



LIUGONG ELECTRIC EXCAVATOR

**922FE**

ISLAND-READY HEAVY  
EQUIPMENT SOLUTIONS



**MICRONESIA**  
CONTRACTORS SOLUTIONS



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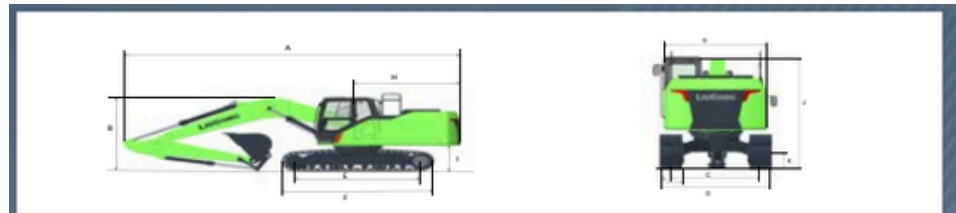
17-3311 CORSAIR RD., TIYAN, GU 96931

# SPECIFICATIONS

<b>Operating weight</b>	24,100 kg (53,116 lbs)
Operating weight includes lubricants, cab, standard Shoes, boom, arm, bucket and operator 75 kg (165 lbs).	
<b>Bucket capacity</b>	1.0 m <sup>3</sup> (1.3 yd <sup>3</sup> )
<b>MOTOR</b>	
Motor type	Synchronous reluctance
Motor Manufacturer	JJE
Rate voltage	640 V
Insulation class	H
Motor rated power	165 kW (221 hp)
Motor power (peak)	250 KW (335 hp)
Rated torque	1,050 N-m (774 lbf-ft) @ 1,500 rpm
Peak torque	1,700 N-m (1,254 lbf-ft) @ 1,500 rpm
Actual use (electric control system)-Setting the Max. Unload speed	2,300 rpm
Max. speed	4,000 rpm
Lowest No load speed	1,200 rpm
Cooling mode	Forced Liquid cooling
Weight	225Kg (497lb)
IP code	IP68
<b>SWING SYSTEM</b>	
<b>Description</b>	
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	78,200 N-m (57,680 lbf-ft)
<b>BATTERY</b>	
Battery type	Lithium-Iron(LiFePO <sub>4</sub> )
Battery Voltage	618 V
Power battery capacity	423 kWh 684 Ah
IP level	IP68
Battery Thermal Management	Heating: Forced Liquid Heating Cooling: Forced Liquid cooling
Indicative runtime (depending on application)	4-9 h
One gun Charging time	≤3 h
Dual guns Charging time	≤1.5 h
<b>HYDRAULIC SYSTEM</b>	
<b>Main pump</b>	
Type	Electronic variable pump
Maximum flow	2×228 L/min (2×60.2 gal/min)
<b>Relief valve setting</b>	
Primary system pressure (non-pressurized)	34.3 MPa (4,973 psi)
Primary system pressure (boost)	37.3 MPa (5,408 psi)
Pilot circuit	3.5-3.9 MPa (508-566 psi)
<b>Hydraulic cylinders</b>	
Boom Cylinder – Quantity - bore × Rod diameter × trip	2-φ120×85×1,320 mm (2-φ4.7×3.3×4' 4" )
Arm Cylinder – Quantity - bore × Rod diameter × trip	1-φ135×95×1,490 mm(1-φ5.3×3.7×4'11" )
Bucket Cylinder – Quantity - bore × Rod diameter × trip	1-φ115×80×1,120 mm (1-φ4.5×3.1" ×3' 8" )
<b>DRIVE AND BRAKES</b>	
<b>Description</b>	
2-speed axial piston motors with oil disk brakes. Steering controlled by two hand levers with pedals.	
Max. travel speed	High: 5.6 kN/h Low: 3.3 kN/h
Gradeability	35°
Max. drawbar pull	220 kN (49,458 lbf)
<b>UNDERCARRIAGE</b>	
Track shoe each side	49
Shoe width, triple grouser	600 mm (1'12")
Bottom rollers each side	8
Top rollers each side	2
<b>ELECTRIC SYSTEM</b>	
System voltage	24 V
Battery	2 x 12 V
Battery capacity (24V)	93 x 2 Ah
<b>AIR CONDITIONING SYSTEM</b>	
Cooling capacity	12,000±10%
Heating capacity	7,000±10%
Heating and air supply volume	400 m <sup>3</sup> /h
Voltage	618 V.DC
Total power consumption	7,000 W
<b>SERVICE CAPACITIES</b>	
Washer	3.8 L (1.0 gal)
Refrigerant Charge	1,200 ± 50 g
Hydraulic Reservoir	112 L (29.6 gal)
Hydraulic System Total	220 L (58.1 gal)
<b>SOUND PERFORMANCE</b>	
Interior sound level (ISO 6396)	65 dB(A)
Exterior sound level (ISO 6395)	97 dB(A)



# SPECIFICATIONS



DIMENSIONS (METRIC)	922FE		922FELL	
Boom Length	5,710 mm	5,710 mm	5,710 mm	8,850 mm
Arm Length	2,915 mm	2,400 mm	3,500 mm	6,250 mm
A Shipping Length	9,910 mm	9,960 mm	9,950 mm	13,150 mm
B Shipping Height (Top of Boom hose)	3,050 mm	3,200 mm	3,300 mm	3,305 mm
C Track Gauge	2,390 mm	2,390 mm	2,390 mm	2,200 mm
D Undercarriage Width- 600 mm (24") shoes	2,990 mm	2,990 mm	2,990 mm	2,800 mm
700 mm (28") shoes	3,090 mm	3,090 mm	3,090 mm	2,900 mm
800 mm (32") shoes	3,190 mm	3,190 mm	3,190 mm	3,000 mm
E Length to Center of Rollers	3,650 mm	3,650 mm	3,650 mm	3,650 mm
F Track Length	4,445 mm	4,445 mm	4,445 mm	4,445 mm
G Overall Width of Upper Structure	2,835 mm	2,835 mm	2,835 mm	2,835 mm
G(i) Width of Upper Including SIPS	2,875 mm	2,875 mm	2,875 mm	2,875 mm
H Tail Swing Radius	3,130 mm	3,130 mm	3,130 mm	3,130 mm
I Counterweight Ground Clearance	1,060 mm	1,060 mm	1,060 mm	1,060 mm
J Overall Height of Cab	2,980 mm	2,980 mm	2,980 mm	2,980 mm
J (i) Height of Cab Including Lighting Halo	3,065 mm	3,065 mm	3,065 mm	3,065 mm
J (ii) Height of Cab Including FOPS Guard	3,130 mm	3,130 mm	3,130 mm	3,130 mm
K Min. Ground Clearance	470 mm	470 mm	470 mm	470 mm
L Track Shoe Width	600 mm	600 mm	600 mm	600 mm



BOOM DIMENSIONS	
Boom	5,710 mm
Length A	5,898 mm
Height B	1,690 mm
Width C	622 mm
Width D	788 mm
Weight	2,070 kg

Includes arm cylinder, piping and pin.

ARM DIMENSIONS	
Arm	2,915 mm
Length A	3,918 mm
Height B	826 mm
Width C	476 mm
Weight	1,115 kg

Includes bucket cylinder, linkage and pin.



# SPECIFICATIONS

MACHINE WEIGHTS AND GROUND PRESSURE									
	922FE			922FE (2200mm Track Gauge)			922FLL		
Shoe width	Operating weight	Ground pressure	Overall width	Operating weight	Ground pressure	Overall width	Operating weight	Ground pressure	Overall width
	5,710 mm boom, 2,915 mm arm, 1m <sup>3</sup> bucket, 1,400 kg counterweight						8,850 mm boom, 6,250 mm arm, 0.45 m <sup>3</sup> bucket, 1,400 kg counterweight		
600 mm	24,100 kg	50.2 kPa	2,990 mm	24,900 kg	51.8 kPa	2,990 mm	-	-	-
700 mm	24,380 kg	43.5 kPa	3,090 mm	25,180 kg	44.9 kPa	3,090 mm	-	-	-
800 mm	24,665 kg	38.5 kPa	3,190 mm	25,465 kg	39.8 kPa	3,190 mm	25,600 kg	40.0 kPa	3,190 mm

BUCKET SELECTION GUIDE								
Bucket type	Capacity	Cutting width	Weight	Teeth	Work implement type			
					5,710 mm Boom			8,850 mm Boom
					m <sup>3</sup> (yd <sup>3</sup> )	mm (ft)	kg (lbs)	EA
General type	0.45 (0.59)	865 (2'10")	380 (838)	4	NA	NA	NA	B
Earth type	0.9 (1.18)	1,200 (3'11")	737 (1,625)	5	B	B	B	NA
Earth type	1.0 (1.31)	1,260 (4'2")	779 (1,717)	5	B	B	B	NA
Earth type	1.1 (1.44)	1,330 (4'4")	805 (1,775)	5	B	B	B	NA
Earth type	1.2 (1.57)	1,390 (4'7")	835 (1,841)	5	B	B	NA	NA
General type	1.0 (1.31)	1,260 (4'2")	988 (2,178)	5	C	C	C	NA
General type	1.1 (1.44)	1,330 (4'4")	1,025 (2,260)	5	C	C	NA	NA
Rock type	1.0 (1.31)	1,300 (4'3")	1,019 (2,247)	5	D	D	NA	NA
Rock type	1.1 (1.44)	1,370 (4'6")	1,064 (2,346)	5	D	D	NA	NA

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> : Coal, Caliche, Shale  
 B 1,400 - 1,600 kg/m<sup>3</sup> : Wet earth and clay, limestone, sandstone  
 C 1,700 - 1,800 kg/m<sup>3</sup> : Granite, wet sand, well blasted rock  
 D 1,900 kg/m<sup>3</sup> : Wet mud, Iron ore  
 NA. Not applicable



# SPECIFICATIONS

LIFTING CAPACITY (METRIC)														
922FE with 2,915 mm Arm & 600 mm shoes										Conditions:				
A: Load radius B: Load point height C: Lifting capacity Cf: Rating over front Cs: Rating over side										Boom length: 5,710mm Arm length: 2,915mm Bucket: None Counterweight: 4,000Kg Track gauge: 2,390mm Shoes: 600 mm triple grouser Unit: Kg				
A (Unit:m)														
	3		4.5		6		7.5		8		Max Reach			
B (m)	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A	
7.5					*4,257	*4,257					*3,912	*3,912	6.1	
6.0					*4,554	*4,554					*3,853	*3,853	7.2	
4.5			*5,733	*5,733	*5,037	*5,037	*4,739	3,789			*3,838	3,473	7.9	
3.0			*7,400	*7,400	*5,807	5,075	*5,072	3,668	*4,935	3,324	*3,785	3,135	8.3	
1.5			*8,973	7,033	*6,609	4,789	*5,474	3,529	*5,231	3,221	*3,928	3,000	8.4	
0	*6,059	*6,059	*9,847	6,699	*7,191	4,582	5,671	3,421	5,181	3,141	*4,458	3,040	8.2	
-1.5	*10,202	*10,202	*9,981	6,597	*7,385	4,488	5,628	3,381			5,434	3,275	7.7	
-3.0	*13,382	12,539	*9,414	6,658	*7,010	4,518					*5,983	3,873	6.8	
-4.5	*10,877	*10,877	*7,790	6,894							*6,290	5,402	5.4	

LIFTING CAPACITY (METRIC)														
922FE with 2,915 mm Arm & 700 mm shoes										Conditions:				
A: Load radius B: Load point height C: Lifting capacity Cf: Rating over front Cs: Rating over side										Boom length: 5,710mm Arm length: 2,915mm Bucket: None Counterweight: 4,000Kg Track gauge: 2,390mm Shoes: 700 mm triple grouser Unit: Kg				
A (Unit:m)														
	3		4.5		6		7.5		8		Max Reach			
B (m)	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	A	
7.5					*4,260	*4,260					*3,916	*3,916	6.1	
6.0					*4,592	*4,592					*3,858	*3,858	7.2	
4.5			*5,783	*5,783	*5,079	*5,079	*4,774	3,874			*3,843	3,555	7.9	
3.0			*7,458	*7,458	*5,852	5,187	*5,109	3,756	*4,970	3,405	*3,791	3,213	8.3	
1.5			*9,033	7,199	*6,655	4,904	*5,511	3,618	*5,265	3,303	*3,935	3,077	8.4	
0	*6,062	*6,062	*9,906	6,865	*7,236	4,697	5,781	3,508	5,281	3,222	*4,467	3,118	8.2	
-1.5	*10,205	*10,205	*10,033	6,758	*7,426	4,601	5,733	3,466			*5,446	3,357	7.7	
-3.0	*13,437	12,804	*9,457	6,811	*7,045	4,625					*6,012	3,963	6.8	
-4.5	*10,917	*10,917	*7,823	7,035							*6,316	5,512	5.4	

