

LIUGONG

922F/924F DM EXCAVATOR

ALL NEW
F-SERIES

Engine
Net Power
Operating Weight
Bucket Capacity

Cummins B6.7
116 kW
22,700-25,170 kg
1.4 m³



TOUGH WORLD. TOUGH EQUIPMENT.

SPECIFICATIONS

Operating weight	922F - 22,800 kg
	922FN - 22,700 kg
	924FDM - 24,600 kg
	922FLL - 24,000 kg

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

Bucket capacity	0.9 - 1.4 m ³
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ENGINE

Description

Cummins EU Stage V / EPA Tier 4 final, 6-cylinder straight Variable-Geometry Turbocharger (VGT), high pressure common rail, electronically controlled direct injection. Air cleaner: Cummins direct flow air filter. Cooling system: Air-to-air intercooler

Emission rating	EU Stage V / EPA Tier 4 final,
Engine manufacturer	Cummins
Engine model	B6.7
Aspiration	Variable-Geometry Turbocharger (VGT)
Charged air cooling	Aftercooler
Cooling fan drive	Electric motor
Displacement	6.7 L (6,700 cm ³) 1.8 gal (409 In ³)
Rated speed	2,200 rpm
Engine output - net (SAE J1349 / ISO 9249)	116 kW (156 hp)
Engine output - gross (SAE J1995 / ISO 14396)	116 kW (156 hp)
Maximum torque	746 N·m @1,300 rpm (550 lbf·ft@1,300 rpm)
Bore × Stroke	107 × 124 mm (4.2" × 4.9" in)

UNDERCARRIAGE

Track shoe each side	49
Link pitch	190 mm (7.5")
Shoe width, triple grouser	600/600/700/800 mm (24" / 24" / 28" / 32")
Bottom rollers each side	8
Top rollers each side	2

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	78,200 N·m (57,680 lbf·ft)

HYDRAULIC SYSTEM

Main pump	
Type	Two variable displacement piston pumps
Maximum flow	2 × 228 L/min (2×60.2 gal/mi)
Pilot pump	
Type	Gear pump
Maximum flow	17.5 L/min (5 gal/mi)
Relief valve setting	
Implement	34.3/37.3 MPa (4,973 / 5,408 psi)
Travel circuit	34.3 MPa (4,974 psi)
Slew circuit	27.6 MPa (4,002 psi)
Pilot circuit	3.9 MPa (566 psi)
Hydraulic cylinders	
Boom Cylinder – Bore × Stroke	Φ120 × 1,320 mm (Φ4.7"×4'4" ft/in)
Arm Cylinder – Bore × Stroke	Φ135 × 1,490 mm (Φ5.3"×5'4" ft/in)
Bucket Cylinder – Bore × Stroke	922F/922FN/924FDM Φ115 × 1,120 mm (Φ4.5"×3'6" ft/in) 922FLL Φ95 × 885 mm (Φ4"×2'11" ft/in)

ELECTRIC SYSTEM

System Voltage	24 V
Batteries	2 × 12 V
Alternator	24 V - 180 A
Starter motor	24 V - 7.8 kW (24 V - 10 hp)

SERVICE CAPACITIES

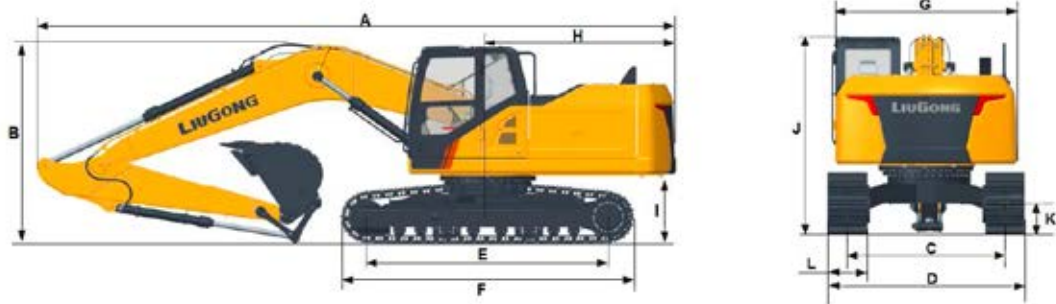
Fuel tank	400 L (105.7 gal)
Engine oil	25 L (6.6 gal)
Final drive (each)	5.5 L (1.5 gal)
Swing drive	3.4 L (0.9 gal)
Cooling system	25 L (6.6 gal)
Hydraulic reservoir	190 L (50.2 gal)
Hydraulic system total	300 L (79.3 gal)
DEF Tank	44 L (11.6 gal)

SOUND PERFORMANCE

Interior Sound Power Level (ISO 6396)	68 dB(A)
Exterior Sound Power Level (ISO 6395)	99 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: 5.6 km/h (3.5 mph) Low: 3.3 km/h (2.0 mph)
Gradeability	35°/70%
Max. drawbar pull	220 kN (49,458 lbs)



DIMENSIONS (METRIC)	922F	922FN	924FDM	922FLL
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	9,620 mm	9,670 mm	9,660 mm	10,210 mm
B Shipping Height (Top of Boom hose)	3,000 mm	3,150 mm	3,250 mm	3,255 mm
C Track Gauge	2,390 mm	2,390 mm	2,390 mm	2,390 mm
D Undercarriage Width- 600 mm (24") shoes	2,990 mm	2,990 mm	2,990 mm	2,990 mm
700 mm (28") shoes	3,090 mm	3,090 mm	3,090 mm	3,090 mm
800 mm (32") shoes	3,190 mm	3,190 mm	3,190 mm	3,190 mm
900 mm (35") shoes	3,290 mm	3,290 mm	3,290 mm	3,290 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	2,760 mm	2,760 mm	2,760 mm	2,760 mm
G(i) Width of Upper Including SIPS	2,875 mm	2,875 mm	2,875 mm	2,875 mm
H Tail Swing Radius	2,850 mm	2,850 mm	2,850 mm	2,850 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	800 mm



BOOM DIMENSIONS		
Boom	5,710 mm	8,850 mm
Length A	5,898 mm	9,080 mm
Height B	1,690 mm	1,460 mm
Width C	622 mm	622 mm
Width D	788 mm	788 mm
Weight	2,070 kg	2,815 kg

Includes arm cylinder, piping and pin.



ARM DIMENSIONS				
Arm	2,915 mm	2,400 mm	3,500 mm	6,250 mm
Length A	3,918 mm	3,375 mm	4,492 mm	7,350 mm
Height B	826 mm	820 mm	825 mm	830 mm
Width C	476 mm	476 mm	476 mm	368 mm
Weight	1,115 kg	1,030 kg	1,265 kg	1,385 kg

Includes bucket cylinder, linkage and pin.

MACHINE WEIGHTS AND GROUND PRESSURE

	922F			922FN			924FDM			922FLL		
Shoe width	Operating weight	Ground pressure	Overall width	Operating weight	Ground pressure	Overall width	Operating weight	Ground pressure	Overall width	Operating weight	Ground pressure	Overall width
	5.71 m boom, 2.915 m arm, 1.1 m³ bucket, 4,000 kg counterweight						5.71 m boom, 2.915 m arm, 1.0 m³ bucket, 5,000 kg counterweight			8.85 m boom, 6.25 m arm, 0.45 m³ bucket, 5,000 kg counterweight		
600 mm	22,800 kg	47.5 kPa	2,990 mm	22,700 kg	47.2 kPa	2,800 mm	24,320 kg	43.4 kPa	2,990 mm	23,435 kg	36.6 kPa	2,990 mm
700 mm	23,080 kg	41.2 kPa	3,090 mm	22,980 kg	41.0 kPa	3,090 mm	24,600 kg	43.9 kPa	3,090 mm	23,715 kg	37 kPa	3,090 mm
800 mm	23,365 kg	36.5 kPa	3,190 mm	23,265 kg	36.3 kPa	3,190 mm	24,885 kg	44.4 kPa	3,190 mm	24,000 kg	37.5 kPa	3,190 mm
900 mm	23,650 kg	32.8 kPa	3,290 mm	23,550 kg	32.7 kPa	3,290 mm	25,170 kg	44.9 kPa	3,290 mm	24,285 kg	37.9 kPa	3,290 mm



STANDARD EQUIPMENT

ENGINE SYSTEM

- Cummins B6.7 engine, EPA Tier 4F/EU Stage V, turbocharged, 6 cylinder, 4 stroke, water cooled.
- Engine overheat prevention system
- Auto-idle speed control
- Automatic engine shutdown
- Air filter with integrated pre-cleaner
- Metal fuel tank
- Fuel pre-filter with water separator and water detection
- Electric fuel lifting pump
- Remote engine oil filter
- Double engine oil dip-stick
- Lockable engine oil guage
- 6 x reversible electric cooling fans
- Radiator dustproof net
- Air conditioner compressor belt automatic tensioner
- Cold starting kit for -20° C
- Electric refueling pump with auto shutoff

HYDRAULIC SYSTEM

- Full electric control hydraulic system
- 3-power modes (Power, Standard, Economy)
- Power boost function (automatic & manual)
- Pilot control shut-off lever
- Pilot accumulator
- Automatic swing parking brake
- Swing with anti-reverse function
- Boom and arm regeneration circuits
- Boom and arm holding valves
- Boom lowering device for back-up
- Automatic two-speed travel
- Automatic travel parking brake
- Hydraulic oil temperature independent control
- Pressure checking port for main pump
- Hand proportional control auxiliary dual way pipes
- Auxiliary sigle-double hydraulic lines exchange on the monitor
- Auxiliary dual pipe flow & pressure adjustable
- Control pattern-change valve

OPERATOR STATION

- Pressurized and sealed cab with all-around visibility
- ROPS certified cab
- Removeable lower windshield
- Openable front windshield
- Large roof window with slide sliding sun visor
- Air suspension deluxe seat (with heater and head rest) +retractable seat belt (75 mm [3 in] width, red colour, with warning alarm)
- Consoles and seat height adjustable follow-up
- 8 inches high resolution LCD touch screen + integrated control panel
- Automatic air conditioner, heater, defroster
- Washable floor mat
- Place for shoes
- Fire extinguisher
- Safety hammer for cab evacuation
- Storage box
- Cup holder
- Document holding space
- Green safety glass
- Sliding window positioning
- Cab interior lighting
- Rearview mirror installed in cab

ELECTRICAL SYSTEM

- Monitor: working mode, working hour, water temperature, oil temperature, fuel level, DEF level, fuel consumption, rear vision, fault code, work condition etc. machine information
- Warn: low engine oil pressure, low fuel level, air filter clog, machine overheat, maintenance remind etc.
- Front window wiper with intermittent feature
- Wiper intermittent time adjustable
- Bluetooth/ AM/FM radio with auxiliary input
- Work lights shut off delay timer
- Cab light shut off delay timer
- 2 stereo speakers
- 2 signaling/warning horn
- Battery disconnect switch
- Emergency stop on ground
- Set password for auxiliary hydraulic-flow adjustments
- Work tool flow and pressure programmable memories
- Overload warning device

- Travel alarm
- Rotating beacon
- 4 boom working lights
- Work lights: separately installed LED in front and rear cab (4 front and 2 rear)
- 360° view camera

UNDERCARRIAGE

- Standard track undercover
- 600mm track-shoes with triple grousers
- Rollers, bottom - 8 each side
- Rollers, top - 2 each side
- 2 piece track guards (each side)
- Centralized lubrication for swing bearing
- Towing eye on base frame
- Traction hole

UPPER STRUCTURE

- Frame handrail
- Punched metal anti-slip plates
- Foot rest access panel in engine room
- Engine chamber and main pump chamber separated by fire board
- Standard frame undercover
- Side door brace automatically lock
- One key for all locks
- Rearview mirror mounted in the RH machine
- Rearview mirror mounted in the LH cab
- 4,000kg counterweight

DIGGING EQUIPMENT

- 5,710 mm boom
- 2,915 mm arm
- Arm front end with guard bars
- Manual centralized lubrication on boom
- Manual centralized lubrication on arm

SERVICE & MAINTENANCE

- Maintenance tool kit
- Maintenance parts package
- Telematics system
- Remote program update
- Data diagnostic port
- Self-diagnostic system

OPTIONAL EQUIPMENT

HYDRAULIC SYSTEM

- Hand proportional control auxiliary swing pipes
- PTO max flow with manual control
- High pressure quick-coupler pipes
- Low pressure quick-coupler pipes
- Attachment oil drain line
- Additional filter for breaker piping
- Straight travel with one pedal
- Automatic hydraulic system warm-up
- Long-life hydraulic oil (replacement cycle 5,000h)

OPERATOR STATION

- Cab lower window guard
- Cab top guard
- Openable cab front guard
- FOPS Level II Cabin Guard (Front Screen and Roof)
- Openable cab front window mesh guard
- Transparent cab skylight
- Sunscreen
- Front window rain visor

ELECTRICAL SYSTEM

- Quicker-coupler opening warning
- Starting code
- Machine rear lighting
- 2 alarm mounted bracket on cab roof
- Capability to electrically connect beacon

UPPER STRUCTURE

- Guard rails of upper frame sides
- Guard fence of upper frame around

UNDERCARRIAGE

- 700mm, 800mm, 900mm track-shoes with triple grousers
- Additional track step
- 3 piece track guards (each side)
- Full length track guard

DIGGING EQUIPMENT

- Bucket linkage with lifting eye
- Bucket lifting hole

- 2,400mm short reach arm
- 3,500mm long reach arm
- 15m super long reach boom & arm

DEMOLITION PACK (924F DM)

- Bolt on Side Impact Protection
- Heavy Duty Belly Plates
- 5000 kg counterweight
- Bucket cylinder rod protect
- Heavy Duty Undercarriage Cover Plates
- FOPS Levell II Cabin Guard (Front Screen and Roof)
- Openable cab front guard
- Boom drift function
- 924F DM Nomenclature
- Work lights: long strip LED light in front and rear cab