

# Crawler Tractors

## PR 716

Litronic®

### Generation

8

### Operating Weight

13,300 – 15,800 kg / 29,320 – 34,830 lb

### Engine Output

97 kW / 130 HP (SAE J1349)

97 kW / 132 HP (ISO 9249)

Stage V / Tier 4f



# LIEBHERR

# Technical Data



## Engine

<b>Liebherr Diesel engine</b>	D 924 A7 Emission regulations according to 97/68/EC, 2004/26/EC Stage V, EPA/CARB Tier 4f
<b>Rated power (net)</b>	
ISO 9249	97 kW/ 132 HP
SAE J1349	97 kW/ 130 HP
<b>Maximum power (net)</b>	
ISO 9249	
SAE J1349	107 kW/ 146 HP 107 kW/ 144 HP
<b>Rated speed</b>	2,100 rpm
<b>Displacement</b>	4.5 l/275 in <sup>3</sup>
<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>	Pressurised lube system, engine lubrication guaranteed for inclinations up to 35°, on all sides
<b>Operating voltage</b>	24 V
<b>Alternator</b>	140 A
<b>Starter</b>	5.5 kW/ 7 HP
<b>Batteries</b>	2 x 100 Ah/ 12 V
<b>Air cleaner</b>	Dry-type air cleaner with vacuum indicator, main and safety elements
<b>Cooling system</b>	Combi radiator, comprising radiators for water, hydraulic fluid and charge air. Hydrostatic fan drive



## Hydraulics

<b>Hydraulic system</b>	Open-center with load-sensing valve block
<b>Pump type</b>	Gear pump
<b>Pump flow max.</b>	97 l/min./ 25.6 gpm/ 21.3 Imp.gpm
<b>Pressure limitation</b>	220 bar/ 3,190 psi
<b>Control valve</b>	3 segments, expandable to 4
<b>Filter system</b>	Return filter with magnetic rod in the hydraulic tank
<b>Control</b>	Single joystick for all blade functions



## Travel Drive, Control

<b>Transmission system</b>	Infinitely variable hydrostatic travel drive, independent drive for each track
<b>Travel speed*</b>	Continuously variable
Speed range 1:	0–6.5 km/h/ 4.0 mph (forward & reverse)
Speed range 2:	0–8.5 km/h/ 5.3 mph (forward & reverse)
Speed range 3:	0–10.0 km/h/ 6.2 mph (forward & reverse)
	* Travel speed ranges can be set on the travel joystick (memory function)
<b>Electronic control</b>	The electronic system automatically adjusts travel speed and drawbar pull to match changing load conditions
<b>Steering</b>	Hydrostatic
<b>Service brake</b>	Hydrostatic (self-locking), wear-free
<b>Parking brake</b>	Multi-disk brake, wear-free, automatically applied with neutral joystick position
<b>Cooling system</b>	Hydraulic oil cooler integrated in combi radiator, hydrostatic fan drive
<b>Filter system</b>	Micro cartridge filters in replenishing circuit
<b>Final drive</b>	Combination spur gear with planetary gear
<b>Control</b>	Single joystick for all travel and steering functions. Optional: detented Joystick, with inching pedal



## Operator's Cab

<b>Cab</b>	Hydroelastic 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>Operator's seat</b>	Air-suspended comfort seat, fully adjustable
<b>Monitoring</b>	Touch screen: display of current machine information, automatic monitoring of operating conditions. Individual setting of machine parameters
<b>Vibration emission</b>	
Hand/ arm vibrations	<2.5 m/s <sup>2</sup> , according with ISO 5349-1:2001
Whole-body vibrations	0.24 – 1.31 m/s <sup>2</sup> , complies with technical report ISO/TR 25398:2006
Measuring inaccuracy	According with standard EN 12096:1997



## Undercarriage

	XL	LGP
<b>Design</b>	Undercarriage with rigid bottom rollers	
<b>Mounting</b>	Via separate pivot shafts and equalizer bar	
<b>Track chains</b>	Lubricated, single-grouser shoes, tensioning via a steel spring and grease tensioner	
<b>Links, each side</b>	39	39
<b>Track rollers, each side</b>	7	7
<b>Carrier rollers, each side</b>	1 (2*)	1 (2*)
<b>Sprocket segments, each side</b>	5	5
<b>Track shoes, standard</b>	560 mm/22"	610 mm/24"
<b>Track shoes, optional</b>		711 mm/28" 762 mm/30"

\* Rotary bushing undercarriage FTB: 2 carrier rollers



## Sound Levels

<b>Operator sound exposure ISO 6396</b>	
L <sub>pA</sub> (in the cab)	75 dB(A)
<b>Exterior sound pressure 2000/14/EC</b>	
L <sub>WA</sub> (to the environment)	109 dB(A)



## Refill Capacities

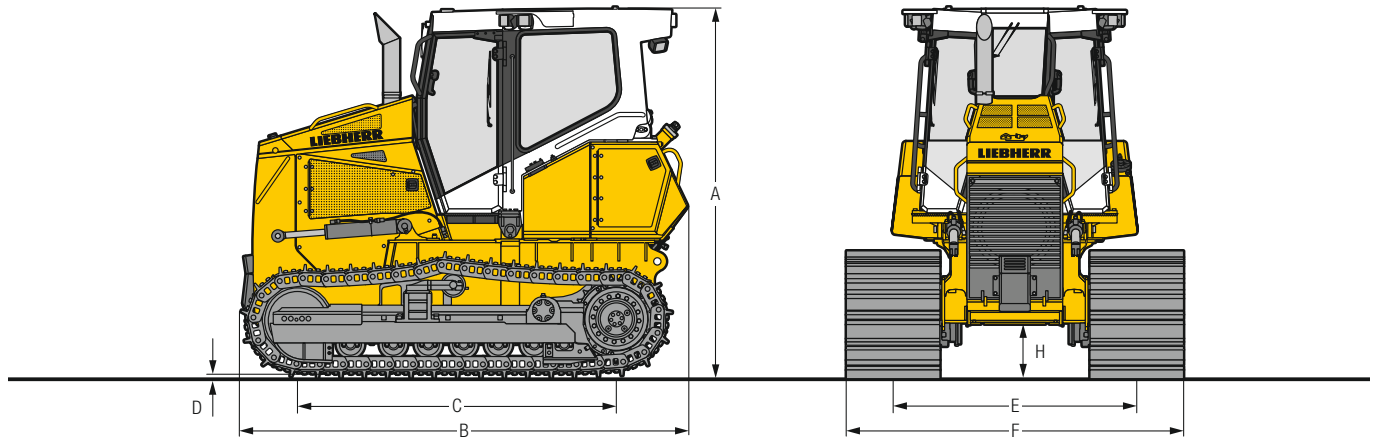
<b>Fuel tank</b>	320 l/84.5 gal/70.4 Imp.gal
<b>Diesel Exhaust Fluid (DEF) tank</b>	45 l/11.9 gal/0.9 Imp.gal
<b>Cooling system</b>	24 l/6.3 gal/5.3 Imp.gal
<b>Engine oil, with filter</b>	19 l/5 gal/4.2 Imp.gal
<b>Hydraulic tank</b>	101 l/26.7 gal/22.2 Imp.gal
<b>Final drive XL, LGP, each side</b>	7.5 l/2 gal/1.6 Imp.gal



## Drawbar Pull

<b>Max.</b>	215 kN
<b>at 1.5 km/h / 0.9 mph</b>	190 kN
<b>at 3.0 km/h / 1.9 mph</b>	96 kN
<b>at 6.0 km/h / 3.7 mph</b>	49 kN
<b>at 9.0 km/h / 5.6 mph</b>	32 kN

# Dimensions

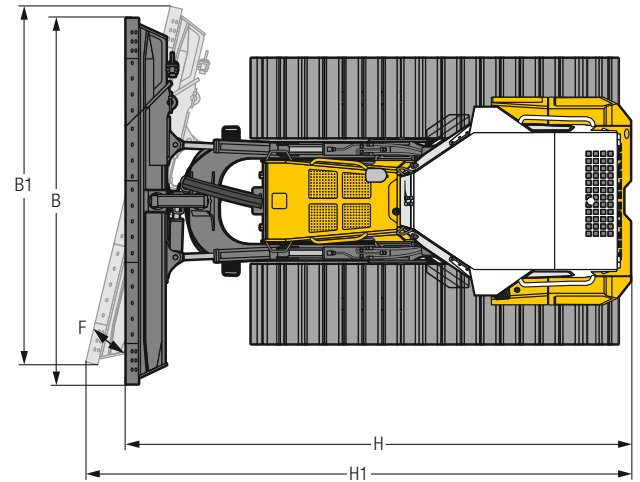
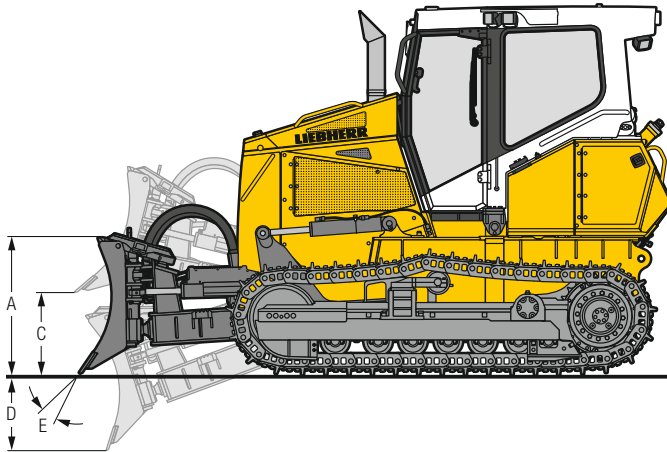


## Dimensions

Undercarriage			XL	LGP
<b>A</b> Height over cab	mm		3,017	3,017
	ft in		9'11"	9'11"
<b>B</b> Overall length without attachments	mm		3,655	3,655
	ft in		12'	12'
<b>C</b> Length of track on ground	mm		2,605	2,605
	ft in		8'7"	8'7"
<b>D</b> Height of grousers	mm		55.5	55.5
	ft in		2.19"	2.19"
<b>E</b> Track gauge	mm		1,780	1,980
	ft in		5'10"	6'6"
<b>H</b> Ground clearance	mm		443	443
	ft in		1'5"	1'5"
<b>F</b> Track shoes 560 mm / 22"				
Width over tracks	mm / ft in		2,340 / 7'8"	—
Tractor shipping weight <sup>1)</sup>	kg / lb		11,559 / 25,483	
<b>F</b> Track shoes 610 mm / 24"				
Width over tracks	mm / ft in		—	2,590 / 8'6"
Tractor shipping weight <sup>1)</sup>	kg / lb			11,718 / 25,834
<b>F</b> Track shoes 711 mm / 28"				
Width over tracks	mm / ft in		—	2,691 / 8'10"
Tractor shipping weight <sup>1)</sup>	kg / lb			11,933 / 26,308
<b>F</b> Track shoes 762 mm / 30"				
Width over tracks	mm / ft in		—	2,742 / 9'
Tractor shipping weight <sup>1)</sup>	kg / lb			12,042 / 26,548

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

# Front Attachments



## 6-Way Blade with Inside Mounted Push Frame

		6-way blade	6-way blade with hinged corner	6-way blade	6-way blade with hinged corner
<b>Undercarriage</b>		<b>XL</b>	<b>XL</b>	<b>LGP</b>	<b>LGP</b>
<b>Blade capacity, ISO 9246</b>	<b>m³</b>	2.92	2.92	3.30	3.30
	<b>yd³</b>	3.82	3.82	4.32	4.32
<b>A Height of blade</b>	<b>mm</b>	1,135	1,135	1,135	1,135
	<b>ft in</b>	3'9"	3'9"	3'9"	3'9"
<b>B Width of blade</b>	<b>mm</b>	3,145	3,145	3,510	3,510
	<b>ft in</b>	10'4"	10'4"	11'6"	11'6"
<b>B1 Width of blade, angled</b>	<b>mm</b>	2,896	2,896	3,226	3,226
	<b>ft in</b>	9'6"	9'6"	10'7"	10'7"
<b>Transport width</b>	<b>mm</b>	2,896	2,467	3,226	2,809
	<b>ft in</b>	9'6"	8'1"	10'7"	9'3"
<b>C Lifting height</b>	<b>mm</b>	1,055	1,055	1,055	1,055
	<b>ft in</b>	3'6"	3'6"	3'6"	3'6"
<b>D Digging depth</b>	<b>mm</b>	456	456	456	456
	<b>ft in</b>	1'6"	1'6"	1'6"	1'6"
<b>E Blade pitch adjustment</b>		5°	5°	5°	5°
<b>F Blade angle adjustment</b>		25°	25°	25°	25°
<b>Max. blade tilt</b>	<b>mm</b>	449	449	500	500
	<b>ft in</b>	1'6"	1'6"	1'8"	1'8"
<b>H Overall length, blade straight</b>	<b>mm</b>	4,850	4,850	4,850	4,850
	<b>ft in</b>	15'11"	15'11"	15'11"	15'11"
<b>H1 Overall length, blade angled</b>	<b>mm</b>	5,472	5,472	5,550	5,550
	<b>ft in</b>	17'11"	17'11"	18'3"	18'3"
<b>Track shoes 560 mm / 22"</b>					
Operating weight <sup>1)</sup>		<b>kg / lb</b>	13,290 / 29,299	—	—
Ground pressure <sup>1)</sup>		<b>kg/cm² / psi</b>	0.46 / 6.54	—	—
<b>Track shoes 610 mm / 24"</b>					
Operating weight <sup>1)</sup>		<b>kg / lb</b>	—	13,506 / 29,776	13,876 / 30,591
Ground pressure <sup>1)</sup>		<b>kg/cm² / psi</b>	—	0.43 / 6.11	0.44 / 6.26
<b>Track shoes 711 mm / 28"</b>					
Operating weight <sup>1)</sup>		<b>kg / lb</b>	—	13,721 / 30,250	14,091 / 31,065
Ground pressure <sup>1)</sup>		<b>kg/cm² / psi</b>	—	0.37 / 5.26	0.38 / 5.4
<b>Track shoes 762 mm / 30"</b>					
Operating weight <sup>1)</sup>		<b>kg / lb</b>	—	13,830 / 30,490	14,200 / 31,306
Ground pressure <sup>1)</sup>		<b>kg/cm² / psi</b>	—	0.35 / 4.98	0.36 / 5.12

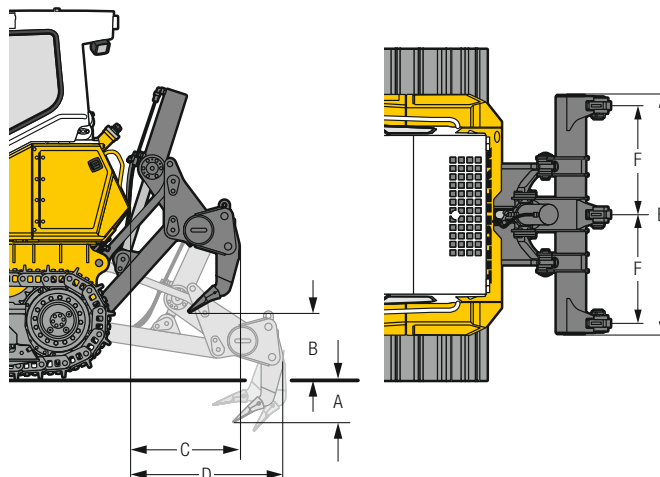
<sup>1)</sup> Including coolant and lubricants, 100% fuel, ROPS/FOPS cab, operator, 6-way blade.

# Rear Attachments



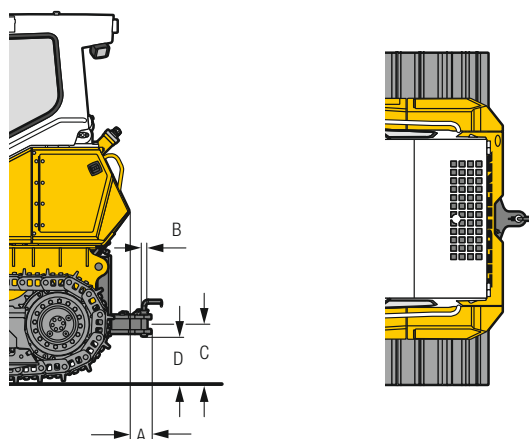
## 3-Shank Ripper

<b>A</b>	Ripping depth	mm	362
		ft in	1'2"
<b>B</b>	Lifting height	mm	554
		ft in	1'10"
<b>C</b>	Additional length, attachment raised	mm	886
		ft in	2'11"
<b>D</b>	Additional length, attachment lowered	mm	1,147
		ft in	3'9"
<b>E</b>	Overall beam width	mm	1,970
		ft in	6'6"
<b>F</b>	Distance between shanks	mm	900
		ft in	2'11"
	Weight	kg	993
		lb	2,189



## Drawbar

			<b>rigid</b>
<b>A</b>	Additional length	mm	172
		ft in	6.77"
<b>B</b>	Socket pin diameter	mm	44.5
		ft in	1.75"
<b>C</b>	Height of jaw	mm	480
		ft in	1'7"
<b>D</b>	Ground clearance	mm	385
		ft in	1'3"
	Jaw opening	mm	90
		ft in	3.54"
	Weight	kg	157
		lb	346



# Equipment



## Base Machine

Additional handle on fuel tank	+
Air filter, dry type, dual step, with pre-filter	•
Auto Idle	+
Automatic engine shut-off	+
Automatic shield stabilisation + tilt control	•
Battery compartment, lockable	•
Coal arrangement	1)
Cold environment arrangement	1)
Cooling fan, hinged (with tool)	•
Cooling fan, hydraulically driven	•
Cooling fan, reversible	+
Diesel Exhaust Fluid (DEF) tank, lockable	•
Engine compartment doors, lockable	•
Engine compartment lighting	+
Forestry arrangement	1)
Fuel pre-filter	•
Fuel pre-filter, with electric heater	+
Fuel-water separator	•
Grade control ready kit	+
Hydraulic oil level control	+
LiDAT – Data transmission system	•
Liebherr diesel engine emission stage V / Tier 4f	•
Liebherr hydraulic oil, biologically degradable	+
Lugs for transport fixation, front	•
Radiator guard, hinged (with tool)	•
Radiator, wide-meshed	•
Refuelling pump, electric	+
Roof Mounted Grading System	+
Spade with mounting bracket	+
Special paint scheme	+
Tool kit, basic	•
Tool kit, extended	+
Towing hitch rear	•



## Hydraulic System

Automatic lifting of the rear ripper into parking position	•
Blade float function	•
Blade quick drop function	•
Blade shake feature	•
Electronic pilot control of the working hydraulics	•
Hydraulic kit for ripper	+
Hydraulic kit for winch	+
Oil filter in hydraulic tank	•



## Travel Drive

Emergency stop	•
Final drives planetary gear	•
Inch brake pedal	+
Load limit control, electronic	•
Parking brake, automatic	•
Seat contact switch	•
Travel control, 3 speed ranges	•
Travel drive joystick, detented	+
Travel drive joystick, proportional	•
Travel drive, hydrostatic	•



## Operator's Cab

Access and exit step lighting	•
Air-conditioner	•
Armrests 3D adjustable	•
Automatic climate control	•
Cab heating	•
Coat hook	•
Dome light LED	•
Dust filter system pressurised	+
Fire extinguisher in the cab	+
Footrest on the front console	+
Grab handles at joysticks	+
Noise-absorbing cab mounts	•
Operator's seat Comfort, air-suspended	•
Operator's seat Premium, air-suspended	+
Pressurised cab	•
Protective grid, rear window	+
Radio	+
Radio preparation kit	+
Rear-mounted mirror for ripper	+
Rear-view camera	+
Rear-view mirror, inside	•
Rear-view mirrors, external	+
ROPS/FOPS integrated	•
Safety glass	•
Sliding window left	+
Sliding window right	+
Sockets 12 V + 24 V	•
Storage nets	+
Stowage compartment, air-conditioned	•
Sunblind, front	+
Tilttable cab	•
Touch-controlled color display	•
Windshield washer system	•
Windshield wipers front, rear, doors, with intermittent function	•

• = Standard

+ = Option

1) On demand at your dealer

# Equipment



## Electrical System

2 additional working lights on the cab, rear	+
2 cold start batteries	•
2 working lights on the cab, rear	•
4 working lights on the cab, front	•
All working lights in LED version	+
Amber beacon	+
Back-up alarm, acoustic	•
Back-up alarm, acoustic and visual	+
Back-up alarm with broadband signal	+
Back-up alarm with broadband signal and visual	+
Battery main switch	•
Battery main switch, lockable	+
Horn	•
Immobiliser, electronic	+
On-board voltage 24 V	•



## Undercarriage

Master link, two-piece	•
Sprocket segments with recesses	•
Sprocket segments, bolted	•
Track guard, full length	+
Track guide, centre part	+
Track guide, front and rear	•
Track pads with mud holes <sup>2)</sup>	+
Track shoes, moderate service	•
Tracks, oil-lubricated	•
Undercarriage LGP	+
Undercarriage with rigid bottom rollers	•
Undercarriage with rotary bushings FTB <sup>2)</sup>	+
Undercarriage XL	+

• = Standard

+ = Option

<sup>1)</sup> On demand at your dealer

<sup>2)</sup> Available track shoes on demand at your dealer

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.



## Attachments Front

6-way blade	+
6-way blade with hinged corner	+
Blade pitch adjustment	+
Side wings for 6-way blade, bolt-on	+
Spill plate	+



## Attachments Rear

Counterweight, rear (1,000 kg / 2,205 lb)	+
Drawbar rear, rigid	+
Mounting plate for third-party equipment	+
Ripper, 3 shanks	+
Ripper, 5 shank	+
Trailer hitch on rear ripper	+
Winch	+



## 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).



## 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).

### Liebherr USA, Co.

Construction Equipment Division

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