FAMBITION
QINGDAO FAMBITION HEAVY MACHINERY CO.,LTD.

FT455 TECHNICAL SPECIFICATION



High-efficiency Equipment, Made by FAMBITION

FAMBITION FT455 underground diesel mining truck has a standard dump box of 22 m^3 and a payload capacity of 45 tons, primarily used for transporting hard rock in underground non-coal mines. The recommended matching LHD of FAMBITION is FL14.

Features:

- Central articulated vehicle, manufactured with high-quality alloy steel, advanced machining and heat treatment processes, innovative and compact design, with key components reinforced to ensure robust and durable body structure
- CAN-bus communication technology for fault self-diagnosis and real-time monitoring of vehicle operation status to ensure safe operation of systems
- Fully enclosed air-conditioned cab with FOPS/ROPS certification, sound-absorbing interior materials, and rubber shock absorption between cab and seat to reduce vibration and improve driving comfort
- Fully enclosed air-conditioned cabin with FOPS/ROPS certificate, luxurious interior, circulating air duct and defrosting & defogging function
- Emission treatment of the technical route of Diesel Oxidation Catalyst (DOC) + Diesel Particulate Filter (DPF) + Selective Catalytic Reduction (SCR) + Ammonia Slip Catalyst (ASC), which is environmentally friendly and energy-saving, complying with Euro V emission standards
- A reversing image system to ensure equipment operation safety.
- Independent heat dissipation systems for the engine and hydraulic/transmission oil, improving cooling efficiency and extending the service life of equipment components

Version number: 202601
Address: No.31, Beijing East Road, Longshui Subdistrict Office, Laixi City, Qingdao, Shandong, China.
E-mail: info@fambition.com Tel: +86(532)87900000 Website: Http://www.fambition.com

Basic dimensions	
Max. length	10 696 mm
Max. width	3 180 mm
Cabin height	2 899 mm
Dumping angle	62°
Dump position max. height	6 113 mm
Ground clearance	458 mm
Steering angle	±42.5°
Inner turning radius	5 067 mm
Outer turning radius	9 140 mm

Operating weights	
Total operating weight	36 100 kg
Front axle load (empty)	26 600 kg
Rear axle load (empty)	9 500 kg
Loaded weights	
Total loaded weight	81 100 kg
Front axle load (loaded)	38 000 kg
Rear axle load (loaded)	43 100 kg
Dumping time	14.0 sec

Production capacity	
Standard dump box (SAE)	22 m³
Payload capacity	45 000 kg
Max. traction force	485 kN
Grade ability	15°

Speeds forward & reverse (level/loaded)	
1st gear	5.4 km/h
2nd gear	7.1 km/h
3rd gear	9.8 km/h
4th gear	12.9 km/h
5th gear	17.1 km/h
6th gear	22.6 km/h
7th gear	30.6 km/h

Operational conditions	
Environmental temperature	-20°C~+50°C
Standard operating altitude	-1500 m~+1000 m @ 25°C No power loss

Design standards
AQ 1043-2007 Mining Products Safety Label
GB 21500-2008 Trackless Tyred Mining Truck for Underground Mines—Safety Requirements
JB/T 8436-2015 Tyred Mining Truck for Underground Mines
JB/T 5946-1991 Construction Machinery—General Technical Specifications for Painting

Engine	
Brand&model	Volvo TAD1385VE
Rated power	405 kW @ 1 800 rpm
Output torque	2 650 Nm @ 1 200 rpm
Cylinders	Inline six-cylinder
Displacement	12.78 L
Cooling system	Liquid cooled
Combustion principle	4-stroke, electric fuel injection with turbo
Air intake system	Two stage filtration, dry type, air-cooler
Operating voltage	24 V
Emissions standard	China Stage IV, Euro Stage V
Ventilation rate (ULSD)	MSHA 27 000 CFM
Exhaust system	Catalytic purifier and muffler
Average fuel consumption (at a 40% load)	41 L/h
Fuel tank refill capacity	850 L

Power train	
Transmission	Dana 8000 series
Torque converter	Dana CL9000 series
Gear shifting type	Electric gear shift control Seven gears forward&two gears reverse Manual/automatic
Axles	Kessler D106
	SAHR Limited slip differentials

	Rear axle fixed, front axle oscillating ±8°
	Rexroth electric traction control
Tires	26.5R25

Cabin (enclosed)
Fully enclosed forward-facing cabin
FOPS certified in accordance with ISO 3471
ROPS certified in accordance with ISO 3449
Cooling-only air conditioning with fresh air system
Two-sided laminated tampered glass window
Sound-absorbing, noise-reducing and heat-insulating interior
Trelleborg rubber shock absorption
Emergency outward-push escape window
Three-point contact access system to quickly get into the cabin
Emergency stop switch
Grammer suspension shock-absorbing seat
Two-point safety belt
Cabin door safety interlock
Multimedia

Hydraulics	
Steering hydraulics	
Fully hydraulic powered steering, double-acting steering cylinder, adjustable steering angle, priority flow steering Oil flows to the dump box hydraulic system from the pump when the steering system is not in use.	
Steering cylinder	Ø125 mm, 2 pcs
Steering pump	Variable displacement piston pump
Dump box hydraulics	
Hydraulic pilot proportional control Oil flows to the dump box hydraulic system from the pump when the steering system is not in use.	
Lift cylinder	Ø160 mm, 2 pcs
Main valve	Parker
Brakes	
Charging valve	Parker
Service brake valve	Mico
Brake accumulator	Parker
Cooling system	
Hydraulic&transmission oil radiator	Motor-driven fan
Steering&main valve	Parker variable displacement piston pumps
Engine cooling&brake charging pumps	Parker tandem variable displacement piston pumps
Hydraulic oil tank	
Working hydraulic oil tank	225 L (Parker oil return filter)
Brake hydraulic oil tank	100 L (Parker oil return filter)

Electrical system	
Generator	28 V, 150 A
Battery	2*12 V, 150 Ah
Starter	24 V/5.5 kW
Circuit breaker	ABB
Electric relay	Bosch
Connector	TE
Controller	EPEC
Joystick	Caldaro
FAMBITION electrical technician (FET) technology	Real-time monitoring of system operation
	Fault diagnosis prompts
	Fault indicator light
	Historical fault records
	Operation data download
Display	EPEC 6807 7" color display
	Adjustable display brightness
	Language options including Chinese, English, Russian and Spanish

Safety	
Flashing beacon	1 pc
Portable fire extinguisher	1*8 kg
Alarm horn&back-up alarm	Ecco 107 dB
LED lamp	4 pcs on the front of front

Address: No.31, Beijing East Road, Longshui Subdistrict Office, Laixi City, Qingdao, Shandong, China.
E-mail: info@fambition.com Tel: +86(532)87900000 Website: Http://www.fambition.com

	frame 2 pcs on the right of front frame 2 pcs on cabin 2 pcs on rear frame
Reverse camera	1 set
Supporting bar for repair	1 pc
Frame lock lever	1 pc
Emergency stop button	1 pc in cabin 4 pcs on the front frame
Lifting buzzer	1 pc
Driving direction lights	1 set

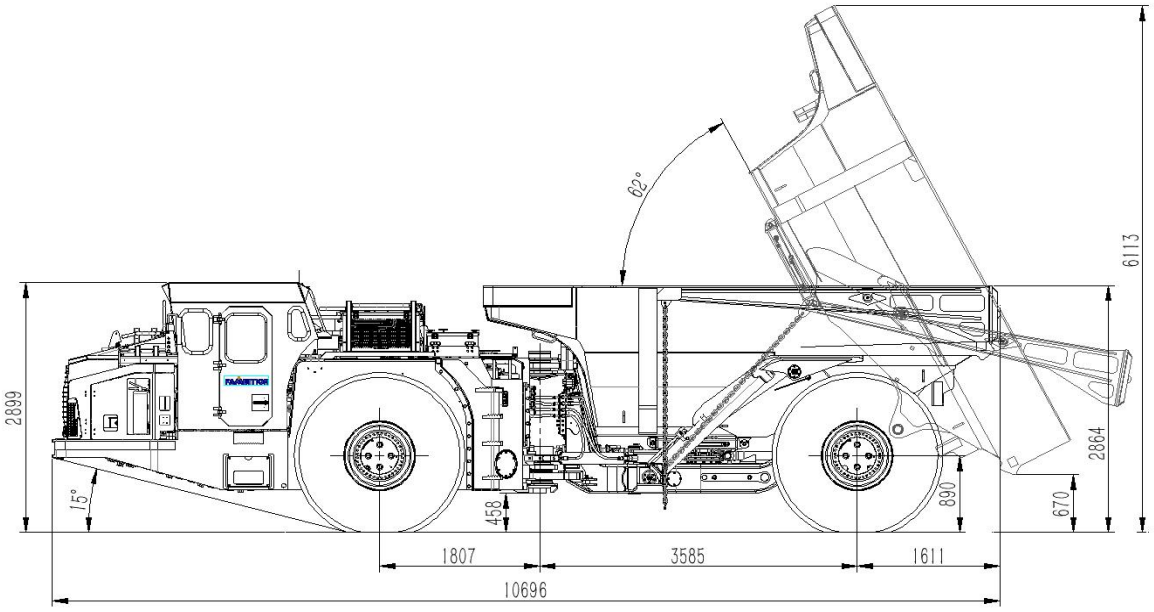
Options
22 m³ dump box without tailgate
25 m³ dump box
Pneumatic suspension seat
Cab heater
Electric filling pump

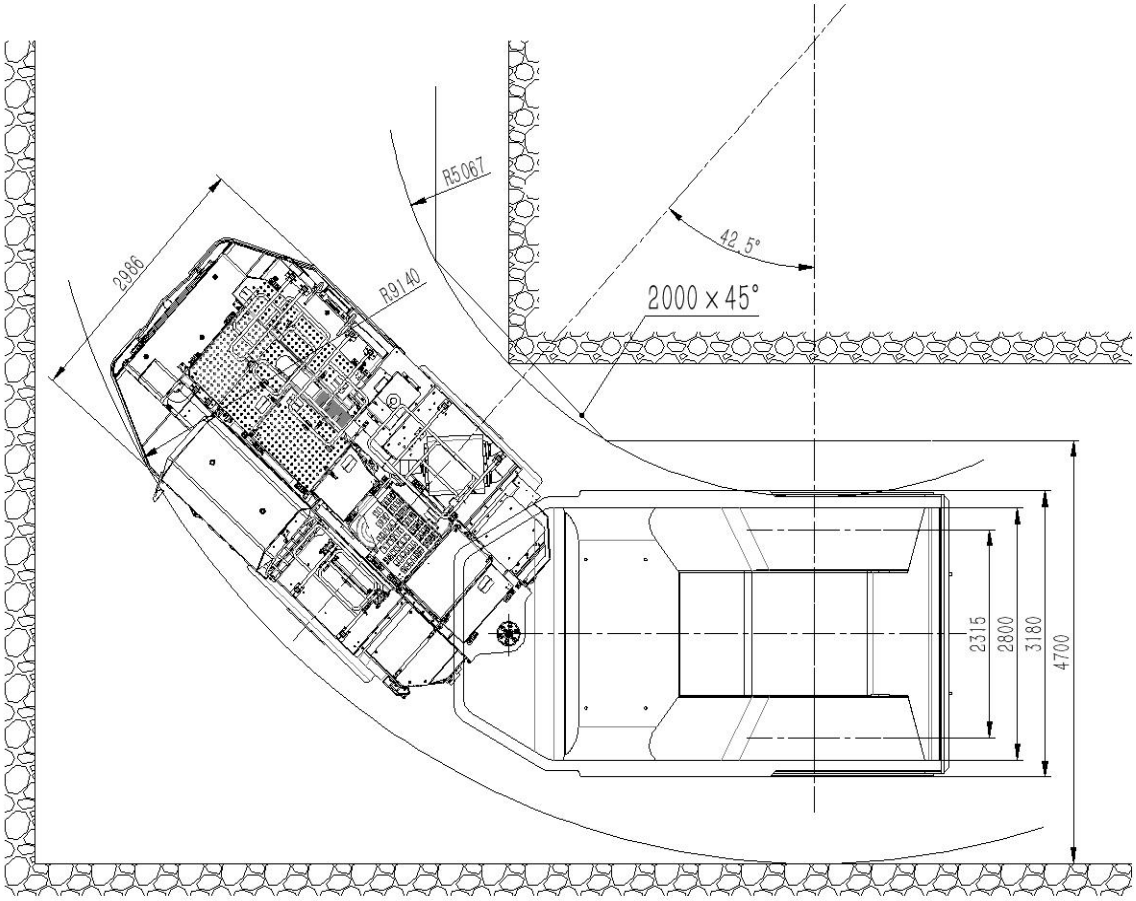
Protecfire manual fire suppression system
Protecfire automatic fire suppression system
Video monitoring system
Huarui weighing system
Emergency steering
Retrieval hook (hydraulic brake release by pulling the hook)
Arctic package (preheater for hydr. oil, fuel and engine coolant)
Harmful gas detection
Tyre pressure monitoring
Jump start
Wheel chock

Manuals	
Spare parts manual	Chinese/English version*4 pcs
Operation and maintenance manual	Chinese/English version*4 pcs
Electronic manual	USB stick in pdf format*4 pcs

FT455 grade&speed					
			Empty		
Percent grade	0	5.0	10.0	15.0	20.0
1st gear (km/h)	5.5	5.4	5.4	5.4	5.4
2nd gear (km/h)	7.2	7.1	7.1	7.1	7.0
3rd gear (km/h)	9.8	9.7	9.7	9.6	9.5
4th gear (km/h)	13.0	12.8	12.7	12.5	12.4
5th gear (km/h)	17.2	16.9	16.6	16.4	14.4
6th gear (km/h)	22.8	22.3	21.8	19.4	
7th gear (km/h)	31.1	30.1	26.1		
			Loaded		
Percent grade	0	5.0	10.0	15.0	20.0
1st gear (km/h)	5.4	5.4	5.3	5.3	5.2
2nd gear (km/h)	7.1	7.1	7.0	6.9	6.6
3rd gear (km/h)	9.8	9.6	9.4	8.8	5.0
4th gear (km/h)	12.9	12.6	11.8	9.2	
5th gear (km/h)	17.1	16.5	12.4		
6th gear (km/h)	22.6	20.3			
7th gear (km/h)	30.6				

Address: No.31, Beijing East Road, Longshui Subdistrict Office, Laixi City, Qingdao, Shandong, China.
E-mail: info@fambition.com Tel: +86(532)87900000 Website: Http://www.fambition.com





Subject to change without further notice!

United in Progress, Striving for Excellence

同舟共济 追求卓越

Version number: 202601
Address: No.31, Beijing East Road, Longshui Subdistrict Office, Laixi City, Qingdao, Shandong, China.
E-mail: info@fambition.com Tel: +86(532)87900000 Website: Http://www.fambition.com