

**LIUGONG**

# 975F EXCAVATOR

**F-SERIES**

Engine	Cummins Model X15
Net Power	391 kW
Operating Weight	75,000-77,000 kg
Bucket Capacity	5 m <sup>3</sup>



**TOUGH WORLD. TOUGH EQUIPMENT.**

# BUILT FOR THE TOUGHEST APPLICATIONS

For over 65 years, LiuGong has built machines that thrive in the toughest environments. The 975F, part of our advanced F-Series, is engineered for maximum power, precision, and durability.

Designed to excel in demanding applications, this machine combines cutting-edge technology with proven reliability to keep you working efficiently in even the harshest conditions.

Since launching our first hydraulic excavator in 1992, we've remained committed to innovation, ensuring every LiuGong machine is built to perform, wherever the job takes you.



## YOUR PERFORMANCE DASHBOARD

Research tells us that 6 key performance areas really matter to you. We'd like to use this performance dashboard to present the real, tough facts about our 975F.



**POWER & EFFICIENCY**



**TOUGHNESS & DURABILITY**



**SAFETY & VISIBILITY**



**UPTIME & MAINTENANCE**



**INTELLIGENCE & CONTROL**



**COMFORT & ERGONOMICS**

## THIS IS LIUGONG



**65+**  
YEARS  
EST 1958



**30+**  
PRODUCT LINES



**12**  
GLOBAL R&D CENTERS



**30+**  
GLOBAL OFFICES



**16,000+**  
EMPLOYEES



**20+**  
GLOBAL MANUFACTURING FACILITIES

## THE 975F IN ACTION...

The 975F in quarry of Spain is meeting the demands of processing 3,000 tonnes of material daily.

The quarry supplies stone for highways, public building construction, and the production of concrete and asphalt, making the 975F a key part of its high-output operation.

Its power and efficiency help keep up with growing regional demand, ensuring a steady supply of essential materials.



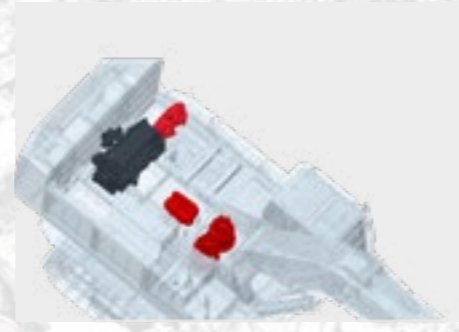
# LET'S TAKE A CLOSER LOOK...



## POWER THAT DRIVES PRODUCTIVITY

Built for maximum performance, the 975F's advanced hydraulics and powerful engine deliver fast cycle times, increased productivity, and lower operating costs.

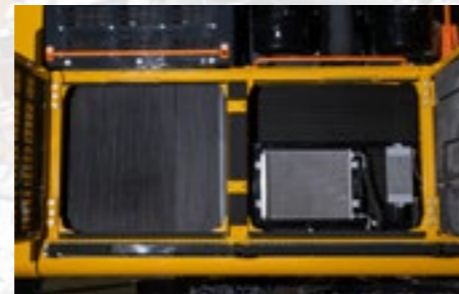
- ▶ The Cummins engine and Kawasaki pump provide reliable power, optimized by LiuGong's hydraulic system for faster cycles and greater efficiency.
- ▶ A temperature-controlled, reversible hydraulic fan improves cooling and reduces fuel consumption.
- ▶ Kawasaki dual slewing motors and large boom and bucket cylinders deliver faster response, precise control, and superior digging power.



## TOUGHER BY DESIGN

Engineered for extreme conditions, the 975F's heavy-duty components maximize reliability and extend machine life.

- ▶ A reinforced swing platform and undercarriage enhance stability, durability, and long-term value.
- ▶ The toughened boom and arms handle heavy loads and rough terrain with ease.
- ▶ A reinforced retractable undercarriage provides stability in harsh conditions while allowing flexibility across job sites.



## ENHANCED PROTECTION, SUPERIOR VISIBILITY

LiuGong prioritises operator safety and visibility to improve awareness and reduce risks on-site.

- ▶ A standard operator protection guard shields against falling debris in hazardous environments.
- ▶ 360° cameras with side lighting improve situational awareness for safer operation.
- ▶ High-visibility orange handrails and steps reduce missteps and enhance safety.



## BUILT TO LAST, EASY TO MAINTAIN

Smart service features and durable components keep downtime low and efficiency high.

- ▶ Fully-opened side covers and foldable catwalks allow quick, hassle-free inspections and servicing.
- ▶ Premium air and return-oil filters reduce maintenance costs by up to 38% per 3,000 hours.
- ▶ An auto-lubrication system minimizes wear and eliminates frequent manual lubrication.



## INTELLIGENT PERFORMANCE, SEAMLESS OPERATION

Smart control systems ensure precision, efficiency, and adaptability across different applications.

- ▶ An electronically controlled hydraulic system optimizes flow and pressure for greater precision and reduced operator fatigue.
- ▶ The 10.1" intuitive display simplifies operation and provides real-time fuel and temperature monitoring.
- ▶ High-precision control and quick coupler lines enable seamless tool changes and improved efficiency.



## BUILT AROUND YOU

LiuGong machines are designed with the operator at the heart, ensuring all-day comfort and convenience.

- ▶ A European-standard DAB radio with upgraded speakers enhances the operating experience.
- ▶ USB Type-C and 12V power connectors provide versatile charging options.
- ▶ An optional heated & ventilated seat with lumbar support reduces fatigue during long shifts.



# 975F SPECIFICATIONS

Operating Weight	75,000 - 77,000 kg
Operating weight includes coolant, lubricants, full fuel tank, cab, standard shoes, boom, arm, bucket and operator 75 kg.	
Bucket Capacity	5 m <sup>3</sup>

ENGINE	
Description	Cummins EU Stage V, 6-cylinder straight, Variable-Geometry Turbocharger (VGT), high pressure common rail, charge air cooler, electronically controlled direct injection.
Emission Rating	EU Stage V
Engine Manufacturer	Cummins
Engine Model	X15
Aspiration	Variable-Geometry Turbocharger (VGT)
Charged Air Cooling	Aftercooler
Cooling Fan Drive	Viscous clutch
Displacement	14.9 L
Engine Output - Net (SAE J1349 / ISO 9249)	391 kW @ 1,800 rpm
Maximum torque	2,373 N·m @ 1,400 rpm
Bore × Stroke	137 × 169 mm

DRIVE AND BRAKES	
Description	2-speed axial piston motors with oil disk brakes. Steering controlled by two hand levers with pedals.
Max. Travel Speed	High: 4.7 km/h Low: 3.0 km/h
Gradeability	35° / 70%
Max. Drawbar Pull	495 kN

SWING SYSTEM	
Description	Planetary gear reduction driven by high torque axial piston motor, with oil disk brake. Swing parking brake resets within five seconds after swing pilot controls return to neutral.
Swing Speed	7.51 rpm
Swing Torque	270,000 N·m

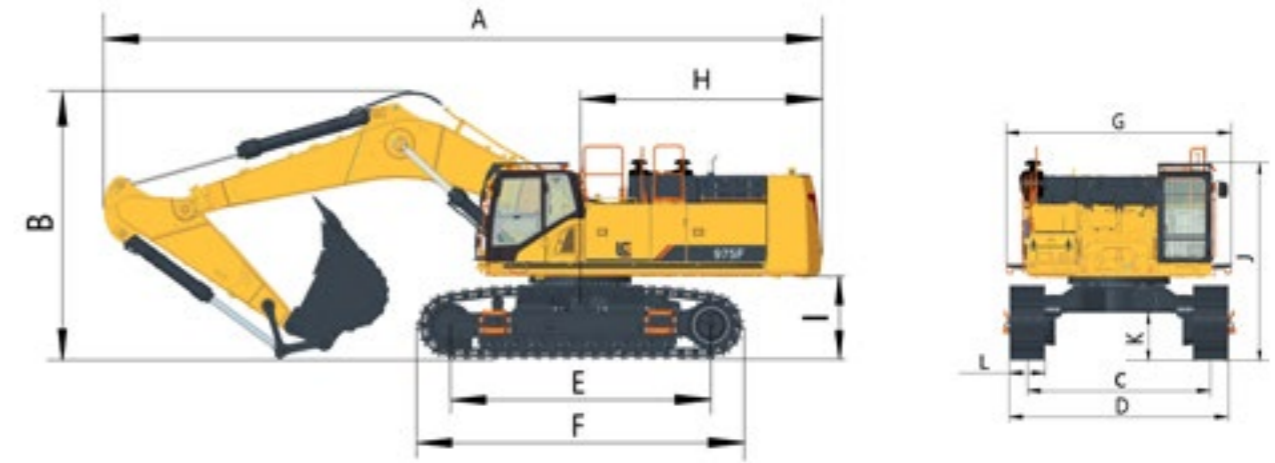
ELECTRICAL SYSTEM	
System Voltage	24 V
Batteries	4 x 12 V
Alternator	24 V - 110 A
Start motor	24 V - 9 kW

HYDRAULIC SYSTEM	
<b>Main Pump</b>	
Type	Two variable displacement piston pumps
Maximum flow	2 × 504 L/min
<b>Pilot pump</b>	
Type	Gear pump
Maximum flow	27 L/min
<b>Relief valve setting</b>	
Implement	35 / 37.3 MPa
Travel circuit	35 MPa
Slew circuit	31 MPa
Pilot circuit	3.9 MPa
<b>Hydraulic cylinders</b>	
Boom Cylinder – Bore×Stroke	Φ 200 × 1,720 mm
Stick Cylinder – Bore×Stroke	Φ 215 × 1,935 mm
Bucket Cylinder – Bore×Stroke	Φ 210 × 1,415 mm

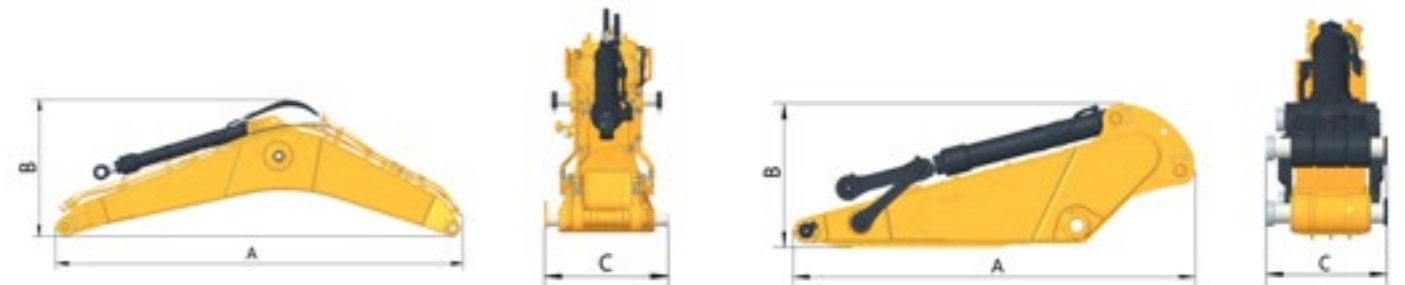
UNDERCARRIAGE	
Track shoe each side	48
Link pitch	260 mm
Shoe width, triple grouser	650 mm
Bottom rollers each side	8
Top rollers each side	3

SERVICE CAPACITIES	
Fuel Tank	1,100 L
Engine Oil	46 L
Final Drive (each)	20 L
Swing Drive	14 × 2 L
Cooling System	77 L
Hydraulic Reservoir	360 L
Hydraulic System Total	680 L
DEF Tank	65 L

SOUND PERFORMANCE	
Interior Sound Power Level ( ISO 6396)	72 dB(A)
Exterior Sound Power Level ( ISO 6395)	109 dB(A)



DIMENSIONS	
Boom	7,060 mm
Arm	2,900 mm
A Shipping Length	13,090 mm
B Shipping Height – Top of Boom	4,710 mm (with standard bucket)
C Track Gauge (Wide / Narrow)	3,350 / 2,710 mm
D Undercarriage Width – 650 mm Shoes (Wide / Narrow)	4,000 / 3,360 mm
E Length to Center of Rollers	4,750 mm
F Track Length	5,990 mm
G Overall Width of Upper Structure	4,100 mm (including passage)
H Tail Swing Radius	4,490 mm
I Counterweight Ground Clearance	1,495 mm
J Overall Height of Cab	3,620 mm (with protective equipment)
K Min. Ground Clearance	867 mm
L Track Shoe Width	650 mm

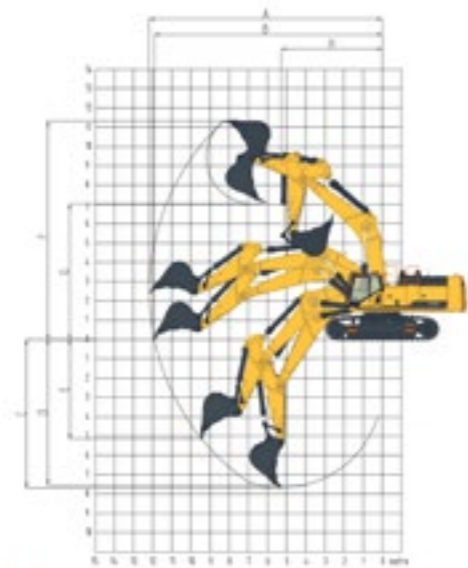


BOOM DIMENSIONS	
Boom	7,060 mm
A Length	7,400 mm
B Height	2,450 mm
C Width	1,360 mm
Weight	6,400 kg

Cylinder, piping and pin included. Boom cylinder pin excluded.

ARM DIMENSIONS	
Arm	2,900 mm
A Length	4,310 mm
B Height	1,600 mm
C Width	860 mm
Weight	4,000 kg

Cylinder, linkage and pin included.



WORKING RANGE		
Boom Length		7,060 mm
Arm Length		2,900 mm
A. Max. Digging Reach		12,160 mm
B. Max. Digging Reach on Ground		11,900 mm
C. Max. Digging Depth		7,680 mm
D. Max. Digging Depth, 2.44 m Level		7,530 mm
E. Max. Vertical Wall Digging Depth		5,150 mm
F. Max. Cutting Height		11,320 mm
G. Max. Dumping Height		7,020 mm
H. Min. Front Swing Radius		5,280 mm
Bucket Digging Force (ISO)	Normal	438 kN
	Power Boost	467 kN
Stick Digging Force (ISO)	Normal	331 kN
	Power Boost	352 kN
Bucket Capacity		5.0 m <sup>3</sup>
Bucket Tip Radius		1,991 mm

MACHINE WEIGHTS AND GROUND PRESSURE			
Shoe width	Operating weight	Ground pressure	Overall width
	7.06 m boom, 2.9 m arm, 5.0 m <sup>3</sup> bucket, 13,500 kg counterweight (other systems are standard configuration)		
650 mm (2'2")	76,300 kg	121.1 kPa	4,000 / 3,360 mm

BUCKET SELECTION GUIDE					
Bucket type	Capacity	Cutting width	Weight	Teeth pcs	7.06 m Boom
					2.9 m Arm
General Purpose	5.0 m <sup>3</sup>	2,280 mm	5,280 kg	5	C

The recommendations are given as a guide only, based on typical operation conditions.  
 Bucket capacity based on ISO 7451, heaped material with a 1:1 angle of repose.

Maximum material density:  
 A. 1,200-1,300 kg/m<sup>3</sup>: Coal, Caliche, Shale  
 B. 1,400-1,600 kg/m<sup>3</sup>: Wet earth and clay, limestone, sandstone  
 C. 1,700-1,800 kg/m<sup>3</sup>: Granite, wet sand, well blasted rock  
 D. 1,900 kg/m<sup>3</sup>: Wet mud, Iron ore  
 NA. Not applicable

Lifting capacity at the arm end without bucket.  
 For lifting capacity including bucket, weight of the bucket or the bucket with quick coupler must be deducted from the lifting capacities.  
 Lifting capacities are based on the machine standing on a firm, uniform supporting surface.



- Do not attempt to lift or hold any load that is greater than these rated values at their specified load radius and height. Weight of all accessories must be deducted from the above lifting capacities.
- The rated loads are in compliance with ISO 10567 Hydraulic Excavator Lift Capacity Rating Standard. They do not exceed 87% of hydraulic lifting capacity or 75% tipping load.
- Ratings at bucket lift hook.
- Lifting capacities are based on machine standing on level, firm and uniform ground.
- \*Indicates the load is limited by hydraulic capacity rather than tipping capacity.
- Operator should be fully acquainted with the Operator's and Maintenance Instructions before operating this machine and rules for the safe operation of equipment should be adhered to at all times.

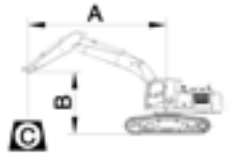
**LIFTING CAPACITY**

975F with 650 mm Shoes, 7,060 mm Boom, 2,900 mm Arm

Conditions

A: Load radius  
 B: Load point height  
 C: Lifting capacity rating  
 Cf: Rated loads over front  
 Cs: Rated loads over side or 360°  
 \* Indicates the load is limited by hydraulic capacity rather than tipping capacity

Boom length: 7,060 mm  
 Arm length: 2,900 mm  
 Bucket: None  
 Counterweight: 13,500 kg  
 Track Shoe Width: 650 mm  
 Track Gauge: 3,350 mm  
 Unit: kg



B (m)	A (Unit: m)										MAX REACH	A (m)							
	3		4.5		6		7.5		9										
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs									
9.0	kg										*20,457	*20,457	7.2						
7.5	kg										*20,255	*20,255	*19,873	17,336	8.3				
6.0	kg										*24,232	*24,232	*21,197	19,971	*19,604	15,095	*18,852	14,825	9.1
4.5	kg										*27,407	26,590	*22,744	19,296	*20,121	14,822	*19,550	13,664	9.5
3.0	kg										*30,417	25,253	*24,343	18,592	*20,839	14,465	*19,670	13,014	9.7
1.5	kg										*32,198	24,328	*25,473	18,021	*21,322	14,150	*19,784	12,810	9.7
GROUND LEVEL	kg										*32,370	23,879	*25,733	17,674	*21,152	13,963	*20,021	13,223	9.4
-1.5	kg										*39,174	36,909	*30,968	23,800	*24,776	38,754	*20,310	14,374	8.8
-3.0	kg	*41,187	*41,187	*34,471	*34,471	*27,748	24,036	*21,878	17,784			*19,754	16,432	8.0					
-4.5	kg	*31,176	*31,176	*26,849	*26,849	*21,405	*21,405					*18,236	*18,236	6.7					

## STANDARD EQUIPMENT

### ENGINE

Cummins X15 engine, EU Stage V, 6-cylinder diesel engine with intercooling, high pressure common rail, electronically controlled direct injection

Refuelling pump

Oil bath air pre-filter

### HYDRAULIC SYSTEM

Dual-way auxiliary circuit via electronic proportional joystick control

On-screen auxiliary line switching, one-way or two-way

Auxiliary rotation line with on-screen flow adjustment

Attachment oil drain line

High-pressure quick coupler line (pressure adjustable)

Quick coupler on warning

### BOOM & ARM

2,900 mm arm

7,060 mm boom

Boom & arm load holding valves

Boom float function

### OPERATOR STATION

Standard cab

Heating and cooling air conditioning

Left-hand side rear-view mirror

Fire extinguisher

Sun visor

12V power outlet and USB Type-C

DAB radio

Reversible armrest box with orange handrail

Parallel windshield wiper

Heated air suspension seat with 3 inch red retractable seatbelt

### GUARDS

8 mm under covers

Bucket / Boom / Arm cylinder guard

OPG

### ELECTRICAL

4 LED lights on the boom

2 LED lights on the counterweight

LED light bars on the front and rear of the cab

Rotating beacon \*Orange LED Rotating Beacon\*

Travel and swing alarm

Overload warning

360-degree cameras with lighting on both sides

T-BOX

### UNDERCARRIAGE

Retractable undercarriage

650mm steel track shoes

Full length track guard

### INSTRUMENTATION

10.1 inch touch screen

### OTHERS

Standard counterweight, 13,500kg

## OPTIONAL EQUIPMENT

### OPERATOR STATION

Heated and ventilated air suspension seat with 3 inch red retractable seatbelt

### SERVICE & MAINTENANCE

Centralized lubrication system

Compressed air cleaning kit

Long life hydraulic oil

### GUARDS

Upper frame guard

### BUCKETS

General Purpose Bucket (5.0 m<sup>3</sup>)



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