

Mining Dozer

PR 776

Operating Weight

71.8 – 73.2 tonnes

79.1 – 80.6 tons

Engine Power

440 kW/598 HP Forward

565 kW/768 HP Reverse

Standard Blades

Semi-U Blade 18.5 m³/24.2 yd³

U Blade 22.0 m³/28.8 yd³



LIEBHERR



Productivity

Working Harder and Faster



Efficiency

Moving More for Less



Reliability

Ready to Work
When You Need It

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Customer Service

World-Class Support,
Everywhere, Every Day



Safety

Protecting Your Most
Important Assets



Environment

Mining Responsibly





Productivity



Working Harder and Faster

Powerful and innovative technologies are the essential hallmarks of Liebherr mining dozers. Either while pushing or ripping, the PR 776 is an extremely powerful machine for any application.

High Productivity

Powerful Engine

The Liebherr diesel engine is designed for tough mining and extraction operations, and provides sufficient power to contend with any situation. Different operating modes are available, including maximum power or fuel-saving, depending on the job requirements.

An Intelligent Drive System

The hydrostatic travel drive operates smoothly and automatically adjusts the working speed to the load conditions. The torque is constant on both tracks without interruption. This allows exact and powerful steering. Track slip is minimised and operators can fully concentrate on their job.

Excellent Maneuverability

When working in narrow areas, the hydrostatic travel drive offers an additional benefit. All steering motions – including turning on the spot – are fast and precise. When involved in ripping work, the ripper can be positioned precisely to enable it to apply great power when ripping layers of hard rock.

Best Traction and Lowest Vibration Levels

Pendulum-mounted track rollers and idlers provide good traction and reduce vibration levels on the mining dozer.

Outstanding Grading Attributes

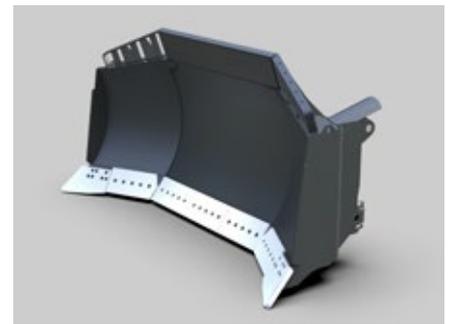
Mining dozers in all size classes must provide maximum versatility. The PR 776 delivers an exceptionally smooth ride, precise blade control and a perfect view on the blade corners. It therefore is able to deliver optimum productivity during heavy-duty pushing operations, when preparing loading platforms for mining excavators and when building and maintaining haul roads.

High Blade Penetration Forces

The blade on the PR 776 is mounted very close to the main frame. This achieves maximum force and assures optimum filling of the blade.

Visible Productivity Benefit

The optional GPS navigation system displays the status of works in progress, as well as the surrounding terrain. This allows the operator to fully focus, achieving maximum productivity.



Intelligent Engine Control

- The electronically controlled power and torque characteristics provide excellent traction and rapid response
- A requirements-driven increase in power ensures sufficient power reserves, even in the most arduous workplace situations
- When reversing on steep terrain, enough engine power is provided to enable the vehicle to achieve high travelling speeds and short cycle times

Liebherr-Hydrostatic Drive

- Infinitely variable travel speeds
- Continuous power flow – no interruption in traction
- Continuous power transmission to both tracks during steering
- Superior manoeuvrability, including turning on the spot
- No gears and constant engine speed
- Zero-wear service brake system with automatically activated parking brake

Application-Optimized Dozer Blade Shape

- Intensive development work and field measurements have produced the dozer blade surface areas and shapes to perfectly suit the basic machine. They provide the best material rolling properties on self-bonding materials as well as high fill levels for dozer blades when pushing heavy masses of rock



Efficiency



Moving More for Less

Liebherr mining dozers are designed with efficiency in mind. Highly efficient drive concept, long service life of components and low maintenance requirements reduce operating costs and increase profits.

Unrivalled Efficiency

State of the Art Engine Technology

The latest generation of Liebherr diesel engines is characterised by an extremely low level of fuel consumption. The consistently, low engine speed in conjunction with Common-Rail fuel injection, leads to optimized cylinder management and very efficient combustion of fuel. This keeps the engine performing at a consistently efficient rate at all times.

Highly Efficient Driveline

The high efficiency rating of the hydrostatic drive across the entire vehicle speed range and the efficient Liebherr diesel engine minimise fuel consumption and ensure that CO₂ emission levels are low.

Efficient Cooling System

Hydrostatic fans and coolers with widely spaced louvre slats deliver optimum cooling power in very dusty work environments. Requirements-based speed adaptation and flow-optimised fan blades result in fuel savings and minimal noise emissions.

Tilting Cab

The standard cab can be tilted, if required, allowing quick and easy access to all components of the hydrostatic travel drive. This saves time and increases machine availability.



Fast Component Replacement

As part of the development work on the PR 776, Liebherr always ensures that all important components can be replaced quickly and easily, and sent in to the Liebherr REMAN programme for reconditioning. For example, the Liebherr travel drives and their oil motors can be dismantled easily from one side when required. In the same way, the folding front section on the chassis provides optimum access to the engine. This makes it possible to remove and reinstall the radiator and the Liebherr diesel engine quickly.

Load Sensing Working Hydraulics

The system always provides the amount of power actually needed by the operating hydraulics. If the equipment is not being actuated, fuel is being saved.

Long Service Intervals

With Liebherr hydraulic fluids, service intervals of up to 6,000 hours can be achieved. If Liebherr Plus oils are used, this extends service intervals to as much as 8,000 hours of operation. Maintenance times are reduced substantially which improves machine availability, respectively the dozer uptime. Liebherr oils reduce fuel consumption by cutting down on the resistance levels of moving parts. These oils also provide high-calibre corrosion protection and optimum compatibility with hydraulic hoses, seals and gaskets.

Eco-Mode

- The standard ECO function enables the driver to choose between high productivity and maximum efficiency. Consequently, during light and medium duty operations the ECO function further improves operational efficiency and saves fuel in the process
- Additional optional functions, such as the auto-idle function or automatic engine shut-down, further contribute to fuel efficiency

Intelligent Cooling System

- Electronically controlled suction fans regulate the operating temperatures of hydraulic fluid and engine. The individual components are maintained within an ideal temperature range at all times. This protects the components and extends their service life. The cooling air is drawn in from clean areas which reduces contamination levels
- Optionally, Liebherr can provide reversible fans for automatic self-cleaning of the radiator in very dusty working environments

Always Informed with LiDAT

- Evaluations of machine utilisation and fuel consumption deliver cost-effective machine management
- Effective fleet management by data transmission and positioning system
- Monitoring of important machine parameters



Reliability



Ready to Work When You Need It

The mining industry imposes very high demands on the productivity and reliability of the machines and vehicles it uses. The PR 776 meets these demands perfectly. Its components were specifically developed for arduous working environments. The same is true of its carefully crafted technology, innovation, and detailed solutions, all of which combine to deliver ultimate levels of operational availability.

Liebherr Driveline

Solutions for Continuous Operation

Robust Engines

Diesel engines from Liebherr have powered machinery around the world for decades. Developed for the harshest operating conditions, the robust build and state-of-the-art technology of these engines ensure optimum operational safety and long service life.

Wear-Free Drive Concept

The hydrostatic Liebherr travel drive does not require any components such as a torque converter, multi-ratio transmission, service brakes or steering couplings. The high-quality hydraulic pumps and motors operate reliably and practically without wear.

Generously Dimensioned Final Drives with Automatic Temperature Monitoring

The durable final drives are extremely robust and have been designed to cope with exceptionally high loads. The double transmission seal with continuous temperature monitoring ensures reliable operation.

Main Frame with a Proven Box-Section Design

The main frame is constructed using a proven box-section design, which provides maximum torsional stiffness and optimal absorption of forces. Cast steel is used for components subjected to high stress.

Optimised Equipment

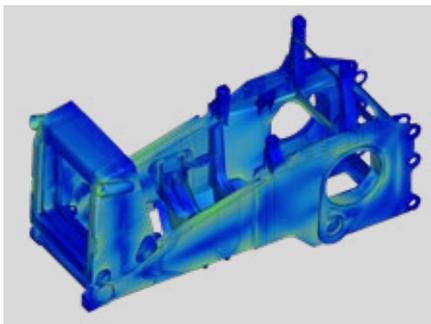
Liebherr blades are manufactured using high-quality steels and are based on a modular design principle. The robust blade mountings provide optimum rigidity and enable the blade to be guided precisely. All rear-mounted ripper variants are designed for heavy-duty mining operations and deliver very high penetration forces. In addition, exposed areas such as bolt connections are protected by appropriate wear protection.

Robust Radiator Version

For work in very dusty environments, reliable and corrosion-resistant radiators are used. The louvre slats on these are spaced widely at 8 mm. These offer optimum protection against dirt and environmental influences.

Options for Arctic and High Altitude Package

For operation at low temperatures and high altitudes, Liebherr can provide a number of proven ex-factory adaptations.



Designed for the Harshest Applications

- Optimised layout: at the development stage components are designed with state-of-the-art software tools
- Extensive test bench runs are the next important step in the development process
- Long-term field tests under rigorous conditions ensure maximum machine availability

Liebherr Component Integration

- Liebherr has decades of experience in developing, designing and manufacturing components and, as a result, offers maximum reliability
- Important key components such as diesel engines, splitter box, hydraulic pumps and -motors, hydraulic cylinders, final drives and electronics are manufactured in our own facilities, optimized for combined operation and representing the highest quality

The Right Configuration for Tough and Abrasive Operations

- The combined overflow panel with rock guard offers optimum protection for the radiator and also gives the driver excellent visibility to the material in the dozer blade
- For very abrasive operations, there is the option of fitting ultra-wear-resistant steel panels to the blade, to the dozer push frame and to the hydraulic tilt and pitch cylinders



Customer Service



World-Class Support, Everywhere, Every Day

Thanks to their minimal maintenance requirements, Liebherr mining dozers make a reliable contribution to your economic success. The extensive network of highly professional Liebherr Service Centres mean that mining customers can obtain assistance rapidly and locally.

Cost-Effective Maintenance

Simple Daily Checks

All items that the operator checks during daily routine inspections are readily accessible on one side of the engine. The hydraulically tilted cab provides easy access to components as well. Service work can be performed quickly and efficiently.

Long Maintenance Intervals

The maintenance intervals are perfectly matched to suit individual components. In exposed areas zero-maintenance bearings are used. Particularly long maintenance intervals for engine oil and hydraulic fluid help reduce costs and increase availability, respectively.

Optimal Planning

Planned Costs

Liebherr mining dozers come with extensive standard warranties for the entire machine and the drive train. Customised inspection and service programs allow optimal planning of all maintenance activities.

Remanufacturing

The Liebherr-Reman Programme provides a cost-effective way of upgrading components to meet the stringent quality standards of the originally manufactured equipment. Various reconditioning levels are available including replacement components and general overhaul or repair. This assures the customer the most economical and highest quality component for the service life of the machine.

The Focus is on the Customer

Professional Advice and Service

Professional advice is a given at Liebherr. Experienced specialists provide guidance for your specific requirements including application-oriented service support, service agreements, value-priced repair alternatives, original parts management, as well as remote data transmission for machine planning and fleet management.

Continuous Dialog with Users

We utilise the expert knowledge and practical experience of our customers to continuously optimise our machines and services – real solutions for real situations.



Easy Access

- All service points are centrally located and easily accessible. Thanks to wide-opening access doors, routine inspection of the machine is easily performed
- Lube points for the equalizer bar are arranged conveniently inside the engine compartment
- The standard lighting inside the engine compartment is a great help for maintenance and servicing work

Hinged Cooling Fan

- In very dusty working environments, the hinged guard makes it a great deal easier to clean the radiator system. The radiator shroud can be lifted up after unfastening just a few screws
- On the PR 776, as a standard feature, the hydraulic oil cooling fans can be opened up for cleaning without the need for tools

Expedited Spare Parts Service

- 24-hour delivery – spare parts service is available for our dealers around the clock
- The electronic spare parts catalogue allows fast and reliable selection and ordering via the Liebherr online portal
- With online tracking the current processing status of your order can be viewed at any time



Safety



Protecting Your Most Important Assets

The Liebherr PR 776 offers an uncompromising safety concept for drivers and for service personnel. Maintenance and service points are readily accessible and this, in conjunction with wide-opening covers, enables maintenance and service work to be carried out rapidly and safely. Moreover, the cab on the PR 776 offers a wide range of safety features.

Highest Safety Standards

Best All-Round Visibility with Integrated ROPS/FOPS Protection

A new feature in this machine class is the ROPS/FOPS protection integrated directly in the cab structure of Liebherr mining dozers. This provides perfect all-round visibility, substantially improving productivity and, even more importantly, improving workplace safety.

Rear-View Camera

The image from the standard reversing camera is integrated directly in the front display and this switches into full-screen mode automatically whenever the dozer is reversing. This offers an optimum level of safety and comfort.

Working Platforms

To make inspection and service work as convenient as possible for maintenance personnel, an optional working platform with handrail can be supplied. Access to components like the air-con unit, oil cooler and electronics is therefore a very safe process.

Lighting for the Access Steps

From ground level, the driver can activate the access steps lighting. This lights up the entire area for the left-hand access steps.

Optional Powered Access Ladder

Enhance safety during shift changes and maintenance schedules by facilitating easy access to the machine's catwalk.

Automatic Parking Brake

When the machine is stationary, the parking brake is activated automatically. This prevents the machine from rolling away. The zero-wear parking brake releases automatically whenever the dozer starts travelling, making operation even more convenient.

Safe Access to the Workplace and the Service Points

Readily accessible and ergonomic handles with non-slip access steps make the driver's cab easy and safe to enter and leave.



Optimum Visibility

- The PR 776 offers optimum visibility to all sides, even with the optional work platform installed. People and obstacles can be detected very well. Especially in mining applications, this feature contributes substantially to enhanced safety
- The containers with sloping edges provide clear visibility of areas close to the machine

Ground-Level Operating Panel

- The operating panel is easy to reach from ground-level, and this makes it possible to activate the cab access step lighting
- It is also a quick and safe operation to speed-fill the fuel tank on this dozer
- The emergency-stop button integrated directly in the control panel can be operated at any time to shut down the entire unit

Modern Lighting Concept

- To provide optimum illumination of the working area, there is a choice of modern lighting, e.g. high-performance LEDs
- The modular lighting concept is part of the new machine design and it makes it possible to match the lighting to each application in an optimum manner



Environment



Mining Responsibly

Liebherr considers the conservation and preservation of the environment as a major challenge for the present and future. Liebherr are considerate of environmental issues in designing, manufacturing and managing machine structures, providing solutions that allow customers to balance performance with environmental consciousness.

Minimized Impact on Life

Optimized Energy Consumption, Fewer Emissions

Constant power regulation of the hydraulic system and engine output optimize equipment fuel efficiency, depending on the application. In "Eco-Mode" setting, the machine is set up to reduce engine load, significantly improve fuel consumption and reduce emissions.

Controlled Emission Rejection

The PR 776 is powered by a high horsepower diesel engine which complies with the US EPA Tier 2 or US EPA Tier 4f/EU Stage V compliant emission limits. This power drive makes the PR 776 cost-effective, without compromising productivity, and reduces the machines impact on the environment.

Sustainable Design and Manufacturing Process

Certified Environment Management Systems

Subject to the stringent European program for the regulation of the use of chemical substances in the manufacturing process REACH*, Liebherr undertakes a global evaluation to minimize the impacts of hazardous material, pollution control, water conservation, energy and environmental campaigns.

Extended Components and Fluids Lifetime

Liebherr is constantly working on ways to extend component life. Through the Exchange Components program, superior lubrication systems and the reinforcement of parts under stress, Liebherr can reduce frequency of part replacement. The result minimizes environmental impact and lowers the overall total cost of ownership.

*REACH is the European Community Regulation on chemicals and their safe use (EC 1907/2006) It deals with the Registration, Evaluation, Authorization and Restriction of Chemical Substances.



The Liebherr-Mining Remanufacturing Program

- Reduced environmental impact
- Second life for your components
- Reduced costs and investment
- Liebherr certified workshops
- Alternative to purchase brand-new replacement components

Eco-Mode

Eco-Mode can be manually selected by the operator when maximum power is not required, dependent upon the job needs:

- Less fuel consumption
- Less load on the engine
- Less noise pollution
- Less dioxide carbon emissions

Automatic Idle Control

Electronic idle control of the engine results in:

- Less fuel consumption
- Less load on the engine
- Reduced emissions
- More comfort to the operator (reduced noise pollution)

Technical Data



Engine

Liebherr Diesel engine	D 9512 A7 Emission regulations according to 97/68/EC, 2004/26/EG Stage V, EPA/CARB Tier 4f or Tier 2
Rated power (net) ISO 9249 FDW/REV SAE J1349 FDW/REV	440/565 kW / 598/768 HP 440/565 kW / 590/757 HP
Maximum power (net) ISO 9249 FDW/REV SAE J1349 FDW/REV	506/565 kW / 687/768 HP 506/565 kW / 678/757 HP
Rated speed	1,600 rpm
Displacement	24.2 l / 1,477 in ³
Design	12 cylinder V-engine, water-cooled, turbo-charged, air-to-air intercooler
Air cleaner	Dry-type air cleaner with pre-cleaner, main and safety elements, control light in the operator's cab
Cooling system	Combi radiator, comprising a radiator for coolant and charge air. Hydrostatic fan drive
Injection system	Direct fuel injection, Common Rail, electronic control
Lubrication	Pressurised lube system, engine lubrication guaranteed for inclinations up to 35° (lateral slope) and up to 45° (longitudinal slope)
Electrical system	
Operating voltage	24 V
Alternator	24 V / 140 A
Starter	24 V / 2 x 8.4 kW / 11 HP
Batteries	4 x 180 Ah / 12 V



Hydraulics

Hydraulic system	Load sensing (demand-controlled)
Pump type	Swash plate piston pump
Max. Pump flow	352 l/min. / 92.9 gpm
Max. Pressure	260 bar / 3,770 psi
Control valve	4 segments, expandable
Filter system	Return filter with magnetic rod in the hydraulic tank
Control	Single joystick for all blade functions Single joystick for all ripper functions



Travel Drive

Transmission system	Infinitely variable hydrostatic travel drive, independent closed loop system for each track
Travel speed max. speed FWD max. speed REV	Continuously variable 10.5 km/h 10.5 km/h
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	Two separate hydraulic oil coolers, hydrostatic fan drives
Filter system	Micro cartridge filters in replenishing circuit
Final drive	Combination spur gear with planetary gear, double-sealed (duo cone seals), temperature controlled
Control	Single joystick for all travel and steering functions



Operator's Cab

Design	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 and heated comfort seat, fully adjustable
Monitoring	Touch screen: display of current machine information, automatic monitoring of operating conditions. Individual setting of machine parameters
Display	Color LCD-display with low and high brightness settings
Vision system	Camera installation on the back of the dozer, displayed over the LCD-display
Heating system/ Air conditioning	Standard air conditioning, combined cooler/heater, additional dust filter in fresh air/recirculated



Undercarriage

Design	Undercarriage with oscillating idlers and rollers
Mounting	Via separate pivot shafts and equalizer bar
Track chains	Lubricated, single-grouser track shoes, tensioning via a steel spring and grease tensioner
Links, each side	44
Track rollers, each side	8
Sprocket segments, each side	5
Track shoes	610 mm / 24"
Track shoe type	SESS (Super Extrem Service Shoes)



Electric System

Electric isolation	Lockable battery isolator switch
Working lights	<ul style="list-style-type: none"> - 4 on the lifting cylinders (LED) - 4 on the cabin front (LED) - 2 on the rear console (LED) - 1 in the engine compartment
Emergency stop switches	In the cab and on the ripper



Sound Levels

Operator sound exposure ISO 6396	
L _{pA} (in the cab)	76 dB(A)
Exterior sound pressure 2000/14/EC	
L _{WA} (to the environment)	116 dB(A)



Refill Capacities

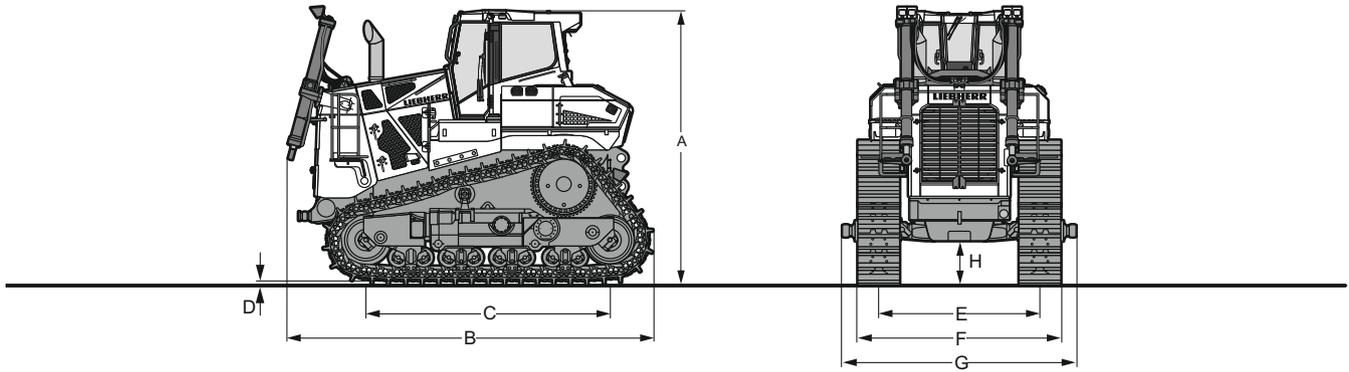
Fuel tank	1,224 l / 323.3 gal
Diesel Exhaust Fluid (DEF) tank	132 l / 34.9 gal
Cooling system	110 l / 29 gal
Engine oil with filter	93 l / 24.6 gal
Splitter box	16 l / 4.2 gal
Hydraulic tank	320 l / 84.5 gal
Final drive, each side	43 l / 11.4 gal



Drawbar Pull

Max.	955 kN
at 1.5 km/h / 0.9 mph	842 kN
at 3.0 km/h / 1.9 mph	452 kN
at 6.0 km/h / 3.7 mph	226 kN
at 9.0 km/h / 5.6 mph	151 kN

Dimensions

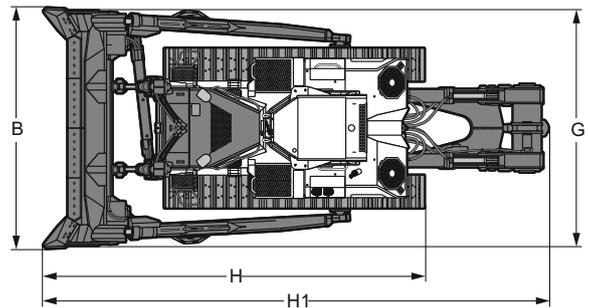
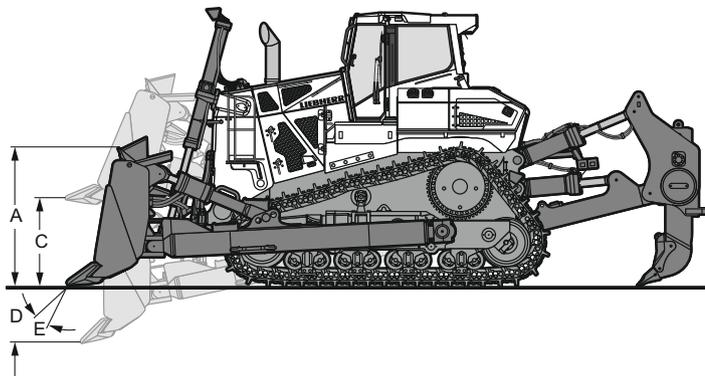


Dimensions

A	Height over cab	mm	4,350
		ft in	14'3"
B	Overall length without attachments	mm	5,770
		ft in	18'11"
C	Length of track on ground	mm	3,867
		ft in	12'8"
D	Height of grousers	mm	93
		in	3.6"
H	Ground clearance	mm	703
		ft in	2'4"
E	Track gauge	mm	2,550
		ft in	8'4"
G	Width over trunnions	mm	3,715
		ft in	12'2"
F	Track shoes 610 mm / 24"		
	Width over tracks	mm / ft in	3,160 / 10'4"
	Tractor shipping weight ¹⁾	kg / lb	53,100 / 117,065
F	Track shoes 710 mm / 28"		
	Width over tracks	mm / ft in	3,260 / 10'8"
	Tractor shipping weight ¹⁾	kg / lb	53,744 / 118,485
F	Track shoes 762 mm / 30"		
	Width over tracks	mm / ft in	3,310 / 10'10"
	Tractor shipping weight ¹⁾	kg / lb	54,066 / 119,195

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

Front Attachments



Semi U-Blade

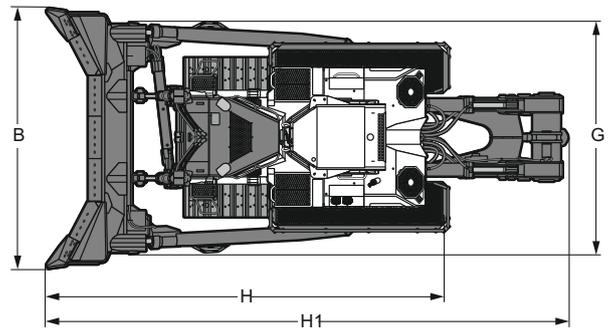
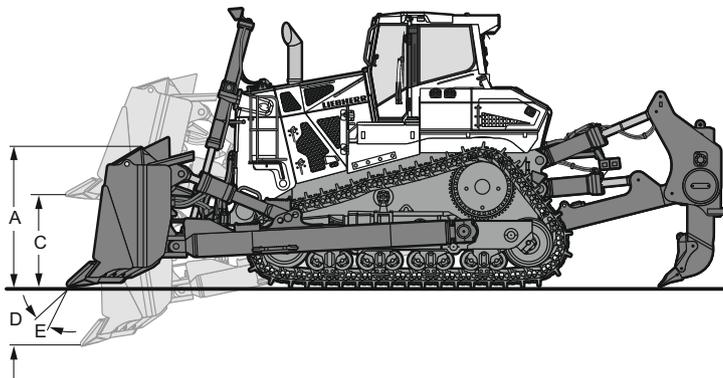
	Blade capacity, ISO 9246	m³	18.5
		yd³	24.2
A	Height of blade	mm	2,125
		ft in	7'
B	Width of blade	mm	4,830
		ft in	15'10"
C	Lifting height¹⁾	mm	1,565
		ft in	5'2"
D	Digging depth²⁾	mm	670
		ft in	2'2"
E	Blade pitch adjustment		11°
	Max. blade tilt	mm	1,245
		ft in	4'1"
G	Width over push frame	mm	4,674
		ft in	15'4"
H	Overall length, without ripper	mm	7,625
		ft in	25'
H1	Overall length, with ripper in max. extended position	mm	10,094
		ft in	33'1"
	Track shoes 610 mm / 24"		
	Operating weight ³⁾	kg / lb	71,800 / 158,292
	Ground pressure ³⁾	kg/cm² / psi	1.52 / 21.61
	Track shoes 710 mm / 28"		
	Operating weight ³⁾	kg / lb	72,444 / 159,711
	Ground pressure ³⁾	kg/cm² / psi	1.32 / 18.77
	Track shoes 762 mm / 30"		
	Operating weight ³⁾	kg / lb	72,766 / 160,421
	Ground pressure ³⁾	kg/cm² / psi	1.24 / 17.63

¹⁾ With fully retracted tilt/pitch cylinders, the mechanical pitch adjustment bolted in the rear position and including the grouser height, the lifting height is 1,863 mm (6'1").

²⁾ With mechanical pitch adjustment bolted in the rear position and including the grouser height, the digging depth is 501 mm (19.7").

³⁾ Including coolant and lubricants, 100% fuel, ROPS/FOPS cab, operator, Semi U-blade with 1-shank ripper.

Front Attachments



U-Blade

	Blade capacity, ISO 9246	m³	22.0
		yd³	28.77
A	Height of blade	mm	2,125
		ft in	7'
B	Width of blade	mm	5,270
		ft in	17'3"
C	Lifting height¹⁾	mm	1,565
		ft in	5'2"
D	Digging depth²⁾	mm	670
		ft in	2'2"
E	Blade pitch adjustment		11°
	Max. blade tilt	mm	1,360
		ft in	4'6"
G	Width over push frame	mm	4,674
		ft in	15'4"
H	Overall length, without ripper	mm	7,971
		ft in	26'2"
H1	Overall length, with ripper in max. extended position	mm	10,440
		ft in	34'3"
	Track shoes 610 mm / 24"		
	Operating weight ³⁾	kg / lb	72,223 / 159,224
	Ground pressure ³⁾	kg/cm² / psi	1.53 / 21.76
	Track shoes 710 mm / 28"		
	Operating weight ³⁾	kg / lb	72,867 / 160,644
	Ground pressure ³⁾	kg/cm² / psi	1.32 / 18.77
	Track shoes 762 mm / 30"		
	Operating weight ³⁾	kg / lb	73,189 / 161,354
	Ground pressure ³⁾	kg/cm² / psi	1.24 / 17.63

¹⁾ With fully retracted tilt/pitch cylinders, the mechanical pitch adjustment bolted in the rear position and including the grouser height, the lifting height is 1,863 mm (6'1").

²⁾ With mechanical pitch adjustment bolted in the rear position and including the grouser height, the digging depth is 501 mm (19.7").

³⁾ Including coolant and lubricants, 100% fuel, ROPS/FOPS cab, operator, U-blade with 1-shank ripper.

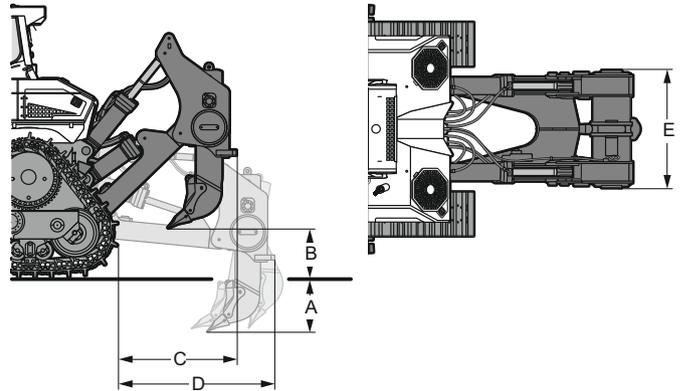
Rear Attachments



1-Shank Ripper

Parallelogram		hydraulic pitch adjustment	
		standard shank	deep shank*
A Ripping depth (max./min.)	mm	1,445/705	1,895/705
	ft in	4'9"/2'4"	6'3"/2'4"
B Lifting height (max./min.)	mm	958/218	959/364
	ft in	3'2"/9"	3'2"/1'2"
C Additional length, attachment raised	mm	1,949	1,949
	ft in	6'5"	6'5"
D Additional length, attachment lowered	mm	2,529	2,529
	ft in	8'4"	8'4"
E Overall beam width	mm	1,760	1,760
	ft in	5'9"	5'9"
Max. pitch adjustment		30°	30°
Max. penetration force	kN	237	237
	lbf	53,280	53,280
Max. pryout force	kN	441	441
	lbf	99,141	99,141
Weight	kg	7,194	7,333
	lb	15,860	16,166

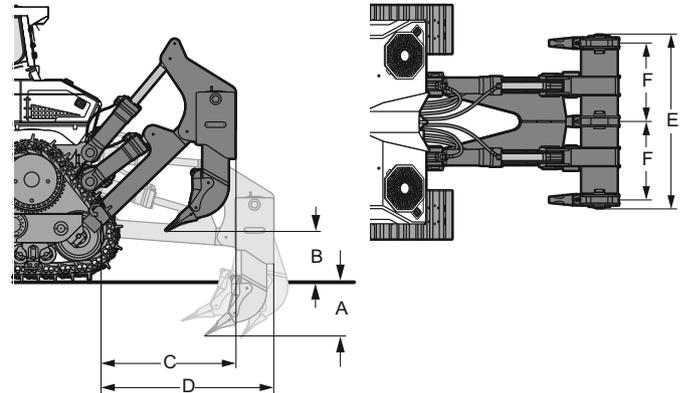
* Best performance to operate in loose material – deep shanks are designed for light and moderate duty



3-Shank Ripper

Parallelogram		hydraulic pitch adjustment	
		standard shanks	deep shanks*
A Ripping depth (max./min.)	mm	900/650	1,896/706
	ft in	2'11"/2'2"	6'3"/2'4"
B Lifting height (max./min.)	mm	1,014/764	958/164
	ft in	3'4"/2'6"	3'2"/6"
C Additional length, attachment raised	mm	1,904	1,904
	ft in	6'3"	6'3"
D Additional length, attachment lowered	mm	2,484	2,484
	ft in	8'2"	8'2"
E Overall beam width	mm	2,970	2,970
	ft in	9'9"	9'9"
F Distance between shanks	mm	1,300	1,300
	ft in	4'3"	4'3"
Max. pitch adjustment		30°	30°
Max. penetration force	kN	219	219
	lbf	49,233	49,233
Max. pryout force	kN	441	441
	lbf	99,141	99,141
Weight	kg	9,430	10,290
	lb	20,790	22,686

* Best performance to operate in loose material – deep shanks are designed for light and moderate duty



Standard Equipment



Base Machine

Air filter, dry type, dual step with cyclones (pre-filter)
Aluminium water and oil radiators wide-meshed
Automatic dust ejector
Battery compartment
Cooling fan with safety guard
Ecology drains (engine-, splitter box-, hydraulic oil)
Engine compartment doors
Fluid sampling ports (engine-, splitter box-, hydraulic oil)
Fuel pre-filter, with electric heater and water separator
Heavy duty steps and handles
Hinged coolant radiator fan
Hinged heavy duty belly pan
Hinged hydraulic oil radiator fans
Hinged radiator safety guard (water cooler)
Hydraulically driven cooling fans
LiDAT – Liebherr Data transmission system
Liebherr diesel engine
Thermal shields for turbo chargers
Towing hitch (rear)
Towing lug (front)
Vandalism protection (7 padlocks)



Hydraulic

Control blocks (two)
Filters in replenishing circuits
Float position blade
Hydraulic kit for ripper
Quick drop function blade
Return filter in hydraulic tank
Variable flow pump, load-sensing



Travel Drive

Automatic parking brake
Filters in leak oil return circuits
Final drives planetary gear
Hydrostatic travel drive
Inch brake pedal
Proportional travel drive joystick
Travel speed ranges selection



Electrical System

Cold start batteries
Emergency stop on the ripper
Ground level service station (entrance light)
Horn
LED working lights
Light engine compartment
Lockable battery main switch



Operator's Cab

Air-conditioning
Armrests 3D adjustable
Cab heating
Coat hook
Diagnostic connector
Dome light
Emergency stop switch
Entry lights
Footrest on the right side of the front console
Longitudinally adjustable joysticks
Operator awareness (seat contact switch)
Operator's seat Comfort, air-suspended and heated
Pressurised cab
Radio preparation kit
Rear mirror (inside)
Rear view camera
ROPS / FOPS integrated
Safety switch
Seat belt
Socket 12 V
Stowage compartment, air-conditioned
Tinted safety glass
Touch-controlled colour display
Windshield washer system
Windshield wipers front, rear, doors, with intermittent function



Undercarriage

Bolted sprocket segments
Heavy duty track shoes (Super Extreme Service Shoes)
Hydraulic track adjuster
Oil-lubricated PPR tracks
Rollers and idlers, lifetime lubricated
Track guide
Two-piece master link
Undercarriage with oscillating idlers and rollers (bogie suspension)



Front Attachments

Rock guard with overflow panel on Semi U-blade
Rock guard with overflow panel on U-blade



Control and Warning Lights

Air filter contamination
Battery charge
Date and time
Diesel engine
Diesel engine preheating
Diesel engine speed
ECO-Mode
Engine coolant temperature
Float position blade
Fuel level
Fuel water separator
Hour meter
Hydraulic oil return filter contamination
Hydraulic oil temperature
Parking brake
Pump replenishing pressure
Travel drive oil temperature
Travel speed ranges

Standard equipment may vary. Consult your Liebherr dealer for details.

Optional Equipment



Base Machine

- Working platforms with handrail
- Extended tool kit
- Fuel pre-filter, with electric heater and water separator (metal bowl)
- GPS Grade control ready kit¹⁾
- Handrail without working platforms
- Hour meter in engine compartment
- Maritime transport packaging
- Powered access ladder
- Powered centralized lubrication system
- Quick change for engine, hydraulic and splitter box oil
- Quick refuelling
- Reversible cooling fan
- Special colour scheme
- Thermal isolation for engine turbo charger and exhaust gas pipes



Travel Drive

- Detented travel drive joystick



Operator's Cab

- Fire extinguisher in the cab
- Operator's seat Premium, air-suspended, heated and ventilated
- Operator's seat Premium with 3-point belt system
- Radio
- Rear mirror left and right on cab, outside
- Sliding window left
- Sliding window rear
- Sliding window right
- Sunblind, all around



Electrical System

- Amber beacon
- Back-up alarm
- Back-up alarm (acoustic and visual, switchable)
- Back-up alarm (switchable)
- Emergency stops on engine hood (left and right)
- "High Density" (4,200 lm) LED working lights
- Jump start plug 24 V
- Lockable starter isolator switch
- One (1) additional LED working light on the ripper
- Two (2) additional LED working lights on the rear of the cab



Undercarriage

- Carrier rollers
- Sprocket segments with recesses
- 710 mm (28") track shoes
- 762 mm (30") track shoes
- Track shoes with mud holes



Front Attachments

- Hydraulic pitch adjustment (dual tilt)
- Protection for blade pitch cylinder
- Protection for blade tilt cylinder
- Push plate for Semi U-blade
- Wear plates on push frame (580 kg / 1,279 lb)
- Wear plates on Semi U-blade (920 kg / 2,028 lb)
- Wear plates on U-blade (680 kg / 1,499 lb)
- 18.5 m³ Semi U-blade
- 22.0 m³ U-blade
- 46.0 m³ Coal U-blade



Rear Attachments

- 1-Shank Ripper (standard or deep shank)
- 3-Shank Ripper (standard or deep shank)
- Counterweight (7,000 kg / 15,432 lb)
- Hydraulic pin puller for 1-shank ripper



Control and Warning Lights

- Auto Idle
- Automatic engine shut-down
- Coolant level
- Engine after run
- Hydraulic oil level
- Preparation tilt switch 35 degrees
- Reversible fan



Specific Solutions

- Arctic package (-30 °C / -22 °F, -40 °C / -40 °F)
- Coal stockpiling equipment package
- High altitude package > 2500 m

¹⁾ on demand at your dealer

