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# PR 746 Litronic

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## LIEBHERR

Crawler Tractors

**Generation**

8

**Operating weight**

25,900 – 31,500 kg

57,100 – 69,446 lb

**Engine output**

SAE J1349 / ISO 9249

190 kW / 254 HP

190 kW / 258 HP

Stage V / Stage IIIa

Tier 4f

# Technical data



## Engine

<b>Liebherr Diesel engine</b>	D 936 A7 Emission regulations according to 97 / 68 / EC, 2004 / 26 / EC stage V / stage IIIa, EPA / CARB Tier 4f
<b>Rated power (net)</b> ISO 9249 SAE J1349	190 kW / 258 HP 190 kW / 254 HP
<b>Maximum power (net)</b> ISO 9249 SAE J1349	210 kW / 286 HP 210 kW / 281 HP
<b>Rated speed</b>	1,600 rpm
<b>Displacement</b>	10.5 l / 641 in <sup>3</sup>
<b>Design</b>	6 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 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 filter with vacuum indicator and automatic dust ejector, main and safety element
<b>Cooling system</b>	Combi radiator, comprising radiators for water and charge air. Hydrostatic fan drive



## Hydraulics

<b>Hydraulic system</b>	Load sensing (demand-controlled)
<b>Pump type</b>	Swash plate piston pump
<b>Pump flow, max.</b>	256 l/min. / 67.6 gpm / 56.3 Imp.gpm
<b>Pressure limitation</b>	260 bar / 3,770 psi
<b>Control valve</b>	2 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

<b>Transmission system</b>	Infinitely variable hydrostatic travel drive, independent drive for each track
<b>Travel speed *</b> Speed range 1: Speed range 2: Speed range 3:	Continuously variable 0 – 6.5 km/h / 4.0 mph (forward & reverse) 0 – 8.5 km/h / 5.3 mph (forward & reverse) 0 – 11.0 km/h / 6.8 mph (forward & reverse) * Travel speed ranges can be set on the travel joystick (memory function)
<b>Electronic system</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-disc brake, wear-free, automatically applied with neutral joystick position
<b>Cooling system</b>	Separate oil cooler, hydraulic fan drive
<b>Filter system</b>	Micro cartridge filter in replenishing circuit
<b>Final drive</b>	Combination spur gear with planetary gear, double- sealed (duo cone seals) with temperature indicator
<b>Control</b>	Single proportional joystick for all travel and steering functions



## Operator's cab

<b>Cab</b>	Hydro-elastic mounted cab with positive pressure venti- lation, 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 Whole-body vibrations	< 2.5 m/s <sup>2</sup> , according with ISO 5349-1:2001 0.24 – 1.31 m/s <sup>2</sup> , complies with technical report ISO/TR 25398:2006
<b>Measuring inaccuracy</b>	According with standard EN 12096:1997

## Undercarriage

	<b>L</b>	<b>LGP</b>
<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 steel spring and grease tensioner	
<b>Links, each side</b>	41	44
<b>Track rollers, each side</b>	7	8
<b>Carrier rollers, each side</b>	2	2
<b>Sprocket segments, each side</b>	6	6
<b>Track shoes, standard</b>	610 mm / 24"	812 mm / 32"
<b>Track shoes, optional</b>	560 mm / 22" 711 mm / 28"	914 mm / 36"

## 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)	112 dB(A)

## Refill capacities

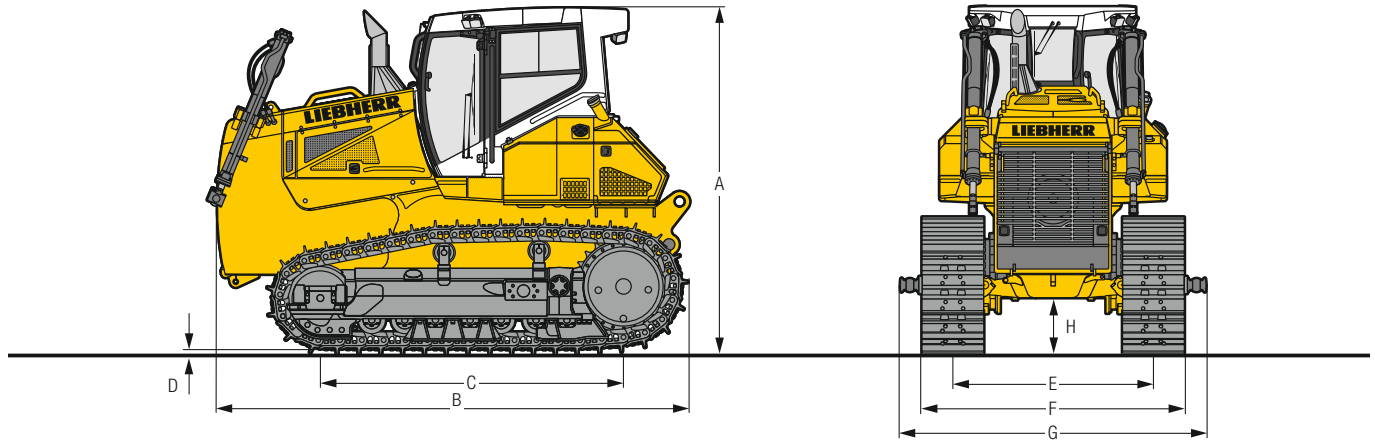
<b>Fuel tank</b>	505 l / 133.3 gal / 111.1 Imp.gal
<b>Diesel Exhaust Fluid (DEF) tank<sup>1)</sup></b>	56.5 l / 14.9 gal / 12.4 Imp.gal
<b>Cooling system</b>	49 l / 12.9 gal / 10.8 Imp.gal
<b>Engine oil, with filter</b>	43 l / 11.4 gal / 9.5 Imp.gal
<b>Splitter box</b>	8.5 l / 2.2 gal / 1.9 Imp.gal
<b>Hydraulic tank</b>	112 l / 29.6 gal / 24.6 Imp.gal
<b>Final drive L, each side</b>	17 l / 4.5 gal / 3.7 Imp.gal
<b>Final drive LGP, each side</b>	18 l / 4.8 gal / 4.0 Imp.gal

<sup>1)</sup> only for stage V/Tier 4f

## Drawbar pull

<b>Max.</b>	436 kN
<b>at 1.5 km/h / 0.9 mph</b>	385 kN
<b>at 3.0 km/h / 1.9 mph</b>	190 kN
<b>at 6.0 km/h / 3.7 mph</b>	95 kN
<b>at 9.0 km/h / 5.6 mph</b>	63 kN

# Dimensions

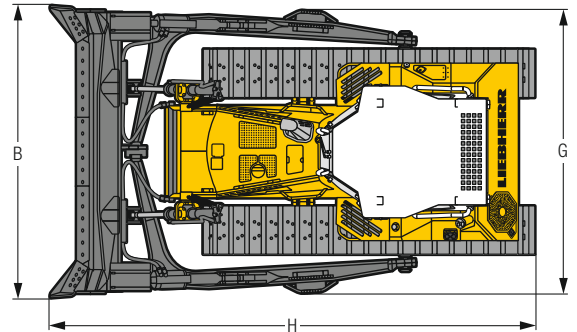
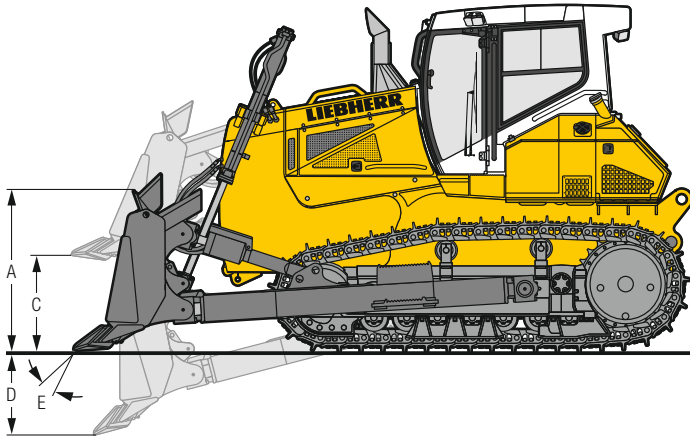


## Dimensions

Undercarriage		L	LGP
A Height over cab	mm	3,435	3,435
	ft in	11'3"	11'3"
B Overall length without attachments	mm	4,671	4,671
	ft in	15'4"	15'4"
C Length of track on ground	mm	2,999	3,323
	ft in	9'10"	10'11"
D Height of grousers	mm	71.5	71.5
	ft in	2.81"	2.81"
H Ground clearance	mm	551	551
	ft in	1'10"	1'10"
E Track gauge	mm	1,980	2,180
	ft in	6'6"	7'2"
G Width over trunnions	mm	3,000	3,600
	ft in	9'10"	11'10"
F Track shoes 560 mm / 22"			
Width over tracks	mm / ft in	2,540 / 8'4"	-
Tractor shipping weight <sup>1)</sup>	kg / lb	21,644 / 47,717	-
F Track shoes 610 mm / 24"			
Width over tracks	mm / ft in	2,590 / 8'6"	-
Tractor shipping weight <sup>1)</sup>	kg / lb	21,998 / 48,497	-
F Track shoes 711 mm / 28"			
Width over tracks	mm / ft in	2,691 / 8'10"	-
Tractor shipping weight <sup>1)</sup>	kg / lb	22,705 / 50,056	-
F Track shoes 812 mm / 32"			
Width over tracks	mm / ft in	-	2,992 / 9'10"
Tractor shipping weight <sup>1)</sup>	kg / lb	-	22,769 / 50,197
F Track shoes 914 mm / 36"			
Width over tracks	mm / ft in	-	3,094 / 10'2"
Tractor shipping weight <sup>1)</sup>	kg / lb	-	23,344 / 51,465

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

# Front attachments



## Semi-U-Blade, mechanical angle blade and straight blade

		Semi-U blade	Mechanical angle blade <sup>2)</sup>	Straight blade <sup>2)</sup>
Undercarriage		L	L	LGP
Blade capacity, ISO 9246	m <sup>3</sup>	7.20	4.33	6.00
	yd <sup>3</sup>	9.42	5.67	7.85
A Height of blade	mm	1,544	1,130	1,320
	ft in	5'1"	3'8"	4'4"
B Width of blade	mm	3,690	4,620	4,518
	ft in	12'1"	15'2"	14'10"
Width of blade, angled	mm		4,198	
	ft in	-	3'8"	-
C Lifting height	mm	1,315	1,289	1,256
	ft in	4'1"	4'3"	4'1"
D Digging depth	mm	444	554	539
	ft in	1'5"	1'9"	1'9"
E Blade pitch adjustment		10°	-	10°
Blade angle adjustment		-	25°	-
Max. blade tilt	mm	462	672	466
	ft in	1'6"	2'2"	1'6"
G Width over push frame	mm	3,443	3,394	4,034
	ft in	11'4"	11'2"	13'3"
H Overall length, blade straight	mm	6,119	6,003	5,945
	ft in	20'1"	19'8"	19'6"
Overall length, blade angled	mm		6,919	
	ft in	-	22'8"	-
F Track shoes 560 mm / 22"				
Operating weight <sup>1)</sup>	kg / lb	25,886 / 57,069	26,018 / 57,360	-
Ground pressure, ISO16754 <sup>1)</sup>	kg/cm <sup>2</sup> / psi	0.67 / 9.53	0.68 / 9.67	-
F Track shoes 610 mm / 24"				
Operating weight <sup>1)</sup>	kg / lb	26,240 / 57,849	26,372 / 58,140	-
Ground pressure, ISO16754 <sup>1)</sup>	kg/cm <sup>2</sup> / psi	0.63 / 8.96	0.63 / 8.96	-
F Track shoes 711 mm / 28"				
Operating weight <sup>1)</sup>	kg / lb	26,947 / 59,408	27,079 / 59,699	-
Ground pressure, ISO16754 <sup>1)</sup>	kg/cm <sup>2</sup> / psi	0.55 / 7.82	0.56 / 7.97	-
F Track shoes 812 mm / 32"				
Operating weight <sup>1)</sup>	kg / lb	-	-	27,257 / 60,091
Ground pressure, ISO16754 <sup>1)</sup>	kg/cm <sup>2</sup> / psi	-	-	0.45 / 6.4
F Track shoes 914 mm / 36"				
Operating weight <sup>1)</sup>	kg / lb	-	-	27,832 / 61,359
Ground pressure, ISO16754 <sup>1)</sup>	kg/cm <sup>2</sup> / psi	-	-	0.40 / 5.69

<sup>1)</sup> Including coolant and lubricants, 100% fuel, ROPS / FOPS cab, operator, Semi-U-, Mechanical Angle- or Straight Blade.

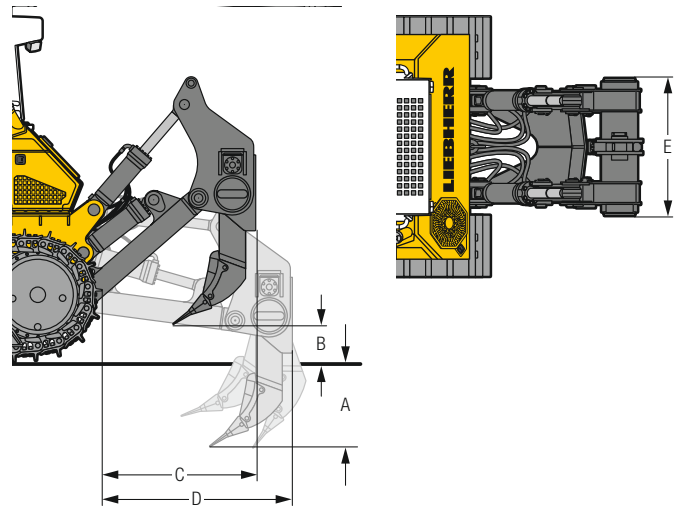
<sup>2)</sup> Rear equipment or counterweight is recommended.

# Rear attachments



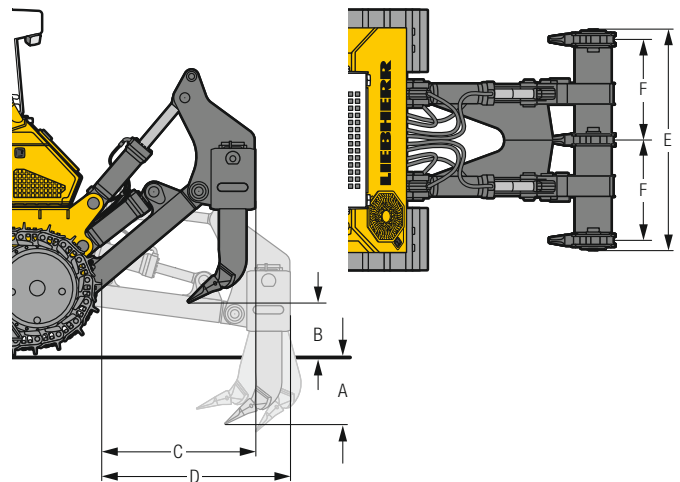
## 1-Shank ripper

Parallelogram		hydraulic pitch adjustment	
A Ripping depth (max. / min.)	mm	829 / 499	
	ft in	2'9" / 1'8"	
B Lifting height (max. / min.)	mm	709 / 379	
	ft in	2'4" / 1'3"	
C Additional length, attachment raised	mm	1,509	
	ft in	4'11"	
D Additional length, attachment lowered	mm	1,876	
	ft in	6'2"	
E Overall beam width	mm	1,360	
	ft in	4'6"	
F Distance between shanks	mm	-	
	ft in	-	
Max. pitch adjustment		25°	
Weight	kg	2,730	
	lb	6,019	



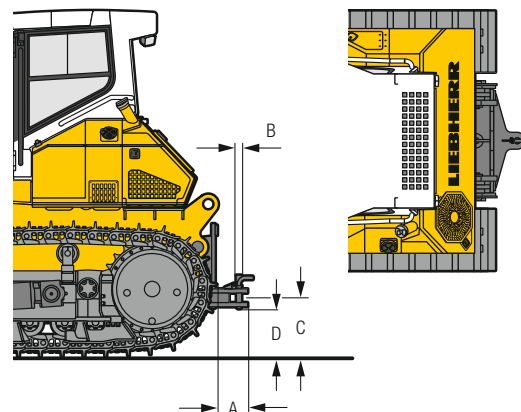
## 3-Shank ripper

Parallelogram		standard	hydraulic pitch adjustment
A Ripping depth (max. / min.)	mm	672 / 372	672 / 372
	ft in	2'2" / 1'3"	2'2" / 1'3"
B Lifting height (max. / min.)	mm	830 / 532	836 / 536
	ft in	2'9" / 1'9"	2'5" / 1'9"
C Additional length, attachment raised	mm	1,511	1,494
	ft in	4'11"	4'11"
D Additional length, attachment lowered	mm	1,862	1,861
	ft in	6'1"	6'1"
E Overall beam width	mm	2,184	2,184
	ft in	7'2"	7'2"
F Distance between shanks	mm	1,000	1,000
	ft in	3'3"	3'3"
Max. pitch adjustment		-	25°
Weight	kg	3,323	3,334
	lb	7,326	7,350



## Drawbar

		rigid
A Additional length	mm	469
	ft in	1'6"
B Socket pin diameter	mm	50
	ft in	1.97"
C Height of jaw	mm	598
	ft in	2'
D Ground clearance	mm	490
	ft in	1'7"
Jaw opening	mm	95
	ft in	3.74"
Weight	kg	431
	lb	950



# Equipment



## Base machine

Additional handle on treadplate	•
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	2)
Automatic engine shut-off	+
Battery compartment, lockable	•
Coal arrangement	+
Cold environment arrangement	+
Cooling fan, front hinged	•
Cooling fan, hydraulically driven	•
Cooling fan, rear hinged	•
Cooling fan, reversible	+
DEF tank lockable	•
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	1)
Landfill arrangement	+
LiDAT – Data transmission system	•
Liebherr diesel engine emission stage V / Tier 4f	•
Liebherr hydraulic oil, biologically degradable	+
Radiator guard, hinged	•
Radiator, wide-meshed	•
Refuelling pump, electric	+
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

Access and exit step lighting	2)
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	+
Joysticks, longitudinally adjustable	•
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-view camera	+
Rear-view mirror, inside	•
Rear-view mirrors, external	+
ROPS / FOPS integrated	•
Safety glass	•
Sliding window left	+
Sliding window right	+
Socket 12 V + 24 V	•
Storage nets	+
Stowage compartment, air-conditioned	•
Sun visor, front	+
Tilttable cab	•
Touch-controlled colour display	•
Warm water heating	+
Windshield washer system	•
Windshield wipers front, rear, doors, with intermittent function	•

• = Standard

+ = Option

1) on demand at your dealer

2) Standard for stage V / Tier4f, Optional for stage IIIA

# 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 signal 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	1)
Track shoes, moderate service	•
Tracks, oil-lubricated	•
Undercarriage L	+
Undercarriage LGP	+
Undercarriage with rigid bottom rollers	•



## Attachments front

Hydraulic pitch angle adjustment	+
Mechanical angle blade	+
Semi-U blade	+
Spill plate	+
Straight blade	+
Trash rack	+
U blade	1)
Wear plates on push frame	+
Wear plates on semi-U blade	+



## Attachments rear

Counterweight, rear (3,200 kg / 7,055 lb)	+
Drawbar rear, rigid	+
Mounting plate for third-party equipment	+
Ripper, 1 shank	+
Ripper, 3 shank	+
Winch	+

• = Standard

+ = Option

1) 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.



## 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).

## Liebherr-Werk Telfs GmbH

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