



Cat[®] M322F

Wheeled Excavator

Cat[®] Wheeled Excavators excel in every job, from truck loading applications to fine grading, and everywhere in between. The new F Series generation is made to help you take on the wide variety of the challenges you face every day, more easily, with more pleasure and at a lower cost. Using a Cat quick coupler allows attachment changes from the cab and increases versatility of your machine and fleet.

Performance

- Cat C7.1 ACERT™ engine meets U.S. EPA Tier 4 Final/EU Stage IV emission standards.
- Highly efficient Electronic Pump Control (EPC) and main control valve improve response time, efficiency and precision. It puts flow exactly where and when you need it.
- Dedicated swing pump allows faster, smoother combined movements.

Versatility

- Multiple configurations meet all your applications needs, with a variety of booms and sticks (Variable Adjustable or One-Piece), new parallel blade, outriggers, various tires and counterweights.
- Highly mobile, the M322F can travel up to 30 km/h (19 mph).
- Standard auxiliary hydraulics, including a high pressure, quick coupler lines and circuits allow easy tool changes without the need to add other lines to the machine.
- Ten hydraulic pump flow and pressure settings can be preset within the monitor allowing the use of the large variety of Cat attachments, from specialized buckets to the full portfolio of hydro mechanical attachments.

Ease of Operation/Comfort

- Seat options, armrests, steering column, joystick controls, buttons and thumb wheels, hydraulic sensitivity, and automatic air conditioning can all be adjusted for your maximum comfort.
- Ergonomically designed cab with controls kept to a minimum, conveniently located and easy to operate.
- Smart technologies for ease of operation. Features like Ride Control, Cruise Control, SmartBoom™, joystick steering, or automatic brake and axle lock will be precious to boost your productivity.
- Drastically reduced sound levels help reduce fatigue with increased cab pressure, preventing dust entry.

Serviceability

- Ground level routine maintenance, like for radiators and engine oil/fuel filters service.
- New cooling compartment, gathering the axial fan and all coolers. Easy-to-clean radiator cores, with no tool needed to unlock/tilt.
- Standard autolube greasing for the whole uppercarriage to the stick nose. Other critical points are centralized and kept to a minimum.
- Add in the standard electric lift pump removing the need to prime the system manually, the standard fuel/water separator and you get a machine that does the fastidious maintenance work for you.

Technology/Lower O&O Costs

- Cat Connect technology solutions increase production and minimize operating costs. Link technologies wirelessly connect you to your job site, providing machine location, hours, fuel usage, idle time and event codes.
- Built-in Fuel Saver such as the new Engine Idle Shutdown, which turns the engine off when it's been idling for more than a pre-set amount of time.
- Enhanced Eco Mode: reduces engine speed while delivering the same power.
- Automatic Engine Speed Control and "on-demand only" strategies to reduce fuel consumption.

Safety

- Improved cab ingress with new handrails and additional longer steps.
- Improved visibility with enlarged glass areas, enhanced wide angle mirrors, larger skylight, rear and sideview camera and LED working lights.
- Smart devices help enforce safe behavior, like the seat belt warning, automatic swing lock, automatic brake and axle lock or the new safety lever. They all come standard and electronic features work transparently.
- Standard new Integrated Pin Code adds anti-theft security to your equipment.
- Outstanding low sound levels.
- Among others ...



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Engine

Engine Model (meets Tier 4 Final/Stage IV emission standards)	Cat C7.1 ACERT	
Ratings	1,700 rpm	
Engine Power		
Maximum Gross (ISO 14396)	128.9 kW	173 hp (175 hp/PS*)
Maximum Net (ISO 9249/SAE J1349)	126 kW	169 hp (171 hp/PS)
Bore	105 mm	4.1 in
Stroke	135 mm	5.3 in
Displacement	7.01 L	427.8 in ³
Maximum Torque at 1,400 rpm	830 N·m	612.0 lbf·ft
Number of Cylinders	6	

*Metric values

Transmission

Maximum Forward/Reverse – 2nd Gear	30 km/h	19 mph
Drawbar Pull	127 kN	28,550.7 lb
Maximum Gradeability (at 25,000 kg/55,115 lb)	70%	

Swing Mechanism

Swing Speed	9 rpm	
Swing Torque	53 kN·m	39,220 lbf·ft

Undercarriage

Ground Clearance	360 mm	14.2 in
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Service Refill Capacities

Fuel Tank (total capacity)	420 L	111 gal
Diesel Exhaust Fluid Tank	34.5 L	9.1 gal

Weights

Operating Weights*	20 800 kg - 22 330 kg	45,856 lb - 49,229 lb
VA Boom, Rear Dozer Only	20 800 kg	45,856 lb
VA Boom, Front and Rear Outriggers	22 330 kg	49,229 lb
One-Piece Boom, Rear Dozer, Front Outriggers	21 490 kg	47,377 lb
One-Piece Boom, Front and Rear Outriggers	21 720 kg	47,884 lb
Counterweights	3500 kg/ 4700 kg	7,716 lb/ 10,362 lb

*Operating weight includes medium stick, 3500 kg (7,716 lb) counterweight, full fuel tank, operator, 240 kg (529 lb) quick coupler, 780 kg (1,720 lb) bucket and dual pneumatic tires. Weight varies depending on configuration.

Hydraulic System

System	405 L	107 gal
Maximum Pressure – Implement Circuit		
Normal	350 bar	5,076 psi
Heavy Lift	370 bar	5,366 psi
Travel Circuit	350 bar	5,076 psi
Maximum Pressure – Auxiliary Circuit		
High Pressure	350 bar	5,076 psi
Medium Pressure	185 bar	2,683 psi
Swing Mechanism	310 bar	4,496 psi
Maximum Flow – Implement/Travel Circuit		
	357 L/min	94 gal/min
Maximum Flow – Auxiliary Circuit		
High Pressure	250 L/min	66 gal/min
Medium Pressure	50 L/min	13.2 gal/min
Maximum Flow – Swing Mechanism		
	118 L/min	31.2 gal/min

Working Ranges

	Variable Adjustable Boom		One-Piece Boom	
	2500 mm (8'2")	2900 mm (9'6")	2500 mm (8'2")	2900 mm (9'6")
Stick Length				
Digging Height	10 540 mm (34'7")	10 850 mm (35'7")	9370 mm (30'9")	9590 mm (31'6")
Dump Height	7220 mm (23'8")	7530 mm (24'8")	6250 mm (20'6")	6470 mm (21'3")
Digging Depth	6250 mm (20'6")	6650 mm (21'10")	6050 mm (19'10")	6450 mm (21'2")
Reach at Ground Level	9800 mm (32'2")	10190 mm (33'5")	9910 mm (32'6")	10300 mm (33'10")
Bucket Forces (ISO 6015)	152 kN (34,171 lbf)	152 kN (34,171 lbf)	152 kN (34,171 lbf)	152 kN (34,171 lbf)
Stick Forces (ISO 6015)	117 kN (26,303 lbf)	106 kN (23,830 lbf)	117 kN (26,303 lbf)	106 kN (23,830 lbf)

Working range dimensions with pneumatic tires. Range values are calculated with GD Bucket 1200 mm (48"), 1.19 m³ (1.55 yd³) with tips K80 and CW-40 quick coupler with a tip radius of 1688 mm/5'6". Breakout force values are calculated with heavy lift on (no quick coupler) and at cutting edge radius of 1386 mm/4'6.6".

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