

LIUGONG

LD20D CRAWLER DOZER

COMPREHENSIVE MINING SOLUTIONS



TOUGH WORLD. TOUGH EQUIPMENT.

PERFORMANCE

- hpCRDi - Charge Air Cooled Engine - **Best in Class Torque**
- Industry leading Operating Weight - **High Drawbar Pull**
- Largest in class track length and track gauge - **High Stability**
- Powerful Hydraulic System - **Faster Cycle time**
- Large Standard Blade of 4.5 cum - **Push More Per Pass**

EFFICIENCY

- LSCHT QSL 9.3 Engine - **Best in Class Fuel Efficiency**
- Powershift Modular Powertrain - **Efficient Power Distribution**
- Hydraulic Torque Converter - **Less Energy Losses**
- Precise Powertrain matching - **Efficient Power Utilization.**
- Multiple Operation Mode - **ECO/POWER**

RELIABILITY

- Inhouse Produced Complete Powertrain - **Complete Ownership**
- Integrated Rugged Semi casted Main Frame - **Everlasting**
- Extreme Duty Undercarriage - **Extreme**
- Pivot Chassis - **No Stress on Drive**

COMFORT

- Highly Sealed Pressurized All Weather AC Cabin.
- Best in Class Operator station Noise Insulation <83DB
- 290° Panoramic visibility.

MAXIMUM UPTIME

- Gull Wing Opening Service Doors.
- Remotely Accessible Service Points.
- Smart Display Monitor with Diagnostic info.
- LiuGong iLink - Stay Connected.



HIGH OUTPUT

+



HIGH UPTIME

+



LOW TCO

=



HIGH ROI

HIGH PRODUCTIVITY

WORKING HARDER AND FASTER

LiuGong minig dozers rip, push, stockpile, clear and reclaim in mines all around the globe. LD20D with its productive genes (Power, Torque, Operating weight and Intelligent Driveline) is the most productive Dozer in its segment, which enhances the productivity of whole mining fleet and operations.



BEST IN CLASS PERFORMANCE

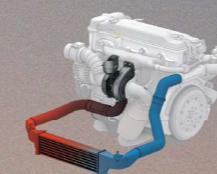
Power and innovative technology are essentially the key factors behind LD20D's High Performance. Be it heavy-duty ripping, pushing, stockpiling, clearing or reclaiming, LD20D is an extremely powerful machine for any application.

LET'S PROVE

Powerful Engine : Cummins QSL9.3

Intelligent Engine control

- Electronically Controlled Power and Torque characteristics provide excellent traction and rapid response.
- Requirements-driven increase in power ensures sufficient power reserves, even in extreme working conditions.
- When reversing on steep terrain, enough engine power is provided to enable the vehicle to achieve high speeds and short cycle times.



Turbocharged - Intercooled



HPCRDI

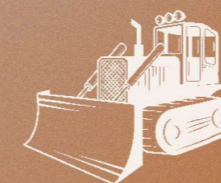


High Torque and Power



Best in Class Traction

- Segment leading operating weight, track length and track gauge which results in high traction force and stability.



High Traction
FORCE

High Blade Penetration Force

- Large Standard Blade of 4.5 cum. Fast Response and better Cycle time along with best surface finish



High Penetration
FORCE

Powershift Modular Powertrain

- Automatic Gear Shifting according to the load and speed.
- Preset Gear Shifting to avoid frequent gear change

Excellent Maneuverability

- All steering motions – including turning on the spot – are fast and precise.
- Precise Positioning of rear ripper for getting maximum power while harsh Ripping.

- hpCRDi - Charge Air Cooled Engine - **Best in Class Torque**
- Industry leading Operating Weight - **High Drawbar Pull**
- Largest in class track length and track gauge - **High Stability**
- Powerful Hydraulic System - **Faster Cycle time**
- Large Standard Blade of 4.7 cum - **Push More Per Pass**



**PRODUCTIVITY
IMPROVED BY
20%**

HIGH EFFICIENCY MOVING MORE FOR LESS

A Dozer is called as efficient when it is able to push more material with lesser fuel consumption, its long-term value lies in its ability to move the maximum amount of material in the most efficient way.



Talking of fuel consumption, the new LD20D uses less fuel but now comes with an increased fuel-carrying capacity. The new 420L fuel tank means that not only will you use less fuel, but you will also spend less downtime refuelling. That really is a double win.



**REDUCE FUEL
CONSUMPTION BY
15-20%**



HIGHLY EFFICIENT LD20D

LiuGong Dozers are designed from the ground up with economy in mind. LD20D's fuel efficiency, low maintenance requirements reduces the TCO (Total Operating Costs) and increases the profitability.

LET'S PROVE

FUEL EFFICIENT ENGINE

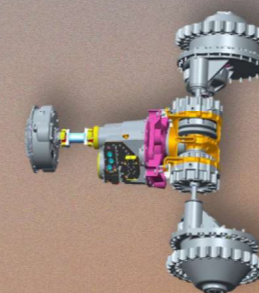


LSCHT and hpCRDi

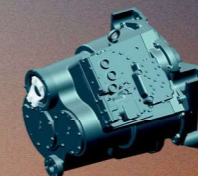
Specially designed for Construction and mining equipment, Cummins QSL9.3 is characterised by an extremely low level of fuel consumption. The constant, low engine speed in combination with Common-Rail fuel injection leads to optimised cylinder management and very efficient combustion of fuel. This enables the engine to work with a very high level of efficiency at all times.

PRECISE MATCHING OF POWERTRAIN

ADVANCE MODULAR POWERTRAIN

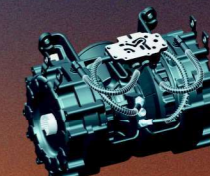


TRANSMISSION



- Powershift Transmission
- Auto Gearshifting

STEERING DRIVE



FINAL DRIVE



- Efficient Hydraulic Torque Converter
- Precise Matched Powertrain

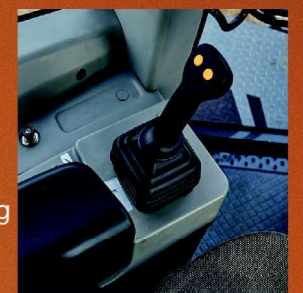
TWO POWER MODES

- Power mode can be used when the maximum productivity is desired from the machine.
- Economy Mode can actually help reduce fuel consumption.



FINGER TIP CONTROL

One-button gear shifting gives the operator the choice of 2 power modes with the ability to customise gear shifting to match the working conditions.



BLADE CONTROL

Blade control is essential. From a rough cut to the final grade, our sophisticated load-sensing hydraulics keep the operator connected, moving more material and reducing cycle times.

HIGH RELIABILITY

READY TO WORK WHEN YOU NEED IT

Reliable Components to achieve precise controlling of work, with extra reinforced structures, manufactured in house with advanced robotic manufacturing, to take on the challenge of extreme duty applications.



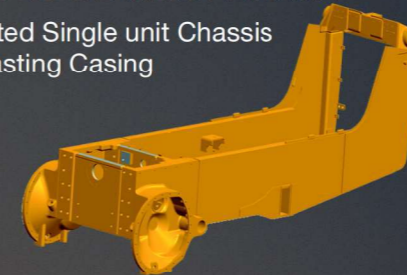
RELIABLE LD20D

The use of thick, high-tensile strengthened, stress-relieved steel plates, makes the structures on E-series excavators, extra strong & reliable.

LET'S PROVE IT

• ONE-PIECE MAIN FRAME

Integrated Single unit Chassis with Casting Casing



Tough, one-piece main frame enhances strength and stability whatever the working conditions is.

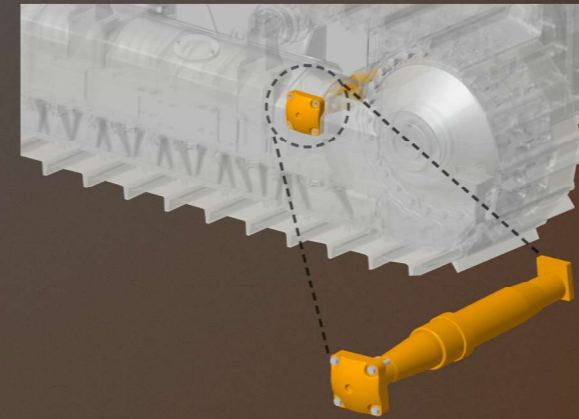
• HEAVY DUTY ROLLERS



Heavy Duty track rollers and idlers provide good traction and also reduce vibration levels.

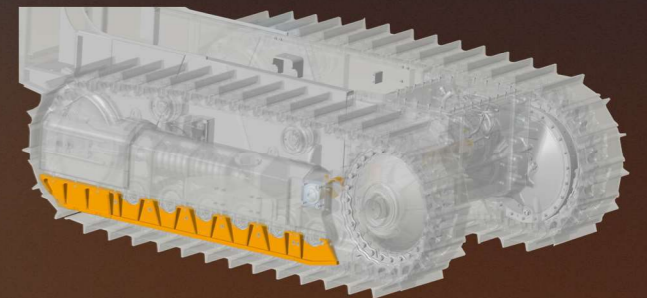
• PIVOT CHASSIS

LD20D Comes with Pivot Chassis, More Stable and Reliable



• FULL TRACK GUARDS

Full Length Track guard is given which keeps the track in place and gives it a perfect stability.



EXTREME DUTY UNDERCARRIAGE

- Undercarriage has been designed to meet the toughest challenges.
- The pivot structure greatly enhances the driving experience for the operator, increasing mobility and ensuring a smooth, high traction ride whatever the surface is.

PERFECTLY BALANCED

- We ensure that the working loads from the blade and rear mounted attachments are evenly distributed through the frame and undercarriage to ensure greater stability and traction.



OUTSTANDING COMFORT

JUST LIKE HOME

The cab design is optimally adapted to the operator's day-to-day requirements. The roomy and ergonomic operator's cab offers the perfect conditions for fatigue-free, focused work to optimise productivity.



ERGONOMICALLY DESIGNED CAB

Of course you want your operators to be more productive, so providing them a comfortable and spacious cabin which further increases the performance of the Machine is a great option. From ergonomically designed cab of LD20D with fully customizable controls to expansive visibility in all directions, these standard-setting dozers are loaded with productivity boosters to keep your operators comfortably productive.

LET'S PROVE



A SAFER CAB

- Cab's Spacious interior is protected by ROPS and FOPS
- It's a clearer cab with a 10% overall improvement in visibility
- Special attention has been given to removing the 290 degree blind spot behind the driving position.

A QUIETER CAB

- We have Reduced in-cab noise by 10%.
- We've reduced vibrations and improved the operator's seat for more comfort.

A SMARTER CAB

- Controls are intelligently positioned for operator's ease and convenience
- A multi-functional display screen delivers real-time information to the operator.

A COOLER CAB

- Airflow and temperature control has been enhanced.
- Rear integrated air conditioning and a fully pressurised cab helps an operator to give his Best during operations.



MAINTAINABILITY

SERVICE : IF EASY, IT GETS DONE

LD20D offers exceptional accessibility for maintenance. All points requiring day-to-day maintenance can be reached comfortably, safely and cleanly from ground level which saves time and after all increases production.



MAXIMUM UPTIME - LET'S PROVE



LiuGong machines are designed with serviceability in mind. Advanced Modular Powertrain, easy access to regular service points and features that enable quicker diagnostics all add up to less maintenance time and more time on the job that means Maximum Uptime.



MAINTENANCE AND SUPPORT PACKAGES

From genuine LiuGong parts, LiuGong has the flexibility to offer the level of support and response to suit your business and applications. Whatever level of support you choose you can be confident that it is backed up by LiuGong's service promise.



**“ONE-STOP”
MAINTENANCE
CONCEPT**

SPECIFICATIONS

OPERATING WEIGHT

Base weight with straight blade, standard equipment, cab, full fuel tank, all fluids at required level and a 75 kg operator.

LD20D	19,000 kg
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ENGINE

Description

Cummins Stage III, 6-cylinder straight, turbocharged, high pressure common rail, electronically controlled direct injection engine with dual curve control.

Three work modes: Standard/Economy/Heavy duty. Increased work efficiency by 25-30%.

Model	Cummins QSL9.3
Emission standard	EPA Tier 3/EU Stage III
Displacement	9.3 L
Number of Cylinder	6
Rated power	206 hp (154 kW)@ 2,000 rpm
Rated speed	2,000 rpm
Max. torque	1,000 N · m @ 1,200 rpm
Air cleaner	Cummins filtration direct flow, dry type, with dash-mounted electronic service indicator.
Aspiration	EFI turbocharged, 4-stroke, air-to-air intercooled

ELECTRICAL SYSTEM

Voltage	24 V
Battery Capacity	120 Ah
Starter Motor Output	5.4 kW

SOUND & ENVIRONMENT

Outdoor	112 dB (A)
Indoor	85 dB (A)
Air Conditioning	4 kW
Heating Capacity	5 kW

CAB

Description

Instrumentation: All important information is centrally located in the central instrument panel and operator's field of vision.

Pressurized cab with 10% lower interior noise. 4 point silicone oil shock absorption.

The cab is tested and approved according to ROPS (ISO3471) and FOPS (ISO 3449).

UNDERCARRIAGE

Suspension

Oscillation-type with equalizer bar and forward-mounted pivot shafts.

Tracks

Large deep-heat-treated, sealed, and lubricated track links and through-hardened, sealed, and lubricated rollers for maximum wear resistance.

Track gauge	2,300 mm
Track shoe width	560 mm
Chain	Sealed and lubricated
Shoes, each side	42
Track rollers, each side	7
Track length on ground	3,000 mm
Track tension adjustment	Grease

HYDRAULIC SYSTEM

Description

Tandem gear pumps for both work hydraulics-blade lifting/tilting, and drive train control. Use of pilot control joysticks for work and travel systems improve the work efficiency and driving experience.

Main Pump Type	Gear
Main Relief Pressure	17.5±0.5 MPa
Control Valve Flow	178 L/min

POWERTRAIN

Transmission

Single-stage single-phase torque converter drives to transmission. Counter-shaft type power shift transmission with multi-plate clutch, hydraulic engaging. Pre-set travel speed selection according to job applications. Joystick controls for up and down-shifting.

Steering

Geared steering module provides gradual turns while maintaining full power to both tracks plus conventional clutch-brake performance for tight or pivot turns.

Final drive

Double-reduction planetary-type final drives mounted independently of track frames and dozer push frames for isolation from shock loads.

Maximum drawbar	210 kN
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Travel speed

	Forward	Reverse
1st	3.6 km/h	4.3 km/h
2nd	6.6 km/h	7.8 km/h
3rd	10.6 km/h	12.6 km/h

Brakes

Spring applied hydraulically released multi-disc wet brakes.

SERVICE REFILL CAPACITIES

Fuel Tank	420 L
Engine Oil	24 L
Cooling System	45 L
Hydraulic Reservoir	100 L
Transmission and Torque Converter	110 L
Final Drive, Each	45 L

DIMENSIONS

A	Overall height – end of exhaust pipe	3,372 mm
A1	Overall height – ROPS	3,060 mm
B	Spines height	110 mm
C	Ground clearance	400 mm
D	Overall length, base machine	4,270 mm
D1	Length with blade and drawbar	5,535 mm
E	Track length on ground	3,000 mm
F	Width over track	2,860 mm
G	Track gauge	2,300 mm
	Shoe width	560 mm

BLADE SPEC

Type	Straight
Blade capacity (referenced)	4.5 m ³
H Blade height	1,130 mm
I Blade width	3,422 mm
Blade lift height	1,100 mm
Blade angle, left	6.8°
Blade digging depth	510 mm
Minimum blade pitch adjustment	13°
Blade tilt	445 mm
Lift Speed	0.5 m/s

DIMENSIONS

