

SPECIFICATIONS

Braking	
Service Brake	Double loop shoe type gas brake
Auxiliary Brake	Engine in-cylinder braking system as an option
Pressure	10 bar
Air Tank Capacity	200 L
Slope Degree	30° (uphill) / 20° (downhill)
Clutch	
Model	430 pull type, single plate
Air filters	
Type	Oil-bath multi-stage air filter
Air Flow	2,500 m³/h
Cooler	
Heat Dissipation	155 kW
Suspension	
Front	Longitudinal steel plate spring
Rear	Balanced suspension
Lifting mechanism	
Model	Front suspended, four section telescopic, single action lifting cylinders
Rated Pressure	20 MPa
Maximum Tilt Angle	46°
Cab	
Type	Left side mounted, half-floating
Air conditioner	
Type	Cold and warm dual-purpose air conditioning with electric control
Defroster	
Heating Power	5.8 kW
Air Speed	≥15 m/s
Seat	
Type	Suspension seat, four directional adjustable, adjustable backrest angle
Sound	
Sound Level	105-125 dB(A)
Frame	
Type	High strength rigid and flexible frame
Truck body	
Struck Capacity	30 m³
Type	Rectangular box; Bottom 16 mm; Side 12 mm
Material	Q345B (NM400 or T700 is optional)
Tire and rim	
Type	Front - single tire, middle and rear - double tires
Tire Model	14.00R25 E3
Rim	10-25
Tire Pressure	10 bar
Maximum Load at 10 km/h	10,000 kg
Electrical System	
Power Supply	24 V
Start	Key

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LiuGong standard and optional equipment may vary from region to region. Please consult your LiuGong dealer for information specific to your area.



LG-PB-DW90A-WW-8-122018-ENG

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Engine	DW90A CUMMINS QSM11
Rated Power	306 kW @ 1900 rpm
Vehicle Weight	31,000 kg
Payload	59,000 kg
Carrier Capacity	30 m³

DW90A  
MINING TRUCK



TOUGH WORLD. TOUGH EQUIPMENT.

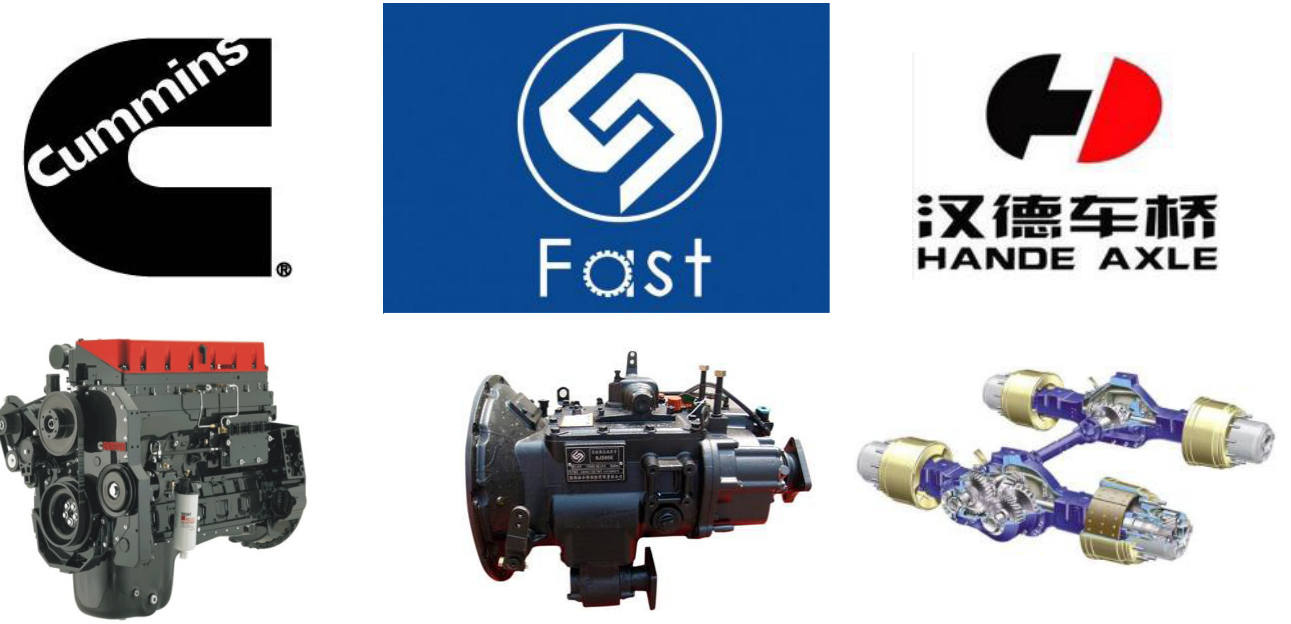


SPECIFICATIONS

Weight	
Total mass (kg)	90000
Vehicle weight (kg)	31000
Payload (kg)	59000
Carrier	
Carriage size (mm)	5800*3200*1650
Capacity Stuck (m³)	30
Heaped capacity SAE (2:1) (m³)	36
Power	
Engine model	OSM11 Stage III
Rated power / rated speed (kW/rpm)	306 / 1900
Maximum torque / speed (Nm/rpm)	1898 / 1100-1400
Fuel injection	Electronic control
Number of cylinders	6
Displacement (L)	10.8
Transmission	
Model	10JSD220
Retarder model (optional)	Eddy current
Axle	
Rated load (kg)	20000
Suspension form	Leaf spring
Rated axle load (kg)	35000*2
Performance	
Maximum speed (km/h)	40
Max. gradeability	≥45%
Turning radius (front) (mm)	≤11000
Lift system	
Lifting time (s)	≤33
Lowering time (s)	≤22
Tire	
Tire size	14.00R25
Rim	10.0/2.0-25
Overall size	
Overall length (mm)	9075
Overall width (mm)	3450
Overall height (mm)	4385
Loading height (mm)	4300
Wheel base (mm)	3800+1550
Minimum ground clearance (mm)	372
Dump angle	46°

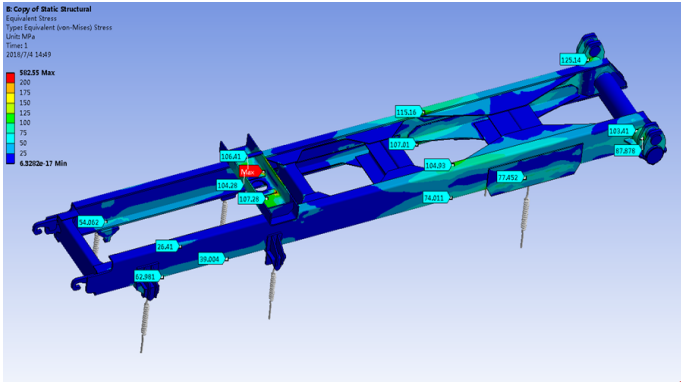


# KEY COMPONENTS

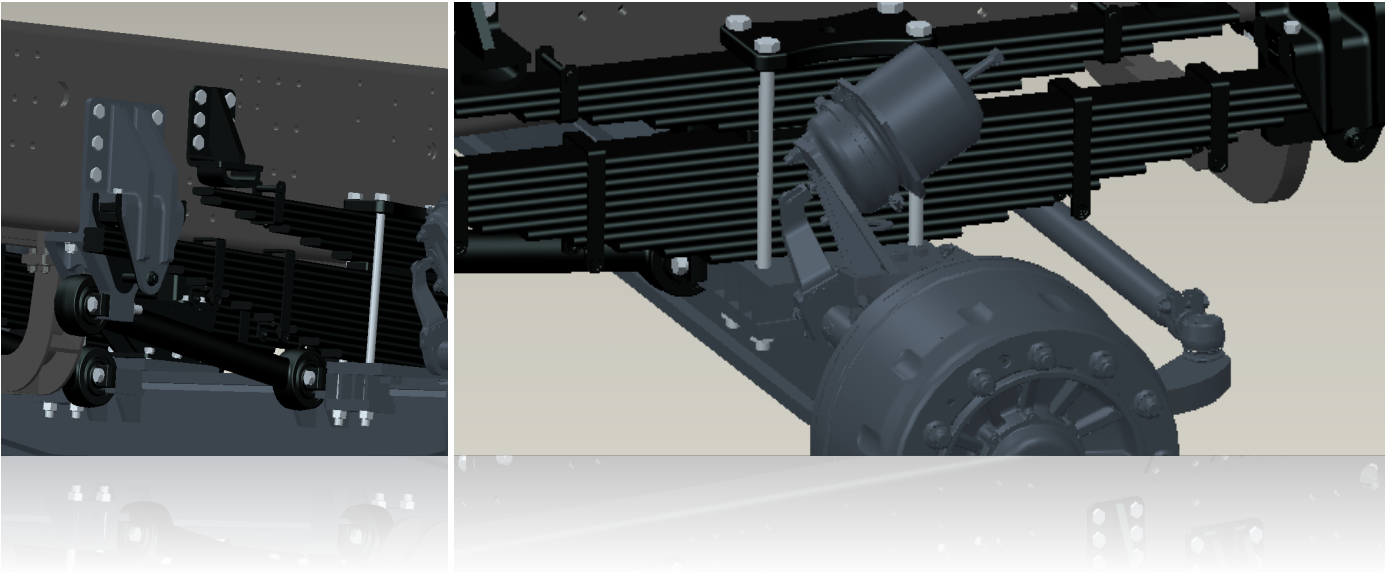


# CHASSIS FRAME

- Two-layer/three-layer trapezoidal beam structure provides better bending and torsion resistance performance, which perfectly adapt to any harsh working environments in the mining areas.
- Single beam structure lowers the vehicle's center of gravity by 100 mm.
- 1,200 mm outer width of the frame ensures the stability of the upper body of the truck.
- Advanced analysis tools including dynamics and durability simulations have been utilized to ensure the chassis frame is strong and stiff enough for working at mines.
- The frame and all beams are connected with grade 10.9 M20 high-strength bolts, providing longer life.
- The high-strength M20 bolts are also used for connecting rear suspension crossbeam and the balance shaft to the frame which ideally improve the stability of the rear suspension system.
- Spirallock retaining locknuts are fitted to stop any bolts on the frame from loosening.
- Larger contacting area between the balance shaft base and the frame decomposes the stress distribution, improving the torsional performance of the rear suspension system and service life of the truck.

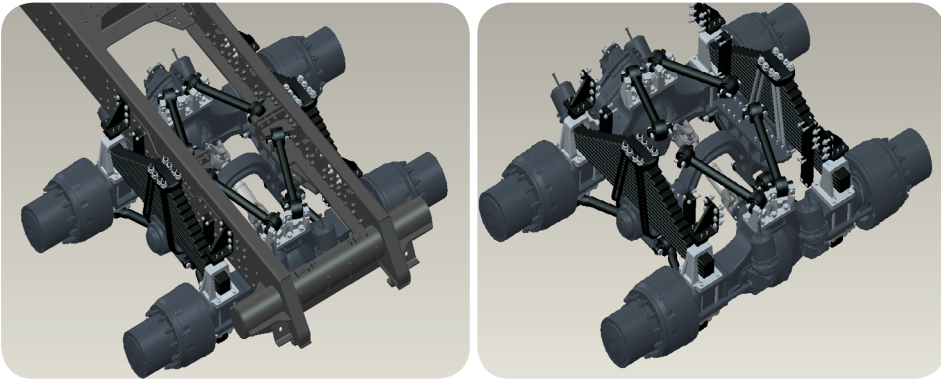


# FRONT SUSPENSION



- Front spring damper – combination of 15 pieces of rubber pads, 100 mm of width, with uneven thickness for each, not only provides the rigid strength required in your job site but also maximizes the cushioning effect needed for driving comfort.
- Usage of M14 U bolts avoids the damage from the spring dampers misalignment.
- The front spring damper is fixed thereto by M30 U bolts from bottom up and rigidly supported to the front axle.
- Front bracket and nut locking structure fundamentally solve early failures of the front spring damper.
- We have simplified the structure of the rear bracket putting an end to the deformation and fracture of damper lug.
- Each piece of the damper has non-slip grooves to prevent it from dislocation and damage.
- Zero failure rate of the entire front suspension system within two years.

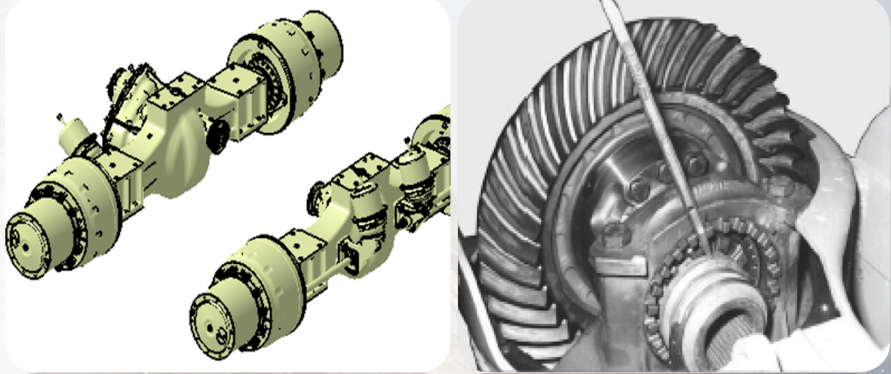
# REAR SUSPENSION



- V-shape 8-bars suspension structure is designed for even distribution of stress loads.
- Enhanced frame type balance shaft ensures the frame to be tough and reliable.
- Integrated equalization suspension bracket can disperse the forces into vertical beam direction, avoid fatigue failure causing by high stress on frame.

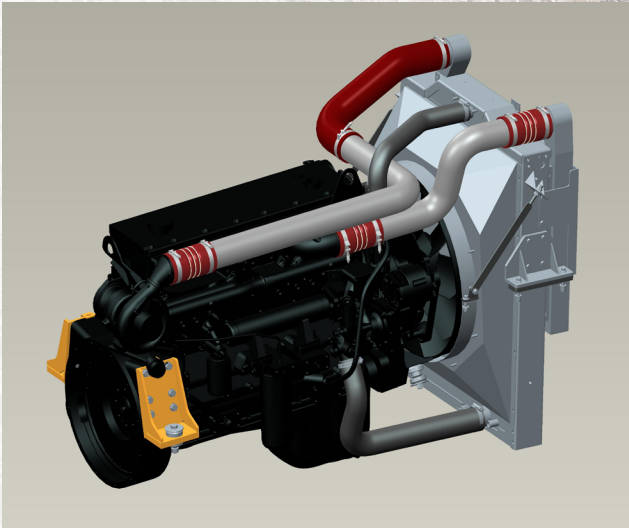
# AXLES

- Front axle from Hande which is specially designed for MINING TRUCK, provides the maximum loading capacity in the same size class.
- Box-shaped welded front axle with stronger bearing capacity
- Casting rear axle, reinforced gearbox and planetary gears.



# COOLING

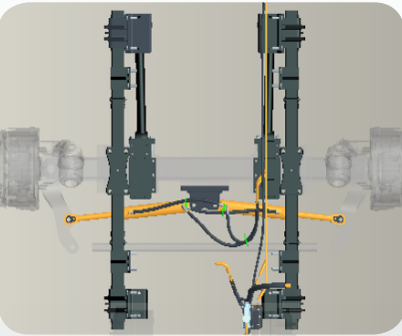
- Mechanical suction type large size annular fan gives large ventilation and ensures high system reliability.
- 30% higher cooling capacity enables the truck working properly in mines and tropical zone.
- Series connection heat exchangers keep the coolant temperature below boiling point.
- Aluminum fin type cooling system from construction machinery industry, solves leaking or breaking issues in mining area or other tough applications.



# STEERING AND FUEL

## STEERING SYSTEM

- High flow, large torque steering unit.
- Vane pump, small in size yet large at displacement.
- Steel tube heat exchanger has been added to the return oil line reducing oil temperature.
- Large capacity oil reservoir helps in lowering oil temperature perfectly matching up with mining work conditions



## FUEL SYSTEM

- 600 liters fuel tank saves your time from servicing, increasing jobsite productivity.
- Three mounting support brackets keep the fuel tank secured.
- Electrical fuel refilling pump, water level alarm.

# CAB



- Outstanding visibility
- Semi-floating suspension, rubber bushing structure
- Spacious room with comfortable air suspension seat
- Foaming sound-insulating layer, good noise suppression effect.