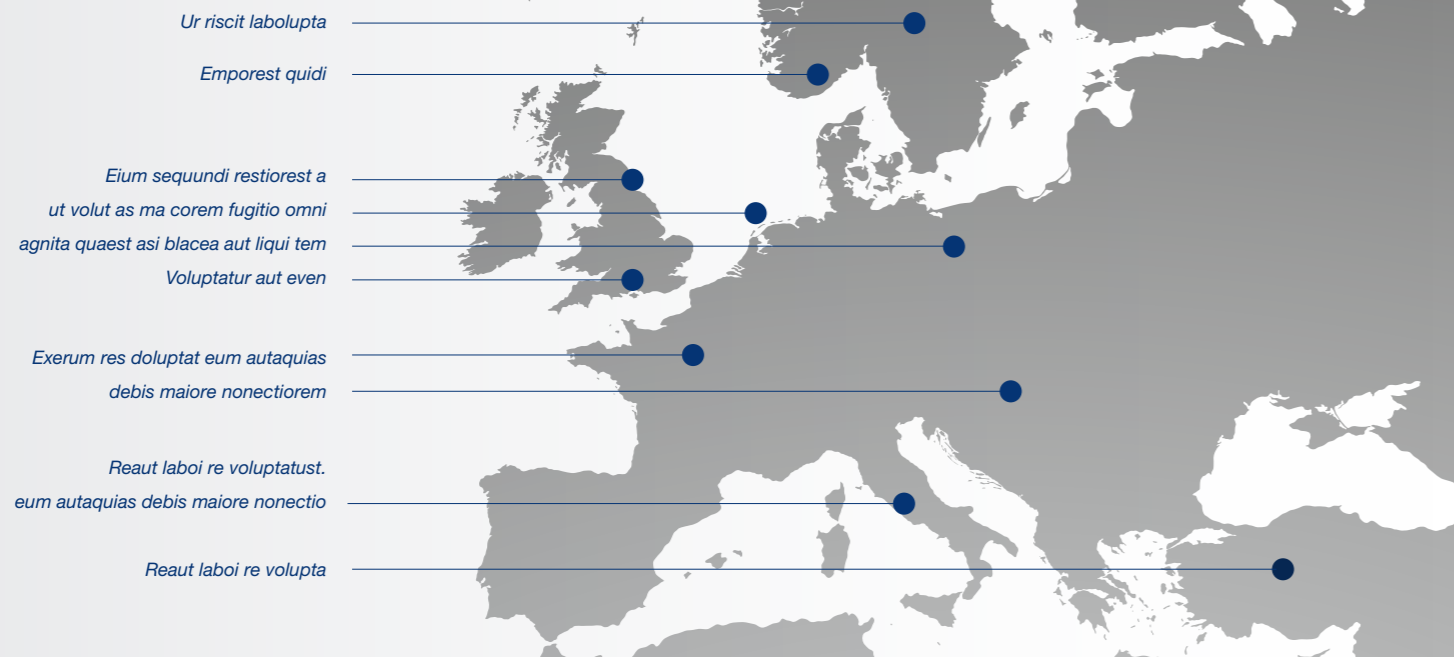


## STRONG PRESENCE, SUBLIME SUPPORT

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Engine	Cummins QSL9
Gross Power	213 kW (290 hp) @ 2,000 rpm
Net Power	201 kW (273 hp) @ 2,000 rpm
Maximum Digging Depth	7,340 mm
Standard Bucket Capacity	1.6 m <sup>3</sup>
Operating Weight	36,200 kg

# 936E EXCAVATOR



TOUGH WORLD. TOUGH EQUIPMENT.





# GENERAL INTRODUCTION

## LiuGong in general

For more than 55 years, LiuGong Machinery Corporation has been a leader in China's construction equipment manufacturing industry. From building the country's first modern wheel loader, LiuGong has evolved to become one of the fastest growing, global, CE companies in the world offering a full line of extreme duty, intuitive machines for construction equipment owners constantly challenged to do more with less. LiuGong delivers opportunity to its 19,000 employees worldwide, quality products and services to its customers, financial success to its investors, and community support in the regions it serves. LiuGong has 24 manufacturing facilities and around 2,650 sales outlets and 380 dealers. Supporting its dealer network are 10 regional offices with engineering, marketing, and service support, coupled with 10 parts depots located worldwide.

## LiuGong Europe

LiuGong has been selling machines in Europe for more than seven years. In June 2012 LiuGong has officially opened its European headquarters in Almere, the Netherlands.

The facilities and yard are approximately 8,000 square meters. The European headquarters will serve as LiuGong's sales hub, technical support and spare parts distribution center for existing and potential dealers and customers in the region. LiuGong's nine product lines are specifically designed to meet European requirements; from engine emissions regulations (joint venture with Cummins Inc.), to driveline and parts (joint venture with ZF), to machine size and scale and cab

- Trusted company, more than 55 years
- Full product line designed for European requirements
- Strong European presence by more than 16 dealers
- European parts distribution centre, the Netherlands
- European factory in Poland



**CONSTRUCTION  
EQUIPMENT  
AHEAD**





**THE LOOK OF  
PRODUCTIVITY**

# SUMMARIZED BENEFITS



### EFFICIENT AND ENVIRONMENTAL FRIENDLY

Equipped with a fuel efficient world-class Cummins QSL9 engine, compliant with EU stage IV/EPA Tier 4 final, and the advanced IPC (Intelligent Power Control) system balances the engine and hydraulic pump to achieve high efficiency and low fuel consumption.

### ALWAYS RELIABLE

Major parts are all from world class suppliers. The improved boom and arm, reinforced undercarriage are designed to withstand some of the toughest working environments.

### OPERATOR COMFORT

Ergonomically designed cab for Liugong E series excavator, with great visibility, expansive leg room, new multi-function LCD monitor, automatic air conditioner, large storage space, provide most comfortable working environment.

### ENHANCED VERSATILITY

Additional spool in the control valve and the space for PTO pump on the main pump allow for the easy installation of attachments lines.

### HIGHEST SAFETY STANDARDS

The cab of machine meets EU standard.  
Rearview camera  
Escape hammer  
Locking lever

### COMPLETE CUSTOMER CARE

Inspection parts, filters and water separator are conveniently located.

# EFFICIENT AND ENVIRONMENTAL FRIENDLY

### IPC SYSTEM

Advanced IPC (Intelligent Power Control) system, make full use of engine oil consumption characteristics, make the engine-hydraulic pump to the best matching, achieve high efficiency, low and economical fuel consumption homework.

### 6 WORKING MODES

6 Working modes: Power, Economy, Fine, Lifting, Breaker, Attachment.  
The CLG936E features 6 selectable working modes that optimize performance and fuel consumption to your specific conditions.

### FUEL EFFICIENT CUMMINS QSL9 ENGINE

Equipped with a fuel efficient world-class Cummins QSL9 engine meets stage IV/EPA Tier 4 final emission standard, the 936E provides 142 kW at 2,000 rpm while saving money on fuel costs.  
The QSL9 series come with a combination of a proven cooled-EGR system, High Pressure Common Rail (HPCR) fuel system. It is also complemented by Cummins patented VGTTM Turbocharger, which continuously varies the airflow boost to precisely match engine rpm and load demand for optimal performance.

### ADVANCED HYDRAULIC SYSTEM

Proven negative flow hydraulics, optimizing the main control valve and cylinders improves the speed of front end working equipment, while cutting down on the hydraulic system's damper loss, leading to much better working efficiency. The pilot valves matching with the main control valve offer precise control.

### AUTO-IDLE SPEED FUNCTION

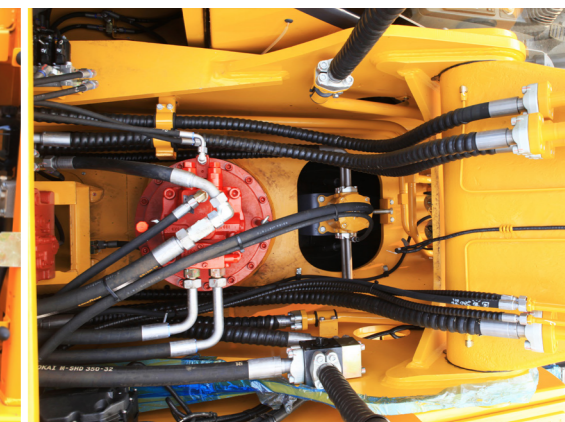
Automatic speed reduction in lever neutral gear can reduce fuel consumption and noise.  
Automatic velocity control is divided into two levels: if in 1S no have hydraulic request signal, the engine speed will automatically press the throttle knob setting to reduce 100 RPM. If after 3S haven't hydraulic signal, the engine speed will drop 1,100 RPM. When the system detects the hydraulic signal, the engine will immediately return to the current throttle setting speed value.

### ANTI-REVERSAL VALVE IN SWING MOTOR

Makes swinging smoother, especially when starting and stopping.

### TWO SPEEDS WITH AUTOMATIC SHIFT

When machine travels, the speed can change fast to low driving over obstacles.



# ALWAYS RELIABLE

## WORLD CLASS COMPONENTS

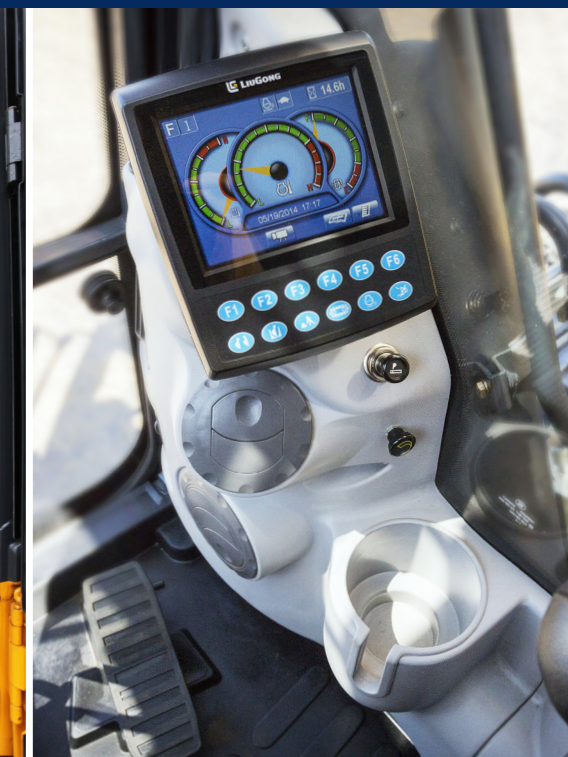
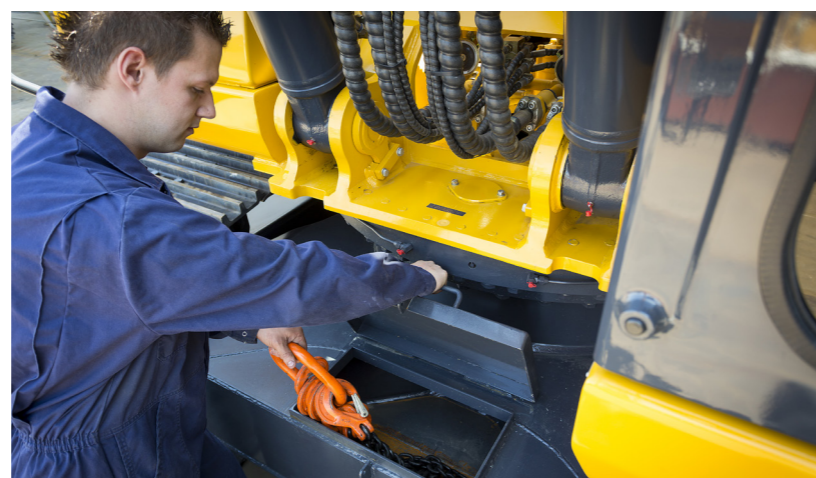
The 936E uses major components and systems from advanced suppliers like Cummins, in addition to advanced in-house technology from LiuGong.

## PARTS, SERVICE AND ATTACHMENTS TO COUNT ON

Part of a reliable excavator is having parts, service and attachments so reliable you can count on them whenever, wherever. Genuine LiuGong parts are the perfect match to keep your investment working over the years and can be counted on when you need. Service is reliable and can be counted on to keep your excavators up and running. Attachments for the machine have been made in-house and are part of a complete LiuGong system.

## RUGGED DESIGN

Single piece plates and castings are used in key areas of the machine's structure for good load distribution. Highly durable rubbing strips on the underside of the arm protect the structure against material falling from the bucket. Grease lubrication sealed track links are assembled and sealed with grease to decrease internal bushing wear, this reduces noise, and lowers operating costs by extending the track service life.



# OPERATOR COMFORT

## ERGONOMICALLY DESIGNED CAB WITH GREAT VISIBILITY

Specifically designed for LiuGong E series excavator, this spacious cab is ergonomically designed for safer and more efficient operating. The glass windows are widened for excellent visibility, especially the right side downward view during travel and excavation. An enlarged skylight with rolling sunshade provides excellent visibility and good ventilation.

## NEW MULTI-FUNCTIONAL COLOR LCD MONITOR

New monitor bracket is designed for greater stability and is positioned to be easy to check. Machine operational states, warnings, audible alarms and maintenance information are clearly displayed to help the operator. The LCD monitor also serves as the crystal clear display for the optional rearview camera to improve safety for all people and machines on the worksite. It is programmable to provide information in a choice of 7 languages.

## COMFORTABLE AND SAFETY OPERATOR ENVIRONMENT

High-power air conditioning and specialized arrangement of air outlets for maximum cooling.

Through advanced control valve to control the flow of air, to maintain indoor comfort all year round. In order to prevent dust from entering the bad environment, adopted high sealing pressure cabin.

The pilot lock handle installed on the handrail box prevents unexpected movement as it interlocks the machine ignition system. Soft and flexible pilot control operating handles are convenient and comfortable for long operating hours.

Large swing design foot pedals are more comfortable and allow the operator to keep their feet on the foot rest and still operate the machine.

Easy to clean and form-fitted floor mat is more practical and durable.

High-back suspension seat with heater is adjustable for all operator weights and heights and dampens vibrations felt.

Storage space is located in the front, rear, and side consoles.

The cab features Roll Over Protective Structure (ROPS) which meets the ISO 12117-2 safety standard for increased peace of mind in the unlikely event of machine roll over.

## ENHANCED VERSATILITY

### PTO PUMP

Additional spool in the control valve and the space for PTO pump on the main pump allow for the easy installation of attachments lines.

### REFILLING PUMP

Electrical fuel refilling pump makes it easy to fill fuel oil tank.

### SECURITY VALVE

When the hose which joints to cylinder cracks, the anti-explosion could prevent the work equipment down

## HIGHEST SAFETY STANDARDS

### CAB

The cab of machine meets EU standard. Falling Object Protection System (FOPS) is optional. An optional rearview camera gives an exceptionally clear view of the rear work zone on the wide-screen monitor.

### REARVIEW CAMERA

An optional rearview camera gives an exceptionally clear view of the rear work zone on the wide-screen monitor.

### REARVIEW MIRRORS

3 mirrors make the operator to watch surrounding area easily.

### ESCAPE HAMMER

Escape hammer in cab helps the operator to escape from cab in emergency.

### LOCKING LEVER

locking lever prevent wrong operation.

## COMPLETE CUSTOMER CARE

### CONVENIENT MAINTENANCE PORTS

The 936E is designed for convenient maintenance. The engine is conveniently accessible when the rear hood is lifted up it provides plenty of space for maintenance, which can be done from a standing level.

### A/C FRESH-AIR FILTER AND FUSE BOX

The fresh air filter and fuse box are located on the side of the cab to make it easier to reach, replace or check as needed.

### COOLING COMPARTMENT

Over flow bottle, washer bottle and air-conditioner refrigerant are located on cooling compartment for easy maintenance.

### LARGE TOOL BOX AREA

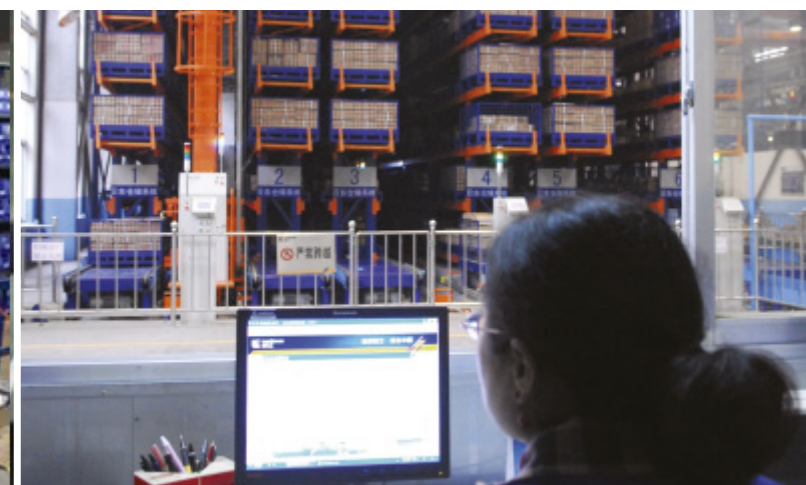
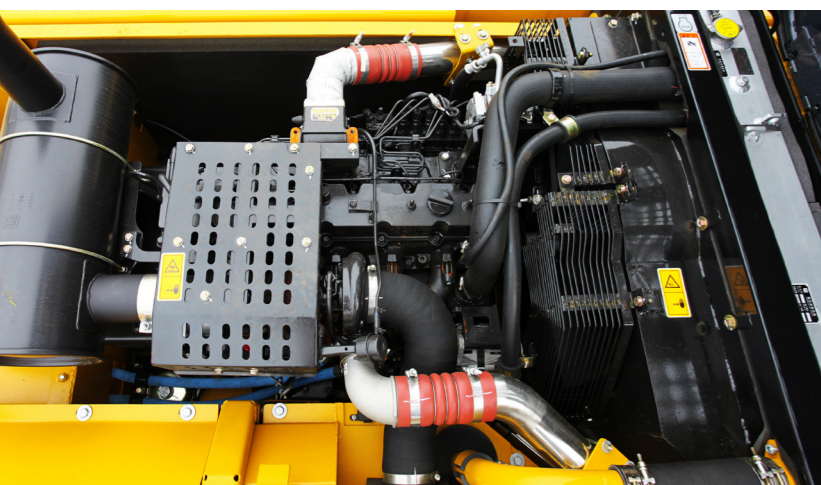
A large tool box keeps tools for maintenance close at hand and dry.

### FAULT DIAGNOSTIC SYSTEM

The on board fault diagnostic system monitors machine functions and performance in real time and will inform the operator of small issues before they grow via the LCD monitor. The error codes can also be used by your LiuGong certified service technician to simplify and quicken repairs.

### EASY ENGINE ACCESS

The 936E is designed for convenient maintenance. The engine is conveniently accessible when the rear hood is lifted up it provides plenty of space of maintenance.





# STANDARD EQUIPMENT

## ENGINE SYSTEM

- Cummins QSL9, turbocharged, 6 Cylinder 4 stroke water cooled, Diesel Engine
- Auto-idle speed control
- Air filter with pre-cleaner
- Engine oil filter
- Pre-filter with water separator
- Radiator, oil cooler and intercooler
- IPC (Intelligent Power Control) System
- Engine overheat prevention system
- Variable speed fan

## HYDRAULIC SYSTEM

- Power boost
- Boom and arm holding system
- Boom and arm regeneration circuits
- Pilot oil filter
- Auto travel speed change
- Load holding valve
- Pilot control shut-off lever
- Swing with anti-reverse function

## OPERATOR STATION

- IPC (Intelligent Power Control) System
- 6-working mode selection system: Power Mode, Economy Mode, Fine Mode, Lifting Mode, Breaker Mode, Attachment Mode
- Highly pressurized and tightly sealed cab with all-around visibility, large roof window with slide sun shade, front window wiper, removable lower window
- Air conditioner, heater, defroster
- AM/FM Radio with MP3 audio jack
- Color LCD monitor with alarms, filter/fluid change, fuel rate, water temperature, work mode, fault code, working hour, etc
- Glass-breaking hammer
- Ashtray, cigarette lighter
- Cup holder
- Floor mat
- Storage box
- Front glass lower guard

## UPPERSTRUCTURE

- Rear view mirror (right & left side)
- 2 batteries
- one key for door locks, cap locks
- Fuel gauge
- Hydraulic oil level gauge
- Storage box
- Swing parking brake
- Boom lights
- Exterior lights integrated into storage box

## UNDERCARRIAGE

- 600 mm double grouser track-shoes
- 2 track frame under-guards (each-side)
- Towing eye on base frame

## FRONT ATTACHMENTS

- 6,400 mm boom and 3,200 mm arm
- 1.6 m<sup>3</sup>, SAE, heaped bucket

# SPECIFICATIONS

ENGINE	
Emission Regulation	Tier 4 final /Stage IV
Model	Cummins QSL9
Type	6-cylinder, 4-stroke, in line, water-cooled, turbocharged, diesel engine.
Rated Power	213 kW (290 hp) @ 2,000 rpm
Net Power	201 kW (273 hp) @ 2,000 rpm
Maximum Torque	1,451 N · m @ 1,400 rpm
Bore x Stroke	114 x 135 mm
Displacement	8.9 L

DRIVE AND BRAKES	
Driven by a one-piece two-gear piston hydraulic motor and reducer with small volume and strong traction; the motor and hydraulic pipelines are hidden in the track mechanism to prevent damage from rugged road surfaces; parking brake and shock-absorbing valve are installed inside the motor, ensuring stable travelling and parking as well as reliable braking.	
Max. Travel Speed	High: 5.5 km/h Low: 3.4 km/h
Gradeability	70 %
Drawbar Pull	320 kN

SWING SYSTEM	
The high-torque piston swing motor, with integral spring set, and automatic hydraulic release swing brake, is bolted directly to the swing reduction planetary swing gear box. The swing brake automatically resets for safer operation within five seconds of the swing function lever being brought to neutral. This insures safe travel and parking conditions.	
Swing Speed	10 rpm

HYDRAULIC SYSTEM	
Main Pump	Two variable displacement piston pumps
Main Pumps Total Flow	2x30 L/min
Relief Pressure, main	34.3 MPa
Relief Pressure, boost	37.3 MPa
Pilot Pump Flow	28.5 L/min

UNDERCARRIAGE	
Center Frame	X-Frame
Track Adjustment	Hydraulic
Number of Carrier Rollers	2 each side
Number of Track Rollers	9 each side
Number of Idler Rollers	2 each side
Number of Shoes	48 each side
Width of Track Shoes	600 mm

ELECTRIC SYSTEM	
System Voltage	24 V
Batteries	2 x 12 V

SERVICE CAPACITIES	
Fuel Tank	620 L
Engine Oil	26 L
Final Drive (each)	10.5 L
Swing Drive	4.4 L
Cooling System	35 L
Hydraulic Reservoir	240 L
Hydraulic System Total	450 L
DEF tank	35 L

OPERATING WEIGHT (APPROXIMATION)	
The operating weight includes 6,400 mm boom, 3,200 mm arm, SAE heaped 1.6 m <sup>3</sup> bucket, 600 mm shoes, operator, lubricating oil, cooling liquid, full fuel tank, and standard configuration.	
Shoe Ground Pressure	67.5 kPa
Operating Weight	36,200 kg

# OPTIONAL EQUIPMENT

## ENGINE SYSTEM

- Electrical fuel refilling pump
- Automatic engine warm-up system

## HYDRAULIC SYSTEM

- Security valves (2 on boom and 1 on arm)
- Control pattern change valve
- Hammer line
- Hydraulic quick coupler line 2 way aux. line
- Attachment rotating line
- Hydraulic quick coupler
- PTO pump

## OPERATOR STATION

- Power outlet 24 V to 12 V converter

- 4 outside LED cab top lights
- Rotating beacon
- Rear view camera
- Suspension seat with height adjustable arm rests and retractable seat belt
- Travel alarm
- Rotary warning light
- Chair heating
- Seat belt alarm
- 2 track frame under-guards (each-side)

## UPPERSTRUCTURE

- Electrical fuel refilling pump
- Crash-proof beam
- Roll-Over Protective Structures

- (ROPS)
- Falling-Object Protective Structures (FOPS)
- Operator Protective Guards (OPG);

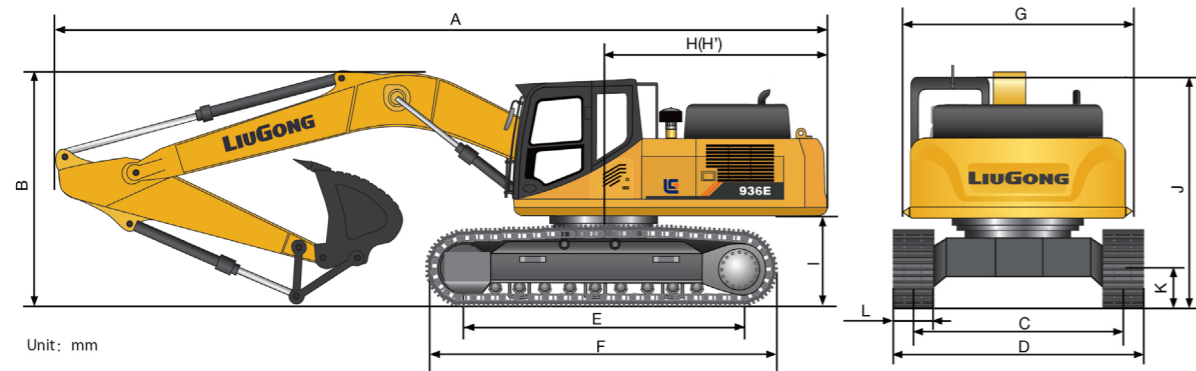
## UNDERCARRIAGE

- 700, 800, 900 mm track-shoes

## FRONT ATTACHMENTS

- 1.9 m<sup>3</sup> bucket
- Hydraulic breaker
- Hydraulic quick coupler
- Ripper shank
- Grapple

## DIMENSIONS



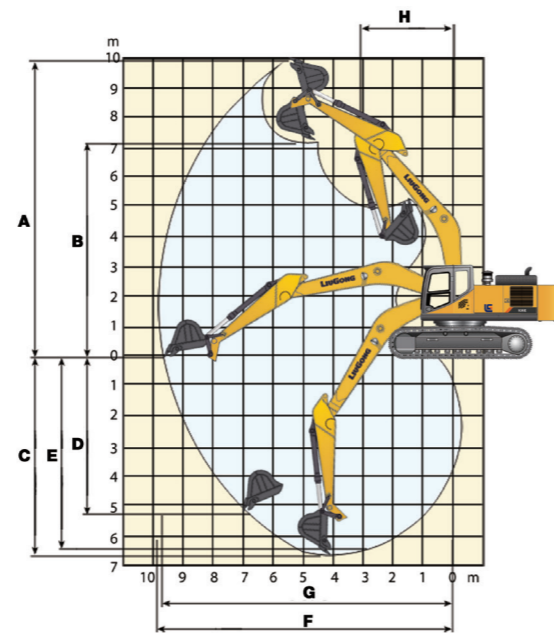
Unit: mm

<b>Boom Length</b>		6,400
<b>Arm Length</b>		3,200
<b>A</b>	Overall Length	11,167
<b>B</b>	Overall Height of Boom	3,172
<b>C</b>	Track Gauge	2,590
<b>D</b>	Overall Width	3,190
<b>E</b>	Track Length on ground	4,050
<b>F</b>	Length of crawler	4,944

<b>G</b>	Overall Width of Upper structure	3,163
<b>H</b>	Tail Swing Radius	3,500
<b>H'</b>	Rear-end Length	3,500
<b>I</b>	Counterweight Ground clearance	1,172
<b>J</b>	Overall Height of Cab	3,170
<b>K</b>	Min. Ground clearance	532
<b>L</b>	Track Shoe Width	600

Unit: mm

<b>Boom length</b>		6,400
<b>Arm length</b>		3,200
<b>Bucket capacity</b>	Bucket capacity	1.6 m <sup>3</sup>
<b>A</b>	Dig height	10,240
<b>B</b>	Dump height	7,160
<b>C</b>	Dig depth	7,340
<b>D</b>	Dig depth of vertical	6,460
<b>E</b>	Depth of 8 bottom	7,180
<b>F</b>	Max reach	11,100
<b>G</b>	Reach at ground level	10,900
<b>H</b>	Min swing radius	4,465
<b>ISO</b>	Bucket Breakout Force	185 kN
	Arm Breakout Force	252 kN



## Note:

- ※ Indicates the load is limited by hydraulic capacity rather than tipping capacity.
- The above 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.



Bucket: SAE 1.6 m <sup>3</sup> Boom: 6,400 mm Arm: 3,200 mm Shoes: 700 mm Counterweight											Max Reach			
Lift Point Height	10 ft (3.0 m)		15 ft (4.6 m)		20 ft (6.1 m)		25 ft (7.6 m)		30 ft (9.1 m)		Capacity		Distance (ft / m)	
	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg		
20 ft (6.1 m)							※17,416	14,190			※17,245	13,166	27	
							※7,900	6,763			※7,822	5,972	8.2	
15 ft (4.8 m)					※20,924	20,119	※18,448	14,506			※17,392	11,561	29	
					※9,491	9,126	※8,368	6,580			※7,889	5,244	8.8	
10 ft (3.0 m)			※32,077	28,235	※23,911	19,010	※19,936	13,960	17,633	10,739	17,633	10,739	30	
			※14,550	12,807	※10,846	8,623	※9,043	6,332	7,998	4,871	7,998	4,871	9.1	
5 ft (1.5 m)			※36,797	26,381	※26,555	18,036	※21,361	13,437	17,372	10,503	17,372	10,503	30	
			※16,691	11,966	※12,045	8,181	※9,689	6,095	7,880	4,764	7,880	4,764	9.1	
GROUND LEVEL			※38,330	25,602	※28,054	17,423	22,143	13,069	17,209	10,355	17,209	10,355	30	
			※17,386	11,613	※12,725	7,903	10,044	5,928	7,806	4,697	7,806	4,697	9.1	
-5 ft (-1.5 m)	lbs	※51,892	49,068	※37,368	25,496	※28,034	17,198	21,987	12,930			18,858	11,261	28
	kg	※23,538	22,257	※16,950	11,565	※12,716	7,801	9,973	5,865			8,554	5,108	8.5
-10 ft (-3.0 m)	lbs	※46,257	※46,257	※34,233	25,816	※26,149	17,335	※20,031	13,109			※20,031	13,109	25
	kg	※20,982	※20,982	※15,528	11,710	※11,861	7,863	※9,086	5,946			※9,086	5,946	7.6
-15 ft (-4.8 m)	lbs	※36,795	※36,795	※28,098	26,570	※21,076	17,919					※19,621	16,865	21
	kg	※16,690	※16,690	※12,745	12,052	※9,560	8,128					※8,900	7,650	6.4