# **Crawler Tractor**



Engine:

150 kW/204 HP Stage IIIA/Tier 3

Operating Weight: 17,960 – 22,100 kg 39,595 – 48,722 lb





# **Base Machine**



<b>Engine</b>	
Liebherr Diesel engine	D 934-L-A6 Emission regulations according to 2004/26/EC Stage IIIA and EPA/CARB Tier 3
Rated power (net) ISO 9249 SAE J1349	150 kW/204 HP 150 kW/201 HP
Maximum power (net) ISO 9249 SAE J1349	175 kW/238 HP 175 kW/235 HP
Rated speed	1,800 rpm
Displacement	7.0 I/427 in <sup>3</sup>
Design	4 cylinder in-line engine, water-cooled. Turbocharged, intercooled
Injection system	Direct fuel injection, pump-line-nozzle system, electronic control
Lubrication	Force-feed lubrication, engine lubrication guaranteed for inclinations up to 45°
Operating voltage	24 V
Alternator	80 A
Starter	6.6 kW
Batteries	2 x 140 Ah/12V
Air cleaner	Dry-type air cleaner with safety element, aspirated pre-cleaner, service gauge in cab
Cooling system	Combi radiator, comprising radiators for water, hydraulic fluid, charge air, fuel. Hydrostatic fan

	Travel D	rive, Control
	Transmission system	Infinitely variable hydrostatic travel drive, independent drive for each track
	Travel speed* Speed range 1 (reverse): Speed range 2 (reverse): Speed range 3 (reverse):	continuously variable 0 – 4.0 km/h/2.5 mph (4.8 km/h/3.0 mph) 0 – 6.5 km/h/4.0 mph (7.8 km/h/4.8 mph) 0 – 10.0 km/h/6.2 mph (10.0 km/h/6.2 mph) * Factory settings. All speed ranges can be customized on the travel joystick
	Drawbar pull	274 kN at 1.5 km/h/0.9 mph
	Electronic control	Electronic engine speed control automatically adjusts travel speed and drawbar pull to match changing load conditions
	Steering	Hydrostatic
	Service brake	Wear-free, hydrostatic (dynamic braking)
	Automatic park brake	Wet multiple-disc brakes, wear-free, automatically applied when joystick is in neutral position
	Cooling system	Hydraulic oil cooler, integrated in combi radiator
	Filter system	Micro cartridge filters
F	Final drive	Heavy-duty combination spur gear with planetary gear, double sealed with electronic seal-integrity indicator
	Control	Single joystick for all travel and steering functions

drive

#### 0 **Hydraulics**

_	
Hydraulic system	Open-center with load-sensing valve block and
	gear pump
Pump flow max.	222 I/min/48.8 gpm
Pressure limitation	200 bar
Control valve	2 segments, expandable to 3
Filter system	Return filter with magnetic rod
Control	Single joystick for all blade functions



## Undercarriage

	L	XL	LGP		
Mounting	Via separate pivot shafts and equalizer bar				
Track chains	Sealed and lubricated chains, single-grouser track shoes, track chain tension via steel spring and grease tensioner				
Links, each side	38	43	43		
Track rollers, each side	6	7	7		
Carrier rollers, each side	1	2	2		
Sprocket segments,					
each side	5	5	5		
Track shoes, standard	508 mm/20"	610 mm/24"	812 mm/32"		
Track shoes, optional	560 mm/22" 610 mm/24"		865 mm/34"		

## **Operator's Cab**

Cab

Operator's seat Monitoring

Resiliently mounted cab with positive pressure ventilation, can be tilted with hand pump 40° to the rear (option). With integrated ROPS Rollover Protective Structure (ISO 3471) and FOPS Falling Objects Protective Structure (ISO 3449) Fully adjustable suspended seat Combined analogue/LC display, automatic monitoring of operating conditions

#### N **Refill Capacities**

Fuel tank	400 I / 88 lmp.gal
Cooling system	37 I/ 8.1 Imp.gal
Engine oil with oil filters	29 I/ 6.4 Imp.gal
Splitter box	3.1 I/ 0.7 Imp.gal
Hydraulic tank	144 I/31.7 Imp.gal
Final drive L, each side	19.5 l/ 4.3 lmp.gal
Final drive XL, each side	19.5 I/ 4.3 Imp.gal
Final drive LGP, each side	25.5 I/ 5.6 Imp.gal

### Ð **Sound Emissions**

Operator sound exposure  $L_{pA} = 79 \text{ dB}(A)$ ISO 6396:2008 Exterior sound pressure ISO 6395:1988

(in the cab)  $L_{wA} = 111 \text{ dB}(A)$ (to the environment)

Ì₹₩₩		
Drawba	Pull PR	734-4
Max.	319 kN	
at 1.5 km/h / 0.9 mph	281 kN	
at 3.0 km/h / 1.9 mph	154 kN	
at 6.0 km/h / 3.7 mph	77 kN	
at 9.0 km/h / 5.6 mph	51 kN	

# **Dimensions**

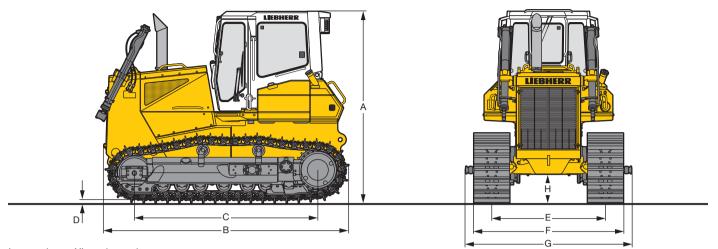


Image shows XL undercarriage

Dimensions				
Und	ercarriage	L. L.	XL	LGP
A Height over cab	mm	3,284	3,284	3,284
	ft in	10'9"	10'9"	10'9"
B Overall length without attachments	mm	4,170	4,170	4,170
	ft in	13'8"	13'8"	13'8"
C Length of track on ground	mm	2,630	3,136	3,136
	ft in	8'8"	10'3"	10'3"
D Grouser height	mm	65	65	65
	in	2.56"	2.56"	2.56"
E Track gauge	mm	1,830	1,830	2,070
	ft in	6'0"	6'0"	6'9"
G Total width over blade-mounting trunnions	mm	2,724	2,724	3,474
Ŭ	ft in	8'11"	8'11"	11'5"
H Ground clearance	mm	497	497	497
	ft in	1'8"	1'8"	1'8"
Track shoes 508 mm/20"				
F Total width without trunnions	mm/ft in	2,338/7'8"	-	-
Tractor shipping weight <sup>1</sup>	kg/lb	15,291/33,711		
Track shoes 560 mm/22"	Ű			
F Total width without trunnions	mm/ft in	2,390/7'10"	_	_
Tractor shipping weight <sup>1</sup>	kg/lb	15,391/33,931		
Track shoes 610 mm/24"	Ű			
F Total width without trunnions	mm/ft in	2.440/8'0"	2,440/8'0"	_
Tractor shipping weight <sup>1</sup>	kg/lb	15,533/34,244	16,322/53'7"	
Track shoes 812 mm/32"	<u>J</u>	-,,		
F Total width without trunnions	mm/ft in	_	_	2,882/9'5"
Tractor shipping weight <sup>1</sup>	kg/lb			17,500/38,581
Track shoes 865 mm/34"				,,,,,,
F Total width without trunnions	mm/ft in	_	_	2,935/9'8"
Tractor shipping weight <sup>1</sup>	kg/lb			17,632/38,872

<sup>1</sup> Includes coolant and lubricants, 20% fuel, ROPS/FOPS cab.

# **Front Attachments**

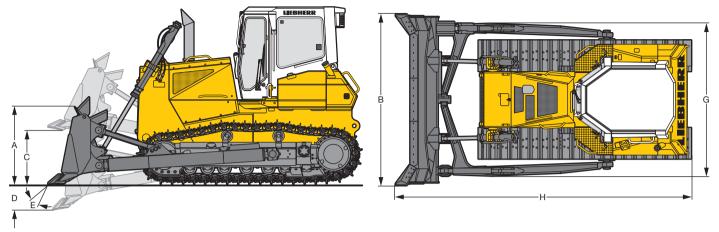
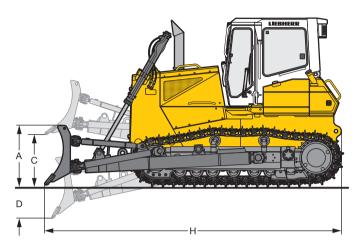


Image shows XL undercarriage

Semi-U Blade and		Semi-U Blade	Straight Blade	Semi-U Blade	Straight Blade	<b>Straight Blade</b>
Straight Blade Un	dercarriage	L. L.	L	XL	XL	LGP
Blade capacity, ISO 9246	m <sup>3</sup>	5.56	4.21	5.56	4.21	4.10
	yd <sup>3</sup>	7.27	5.51	7.27	5.51	5.36
A Height of blade	mm	1,400	1,300	1,400	1,300	1,150
	ft in	4'7"	4'3"	4'7"	4'3"	3'9"
B Width of blade	mm	3,372	3,420	3,372	3,420	3,994
	ft in	11'1"	11'3"	11'1"	11'3"	13'1"
C Lifting height	mm	1,179	1,182	1,208	1,210	1,219
	ft in	3'10"	3'11"	4'	4'	4'
D Digging depth	mm	524	525	548	549	552
	ft in	1'9"	1'9"	1'10"	1'10"	1'10"
E Blade pitch adjustment		10°	10°	10°	10°	10°
Max. blade tilt	mm	780	790	780	790	714
	ft in	2'7"	2'7"	2'7"	2'7"	2'4"
G Width over push frame	mm	3,000	3,000	3,000	3,000	3,750
	ft in	9'10"	9'10"	9'10"	9'10"	12'4"
H Overall length	mm	5,521	5,300	5,791	5,570	5,581
	ft in	18'1"	17'5"	19'	18'3"	18'4"
Track shoes 508 mm/20"						
Operating weight <sup>1</sup>	kg/lb	18,060/39,815	17,960/39,595	-	-	-
Ground pressure <sup>1</sup>	kg/cm <sup>2</sup> /PSI	0.68/9.67	0.67/9.53			
Track shoes 560 mm/22"						
Operating weight <sup>1</sup>	kg/lb	18,160/40,036	18,060/39,815	-	-	-
Ground pressure <sup>1</sup>	kg/cm <sup>2</sup> /PSI	0.62/8.82	0.61/8.67			
Track shoes 610 mm/24"	L / II.	10.000 ( 40.040	40.000 / 40.400	10 001 ( 10 000	40.000 / 44.000	
Operating weight <sup>1</sup>	kg/lb	18,302/40,349	18,202/40,128	19,091/42,088	18,990/41,866	-
Ground pressure <sup>1</sup> Track shoes 812 mm/32"	kg/cm <sup>2</sup> /PSI	0.57/8.11	0.57/8.11	0.50/7.11	0.49/6.97	
	ka /lb					20.066/44.229
Operating weight <sup>1</sup> Ground pressure <sup>1</sup>	kg/lb kg/cm²/PSI	-	_	_	_	20,066/44,238 0.40/5.69
Track shoes 865 mm/34"	ky/citr/PSI					0.4075.09
Operating weight <sup>1</sup>	kg/lb	_	_	_	_	20,198/44,529
Ground pressure <sup>1</sup>	kg/cm <sup>2</sup> /PSI					0.37/5.26

<sup>1</sup> Includes coolant and lubricants, 20 % fuel, ROPS/FOPS cab, operator, semi-U blade or straight blade.

# **Front Attachments**



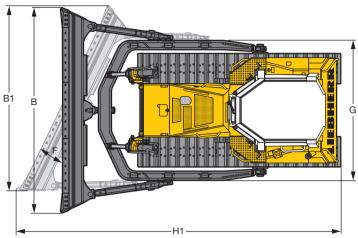


Image shows XL undercarriage

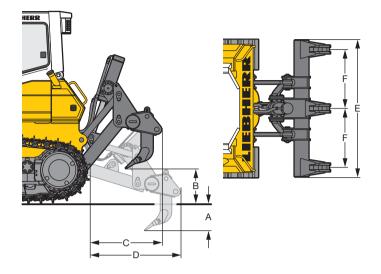
Mechanical		without Tilt Function	with Tilt Function <sup>2</sup>
Angle Blade*	Undercarriage		XL
Blade capacity, ISO 9246	m <sup>3</sup>	3.80	3.80
	yd <sup>3</sup>	4.97	4.97
A Height of blade	mm	1,120	1,120
	ft in	3'8"	3'8"
3 Width of blade	mm	4,240	4,240
	ft in	13'11"	13'11"
31 Width of blade, angled	mm	3,850	3,850
	ft in	12'8"	12'8"
C Lifting height	mm	1,212	1,212
	ft in	4'	4'
D Digging depth	mm	644	644
	ft in	2'1"	2'1"
Blade angle adjustment		25°	25°
Max. blade tilt.	mm	-	672
	ft in		2'2"
G Width over push frame	mm	2,890	2,890
	ft in	9'6"	9'6"
Overall length, blade straight	mm	5,786	5,786
	ft in	19'	19'
11 Overall length, blade angled	mm	6,610	6,610
	ft in	21'8"	21'8"
rack shoes 508 mm/20"			
Operating weight <sup>1</sup>	kg/lb	-	-
Ground pressure <sup>1</sup>	kg/cm <sup>2</sup> /PSI		
rack shoes 560 mm/22"			
Operating weight <sup>1</sup>	kg/lb	-	-
Ground pressure <sup>1</sup>	kg/cm <sup>2</sup> /PSI		
rack shoes 610 mm/24"			
Operating weight <sup>1</sup>	kg/lb	19,448/42,875	19,548/43,096
Ground pressure <sup>1</sup>	kg/cm²/PSI	0.51/7.25	0.51/7.25

<sup>1</sup> Includes coolant and lubricants, 20% fuel, ROPS/FOPS cab, operator, mechanical angle blade.

<sup>2</sup> Mechanical angle blade with tilt function is subject to lead time – please enquire with your Liebherr dealer.

\* Counterweight or rear attachment is recommended for improved performance and balance.

# **Rear Attachments**



Ripper Parallelogram		3-Shank Ripper
A Ripping depth (max./min.)	mm ft in	522/372 1'9"/1'3"
B Lifting height (max./min.)	mm ft in	665/515 2'2"/1'8"
C Additional length, attachment raised	mm	1,199 3'11"
D Additional length, attachment lowered	ft in mm	1,531
E Overall beam width	ft in mm	5'0" 2,320
F Distance between shanks	ft in mm	7'7" 1,000
Weight	ft in kg	3'3" 1,920
	lb	4,233

# Equipment



## **Base Machine**

Air filter, dry-type, dual step	•
Air filter with automatic dust ejector	•
Battery compartment, lockable	٠
Belly pans, heavy duty	•
Engine cover, perforated	٠
Engine door, hinged, lockable	٠
Engine doors, perforated	٠
Fan guard	٠
Fan, hydraulically driven	٠
Fuel water separator	٠
Liebherr Diesel engine	٠
Lugs for crane lifting, front	٠
Radiator guard	٠
Radiator, wide-meshed	•
Tow switch	٠
Fan, hydraulically driven, reversible	+
Fuel water separator with electric heater	+
LiDAT – Liebherr data transmission system	+
Liebherr hydraulic oil, Plus Arctic	+
Sealing, cab – base machine	+
Tank guard, bottom	+
Tank guard, complete	+
Toolkit, extended	+
Towing hitch rear	+
Coal equipment	+
Cold kit	+
Forestry equipment	+
Landfill equipment	+
Woodchip equipment	+

#### 0 **Travel Drive**

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### 4 **Electrical System**

Alternator 80 A	•
Batteries, cold start, 2 units	•
Battery main switch, mechanical	•
Horn	•
On-board system, 24 V	•
Starter 6.6 kW	•
Working lights front, 2 units	•
Working lights rear, 2 units	•
Additional lights front, 2 units	+
Additional lights, on lift cylinders	+
Additional lights rear, 2 units	+
Back-up alarm, acoustic	+
Beacon	+

Operator's Cab	
Armrests 3D adjustable	٠
Coat hook	٠
Dome light	٠
Operator's seat, 6-way adjustable	٠
Operator'seat, mechanically suspended	٠
Pressurised cab	٠
Rear-view mirror, inside	٠
ROPS/FOPS	٠
Safety glass, tinted	٠
Storage compartment	٠
Warm water heating	٠
Windshield washer system	•
Windshield wipers front, rear, on the	
doors, with intermittent function	•
Air conditioning	+
External mirrors	+
Fire extinguisher	+
Forest sweeps	+
Operator's seat, air-suspended	+
Protective grids for rear windows Protective grids for windows, all-around	+
Radio	+
Radio preparation	++
Sliding window, left	+
Sliding window, right	+
Tiltable cab	+
Theorem of the second sec	т

Undercarriage
Master link, two-piece
Pivot shaft, separate
Sprocket segments, bolted
Track frame, closed
Track frames, oscillating
Tracks oil-lubricated
Coal deflector at sprocket
Final drive seal guards
Sprocket segments, with recesses
Track guard, full length
Track guide centre part
Track pads with mud holes
Track shoes ESS
Tracks, grease-lubricated
Undercarriage L
Undercarriage XL
Undercarriage LGP

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• = Standard

- + = Option 1) Undercarriage L
- <sup>2)</sup> Undercarriage XL
- 3) Undercarriage LGP

211 **Control and** Warning Lights

Control travel speed range (digital)	٠
Control engine coolant temperature	
(analogue)	٠
Control fuel level (analogue)	٠
Hour meter (analogue)	٠
Indicator light Diesel engine preheater	٠
Indicator light float position blade	٠
Indicator light parking brake	٠
Main warning light	٠
Warning light air filter	٠
Warning light battery charging	٠
Warning light diesel engine	٠
Warning light electronic travel	
control system	٠
Warning light fan control	٠
Warning light fuel water separator	٠
Warning light hydraulic oil temperature	٠
Warning light oil return filter	٠
Warning light pump repleneshing pressure	٠
Warning light final drive seal, each side	٠
Hydraulic oil temperature gauge	+
Warning light hydraulic oil level	+



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### **Hvdraulic System**

Control valve for 2 circuits	٠
Float position blade	٠
Hydraulic servo control	•
Oil filter in hydraulic tank	٠
Hydraulics, ripper	+
Hydraulics, winch	+
Hydraulic tank oil level control	+



Coal-U blade 1), 2)	+
Counterweight, rear	+
Drawbar rear, rigid	+
Lifting lugs, rear	+
Mechanical angle blade <sup>2)</sup>	+
Mounting plate for external equipment	+
Ripper, 1 shank	+
Ripper, 3 shanks	+
Semi-U blade 1), 2)	+
Spill plate for blade	+
Straight blade 1), 2), 3)	+
Trash rack	+
Wear plates for push frame	+
Winch	+
Woodchip U-blade 1), 2)	+

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.

# **The Liebherr Group of Companies**



### Wide Product Range

The Liebherr Group is one of the largest construction equipment manufacturers in the world. Liebherr's high-value products and services enjoy a high reputation in many other fields. 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 in-house, for instance the entire drive and control technology for construction equipment.

### 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 130 companies with over 41,000 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.com