FAMBITION
QINGDAO FAMBITION HEAVY MACHINERY CO.,LTD.

FT225 TECHNICAL SPECIFICATION



High-efficiency Equipment, Made by FAMBITION

The FT225 underground diesel mining truck has a standard dump box of 10 m³ and a payload capacity of 22 tons, primarily used for transporting hard rock in underground non-coal mines with the tunnel dimension of 3.8*3.5 m or larger. The recommended matching LHD of FAMBITION is FL075.

Features:

- Centrally articulated vehicle, with full hydraulic power steering and small turning radius
- High-quality alloy steel, advanced machining process, heat treatment process, and innovative design, to ensure that the body structure is sturdy and durable
- CAN-bus communication technology for self-diagnosis of faults and real-time monitoring of vehicle operation status to ensure safe operation of systems
- Independent oil dispersion system, greatly improving the performance of hydraulic motor-driven heat dissipation
- Exhaust system of emission treatment adopts 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 China IV and Euro III emission standards.
- Enclosed air-conditioned cabin with FOPS/ROPS certification and reverse camera to ensure safe equipment operation

Version number: 202601
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E-mail: info@fambition.com Tel: +86(532)87900000 Website: Http://www.fambition.com

Basic dimensions	
Max. length	9 260 mm
Max. width	2 400 mm
Cabin height	2 483 mm
Dumping angle	58°
Dump position max. height	4 323 mm
Ground clearance	≥457 mm
Steering angle	±42.5°
Inner turning radius	4 540 mm
Outer turning radius	7 667 mm

Operating weights	
Total operating weight	23 000 kg
Front axle load	15 000 kg
Rear axle load	8 000 kg
Loaded weights	
Total loaded weight	45 000 kg
Front axle load	21 100 kg
Rear axle load	23 900 kg
Dumping time	15 sec

Production capacity	
Standard dump box (SAE)	10 m³
Payload capacity	22 000 kg
Max. traction force	233 kN
Grade ability	25 %

Speeds forward & reverse (level/loaded)	
1st gear	5.5 km/h
2nd gear	9.8 km/h
3rd gear	17.3 km/h
4th gear	30.8 km/h

Operational conditions	
Environmental temperature	-20°C~+50°C
Standard operating altitude	-1500 m~+3000 m @ 25°C No power loss

Design standards
AQ 1043-2007 Mining Products Safety Label
GB 20891-2014 Limits and Measurement Methods for Exhaust Pollutants from Diesel Engines of Non-road Mobile Machinery
GB 21500-2008 Trackless Tyred Mining Truck for Underground Mines—Safety Requirements
GB 7679.4-2005 Mining Machinery Terminology—Part 4: Mine Hauling Equipment
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 TAD884VE
Rated power	250 kW @ 2200 rpm
Output torque	1360 Nm @ 1400 rpm
Cylinders	Inline six-cylinder
Displacement	7.7 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	CN IV/Euro Stage V
Ventilation rate (ULSD)	CANMET 22500 CFM
Exhaust system	DOC+DPF+SCR+ASC
Average fuel consumption (at a 50% load)	30 L/h
Fuel tank refill capacity	370 L
	38 L

Power train	
Transmission	Dana 6400 series
Torque converter	Dana CL8500 series
Gear shifting type	Electric gear shift control, four gears forward and reverse
Axles	Kessler D91
	SAHR

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	Standard slip differentials
	Rear axle fixed, front axle oscillating ±10°
	M&F electrical traction control
Tires	18.00R25

Cabin (enclosed)
Fully enclosed side-mounted 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 tempered 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 Oil flows to the dump box hydraulic system from the pump when the steering system is not in use.	
Steering cylinder	Ø110 mm, 2 pcs
Steering valve	Danfoss
Dump box hydraulics	
Hydraulic pilot proportional control with two-stage telescopic double-acting hydraulic cylinder Oil flows to the dump box hydraulic system from the pump when the steering system is not in use.	
Lift cylinder	2 pcs
First-stage telescopic cylinder	Ø140 mm
Second-stage telescopic cylinder	Ø100 mm
Main valve	Parker
Brakes	
Charging valve	Sun
Service brake valve	Mico
Brake accumulator	Parker
Cooling system	
Hydraulic&transmission oil radiator	Hydraulic motor-driven fan
Intercooler&water-cooled radiator	Engine-driven fan
Steering&main pump	Parker gear pump
Brake pump	Parker gear pump
Cooling pump	Parker gear pump
Hydraulic oil tank	200 L (Donaldson oil suction 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
FAMBITION electrical technician (FET) technology	Real-time monitoring of system operation
	Fault diagnosis prompts
	Historical fault records
	Operation data download
Warning	Indicator lights
	EPEC 6807 7″ color display
	Adjustable lightness
	Language options including Chinese, English, and Russian

Safety	
Flashing beacon	1 pc
Portable fire protection	2*4 kg
Alarm horn & back-up alarm	Ecco 107 dB

LED lamp	4 pcs on the front frame 2 pcs on rear frame 2 pcs on cabin
Turn signal and brake light	4 pcs
Reverse camera	1 set
Supporting bar for repair	1 pc

Options
Pneumatic suspension seat
Electric filling pump
Heating, Ventilation, and Air Conditioning (HVAC)
Protecfire automatic/manual centralized fire suppression system
Video monitoring system

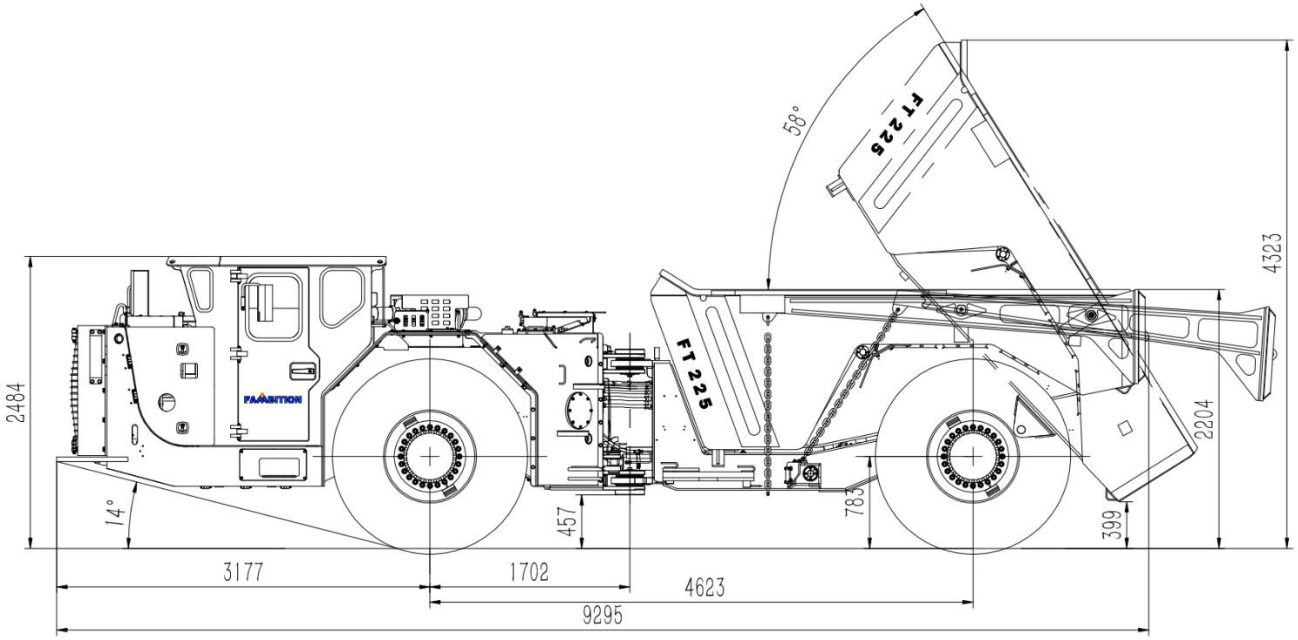
11 m³ dump box
Lincoln automatic centralized lubrication system
Paguld automatic centralized lubrication system
Harmful gas detection
Wheel chock
Cab heater
Driving direction lights (red/green)
Tyre pressure monitoring

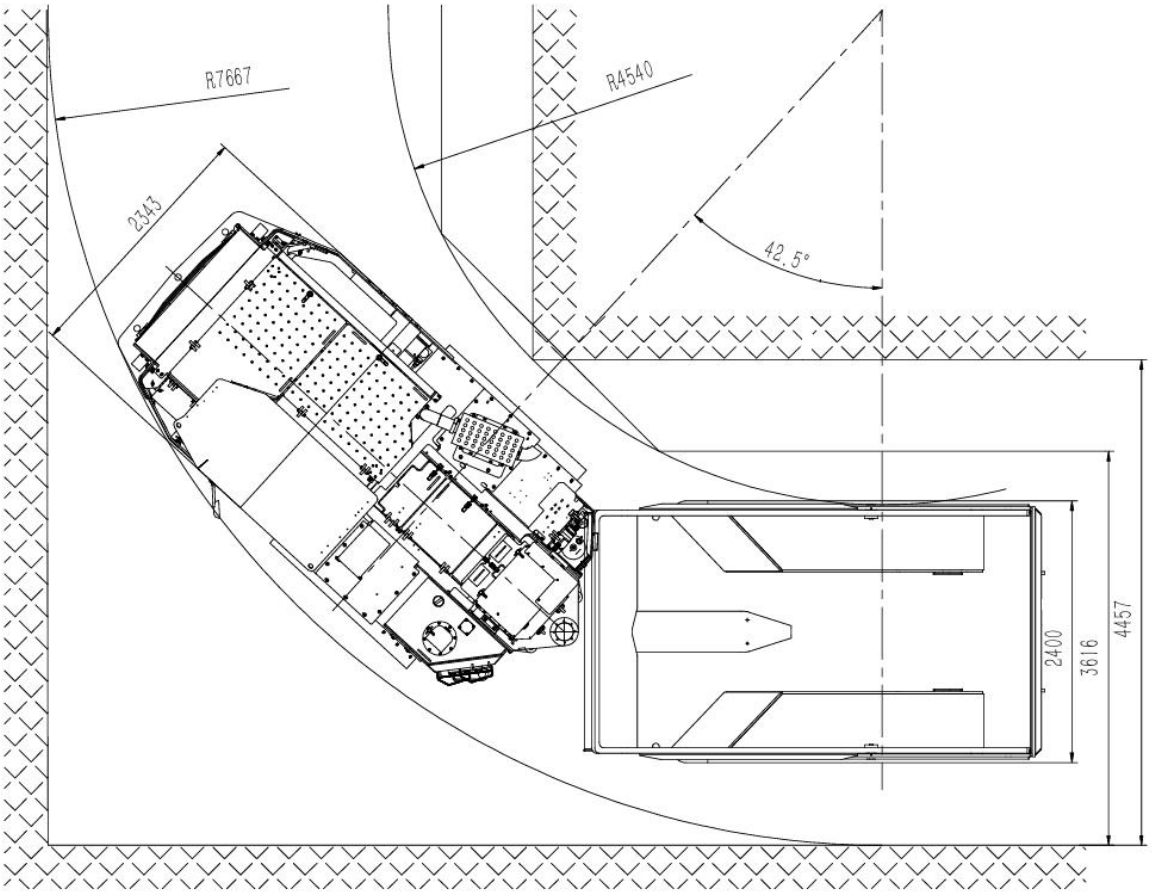
Manuals	
Spare parts manual	Chinese/English version 4 pcs
Operation and maintenance manual	Chinese/English version 4 pcs
Electronic manual	USB stick in pdf format 4 pcs

FT225 grade&speed

Empty									
Percent grade	0	2.0	4.0	6.0	8.0	10.0	140	16.0	20.0
1st gear (km/h)	5.5	5.2	5.2	5.1	5.1	5.1	5.1	5.1	5.1
2nd gear (km/h)	9.8	9.1	9.1	8.8	8.7	8.6	7.5	6.8	5.5
3rd gear (km/h)	17.3	15.8	15.6	14.8	11.9	9.6	4.3		
4th gear (km/h)	30.9	26.9	19.3	12.6					
Loaded									
Percent grade	0	2.0	4.0	6.0	8.0	10.0	14.0	16.0	20.0
1st gear (km/h)	5.5	5.2	5.2	5.1	5.1	5.1	5.0	5.0	5.0
2nd gear (km/h)	9.8	9.1	9.0	8.8	8.7	8.6	7.5	6.8	5.5
3rd gear (km/h)	17.3	15.8	15.5	14.7	11.8	9.5	4.3		
4th gear (km/h)	30.8	26.9	19.3	12.5					

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Subject to change without further notice !

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