

## **Technical data**



Lingine			
Liebherr Diesel engine	D 934 EVO Emission regulations according to 97/68/EC, 2004/26/EC Stage Illa, EPA/CARB Tier 3		
Rated power (net)			
ISO 9249	160kW/217HP		
SAE J1349	160kW/214HP		
Maximum power (net)			
ISO 9249	175kW/238HP		
SAE J1349	175kW/235HP		
Rated speed	1,900 rpm		
Displacement	7.0l/427 in <sup>3</sup>		
Design	4 cylinder in-line engine, water-cooled,		
	turbocharged, air-to-air intercooler		
Injection system	Direct fuel injection,		
	Common Rail, electronic control		
Lubrication	Pressurised lube system, engine lubrication guaranteed for inclinations up to 45°, on all sides		
Operating voltage	24V		
Alternator	140A		
Starter	7.8kW/11HP		
Batteries	2x180Ah/12V		
Air cleaner	Dry-type air cleaner with vacuum indicator and automa-		
	tic dust filter system, main and safety elements		
Cooling system	Combi radiator, comprising radiators for water, hydraulic fluid, charge air. Hydrostatic fan drive		



Hydraulic system	Open-center with load-sensing control block		
Pump type	Gear pump		
Pump flow max.	206 l/min. / 54.4 gpm / 45.3 lmp.gpm		
Pressure limitation	260 bar / 3,770 psi (6-way blade)		
	200 bar / 2,900 psi (Straight blade)		
Control valve	2 segments, expandable to 4		
Filter system	Return filter with magnetic rod in the hydraulic tank		
Control	Single joystick for all blade functions		

#### Travel drive, control

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Transmission system	Infinitely variable hydrostatic travel drive, independent drive for each track				
Travel speed *	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:	0-11.0 km/h / 6.8 mph (forward & reverse)				
	*Travel speed ranges can be set on the travel joystick (memory function)				
Electronic control	The electronic system automatically adjusts travel speed and drawbar pull to match changing load conditions				
Steering	Hydrostatic				
Service brake	Hydrostatic (self-locking), wear-free				
Parking brake	Multi-disk brake, wear-free, automatically applied with neutral joystick position				
Cooling system	Hydraulic oil cooler integrated in combi radiator, hydrostatic fan drive				
Filter system	Micro cartridge filters in replenishing circuit				
Final drive	Combination spur gear with planetary gear, double- sealed (duo cone seals) with temperature control				
Control	Proportional joystick for all travel and steering functions. Optional: detented joystick, with inching pedal				

### Operator's cal

uperator's cab	
Cab	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)
Operator's seat	Air-suspended comfort seat, fully adjustable
Monitoring	Touch screen: display of current machine information, automatic monitoring of operating conditions. Individual setting of machine parameters
Vibration emission	
Hand/arm vibrations	< 2.5 m/s <sup>2</sup> , according with ISO 5349-1:2001
Whole-body vibrations	0.24-1.31 m/s², complies with technical report ISO/TR 25398:2006
Measuring inaccuracy	According with standard EN 12096:1997

#### Undercarriage

	L	XL	LGP		
Design	Undercarriage with rigid bottom rollers				
Mounting	Via separate pivot	shafts and equalize	r bar		
Track chains	Lubricated, single-grouser shoes, tensioning via a steel spring and grease tensioner				
Links, each side	41	45	45		
Track rollers, each side	6	7	7		
Carrier rollers, each side	2	2	2		
Sprocket segments, each side	6	6	6		
Track shoes, standard	610 mm / 24"/24"	610 mm/24"/24"	711 mm/28"/28" 812mm/32"/32"		
Track shoes, optional	560 mm / 22" / 22"	560 mm / 22" / 22"	914mm/36"/36" 965mm/38"/38"		

## $\mathfrak{H}$ Sound levels

Operator sound exposure ISO 6396	
L <sub>pA</sub> (in the cab)	75 dB(A)
Exterior sound pressure ISO 6395	
L <sub>WA</sub> (to the environment)	111dB(A)

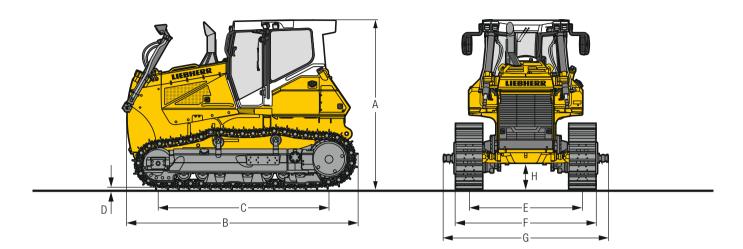
### Refill capacities

Final drive L and XL	15l/4gal/3.3Imp.gal
(outside push frame), each side	
Final drive XL	221/5.8gal/4.8Imp.gal
(inside push frame), each side	
Final drive LGP	26.5l/7gal/5.8Imp.gal
(outside push frame), each side	
Final drive LGP	301/7.9gal/6.6Imp.gal
(inside push frame), each side	
Hydraulic tank	1911/50.4gal/42.0lmp.gal
Fuel tank	430l/113.5gal/94.6lmp.gal
Cooling system	41l/10.8gal/9Imp.gal
Engine oil, with filter	291/7.7 gal/6.4 Imp.gal

## Drawbar pull

Max.	314kN
at 1.5 km/h/0.9 mph	277 kN
at 3.0 km/h/1.9 mph	164kN
at 6.0 km/h/3.7 mph	82 kN
at 9.0 km/h/5.6 mph	55 kN

## **Dimensions**

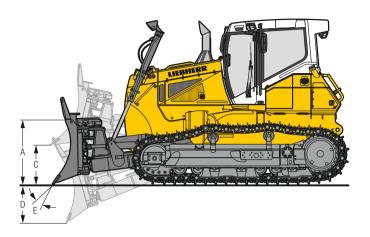


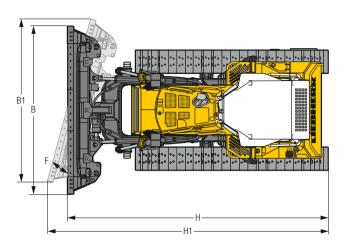
#### **Dimensions**

Push frame		outside	inside	outside	inside	outside
Undercarriage		L	XL	XL	LGP	LGP
A Height over cab	mm	3,265		265	3,265	
	ft in	10'9"		1'9"	10'9"	
B Overall length without attachments	mm	4,428		¥28	4,428	
	ft in	14'6"	14		14'6"	
C Length of track on ground	mm	2,872		283	3,283	
	ft in	9'5"		l'9" -	10'9"	
D Height of grousers	mm	65		5	6	
	ft in	0'3"		3"	0':	
H Ground clearance	mm	511 1'8"		11 '8"	511 1'8"	
F. Twale gauge	ft in			(		
E Track gauge	mm ft in	1,830 6'0"	2,180 7'2"	1,830 6'0"	2,290 / 2,390 7'6" / 7'10"	2,180 7'2"
G Width over trunnions	mm	2,724	1 2	2,724	7 0 / 7 10	3,474
o width over duminons	ft in	8'11"	_	8'11"	_	11'5"
F Track shoes 560 mm / 22"	16.111	011		011		11 3
Width over tracks	mm/ft in	2.390 / 7'10"	2.740/9'	2.390 / 7'10"		
Tractor shipping weight <sup>1)</sup>	kg/lb	17,236/37,999	17,711/39,046	17,786/39,211	-	_
F Track shoes 610 mm/24"	•			, , ,		
Width over tracks	mm/ft in	2,440/8'0"	2,790 / 7'10"	2,440/8'0"		
Tractor shipping weight <sup>1)</sup>	kg/lb	17,375/38,305	17,850/39,352	17,925/39,518	-	-
F Track shoes 711 mm / 28"						
Width over tracks	mm/ft in				3,000/9'10"	
Tractor shipping weight <sup>1)</sup>	kg/lb	-	-	-	18,149/40,012	-
F Track shoes 812 mm / 32"						
Width over tracks	mm/ft in				3,202/10'6"	2,992/9'10"
Tractor shipping weight <sup>1)</sup>	kg/lb	-	-	-	18,428 / 40,627	18,671/41,162
F Track shoes 914 mm / 36"	/ 64 :					7.007 /1.01011
Width over tracks	mm/ftin					3,094/10'2" 18,967/41,815
Tractor shipping weight <sup>1)</sup> F Track shoes 965 mm / 38"	kg/lb	-	-	_	-	10,707 / 41,013
Width over tracks	mm/ft in					3.145/10'4"
Tractor shipping weight <sup>1)</sup>	kg/lb	_	_	-	_	19,119/42,150

 $<sup>^{\</sup>rm 1J}$  Including coolant and lubricants, 20 % fuel, ROPS / FOPS cab.

## **Front attachments**



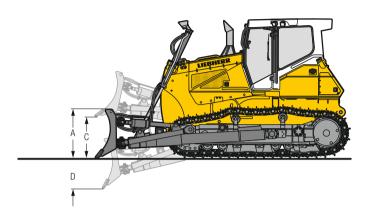


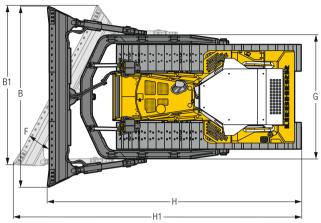
## 6-Way blade with inside mounted push frame

		6-way blade	6-way blade with hinged corners	6-way blade	6-way blade with hinged corners
Undercarriage		XL	XL	LGP	LGP
Blade capacity, ISO 9246	m³	4.78	4.78	4.84	4.84
• "	yd³	6.25	6.25	6.33	6.33
A Height of blade	mm	1,350	1,350	1,250	1,250
	ft in	4'5"	4'5"	4'1"	4'1"
B Width of blade	mm	3,764	3,764	4,210	4,210
	ft in	12'4"	12'4"	13'10"	13'10"
B1 Width of blade, angled	mm	3,508	3,508	3,918	3,918
	ft in	11'6"	11'6"	12'10"	12'10"
Transport width	mm	3,469	2,990	3,876	3,000 2)
	ft in	11'5"	9'10"	12'9"	9'10"
C Lifting height	mm	1,267	1,267	1,260	1,260
	ft in	4'2"	4'2"	4'2"	4'2"
D Digging depth	mm	665	665	661	661
	ft in	2'2"	2'2"	2'2"	2'2"
E Blade pitch adjustment		5°	5°	5°	5°
F Blade angle adjustment		23.3°	23.3°	23.3°	23.3°
Max. blade tilt	mm	479	479	536	536
	ft in	1'7"	1'7"	1'9"	1'9"
H Overall length, blade straight	mm	5,878	5,878	5,861	5,861
	ft in	19'3"	19'3"	19'3"	19'3"
H1 Overall length, blade angled	mm	6,567	6,567	6,640	6,640
	ft in	21'7"	21'7"	21'9"	21'9"
F Bodenplattenbreite 560 mm / 22"					
Einsatzgewicht 1)	kg/lb	20,994/46,284	21,416/47,214		
Bodendruck, ISO16754 <sup>1)</sup>	kg/cm²/psi	0.57/8.11	0.58/8.25	-	-
F Track shoes 610 mm / 24"					
Einsatzgewicht 1)	kg/lb	21,133/46,590	21,555/47,521		
Bodendruck, ISO16754 <sup>1)</sup>	kg/cm²/psi	0.53/7.54	0.54/7.68	-	_
F Track shoes 711 mm / 28"					
Einsatzgewicht <sup>1)</sup>	kg/lb			21,657 / 47,745	22,151/48,835
Bodendruck, ISO167541)	kg/cm²/psi	_	-	0.46 / 6.54	0.47 / 6.68
F Track shoes 812 mm / 32"					
Einsatzgewicht <sup>1)</sup>	kg/lb			21,936/48,361	22,430/49,450
Bodendruck, ISO167541)	kg/cm²/psi	_	_	0.41/5.83	0.42/5.97

 $<sup>^{1\!\</sup>mathrm{J}}$  Including coolant and lubricants, 100 % fuel, ROPS / FOPS cab, operator, 6-way blade.  $^{2\!\mathrm{J}}$  Transport width 3,000 mm with 711 mm (28") track pads. Transport width 3,202 mm with 812 mm (32") track pads-

## **Front attachments**



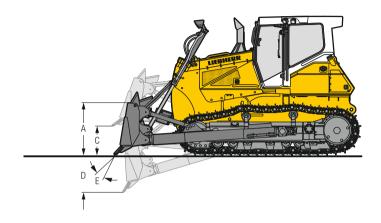


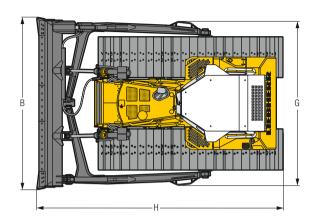
# Mechanical angle blade

		with tilt function
Undercarriage		XL
Blade capacity, ISO 9246	m³	3.80
	yd³	4.97
A Height of blade	mm	1,100
	ft in	3'7"
B Width of blade	mm	4,245
	ft in	13'11"
B1 Transport width	mm	3,850
	ft in	12'8"
C Lifting height	mm	1,224
	ft in	4'0"
D Digging depth	mm	605
	ft in	2'0"
F Blade angle adjustment		25°
Max. blade tilt	mm	679
	ft in	2'3"
G Width over push frame	mm	2,890
	ft in	9'6"
H Overall length, blade straight	mm	5,964
	ft in	19'7"
H1 Overall length, blade angled	mm	6,796
	ft in	22'4"
F Track shoes 560 mm / 22"		
Operating weight <sup>1)</sup>	kg/lb	20,958/46,204
Ground pressure, ISO167541)	kg/cm²/psi	0.57/8.11
F Track shoes 610 mm / 24"		
Operating weight 1)	kg/lb	21,099/46,515
Ground pressure, ISO167541)	kg/cm²/psi	0.53/7.54

 $<sup>^{1\!\</sup>mathrm{J}}$  lincludes coolant and lubricants, 100 % fuel, ROPS / FOPS cab, operator, mechanical angle blade.

## **Front attachments**







## Semi-U blade and straight blade

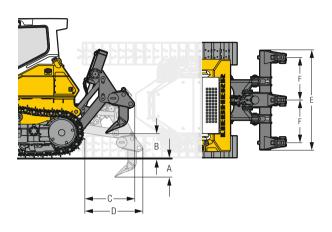
			Semi-U blade	Semi-U blade	Straight blade
Un	dercarriage		L	XL	LGP
Bla	de capacity, ISO 9246	m³	5.56	5.56	4.10
		yd³	7.27	7.27	5.36
Α	Height of blade	mm	1,400	1,400	1,150
		ft in	4'7"	4'7"	3'9"
В	Width of blade	mm	3,372	3,372	3,995
		ft in	11'1"	11'1"	13'1"
С	Lifting height	mm	1,243	1,216	1,225
		ft in	4'1"	4'0"	4'0"
D	Digging depth	mm	464	511	516
		ft in	1'6"	1'8"	1'8"
E	Blade pitch adjustment		10°	10°	10°
	Max. blade tilt	mm	432	432	395
		ft in	1'5"	1'5"	1'4"
G	Width over push frame	mm	3,086	3,086	3,836
		ft in	10'1"	10'1"	12'7"
Н	Overall length	mm	5,748	5,968	5,758
		ft in	18'10"	19'7"	18'11"
F	Track shoes 560 mm / 22"				
	Operating weight <sup>1)</sup>	kg/lb	20,005/44,103	20,555/45,316	
-		kg/cm²/psi	0.62/8.82	0.56/7.96	_
F	Track shoes 610 mm/24"		00.440.444.444	00 000 / 45 007	
	Operating weight 1)	kg/lb	20,146/44,414	20,696/45,627	
-		kg/cm²/psi	0.57/8.11	0.52/7.39	_
F	Track shoes 812 mm / 32"	le / / lh			01.000/40.000
	Operating weight <sup>1)</sup> Ground pressure, ISO16754 <sup>1)</sup>	kg/lb	_		21,926/48,338 0.41/5.83
F	Track shoes 914mm / 36"	kg/cm²/psi	_	_	0.41/5.63
г	Operating weight 1)	lea / lb			22,222/48,991
		kg/lb kg/cm²/psi			0.37/5,26
F	Track shoes 965 mm / 38"	kg/ciii-/ þsi	_	_	0.3773,20
г	Operating weight 1)	kg/lb			22,374/49,326
		kg/cm²/psi	_	_	0.35/4.98
	orouna pressure, 19010794-	rg/ciii-/ þsi	_	_	0.557 4.90

 $<sup>^{1)}</sup>$  Including coolant and lubricants, 100 % fuel, ROPS / FOPS cab, operator, semi-U or straight blade.

## **Rear attachments**

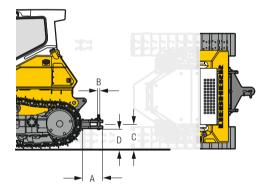
## 3-Shank ripper

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A Ripping depth (max./min.)	mm	449/299
	ft in	1'6"/1'
B Lifting height (max./min.)	mm	738/588
	ft in	2'5"/1'10"
C Additional length, attachment raised	mm	1,138
	ft in	3'9"
D Additional length, attachment lowered	mm	1,469
	ft in	4'10"
E Overall beam width	mm	2,320
	ft in	7'7"
F Distance between shanks	mm	1,000
	ft in	3'3"
Max. pitch adjustment		-
Weight	kg	1,920
	lb	4,233



## Drawbar

		rigid
A Additional length	mm	436
	ft in	1'5"
B Socket pin diameter	mm	50
	ft in	1.97"
C Height of jaw	mm	580
	ft in	1'11"
D Ground clearance	mm	492
	ft in	1'7"
Jaw opening	mm	95
	ft in	3.74"
Weight	kg	280
	lb	617



## **Equipment**

### Base machine

Duod madmind	
Additional handle on fuel tank	+
Air filter with automatic dust ejector	•
Air filter, dry type, dual step, with pre-filter	•
Air pre-cleaner Sy-Klone	+
Air pre-cleaner Top Air	+
Auto Idle	+
Automatic blade stabilization + inclination control	+
Automatic engine shut-off	+
Battery compartment, lockable	•
Coal arrangement	+
Cold environment arrangement	+
Cooling fan front, tilt-out	•
Cooling fan, hydraulically driven	•
Cooling fan, reversible	+
Engine compartment doors, lockable	•
Engine compartment lighting	•
Forestry arrangement	+
Fuel pre-filter	•
Fuel pre-filter, with electric heater	+
Fuel water separator	•
Fuel water separator, with electric heater	+
Grade control ready kit	+
Landfill arrangement	+
LiDAT - Data transmission system	•
Liebherr diesel engine emission stage IIIa	•
Liebherr hydraulic oil, biologically degradable	+
Radiator guard, hinged	•
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	•
Towing lug front	•
Woodchip arrangement	+

## Hydraulics system

Automatic lifting of the ripper into the 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	+
Load-Sensing control block and gear pump	•
Oil filter in hydraulic tank	•

#### Travel drive

Emergency stop	•
Final drives planetary gear	•
Inching brake pedal	+
Load limit control, electronic	•
Machine-release switch	•
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

- operator o dab	
Access and exit step lighting	+
Armrests 3D adjustable	•
Automatic climate control	•
Cab heating	•
Coat hook	•
Dome light LED	•
Dust filter system pressurised	+
Extension of cab door footstep	+
Fire extinguisher	+
Foot support on front console	+
Noise-absorbing cab mounts	•
Operator's seat Comfort, air-suspended	•
Operator's seat Premium, air-suspended	+
Pressurised cab	•
Protective grid for 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	+
Socket 12V+24V	•
Storage nets	+
Stowage compartment, air-conditioned	•
Sun visor, front	+
Tiltable cab	•
Touch-controlled colour display	•
Warm water heating	+
Windshield washer system	•
Windshield wipers front, rear, doors, with intermittent function	•

### **Equipment**

## Electrical system

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

#### Undercarriage

Master link, two-piece	•
Sprocket segments with recesses	+
Sprocket segments, bolted	•
Track frame, closed	•
Track guard, full length	+
Track guide centre part	+
Track guide, front and rear	•
Track pads with mud holes <sup>1)</sup>	+
Track shoes, moderate service	•
Tracks, oil-lubricated	•
Undercarriage L	+
Undercarriage LGP	+
Undercarriage with rigid bottom rollers	•
Undercarriage XL	+

- = Standard
- + = Option
- 1) 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.

Brochure valid for all countries except Russia

### **№** Attachments front

6-way blade	+
6-way blade with hinged corners	+
Guards for hydraulic cylinders, 6-way blade	+
Mechanical angle blade	+
Semi-U blade	+
Side wings for 6-way blade, bolt-on	+
Side wings for straight blade, welded	+
Spill plate	+
Straight blade	+
Trash rack	+
U blade	1)
Wear plates on push frame	+
Wear plates on semi-U blade	+

## Attachments rear

Counterweight, rear (2,000 kg / 4,409 lb)	+
Drawbar rear, rigid	+
Mounting plate for third-party equipment	+
Ripper, 1 shank	+
Ripper, 3 shank	+
Winch	+