



<b>Engine</b>	Yanmar 4TNV98C, Tier 4F/EU Stage V
<b>Net Power</b>	44 kW (59 hp / 60 ps)
<b>Operating Weight</b>	8,700 kg (19,180 lb)
<b>Bucket Capacity</b>	0.23 - 0.32 m <sup>3</sup> (0.3 - 0.42 yd <sup>3</sup> )

# 909ECR EXCAVATOR

# 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,  
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

### AWARD WINNING DESIGN

Our UK-based design team has invested thousands of man hours to really understand how our machines are used every day. This insight shapes our innovative approach to product design. Our design team recently won a prestigious Red Dot Award for our D-Series Grader and all our products this award-winning design DNA.

### 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 Research & Development Centre 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 QUALITY STANDARDS

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

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

**TOUGH TALK?** Judge for yourself.

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.

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### POWERFUL ENGINE

The fuel efficient, Stage V certified Yanmar 4TNV98C engine provides proven and reliable power.

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### 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.

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### 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.

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### 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 backfilling will be easier.



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## **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.

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## **COMFORTABLE OPERATION ENVIRONMENT**

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

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## **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

Fit for purpose 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?

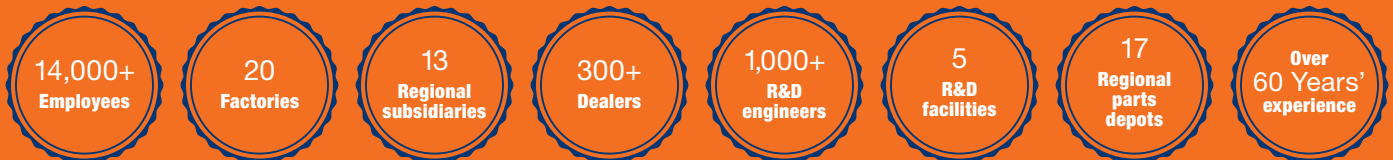
## FAST RESPONDING GLOBAL NETWORK

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

All supported by 13 regional subsidiaries and 17 regional parts depots offering expert training, parts and service support.



## WE ARE LIUGONG. WORKING HARD TO KEEP OUR GLOBAL CUSTOMERS EARNING



## 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.



**Right parts.  
Right price.  
Right service.**

**Above all,  
we get it right  
the first time.**

**1<sup>st</sup>**



## LIUGONG SERVICE PROMISE



**Highly trained technicians  
utilizing the latest  
diagnostic equipment**



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



**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 lb)

Operating weight includes coolant, lubricants, full fuel tank, cab, standard shoes, boom, arm, bucket and operator 75 kg (165 lb).

## Bucket Capacity 0.23 m<sup>3</sup> - 0.32 m<sup>3</sup> (0.3 yd<sup>3</sup> - 0.42 yd<sup>3</sup>)

## ENGINE

### Description

Yanmar EPA Tier 4F / EU Stage V, inline 4-cylinder, water-cooled, direct injection, EGR + DPF + high pressure common rail diesel engine.

Emission rating Tier 4F / EU Stage V

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) 44 kW (59 hp / 60 ps)

Engine output - gross  
(SAE J1995 / ISO 14396) 46.2 kW (62 hp / 63 ps)

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

Type Variable displacement  
piston pump and gear  
pump

Maximum flow 189 L/min  
(49.9 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  $\phi 110 \times 879$  mm  
( $\phi 4.33" \times 34.61"$ )

Arm cylinder –Bore  
× Stroke  $\phi 100 \times 867$  mm  
( $\phi 3.94" \times 34.13"$ )

Bucket cylinder –  
Bore × Stroke  $\phi 90 \times 710$  mm  
( $\phi 3.54" \times 27.95"$ )

Boom swing  
cylinder –Bore ×  
Stroke  $\phi 100 \times 707$  mm  
( $3.94" \times 27.83"$ )

Dozer cylinder –Bore  
× Stroke  $\phi 125 \times 168$  mm  
( $4.92" \times 6.61"$ )

## 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 110 L (29.1 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 88 L (23.2 gal)

Hydraulic system total 160 L (42.3 gal)

## SOUND PERFORMANCE

Interior Sound Power  
Level (ISO 6396) 73dB(A)

Exterior Sound Power  
Level (ISO 6395) 98 dB(A)

## DRIVE AND BRAKES

### Description

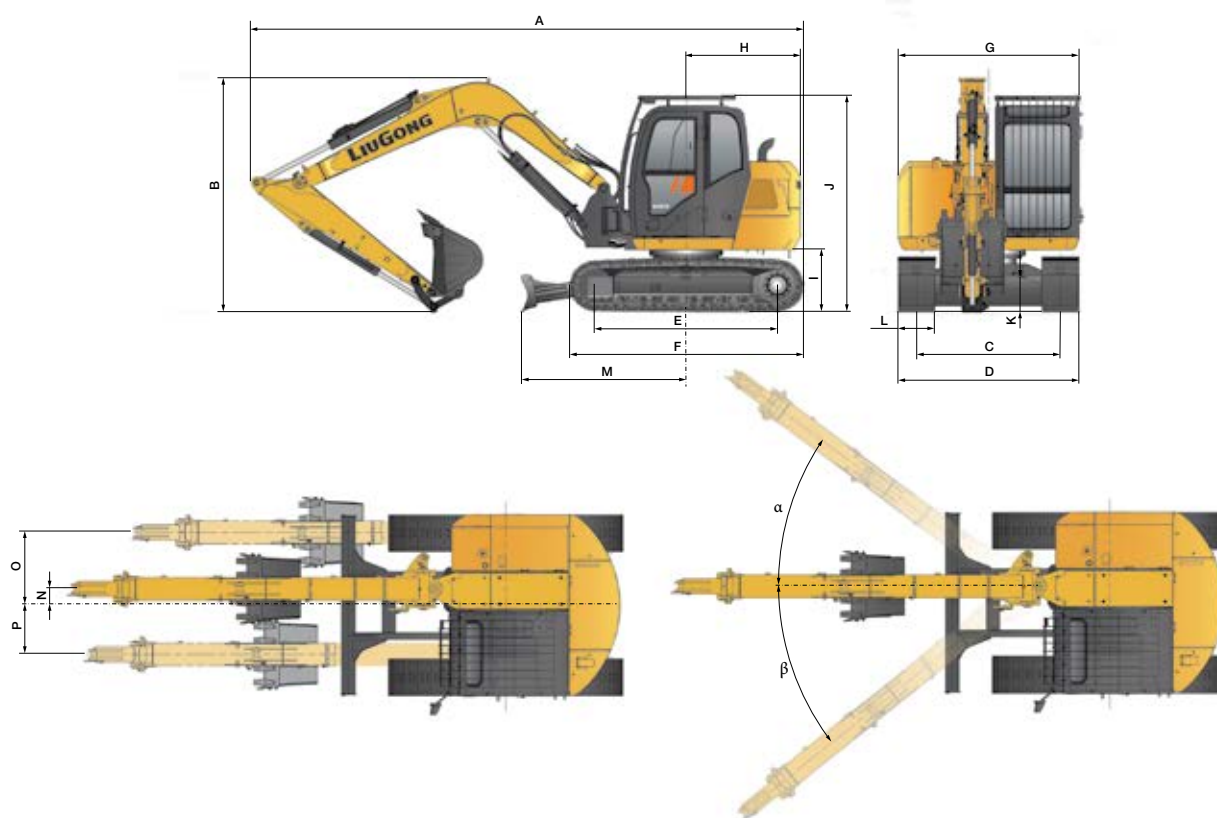
2-speed axial piston motors with oil disk brakes. Steering controlled by two hand levers with pedals.

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)





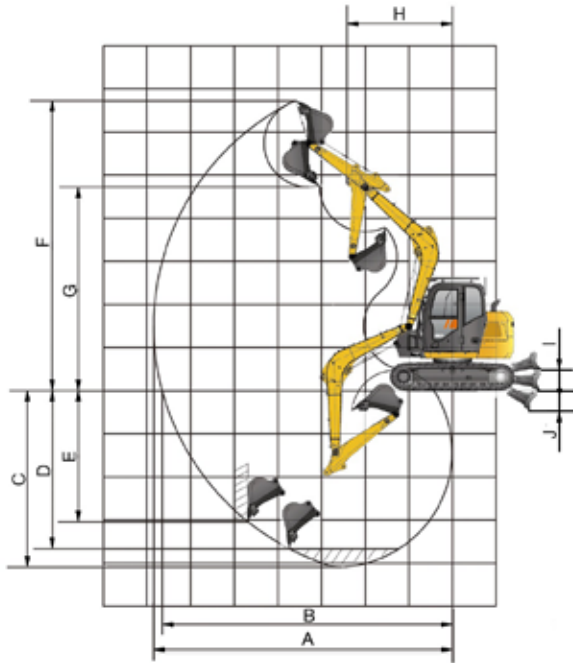
DIMENSIONS	
Boom	3,375 mm (11'1")
Arm Options	1,650 mm (5'5")    2,100 mm (6'11")
A Shipping Length	6115 / 6200 mm
B Shipping Height – Top of Cab	2,800mm
C Track Gauge	1,750 mm (5'9") / 1,950 mm (6'5")
D Undercarriage Width – with 450 mm Shoes	2,200 mm (7'3") / 2,400 mm (7'10")
E Length to Center of Rollers	2,230 mm (7'4")
F Track Length	2,845 mm (9'4")
G Overall Width of Upper Structure	2,200 mm (7'3")
H Tail Swing Radius	1,410 mm (4'8")
I Counterweight Ground Clearance	760 mm (2'6")
J Overall Height of Cab	2,800 mm (9'2")
K Min. Ground Clearance	360 mm (1'2")
L Track Shoe Width	450 mm (18")
M Dozer Blade - Maximum Reach at Ground Level	2,033 mm (6'8")
N Offset	200 mm (8")
O Maximum Boom Offset to the Right	886 mm (2'11")
P Maximum Boom Offset to the Left	598 mm (2')
$\alpha$ Maximum Boom Swing Angle to the Right	55°
$\beta$ Maximum Boom Swing Angle to the Left	65°

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.

ARM DIMENSIONS		
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 mm (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 AND GROUND PRESSURE**

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

**BUCKET SELECTION GUIDE**

Bucket type	Capacity	Cutting width	Weight	Teeth pcs	3,375 m (11'1") Boom	
					1.65 m (5'5") Arm	2.1 m (6'11") Arm
General purpose	0.28 m <sup>3</sup> (0.37 yd <sup>3</sup> )	765 mm (2'6")	221 kg (487 lb)	4	A	B

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> (2,023-2,191 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> (2,865-3,034 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.
2. 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.
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.
6. 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.

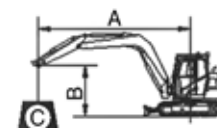
## LIFTING CAPACITY (METRIC)

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

### Conditions

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



### Blade: Down

#### A (Unit: m)

B (m)	2		3		4		5		MAX REACH		A (m)
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
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: Up

#### A (Unit: m)

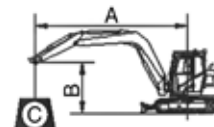
B (m)	2		3		4		5		MAX REACH		A (m)
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
4					*1,770	*1,770	1,320	1,290	1,280	1,250	5.1
3			*2,670	*2,670	1,850	1,810	1,300	1,260	1,080	1,050	5.6
2			2,680	2,600	1,750	1,700	1,250	1,220	990	970	5.8
1			2,520	2,440	1,650	1,610	1,200	1,170	970	950	5.8
GROUND LEVEL			2,490	2,410	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, 1,650 mm arm (Standard)

### Conditions

Boom length: 3,375 mm one-piece boom  
 Arm length: 1,650 mm  
 Bucket: None  
 Shoes: 450 mm  
 Undercarriage width: 2,400 mm  
 Unit: kg



### Blade: Down

#### A (Unit: m)

B (m)	2		3		4		5		MAX REACH		A (m)
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
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

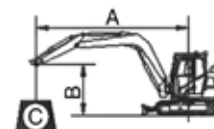
### Blade: Up

#### A (Unit: m)

B (m)	2		3		4		5		MAX REACH		A (m)
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
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

**LIFTING CAPACITY (METRIC)**
**909ECR with 450 mm shoes, 2,100 mm arm**
**Conditions**

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

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

**Blade: Down**
**A (Unit: m)**

B (m)	2		3		4		5		6		MAX REACH		A (m)
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
4					*1,410	*1,410	*1,560	1,070			*1,670	870	5.6
3					*1,810	1,520	*1,730	1,040	*1,730	750	*1,730	750	6.0
2			*3,530	2,240	*2,420	1,420	*2,010	990	*1,710	730	*1,820	690	6.2
1			*4,830	2,020	*3,020	1,320	*2,090	940	*1,970	710	*1,920	670	6.2
GROUND LEVEL		4,240	*5,290	1,940	*3,180	1,250	*2,530	910	*2,020	690	*2,040	690	6.0
-1		4,280	*5,220	1,930	*3,490	1,230	*2,580	890			*2,190	760	5.6
-2		4,360	*4,730	1,970	3,240	1,240					*2,370	930	4.9
-3		4,540	*3,520	2,050							*2,610	1,490	3.7

**Blade: Up**
**A (Unit: m)**

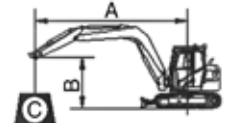
B (m)	2		3		3		4		5		MAX REACH		A (m)
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
4					*1,410	*1,410	1,100	1,070			890	870	5.6
3					1,560	1,520	1,070	1,040	770	750	770	750	6.0
2			2,310	2,240	1,460	1,420	1,020	990	820	730	710	690	6.2
1			2,090	2,020	1,360	1,320	1,110	940	730	710	690	670	6.2
GROUND LEVEL		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

## LIFTING CAPACITY (METRIC)

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

### Conditions

Boom length: 3,375 mm  
 Arm length: 2,100 mm  
 Bucket: None  
 Shoes: 450 mm  
 Undercarriage width: 2,400 mm  
 Unit: kg



### Blade: Down

#### A (Unit: m)

B (m)	2		3		4		5		6		MAX REACH		A (m)
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
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

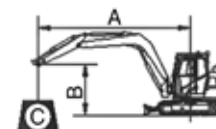
### Blade: Up

#### A (Unit: m)

B (m)	2		3		3		4		5		MAX REACH		A (m)
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
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 5'5" Arm, 11'1" Boom, 18" Shoes**
**Conditions**

Boom length: 11'1"  
 Arm length: 5'5"  
 Bucket: None  
 Shoes: 18"  
 Undercarriage width: 7'3"  
 Unit: lbs


**Blade: Down**
**A (Unit: ft)**

B (ft)	6'7"		9'10"		13'1"		16'5"		MAX REACH		A (ft)
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
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: Up**
**A (Unit: ft)**

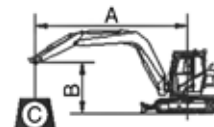
B (ft)	6'7"		9'10"		13'1"		16'5"		MAX REACH		A (ft)
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
13'1"					*3,903	*3,903	2,911	2,844	2,822	2,756	16.7
9'10"			*5,887	*5,887	4,079	3,991	2,867	2,778	2,381	2,315	18.3
6'7"			5,909	5,733	3,859	3,749	2,756	2,690	2,183	2,139	19.0
3'3"			5,557	5,380	3,638	3,550	2,646	2,580	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

### Conditions

Boom length: 11'1"  
 Arm length: 5'5"  
 Bucket: None  
 Shoes: 18"  
 Undercarriage width: 7'10"  
 Unit: lbs



### Blade: Down

#### A (Unit: ft)

B (ft)	6'7"		9'10"		13'1"		16'5"		MAX REACH		A (ft)
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
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: Up

#### A (Unit: ft)

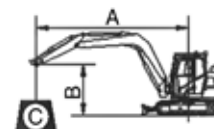
B (ft)	6'7"		9'10"		13'1"		16'5"		MAX REACH		A (ft)
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
13'1"					*3,903	*3,903	2,911	3,330	2,822	3,241	16.7
9'10"			*5,887	*5,887	4,079	4,697	2,867	3,285	2,381	2,734	18.3
6'7"			5,909	6,946	3,859	4,454	2,756	3,175	2,183	1,140	19.0
3'3"			5,557	6,571	3,638	4,234	2,646	3,065	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



**LIFTING CAPACITY (METRIC)**
**909ECR with 6'11" Arm, 11'1" Boom, 18" Shoes**
**Conditions**

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

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


**Blade: Down**
**A (Unit: ft)**

B (ft)	6'7"		9'10"		13'1"		16'5"		19'8"		MAX REACH		A (ft)
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
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**
**A (Unit: ft)**

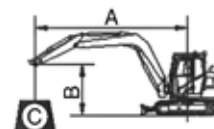
B (ft)	6'7"		9'10"		13'1"		16'5"		19'8"		MAX REACH		A (ft)
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
13'1"					*3,109	*3,109	2,426	2,359			1,962	1,918	18.4
9'10"					3,440	3,352	2,359	2,293	1,698	1,654	1,698	1,654	19.8
6'7"			5,094	4,939	3,219	3,131	2,249	2,183	1,808	1,610	1,566	1,521	20.4
3'3"			4,608	4,454	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

## LIFTING CAPACITY (METRIC)

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

### Conditions

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



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

### Blade: Down

#### A (Unit: ft)

B (ft)	6'7"		9'10"		13'1"		16'5"		19'8"		MAX REACH		A (ft)
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
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: Up

#### A (Unit: ft)

B (ft)	6'7"		9'10"		13'1"		16'5"		19'8"		MAX REACH		A (ft)
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
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
- Engine overheat prevention system
- Refueling 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, arm, bucket, swing, dozer
- Swing with function of preventing anti-reverse
- Arm regeneration circuits
- Pilot control shut-off lever
- Two way auxiliary pipe with variable flow and variable pressure, 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
- Bluetooth
- 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 and variable pressure
- Load holding valve on boom cylinder
- Load holding valve on arm cylinder
- Load holding valve on dozer blade cylinder
- Quick coupler liners with alarm (low and high pressure)
- Single auxiliary pipe for oil returning
- SAE/BHL option change

## OPERATOR STATION

- Air suspension seat with heating
- Safety net for front window
- 3', 2', orange, red seat belt
- Operation protection guard, include top and front of cab (FOPS Level II, Standard ISO 10262: 1998)

## ELECTRICAL

- LED working lights on cab, 4 front and 2 rear
- Rearview camera
- Travel alarm
- GPS
- Rotating beacon (top cab mounted, for caution, switch in cab)

## UPPER STRUCTURE

- 8 mm thickness platform bottom plate
- Additional counterweight, 350 kg (772 lb)

## UNDERCARRIAGE

- Rubber belt tracks, 450 mm (18")
- Rubber block on track shoes
- Steel shoes with rubber pads, 450 mm (18")
- Track gauge 1,950 mm (6'5")

## DIGGING EQUIPMENT

- 2,100 mm (6'11") arm



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