

## SPECIFICATIONS

<b>Operating weight</b>	<b>15,160 kg (33,422 lb)</b>
Operating weight includes the machine weight with standard work device, no additional equipment or accessories, full fuel tank, all fluids at required level and an operator 75 kg (165 lb).	
<b>Bucket capacity</b>	<b>2.5 - 5 m<sup>3</sup> ( 3.3- 6.6 yd<sup>3</sup>)</b>

ENGINE	
Description	
Cummins EPA Tier 4 final / EU Stage approved, 6.7 liter(1.8 gal), 6-cylinder straight turbocharged diesel engine with Common Rail fuel injection system and Cooled Exhaust Gas Recirculation (EGR).	
Cummins Variable Geometry Turbocharger (VGT) improves engine response at both low and high speed.	
Cummins CM2350 (improved microprocessor and memory) ECM lever latch connections. Integrated DEF controller.	
Auto idle – saves fuel, idle time is 10 mins, idle speed at 700 rpm.	
Air cleaning: Cummins direct flow air filter.	
Cooling system: Air-to-air intercooler, hydraulic motor drive and temperature controlled fan.	
Emission rating	EPA Tier 4 final / EU Stage IV
Make	Cummins
Model	QSB6.7
Engine Output - Max Gross (SAE J1995 / ISO 14396)	136 kW (185 hp) @ 2,100 rpm
Engine Output - Max Net (SAE J1349 / ISO 9249)	129 kW (175 hp) @ 2,100 rpm
Peak torque	841 N.m (620 lbf-ft)
Displacement	6.7 L (1.8 gal)
Number of cylinders	6
Aspiration	Turbocharged & air-to-air intercooled

TRANSMISSION	
Description	
Torque converter: single-stage, three elements.	
Transmission: ZF 4WG 208 countershaft transmission, integrated pilot single joystick with FNR, KD & horn.	
Gear shifting system: ZF Automatic Power Shift with auto modes (1~4/2~4) all start in gear 2, faster and better for long distance material transport.	
Transmission type	Countershaft, power shift
Torque converter	Single stage, three elements
Maximum travel speed, fwd	44.3 km/h (27.5 mph)
Maximum travel speed, rev	26.8 km/h (16.7 mph)
Number of speed, fwd	4
Number of speed, rev	3

HYDRAULIC SYSTEM	
Description	
System supply: Two load-sensing axial piston pumps with variable displacement. The steering function always has priority.	
Valves: Double-acting 3-spool valve. The main valve is controlled by a 3-spool pilot valve.	
Lift function: The valve has four positions: lift, hold, lower, and float. Inductive/magnetic automatic boom kick-out can be switched on and off and is adjustable to two positions: bucket at ground Level and maximum reach full lifting height.	
Tilt function: The valve has three functions: rollback, hold and dump.	
Cylinders: Double-acting cylinders for all functions.	
Filter: Full-flow filtration through 12 micron (absolute) filter cartridge.	
Main pump type	Piston
Main relief pressure	20.7 MPa (3,002 psi)
Raise	5.5 s
Dump time	1.6 s
Float down time	3 s
Fastest total cycle time	10.1 s
Controls	Joystick

AXLES	
Model	LiuGong (Wet type)
Differential front type	Limited slip
Differential rear type	Limited slip
Axle oscillation	±12°

STEERING	
Description	
Steering system: Load-sensing hydraulic articulated steering.	
System supply: The steering system has priority feed from a load-sensing axial piston pump with variable displacement.	
Steering cylinders: Two double-acting cylinders.	
Steering configuration	Articulated
Steering relief pressure	18 Mpa (2,611 psi)
Steering cylinders	2
Cylinder bore	80 mm (3.2")
Rod diameter	45 mm (1.8")
Stroke	420 mm (1' 4")
Maximum flow	178.5 L/min (47 gal/min)
Maximum articulation	±40°
Smallest turn (over tire)	5,590 mm (18' 4")

BRAKES	
Description	
Two independent brake circuits, disks out of rim, accurate control with the advanced main valve & piston pump.	
Service brake type	Wet discs brake
Service brake actuation	Hydraulic
Parking brake type	Manual electronic control
Parking brake actuation	Hydraulic

## ELECTRICAL SYSTEM

### Description

Central warning system is a centralized electrical system with central warning light and buzzer for following functions: Serious engine fault, Low steering system pressure, Interruption in communication (computer failure), Low engine oil pressure, High engine oil temperature, High charge-air temperature, Low coolant level, High coolant temperature, Low transmission oil pressure, High transmission oil temperature, Low brake pressure, Engaged parking brake, Brake charging failure, High hydraulic oil temperature.

Voltage	24 V
Batteries	2 x 12 V
Battery capacity	2 x 120 Ah
Cold cranking capacity, approx	850 A
Reserve capacity	230 min
Alternator rating	1,960/70 W/A
Starter motor output	4.8 kW (6.4 hp)

### SERVICE REFILL CAPACITIES

Fuel tank	245 L (65 gal)
Engine oil	17 L (4.5 gal)
Cooling system	44 L (12 gal)
Hydraulic system	180 L (48 gal)
Transmission and torque converter	40 L (10.5 gal)
Axles, each	36 L (9.5 gal)
DEF tank	19 L (5.0 gal)

## SOUND & ENVIRONMENT

Sound level in cab according to ISO 6396-2008/EN ISO 3744-1995	72 dB(A)-- Travel mode
Sound level in cab according to ISO 6396-2008/EN ISO 3744-1995	73 dB(A)-- Stationary work cycle mode
External sound level according to ISO 6395-2008	102 dB(A)-- Travel mode
External sound level according to ISO 6395-2008	103 dB(A)-- Stationary work cycle mode
Ventilation	9.2 m <sup>3</sup> (12 yd <sup>3</sup> )
Heating capacity	5.8 kW (7.8 hp)
Air Conditioning	6 kW (8 hp)

## CAB

### Description

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

Large curved front glass, rear view camera and mirrors ensure great visibility.

Adjustable steering column, air suspension seat, armrest box and Denso A/C with all-around air outlets.

Pressurized cab with lower interior noise.

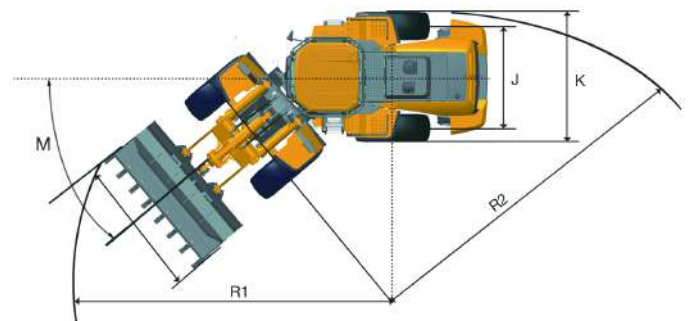
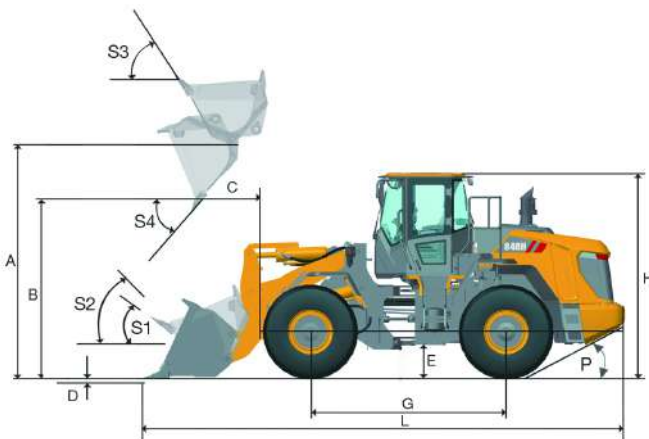
The cab is tested and approved according to ROPS (ISO 3471), FOPS (ISO 3449).

## LOADER ARM PERFORMANCE WITH ATTACHMENT

Tipping load – straight	11,905 kg (26,246 lb)
Tipping load – full turn	10,789 kg (23,786 lb)
Bucket breakout force	129 kN (29,000 lbf-ft)
A Maximum hinge pin height	3,935 mm (12' 11")
B Dump clearance at full height discharge	2,840 mm (9' 4")
C Dump reach at full height discharge	1,016 mm (3' 4")
D Maximum digging depth, bucket level	90 mm (4")
S <sub>1</sub> Bucket rollback at ground level	45°
S <sub>2</sub> Bucket rollback at carry	48°
S <sub>3</sub> Bucket rollback at maximum height	60°
S <sub>4</sub> Maximum dump angle at full height	45°





## DIMENSIONS

E Ground clearance	366 mm (1' 2")
G Wheelbase	3,050 mm (10' )
H Cab height	3,310 mm (10' 10")
J Wheel tread	2,050 mm (6' 9")
K Width over tires	2,548 mm (8' 4")
L Length with bucket down	7,880 mm (25' 10")
M Turn angle, either side	40°
P Rear angle of departure	28°
R <sub>1</sub> Turning radius, bucket carry	6,120 mm (20' 1")
R <sub>2</sub> Turning radius, outside of tire	5,590 mm (18' 4")



## TIRES





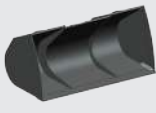



Choosing the right tires for your machine will become a key competitive advantage to achieve outstanding performance. Through close engineering and development cooperation with renowned and carefully selected suppliers, LiuGong can offer a full range of tires specially tailored for wheel loaders.

Code	Application	Patterns	Size	PR / *	Tube Type	Width, mm (ft/in)	Overall Diameter, mm (ft/in)	Tread Depth, mm (ft/in)	Load Capacity, 50 km/h / 10 km/h, kg	Load Capacity, 31.1 mph / 6.2 mph, lb
L2	<ul style="list-style-type: none"> <li>Where good traction is needed, e.g. at grading work</li> <li>In soft and muddy operation with no sharp stones</li> <li>In all load/carry operations</li> </ul>		20.5 - 25	12	TL	520 mm (1' 9")	1,490 mm (4' 11")	30 mm (1")	4,500/6,700	9,921/14,771
			20.5 - 25	16	TL	520 mm (1' 9")	1,490 mm (4' 11")	30 mm (1")	5,450/8,250	12,015/18,188
L3	<ul style="list-style-type: none"> <li>In sand operation</li> <li>In all kinds of load/carry operations</li> <li>The L3 tread is not as broad as the L2, therefore there is less self-cleaning compared with an L2 tire</li> </ul>		20.5 - 25	16	TL	520 mm (1' 9")	1,490 mm (4' 11")	30 mm (1")	5,450/8,250	12,015/18,188
			20.5 - 25	20	TL	520 mm (1' 9")	1,490 mm (4' 11")	30 mm (1")	6,000/9,000	13,228/19,842
			20.5 - 25	24	TL	520 mm (1' 9")	1,490 mm (4' 11")	30 mm (1")	6,700/10,300	14,771/22,708
			20.5 R 25	*	TL	520 mm (1' 9")	1,492 mm (4' 11")	32 mm (1")	7,300/9,500	16,094/20,944
			20.5 R 25	**	TL	520 mm (1' 9")	1,492 mm (4' 11")	35 mm (1")	7,300/1,150	16,094/25,353
L5	<ul style="list-style-type: none"> <li>In very aggressive material where sturdy protection against damage is demanded, e.g. in quarries or mines</li> </ul>		20.5 R 25	*	TL	520 mm (1' 9")	1,530 mm (5')	72 mm (3")	9,500, 10 km/h	20,944, 6.2 mph
			20.5 R 25	**	TL	520 mm (1' 9")	1,530 mm (5')	72 mm (3")	11,500, 10 km/h	25,353, 6.2 mph

Note: The radial tire-load bearing capacity is indicated by the number of stars (\*). The more stars, the greater the radial tire-load bearing capacity. For the specific radial tire sizes listed in the table above, 2 stars (\*\*) represents the maximum radial tire-load bearing capacity.

## ATTACHMENTS

LiuGong attachments with pin-on or quick-coupler ensure high quality. The integrated design of the system creates a perfect match to achieve superior productivity.

Type	Capacity m³ (yd³)	Width mm (ft / in)	Height mm (ft / in)	Digging Depth mm (ft / in)	Dump Clearance mm (ft / in)	Dump Reach mm (ft / in)	Description	 	
General Purpose	2.6 m³ (3.4 yd³)	2,900 mm (9' 6")	1,347 mm (4' 5")	38 mm (1")	2,971 mm (9' 9")	954 mm (3' 2")	Anti-Wear Blade with Welded Teeth	General Purpose	Grapple with Aligned Teeth
	2.7 m³ (3.5 yd³)	2,910 mm (9' 7")	1,300 mm (4' 3")	71 mm (3")	2,877 mm (9' 5")	1,002 mm (3' 3")	Anti-Wear Blade with Bolt-on Cutting Edge and Bolt-on Teeth.		
	3.0 m³ (3.9 yd³)	2,928 mm (9' 7")	1,352 mm (4' 5")	70 mm (3")	2,862 mm (9' 5")	1,018 mm (3' 4")	Bolt-on Cutting Edge; Bolt-on Teeth; Bolt-on Cutting Edge and Bolt-on Teeth.		
	3.3 m³ (4.3 yd³)	2,928 mm (9' 7")	1,392 mm (4' 7")	70 mm (3")	2,791 mm (9' 1")	1,089 mm (3' 8")	Bolt-on Cutting Edge; Bolt-on Teeth.		
Light Material	3.5 m³ (4.6 yd³)	2,928 mm (9' 7")	1,413 mm (4' 7")	68 mm (3")	2,758 mm (9')	1,124 mm (3' 8")	Bolt-on Cutting Edge.		
	4.2 m³ (5.5 yd³)	3,168 mm (10' 5")	1,429 mm (4' 8")	68 mm (3")	2,700 mm (8' 10")	1,183 mm (3' 11")	Bolt-on Cutting Edge.		
	5.0 m³ (6.5 yd³)	3,140 mm (10' 4")	1,501 mm (4' 11")	38 mm (1")	2,624 mm (8' 7")	1,301 mm (4' 3")	Bolt-on Cutting Edge; Bolt-on Cutting Edge and Welded Teeth.		
Rock	2.5 m³ (3.3 yd³)	2,866 mm (9' 5")	1,353 mm (4' 5")	46 mm (1")	2,902 mm (9' 6")	1,012 mm (3' 3")	V-Shape Anti-Wear Blade.		
Grapple	φ 1000 mm (3' 3")	2,640 mm (8' 8")	1,732 mm (5' 8")	65 mm (3")	2,442 mm (8')	1,444 mm (4' 9")	Aligned Teeth.		
	φ 350 mm (1' 1")	2,600 mm (8' 6")	1,520 mm (5')	38 mm (1")	2,674 mm (8' 9")	1,251 mm (4' 1")	Crossed Teeth.		

# STANDARD EQUIPMENT

## ENGINE

- Cummins QSB6.7 Engine, EPA Tier 4 final / EU Stage IV Engine output net 123 kW (167 hp) air-to-air intercooled, 6 cylinders, 4 stroke
- High Pressure Common Rail
- Exhaust emission control
- DC air filter, fuel filter
- Intelligent Power Control (IPC)
- Hydraulic driven reversible fan
- Grid heater

## TRANSMISSION

- ZF 4WG208 automatic power shift transmission
- Kick-down function, FNR, F4/R3
- Transmission oil level sight gauge
- Secondary oil filter, oil stick
- Remote pressure taps for diagnostics
- Auto shifting mode by speed
- Interlock between parking brake and gear shifting

## AXLE

- Liugong wet front & rear axle with limited slip differentials
- Wet discs service brake system
- Parking brake service as secondary

## HYDRAULIC SYSTEM

- Two piston pumps with variable displacement Hydraulic load-sensing
- Third valve and multipurpose lines
- Single joystick control
- Boom kick-out, automatic
- Bucket positioner, automatic
- Plug at the port of bucket and boom cylinder for pressure check
- Emergency boom lower via pilot accumulator

## STEERING SYSTEM

- Load sensing system with flow amplification and steering priority
- Emergency steering system

## TIRE & RIM

- 20.5-25/L3 Bias tire
- Full fender

## CHASSIS FRAME

- Spacious central articulation arrangement with conic bearing
- Articulation locking bar
- Tow hitch
- Rubber cushion articulation stops

## LINKAGE & ATTACHMENTS

- Z-bar linkage

## ELECTRIC SYSTEM

- Two front lights with high/low beam
- Four front headlights on top of cab
- Four rear headlight on top of cab
- Turn signals with flasher
- Batteries, free of maintenance
- Cigarette lighter, 24 V power outlet
- Electric horn
- Front and rear windshield wiper
- Electronic device compartment
- Back-up alarm
- Radio/player with USB port
- Reversing warning light, automatic
- Rotating beacon
- License-plate bracket and light

## GAUGE GROUP

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

## INDICATOR GROUP

- Air inlet heater
- Battery charging
- Parking brake applied
- Machine emergent stop
- Power cut-off
- Engine servicing
- Turning lights
- Engine starter running
- Beam of front light

## CAB

- Certified FOPS (ISO 3449) and ROPS (ISO 3471) cab
- Seat - mechanical suspension with 3 inch seat belt
- 4-way adjustable steering column
- Large curved front glass
- Rubber cab mounts
- Cab fresh air filter
- One interior & dual exterior rear-view mirrors
- Rear-view camera display
- Air conditioner
- Lunch-box/cooler holder
- One beverage holder
- Cigarette lighter
- Cab rear windshield defroster
- Sun visors
- Fire extinguisher

## OTHERS

- Manual central lubrication
- Wedge block

# OPTIONAL EQUIPMENT

## ENGINE

- Cold start aid

## AXLE

- Liugong wet front & rear axle without limited slip differentials

## HYDRAULIC SYSTEM

- Ride control

## TIRE & RIM

- See tires options

- Normal fender
- Tire protective chain

## CAB

- Heated air suspension seat
- Heated external rear view mirrors
- Cab dust removal device
- Front windshield screen (must be mounted at factory)

## LINKAGE & ATTACHMENTS

- Quick coupler

- Additional counterweight
- High/extra-high linkage
- Bolt-on wear-resist blade and teeth
- Rock bucket
- Grapple with aligned or crossed teeth
- Fork
- Snow blade

## OTHERS

- Automatic central lubrication
- Weight scale (Electric load weigher)
- Hood protective guard



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