

## SPECIFICATIONS

**Operating weight** 30,600 kg

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.

**Bucket capacity** 4.5 - 9.0 m<sup>3</sup>

### ENGINE

#### Description

Engine: Cummins Tier 2 / Stage II, inline 6-cylinder, turbocharged, electrically controlled direct injection diesel engine.

Air cleaning: Three-stage air filter.

Cooling system: Charge air cooler, hydraulic motor drive and temperature-controlled fan.

**Emission rating** Tier 2 / Stage II

**Make** Cummins

**Model** QSM11

**Engine output - Max gross (SAE J1995 / ISO 14396)** 287 kW (385 hp) @ 1,800 rpm

**Engine output - Max net (SAE J1349 / ISO 9249)** 272 kW (366 hp) @ 1,800 rpm

**Peak torque** 1,776 N·m @ 1,400 rpm

**Displacement** 10.8 L

**Number of cylinders** 6

**Aspiration** Turbocharged & Air-to-air intercooled

### AXLES

**Model** MTL3125II / MTL3115II (Wet type)

**Differential front type** Hydraulic lock differential

**Differential rear type** Conventional

**Axle oscillation** ±13°

### TRANSMISSION

#### Description

Torque converter: single-stage, three elements; free wheel stator.

Transmission: ZF Ergopower 4WG310 countershaft transmission F4/R3, electro-proportional valve.

Gear shifting system: ZF Automatic Power Shift with auto modes (1~4/2~4) all start in gear 2; FNR and kick-down features included; two shifting modes of normal modes and speed priority modes.

Transmission type	Countershaft, power shift
Torque converter	Single stage, three elements, free wheel stator
Maximum travel speed, fwd	38.2 km/h
Maximum travel speed, rev	26.5 km/h
Number of speed, fwd	4
Number of speed, rev	3

### 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, dual-pump confluence & steering priority.

Steering cylinders: Two double-acting cylinders.

Steering configuration	Articulated
Steering relief pressure	20.7 MPa
Steering cylinders	2
Cylinder bore	100 mm
Rod diameter	60 mm
Stroke	578 mm
Maximum flow	120 L/min
Maximum articulation	±38°
Smallest turn (over tire)	7,011 mm

### HYDRAULIC SYSTEM

#### Description

System supply: Two load-sensing axial piston pumps with variable displacement and flow confluence. The steering function always has priority.

Valves: Double-acting 2-spool valve. The main valve is controlled by pilot pressure and electric hydraulic servo.

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	26 MPa
Raise	6.0 s
Dump time	1.6 s
Float down time	3.4 s
Fastest total cycle time	11.0 s
Controls	3 levers, finger control

### BRAKES

#### Description

MICO brake solution:  
Two independent brake circuits  
Enclosed wet-disc

Service brake type	Wet discs brake
Service brake actuation	Hydraulic
Parking brake type	Mechanical control
Parking brake actuation	Hydraulic

## ELECTRICAL SYSTEM

### Description

Central warning system is a Contronic electrical system with central warning light and buzzer for the following functions: Serious engine fault, low steering system pressure, interruption in communication (computer failure). Central warning light and buzzer or code with the gear engaged for the following functions: 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
Parking brake actuation	850 A
Reserve capacity	230 min
Alternator rating	1,960 W / 70 A
Starter motor output	8 kW

## SERVICE REFILL CAPACITIES

Fuel tank	485 L
Engine oil	33 L
Cooling system	41 L
Hydraulic system	255 L
Transmission and torque converter	50 L
Axles, each	65 L

## SOUND & ENVIRONMENT

Sound level in cab according to ISO 6396-2008/EN ISO 3744-1995	75 dB(A)-- Travel mode
Sound level in cab according to ISO 6396-2008/EN ISO 3744-1995	76 dB(A)-- Stationary work cycle mode
External sound level according to ISO 6395-2008	108 dB(A)-- Travel mode
External sound level according to ISO 6395-2008	109 dB(A)-- Stationary work cycle mode
Ventilation	9.2 m <sup>3</sup>
Heating capacity	5.8 kW
Air conditioning	6 kW

## 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, machinery suspension seat and armrest box, and Denso air conditioning with air outlets all around providing you the best working environment.

Pressurized cab with little noise inside.

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

## LOADER ARM PERFORMANCE WITH ATTACHMENT

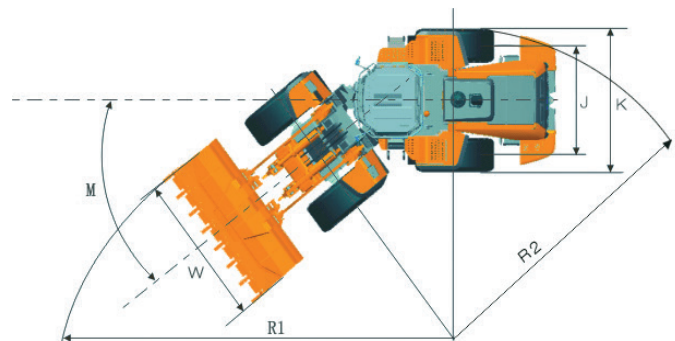
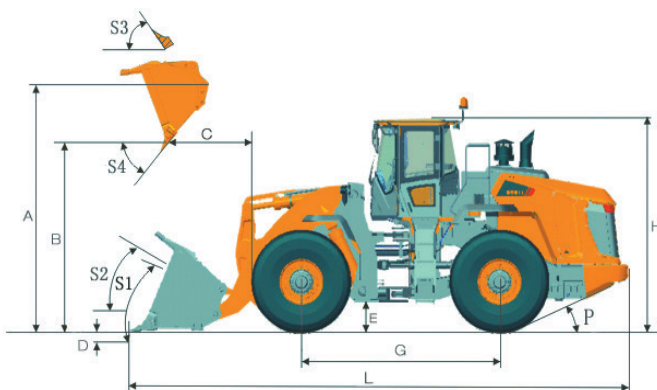
### Description

Tipping Load data is calculated with standard bucket at 5.4 m<sup>3</sup> and operating weight at 30,600 kg.

Tipping load - straight according to ISO 14397-1:2007	23,622 kg
Tipping load - full turn according to ISO 14397-1:2007	20,600 kg
Bucket breakout force	245 kN
A Maximum hinge pin height	4,572 mm
B Dump clearance at full height discharge	3,330 mm
C Dump reach at full height discharge	1,479 mm
D Maximum digging depth, bucket level	142 mm
S1 Bucket rollback at ground level	45°
S2 Bucket rollback at carry	49°
S3 Bucket rollback at maximum height	62°
S4 Maximum dump angle at full height	45°





## DIMENSIONS

E Ground clearance	476 mm
G Wheelbase	3,700 mm
H Cab height	3,765 mm
J Wheel tread	2,420 mm
K Width over tires	3,170 mm
L Length with bucket down	9,352 mm
M Turn angle, either side	38°
P Rear angle of departure	25°
R <sub>1</sub> Turning radius, bucket carry	7,725 mm
R <sub>2</sub> Turning radius, outside of tire	7,011 mm



## TIRES

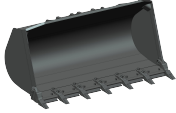
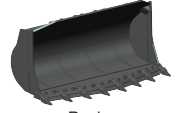
Choosing the right tyres for your machine will become a key competitive advantage to achieve outstanding performance. Through close engineering and development cooperation with renowned and carefully selected suppliers, LiuGong can offer full range of tyres specially tailored for wheel loader.

Code	Application	Patterns	Size	PR / *	Tube Type	Width	Overall Diameter	Tread Depth	Load Capacity, 50 km/h / 10 km/h
<b>L3</b>	<ul style="list-style-type: none"> <li>in sand operation</li> <li>in all kind of load/carry operation</li> <li>the L3-tread is not as open as L2 and has consequently less self-cleansing compared with an L2 tyre</li> </ul>		29.5 - 2	28	TL	750 mm	1,975 mm	41 mm	12,150 / 19,000 kg
			29.5 - 25	34	TL	750 mm	1,975 mm	41 mm	14,000 / 21,200 kg
			29.5 - 25	40	TL	750 mm	1,975 mm	41 mm	15,000 / 23,600 kg
			29.5 R 25	**	TL	748 mm	1,860 mm	40 mm	14,000 / 22,400 kg
<b>L4</b>	<ul style="list-style-type: none"> <li>In aggressive material such as blast rock where, to some extent, protection against cut damages is demanded</li> </ul>		29.5 - 25	28	TL	750 mm	2,025 mm	60 mm	12,150 / 19,000 kg
<b>L5</b>	<ul style="list-style-type: none"> <li>in very aggressive material where good protection against cut damages is demanded, e.g. in quarries or mines</li> </ul>		29.5 R 25	*	TL	775 mm	1,950 mm	100 mm	18,000 kg, 10 km/h
			29.5 R 25	**	TL	775 mm	1,950 mm	100 mm	22,400 kg, 10 km/h

Note: The radial tire-load bearing capacity is indicated by the number of stars (\*). More stars, greater 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	Width	Height	Digging Depth	Dump Clearance	Dump Reach	Description	Attachment Drawing
<b>Standard</b>	5.4 m <sup>3</sup>	3,486 mm	1,831 mm	125 mm	3,330 mm	1,479 mm	Anti-Wear Blade with Bolt-on Cutting Edge and Welded Teeth.	
<b>General Purpose</b>	5 m <sup>3</sup>	3,494 mm	1,777 mm	125 mm	3,393 mm	1,416 mm	Anti-Wear Blade with Bolt-on Teeth.	
	<b>Light Material</b>	5.7 m <sup>3</sup>	3,494 mm	1,838 mm	125 mm	3,329 mm	1,479 mm	Anti-Wear Blade with Bolt-on Cutting Edge and Bolt-on Teeth.
6.2 m <sup>3</sup>		3,494 mm	1,837 mm	125 mm	2,995 mm	1,233 mm	Anti-Wear Blade with Bolt-on Cutting Edge	
6.7 m <sup>3</sup>		3,530 mm	1,837 mm	125 mm	3,075 mm	1,733 mm	Anti-Wear Blade with Bolt-on Cutting Edge.	
7.2 m <sup>3</sup>		3,530 mm	1,878 mm	125 mm	3,026 mm	1,782 mm	Anti-Wear Blade with Bolt-on Cutting Edge.	
<b>Rock</b>	9 m <sup>3</sup>	3,530 mm	2,011 mm	125 mm	3,045 mm	1,763 mm	Anti-Wear Blade with Bolt-on Cutting Edge.	
	4.5 m <sup>3</sup>	3,430 mm	1,658 mm	125 mm	3,176 mm	1,632 mm	Anti-Wear Blade with Bolt-on Cutting Edge and Welded Teeth.	
	6.2 m <sup>3</sup>	3,432 mm	1,838 mm	125 mm	3,040 mm	1,768 mm	Anti-Wear Blade with Bolt-on Cutting Edge and Welded Teeth.	
<b>Grapple</b>	Φ1,350 mm	2,793 mm	2,000 mm	125 mm	2,610 mm	1,678 mm	Aligned Teeth.	

# STANDARD EQUIPMENT

## ENGINE

- Cummins QSM11 Engine, Tier 2 / Stage II, Engine output max net 273 kW (366 hp)  
Air-to-air intercooled, 6 cylinders, 4 stroke
- EFI (Electric Fuel Injection)
- ECM faults inspecting system
- Pre-filter with waste separator
- Hydraulic driven reversible fan
- Grid heater

## TRANSMISSION

- ZF Ergopower 4WG310 automatic power shift transmission
- Three modes: Manual, Powerful, Efficient
- ICCO (Intelligent Clutch Cut-Off)
- AEB clutch adjustment
- Kick-down function, FNR, F4/R3
- Secondary oil filter, oil stick
- Remote pressure taps for check

## AXLE

- ZF MT-L wet axles
- Differentials: front - DHL (differential hydraulic limited); rear - conventional
- Wet discs service brake system

## HYDRAULIC SYSTEM

- Two piston pumps with variable displacement. Hydraulic load-sensing according to demand. Third valve and multipurpose lines
- Fingertip levers control, electronic proportional
- Easy simultaneous operating of lift & tilt
- Bucket positioner, automatic
- Lowering the lift boom without engine power

## STEERING SYSTEM

- Load sensing system with mature technology of flow amplification and steering priority.
- Emergency steering system

## TIRE & RIM

- 29.5-25 PR28 /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

- Double Z-bar linkage
- Quick coupler

## ELECTRIC SYSTEM

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

## 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
- Grammer air suspension seat, armrest
- 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
- Cigar lighter
- Cab rear window defroster
- Sun visor
- Fire extinguisher

# OPTIONAL EQUIPMENT

## ENGINE

- Cold start aid
- Multistage filters

## HYDRAULIC SYSTEM

- Ride control
- Third valve and multipurpose lines
- Emergency steering system

## TIRE & RIM

- Radial tire
- Tire protective chain
- L5 Pattern
- Full fender

## CAB

- Heated air suspension seat
- Heated external rear view mirrors

## ELECTRIC SYSTEM

- Electric load weigher
- Front six headlights on top of cab, LED
- Rear four headlights on top of cab, LED
- Rotating beacon

## LINKAGE & ATTACHMENTS

- Automatic greasing system
- Additional counterweight
- High lift linkage
- Bolt-on wear-resisted blade and teeth
- Light material bucket
- Rock bucket
- Grapple with aligned or crossed teeth
- Quick coupler

## OTHER

- Automatic central lubrication
- Wedge block



## Guangxi LiuGong Machinery Co., Ltd.

No. 1 Liutai Road, Liuzhou, Guangxi 545007, PR China  
T: +86 772 388 6124 E: overseas@liugong.com  
www.liugong.com

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