

Wheel Loader

JGM 857K

Tier 2



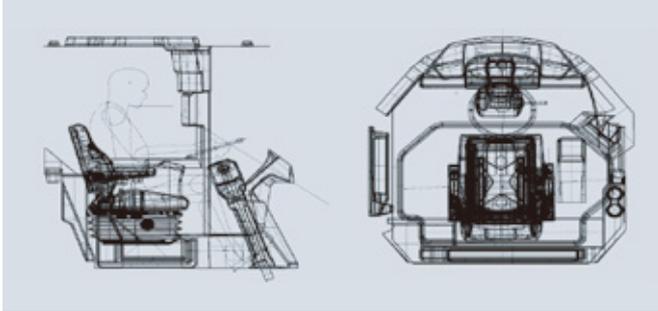
Operating Weight: 17,800kg

Rated Load: 162kW

Bucket Capacity: 3.3m³

JINLONG 晋工

Luxury cab with brandnew appearance



Through the man-machine engineering simulation design, the operating parts such as the operating handle, steering column, and switch keys commonly used by drivers are mainly considered to improve the comfort and convenience of operation.



Widened cab door without threshold makes it easier to clean up sundries in cab; With handrails on both sides, it is convenient for operators to get in and out of the cab.

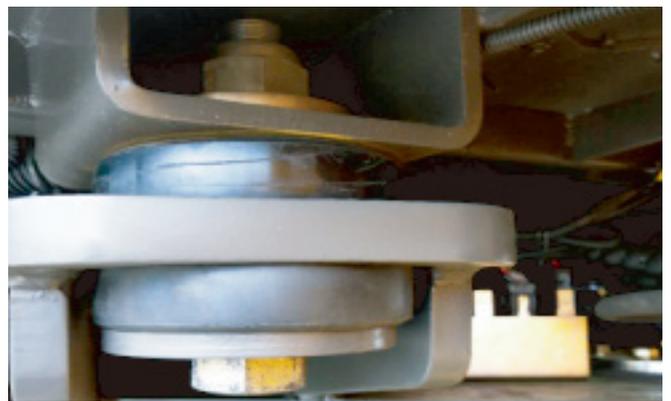


The front hyperboloid tempered glass with panoramic view, the right window is equipped with a glass frame that can be pulled up and down, enlarged inside and outside rearview mirror, freely adjust the sun shade and standard equipped with AC, to provide a wider and more comfortable operating environment and vision for the driver.

Front decices with front and rear wiper, radio, dual USB charging seat, cup holder, emergency hammer, fire extinguisher, etc.

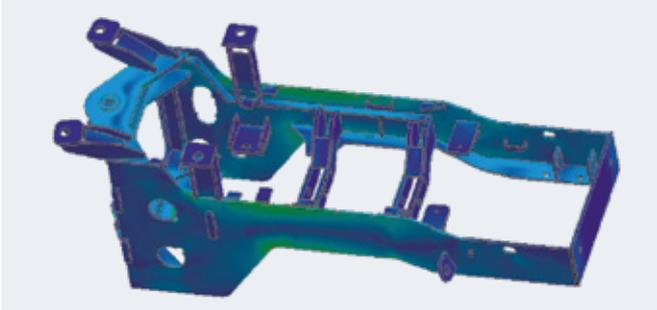


Adjustable seat with front/rear adjustable directional posts are suitable for various body types of operation, can adjust to a comfortable operation state.



"Micro-pressurization" cab can effectively isolate dust and reduce noise by increasing the overall rigidity of the cab, improving the sealing performance. Using sound-absorbing material have optimizing the characteristics of shock absorbers.

Extended wheelbase heavy duty condition



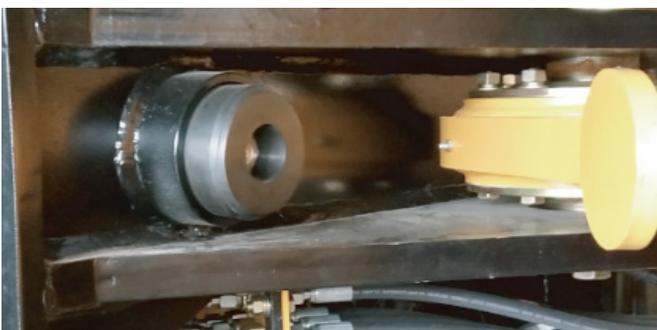
The wheelbase extended to 3300mm, and the rear suspension distance is increased. The front and rear axle load distribution are more reasonable and stability. The reliability of the frame is greatly improved through finite element simulation analysis.

New bucket



The new bucket with enlarged side plates which make the structure more firm and reliable, and more convenient to load; The heightened rear plate can prevent spillage of materials during hopper collection; The adjustable bucket limit ensures that both sides of the bucket limit block and the boom plate are close tight during withdraw bucket, thus shortening the cycle time; ear-resistant gaskets are added to each pin shaft of the working device to reduce shaking.

Transmit system



The steering limit is pre-limited by rubber, which makes the limit more stable.

Jingong heavy duty axles



Use new upgraded heavy-duty drive axle with four planetary wheels has high structural strength, large bearing capacity, long service life and high reliability.

Filter



The transmission adopts a new type of high-precision and large-flow Filter, which is easy to remove and replace the Filter element and more convenient for maintenance.

Brake system



The air pressure source manager has large filtering area, good drying effect and convenient maintenance.

Hydraulic pipeline



The centering arrangement of the rubber hose reduces the connection between the rubber hose and the steel pipe, more easy to maintenance and reduces the failure rate.

The rubber hose is sealed with pressure plate and O-ring, which is more easy to install and adjust, reduces the leakage of hydraulic system.

Electrical system



The combination instrument includes five analog instruments, plurality of colorful indicator lights and LCD screen. Through this intuitive system, the operator can monitor whether the system is working properly.

The electrical components (fuses, relays) are centralized in the central electrical control box, which is easy for repair and maintenance.

New rear hood counterweight



The newly designed rear hood with high structural strength, stronger and more beautiful. Left and right side doors and rear windows can be opened.

Newly upgraded cooling mede



Use single-layer parallel design, The radiator of the water tank and the oil radiator of the torque converter are air cooling, and the hydraulic oil radiator is water cooling.

Hydraulic oil radiate separated with the torque converter oil radiate thus eliminating the problem of oil channeling from the root.

Optimized the structure of radiator, which is more easy cleaning and maintenance.



Specifications

Operating weight: 17,800kg

Operating weight includes the common used configuration work devices stipulated by manufacturer, the unloaded attachments, driver's weight (75kg), full-filled fuel tank, and other fluids system (including the hydraulic oil, transmission oil, engine oil, and engine coolant) are filled to the level specified by the manufacturer.

Bucket capacity: 2.4-3.6m³

Engine

Description

Using WEICCHAI T2 low speed engine, high torque at low rpm, more powerful, lower fuel consumption; Standard equipped with 93 dust rate, enabling the four matching parts to drop their rate of early wear by 90% or higher; Intake heater grille effectively solve the difficulty to start up at low temperature; Hyperboloid fan makes the heat dissipation more effective and the noise lower.

Emission grade	Tier 2
Manufacturer	Weichai
Model	WD10G220E23
Total power of engine (SAE J1995 / ISO 14396)	162kW(220hp) @2000rpm
Max. torque	890 N·m
Displacement	9.726L
Number of cylinders	6
Intake type	Turbocharging

Drive Axle

Type	50 E drive axle
Swing angle	±10°

Oil level

Fuel	280 L
Engine oil	20 L
Antifreeze	60 L
Hydraulic Oil	260 L
Transmission oil	47 L
Drive Axle/ single	30 L

Driving Element

Description

Jingong ZL50L Low speed planetary power shift gearbox, which is highly reliable and with outstanding comprehensive energy saving effect;

Single-stage four-element twin turbine torque converter; Jingong made-self heavy-duty 50 E type drive axle.

Plwer-train type	Transmission shaft Power gear shift, Mechanical gear shift
Torque converter	Single-stage Four-element
Max. traveling speed (Forward)	36 km/h
Max. traveling speed (Backward)	16 km/h
Number of gear shift (Forward)	2
Number of gear shift (Backward)	1

Operation Hydraulic System

Description

This hydraulic system is of dual-pump confluence and steering - prevail-ing type, featuring the high efficiency and low fuel consumption;

Hydraulic pump is of high-pressure gear pump, featuring the excellent performance and higher reliability;

Hydraulic elements are of high standard and new process type, making its system more reliable;

The centering arrangement of the rubber hose reduces the connection between the rubber hose and the steel pipe, more easy to maintenance and reduces the failure rate.

Working pump type	Gear pump
System pressure	18 MPa
Lifting time	5.5 s
Unloading time	1 s
Lowering time	3.3 s
Total cycling time	9.8 s
Control type	Mechanical control

Cab

Description

Design: Newly designed cab is equipped with high-grade and luxury seats, adjustable steering machine, flexible shaft control and pilot control.

Cab: spacious, panorama, dust-free, shock-absorbing; noise-reduction, which improving the comfort and safety of driver operation;

Door opening angle: The door is opened forward, the width of the entrance and exit is increased 20%, and there is no threshold design, which is more convenient for drivers to go in and out; **Shock absorption:** Cab is used with four-point elastic suspension, absorbing shock in dual way. By increasing the rigidity of the cab, improving the tightness, optimizing the characteristics of shock absorbers and applying sound-absorbing materials, drop the noise and make driver feel more comfortable.

Interior decoration: It adopts the color combination of lower depth and upper light to create a clean and comfortable cab space for drivers with high-intensity operation; **The adjustable seat:** Adjustable seat armrest and front and rear adjustable directional posts are suitable for operators of all sizes to adjust to a comfortable operating state; **Cab:** Equipped with car mirrors, sunshade curtains, fans, cigarette lighters, cup holders, wire ring pads, radios, hand rests, safety belts, safety hammers, fire extinguishers and other comfortable and safe configurations.

The rear hood: Has a beautiful shape, the hood framework is formed by bending and welding profiles, with high structural strength; Each sealing plate is connected with the framework by bolts. If there is a fault, more easy and convenient to replace. At the same time, after the enlarged side door of the hood, there is more space for maintenance.

The air conditioner has defrosting function, the direction of the main air outlet can be adjusted, large air output, and quick refrigeration. The evaporator assembly is installed on the side, which easy for installation and maintenance.

Steering hydraulic system

Description

Steering system: steering wheel hinged-type steering.

System supply: full-hydraulic coaxial flow-amplification steering system, flexible and easy steering and reliable performance.

Steering cylinder: two action cylinders

The steering limit is pre-limited by rubber, which makes the limit more stable.

Steering type	Steering wheel
Steering pressure	16MPa
Number of cylinders	2
Steering angle	±35°
Min. steering (outside of tire)	6543mm

Braking system

Description

The service brake is of air-against-oil caliper disc brake type; The parking brake is flexible shaft controlled (Mechanical control) clamp-type brake.

Type of service brake	Clamp disc brake
Mode of service brake	Air-against-oil
Type of parking brake	Type of parking brake
Mode of parking brake	Flexible shaft controlled (Mechanical control)

Electronic system

Description

The electrical system adopts centralized control. Which is easy for fault maintenance and repair.

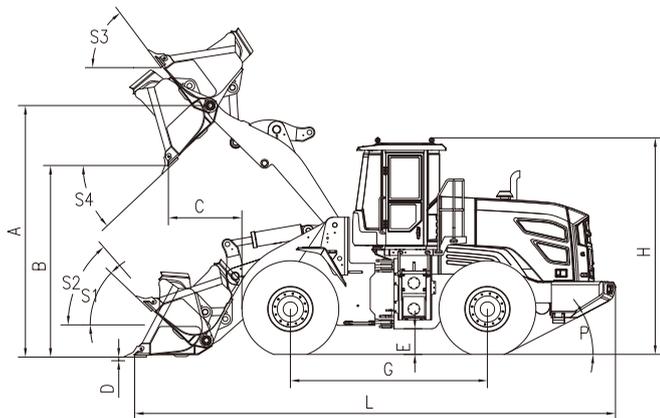
Brand-new intelligent instrument system, the display device adopts the combination instrument of step-motor pointer meter and liquid crystal display screen. The rocker switch and the combination switch are placed in different areas of the cab according to ergonomics.

Voltage	24 V
Battery	2 x 12 V
Battery capacity	2 x 120 Ah

Performance parameters

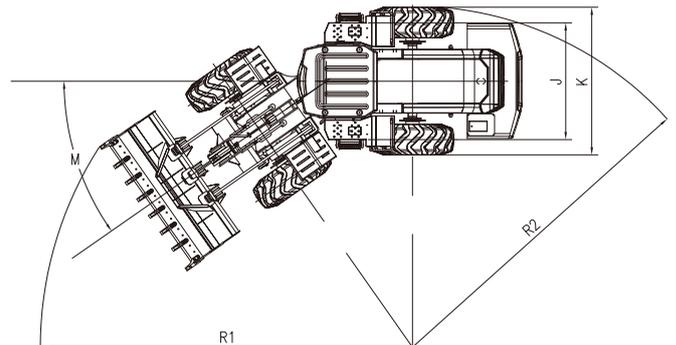
Description

Traction Force	≥160 kN
Digging force	≥170 kN
A Pin shaft height at maximum lifting	4160 mm
B Dumping height	3100 mm
C Dumping reach at max. height	1220 mm
D Digging depth	35 mm
S1 Max. tilt angle at ground level	45°
S2 Max. tilt angle at carry	48°
S3 Max. tilt angle at max. height	53°
S4 Max. dumping angle at full height	45°



Dimensions

E Ground Clearance	408 mm
G Wheelbase	3,300 mm
H Cab height	3,540 mm
J Wheel track	2,290 mm
K Outside width of tire	2,850 mm
L Overall length (with the attachments)	8,100 mm
M Steering angle (at any side)	35°
P Departure angle	30°
R1 Min. turning radius with bucket at transporting position	7,270 mm
R2 Turning radius, at outside of tire	6,543mm



Parameters of deformation working device

Item	Rock bucket	Standard bucket	Coal bucket	High dump				Unit
				Rock bucket	Standard bucket	Earthmoving bucket	Coal bucket	
Bucket capacity	2.7	3.3	3.6	2.7	3.0	3.3	3.6	m ³
Rated Load	5000	5500	5000	5000	5000	5500	5000	kg
Operating weight	18100	17900	18050	18800	18500	18600	18750	kg
Dumping height	3250	3105	3050	3630	3520	3510	3445	mm
Dumping distance	1200	1315	1380	1415	1430	1570	1615	mm
Overall length	8055	8160	8340	8595	8640	8760	8880	mm
Min. turning radius (outer edge of bucket)	7240	7330	7290	7460	7380	7560	7515	mm

The product structures and parameters may alter with the technology updating, without any notice in advance. If sample differs from the actual product, the latter prevails.

Standard configurations

Engine

WEICHAI T2 Engine Engine output power 162KW (220 hp), six cylinders water cooling and four stroke
Pre-filtration of oil-water separator
Fuel filter
Direct-drive fan

Drive

Jingong ZL50L low speed planetary power shift gearbox
Startup function, forward 2 gear shifts, neutral gear shift and backward 1 gear shift
Transmission oil level detector

Instrument

Rotation speed
Engine coolant temperature
Transmission oil temperature
Fuel level meter
Timer
Voltage
Brake pressure
Charging of battery
Steering lamp
Transmission oil pressure alarm
High-beam indicator

Cab

Seat
Dual-direction adjustable steering column
Large arc front glass with liftable glass on
Rubber cushion
Two sides of rearview mirror
Cup holder
Fan
Abat vent
Emergency hammer
Fire Extinguisher
Coat hook
Dust-proof foot mat

Electrical system

Two headlamps, low beam/ high beam lamps, cornering lamp
LED front and rear working lights
Double USB charging stand
Two-tone electric horn
Front wiper (with washing pot)
Radio
Reversing warning light
Heating and cooling air conditioner

Hydraulic system

flexible shaft control (Mechanical control)
Dual-pump confluence hydraulic system

steering system

Full-hydraulic coaxial flow-amplification steering system and steering – prevailing

Frame assembly

Spacious central articulation arrangement with conic bearing
Articulated locking lever
Draw bar

Drive axle

Jingong self-made heavy duty 50E type drive axle
Air-against-oil brake system

Tire

23.5-25 -18PR
Regular fender

Others

On-board tools and attachments

Optional configurations

Engine

Cold startup device
Oil-bathed dual-layer air filter
Cummins engine Tie 3
Weichai engine Tie 3

Cab

Luxury seat
(ROPS&FOPS)Protective devices

Hydraulic system

Pilot control (Joystick control)

Gearbox

ZF transmission

Electrical device

Rotating beacon
Reversing camera
Rear window wiper

Axles and tires

Tire protective chains

Accessories

Wood/ grass grapple fork
Side dump device, mineral/ metal

Others

Automatic central lubrication
Sub-cutting edge



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