#### 909ECR

 Engine
 Yanmar 4TNV98C, EU Stage IIIB

 Net Power
 59 hp (44 kW)

 Operating Weight
 8,700 kg (19,180 lb)

 Bucket Capacity
 0.23 - 0.32 m³ (0.3 - 0.42 yd³)

## **909ECR** EXCAVATOR





TOUGH WORLD. TOUGH EQUIPMENT.

# TOUGH WORLD. TOUGH EQUIPMENT.

You don't need to be told it's a tough world. It's your reality, you live it every day and you know how hard it can be on your people and your machines. It's getting tougher to make your business pay too, with rising costs, increasing legislation and greater competition. We understand and we've put that understanding into action with our new 909ECR.

#### 909ECR. NO TOUGH COMPROMISES, JUST EVERYTHING YOU NEED AND NOTHING YOU DON'T

The construction equipment industry has seen an expensive trend towards over-engineered products. Some manufacturers genuinely believe that adding cost, adds perceived value in customers' eyes.

#### BUT YOU TOLD US A DIFFERENT STORY

You asked for a tough, well-engineered excavator, which can do the job. Any job.

#### YOU WANTED AN EXCAVATOR THAT DELIVERS ON 3 ESSENTIAL NEEDS :





COMPACT IN SIZE, U BIG ON FEATURES

#### **UPTIME AND SUPPORT**



**TOTAL COST OF OWNERSHIP** 



With the 909ECR, we've met your challenge and given you everything you want - without compromise.



**TOUGH FACTS** 

#### **TOUGH QUALITY STANDARDS**

When it comes to quality, we let our actions to speak for themselves.

We are following a rigorous Six Sigma methodology and consistently achieve ISO 9001 standards.

#### **TOUGH RESEARCH AND TESTING**

Finding tougher, smarter, safer and more cost-effective ways of working matters to you. It matters to us too. Our new Global in Liuzhou China, is a great example of this customer focused approach. We've established an international team of industry experts, backed up with the latest world-class technology, all focused on delivering greater value to you.

#### **TOUGH PARTNERS**

LiuGong has teamed up with some of the industry's best known names. Here's just a few of our valued joint venture partners;

- German drivetrain components manufacturer ZF Friedrichshafen AG
- Finnish mining and aggregates processing equipment manufacturer Metso
- North American diesel engine manufacturer Cummins

The LiuGong 909ECR Excavator delivers high performance, durability and reliability in short tail swing design to ensure safe and easy operation within a confined space.

LIUGONG Ø

#### **POWERFUL ENGINE**

The fuel efficient, Stage IIIB certified Yanmar 4TNV98C engine provides proven and reliable power. 500 hours engine oil service interval.

#### **ADVANCED HYDRAULICS**

Advanced hydraulic system is perfectly matched to the engine and components for fast response and smooth operation. The hydraulic system provides a load sensing and flow sharing capability leading to operational precision, efficient performance and greater controllability.

#### **BOOM SWING**

When it works alongside obstacles, the swing post and cylinder stay within the tracks when in an offset position, so that you can avoid the risk of damage to your machine.

#### BLADE FLOAT FUNCTION

The float function can be enabled with a toggle switch on the right side of the control panel. Because you don't have to adjust the blade height during travel, cleanup and backflling will be easier.

#### SIMPLY MULTIFUNCTIONAL

Switching attachments like buckets, breakers and shears can be time consuming and hazardous. We've made it fast, safe and simple with LiuGong's quick coupler and powerlatch tilt coupler. These are perfectly matched to a range of genuine LiuGong attachments including; buckets and breakers which can be changed from the seat of the cab in less than a minute, quick, safe and easy.

#### COMFORTABLE OPERATION ENVIRONMENT

Ergonomically designed controls, clear visibility and convenient features all contribute to operator comfort and overall productivity on the job site.

#### SHORT TAIL SWING

The 909ECR model features a short tail swing design. On this model, if you are working in a confined space the short tail swing ensures safe and easy operation within a confined space.

## JOBSITE UPTIME AND SUPPORT

Compact size with many features might convince you to buy your first machine, but it's uptime and support and total cost of ownership which will keep you coming back to buy more machines. Having confidence in the machine's back up and support network is a vital part of the purchasing decision. How do we at LiuGong measure up?

#### **FAST RESPONDING GLOBAL NETWORK**

We have an extensive dealer network of over 300 dealers in more than 100 countries.

All supported by 10 regional subsidiaries and 9 global parts centers offering expert training, parts and service support.





#### WHERE YOU NEED US WHEN YOU NEED US

Reliability is built into our machines but all machines have some planned downtime. Our aim is to reduce even planned down time to the minimum by getting it right.

Technician training and parts availability are also high on our agenda, as is keeping you

informed on service and maintenance work and providing clear and accurate estimates, invoices and communication.

These may be small things, but customer feedback tells us that these basics really matter – so we aim to get them right.

#### MAINTENANCE AND SUPPORT PACKAGES

From genuine LiuGong parts, to full repair and maintenance contracts, LiuGong has the flexibility to offer the level of support and response to suit your business and applications. Whatever level of support you choose you can be confident that it is backed up by LiuGong's service promise.

St



Above all, we get it right the first time.



Highly trained technicians utilizing the latest diagnostic equipment



15,000+ Genuine LiuGong parts available within 24hrs from our European Parts Distribution Center

## LIUGONG SERVICE PROMISE



Multi-lingual service helpline and online support



Transparent estimates and invoicing



Clear communications through electronic parts catalogue

# **SPECIFICATIONS**

Operating weight	8,700 kg (19,180 lbs)	
Operating weight includes coolant, lubricants, full fuel tank, cab, standard shoes, boom, arm, bucket and operator 75 kg (165 lb).		
Bucket capacity	0.28 m³ (0.37 yd <sup>3</sup> )	
ENGINE		

#### ENGINE

Description

Yanmar, Stage IIIB, inline 4-cylinder, watercooled, direct injection, EGR + DPF + high pressure common rail diesel engine.

Emission rating	EU Stage IIIB
Engine manufacturer	Yanmar
Engine model	4TNV98C
Aspiration	Natural
Cooling fan drive	Direct
Displacement	3.3 L (0.88 gal)
Rated speed	2,200 rpm
Engine output - net (SAE J1349 / ISO 9249)	59 hp (44 kW)
Engine output - gross (SAE J1995 / ISO 14396)	63 hp (46 kW)
Maximum torque	241 N·m (178 lbf·ft) @1,430 rpm
Bore × Stroke	98 × 110 mm (3.86" × 4.33")

#### UNDERCARRIAGE

Track shoe each side	39
Link pitch	154 mm (6.1")
Shoe width, triple grouser	450 mm (18")
Bottom rollers each side	6
Top rollers each side	1

#### 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	10.5 rpm
Swing torque	21,000 N·m (15,489 lbf·ft)

HYDRAULIC SYSTEM	
Main pump	
Туре	Variable displacement piston pump
Maximum flow	196 L/min (51.8 gal/min)
Relief valve setting	
Implement	28 MPa (4,061 psi)
Travel circuit	31.4 MPa (4,554 psi)
Slew circuit	28 MPa (4,061 psi)
Pilot circuit	3.9 MPa (566 psi)
Hydraulic cylinders	
Boom Cylinder – Bore × Stroke	Φ110 × 879 mm (Φ4.33" × 34.61")
Stick Cylinder -	Ф100 × 867 mm
Bore × Stroke	(Φ3.94" × 34.13")
Bucket Cylinder -	$\Phi$ 90 × 710 mm
Bore × Stroke	(Φ3.54" × 27.95")

ELECTRIC SYSTEM	
System Voltage	12 V
Batteries	12 V
Alternator	12 V - 80 A
Start motor	12 V - 3 kW (12V - 4 hp)

SERVICE CAPACITIES	
Fuel tank	116 L (30.6 gal)
Engine oil	11.6 L (3.1 gal)
Final drive (each)	1.08 L (0.29 gal)
Swing drive	1.6 L (0.42 gal)
Cooling system	14.5 L (3.8 gal)
Hydraulic reservoir	72 L (19.0 gal)
Hydraulic system total	110 L (29.1 gal)

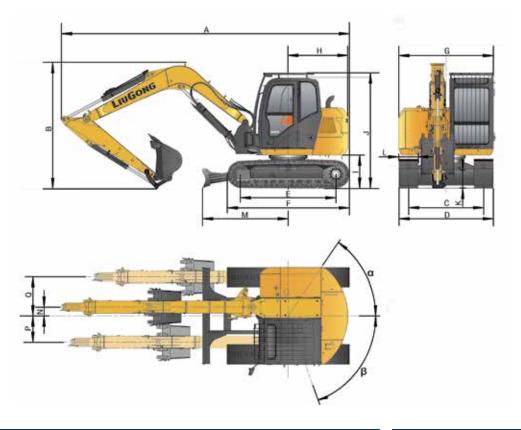
SOUND PERFORMANCE	
Interior Sound Power Level (ISO 6396)	75 dB(A)
Exterior Sound Power Level (ISO 6395)	98 dB(A)

### 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: 4.8 km/h (3 mph) Low: 2.8 km/h (1.5 mph)
Gradeability	35°/70%
Max. drawbar pull	75 kN (16,861 lbf)



DIMENSIONS	
Boom	

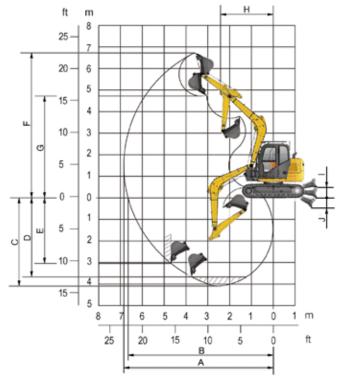
Boom	3,375 mm (11'1")	
Arm Options	1,650 mm (5'5")	2,100 mm (6'11")
A Shipping Length	6,460 mm (21'2")	
B Shipping Height – Top of Cab	2,730 m	ım (8'11")
C Track Gauge	1,750 mm (5'9") / 1,950 mm (6'5")	
D Undercarriage Width – with 450 mm Shoes	2,200 mm (7'3") /	′ 2,400 mm (7'10")
E Length to Center of Rollers	2,230 m	רm (7'4")
F Track Length	2,845 m	רm (9'4")
G Overall Width of Upper Structure	2,200 m	וm (7'3")
H Tail Swing Radius	1,410 m	ım (4'8")
I Counterweight Ground Clearance	760 mi	m (2'6")
J Overall Height of Cab	2,800 m	ım (9'2")
K Min. Ground Clearance	360 m	m (1'2")
L Track Shoe Width	450 m	m (18")
M Dozer Blade - Maximum Reach at Ground Level	2,033 m	ım (6'8")
N Offset	200 m	ım (8")
O Maximum Boom Offset to the Right	886 mn	n (2'11")
P Maximum Boom Offset to the Left	598 m	nm (2')
$\alpha$ Maximum Boom Swing Angle to the Right	5	5°
β Maximum Boom Swing Angle to the Left	6	5°

BOOM DIMENSIONS	
Boom	3,375 mm (11'1")
Length	3,510 mm (11'6")
Height	1,236 mm (4'1")
Width	424 mm (1'5")
Weight	435 kg (959 lb)
Only boom.	

n	ly	bo	00	m	

ARM DIM	ENSIONS	
Arm	1,650 mm (5'5")	2,100 mm (6'11")
Length	2,205 mm (7'3")	2,660 mm (8'9")
Height	510 mm (1'8")	510 mm (1'8")
Width	220 mm (10")	244 mm (9")
Weight	165 kg (364 lb)	210 kg (463 lb)

Only arm.



WORKING RANGE		
Boom	3,375 mi	m (11'1")
Arm Options	1,650 mm (5'5")	2,100 mm (6'11")
A. Max. Digging Reach	6,847 mm (22'6")	7,264 mm (23'10")
B. Max. Digging Reach on Ground	6,651 mm (21'10")	7,082 mm (23'3")
C. Max. Digging Depth	4,093 mm (13'5")	4,540 mm (14'11")
D. Max. Digging Depth, 2.44 m (8') Level	3,670 mm (12')	4,163 mm (13'8")
E. Max. Vertical Wall Digging Depth	3,043 mm (10')	3,963 mm (13')
F. Max. Cutting Height	6,724 mm (22'1")	7,016 mm (23')
G. Max. Dumping Height	4,725 mm (15'6")	5,000 mm (16'5")
H. Min. Front Swing Radius	2,421 mm (7'11")	2,421 mm (7'11")
I. Lift above Ground	440 mm (1'5'')	440 mm (1'5'')
J. Depth below Ground	420 mm (1'5'')	420 mm (1'5'')
Bucket Digging Force (ISO)	63 kN (14,163 lbf)	63 kN (14,163 lbf)
Arm Digging Force (ISO)	43 kN (9,667 lbf)	37 kN (8,318 lbf)
Bucket Capacity	0.28 m <sup>3</sup> (0.37 yd <sup>3</sup> )	0.28 m <sup>3</sup> (0.37 yd <sup>3</sup> )
Bucket Tip Radius	1,020 mm (3'4")	1,020 mm (3'4")

MACHINE	WEIGHTS A	ND GROUND PRESSURE								
Shoe	Shoe Shoe	Operating weight	Ground pressure	Overall width	Operating weight	Ground pressure	Overall width			
width	type		ı, 1,650 mm (5'5") arn 10 kg (3,086 lb) count		3,375 mm (11'1") boom, 2,100 mm (6'11") arm, 0.28 m <sup>3</sup> (0.37 yd bucket, 1,400 kg (3,086 lb) counterweight					
450 mm	Metal	8,700 kg (19,180 lb)	38.4 kPa (5.6 psi)	2,200 mm (7'3")	8,700 kg (19,180 lb)	38.4 kPa (5.6 psi)	2,200 mm (7'3")			
(18")	Weta	8,800 kg (19,400 lb)	38.9 kPa (5.6 psi)	2,400 mm (7'10")	8,800 kg (19,400 lb)	38.9 kPa (5.6 psi)	2,400 mm (7'10")			
450 mm	Rubber ·	8,500 kg (18,739 lb)	37.6 kPa (5.4 psi)	2,200 mm (7'3")	8,500 kg (18,739 lb)	37.6 kPa (5.4 psi)	2,200 mm (7'3")			
(18")	Rubber	8,600 kg (18,960 lb)	38 kPa (5.5 psi)	2,400 mm (7'10")	8,600 kg (18,960 lb)	38 kPa (5.5 psi)	2,400 mm (7'10")			

#### **BUCKET SELECTION GUIDE**

					3.375 m (11'1") Boom					
Bucket type	Capacity	Cutting width	Weight	Teeth pcs	1.65 m (5'5") Arm	2.1 m (6'11") Arm				
General purpose	0.28 m³ (0.37 yd³)	765 mm (2'6")	221 kg (487 lb)	4	А	В				

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> (2,203~2,191 lb/yd<sup>3</sup>): Coal, Caliche, Shale B 1,400~1,600 kg/m<sup>3</sup> (2,360~2,697 lb/yd<sup>3</sup>): Wet earth and clay, limestone, sandstone C 1,700~1,800 kg/m<sup>3</sup> (2,265~3,034 lb/yd<sup>3</sup>): Granite, wet sand, well blasted rock D 1,900 kg/m<sup>3</sup> (3,203 lb/yd<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.



Rating over - front (Cf)



Rating over - side (Cs)



1. 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.

Conditions

Blade: Down

3. Ratings at bucket lift hook.

- 4. Lifting capacities are based on machine standing on level, firm and uniform ground.
- 5. \*Indicates the load is limited by hydraulic capacity rather than tipping capacity.

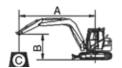
Operator should be fully acquainted with the Operator's and Maintenance Instructions before operating this machine and rules for the safe operation of equipment should be adhered to at all times 6. all times.

#### LIFTING CAPACITY (METRIC)

#### 909ECR with 450 mm shoes, 1,650 mm arm (Standard)

- A: Reach from swing center
- Bucket hook height B:
- C: Lifting capacity
- Cf: Rating over front
- Cs: Rating over side

Boom length: 3,375 mm one-piece boom Arm length: 1,650 mm Bucket: None Shoes: 450 mm Undercarriage width: 2,200 mm Unit: kg



					A (Unit: r	n)					
B (m)	2		3		4	4		5	N		н
B (m) –	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (m)
4					*1,770	*1,770	*1,850	1,290	*1,870	1,250	5.1
3			*2,670	*2,670	*2,150	1,810	*1,950	1,260	*1,940	1,050	5.6
2			*4,250	2,600	*2,720	1,700	*2,200	1,220	*2,030	970	5.8
1			*5,180	2,440	*3,220	1,610	*2,450	1,170	*2,120	950	5.8
GROUND LEVEL			*5,260	2,410	*3,470	1,560	*2,590	1,140	*2,260	990	5.6
-1		5,370	*4,980	2,430	*3,420	1,560	*2,510	1,140	*2,410	1,110	5.1
-2		5,470	*4,260	2,490	*2,940	1,600			*2,580	1,440	4.3

					Blade: U	p					
					A (Unit: r	n)					
<b>P</b> (m)		2	;	3	4	4	į	5	N	MAX REACI	н
B (m) -	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (m)
4					*1,770	*1,770	1,320	1,290	1,280	1,250	5.1
3			*2,670	*2,670	1,850	1,810	1,300	1,260	1,080	1,050	5.6
2			2,680	2,600	1,750	1,700	1,250	1,220	990	970	5.8
1			2,520	2,440	1,650	1,610	1,200	1,170	970	950	5.8
GROUND LEVEL			2,490	2,410	1,610	1,560	1,180	1,140	1,010	990	5.6
-1	5,590	5,370	2,500	2,430	1,600	1,560	1,180	1,140	1,140	1,110	5.1
-2	5,690	5,470	2,560	2,490	1,640	1,600			1,480	1,440	4.3

LIFTING CAPACITY	(METRIC)										
909ECR with 450	mm shoes	s, 1,650 mm	arm (Stan	dard)	Condition	s					
A: Reach from s B: Bucket hook h C: Lifting capaci Cf: Rating over fr Cs: Rating over si	neight ty ont				Arm length Bucket: No Shoes: 450	n: 1,650 mm one		e boom			V
					Blade: Do	wn					
					A (Unit: r	n)					
P (m)	:	2	3		4		5		MAX REACH		
B (m)	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (m)
4					*1,770	*1,770	*1,850	1,510	*1,870	1,470	5.1
3			*2,670	*2,670	*2,150	2,130	*1,950	1,490	*1,940	1,240	5.6
2			*4,250	3,150	*2,720	2,020	*2,200	1,440	*2,030	1,140	5.8
1			*5,180	2,980	*3,220	1,920	*2,450	1,390	*2,120	1,120	5.8
GROUND LEVEL			*5,260	2,950	*3,470	1,880	*2,590	1,370	*2,260	1,170	5.6
-1		6,950	*4,980	2,970	*3,420	1,870	*2,510	1,370	*2,410	1,320	5.1
-2		6,910	*4,260	3,030	*2,940	1,910			*2,580	1,720	4.3

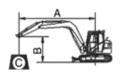
					Blade: Up						
					A (Unit: m)						
B (m)	2	2	;	3	4	4	5		MAX REACH		н
B (m)	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (m)
4					*1,770	*1,770	1,320	1,510	1,280	1,470	5.1
3			*2,670	*2,670	1,850	2,130	1,300	1,490	1,080	1,240	5.6
2			2,680	3,150	1,750	2,020	1,250	1,440	990	1,140	5.8
1			2,520	2,980	1,650	1,920	1,200	1,390	970	1,120	5.8
GROUND LEVEL			2,490	2,950	1,610	1,880	1,180	1,370	1,010	1,170	5.6
-1	5,590	6,950	2,500	2,970	1,600	1,870	1,180	1,370	1,140	1,320	5.1
-2	5,690	6,910	2,560	3,030	1,640	1,910			1,480	1,720	4.3

909ECR with 450 mm shoes, 2,100 mm arm

- A: Reach from swing centerB: Bucket hook heightC: Lifting capacityCf: Rating over frontCs: Rating over side

#### Conditions

Boom length: 3,375 mm Arm length: 2,100 mm Bucket: None Shoes: 450 mm Undercarriage width: 2,200 mm Unit: kg



					og									
				В	lade: Dov	wn								
A (Unit: m)														
	2		3	4	1	5		6		MAX REACH		н		
Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (m)		
				*1,410	*1,410	*1,560	1,070			*1,670	870	5.6		
				*1,810	1,520	*1,730	1,040	*1,730	750	*1,730	750	6.0		
		*3,530	2,240	*2,420	1,420	*2,010	990	*1,710	730	*1,820	690	6.2		
		*4,830	2,020	*3,020	1,320	*2,090	940	*1,970	710	*1,920	670	6.2		
	4,240	*5,290	1,940	*3,180	1,250	*2,530	910	*2,020	690	*2,040	690	6.0		
	4,280	*5,220	1,930	*3,490	1,230	*2,580	890			*2,190	760	5.6		
	4,360	*4,730	1,970	3,240	1,240					*2,370	930	4.9		
	4,540	*3,520	2,050							*2,610	1,490	3.7		
		4,240 4,280 4,360	Cf         Cs         Cf           *3,530         *4,830           4,240         *5,290           4,280         *5,220           4,360         *4,730	Cf         Cs         Cf         Cs	2         3         4           Cf         Cs         Cf         Cs         Cf           1	2         3         4           Cf         Cs         Cf         Cs           1         Cf         Cs         Cf         Cs           1         1,410         *1,410         *1,410           1         1,520         *1,810         1,520           1         *4,830         2,020         *3,020         1,320           4,240         *5,290         1,940         *3,180         1,250           4,360         *4,730         1,970         3,240         1,240	Blade: Down           2         3         4         5           Cf         Cs         Cf         Cs         Cf         statum         statum           Cf         Cs         Cf         Cs         Cf         statum         statum	Blade: DownA (Unit: m)2345CfCsCfCsCfCs $1,410$ $1,410$ $1,560$ $1,070$ $1,040$ $1,040$ $1,110$ $1,520$ $1,730$ $1,040$ $1,120$ $1,210$ $990$ $1,420$ $1,320$ $2,240$ $2,420$ $1,420$ $2,010$ $990$ $1,420$ $1,520$ $1,940$ $3,020$ $1,320$ $2,240$ $2,020$ $3,020$ $1,250$ $2,030$ $1,420$ $1,520$ $1,940$ $3,180$ $1,250$ $2,530$ $910$ $1,420$ $4,280$ $5,220$ $1,930$ $3,240$ $1,240$ $2,580$ $890$ $1,360$ $4,730$ $1,970$ $3,240$ $1,240$ $1,240$ $1,240$	Blade: Down         A Unit: m)         2       3       4       5       6         Cf       Cs       Cf       Cs       Cf       Cs       Cf       6         Cf       Cs       Cf       Cs       Cf       S       6         Cf       Cs       Cf       Cs       Cf       Cs       Cf         *1,410       *1,410       *1,410       *1,560       1,070       *1,730         C       *3,530       2,240       *2,420       1,420       *2,010       990       *1,710         *4,830       2,020       *3,020       1,320       *2,030       940       *1,970         4,240       *5,290       1,940       *3,180       1,250       *2,530       910       *2,020         4,360       *4,730       1,970       3,240       1,240       *2,580       890       *2,020	Blade: DownA Unit: m)C $2$ 3CCfCsCfCsCfCsCfCsCfCsCfCsCfCsCfCsCfCsCfCsCfSCfSCfCsCfCsCfCsCfSCfSCfCsCfCsCfSCfSCfSCfSCfCsCfSCfSSCfSCfSCfCfSCfSCfSCfSCfSCfSSCfSSCfSSCfSSSSSSSSSSCfSSSSSSSSSCfSSSSSSSSSSSSSSSSSSSCfSS <t< td=""><td>Blade: DownA Unit: m)23456MCfCsCfCsCfCsCfCsCfNCfCsCfCsCfCsCfCsCfN<math>1,410</math>*1,410*1,5601,070*1,730750*1,670Cf<math>1,520</math>*1,7301,040*1,730750*1,820Cf<math>1,520</math>*1,200*2,010990*1,710730*1,820Cf<math>1,220</math>*3,5302,240*3,0201,320*2,090940*1,970710*1,9204,240*5,2901,940*3,1801,250*2,530910*2,020690*2,0404,360*4,7301,9703,2401,240*2,580890<math>1.550</math><math>5,270</math><math>5,220</math>1,970<math>3,240</math><math>2,240</math><math>5,250</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math><math>5,270</math></td><td>Blade: DownA Unit: m)C <math>f</math>GMAX REACC fCsCfCsCfCsCfCsCfCsC fCsCfCsCfCsCfCsCfCsA<math>^{*1,410}</math><math>^{*1,560}</math><math>1,070</math><math>^{*1,730}</math><math>750</math><math>^{*1,730}</math><math>870</math>C fCsCfCsCfCsCfCs<math>^{*1,410}</math><math>^{*1,410}</math><math>^{*1,560}</math><math>1,070</math><math>^{*1,730}</math><math>750</math><math>^{*1,730}</math><math>870</math>C fCsCfCsCfCsCfCsCfCs<math>^{*1,810}</math><math>1,520</math><math>^{*1,730}</math><math>1,040</math><math>^{*1,730}</math><math>750</math><math>^{*1,730}</math><math>750</math>C fCsSCfCsCfCsCfCsCfCs<math>^{*1,820}</math><math>690</math>C fCsSCfCs<math>^{*1,830}</math><math>2,020</math><math>^{*3,020}</math><math>1,220</math><math>^{2,030}</math><math>940</math><math>^{*1,730}</math><math>710</math><math>^{*1,920}</math><math>690</math>C fCs<math>^{*3,180}</math><math>1,250</math><math>^{*2,530}</math><math>910</math><math>^{*2,020}</math><math>690</math><math>^{*2,040}</math><math>690</math>C fCs<math>^{*3,490}</math><math>1,240</math><math>^{*2,580}</math><math>890</math><math>\cdot \cdot \cdot \cdot</math><math>^{*2,370}</math><math>930</math></td></t<>	Blade: DownA Unit: m)23456MCfCsCfCsCfCsCfCsCfNCfCsCfCsCfCsCfCsCfN $1,410$ *1,410*1,5601,070*1,730750*1,670Cf $1,520$ *1,7301,040*1,730750*1,820Cf $1,520$ *1,200*2,010990*1,710730*1,820Cf $1,220$ *3,5302,240*3,0201,320*2,090940*1,970710*1,9204,240*5,2901,940*3,1801,250*2,530910*2,020690*2,0404,360*4,7301,9703,2401,240*2,580890 $1.550$ $5,270$ $5,220$ 1,970 $3,240$ $2,240$ $5,250$ $5,270$	Blade: DownA Unit: m)C $f$ GMAX REACC fCsCfCsCfCsCfCsCfCsC fCsCfCsCfCsCfCsCfCsA $^{*1,410}$ $^{*1,560}$ $1,070$ $^{*1,730}$ $750$ $^{*1,730}$ $870$ C fCsCfCsCfCsCfCs $^{*1,410}$ $^{*1,410}$ $^{*1,560}$ $1,070$ $^{*1,730}$ $750$ $^{*1,730}$ $870$ C fCsCfCsCfCsCfCsCfCs $^{*1,810}$ $1,520$ $^{*1,730}$ $1,040$ $^{*1,730}$ $750$ $^{*1,730}$ $750$ C fCsSCfCsCfCsCfCsCfCs $^{*1,820}$ $690$ C fCsSCfCs $^{*1,830}$ $2,020$ $^{*3,020}$ $1,220$ $^{2,030}$ $940$ $^{*1,730}$ $710$ $^{*1,920}$ $690$ C fCs $^{*3,180}$ $1,250$ $^{*2,530}$ $910$ $^{*2,020}$ $690$ $^{*2,040}$ $690$ C fCs $^{*3,490}$ $1,240$ $^{*2,580}$ $890$ $\cdot \cdot \cdot \cdot$ $^{*2,370}$ $930$		

						Blade: Up	þ						
						A (Unit: m	I)						
P (m)		2		3	;	3		4	ļ	5	MAX REACH		H
B (m) -	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (m)
4					*1,410	*1,410	1,100	1,070			890	870	5.6
3					1,560	1,520	1,070	1,040	770	750	770	750	6.0
2			2,310	2,240	1,460	1,420	1,020	990	820	730	710	690	6.2
1			2,090	2,020	1,360	1,320	1,110	940	730	710	690	670	6.2
GROUND LEVEL		4,240	2,010	1,940	1,290	1,250	930	910	710	690	710	690	6.0
-1		4,280	2,000	1,930	1,270	1,230	920	890			790	760	5.6
-2		4,360	2,030	1,970	1,280	1,240					960	930	4.9
-3		4,540	2,120	2,050							1,540	1,490	3.7

909ECR with 450	mm sho	es, 2,100	mm arm			Conditio	ons						
A: Reach from sw B: Bucket hook he C: Lifting capacity Cf: Rating over from Cs: Rating over sid	eight / nt	ər			Boom length: 3,375mm Arm length: 2,100mm Bucket: None Shoes: 450mm Undercarriage width: 2,400mm Unit: kg								
					E	Blade: Dow	/n						
					1	A (Unit: m	ו)						
		2		3	4	4	Ę	6	i	MAX REACH		н	
B (m) -	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (m)
4					*1,410	*1,410	*1,560	1,260			*1,670	1,030	5.6
3					*1,810	1,800	*1,730	1,230	*1,730	900	*1,730	890	6.0
2			*3,530	2,710	*2,420	1,690	*2,010	1,180	*1,710	880	*1,820	830	6.2
1			*4,830	2,480	*3,020	1,590	*2,090	1,130	*1,970	850	*1,920	810	6.2
GROUND LEVEL		5,550	*5,290	2,400	*3,180	1,520	*2,530	1,090	*2,020	840	*2,040	830	6.0
-1		5,590	*5,220	2,390	*3,490	1,500	*2,580	1,080			*2,190	920	5.6
-2		5,690	*4,730	2,420	*3,240	1,510					*2,370	1,130	4.9
-3		5,880	*3,520	2,510							*2,610	1,790	3.7

						Blade: Up	)						
						A (Unit: m	ı)						
P (m)	2		3			3		4	ţ	5	М	AX REAC	н
B (m) -	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (m)
4					*1,410	*1,410	1,100	1,260			890	1,030	5.6
3					1,560	1,800	1,070	1,230	770	900	770	890	6.0
2			2,310	2,710	1,460	1,690	1,020	1,180	820	880	710	830	6.2
1			2,090	2,480	1,360	1,590	1,110	1,130	730	850	690	810	6.2
GROUND LEVEL		5,550	2,010	2,400	1,290	1,520	930	1,090	710	840	710	830	6.0
-1		5,590	2,000	2,390	1,270	1,500	920	1,080			790	920	5.6
-2		5,690	2,030	2,420	1,280	1,510					960	1,130	4.9
-3		5,880	2,120	2,510							1,540	1,790	3.7

#### LIFTING CAPACITY (METRIC) 909ECR with 450 mm sho

909ECR with 5'5"	Arm,11'1"	Boom, 18"	Shoes		Condition	s						
A: Reach from sw B: Bucket hook he C: Lifting capacity Cf: Rating over from Cs: Rating over sid	eight / nt				Boom leng Arm length Bucket: No Shoes: 18" Undercarri Unit: Ibs	n: 5'5" one	7'3"					
					Blade: Do	wn						
					A (Unit: f	it)						
D (64)	6	'7"	9'1	0"	13	'1"	16	'5"	N		AX REACH	
B (ft) -	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (ft)	
13'1"					*3,903	*3,903	*4,079	2,844	*4,123	2,756	16.7	
9'10"			*5,887	*5,887	*4,741	3,991	*4,300	2,778	*4,278	2,315	18.3	
6'7"			*9,371	5,733	*5,999	3,749	*4,851	2,690	*4,476	2,139	19.0	
3'3"			*11,422	5,380	*7,100	3,550	*5,402	2,580	*4,675	2,095	19.0	
GROUND LEVEL			*11,598	5,314	*7,651	3,440	*5,711	2,514	*4,983	2,183	18.3	
-3'3"		11,841	*10,981	5,358	*7,541	3,440	*5,535	2,514	*5,314	2,448	16.8	
-6'7"		12,061	*9,393	5,490	*6,483	3,528			*5,689	3,175	14.2	

					Blade: U	p					
					A (Unit: f	it)					
D ((1))	6'7"		9'	9'10"		13'1"		'5"	M		н
B (ft)	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (ft)
13'1"					*3,903	*3,903	2,911	2,844	2,822	2,756	16.7
9'10"			*5,887	*5,887	4,079	3,991	2,867	2,778	2,381	2,315	18.3
6'7"			5,909	5,733	3,859	3,749	2,756	2,690	2,183	2,139	19.0
3'3"			5,557	5,380	3,638	3,550	2,646	2,580	2,139	2,095	19.0
GROUND LEVEL			5,490	5,314	3,550	3,440	2,602	2,514	2,227	2,183	18.3
-3'3"	12,326	11,841	5,513	5,358	3,528	3,440	2,602	2,514	2,514	2,448	16.8
-6'7"	12,546	12,061	5,645	5,490	3,616	3,528			3,263	3,175	14.2

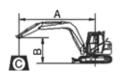
LIFTING CAPACITY (	METRIC)											
909ECR with 5'5"	Arm,11'1"	Boom, 18"	Shoes		Condition	s						
A: Reach from sw B: Bucket hook h C: Lifting capacity Cf: Rating over fro Cs: Rating over sic	eight y nt				Boom leng Arm length Bucket: No Shoes: 18' Undercarri Unit: Ibs	n: 5'5" one	7'10"					
					Blade: Do	wn						
					A (Unit: 1	ft)						
D (64)	6'7'			7" 9'10"			16	'5"	N	MAX REAC	н	
B (ft)	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (ft)	
13'1"					*3,903	*3,903	*4,079	3,330	*4,123	3,241	16.7	
9'10"			*5,887	*5,887	*4,741	4,697	*4,300	3,285	*4,278	2,734	18.3	
6'7"			*9,371	6,946	*5,998	4,454	*4,851	3,175	*4,476	2,514	19.0	
3'3"			*11,422	6,571	*7,100	4,234	*5,402	3,065	*4,675	2,470	19.0	
GROUND LEVEL			*11,598	6,505	*7,651	4,145	*5,711	3,021	*4,983	2,580	18.3	
-3'3"		15,325	*10,981	6,549	*7,541	4,123	*5,535	3,021	*5,314	2,911	16.8	
-6'7"		15,237	*9,393	6,681	*6,483	4,212			*5,689	3,793	14.2	

					Blade: U	lp					
					A (Unit:	ft)					
D (64)	6'7"		9'	10"	13'1"		16	'5"	MAX REACH		н
B (ft)	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (ft)
13'1"					*3,903	*3,903	2,911	3,330	2,822	3,241	16.7
9'10"			*5,887	*5,887	4,079	4,697	2,867	3,285	2,381	2,734	18.3
6'7"			5,909	6,946	3,859	4,454	2,756	3,175	2,183	1,140	19.0
3'3"			5,557	6,571	3,638	4,234	2,646	3,065	2,139	2,470	19.0
GROUND LEVEL			5,490	6,505	3,550	4,145	2,602	3,021	2,227	2,580	18.3
-3'3"	12,326	15,325	5,513	6,549	3,528	4,123	2,602	3,021	2,514	2,911	16.8
-6'7"	12,546	15,237	5,645	6,681	3,616	4,212			3,263	3,793	14.2

909ECR with 6'11" Arm,11'1" Boom, 18" Shoes

- A: Reach from swing centerB: Bucket hook heightC: Lifting capacityCf: Rating over frontCs: Rating over side

### Conditions Boom length: 11'1" Arm length: 6'11" Bucket: None Shoes: 18" Undercarriage width: 7'3" Unit: Ibs



					В	lade: Dov	wn								
	A (Unit: ft)														
D (64)	6	"7"	9'10"		13	'1"	16	'5"	19'8"		MAX REACH				
B (ft) -	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (ft)		
13'1"					*3,109	*3,109	*3,440	2,359			*3,682	1,918	18.4		
9'10"					*3,991	3,352	*3,815	2,293	*3,815	1,654	*3,815	1,654	19.8		
6'7"			*7,784	4,939	*5,336	3,131	*4,432	2,183	*3,771	1,610	*4,013	1,521	20.4		
3'3"			*10,650	4,454	*6,659	2,911	*4,608	2,073	*4,344	1,566	*4,234	1,477	20.4		
GROUND LEVEL		9,349	*11,664	4,278	*7,012	2,756	*5,579	2,007	*4,454	1,521	*4,498	1,521	19.8		
-3'3"		9,437	*11,510	4,256	*7,695	2,712	*5,689	1,962			*4,829	1,676	18.4		
-6'7"		9,614	*10,430	4,344	*7,144	2,734					*5,226	2,051	16.1		
-9'10"		10,011	*7,762	4,520							*5,755	3,285	12.0		

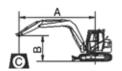
						Blade: Up	þ						
						A (Unit: fi	:)						
D (64)	6'7"		9'10"		13'1"		16	'5"	1	9'8"	MAX REACH		H
B (ft) -	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (ft)
13'1"					*3,109	*3,109	2,426	2,359			1,962	1,918	18.4
9'10"					3,440	3,352	2,359	2,293	1,698	1,654	1,698	1,654	19.8
6'7"			5,094	4,939	3,219	3,131	2,249	2,183	1,808	1,610	1,566	1,521	20.4
3'3"			4,608	4,454	2,999	2,911	2,448	2,073	1,610	1,566	1,521	1,477	20.4
GROUND LEVEL		9,349	4,432	4,278	2,844	2,756	2,051	2,007	1,566	1,521	1,566	1,521	19.8
-3'3"		9,437	4,410	4,256	2,800	2,712	2,029	1,962			1,742	1,676	18.4
-6'7"		9,614	4,476	4,344	2,822	2,734					2,117	2,051	16.1
-9'10"		10,011	4,675	4,520							3,396	3,285	12.0

#### 909ECR with 6'11" Arm,11'1" Boom, 18" Shoes

- A: Reach from swing centerB: Bucket hook heightC: Lifting capacityCf: Rating over frontCs: Rating over side

### Boom length: 11'1" Arm length: 6'11" Bucket: None Shoes: 18" Undercarriage width: 7'10" Unit: Ibs

Conditions



					ĺ	Blade: Do	wn								
	A (Unit: ft)														
D (64)	6'7"		9'10"		13'1"		16	'5"	19'8"		MAX REACH		н		
B (ft) -	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (ft)		
13'1"					*3,109	*3,109	*3,440	2,778			*3,682	2,271	18.4		
9'10"					*3,991	3,969	*3,815	2,712	*3,815	1,985	*3,815	1,962	19.8		
6'7"			*7,784	5,976	*5,336	3,726	*4,432	2,602	*3,771	1,940	*4,013	1,830	20.4		
3'3"			*10,650	5,468	*6,659	3,506	*4,608	2,492	*4,344	1,874	*4,234	1,786	20.4		
GROUND LEVEL		12,238	*11,664	5,292	*7,012	3,352	*5,579	2,403	*4,454	1,852	*4,498	1,830	19.8		
-3'3"		12,326	*11,510	5,270	*7,695	3,308	*5,689	2,381			*4,829	2,029	18.4		
-6'7"		12,546	*10,430	5,336	*7,144	3,330					*5,226	2,492	16.1		
-9'10"		12,965	*7,762	5,535							*5,755	3,947	12.0		

						Blade: U	р						
						A (Unit: f	t)						
D (44)	6	·7"	9'10"		13'1"		16	'5"	19'8"		MAX REACH		н
B (ft) -	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (ft)
13'1"					*3,109	*3,109	2,426	2,778			1,962	2,271	18.4
9'10"					3,440	3,969	2,359	2,712	1,698	1,985	1,698	1,962	19.8
6'7"			5,094	5,976	3,219	3,726	2,249	2,602	1,808	1,940	1,566	1,830	20.4
3'3"			4,608	5,468	2,999	3,506	2,448	2,492	1,610	1,874	1,521	1,786	20.4
GROUND LEVEL		12,238	4,432	5,292	2,844	3,352	2,051	2,403	1,566	1,852	1,566	1,830	19.8
-3'3"		12,326	4,410	5,270	2,800	3,308	2,029	2,381			1,742	2,029	18.4
-6'7"		12,546	4,476	5,336	2,822	3,330					2,117	2,492	16.1
-9'10"		12,965	4,675	5,535							3,396	3,947	12.0

## **STANDARD EQUIPMENT**

#### **ENGINE SYSTEM**

- Yanmar engine, inline 4 cylinders, 4 stroke, water cooled, natural aspiration, common rail, EGR, DPF
- Air filter
- Pre-filter with water separator
- Engine oil filter
- Auto-idle speed control
- Radiator, oil cooler
- Engine overheat prevention systemFuel refilling pump

#### DRIVETRAIN

- Hydraulic motor, piston type and two-gear reducer
- 2-speed travel system with automatic shift

#### **HYDRAULIC SYSTEM**

- Main pump: one variable displacement piston pump
- Cylinders: boom, stick, bucket, swing, dozer
- Swing with function of preventing anti-reverse
- Boom and arm regeneration circuits
- Load holding valve at boom and arm cylinder
- Pilot control shut-off lever
- Two way auxiliary pipe with variable flow, and changed by switch valve
- Two electrical proportional joysticks

#### SWING SYSTEM

 High-torque piston swing motor with integral spring set and automatic hydraulic release swing brake

#### **DIGGING EQUIPMENT**

- 3,375 mm (11'1") boom
- 1,650 mm (5'5") arm
- 0.28 m<sup>3</sup> (0.37 yd<sup>3</sup>) bucket (SAE, heaped)

#### **OPERATOR STATION**

- Pressurized and sealed cab, 2-speed wiper with additional intermitted interval and removable lower window
- Auto air conditioner, heater, defroster
- · Mechanic suspension seat
- AM/FM radio
- · Glass-breaking hammer
- Cigarette lighter
- Cup holder
- Floor mat
- Fire extinguisher
- One key for all locks
- Roll-Over Protective System (ROPS)
- 2-working mode selection system: Power, Economy

#### **INSTRUMENTATION**

- Color LCD monitor with alarms, filter/fluid change, fuel rate, water temperature, work mode, fault code, hour meter, etc.
   Fuel gauge
- Hydraulic oil level gauge

#### **ELECTRICAL**

- Alternator 12 V, 80 A
- One battery 12 V
- Working lights, 2 cab mounted, 1 boom mounted
- Starting, 12 V, 3 kW
- Overloading warning

#### UNDERCARRIAGE

- 450 mm (18") track-shoes with triple grousers
- Rollers, bottom 6 each side, top 1 each side
- Towing eye on base frame
- Track gauge 1,750 mm (5'9")

#### **GUARDS**

· Cover plate under travel frame

#### **OTHER STANDARD EQUIPMENT**

- 1,400 kg (3,086 lb) counterweight
- · Maintenance tool kit
- Maintenance parts package

## **OPTIONAL EQUIPMENT**

#### **HYDRAULIC SYSTEM**

- Hydraulic attachments rotation lines with variable flow
- Hose burst safety valves, prevention of boom or arm supply dropped when the lines split.
- Quick coupler liners with alarm (low and high pressure)
- Single auxiliary pipe for oil returning
- Pilot oil preheat
- Dozer float function
- SAE/BHL option change

#### **OPERATOR STATION**

- Air suspension seatFalling-Object Protective Structures (FOPS)
- Failing-Object Protective Structures (FOPS)
- Safety net for front window3', 2', orange, red seat belt.
- Safe belt alarm
- Forestry object guards

#### ELECTRICAL

- LED working lights on cab, 4 front and 2 rear
- Rearview camera
- Travel and swing alarms
- Rotating beacon

#### **UPPER STRUCTURE**

- 8 mm thickness platform bottom plate
- Additional counterweight, 300 kg (661 lb)

#### **UNDERCARRIAGE**

- Integral rubber shoes, 450 mm (18")
- Rubber block on track shoes
- Track gauge 1,950 mm (6'5")

#### **DIGGING EQUIPMENT**

- 2,100 mm (6'11") arm
- and 2 rear **Dititing** • 2,100 m
- Rubber block
- •



Guangxi LiuGong Machinery Co., Ltd. No. 1 Liutai Road, Liuzhou, Guangxi 545007, PR China T: +86 772 388 6124 E: overseas@liugong.com www.liugong.com

Like and follow us:



#### LG-PB-909ECR-20-05032019-ENG

The LiuGong series of logos herein, including but not limited to word marks, device marks, letter of alphabet marks and combination marks, as the registered trademarks of Guangxi LiuGong Group Co., Ltd. are used by Guangxi LiuGong Machinery Co., Ltd. with legal permission, and shall not be used without permission. Specifications and designs are subject to change without notice. Illustrations and pictures may include optional equipment and may not include all standard equipment. Equipment and options varies by regional availability.