

LOVOL



Rated Power
Operating Weight
Bucket Capacity

571kW/2100rpm
98000kg
7.0m³

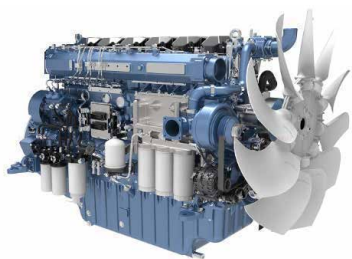
FR1000F

EXCAVATOR

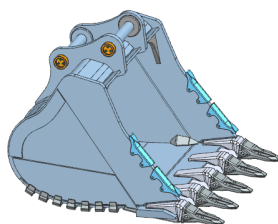


OVERVIEW

- Weichai 6M33 **571kW** Engine+Linde **300cc** main pump , working mass **100000kg**
- Fully electronically controlled hydraulic system +closed rotary system
- Separate drop-off body+**7.0m³** rock bucket
- Independent cooling of water and oil hydraulics, with intelligent counter-blowing fans.
- Humanized and convenient maintenance and inspection access, safer and more convenient



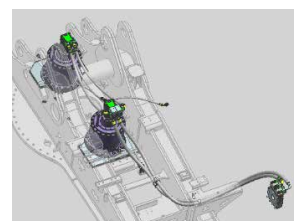
**Weichai low-speed
high-torque engines**



**Large capacity
bucket**



**Hydraulically driven inde-
pendent cooling system**



closed rotary system

LOVOL

EFFICIENCY

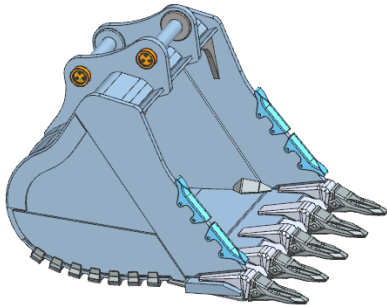
Weichai 6M33 **571kW** engine +Linde**300cc** main pump





EFFICIENCY | Adopting Weichai Linde powertrain technology, the operating efficiency of the whole machine is improved by 15% compared with that of competing products, and the fuel efficiency is improved by more than 20%.

- Industry-leading engine thermal efficiency. Lowest fuel consumption of **184g/kWh**
- Large displacement main pump with **7.1%** increase compare to competitors
- Adopt plunger-wrapped slide shoe and **21°** swing angle technology Compact and high power density
- High displacement, low rpm
- High torque, high power, with power up to **571KW** and torque up to **3600N·m**
- Adopt closed rotary system to increase rotary speed and reduce oil consumption.



RELIABILITY

large capacity rock bucket, optimized bucket shape, less resistance to cutting; the wear time increased by 30%.

- Adopt 7 cbm large bucket and equipped with large bucket tooth which is suitable for quarry working application.
- The front blade is made of NM400 and thicked to 100mm.
- The bottom and side of the bucket add extra guard to increase the wear resistant performance.
- The pin is fixed with a pressure disk to reduce the risk of broken bolts.

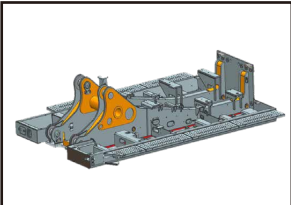


RELIABILITY

the slewing platform adopts a heavy-duty architecture with a stress reduction of more than 40% and a split mining-specific chassis with 100 ton four wheels and one belt.



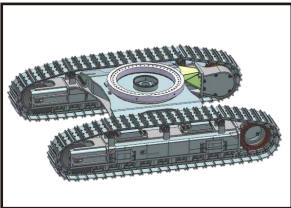
new upgraded working device architecture with a life expectancy of more than 15,000h.



Upgrading of the platform architecture with increased spacing between the main beam movable arms, significant increase in load carrying capacity.

Thickening of the main girder plate thickness, reducing working stresses by more than 40%.

Counterweight mounting without adjusting pads to avoid loose or broken mounting bolts caused by sliding adjusting pads.

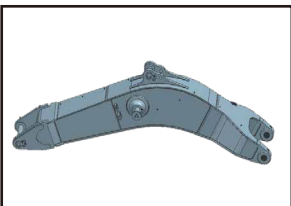


Split bolt-on carriage with double support structure for the carrier sprocket.

Double rows of ball slewing supports only available in the 90 ton class, with less clearance and more strength.

Fully protected anti-trip frame.

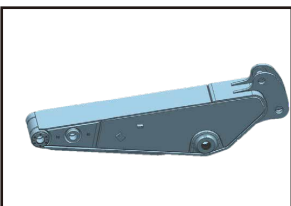
Upgraded heat treatment process for supporting wheels and tracks to improve wear resistance by 60%.



Boom hinge point and cylinder lock is optimized, the Boom is designed as a three-section structure with a large cross-section, with a variable-section transition at the end and additional ribbed plates inside the middle section. Adopt overall annealing treatment, the stress reduction by 58%.

The middle and rear axle seats are forged and tempered for more reliable and durable structural performance.

The rear axle seat adopt short axle design, The pin diameter is increased to reduce the bushing face pressure to reduce the pin bending torque and extend pin life.



The arm is designed with a large cross-sectional structure and the front and rear axle seats are designed with wider openings to improve overall strength and rigidity.

The use of fan and hoe shaped forgings for the front and rear axle seats, reducing stress values by 50% at the weld seams and improving reliability performance.

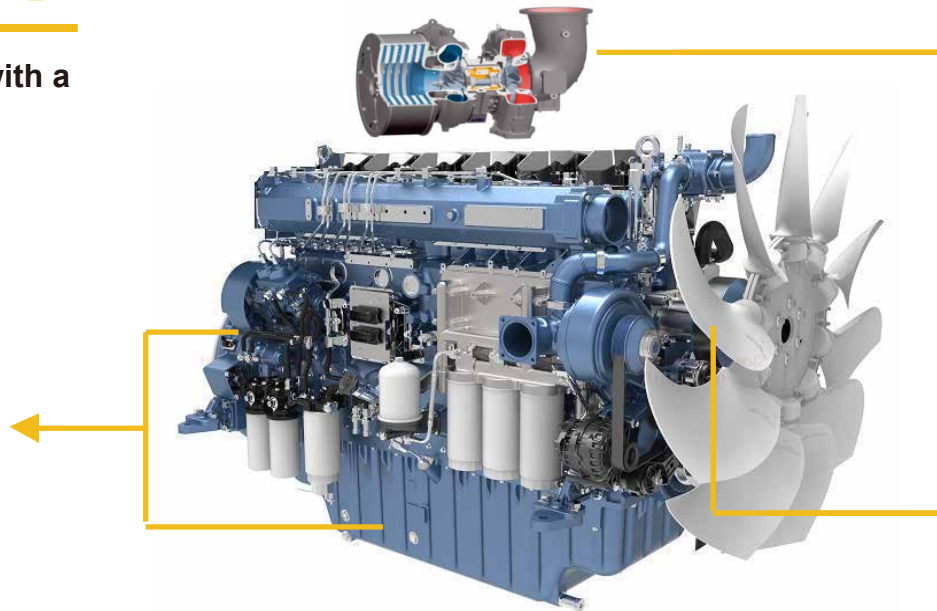
The outer diameter of the front axle seat has been increased and adopted straight sleeve construction to prevent outward movement of the axle sleeve effectively.

RELIABILITY

Weichai high-end M-series engines with a lifespan of up to **30,000 hours**

- **Large capacity oil sump**

Meets 35° tilt angle requirements and 500 hour oil change intervals, reinforced structure for noise suppression



● Efficient air intake system

Adopt high-efficiency high-pressure ratio supercharging technology, 5000M plateau capacity power loss only 10%.

Rotor eccentricity

Improve the quality of lubricating oil, greatly extend the lubricating oil replacement cycle.





INTELLIGENCE

The newly developed Reeva intelligent operating system enables power system management, intelligent interaction, automatic recognition of working conditions, auxiliary operation and individual customization.

● Intelligent vehicle control

The driver can remotely control the excavator by using the mobile phone to connect to the Bluetooth in the vehicle to power on/off, start/off, turn on/off the air conditioning, turn on/off the lights, and also enable simple mobile phone remote operation, etc.

● Intelligent multimedia

The driver can answer calls and play music through the display when connected to the car's Bluetooth using a mobile phone.

● Intelligent welcome

When the cab is opened, the interior reading light and foot light are illuminated and the WEICHAİ LOVOL logo is displayed on the underside of the cab.

● Accompanying you

Home At night, when the driver finishes work and leaves the excavator, the work light is switched off on a delayed basis to light the way home.



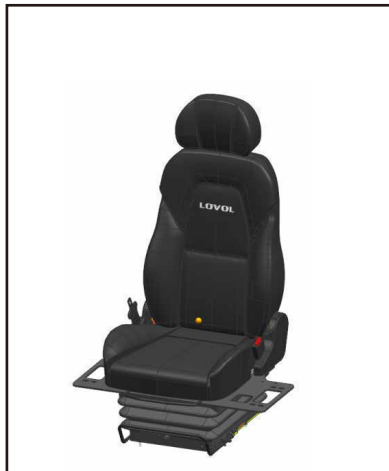
COMFORT

New interior, air duct and air outlet design, increased storage space; improved and upgraded seats for greater comfort.

Sites where excavators work are typically rugged and challenging. That's why it's important that the FR700F cab protects the operators as much as possible from fatigue, stresses, sounds, and temperatures of the job

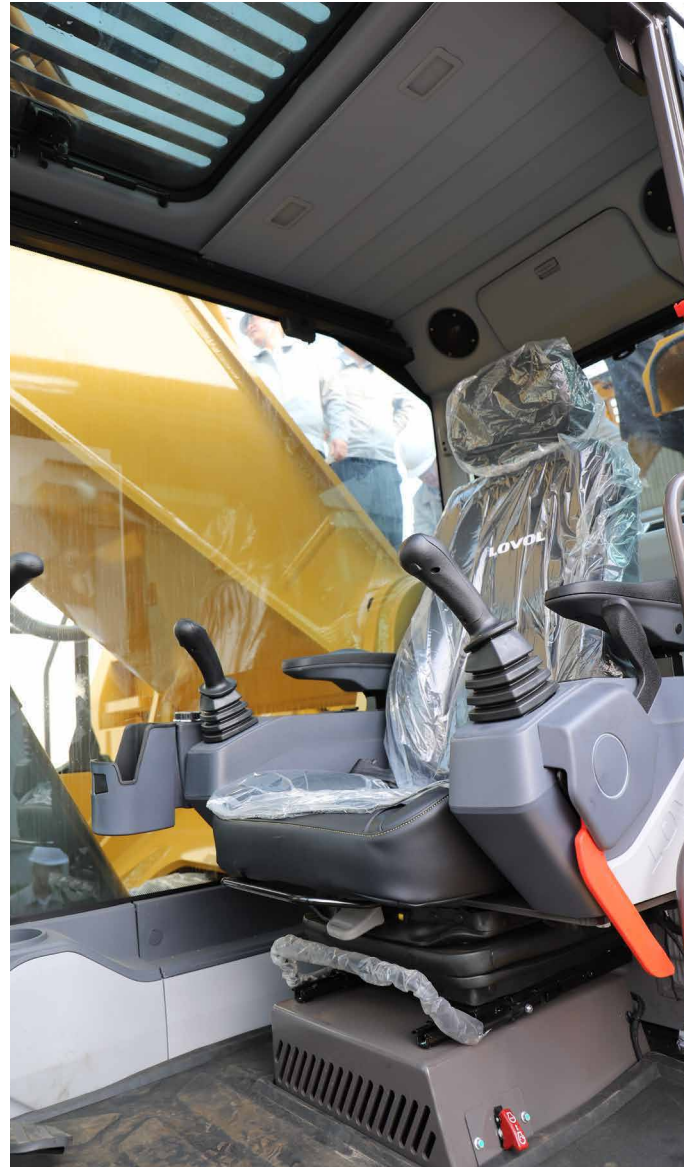
SOUND-SUPPRESSED CAB

The cab is sound suppressed and sealed. All controls are located in front of the operator. Getting to critical information and settings is easy with the touchscreen monitor. Shortcut keys make it even easier and include two for entertainment and heating and air conditioning. There is also a shortcut key for apps and functions that you can set.



The air conditioning ducts have been CFD analyzed to provide less wind resistance and lower noise levels, providing a cool and comfortable space for the driver and more storage space for the driver's daily trivial items.

Wider seat surface for a more comfortable ride; three-stage adjustment of SIP points to meet the needs of different heights.





INCREASE YOUR PRODUCTIVITY AND PROFIT WITH LOVOL ATTACHMENTS

You can easily expand the performance of your machine by utilizing any of the variety of LOVOL Attachments.

Each LOVOL Attachment is designed to fit the weight and horsepower of LOVOL Excavator for improved performance, safety, and stability.

Hydraulic Hammer



STANDARD CONFIGURATION

Engine

Turbocharged, 6-cylinders, water-cooling, direct injection

Radiator with protective fence

Oil bath type cleaner

Air intake heater

Fan guard

Double filters, dry air filter

Engine oil pan with oil drain valve

Automatic idle speed system

Three-stage fuel filter

75A/24V alternator

Cab

Ashtray

Cigarette lighter

Seat belt

Shade plate

Storage compartment

Emergency hammer

Air conditioner

Audio speaker

Shock absorber

Flexible aerial

Radio

Hydraulic safety locking rod

Sun proof safety glass

Cab floor mat

Pull-up front window

Dismountable lower windshield

Sun shade window

Windshield wiper

Skylight window

Suspended seat

Big storage area

Chassis

Fixed chassis

650mm double grouser track shoe

Hydraulic System

Automatic hydraulic system (flow confluence system)

Multistage filtration system

Anti-sway valve

Boom and stick locking valve

Cylinder buffer device

Anti-slope turning device

Waste oil drainage pipeline

Pilot buffer valve (rotary, stick, boom)

Dual-speed travel motor

Hydraulic hammer pipeline

Electronic Control System

24V power battery

Monitor brightness adjustment

Maintenance tips

Safe stop & start function

Master switch

Engine start protection

Multilingual display

Cab ceiling light

Diagnostic interface

Emergency stop switch

Automatic diagnosis system

Automatic idle speed system

One-touch pressure enhancement

Anti-theft system

Swing Platform

Toolbox

Large pedal

Large handrail

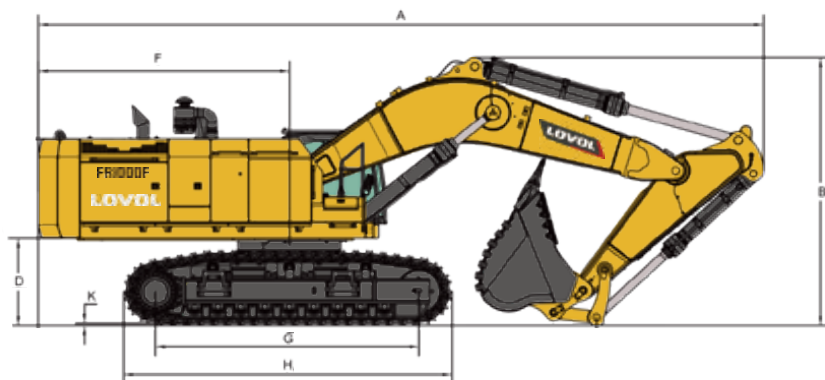
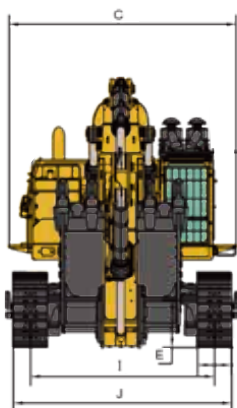
Bottom guard plate

Anti-crash beams

Anti-skid plates

Passage with handrails

TECHNICAL SPECIFICATIONS



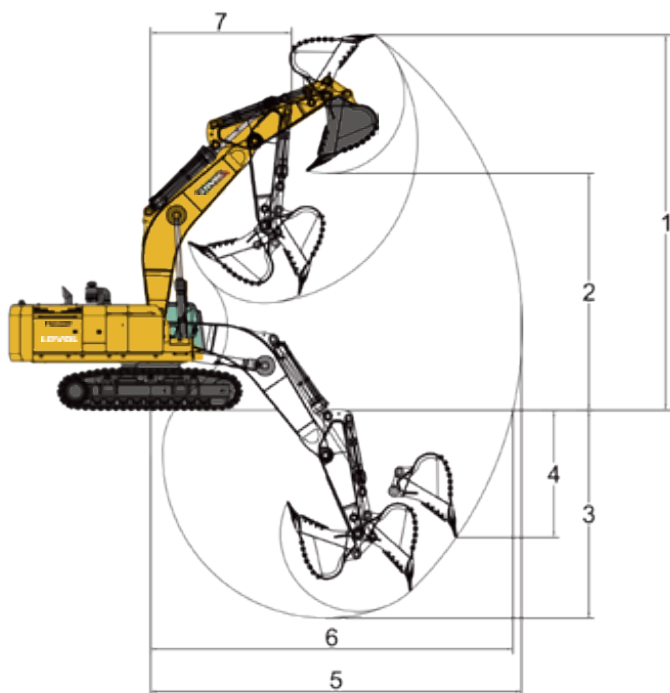
Working Range

Max. Digging Height	1	12850mm
Max. Dumping Height	2	8080mm
Max. Digging Depth	3	7180mm
Max. Vertical Digging Depth	4	4370mm
Max. Digging Radius	5	12760mm
Max. Ground Digging Radius	6	12450mm
Min. Turning Radius	7	4840mm



Dimensions

Shipping Length	A	13710mm
Boom Height	B	5300mm
Shipping Width	C	3500mm
Ground Clearance of Counter Weight	D	1600mm
Min. Ground Clearance	E	900mm
Tail Turning Radius	F	4840mm
Wheel Tread	G	5090mm
Track Length	H	6355mm
Track Gauge	I	2790/3550mm
Track Shoe Width	J	650mm
Rotary Platform Width	K	4380mm



Other Specifications

Boom Length	7250mm
Arm Length	2925mm
Track Section Number (each side)	51
Track Roller Number	9

TECHNICAL SPECIFICATIONS



Engine

Engine Model	WEICHAI 6M33
Number of Cylinders	6
Max. Torque/Speed	3600N·m/1300~1500rpm
Displacement	19.6L



Hydraulic system

Max. Main Pump Flow	1080L/min
Main Safety Valve Pressure	34.3MPa



Main Performance

Bucket Digging Force	501kN
Arm Digging Force	451kN
Max. Traction Force	608kN
Max. Walking Speed	3.6km/h
Min. Walking Speed	2.0km/h
Rotary Speed	6.2r/min
Gradeability	35°
Ground Pressure	145kPa



Oil Capacity

Fuel Tank	1260L
Hydraulic Tank	840L
Engine Oil	61L