



LIUGONG MEDIUM EXCAVATOR

**909ECR**

ISLAND-READY HEAVY  
EQUIPMENT SOLUTIONS



**MICRONESIA**  
CONTRACTORS SOLUTIONS



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17-3311 CORSAIR RD., TIYAN, GU 96931

# SPECIFICATIONS

## ENGINE

Yanmar Tier 4 Final, 3.3 liter, inline 4-cylinder water-cooled, direct injection, DOC + DPf, high pressure common rail diesel engine.

Emissions rating	EPA Tier 4 Final
Make	Yanmar
Model	4TNV98C
Aspiration	Natural
Cooling fan drive	Direct
Displacement	202 in <sup>3</sup> (3.3 L)
Gross power	62 hp (46.2 kW) @ 2,200 rpm
Peak torque	178 lb-ft (241 N-m) 1,430 rpm
Cylinders	4
Bore x Stroke	3.86 x 4.33 in (98 x 110 mm)

## HYDRAULIC SYSTEM

### Main Pump

Type	Variable displacement piston pump
Maximum flow	50 gal/min (189 L/min)

### Relief Valve Setting

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

### Hydraulic Cylinders

Boom Cylinder Bore x Stroke	4.33 in x 34.61 in (110 mm x 879 mm)
Arm Cylinder Bore x Stroke	3.94 in x 34.13 in (100 mm x 867 mm)
Bucket Cylinder Bore x Stroke	3.54 in x 27.95 in (90 mm x 710 mm)

## SERVICE CAPACITIES

Fuel tank	30.6 gal (116 L)
Engine oil	3.1 gal (11.6 L)
Final drive (each)	0.29 gal (1.08 L)
Swing drive	0.42 gal (1.6 L)

## SERVICE CAPACITIES (CONTINUED)

Cooling system	3.8 gal (14.5 L)
Hydraulic reservoir	19.0 gal (72 L)
Hydraulic system total	29.1 gal (110 L)

## UNDERCARRIAGE

Track shoe each side	39
Link pitch	6.1 in (154 mm)
Steel track street pads	18 in (450 mm)
Bottom rollers each side	6
Top rollers each side	1

## SWING SYSTEM

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	15,489 lb-ft (21,000 N-m)

## DRIVE & BRAKES

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

Travel speed	High: 3 mph (4.8 km/h)
	Low: 1.5 mph (2.4 km/h)
Gradeability	35° / 70%
Max. drawbar pull	16,861 lbf (75 kN)

## ELECTRIC SYSTEM

System voltage	12V
Battery	12V (one)
Alternator	12V - 80A
Starter motor	12V - 4 hp (12V - 3 kW)

## SOUND PERFORMANCE

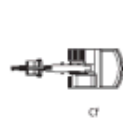
Interior sound level (ISO 6396)	73 dB(A)
Exterior sound level (ISO 6395)	98 dB(A)



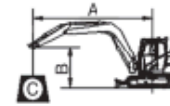
# SPECIFICATIONS

## STANDARD 909ECR WITH 18 IN (450MM) SHOES, 6 FT 11 IN (2.1 M) ARM

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



Conditions:  
 Boom length: 11 ft 1 in (3.37 m)  
 Arm length: 6 ft 11 in (2.1 m)  
 Counterweight: 3,637 LB (1,650 kg)  
 Shoes: 18 in (450 mm)  
 Bucket: SAE 0.37 yd<sup>3</sup> (0.28 m<sup>3</sup>) 487 lb (221 kg)



1. \*Indicates the load is limited by hydraulic capacity rather than the tipping capacity.
2. The below loads are in compliance with the ISO 10567 hydraulic rating standard. They do not exceed 87% of the hydraulic lifting capacity of 75% tipping load.
3. Rating at bucket lift hook.

### Blade Up

A Reach: ft (m)

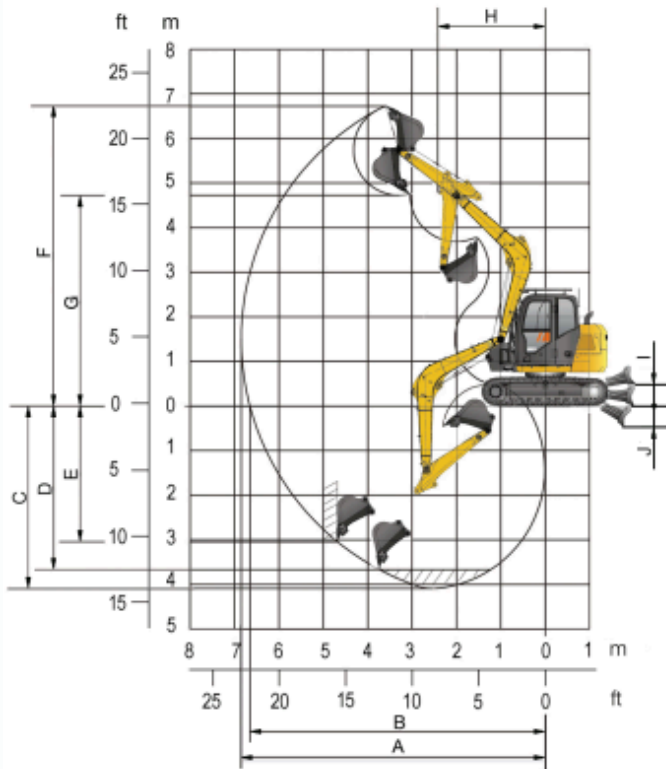
B: Height ft (m)		6 ft 7 in (2 m)		9 ft 10 in (3 m)		13 ft 1 in (4 m)		16 ft 5 in (5 m)		19 ft 8 in (6 m)		MAX REACH		
		Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Distance
13 ft 1 in 4 m	lb kg					*3,109 *1,410	*3,109 *1,410	2,426 1,100	2,778 1,260			1,962 890	2,271 1,030	18 ft 4 in 5.6 m
9 ft 10 in 3 m	lb kg					3,440 1,560	3,969 1,800	2,359 1,070	2,712 1,230	1,698 770	1,985 900	1,698 770	1,962 890	19 ft 8 in 6 m
6 ft 7 in 2 m	lb kg			5,094 2,310	5,976 2,710	3,219 1,460	3,726 1,690	2,249 1,020	2,602 1,180	1,808 820	1,940 880	1,566 710	1,830 830	20 ft 4 in 6.2 m
3 ft 3 in 1 m	lb kg			4,608 2,090	5,468 2,480	2,999 1,360	3,506 1,590	2,448 1,110	2,492 1,130	1,610 730	1,874 850	1,521 690	1,786 810	20 ft 4 in 6.2 m
0 ft 0 m	lb kg		12,238 5,550	4,432 2,010	5,292 2,400	2,844 1,290	3,352 1,520	2,051 930	2,403 1,090	1,566 710	1,852 840	1,566 710	1,830 830	19 ft 8 in 6 m
-3 ft 3 in -1 m	lb kg		12,326 5,590	4,410 2,000	5,270 2,390	2,800 1,270	3,308 1,500	2,029 920	2,381 1,080			1,742 790	2,029 920	18 ft 4 in 5.6 m
-6 ft 7 in -2 m	lb kg		12,546 5,690	4,476 2,030	5,336 2,420	2,822 1,280	3,330 1,510					2,117 960	2,492 1,130	16 ft 1 in 4.9 m
-9 ft 10 in -3 m	lb kg		12,965 5,880	4,675 2,120	5,535 2,510							3,396 1,540	3,947 1,790	12 ft 0 in 3.7 m

### Blade Down

13 ft 1 in 4 m	lb kg					*3,109 *1,410	*3,109 *1,410	*3,440 *1,560	2,778 1,260			*3,682 *1,670	2,271 1,030	18 ft 4 in 5.6 m
9 ft 10 in 3 m	lb kg					*3,991 *1,810	3,969 1,800	*3,815 *1,730	2,712 1,230	*3,815 *1,730	1,985 900	*3,815 *1,730	1,962 890	19 ft 8 in 6 m
6 ft 7 in 2 m	lb kg			*7,784 *3,530	5,976 2,710	*5,336 *2,420	3,726 1,690	*4,432 *2,010	2,602 1,180	*3,771 *1,710	1,940 880	*4,013 *1,820	1,830 830	20 ft 4 in 6.2 m
3 ft 3 in 1 m	lb kg			*10,650 *4,830	5,468 2,480	*6,659 *3,020	3,506 1,590	*4,608 *2,090	2,492 1,130	*4,344 *1,970	1,874 850	*4,234 *1,920	1,786 810	20 ft 4 in 6.2 m
0 ft 0 m	lb kg		12,238 5,550	*11,664 *5,290	5,292 2,400	*7,012 *3,180	3,352 1,520	*5,579 *2,530	2,403 1,090	*4,454 *2,020	1,852 840	*4,498 *2,040	1,830 830	19 ft 8 in 6 m
-3 ft 3 in -1 m	lb kg		12,326 5,590	*11,510 *5,220	5,270 2,390	*7,695 *3,490	3,308 1,500	*5,689 *2,580	2,381 1,080			*4,829 *2,190	2,029 920	18 ft 4 in 5.6 m
-6 ft 7 in -2 m	lb kg		12,546 5,690	*10,430 *4,730	5,336 2,420	*7,144 *3,240	3,330 1,510					*5,226 *2,370	2,492 1,130	16 ft 1 in 4.9 m
-9 ft 10 in -3 m	lb kg		12,965 5,880	*7,762 *3,520	5,535 2,510							*5,755 *2,610	3,947 1,790	12 ft 0 in 3.7 m



# SPECIFICATIONS



## WORKING RANGES

Description	Standard Arm	Optional Arm
Boom	11 ft 1 in (3.37 m)	
Arm options	6 ft 11 in (2.1 m)	5 ft 5 in (1.65 m)
A Max. digging reach	23 ft 10 in (7,264 mm)	22 ft 6 in (6,847 mm)
B Max. digging reach at ground level	23 ft 3 in (7,082 mm)	21 ft 10 in (6,651 mm)
C Max. digging depth	14 ft 11 in (4,540 mm)	13 ft 5 in (4,093 mm)
D Max. digging depth 2.4m (8 ft) level bottom	13 ft 8 in (4,163 mm)	12 ft 0 in (3,670 mm)
E Max. vertical wall digging depth Max.	13 ft 0 in (3,963 mm)	10 ft 0 in (3,043 mm)
F Max. digging height	21 ft 5 in (6,625 mm)	22 ft 1 in (6,724 mm)
G Max. dumping height	15 ft 0 in (4,577 mm)	15 ft 6 in (4,725 mm)
H Min. swing radius	7 ft 11 in (2,421 mm)	7 ft 11 in (2,421 mm)
I Dozer up	1 ft 7 in (470 mm)	1 ft 7 in (470 mm)
J Dozer down	1 ft 8 in (510 mm)	1 ft 8 in (510 mm)
Bucket digging force (ISO)	14,163 lbf (63 kN)	
Arm digging force (ISO)	8,318 lbf (37 kN)	9,667 lbf (43 kN)
Bucket capacity	0.37 yd <sup>3</sup> (0.28 m <sup>3</sup> )	
Bucket tip radius	3 ft 4 in (1,020 mm)	

