kN
<b>at 6.0 km/h</b>	69 kN
<b>at 9.0 km/h</b>	46 kN

# Dimensions



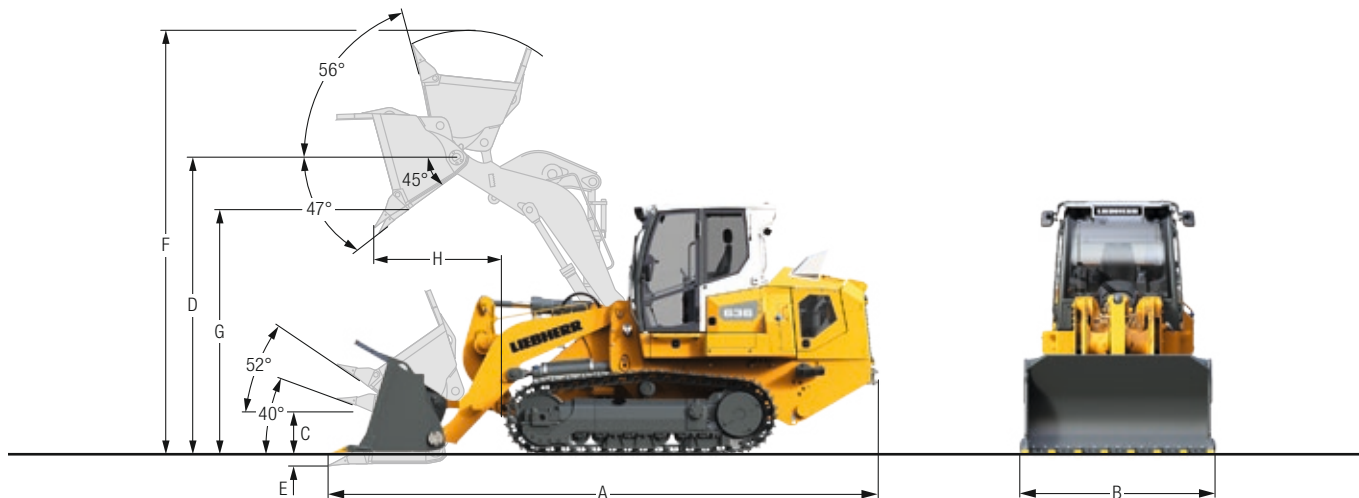
## Dimensions

A Height over cab	mm	3,330
	ft in	10'11"
B Height over exhaust pipe	mm	2,715
	ft in	8'11"
C Length to front of track	mm	4,930
	ft in	16'2"
D Distance idler / sprocket center	mm	2,580
	ft in	8'6"
E Ground clearance	mm	483
	ft in	1'7"
F Track gauge	mm	1,830 <sup>1)</sup>
	ft in	6'0"
G Track shoes 508 mm / 20"	mm	2,338 <sup>2)</sup>
	Machine width ft in	7'8"
G Track shoes 560 mm / 22"	mm	2,390 <sup>2)</sup>
	Machine width ft in	7'10"
G Track shoes 610 mm / 24"	mm	2,440 <sup>2)</sup>
	Machine width ft in	8'0"
G Track shoes 710 mm / 28"	mm	2,680 <sup>2)</sup>
	Machine width ft in	8'10"
H Approach angle		30°

<sup>1)</sup> Track guard with 610 mm / 24" track shoes: 1,970 mm / 6'6"

<sup>2)</sup> Minimum bucket width 2,500 mm / 8'2" mm required

# Front attachments



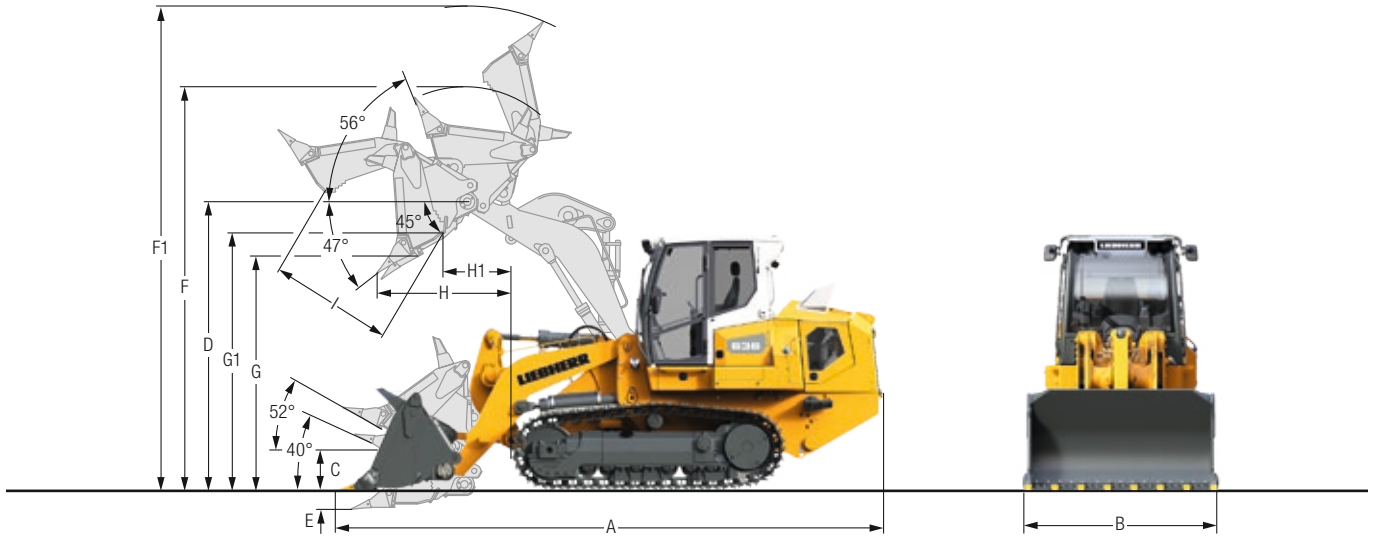
## Standard bucket

Version with		Bolt-on adapters, weld-on adapters and shanks	Flush mounted weld-on adapters and shanks	Bolt-on cutting edge
Nominal rated bucket capacity, ISO 7546	m <sup>3</sup>	2.4	2.3	2.4
	yd <sup>3</sup>	3.14	3.01	3.14
Nominal rated bucket capacity, SAE J742	m <sup>3</sup>	2.5	2.3	2.5
	yd <sup>3</sup>	3.27	3.01	3.27
Breakout force, ISO 14397	kN	164	180	164
	lb	36,856	40,451	36,856
Static tipping load, ISO 14397	kg	14,950	15,130	15,080
	lb	32,959	33,356	33,246
A Overall length bucket at ground with rear bumper	mm	7,130	7,170	6,960
	ft in	23'5"	23'6"	22'10"
B Bucket width, overall <sup>2)</sup>	mm	2,571	2,500	2,500
	ft in	8'5"	8'2"	8'2"
C Height of hinge pin, transport position	mm	576	576	576
	ft in	1'11"	1'11"	1'11"
D Height of hinge pin, max.	mm	4,051	4,051	4,051
	ft in	13'3"	13'3"	13'3"
E Digging depth, max.	mm	151	121	151
	ft in	5.94"	4.76"	5.94"
F Overall height with bucket at full lift	mm	5,477	5,477	5,477
	ft in	18'	18'	18'
G Dump clearance at full lift and 45° discharge, ISO 7131	mm	3,059	3,146	3,059
	ft in	10'0"	10'4"	10'0"
H Reach at full lift and 45° discharge, ISO 7131	mm	1,244	1,195	1,244
	ft in	4'1"	3'11"	4'1"
Bucket weight	kg	1,720	1,539	1,589
	lb	3,792	3,393	3,503
Operating weight <sup>1)</sup>	kg	21,870	21,690	21,740
	lb	48,215	47,818	47,928
Ground pressure <sup>1)</sup>	kg/cm <sup>2</sup>	0.66	0.66	0.66
	psi	9.44	9.36	9.39

<sup>1)</sup> Including coolant and lubricants, full fuel tank, ROPS / FOPS cab, operator, bucket, counterweight(s) and track shoes with 560 mm / 22".

<sup>2)</sup> Track shoes with 560 mm / 22". With other track shoes on demand at your dealer.

# Front attachments



## Multi-purpose bucket

Version with		Bolt-on adapters, weld-on adapters and shanks	Flush mounted weld-on adapters and shanks	Bolt-on cutting edge
Nominal rated bucket capacity, ISO 7546	m <sup>3</sup> / yd <sup>3</sup>	2.0/2.62	1.9/2.49	2.0/2.62
Nominal rated bucket capacity, SAE J742	m <sup>3</sup> / yd <sup>3</sup>	2.1/2.75	1.9/2.49	2.1/2.75
Breakout force, ISO 14397	kN / lb	155 / 34,845	169 / 37,992	155 / 34,845
Static tipping load, ISO 14397	kg / lb	13,025 / 28,715	13,775 / 30,369	13,150 / 28,991
A Overall length bucket at ground with rear bumper	mm ft in	7,094 23'3"	6,978 22'11"	7,094 23'3"
B Bucket width, overall <sup>2)</sup>	mm ft in	2,529 8'4"	2,500 8'2"	2,490 8'2"
C Height of hinge pin, transport position	mm ft in	576 1'11"	576 1'11"	576 1'11"
D Height of hinge pin, max.	mm ft in	4,051 13'3"	4,051 13'3"	4,051 13'3"
E Digging depth, max.	mm ft in	220 8.66"	190 7.48"	220 8.66"
F Overall height with bucket at full lift (bucket closed)	mm ft in	5,458 17'11"	5,458 17'11"	5,458 17'11"
F1 Overall height with bucket at full lift (bucket open)	mm ft in	6,160 20'3"	6,070 19'11"	6,160 20'3"
G Dump clearance at full lift and 45° discharge (bucket), ISO 7131	mm ft in	2,966 9'9"	3,053 10'0"	2,966 9'9"
G1 Dump clearance at full lift and 45° discharge (blade), ISO 7131	mm ft in	3,576 12'9"	3,576 11'9"	3,576 11'9"
H Reach at full lift and 45° discharge (bucket), ISO 7131	mm ft in	1,238 4'1"	1,189 3'11"	1,238 4'1"
H1 Reach at full lift and 45° discharge (blade), ISO 7131	mm ft in	691 2'3"	691 2'3"	691 2'3"
I Width of opening	mm / ft in	1,290 / 4'3"	1,290 / 4'3"	1,290 / 4'3"
Bucket weight	kg / lb	2,281 / 5,029	2,115 / 4,663	2,161 / 4,764
Operating weight <sup>1)</sup>	kg / lb	22,541 / 49,694	22,424 / 49,436	22,410 / 49,406
Ground pressure <sup>1)</sup>	kg/cm <sup>2</sup> / psi	0.69 / 9.84	0.69 / 9.80	0.68 / 9.79

<sup>1)</sup> Including coolant and lubricants, full fuel tank, ROPS/FOPS cab, operator, bucket, counterweight and track shoes with 508 mm / 20".

<sup>2)</sup> Track shoes with 508 mm / 20". With other track shoes on demand at your dealer.

# Rear attachments



## 3-Shank ripper radial

In combination with		Standard bucket up to 3.01 yd <sup>3</sup>	Standard bucket greater than 3.01 yd <sup>3</sup>	Multi-purpose bucket (all sizes)
A Beam width	mm	2,100	2,100	2,100
	ft in	6'11"	6'11"	6'11"
B Ripping width	mm	1,860	1,860	1,860
	ft in	6'1"	6'1"	6'1"
C Distance between shanks	mm	900	900	900
	ft in	2'11"	2'11"	2'11"
D Penetration max.	mm	365	365	365
	ft in	1'2"	1'2"	1'2"
E Ground clearance, max. below shanks	mm	883	883	883
	ft in	2'11"	2'11"	2'11"
F Additional length, ripper raised	mm	604	604	604
	ft in	2'	2'	2'
G Additional length, transport position	mm	715	715	715
	ft in	2'4"	2'4"	2'4"
H Approach angle, ripper raised		21°	21°	21°
Ripper weight <sup>1)</sup>	kg	1,106	1,106	1,106
	lb	2,438	2,438	2,438
Change in operating weight	kg	853	506	506
	lb	1,881	1,116	1,116
Change in ground pressure	kg/cm <sup>2</sup>	0.03	0.02	0.02
	psi	0.37	0.21	0.21
Change in static tipping load	kg	1,897	1,285	1,762
	lb	4,182	2,833	3,885

<sup>1)</sup> If the ripper is mounted, no counterweight will be fitted to the machine.

# Equipment



## Base machine

Equipment Operating temperature -40 to +55 Celsius	+
Wastehandling arrangement	+
Auto Idle	+
Tank guard	+
Refuelling pump	+
Tool kit, basic	●
Tool kit, extended	+
Corrosion protection package	+
Fuel pre-filter with water separator	●
Fuel pre-filter with water separator heatable	+
Radiator, wide-meshed	●
Radiator, hinged	●
LiDAT - Data transmission system	●
Liebherr diesel engine emission stage V / Tier 4f	●
Cooling fan, reversible	+
Cooling fan, hinged	●
Cooling fan, hydraulically driven	●
Air pre-cleaner Sy-Klone / TopAir	+
Automatic engine shut-off	+
Engine compartment doors, lockable	●
Lugs for crane lifting, rear	●
Lugs for crane lifting, front	●
Special painting Single and multicoloured	+
Spade with mounting bracket	+
Air filter, dry type, dual step, with pre-filter, automatic dust ejector	●
Lashing eye rear and front	●
Central lubrication system	+
Towing hitch, rear	●
Step plate rear, right	+



## Hydraulics system

Demand control, flow rate distribution	●
Additional working circuit front and rear	+
Oil filter in hydraulic tank	●
Bucket quick drop function	●
Bucket float function	●
Electronic pilot control of the working hydraulics	●



## Travel drive

Travel control, 3 speed ranges	●
Parking brake, automatic	●
Load limit control, electronic	●
Travel drive joystick, proportional	●
V-pattern travel control with steering pedals	+
Travel drive, hydrostatic	●
Inch brake pedal	+
Machine-release switch	●
Emergency stop	●
Final drives planetary gear	●
Seat contact switch	●



## Operator's cab

Armrests connected to the driver's seat	●
Pressurised cab	●
Operator's seat Comfort, air-suspended	●
Operator's seat Premium, air-suspended	+
Fire extinguisher 6 kg / 13 lb	+
Radio key with central locking	+
Dome light	●
Soundproof cab mounts	●
Cab tilting system	●
Automatic air conditioning with heating	●
Polycarbonate front screen	+
Polycarbonate rear screen	+
Radio Comfort with Bluetooth	+
Radio Standard without Bluetooth	+
Radio preparation kit	+
ROPS / FOPS integrated	●
Rear-view camera	●
Rear-view mirror, inside	●
Side mirror, left and right	+
Windshield washer system	●
Windshield wipers front and rear, with intermittent function	●
Sliding window left	+
Sliding window right	+
Protective grid for rear window	+
3-point safety belt	+
Safety belt 3-inch wide	+
Safety glass, tinted	●
Sunblind, front	●
Socket 12 V	●
Socket 24 V	●
Ascent and descent lighting	+
Touch-controlled colour display - 9 inch Zoll	●
Comfort unlocking car door	+
Canopy cabin	+

● = Standard  
+ = Option



# Equipment



## Electric system

All working lights in LED version	•
4 working lights on the cab, front, each 1,200 lm	•
2 working lights on the cab, rear, each 1,200 lm	•
Battery main switch	•
On-board voltage 24 V	•
Engine compartment lighting	•
Back-up alarm, acoustic & visual with broadband signal	+
Amber beacon	+
Protective grille for working lights on front cab	+
Horn	•
Immobiliser, electronic	+
2 additional working lights on the cab, rear	+
4 working lights on the cab, front, each 4,200 lm	+
2 working lights on the cab, rear, each 4,200 lm	+

## Undercarriage

Track pads with mud holes	+
Track shoes, moderate service	•
Undercarriage with rotary bushings FTB	+
Track frame, closed	•
Sprocket segments with recesses	•
Master link, two-piece	•
Tracks, oil-lubricated	•
Track guide, centre part	+
Track guides, front and rear	•
Track guard, full length	+
Special track width	+
Sprocket-deflector	•
Protection ring final drive	+
Idler-deflector	•
Sprocket segments with recesses	•



## Rear attachments

Drawbar rear, rigid – SAE J749	+
Counterweight, rear with towing hitch	•
Ripper, 3 shanks	+
Rear striker bar	+



## Front attachments

Multi-purpose bucket – 1,9 and 2,0 m <sup>3</sup> (2.49 / 2.62 yd <sup>3</sup> )	+
Teeth adapters bolt-on	+
Teeth adapters weld-on	+
Trash rack multi-purpose bucket	+
Trash rack for standard bucket	+
Waste handling bucket – 4.6 m <sup>3</sup> / 6.02 yd <sup>3</sup>	+
Lifting cylinder guards	•
Tilt cylinder guards	+
Clamping cylinder guards, multi-purpose bucket	+
Standard bucket – 2,3 and 2,4 m <sup>3</sup> (3.01 / 3.14 yd <sup>3</sup> )	+
Standard bucket – 2,8 m <sup>3</sup> / 3.66 yd <sup>3</sup>	+
Spill plate for standard bucket	+
Bolt-on cutting edges, reversible	+
Bolt-on cutting segments, reversible	+
Z-bar linkage	•



## Technology

Ripper auto-lift	+
CAN data interface J1939	+
End position damping	•
Undercarriage wear indication	+
Bucket shake function	•
Bucket dump and return function	•
Bucket lift and return function	•

• = Standard

+ = Option

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

# The Liebherr group of companies



## Diverse Product Range

The Liebherr Group is one of the largest construction equipment manufacturers in the world. Liebherr's quality products and services hold a high reputation in many industries. 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 superior quality, Liebherr products offer customers the highest benefits in practical applications.

## State-of-the-art Technology

Liebherr attributes great importance to the product areas of core technology and components, in order to achieve its consistent, top-quality products. Important modules and components are developed and manufactured in-house, for instance, the entire drive and control technology for the construction equipment and mining trucks.

## Worldwide and Family-Owned

Hans Liebherr founded the Liebherr family company in 1949. Since that time, the enterprise has steadily grown to a group of more than 140 companies with nearly 48,000 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](http://www.liebherr.us)

## WARNING

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- Always start and operate the engine in a well-ventilated area.
- If in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with exhaust system.
- Do not idle the engine except as necessary.

For more information go to [www.P65warnings.ca.gov/diesel](http://www.P65warnings.ca.gov/diesel).

## WARNING

This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm.

For more information go to [www.P65warnings.ca.gov](http://www.P65warnings.ca.gov).

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