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# YUTONG DIESEL OFF-HIGHWAY MINING TRUCK





# YUTONG GROUP

Full speed ahead for a world-leading new energy commercial vehicle group

## Yutong Bus—Leading the World in Production and Marketing Scale

Yutong Bus, as the flagship division of Yutong Group, is a globally renowned leader in the bus industry. Its product range caters to diverse market segments, including buses, long distance coaches, tourism coaches, commuters, school buses, and special mobility.

In 2023, Yutong Bus achieved a global sales volume of 36,518 units, generating a turnover of RMB 36.23 billion and maintaining an annual production capacity of over 60,000 units. The share for its large and medium buses in global market is more than 10%. By the end of 2023, it had sold more than 180,000 new energy buses cumulatively, establishing itself as a global leader in terms of production and sales scale.

Yutong is a prominent commercial vehicle group specializing in buses and trucks, with a comprehensive product lineup including buses, trucks, special-purpose vehicles, sanitation equipment, and construction machinery.

## Yutong Truck

Yutong Truck, a burgeoning sector of the Yutong Group, capitalizes on its vehicle manufacturing capabilities, industry operation capabilities, and the technical advantages of its HV system of new energy vehicles. Targeting market segments such as tractor trucks, dump trucks, mixer trucks, express & e-commerce express, supermarket distribution, less-than-truckload logistics, Yutong offers a range of new energy heavy and light trucks that are energy-efficient, environmentally friendly, intelligent, safe, reliable, and built to last.

By the close of 2023, around 17,000 new energy trucks have been sold.

Accumulated sales volume of new energy vehicle exceeded

**190,000+**  
units

In 2023, the group's annual sales exceeded

**45,378+**  
units

Exported to over 100 countries and regions worldwide

**100+**

In 2023, New energy buses' sales exceeded

**7,800+**  
units

**YUTONG**



**ENTIRE RANGE OF PRODUCTS  
CURRENTLY AVAILABLE**

# YUTONG DIESEL OFF-HIGHWAY MINING TRUCKS



**YTK90D**

**YTK90D**

**YTK105D**

**YTK105D**



# ADVANTAGES OF YUTONG DIESEL OFF-HIGHWAY MINING TRUCK

In 2024, Yutong is set to significantly expand its product lineup of diesel off-highway mining truck: it will broaden the range of tonnages offered with the introduction of 40-ton, 80-ton, and 90-ton trucks, and equip them with high-power engines, larger tires, and automatic transmissions to comprehensively meet customers' diverse demands.

At the same time, Yutong diesel off-highway mining trucks feature high-quality and proven technologies, enabling them to adapt to the toughest conditions to the greatest extent, thereby enhancing the productivity of high-quality mines.



1

## **Income Increase**

### **More Capacity and Efficiency, Reliable Operation, and High Uptime**

- The main frame of the vehicle has a service life of more than 10 years and a longer profit cycle;
- Selected parts and components from internationally renowned brands and strictly controlled processes for guaranteed safety.

2

## **Safety**

### **Safe and Reliable, with Dual Protection of Active and Passive Safety for Added Peace of Mind**

- Complete hydraulic steering and emergency steering, ensuring safe and reliable steering in case of emergencies;
- Independent dual-circuit brake system, make driving safer;
- Brand-new anti-rollover driver cabins, ensuring the passive safety of drivers.

3

## **Fuel Saving**

### **Advanced Technology, High Efficiency and Fuel Saving and Low Maintenance Cost**

- BlueCore intelligent fuel-saving system, achieving fuel saving of 5% under comprehensive conditions;
- Full-automatic centralized lubrication systems (optional), increasing profits of about RMB 64,000 in 3 years.



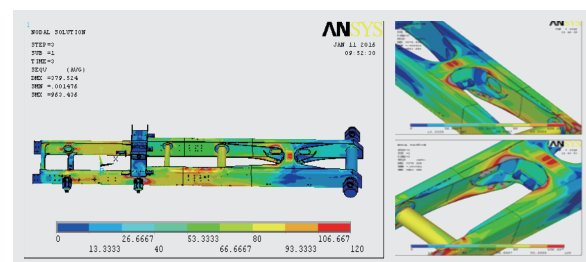
# STABLE OPERATION AND HIGH UPTIME

## ① High-strength Steel, Elaborate Analysis and Design

Through "high-strength steel, elaborate analysis and design", the main frame of Yutong mining trucks can effectively prolong its service life to over 10 years and increase the full life cycle profit of a single vehicle by more than 70%.

### ◎ Rigid mining truck DNA

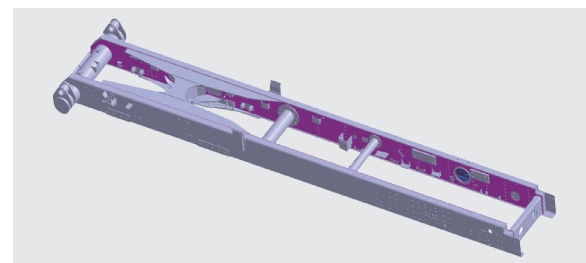
Originating from the robust rigid mining trucks, the structure of the rigid box-type frame has undergone CAE analysis and optimization at Yutong's doctoral workstation, ensuring that its design service life and reliability are on par with those of traditional rigid mining trucks.



CAE analysis and optimization at Yutong's doctoral workstation, verification of over 25 million kilometers

### ◎ Box-type fully welded frame

The box-type fully welded frame is made of 510L special steel, with large bearing capacity, strong impact resistance, high strength and rigidity, making it more suitable for tough conditions of mines.



**Strong bearing capacity**

**Simple structure**

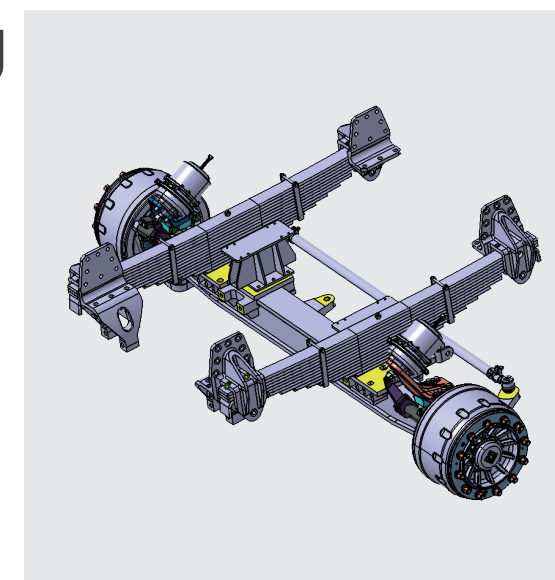
**Reliable performance**

**Easy disassembly**

## ② Sliding Leaf Spring Structure

### ◎ Simple structure

Simple structure, bearing only vertical force and no longitudinal force to effectively reduce the fracture failure rate of leaf spring main pieces; convenient maintenance, effective response to sediment-laden working environment in mining area, ensuring product reliability and mining truck uptime.



### ◎ Reliable performance

Steel plate with gradual rigidity + two-way cartridge shock absorber + longitudinal thrust rod + M27/M24 bolt, with high strength and higher reliability.





### ③ Rear Suspension System

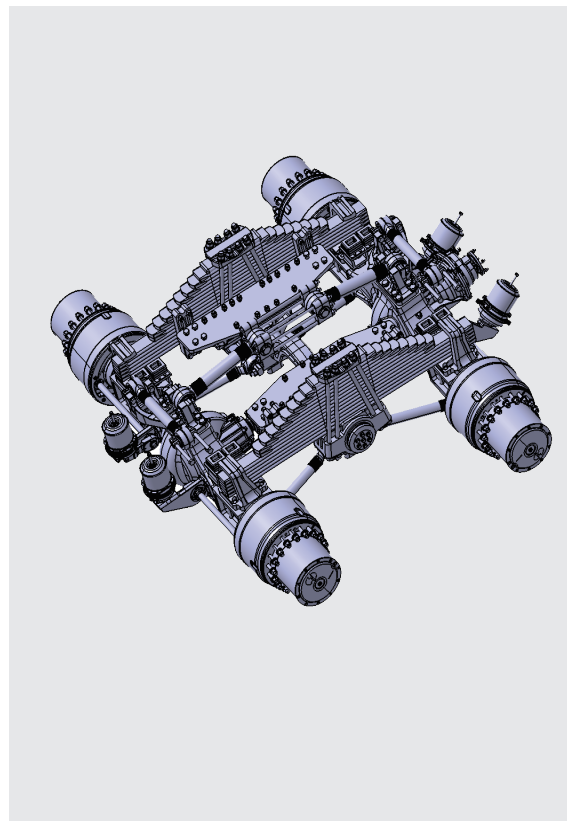
After 15 years of continuous R&D and improvement, as well as careful matching and analysis by Yutong's doctors, the latest generation of rear suspension systems has better reliability and durability; it is convenient to maintain, effectively reducing maintenance costs.

#### ◎ More stable and reliable

① The upper thrust rod is of a longitudinal tie rod + lateral tie rod structure, which optimizes the force on the leaf spring and guide plate and has strong overall matching bearing capacity; the single leaf spring is 2-5 mm thicker than the industry standard, and has high strength, greatly reducing the fault rate;

② U-bolts and thrust rod fixing bolts are customized bolts (with impact energy 2.5 times that of the industry) + Spirallock locknut structure, which completely solves the problem of connecting bolt fracture between the thrust rod and bracket, and reduces fault rates by more than 50%;

③ The maintenance of the leaf spring seat is convenient and cost-effective. The limit block is installed on the axle, with 4 groups per axle, which has high reliability and long service life.



#### ◎ Maintenance-free balance shaft

High overall matching strength, larger shaft diameter (customized development by Yutong), 18% higher strength among the counterpart, better reliability, greatly reducing fault rates and maintenance costs; for mining areas with large density, reinforced structure can be selected.



## HIGH QUALITY AND DURABILITY

### Core Parts and Components, from International Mainstream Suppliers

With the concept of "source control and process management", Yutong improves product stability, reliability and service life, with core parts and components from international mainstream suppliers, 30% of which come from world-renowned parts and components suppliers; each supplier has been strictly audited and verified by Yutong to ensure good product quality.

#### ◎ Flame-retardant Tinned Copper Wire

The wiring harness of the vehicle is made of flame-retardant tinned copper wires, and its oxidation resistance is 2~3 times that of bare copper wire. The wiring harness goes out after leaving the flame for 6 seconds (30 seconds as required by national standard), thereby demonstrating superior flame retardancy compared with bare copper wires.



#### ◎ Waterproof Connectors of International Famous Brands

Connectors from international mainstream suppliers such as BOSCH (Germany) and AMP (United States) are used, which have superior waterproof and dustproof performance compared with ordinary connectors, with a service life of 1.8 million kilometers or more than 10 years.



#### ◎ Sensors of International Famous Brands

VDO oil pressure, water temperature and air pressure sensors from Germany and Honeywell parking brake air pressure sensors from America.



#### ◎ Imported relays of International Famous Brands

Panasonic relays imported from Japan and Song Chuan relays from Taiwan, with the configuration consistent with that of commercial vehicles in Europe, America and Japan.





# ACTIVE SAFETY ASSURANCE

## ① Fully Hydraulic Steering + Emergency Steering Systems

These configurations help vehicles comprehensively cope with the complex and harsh operating environment of mines, ensuring driving safety, minimizing possible risks, improving the uptime of mining trucks and increasing ore transportation volume.

### ◎ Dedicated pressure pump for mines

It boasts large power density, flexible steering, easy operation, sedan-like driving experience and other advantages, which can effectively reduce driver fatigue and enhance operation safety.

### ◎ Light steering effort

High-quality steering gears and priority valves are used to optimize the steering effort, making the steering easy, labor-saving, accurate and reliable.

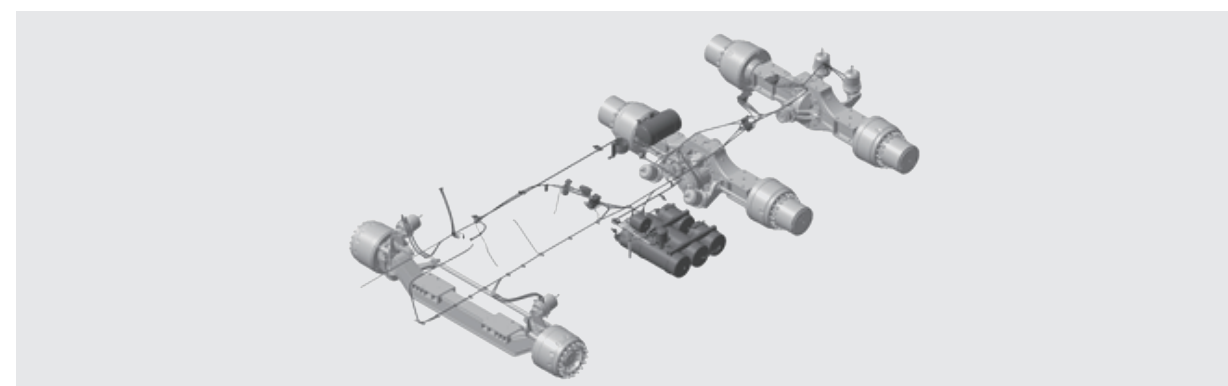
### ◎ Emergency steering

When the main hydraulic supply control system fails, it can be switched to the emergency steering system, which can respond automatically with an effective duration of 1 minute to ensure safe and reliable steering in case of emergencies.



Tie rod ball joint: The steering longitudinal tie rod ball joint and the power steering cylinder ball joint are equipped with the largest 38mm taper pin/cotter pin in the industry, achieving high reliability and a service life twice that of similar products in the industry.

## ② Brake System



**Brake air pressure:** 1.0MPa. The independent dual circuits ensure fast braking response, shorter brake distance and safer driving;

**220L large-capacity air reservoir:** The braking force is more stable and the air storage capacity is more sufficient to meet the needs of multiple brakes with higher safety;

An imported dryer (WABCO) is used and an air circuit oil water separator is equipped as standard configuration, so that the brake air circuit is drier and cleaner and the service life of valves is longer;

**Hydraulic retarder (optional):** It meets the needs for 10% heavy-load downhill and driving at a constant speed of 20km/h, improving the braking performance by 30% and lowering the brake pad wear by 55%.



# PASSIVE SAFETY ASSURANCE

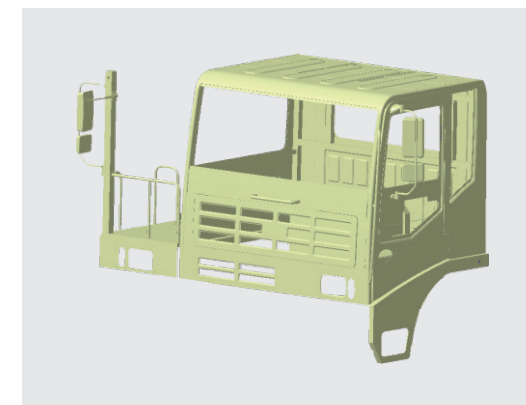
## Safe and Comfortable Driving

The driver is the controller and creator of "large capacity and fast speed". Yutong has carried out a series of optimization and improvement around the "safety and comfort" of the driver, so that the driver can concentrate on driving the mining truck well.



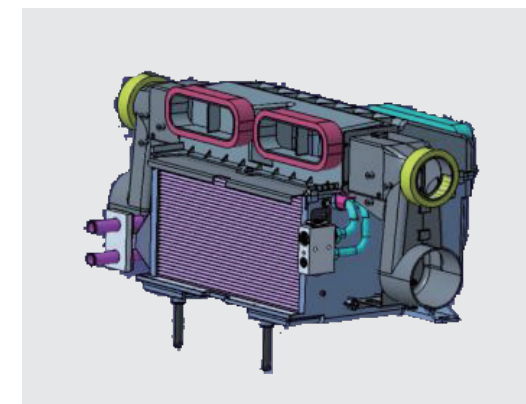
### ◎ Robust Closed-ring, Meeting FOPS/ROPS Standards

The design incorporates a skin-type frame structure with an anti-rollover feature that provides excellent sealing performance. This ensures the passive safety of the driver to the greatest extent in extreme situations, such as rockfalls or falling down cliffs.



### ◎ Efficient Thermal Insulation and Temperature Control to Ensure Driving Comfort

Modern technology is used to comprehensively optimize the cab thermal insulation and temperature control system, so as to ensure that the driver works in a comfortable environment, improve the driver's attention and ensure efficiency and safety.



### ◎ Easy Control, Good Vision and Reduction of Driver Fatigue

"Sedan-like" instrument layout is convenient for man-machine operation, with a comprehensive upgrade of integration, intelligence and convenience.



### ◎ Full-air Suspended Driver Seats: Reducing the Interference of Bad Road Conditions in Mining Areas


The self-developed full-air suspended driver seat can quickly absorb impact, and its damping effect and pneumatic adjustable lumbar support function have been highly recognized by customers.





# BLUECORE INTELLIGENT FUEL-SAVING SYSTEM

Yutong has independently developed the BlueCore Intelligent Fuel-saving System, which intelligently controls the fuel injection volume and output torque of the engine by analyzing information such as vehicle load, road conditions and driver's driving intention, combined with the cross sectional characteristics information of the engine. This enables the engine to burn fuel more completely and operate in the optimal fuel-saving state, achieving a fuel-saving rate under comprehensive conditions of 5~8%.

 **Heavy-load Uphill Condition**  
Compared with competing products of the same specification, it achieves a fuel saving rate of 5%-8% and fuel cost saving of RMB 57,000-66,000/year.

 **Heavy-load Downhill Condition**  
The truck equipped with BlueCore intelligent fuel-saving system achieves a fuel saving rate of 5.4% and fuel cost saving of RMB 32,000/year.



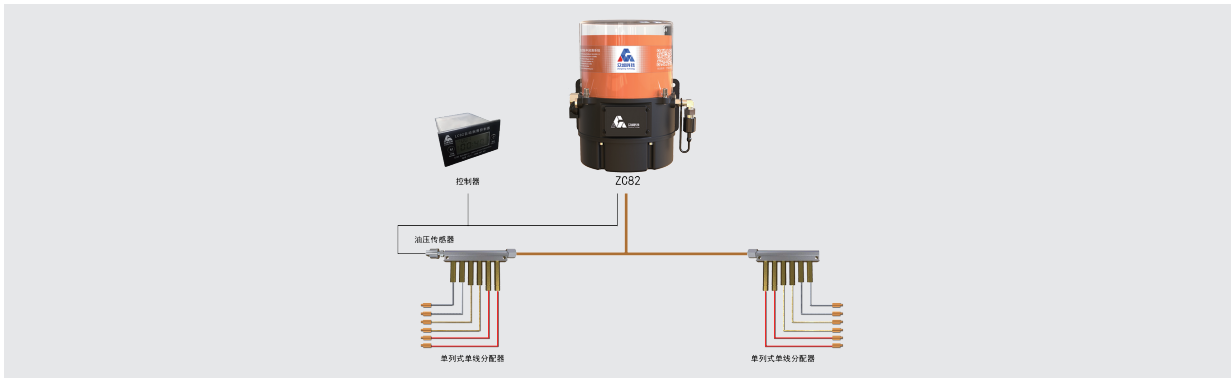
Measured Fuel Consumption of Yutong YTK105D Operating in Heavy-load Uphill Mining Area

Brand	Operation Condition	Operation Trip	Total Fuel Consumption (L)	Operation Mileage (km)	Average Fuel Consumption (L/100km)	Fuel-saving Effect (compared with Yutong)	Annual fuel consumption	Comparison of Fuel Saving Cost (RMB/year)
Competitive product 1	Heavy-load uphill	666	11,849	3,996	297	5%	1,193,914	56,878
Competitive product 2		545	9,771	3,270	299	6%	1,203,118	66,082
Yutong YTK105D		533	9,031	3,198	282	—	1,137,036	—

Note: The unit price of oil products is RMB 7.19/L based on 200KM per day and 280 days of operation per year

# CENTRALIZED LUBRICATION SYSTEM (Optional)

The full-automatic centralized lubrication system accurately controls the oil supply amount through microcomputer program according to the running time of the vehicle. A fully enclosed system composed of pipelines prevents dirt from entering the friction pair, so as to achieve good lubrication effect, reduce overhaul times, prolong the service life of the vehicle and improve the uptime of vehicles.



## Using Effect

- 1. Reduced excessive wear of core mechanical parts resulting from insufficient or omitted application of lubricating oil during manual operation, and less maintenance cost of key components;
- 2. It can improve the vehicle uptime, increase the effective working time of vehicles and transport more ores. According to the calculation of 3 additional maintenance times, 10 hours each time, the opportunity income is RMB 5,200;
- 3. Reduce the number of on-site maintenance personnel and costs;
- 4. Reduce management complexity.



# PROFESSIONAL SERVICES

Focusing on the distinct operational and service challenges faced by truck customers in different countries, Yutong provides extensive global after-sales services, setting up a first-rate specialized maintenance system for new energy vehicles in the industry.

# CUSTOMER CASES

Yutong diesel off-highway mining truck have a comprehensive layout in overseas markets, and have achieved batch sales in Chile, Indonesia, Thailand, Malaysia, Pakistan and other countries.



4

Global distribution centers

10

Parts distribution centers

84

Overseas parts dealers

325

Secondary service outlets

15-minute

Response to demand

24-hour

Emergency rescue service



Malaysia



Indonesia



Pakistan



Zambia



Indonesia



Vietnam



Thailand



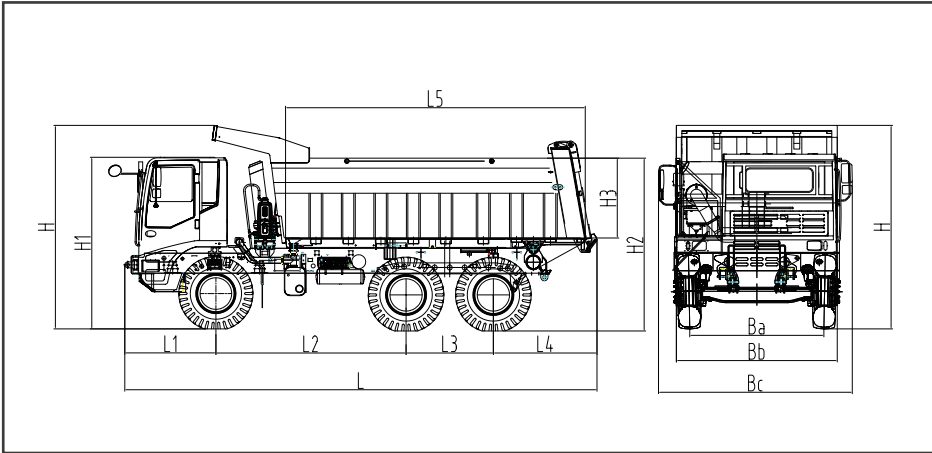
Mongolia



Thailand



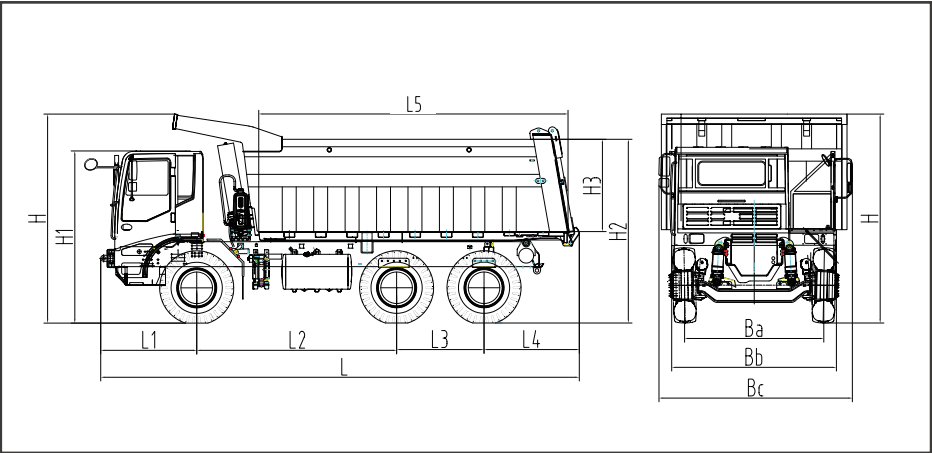
Main Specifications		YTK90D(LHD)
Item		Parameter
Basic parameters		
Length × Width × Height (mm)		9,195×3,450×4,150
Wheelbase (mm)		3,800+1,550
Maximum gradeability (%)		30
Minimum turning diameter (m)		≤21
Rated power (kW/r/min)		338/2,100
Maximum torque (N.m/r/min)		2,000/1,200-1,600
Maximum speed (km/h)		45
Body raise time/lower time (s)		18/23
Rated payload (kg)		60,000
Chassis		
Engine		Weichai WP12G460E310
Transmission		FAST7DS220
Front axle/middle axle/rear axle		Rated payload 20/35/35t, drum-type brake
Suspension system		Front leaf spring suspension + rear leaf spring balance suspension (maintenance-free balance shaft)
Fuel tank (L)		420
Tire		14.00R25 steel wire tire
Frame		High-strength steel
Upperstructure		
Body hoists		One-direction hydraulic lifting cylinder
Sprinkling device	Optional	320L/500L sprinkling device
Body capacity (m³)		34 (struck, earthwork container)



Overall dimensions	Parameter (mm)
L1 Front overhang	1,830
L2 Wheelbase L2	3,800
L3 Wheelbase L3	1,550
L4 Rear overhang	2,015
L5 Body length	5,900
L Overall length	9,195
H1 Cab height	3,435
H2 Height of container above ground	3,650
H3 Container height	1,800
H Overall height	4,150
Ba Wheel tread	2,710
Bb Overall width	3,450
Bc Max width	3,950

Disclaimer: this configuration table is for reference only and not used as the basis for contract negotiation. The actual vehicle shall prevail.

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H Overall height	4,150
Ba Wheel tread	2,710
Bb Overall width	3,450
Bc Max width	3,950

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Main Specifications		YTK105D(LHD)
Item		Parameter
Basic parameters		
Length × Width × Height (mm)		9,645×3,750×4,200
Wheelbase (mm)		4,000+1,750
Maximum gradeability (%)		30
Minimum turning diameter (m)		≤22
Rated power (kW/r/min)		390/2,100
Maximum torque (N.m/r/min)		2,300/1,200-1,600
Maximum speed (km/h)		45
Body raise time/lower time (s)		15/22
Rated payload (kg)		70,000
Chassis		
Engine		Weichai WP13G530E310
Transmission		FAST 8DS260A
Front axle/middle axle/rear axle		Rated payload 25/40/40t, drum-type brake
Suspension system		Front leaf spring suspension + rear leaf spring balance suspension (maintenance-free balance shaft)
Fuel tank (L)		600
Tire		16.00R25 steel wire tire
Frame		High-strength steel
Upperstructure		
Body hoists		One-direction hydraulic lifting cylinder
Sprinkling device	Optional	320L/500L sprinkling device
Body capacity (m³)		40 (struck, earthwork container)

Overall dimensions		Parameter (mm)	
L1 Front overhang		1,880	
L2 Wheelbase L2		4,000	
L3 Wheelbase L3		1,750	
L4 Rear overhang		2,015	
L5 Body length		6,300	
L Overall length		9,645	
H1 Cab height		3,540	
H2 Height of container above ground		3,750	
H3 Container height		1,800	
H Overall height		4,280	
Ba Wheel tread		2,790	
Bb Overall width		3,750	
Bc Max width		3,950	

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Main Specifications		YTK105D(RHD)
Item		Parameter
Basic parameters		
Length × Width × Height (mm)		9,645×3,750×4,200
Wheelbase (mm)		4,000+1,750
Maximum gradeability (%)		30
Minimum turning diameter (m)		≤22
Rated power (kW/r/min)		390/2,100
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H3 Container height		1,800	
H Overall height		4,280	
Ba Wheel tread		2,790	
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