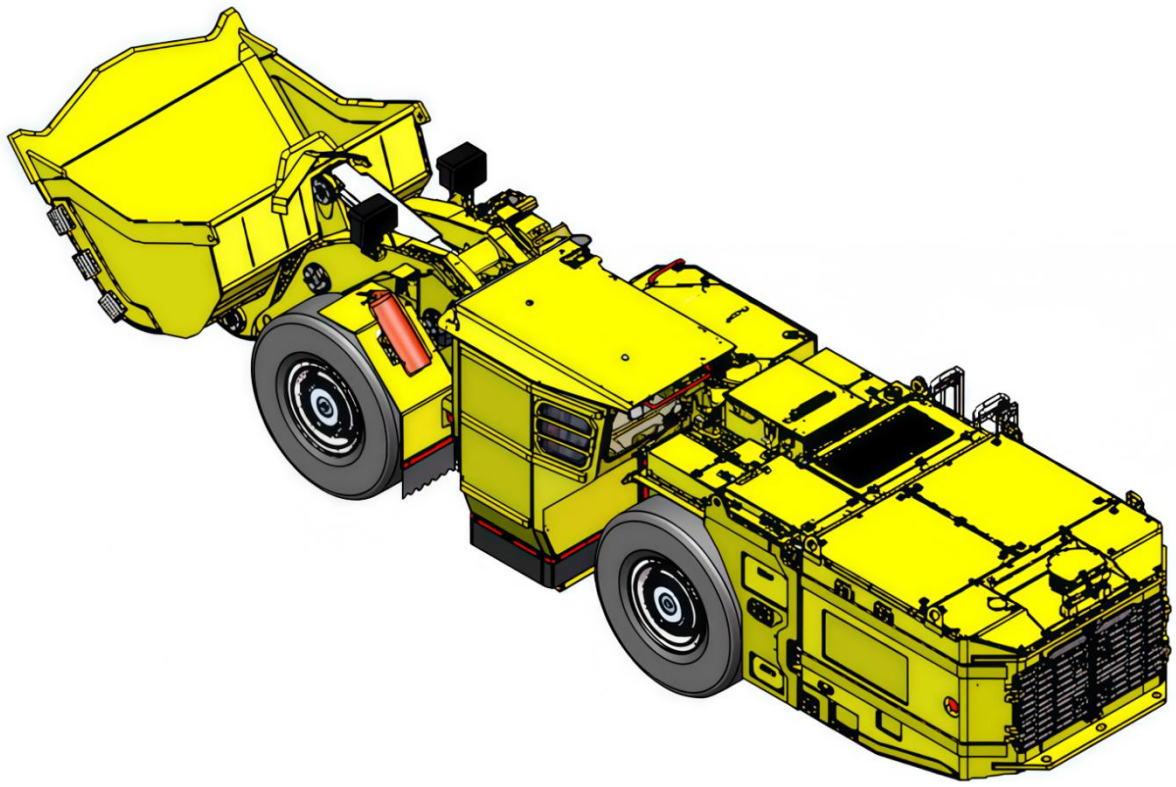
FAMBITION
QINGDAO FAMBITION HEAVY MACHINERY CO.,LTD.

FL07B TECHNICAL SPECIFICATION



High-efficiency Equipment, Made by FAMBITION

FL07B is an underground battery-electric LHD specially designed for mining operating conditions. It has a rated payload capacity of 7 tonnes and is mainly used for ore loading and haulage operations in underground non-coal mines. The machine features a compact structure and high-power performance, suitable for tunnels with a cross-section of 3.5 m*3.5 m and above. It can efficiently operate in complex and confined underground working spaces, making it an ideal piece of equipment for improving mining transport efficiency and ensuring operational stability.

Features:

- Lithium iron phosphate battery, strong power, zero emission
- Direct drive motor+reducer gearbox, no torque converter for high efficiency, low energy consumption
- Luxury interior, circulating air duct, large footbox, and dual damping system to reduce operator fatigue for lasting efficient operation
- Fully electric integrated control joystick, highly integrated, for easy operation and fast response
- Fully hydraulic load-sensing system with variable displacement pump for on-demand power output, high efficiency and energy saving
- CAN-bus technology with less wiring, aiming for better anti-jamming communication
- Self-developed FET electronic technician for real-time monitoring and intelligent fault self-diagnosis to ensure operation efficiency
- World-renowned core components for stable and reliable operation

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)	9 697 mm
Length (bucket retracted)	9 377 mm
Max. width	2 243mm
Height	2 248 mm
Max. dumping height	1 759 mm
Ground clearance	287 mm
Steering angle	±42.5°
Inner turning radius	2 930 mm
Outer turning radius	5 977 mm

Operating weights	
Total operating weight	22 170 kg
Front axle load (empty)	7 344 kg
Rear axle load (empty)	14 826 kg
Loaded weights	
Total loaded weight	29 170 kg
Front axle load (loaded)	18 512 kg
Rear axle load (loaded)	10 658 kg
Motion time	
Raising time	5.5 sec
Lowering time	3.1 sec
Dumping time	2.0 sec

Production capacity	
Standard bucket (SAE)	3 m^3
Payload capacity	7 000 kg
Max. breakout force	134 kN
Max. traction force	180 kN
Grade ability	23 %

Speed (level/loaded)	
Max. speed	18 km/h

Operational conditions	
Environmental temperature	-20°C~+45°C
Standard operating altitude	-1500 m~+3000 m @ 25°C No power loss

Electric motor	
Drive motor	EM140H31
Output power	Rated 158 kW / Peak 341 kW
Output torque	Rated 540 Nm / Peak 1 400 Nm
Rated voltage	600 V
Drive motor speed	Rated 2 800 rpm / Peak 7 600 rpm
Type	PMSM
Degree of protection	IP67
Pump motor	UM100H31
Output power	Rated 90 kW/ Peak 172 kW
Output torque	Rated 450 Nm/ Peak 1 000 Nm
Rated voltage	540 V
Pump motor speed	Rated 1 910 rpm / Peak 4 500 rpm
Motor type	PMSM
Degree of protection	IP67

Power train	
Reducer gearbox	RG0142 Gearbox
Gear shifting type	Electrical gear shift control
Axles	Kessler D91
	SAHR, limited slip differentials
	Front axle fixed, Rear axle oscillating ±8°
Tires	Techking 17.5-25-20.SS.L-5S.TT

Cabin
Fully enclosed side-mounted cabin
FOPS certified in accordance with ISO 3471
ROPS certified in accordance with ISO 3449
Footbox in cabin
Grammer suspension shock-absorbing seat
Built-in air conditioning duct design
Two-sided laminated glass window
Sound-absorbing, noise-reducing and heat-insulating interior
Trelleborg rubber shock absorption
Multi-angle adjustable control handle

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Fully electric controlled cabin	
Emergency outward-push escape window	
Three-point contact access system to quickly get into the cabin	
Emergency stop switch	
Two-point safety belt	
Cabin door safety interlock	
Multimedia	
Gradienter	
Tool box / Storage rack / Cup holder	

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	Ø100 mm, 2 pcs
Steering valve	Parker
Boom & bucket hydraulics	
Electro-hydraulic pilot proportional control	
Lift cylinders	Ø150 mm, 2 pcs
Dump cylinder	Ø200 mm, 1 pc
Main valve	Parker
Service pump&steering pump	KPM variable displacement piston pumps
Brakes	
Charging valve	Parker
Service brake valve	Mico
Brake accumulator	HYDAC
Cooling system	
Hydraulic oil radiator	Hengtong
Others	Electric pump for brake release system
	O-LOK connector
	Zinc-nickel electroplating
	Flame retardant sheath for hydraulic hoses

Electrical system	
Battery	2*12 V, 2*60 Ah
Joystick	Caldaro
Controller	EPEC SL84
360° surround view camera	Standard
FAMBITION electrical technician (FET) technology	Real-time monitoring of system operation
	Fault diagnosis prompts
	Fault indicator light
	Historical fault records
Warning	EPEC 6807 7″ color display
	Adjustable display brightness
	Alternative display languages: Chinese, English, Russian, Spanish
Joystick	Sweden Caldaro integrated electrically controlled joystick

Traction electrics: motor controller	
Ingress protection	IP67
Nominal voltage	540 V
Cooling method	Liquid cooled

Battery system	
Cell chemistry	$LiFePo_4$
Battery brand	Fins Dream
Number of battery packs	8 pcs
Nominal energy	301.6 kWh
Nominal capacity	490 Ah
Nominal voltage	614.4 V
Cooling method	Liquid cooling
Fast charging time	20%–90 SOC, 30 min
Ingress protection rating	IP67

Charging pile	
Number	1 pc
Charging power	300 kW
Input voltage	330-438 V AC
Output voltage	200-750 V DC
Protective function	Overload, short circuit, voltage surge, over voltage, over current, emergency stop

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	protection
Dimension of distribution cabinet	1600*700*700 mm

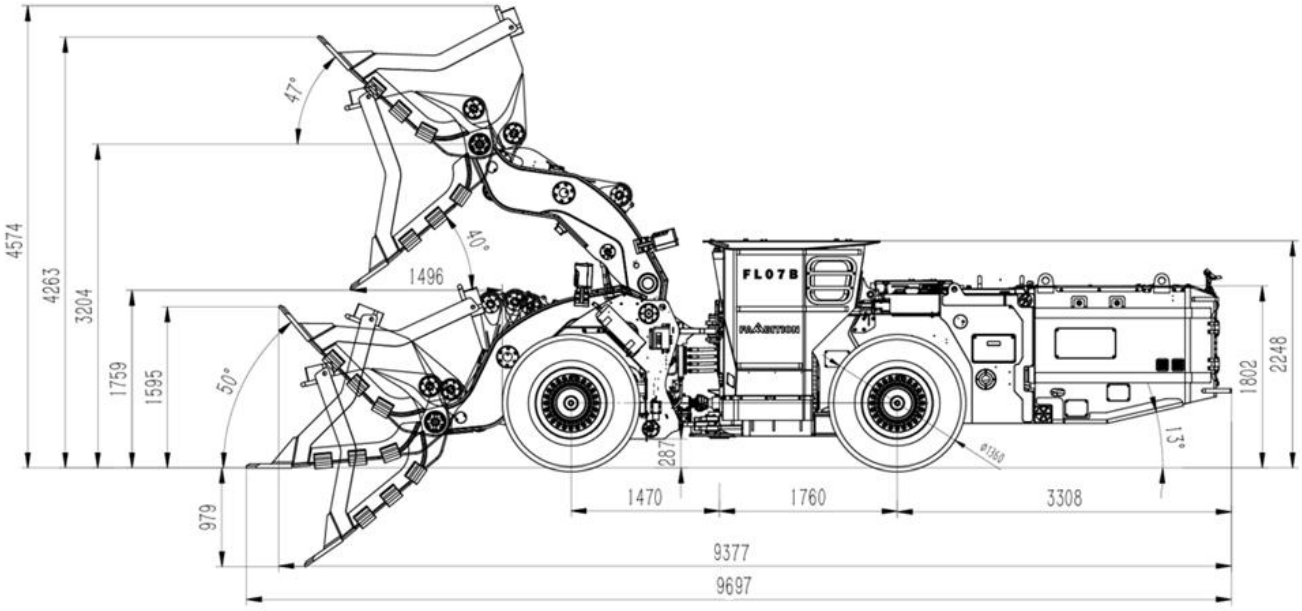
Safety	
Portable fire extinguisher	1*8 kg
Emergency stop push button	1 pc in the cabin; 2 pcs on the rear frame
LED lamp	5 pcs on front frame 7 pcs on cabin 5 pcs on rear frame
Boom lock pin	2 pcs
Articulation lock pin	1 pc

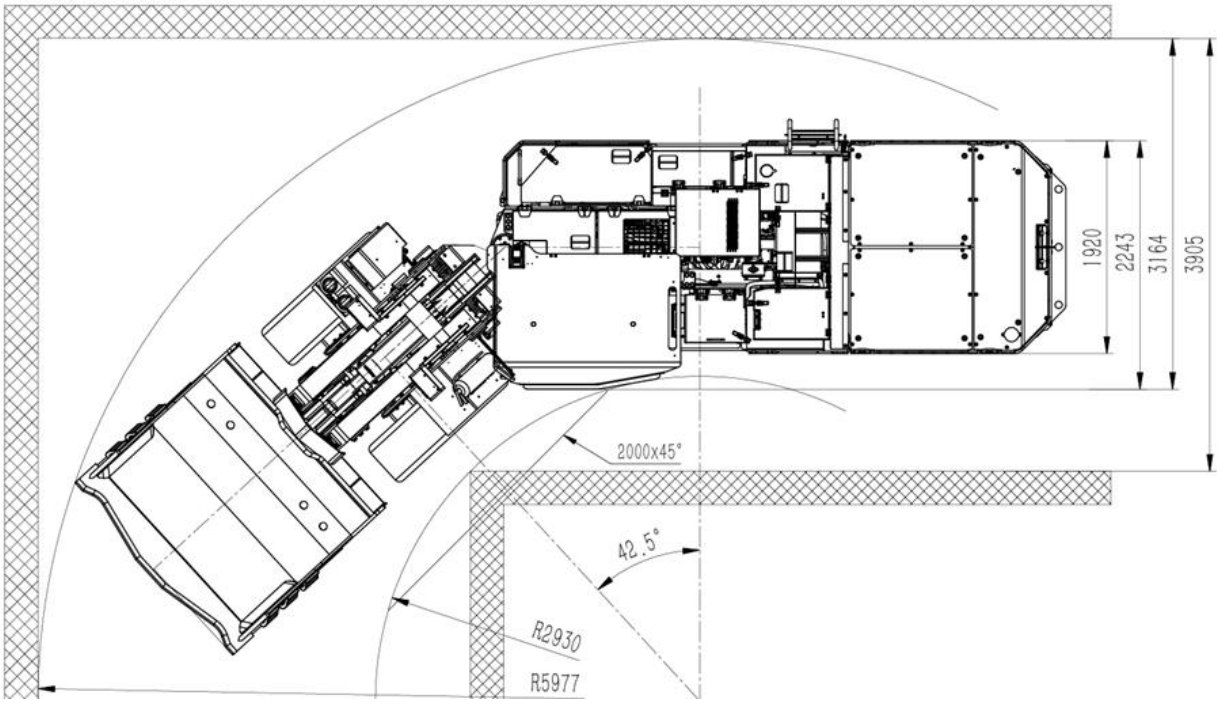
Options
Wika weighing system
Cooling-only air conditioning
Vehicle backup camera
In-cab monitor
Electric filling pump
Emergency steering
Italy Autec line of sight radio remote control
FAMBITION data transmission system
Tele-remote control system
Domestic tires
Pneumatic suspension seat
Electronic accelerator pedal
Hydraulic oil heating
Tire pressure monitoring
Harmful gas detection
Trailer socket (jump start)

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

FL07B grade&speed												
Working gradient (°)	0	1	2.5	3.5	4.5	6	7.2	8.2	9.5	10.3	11.5	13
Working face camber (%)	0	2	4	6	8	10	12.5	14.3	16	18	20	23
Empty speed (km/h)	17.5	17.5	17.5	17.5	17.5	17.5	17.5	15.7	13.8	13	11.7	10.4
Loaded speed (km/h)	17.5	17.5	17.5	17.5	17.5	15.2	13.2	11.8	10.5	9.8	8.8	7.9

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Subject to change without further notice!

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