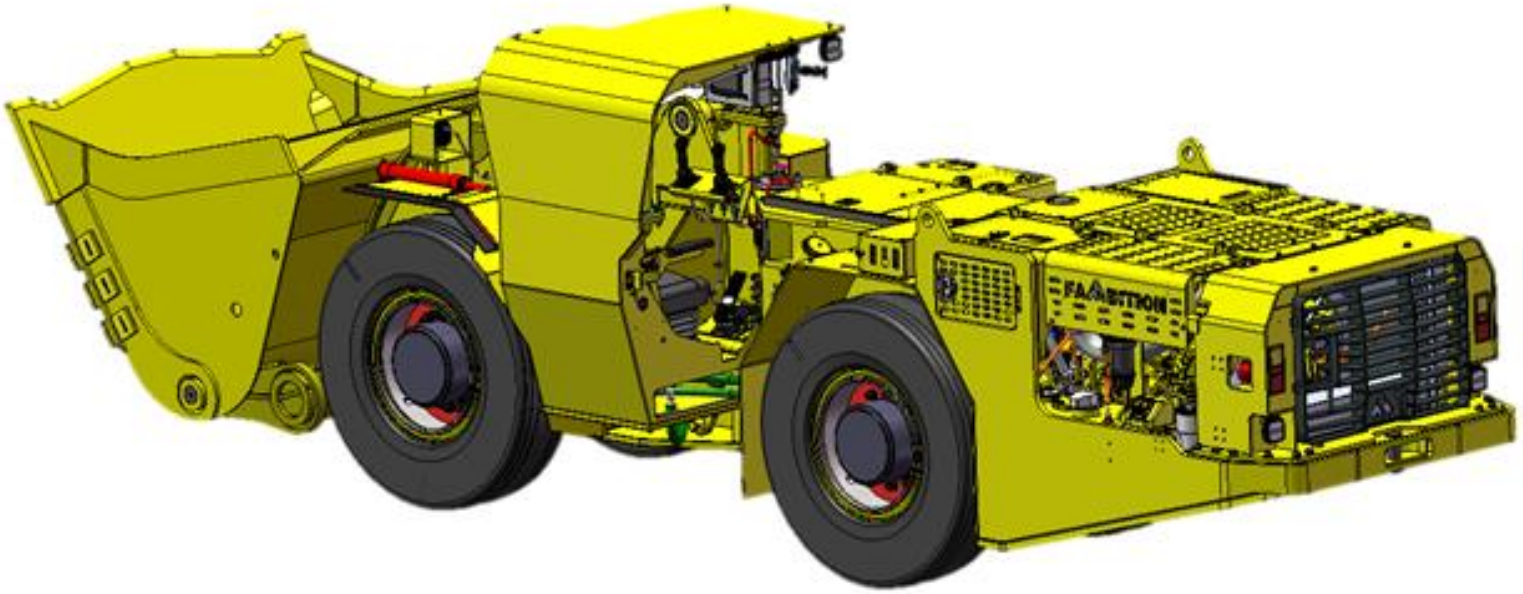
FAMBITION

QINGDAO FAMBITION HEAVY MACHINERY CO.,LTD.

FL055 TECHNICAL SPECIFICATION



High-efficiency Equipment, Made by FAMBITION

FL055 is a diesel-powered underground LHD for ore loading, hauling and transportation operations in non-coal mines, with a rated payload capacity of 5 tons, suitable for tunnels with the dimension over 3.0*2.8 meters.

Features:

- Powered by Volvo engine, delivering exceptional performance with robust power output while meeting stringent Euro V emission standards, achieving an optimal balance between power and environmental compliance
- Matched with Dana (USA) torque converter & transmission and Kessler (Germany) axles as well as other world-class premium components to ensure reliable, stable and highly efficient power delivery
- Core hydraulic system components sourced from internationally renowned brands, guaranteeing hydraulic reliability and smooth operation from the source, providing a solid foundation for continuous production
- Heavy-duty structure precision-fabricated from high-grade alloy steel with full post-weld heat treatment annealing, delivering superior load capacity and exceptional durability
- Advanced electro-hydraulic pilot proportional control technology for highly responsive operation, precise command execution and maximized productivity

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	
Length (bucket on ground)	8 303 mm
Length (bucket retracted)	7 780 mm
Max. width	1 888 mm
Height	2 170 mm
Max. dumping height	1 740 mm
Dumping distance	1 029 mm
Ground clearance	272 mm
Steering angle	±40°
Inner turning radius	2 817 mm
Outer turning radius	5 242 mm

Operating weights	
Total operating weight	15 000 kg
Front axle load	6 450 kg
Rear axle load	8 550 kg
Loaded weights	
Total loaded weight	20 000 kg
Front axle load	13 540 kg
Rear axle load	6 460 kg
Motion time	
Raising time	5.0 sec
Lowering time	4.0 sec
Dumping time	3.0 sec

Production capacity	
Standard bucket (SAE)	2.5 m^3
Payload capacity	5 000 kg
Maximum breakout force	90 kN
Maximum traction force	130 kN
Grade ability	25 %

Speeds (level/loaded)	
1st gear	4.9 km/h
2nd gear	9.0 km/h
3rd gear	14.5 km/h
4th gear	22.0 km/h

Operational conditions	
Environmental temperature	-20℃~+50℃
Standard operating altitude	-1500 m~+2000 m @ 25°C

Engine	
Brand&model	Volvo TAD581VE
Rated power	129 kW @ 2310 rpm
Output torque	800 Nm @ 1300 rpm
Cylinders	Inline four-cylinder
Displacement	5.13 L
Cooling system	Water cooled
Combustion principle	4-stroke, fuel injection with turbo
Air intake system	Two stage filtration, dry type, air-cooler
Operating voltage	24 V
Emissions	China Stage IV, Euro Stage V
Ventilation rate (ULSD)	CANMET 5.66 m^3/s MSHA 7 500 CFM
Particulate index (ULSD)	MSHA 9 500 CFM
Exhaust system	Catalytic purifier and muffler
Average fuel consumption (at a 40% load)	13 L/h
Fuel tank refill capacity	150 L

Power train	
Torque converter	Dana C270 series
Transmission	Dana 32000 series
Gear shifting type	Electrical gear shift control Manual/automatic
Axles	Kessler D82
	SAHR, limited slip differentials
	Front axle fixed, Rear axle oscillating ±7°
	M&F manual pump for brake release system
Tires	12.00-24

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Canopy	
Open side-mounted canopy	
FOPS certified in accordance with ISO 3471	
ROPS certified in accordance with ISO 3449	
Emergency stop switch	
Four-point safety belt	
Grammer shock-absorbing suspension seat	
Armrest safety interlock	

Hydraulics	
Steering hydraulics	
Electro-hydraulic pilot proportional control The oil flow from steering hydraulic pump is directed to bucket hydraulics when steering is not used.	
Steering cylinder	Ø125 mm, 1 pc
Steering valve	Rexroth
Steering pump	Rexroth piston pump
Boom&bucket hydraulics	
Electro-hydraulic pilot proportional control	
Lift cylinders	Ø180 mm, 1 pc
Dump cylinder	Ø180 mm, 1 pc
Bucket control joystick	Electric control
Main valve	Rexroth
Working pump	Rexroth piston pump
Brakes	
Charging valve	Mico
Service brake valve	Mico
Brake accumulator	Parker
Brake solenoid	Parker
Brake pump	Rexroth gear pump
Hydraulic oil tank	144 L

Electrical system	
Generator	28 V, 110 A
Battery	2*12 V, 90 Ah
Starter	24 V, 5.5 kW
Electric relay	Bosch
Circuit breaker	ABB
Joystick	Caldaro
Controller	EPEC SL84
Display	EPEC 6807 7″ color display
Engine faults monitoring	The display monitors engine operating information.

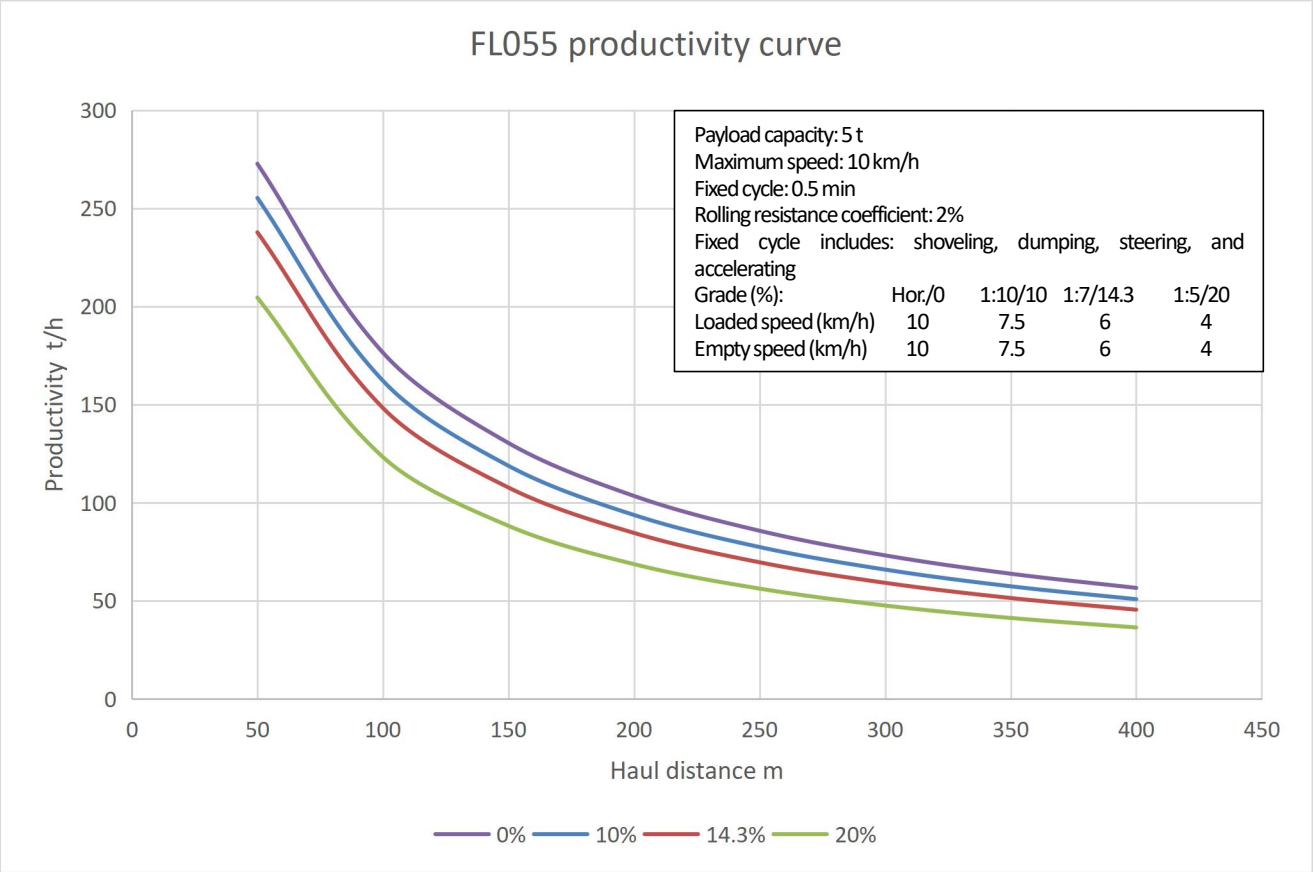
Options
Line of sight radio remote control
Lincoln automatic lubrication system
Wheel choke
Driving direction lights (red/green)

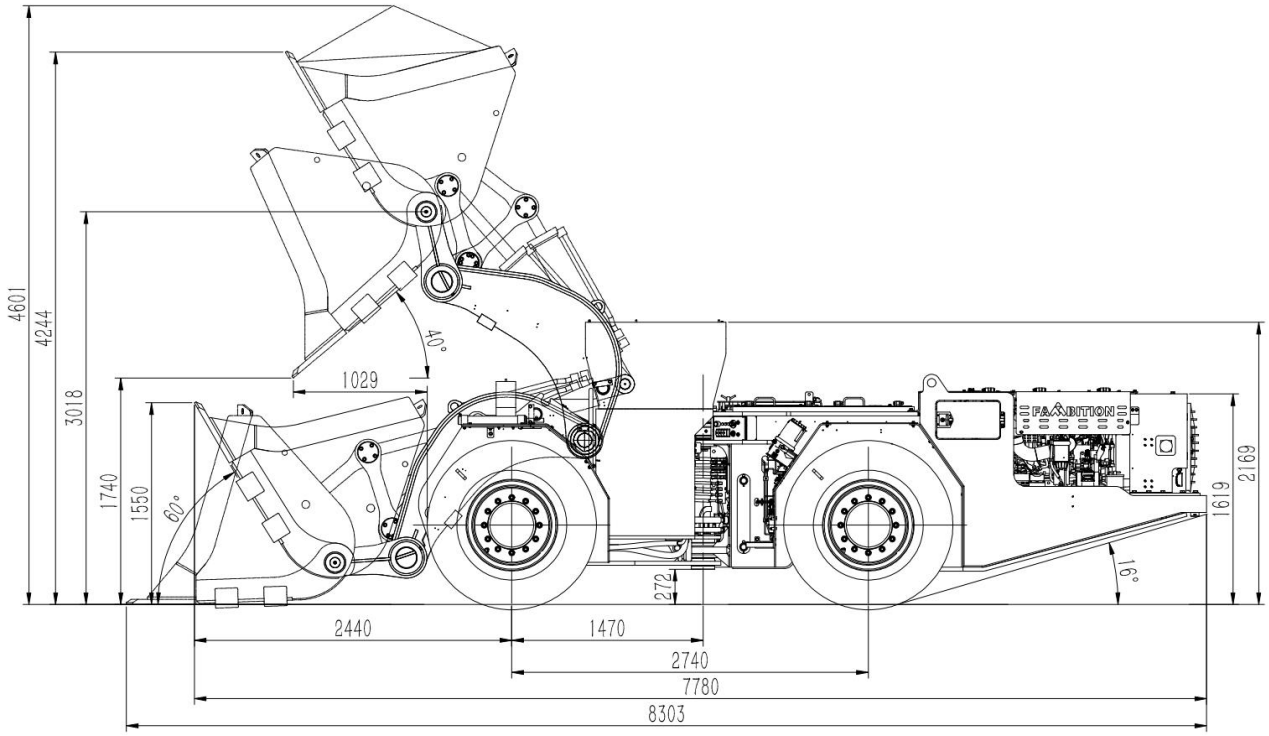
Safety	
Portable fire extinguisher	1*4 kg
Emergency stop push button	1 pc in the cabin; 2 pcs on the rear frame
Boom lock pin	2 pcs
Armrest safety interlock	Steering & operation disabled when armrest raised
Amber strobe light	1 pc

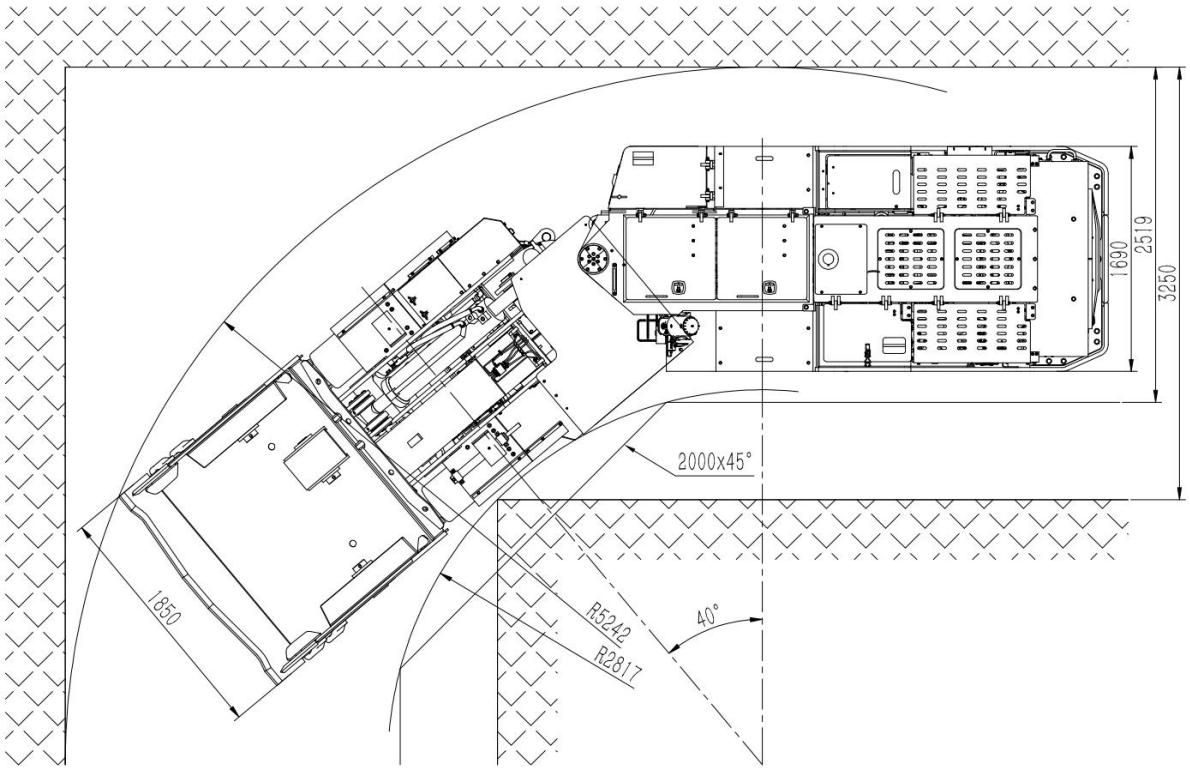
Manuals	
Spare parts manual	Chinese/English version
Operation and maintenance manual	Chinese/English version
Electronic manual	USB stick in pdf Format

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FL055 grade&speed									
Empty									
Percent grade	0	2.0	4.0	6.0	8.0	10.0	12.5	14.3	15.0
Ratio					1:12	1:10	1:8	1:7	
1st gear (km/h)	5.0	4.8	4.7	4.5	4.4	4.3	4.2	4.2	4.1
2nd gear (km/h)	9.2	9.1	8.9	8.6	8.3	8.0	7.7	7.4	6.5
3rd gear (km/h)	14.7	14.3	13.6	12.9	12.6	10.7	8.1	7.0	4.5
4th gear (km/h)	22.6	21.4	20.9	15.0	11.0	4.6			
Loaded									
Percent grade	0	2.0	4.0	6.0	8.0	10.0	12.5	14.3	15.0
Ratio					1:12	1:10	1:8	1:7	
1st gear (km/h)	4.9	4.6	4.5	4.4	4.3	4.2	4.1	4.0	3.9
2nd gear (km/h)	9.0	9.0	8.6	8.3	7.9	7.4	6.5	5.8	4.2
3rd gear (km/h)	14.5	13.0	12.1	11.6	9.9	8.0			
4th gear (km/h)	22.0	20.0	15.0	7.8					







Parameters may vary due to different customer requirements.

Qingdao Fambition Heavy Machinery Co., Ltd. reserves the right of final interpretation.

United in progress. Striving for excellence.

同舟共济 追求卓越

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