## **LIUGONG**



GONG

8-1

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

909Ecr

## 909ECR EXCAVATOR

TOUGH WORLD. TOUGH EQUIPMENT.

LIUGONG

# **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 :





## **UPTIME AND SUPPORT**



## **TOTAL COST OF OWNERSHIP**



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



## 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 our New F-Series shares 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.<sup>3</sup>

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.

#### **POWERFUL ENGINE**

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

#### **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

operator comfort and overall productivity on the

#### 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.



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 12 regional parts depots 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.





## LIUGONG SERVICE PROMISE







tilizing the latest diagnostic equipment parts available within 24hrs from our European Parts **Distribution** Center

and online support



#### **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.

**S1** 

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





and invoicing



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).

Rusket Consistu	0.23 m <sup>3</sup> - 0.32 m <sup>3</sup>
Bucket Capacity	(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.

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

## HYDRAULIC SYSTEM

- Main pump
- Variable displacement Type piston pump and gear pump 189 L/min Maximum flow

## (49.9 gal/min) **Relief valve setting**

28 MPa (4,061 psi) Implement 31.4 MPa (4,554 psi) Travel circuit Slew circuit 28 MPa (4,061 psi) 3.9 MPa (566 psi) Pilot circuit

#### Hydraulic cylinders

Boom cylinder –	¢110 × 879 mm
Bore × Stroke	(\$4.33" × 34.61")
Arm cylinder –Bore	¢100 × 867 mm
× Stroke	(\$3.94" × 34.13")
Bucket cylinder –	φ90 × 710 mm
Bore × Stroke	(\$3.54" × 27.95")
Boom swing	

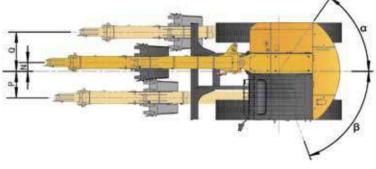
#### φ100×707mm cylinder –Bore × (3.94''×27.83'') Stroke

Dozer cylinder-Bore  $\phi$ 125×168mm × Stroke (4.92"×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)

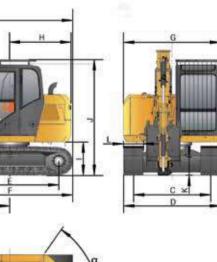
#### SERVICE CAPACITIES Fuel tank 110 L (29.1 gal) Engine oil 11.6 L (3.1 gal) Final drive (each) 1.08 L (0.29 gal) Swing drive 1.6 L (0.42 gal) Cooling system 14.5 L (3.8 gal) 88 L (23.2 gal) Hydraulic reservoir Hydraulic system total 160 L (42.3 gal)

SOUND PERFORMANCI	E						
Interior Sound Power Level (ISO 6396) 73dB(A)							
Exterior Sound Pow Level (ISO 6395)	er 98 dB(A)						
DRIVE AND BRAKES							
Description							
2-speed axial piston motors with oil disk brakes. Steering controlled by two hand levers with pedals.							
brakes. Steering cor							
brakes. Steering cor	htrolled by two hand High: 4.8 km/h (3 mph)						
brakes. Steering cor levers with pedals.	ntrolled by two hand						

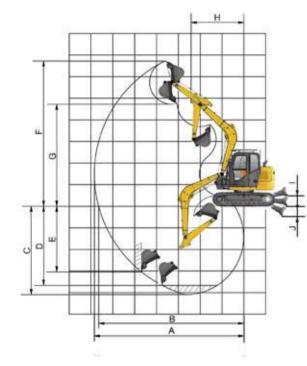


DIMENSIONS			BOOM DI	MENSIONS	
Boom	3,375 m	ım (11'1")	Boom	3,3	75 mm (11'1")
Arm Options	1,650 mm (5'5")	2,100 mm (6'11")	Length	3,5	10 mm (11'6")
A Shipping Length	6115 / 6	200 mm	Height	1,2	36 mm (4'1")
B Shipping Height – Top of Cab	2,80	2,800mm Width 424		424 mm (1'5")	
C Track Gauge	1,750 mm (5'9") / 1,950 mm (6'5")		Weight	43	5 kg (959 lb)
D Undercarriage Width – with 450 mm Shoes	2,200 mm (7'3") /	/ 2,400 mm (7'10")	Only boor	n.	
E Length to Center of Rollers	2,230 n	nm (7'4")			
F Track Length	2,845 n	nm (9'4")	ARM DIM	ENSIONS	
G Overall Width of Upper Structure	2,200 mm (7'3")		Arm	1,650 mm (5'5")	2,100 mm (6'11")
H Tail Swing Radius	1,410 mm (4'8")		Length	2,205 mm (7'3")	2,660 mm (8'9")
I Counterweight Ground Clearance	760 mm (2'6")		Height	510 mm (1'8")	510 mm (1'8")
J Overall Height of Cab	2,800 n	2,800 mm (9'2")		220 mm (10")	244 mm (9")
K Min. Ground Clearance	360 m	360 mm (1'2")		165 kg (364 lb)	210 kg (463 lb)
L Track Shoe Width	450 m	ım (18")	Only arm.		
M Dozer Blade - Maximum Reach at Ground Level	2,033 m	nm (6'8")			
N Offset	200 m	nm (8")			
O Maximum Boom Offset to the Right	886 mr	n (2'11")			
P Maximum Boom Offset to the Left	598 n	nm (2')			
α Maximum Boom Swing Angle to the Right	5	5°			
β Maximum Boom Swing Angle to the Left	6	5°			





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WORKING RANGE		
Boom	3,375 m	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 AI	ND GROUND PRESSURE				
Shoe	Shoe	Overall width Operating w		Ground pressure	Operating weight	Ground pressure
width	type		3,375 mm (11'1") boom, 1,650 mm (5'5") arm, 0.28 m3 (0.37 yd <sup>3</sup> ) bucket, 1,400 kg (3,086 lb) counterweight		3,375 mm (11'1") boom, 2,1 (0.37 yd <sup>3</sup> ) bucket, 1,400 kg	
450 mm         Metal         2,400 mm (7'10")         8,800 kg (19,400           450 mm         2,200 mm (7'3")         8,500 kg (18,739)           450 mm         2,200 mm (7'3")         8,500 kg (18,739)		8,700 kg (19,180 lb)	38.4 kPa (5.6 psi)	8,700 kg (19,180 lb)	38.4 kPa (5.6 psi)	
		8,800 kg (19,400 lb)	38.9 kPa (5.6 psi)	8,800 kg (19,400 lb)	38.9 kPa (5.6 psi)	
		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 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 221 kg (487 lb) 4 В General purpose 0.28 m<sup>3</sup> (0.37 yd<sup>3</sup>) 765 mm (2'6") А

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:

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.



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Rating over - front (Cf) Rating o

over - side (Cs)	

909ECB with 450	mm shoes	s. 1.650 mm	arm (Stan	dard)	Condition	s					
<ul> <li>909ECR with 450 mm shoes, 1,650 mm arm (Standard)</li> <li>A: Reach from swing center</li> <li>Bucket hook height</li> <li>C: Lifting capacity</li> <li>Cf: Rating over front</li> <li>Cs: Rating over side</li> </ul>					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						
					Blade: Do	wn					
					A (Unit: r	n)					
<b>P</b> (m)		2	;	3 4		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	1,290	*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

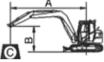
					Blade: U	р					
					A (Unit: r	n)					
<b>P</b> (m)	:	2	;	3	4	1	ţ	5	n	AX REACI	н
B (m) -	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (m)
4					*1,770	*1,770	1,320	1,290	1,280	1,250	5.1
3			*2,670	*2,670	1,850	1,810	1,300	1,260	1,080	1,050	5.6
2			2,680	2,600	1,750	1,700	1,250	1,220	990	970	5.8
1			2,520	2,440	1,650	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



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. 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.



6,910

\*4,260

3,030

IETRIC)										
nm shoes	s, 1,650 mm	arm (Stand	dard)	Condition	s					
ng center sight nt e				Arm length Bucket: No Shoes: 450	i: 1,650 mm one ) mm		e boom	1		V
				Blade: Do	wn					
				A (Unit: r	n)					
2 3		3	4	1	Ę	5	N	AX REAC	н	
Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A (m)
				*1,770	*1,770	*1,850	1,510	*1,870	1,470	5.1
		*2,670	*2,670	*2,150	2,130	*1,950	1,490	*1,940	1,240	5.6
		*4,250	3,150	*2,720	2,020	*2,200	1,440	*2,030	1,140	5.8
		*5,180	2,980	*3,220	1,920	*2,450	1,390	*2,120	1,120	5.8
		*5,260	2,950	*3,470	1,880	*2,590	1,370	*2,260	1,170	5.6
	6,950	*4,980	2,970	*3,420	1,870	*2,510	1,370	*2,410	1,320	5.1
	nm shoes ng center ight it	nm shoes, 1,650 mm ng center ight it 2 Cf Cs	nm shoes, 1,650 mm arm (Stand ng center ight it 2 2 Cf Cs Cf *2,670 *4,250 *5,180 *5,260	and shoes, 1,650 mm arm (Standard)         ng center ight         ight         at         at         cf       Cf       Cs         Cf       Cs       Cf       Cs         *2,670       *2,670       *2,670         *4,250       3,150       *5,180       2,980         *5,260       2,950       *5,260       2,950	nm shoes, 1,650 mm arm (Standard)         Condition           ng center         Boom leng           ight         Bucket: No           it         Shoes: 450           Undercarri         Undercarri           Unit: kg         Blade: Do           A (Unit: r         A (Unit: r           2         3           Cf         Cs         Cf           2         Cf         Cs           *2,670         *2,670         *2,150           *4,250         3,150         *2,720           *5,180         2,980         *3,220           *5,260         2,950         *3,470	nm shoes, 1,650 mm arm (Standard)         Conditions           ng center ight         Boom length: 3,375 m Arm length: 1,650 mm Bucket: None Shoes: 450 mm Undercarriage width: Unit: kg           z         Blade: Down           2         3         4           Cf         Cs         Cf         Cs            2         3         4           Cf         Cs         Cf         Cs         Cf           *2,670         *2,670         *2,150         2,130           *4,250         3,150         *2,720         2,020           *5,180         2,980         *3,220         1,920           *5,260         2,950         *3,470         1,880	nm shoes, 1,650 mm arm (Standard)       Conditions         ng center       Boom length: $3,375 \text{ mm one-piece}         arm length: 1,650 \text{ mm}       Bucket: None         Shoes: 450 \text{ mm}       Undercarriage width: 2,400 \text{ mm}         Undercarriage width: 2,400 \text{ mm}       Unit: kg         Blade: Down       Elade: Down         Q       Q       Q         Cf       Cs       Cf       Cs       Cf         Cf       Cs       Cf       Cs       Cf       Cs       Cf         *2,670       *2,670       *2,150       2,130       *1,950         *4,250       3,150       *2,200       *2,200       *2,200         *5,180       2,980       *3,220       1,920       *2,450         *5,260       2,950       *3,470       1,880       *2,590   $	nm shoes, 1,650 mm arm (Standard)       Conditions         ng center       Boom length: 3,375 mm one-piece boom         Arm length: 1,650 mm       Bucket: None         Shoes: 450 mm       Undercarriage width: 2,400 mm         Undercarriage width: 2,400 mm       Undercarriage         2       3       4         Cf       Cs       Cf       Cs         Cf       Cs       Cf       Cs       Cf       Cs         *2,670       *2,670       *2,150       2,130       *1,950       1,490         *4,250       3,150       *2,720       2,020       *2,200       1,440         *5,180       2,980       *3,220       1,920       *2,450       1,390         *5,260       2,950       *3,470       1,880       *2,590       1,370	nm shoes, 1,650 mm arm (Standard)       Conditions         ng center ight       Boom length: 3,375 mm one-piece boom         Arm length: 1,650 mm       Bucket: None         Shoes: 450 mm       Undercarriage width: 2,400 mm         Undercarriage width: 2,400 mm       Undercarriage width: 2,400 mm         Cf       Cs       Cf       Cs       Cf         Cf       Cs       Cf       Cs       Cf       Cs       Cf         *2,670       *2,670       *2,670       *2,150       2,130       *1,850       1,510       *1,870         *2,670       *2,670       *2,2150       2,130       *1,950       1,440       *2,030         *4,250       3,150       *2,720       2,020       *2,200       1,440       *2,030         *5,180       2,980       *3,220       1,920       *2,450       1,390       *2,120         *5,260       2,950       *3,470       1,880       *2,590       1,370       *2,260	Inm shoes, 1,650 mm arm (Standard)         Conditions           ng center ight         Boom length: 3,375 mm one-piece boom Arm length: 1,650 mm Bucket: None Shoes: 450 mm Undercarriage width: 2,400 mm Undercarriage width: 2,400 mm Unit: kg         Image: Shoes: 450 mm Undercarriage width: 2,400 mm Undercarriage width: 2,400 mm Unit: kg           Z         3         4         5         MAX REACI           Cf         Cs         Cf         Cs         Cf         Cs         Cf         Cs           Cf         Cs         Cf

					Blade: Up						
					A (Unit: m)						
<b>P</b> (m)	:	2	;	3		4	ļ	5	N	IAX REAC	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

\*2,940

1,910

\*2,580

1,720

4.3

LIFTING CAPAO	CITY (METRIC)				
909ECR with	450 mm shoe	es, 2,100	mm arm		
A: Reach fro B: Bucket ho C: Lifting ca Cf: Rating ov Cs: Rating ov	pacity er front	er			
					E
B (m)	:	2		3	
<b>Б</b> (III)	Cf	Cs	Cf	Cs	Cf
4					*1,410
3					*1,810
-			+0.500		+0.400

							'						
<b>D</b> ()		2		3 4			Į	5	6		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	*1,560	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

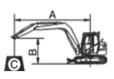
						Blade: U
						A (Unit: I
B (m) -		2		3	;	3
D (iii)	Cf	Cs	Cf	Cs	Cf	Cs
4					*1,410	*1,410
3					1,560	1,520
2			2,310	2,240	1,460	1,420
1			2,090	2,020	1,360	1,320
GROUND LEVEL		4,240	2,010	1,940	1,290	1,250
-1		4,280	2,000	1,930	1,270	1,230
-2		4,360	2,030	1,970	1,280	1,240
-3		4,540	2,120	2,050		

-2



#### Conditions

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



#### Blade: Down

#### A (Unit: m)

#### Up

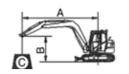
#### : m) 5 MAX REACH 4 Cs Cf Cf Cs Cf Cs A (m) 1,100 1,070 890 870 5.6 1,070 1,040 770 750 770 750 6.0 1,020 990 820 730 710 690 6.2 6.2 1,110 940 730 710 690 670 930 910 710 690 710 690 6.0 920 890 790 760 5.6 960 930 4.9 1,540 1,490 3.7

#### LIFTING CAPACITY (METRIC)

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

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



					E	Blade: Dow	/n						
						A (Unit: m	1)						
P (m)		2		3	4	4	Ę	5	6		м	AX REAC	H
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

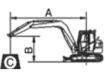
Conditions

						Blade: Up	)						
						A (Unit: m	)						
B (m) -		2		3	;	3	4	4	ţ	5	м	IAX REAC	ж
B (III)	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 (M	METRIC)										
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"	MAX 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	ft)					
D (64)	6'	7"	9'	10"	13	'1"	16	'5"	n	MAX REACI	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 (I	METRIC)											
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 fro Cs: Rating over sid	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	it)						
D (6)	6	'7"	9'1	0"	13	'1"	16	'5"	1		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	p					
					A (Unit: f	it)					
D (ft)	6'	7"	9'10"		13'1"		16'5"		MAX REACH		
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

LIFTING CAPA	CITY (METRIC)					
909ECR with	ı 6'11" Arm,11'	1" Boom,	18" Shoe	es		Condi
	ver front	er		Blac Blac Cs Cf	Boom Arm le Bucke Shoes Under Unit: Il	
					В	lade: D
						A (Unit
D (6)	6'	6'7" 9'		10"	13	"1"
B (ft)	Cf	Cs	Cf	Cs	Cf	Cs
13'1"					*3,109	*3,10
0/10"					*0.001	0.050

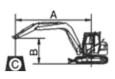
						•							
D (64)	6'7"		9'10"		13'1"		16'5"		19'8"		MAX REACH		
B (ft) -	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs           2         1,918           5         1,654           3         1,521           4         1,477           8         1,521           9         1,676	A (ft)
13'1"					*3,109	*3,109	*3,440	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	)						
						A (Unit: fl	:)						
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	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



#### ditions

m length: 11'1" length: 6'11" ket: None es: 18" ercarriage width: 7'3" lbs



#### Down

#### it: ft)

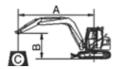
#### LIFTING CAPACITY (METRIC)

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

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

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

Conditions Boom length: 11'1"



						Blade: Do	wn						
						A (Unit: f	t)						
D (64)	6	ö'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	2,778			*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: ft)													
B (ft) -	6	<b>'</b> 7"	9'10"		1	13'1"		16'5"		'8"	MAX REACH		н	
B (II) -	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
- Engine overheat prevention system
- Fuel 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 numn
- 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

#### Fconomy • Operation protection guard, include top and front of cab (FOPS Level II, Standard ISO 10262: 1998)

SWING SYSTEM

swing brake

**DIGGING EQUIPMENT** 

• 1,650 mm (5'5") arm

**OPERATOR STATION** 

lower window

Cigarette lighter

• Fire extinguisher

One key for all locks

Cup holder

Floor mat

Glass-breaking hammer

• 3,375 mm (11'1") boom

# **OPTIONAL EQUIPMENT**

#### HYDRAULIC SYSTEM

- Hydraulic attachments rotation lines with
- · Load holding valve at boom and arm cylinder
- Quick coupler liners with alarm (low and high
- Single auxiliary pipe for oil returning
- Dozer float function • SAE/BHL option change

#### **OPERATOR STATION**

- Air suspension seat with heating Safety net for front window
- 3', 2', orange, red seat belt
- ELECTRICAL
- LED working lights on cab, 4 front and 2 rear
- Rearview camera
- Travel alarm
- Rotating beacon (top cab mounted, for caution,





• High-torgue piston swing motor with integral spring set and automatic hydraulic release

• 0.28 m<sup>3</sup> (0.37 yd<sup>3</sup>) bucket (SAE, heaped)

· Pressurized and sealed cab, 2-speed wiper with additional intermitted interval and removable

· Auto air conditioner, heater, defroster Mechanic suspension seat • AM/FM radio with blueteeth

- Roll-Over Protective System (ROPS) · 2-working mode selection system: Power,

#### 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 eve 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

#### **UPPER STRUCTURE**

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

#### UNDERCARRIAGE

- Integral rubber shoes, 450 mm (18")
- Rubber block on track shoes
- Steel shoes with rubber pads, 450 mm (18")

#### **DIGGING EQUIPMENT**

• 2,100 mm (6'11") arm



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