

Engine

Cummins QSL 9.3

Net Power

139 kW @ 1,850 rpm

Operating Weight

17,500/19,500 kg

Blade Capacity Range

4.5 – 10.4 m³

B170D

BULLDOZER



TOUGH WORLD. TOUGH EQUIPMENT.

TOUGH WORLD. TOUGH EQUIPMENT.

The construction world is your reality, you live it every day and you know how hard it can be to make your business pay. Rising costs, increasing legislation and greater competition all combine to put the pressure on. We understand and we've put that understanding into action with a bulldozer that is inspired by you.

THE NEW B170D NO TOUGH COMPROMISES, JUST EVERYTHING YOU NEED AND NOTHING YOU DON'T

The construction equipment industry has seen an expensive trend towards over-engineered products. Some manufacturers genuinely believe that adding costs adds perceived value in customers' eyes.

BUT YOU TOLD US A DIFFERENT STORY

You asked for a powerful yet sensitive bulldozer with the ability to deliver industry-leading performance, control and operator comfort.

YOU WANTED A HARD WORKING BULLDOZER THAT DELIVERS ON 4 ESSENTIAL NEEDS

- 1



EFFICIENT POWER
- 2



SENSITIVE CONTROL
- 3



ENHANCED OPERATOR ENVIRONMENT
- 4



SIMPLE & COST-EFFECTIVE MAINTENANCE



With the new B170D, we've risen to your challenge and given you everything you want – without compromise.

TOUGH TALK? Judge for yourself.

DESIGN IN ACTION

Take a walk around the new B170D and you can see that it has been designed to perfectly match your needs. **It's a tough machine, inspired by you.**

1 FUEL EFFICIENT

- Cummins QSL 9.3 engine provides a rated power output of 139 kW.
- Low emission certified
- Three work modes: Power, Standard and Economy reduce fuel consumption by 20–25%

2 PREVENTATIVE MAINTENANCE

- "One stop" maintenance concept for engine, hydraulics and electrical systems
- Modular power train design
- Grouped oil pressure checking points

3 SENSITIVE CONTROL

- Finger tip control with one button gear shifting and 3 performance pre-sets
- Pilot control joysticks

4 MODULAR DRIVETRAIN

- Sets new standards for operational performance
- Improves reliability
- Easy maintenance

5 HEAVY DUTY UNDERCARRIAGE

- The low-drive, long-track undercarriage delivers improved balance and stability
- Tough undercarriage components are designed for extended wear in tough terrain
- One-piece main frame

6 TRACK SHOES

- A wide range of track shoe options helps perfectly match our bulldozers to all types of ground conditions

7 HIGH VISIBILITY CAB

- Spacious pressurised cab
- 10% reduction in cab noise
- 10% overall improvement in visibility

8 LARGE BLADE CAPACITY

- 4.5 m³ Straight blade
- 10.4 m³ R blade
- 5.0 m³ U blade.



WE START WITH POWER, THEN GO BEYOND

Professional bulldozer operators know that power is only the start. They also want efficiency, control, refinement and sensitivity. **We've listened and we've delivered.**

EFFICIENT POWER

Pushing power is important and the new B170D delivers an impressive 139kW through its Cummins QSL9.3 engine and modularised transmission. We make it easy for operators to harness that power with three selectable working modes:

POWER, STANDARD & ECONOMY.



3 WORK MODES

POWER MODE gives the operator maximum but controllable performance. In fact, detailed test analysis conducted under tough operating conditions consistently recorded productivity improvements.

 **25-30%** improvement in productivity

STANDARD MODE provides day-to-day operational efficiency, but we have gone even further to deliver efficient power.

ECONOMY MODE can actually help reduce fuel consumption.

 **20-25%** reduction in fuel consumption

MODULAR DRIVELINE PERFORMANCE

The modular design of the B170D's driveline sets new standards for operating performance and reliability and gives operators real confidence that the machines won't let them down.

In tests, each driveline component achieved:

 **4,000hrs** operation with zero failures

 **15,000hrs** achieved by combined driveline with zero failures

TRANSMISSION



STEERING DRIVE



FINAL DRIVE



Talking of fuel consumption, the new B170D 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 20-25%

ON TOUGH TERRAIN, WE KEEP YOU MOVING

With the new B170D we give you a choice of “Standard” and “Wetland” machines, both perfectly matched for the toughest environments where operational performance really matters.

MODULAR CONSTRUCTION

Access to all key components is simple allowing quick and easy servicing keeping downtime to the minimum. In addition, our pin free equalizer bars are completely maintenance free.

STRENGTH AND STABILITY

From road construction, mining and forestry through to shifting marshlands, our machines set the benchmark for stability and operational performance.

We only build tough equipment so our undercarriage has been designed to meet the toughest challenges. Its rugged design provides the operator with the stability and support he needs to perform.

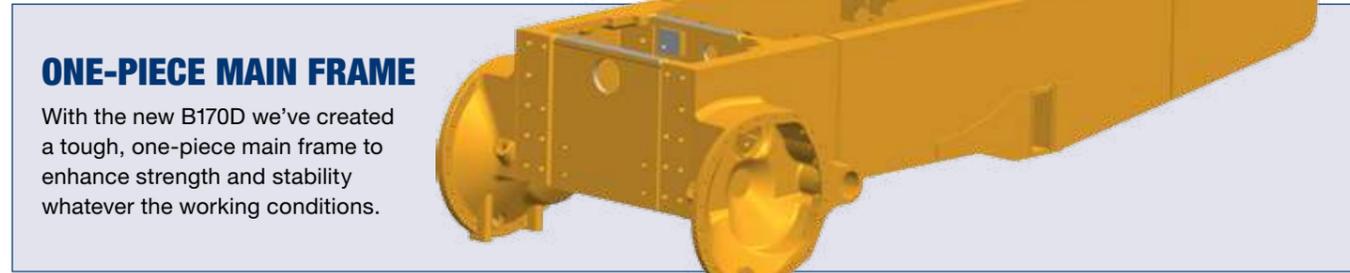
The pivot structure greatly enhances the driving experience for the operator, increasing mobility and ensuring a smooth, high traction ride whatever the surface.

LOW DRIVE TRACK SYSTEM

Operators tell us that they need extra stability on slopes. Our low track system gives them the operational flexibility to perform and delivers maximum manoeuvrability in full power mode.

PERFECTLY BALANCED

On tough terrain weight distribution is vital. 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.



ONE-PIECE MAIN FRAME

With the new B170D we've created a tough, one-piece main frame to enhance strength and stability whatever the working conditions.

LIFETIME LUBRICATION SYSTEM

LiuGong's lubrication system provides lifetime protection for the track roller, track chain and idler, reducing wear and increasing uptime.



ZERO MAINTENANCE REQUIRED

SENSITIVE CONTROL LETS YOU DO MORE – FOR LESS

A bulldozer is a tool and its long-term value lies in its ability to move the maximum amount of material in the most efficient way. Operators told us they wanted greater control of the blade, hydraulics and powertrain. With the new B170D we've given them everything they need to get the most from every push.

REDUCE STRESS

Travel Pilot and Work Implement Pilot also combine to enhance the working experience for the operator, reducing stress and fatigue even over the longest shift in the toughest conditions.

PERFECT RESULT

Innovative Laser Levelling technology is also available as an option to further enhance the operator's performance.

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.

FINGER TIP CONTROL

One-button gear shifting gives the operator the choice of **3 NEW PRE-SET MODES** with the ability to customise gear shifting parameters to match the working conditions.



When it comes to empowering the operator the new B170D breaks new ground.



3 NEW PRE-SET MODES



ENHANCED OPERATOR ENVIRONMENT

We know that a comfortable operator is more productive, so it makes good business sense to give operators the very best working environment. We've conducted in-depth analysis with operators to help shape a working environment that lets them do more.

A SAFER CAB

The large, spacious interior is protected by ROPS and FOPS. It's a clearer cab with a 10% overall improvement in visibility where the operator really needs it. For example, special attention has been given to removing the 290 degree blind spot behind the driving position – clear evidence that we've listened to operators' concerns.

A QUIETER CAB

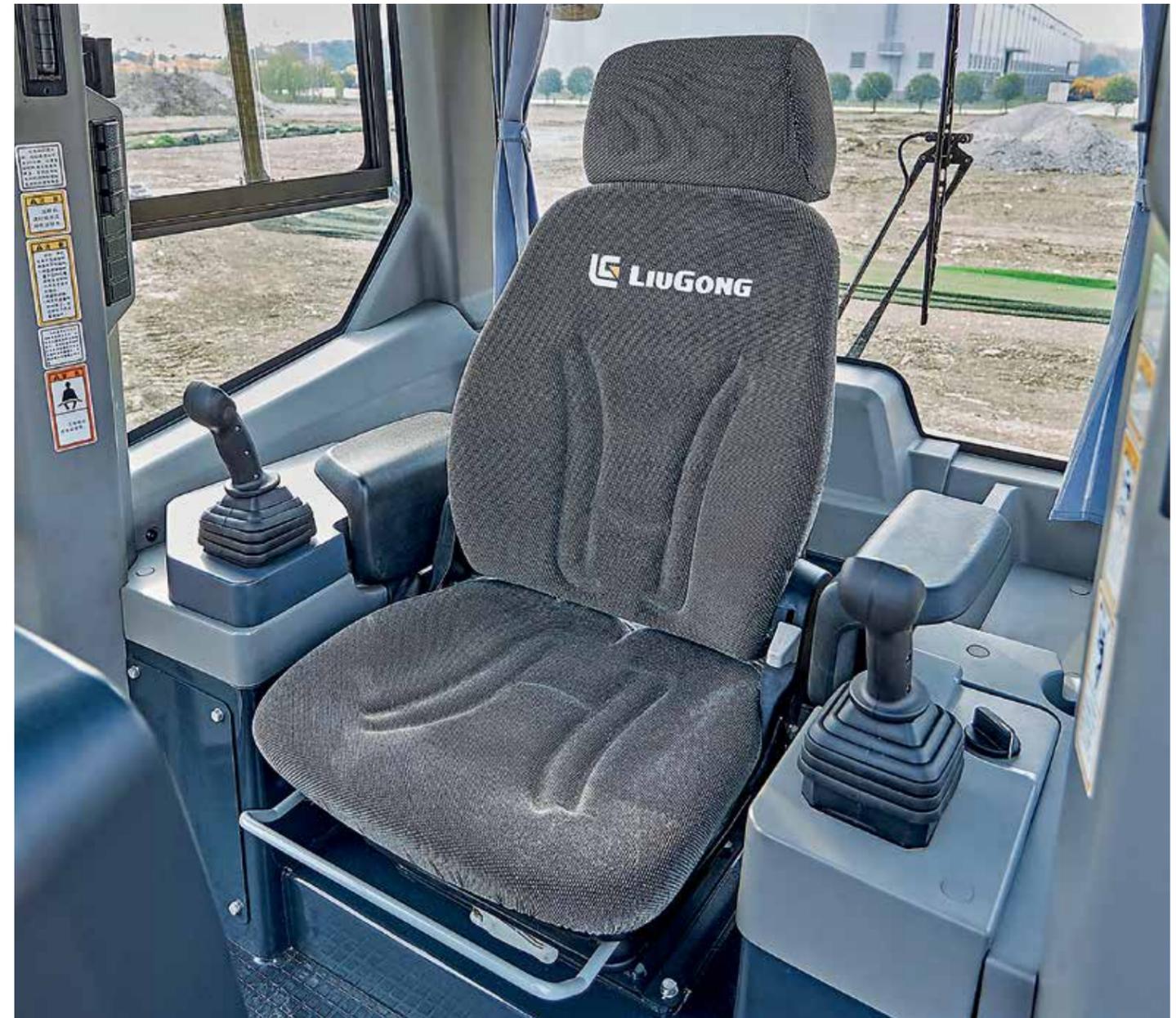
In line with our research, we've made the cab quieter, reducing in-cab noise by 10%. We've reduced vibrations too and improved the suspended seat to help keep the operator comfortable and alert.

A SMARTER CAB

Controls are intelligently positioned for visibility and convenience, exactly where the operator needs them. For example, a multi-functional display screen delivers real-time information to the operator, giving a full and accurate picture of the machine's performance.

A COOLER CAB

Airflow and temperature control have also been enhanced. Rear integrated air conditioning and a fully pressurised cab help to create a healthier environment for the operator and conform to the highest international standards.



At LiuGong, we really value the insight we get from working with and listening to our customers, it inspires us to innovate and the new B170D is clearly the proof of this innovation.



10%
REDUCTION OF
IN-CAB NOISE



SIMPLE & COST-EFFECTIVE MAINTENANCE

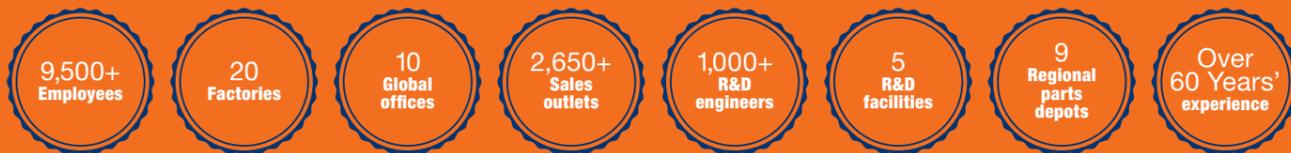
You challenged us to make maintenance checks even faster and easier. We listened, understood and responded by creating a “one-stop” maintenance concept for all key components.

KEEP IT SIMPLE

Maintenance of key components such as fuel and oil filters, hydraulics and electronics systems has been centralised to save on downtime and make routine maintenance simple.



WE ARE LIUGONG – WORKING HARD TO KEEP OUR GLOBAL CUSTOMERS EARNING



LIUGONG SERVICE PROMISE

- Highly trained technicians utilizing the latest diagnostic equipment
- 15,000+ Genuine LiuGong parts available within 24hrs from our European Parts Distribution Center
- Multi-lingual Service helpline and online support
- Transparent estimates and invoicing
- Clear communications through electronic parts catalogue

FAST RESPONDING GLOBAL NETWORK

We have an extensive dealer network of over 2,650 outlets in more than 130 countries.

All supported by 12 regional subsidiaries and 9 global parts centers offering expert training, parts and service support.

WHERE YOU NEED US WHEN YOU NEED US

Our aim is to reduce even planned downtime to the minimum by getting it right first time.

Technician training and parts availability are also high on our agenda, as is keeping you informed on service and maintenance work and providing clear and accurate estimates, invoices and communication.

These may be small things, but customer feedback tells us that these basics really matter – so we aim to get them right.

Right parts.
Right price.
Right service.



Above all,
we get it right
the first time.

1st



MAINTENANCE AND SUPPORT PACKAGES

From genuine LiuGong parts, to full repair and maintenance contracts, 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.

B170D/B170DL 17,500 kg/19,500 kg

ENGINE

Description

Guangxi 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	QSL9.3
Emission standard	EPA Tier 3/EU Stage III
Displacement	9.3 L
Number of Cylinder	6
Rated power	139 kW
Rated speed	1,850 rpm
Max. torque	890 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
Batteries	6-QW-120T
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	1,880 mm
Track shoe width	BD170D 510 mm BD170DL 610 mm
Chain	Sealed and lubricated
Shoes, each side	39
Track rollers, each side	6
Track length on ground	2,640 mm
Ground pressure	65 kPa
Track pitch	203 mm
Track tension adjustment	Grease
Traction frame height	530 mm

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	160 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.

Min. turning radius 3,200 mm

Final drive

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

Maximum drawbar 160 kN

Travel speed

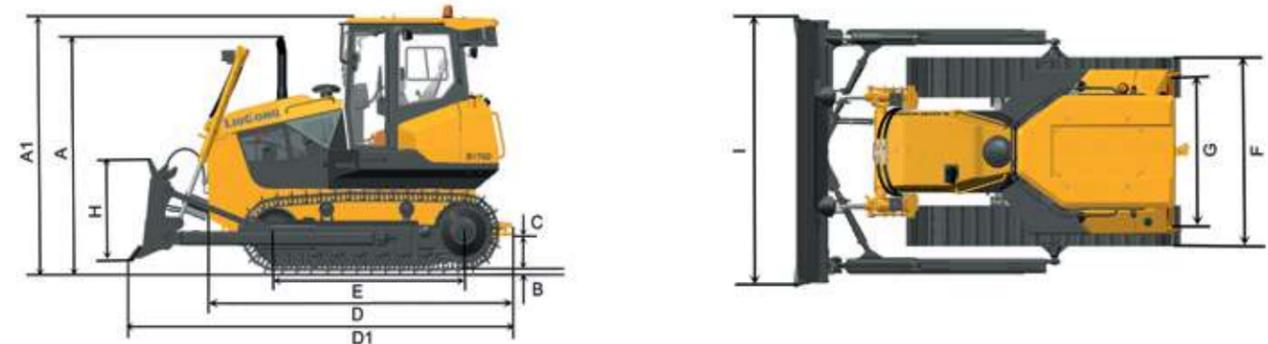
	Forward	Reverse
1st	3.6 km/h	4.3 km/h
2nd	6.6 km/h	7.8 km/h
3rd	10.6 km/h	12.6 km/h

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	40 L

DIMENSIONS



DIMENSIONS

	B170D	B170DL
A Overall height – ROPS	3,312 mm	3,312 mm
A1 Overall height – end of exhaust pipe	3,060 mm	3,060 mm
B Spines height	60 mm	110 mm
C Ground clearance	400 mm	400 mm
D Overall length, base machine	4,270 mm	4,270 mm
D1 Length with blade and drawbar	5,370 mm	5,535 mm
E Track length on ground	2,640 mm	3,140 mm
F Width over track	2,390 mm	3,400 mm
G Track gauge	1,880 mm	2,300 mm
Shoe width	510 mm (610 mm option)	950 mm (1,100 mm option)
Overall width with blade angled	3,422 mm	4,150 mm
Turning radius, track	3,200 mm	3,600 mm
Turning radius, outside blade tips	4,350 mm	4,550 mm

LiuGong standard and optional equipment may vary from region to region. Please consult your LiuGong dealer for information specific to your area.

ATTACHMENTS

BLADE SPEC				
Type	Straight B170D (B170DL)	R blade	Full-U blade	Tolerance
Blade capacity (referenced)	4.5 m ³	10.4 m ³	5.0 m ³	
H Blade height	1,140 mm (1,050 mm)	1,635 mm	1,120 mm	±20 mm
I Blade width	3,420 mm (4,280 mm)	4,198 mm	3,556 mm	±50 mm
Blade lift height	1,100 mm	1,005 mm	1,076 mm	±50 mm
Blade angle, left	6.8°	6.8°	6.8°	
Blade digging depth	510 mm	485 mm	540 mm	±50 mm
Minimum blade pitch adjustment	13°	13°	13°	
Blade tilt	445/470 mm	445/470 mm	445/470 mm	±35 mm
Lift speed	0.5 m/s	0.5 m/s	0.5 m/s	

RIPPER	
Ripper type	Multi-shank ripper
Maximum penetration	572 mm
Maximum clearance under tip (raised)	592 mm
No. of ripper shanks	3
Weight of ripper	1,710 kg

WINCH	
Second Layer Tension	136 kN
System pressure	16 MPa
Diameter of steel rope	26 mm
Rope winding layer	2/3
Rope capacity of steel cylinder	55 m/90 m
Weight	1,800 kg

R-BLADE



U-BLADE



MULTI-SHANK RIPPER



WINCH



STANDARD EQUIPMENT

ENGINE

- Cummins QSL9.3 Engine, EPA Tier 3 / EU Stage III Engine output net 139 kW (189 hp), air-to-air intercooled, 6 cylinders, 4 stroke
- Electronically controlled high voltage common rail and turbocharger
- Pre-filter with water separator
- Fuel filter

TRANSMISSION

- LiuGong countershaft power shift transmission
- F3/R3
- pilot control

UNDERCARRIAGE SYSTEM

- Pivot semi-steel trolley chassis
- Crawler-type track
- Articulated equalizing beam

HYDRAULIC SYSTEM

- Double acting piston cylinder
- Gear pumps
- Pilot relief valve, control valve

STEERING SYSTEM

- Steering clutch - single stage, wet type, friction disc

BRAKING SYSTEM

- Single-stage wet friction brake

TRAVEL SYSTEM

- 6 track rollers each side for standard track / 7 track rollers each side for LGP (Low Ground Pressure track)
- 2 carrier rollers each side
- Idler
- Pilot joystick

TRACK

- 510 mm (170D)
- 950 mm (170DL)

ELECTRIC SYSTEM

- Six lights - 4 front, 2 rear
- Two lights on lifting cylinder
- 2x12V Battery
- 7 inch LCD screen
- Hour meter gauge
- Back-up alarm
- Radio/player with USB port
- Negative terminal switch
- 5 warning lights for low drive train pressure, low engine oil pressure, battery charge, filter clogging, diesel oil level

GAUGE GROUP

- Engine coolant temperature
- Transmission oil temperature
- Fuel level
- Hour meter
- Voltage
- Brake oil pressure
- Voltage
- Brake oil pressure

INDICATOR GROUP

- Engine oil pressure gauge
- Engine water temperature gauge
- Drive line oil temperature gauge
- Fuel tank oil level gauge

CAB

- Seat - mechanical suspension with 2 inch seat belt
- Wiper - front and back
- Interior view mirror
- Side windows slide
- Anti slip, washable floor mat, with company logo
- Air conditioner

OPTIONAL EQUIPMENT

ENGINE

- Fuel heater

TRACK

- 610 mm (170D)
- 1,100 mm (170DL)

CAB

- ROPS/ FOPS
- Air filtration
- Sunshade
- Small fan in cab
- Rear view mirror
- Rotating beacon

ATTACHMENTS

- Ripper
- Winch
- Centralization lubrication
- Angle Blade/Landfill Blade/Coal Blade

OTHERS

- Self-leveling system



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