### **OUTLINE DIMENSIONS**



### MAIN SPECIFICATIONS

Description		Specification	Unit		
Rated operating load		5000	kg		
Bucket capacity		2.5~4.5	m³		
Machine weight		16900	kg		
Dump clearance at maximum lift		3150~3560	mm		
Reach at maximum lift		1100~1190	mm		
Wheel base		2960	mm		
Tread		2250	mm		
Height of hinge at maximum lift height		4112	mm		
Working height(fully lifted)		5510	mm		
Max.breakout force		170	kN		
Hydraulic cycle time-raise		≤6	S		
Total hydraulic cycle time		≤10.5	S		
Min. turning radius over tyres		5950	mm		
Articulation angle		35	0		
Gradeability		28	0		
Tyre size		23.5-25-16PR			
Overall machine dimension	on L×W×H	7910×3016×3515	mm		
Model		SC9DK220G3			
Rated Power		250	kW		
Fuel Tank		210	L		
Hydraulic Tank		13/18	L		
I -gea	r(F/R)	40	km/h		
Travel speed II-gea			km/h		

No further information of sample contents, product structure and configuration parameters updates. There maybe some difference between sample books and material objects.Please kind prevail.



### XCMG Construction Machinery Co., Ltd.

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## **Product Overview**

- ZL50FV wheel loader is the latest cross-generation product developed by XCMG on the basis of the globalized technologic resources.
- Focusing on the customer value and emphasizing the customer experiences, XCMG's new generation loader boasts outstanding advantages (such as efficiency) in the fields of engineering constructions, aggregate yards, and coal logistics.

## **Model Characteristics**

- XCMG's exclusive high torque and high efficiency drive chain features reasonable matching.
- The front frame adopts the box structure with integrally cast lugs and the rear frame adopts the special-shaped box beams welded from variable stiffness bent plates, featuring high carrying capacity.
- The hinged joints between front and rear frames adopt the structure of rolling bearings + knuckle bearings, featuring high carrying capacity and working stability.
- With short wheelbase and small turning radius, this product features high mobility and flexibility and outstanding field adaptability.
- The ergonomically design cab adopts integral skeleton structure, delicate interior trim parts, and sound insulation and noise reduction measure, featuring broad visual field, super-large space, and high operation comfort.
- The diversified configurations and complete attachments comprehensively adapt to the construction needs in different regions and under different working conditions.

# **Performance Highlights**

- The 160kN traction force and  $\geq$ 3.5m high dumping capacity handle the severe conditions with ease.
- ≥7,500kg lifting capacity and 170kN breakout force handle all kinds of materials with ease.

# Environment-protection pioneer Money-making pioneer



High energy-conservation

High efficiency

High comfort

High environmental-friendliness

High reliability

High convenience

# **Excellent quality power and drive systems**



### Strong power

- China-II emission compliant special engine features low speed and low fuel consumption.
- With strong power and high torque reserve factor, this engine meets the instant overload demand during operations and sufficiently provides the power required for heavy-load operations.

The three-stage desert filter element features simple maintenances and low cost.

Optional Shangchai engine SC11CB220G2B1

### XCMG's patented technology Heavy-duty energy-conservation transmission and torque converter assembly

- The special high capacity torque converter ensures the maximum utilization of engine power.
- The enhanced design and the application of imported products for critical carrying parts effectively improve the overload capacity of transmission.
- The drive shaft flanges are of DIN and SAE specifications and the distribution diameter of the fastening bolts is enlarged to realize super-strong torsion resistance and adapt to high strength and heavy-load continuous operations.

### Enhanced heavy-duty drive axle of outstanding performances

operations.









The solid and firm load carrying portions, integral ring gears, and large modulus gears boast excellent overload resistance to meet the needs of diversified high strength and high load

# **SPACIOUS CABIN**

The design of cab and access passages is ergonomically optimized to create the best driving and riding experience for the operator from the first touch of the machine.

- All-new digitalized VDO combination instrument features beauty and elegance.
- The steering system and the working device feature accurate and handy operations.
- The steering wheel and the seat are freely adjustable depending on the operator's habits.
- The easily and naturally observable instruments, the panoramic glasses, and the super-large spherical rearview mirrors ensure a broad vision and easy and safe operations.
- The integrally full-enclosed skeleton structure cab is fitted with complete storage cells, cup holder, and charger and the optional air conditioning system to realize noise reduction and heat insulation and build a comfortable, healthy, and safe driving environment.



The full-coverage exquisite interior trim parts The super-large spherical rearview mirrors and the damping and noise reduction measures for the cab and engine hood reduce the noise by more than 6dB to meet the European cab internal noise standard and build a comfortable operating environment.

enlarge the visual field by 30%.

# Human-oriented design Guarantee safety and reduce fatigue

- Convenient get-on/get-off and high operation safety: The ladders and the handrails are arranged ergonomically and the operation platform adopts the anti-skid perforation measure.
- Stable braking: The air-assisted hydraulic four-wheel caliper brakes feature stable braking and high safety and reliability.
- Automatic high-position leveling: The bucket incorporates the automatic high-position dumping and leveling function and the transport position stop block function to improve the working efficiency and reduce the splashing of material during operations.







The complete accessories, including cup holder and charging port, are provided.



# Long-tested super-strong heavy-duty structural parts

### Frame structure of super-strong carrying capacity

- The heavy-duty design, and robot welding ensure secure welds, high torsion resistance efficiency, and strong overload capacity.
- The finite element analysis technology is adopted to reduce the stress concentration and eliminate the partial weaknesses so that the frame is resistant against impact and overload and handles with ease all kinds of overload conditions.



### Secure and reliable frame hinge joints

Two groups of double-row tapered roller bearings are adopted for the main hinge joints, featuring high carrying capacity and long service life.



### Excellent quality power and drive systems

- The transmission, the axles, and the drive shafts are optimized in structures and upgraded in materials to achieve stronger drive capacity.
- The enhanced torque transmission capacity for friction pairs improves the capacity by >15% for all gears.
- The main reducer bevel gears are optimized in materials and processes to improve the reliability by 15%.



### **Diversified bucket design**

- Standard bucket: It's installed with bucket guide plates to prevent the scattering of material from damaging the machine.
- Coal bucket: It's dedicated for handling of bulk materials (such as coal), featuring high bucket capacity and high efficiency.

### High strength wear-resistant bucket design

- Application of high strength wear-resistant material The bucket is thoroughly made of high strength steel plates to improve the wear resistance and impact resistance by more than 30% and prolong the service life.
- Specially enhanced critical portions

The reinforcement ribbed plate structure design is applied for critical load-carrying portions to prevent the distortion and deformation of the bucket.

### Optimized boom hinges

The dumping impact is reduced by 30% to remarkably improve the reliability of bucket and boom.









The electric parts, including central fuse case and the power master switch, are arranged within the cab to improve the dust-proof and water-proof performance.

> The ventilator is installed for the transmission, fuel tank, hydraulic oil tank, drive axle, and booster cylinder to make all systems clean and reliable.



- Low engine oil pressure warning.
- Low brake pressure warning.
- Oil temperature display and high temperature warning.
- The optimized arrangement of lubricating points makes the grease filling easier.
- The design of access passage eases the access and climbing.
- The locations and sizes of the access panels are optimized to realize higher maintenance convenience.

### **Optimized structure**

- The openable rotary rear engine hood makes the cleaning of water tank easier.
- The large upturning side gate eases the maintenances of engine and related accessories.
- The brake caliper adopts the open-type split structure so that the brake pads can be replaced without disassembling tires.



## Timely and Effective Services Guarantee High Efficiency Sustained Running of Product

The implementation of "full-life cycle services" ensures the trouble-free throughout full life cycle.

The worldwide marketing service network features extensive coverage.

# Various attached toos meeting requirements of different working conditions

Clamp: For grab and transport of various woods and tubing. Snow plough: For snow removing in roads and urban streets.

# **Specification of optional attachments**

Item	Clipping plier I (paired teeth)	Clipping teeth II (staggered teeth)	Toad's mouth clamp	Port plier	Grasping grass machine	Snowplow	Pallet fork	Unit
Rated load	4500	4500	4500	4500	4500		5000	kg
Dump clearance at maximum lift	3170	3240	3240	3010	3210		3220	mm
Reach at maximum lift	1850	1890	1890	1950	2100		1800	mm
overall hight at maximum lift							3860	mm
Max. dumping angle(work tool)	30	30	30	35	20		26	o
Max.opening	2270	1780	1900	2330	2900			mm
Max. clamping diameter	1000	430	450	850	1470			mm
Max.working width(snowplow)						3800		mm
Swing angle (snowplow)						±6		o
Rack back angle at ground							23	o
Length(work tool)	2050	1855	1855	2180	2330	1940	1945	mm
Width(work tool)	2198	2356	2356	1900	2580	3800	2500	mm
Height(work tool)	1630	1470	1810	1790	1930	1005	1290	mm
Tine length(pallet fork)							1200	mm
Overall machine dimensions-length	8320	8280	8280	8470	8460	8330	8200	mm
Overall machine dimensions-width	2850	2850	2850	2850	2850	3800	2850	mm
Overall machine dimensions-height	3515	3515	3515	3515	3515	3515	3515	mm



