



Cat[®] 390F L

Hydraulic Excavator

2017

The 390F L is built to keep your production numbers up and your owning and operating costs down while giving you all the power, fuel efficiency, and reliability you need to succeed.

Performance

- The C18 ACERT™ engine meets U.S. EPA Tier 4 Final, Korea Tier 4 Final and EU Stage IV emission standards.
- Exclusive Cat[®] Adaptive Control System (ACS) valve enables the machine to consume up to 29%* less fuel than the standard 390D L, while delivering the same high level of production.
- The emissions technology is transparent – no action required from the operator and no stopping for regeneration.
- Automatic engine speed control lowers rpm based on load for reduced fuel consumption.
- Power modes help you more actively manage fuel consumption.

Cat Connect Technology

- Cat Connect technology solutions increase production, minimize operating costs, and optimize return on investment by offering LINK, GRADE, and DETECT technologies.
- Cat Production Measurement brings payload weighting to the cab so you can work more productively and deliver accurate loads with confidence.
- VisionLink[®] provides wireless access to machine operating data such as location, hours, idle time, fuel usage, productivity, and diagnostic codes to optimize performance.
- Cat Grade Control and AccuGrade™ provide real-time cut and fill information to assist you in attaining grades and slopes more quickly and accurately.

Maintenance

- Routine maintenance items like grease points and fluid taps are easy to reach at ground level.
- The side-by-side cooling system enables easy cleaning.
- Multiple S-O-SSM ports and pressure diagnostic taps help prevent maintenance downtime.

*Product Link™ field results.

Comfort

- The cab is more comfortable and 3 dB(A) quieter than 390D L.
- Joystick consoles and armrests are adjustable. Seats are adjustable and feature air suspension and heated and cooled options.
- The LCD monitor is easy to navigate and programmable in 44 languages.

Versatility

- Demolition work is quick and easy with a Cat shear or multiprocessor.
- Quarry work is no problem with a purpose-built Cat bucket and hammer.
- A Cat coupler lets you swap between attachments in seconds without leaving the cab.
- Tool control option remembers pressures and flows for up to 20 tools to enhance uptime.

Durability

- Booms and sticks are built for long service.
- Box-section structures with multi-plate fabrications, castings, and forgings are used in high-stress areas. Track shoes, links, rollers, idlers, and final drives are built with high-tensile-strength steel.
- Greased track link between pins and bushings increases undercarriage life and reduces noise.

Safety

- Smart refuel fills the machine quickly from an external fuel source, it automatically stops when the fuel tank is full or the fuel source is empty, eliminating guess work and premature pump wear.
- The rearview and side-view cameras enhance visibility to help make operators more effective and efficient.
- Large serrated steps, extended hand and guard rails, and anti-skid plating will help you get in and around the machine.



Cat® 390F L Hydraulic Excavator

Engine

Engine Model	Cat C18 ACERT	
Engine Power – ISO 14396	405 kW	543 hp/551 PS
Net Power – SAE J1349/ISO 9249	391 kW	524 hp/532 PS
Bore	145 mm	5.7 in
Stroke	183 mm	7.2 in
Displacement	18.1 L	1,104.5 in ³

Hydraulic System

Main System – Maximum Flow (total)	952 L/min	251 gal/min
Maximum Flow – Travel	1064 L/min	281 gal/min
Maximum Pressure – Equipment	35 000 kPa	5,076 psi
Maximum Pressure – Travel	35 000 kPa	5,076 psi
Maximum Pressure – Swing	35 000 kPa	5,076 psi
Pilot System – Maximum Flow	67 L/min	17.7 gal/min
Pilot System – Maximum Pressure	4400 kPa	638 psi

Drive

Maximum Travel Speed	4.5 km/h	2.8 mph
Maximum Drawbar Pull	590 kN	132,637 lbf

Machine Weight

Operating Weight*	86 840 kg	198,070 lb
*Mass 7.25 m (23'9") boom, M2.92m (9'7") stick, 6.0 m ³ (7.84 yd ³) bucket, 650 mm (26") shoes.		

Swing

Swing Speed	6.2 rpm	
Swing Torque	260 kN-m	191,766 lbf-ft

Service Refill Capacities

Fuel Tank Capacity	1240 L	328 gal
Cooling System	74 L	20 gal
Engine Oil	60 L	16 gal
Swing Drive (each)	19 L	5.0 gal
Final Drive (each)	21 L	5.5 gal
Hydraulic System (including tank)	997 L	263 gal
Hydraulic Tank	813 L	215 gal
DEF Tank	48 L	13 gal

Sound Performance

Exterior – ISO 6395	109 dB(A)
Operator – SAE J1166/ISO 6396	74 dB(A)

Dimensions

Boom Option	Mass Boom 7.25 m (23'9")	
Stick Option	M2.92JC (9'7")	
Shipping Height	4890 mm	16'1"
Shipping Length	13 690 mm	44'11"
Tail Swing Radius	4700 mm	15'5"
Length to Center of Rollers	5120 mm	16'10"
Track Length	6358 mm	20'10"
Ground Clearance	900 mm	2'11"
Track Gauge	2750 mm	9'0"
Transport Width – 650 mm (24 in) Shoes	4160 mm	13'8"
Transport Width – 900 mm (35 in) Shoes	4410 mm	14'6"
Cab Height	3650 mm	12'0"
Counterweight Clearance	1640 mm	5'5"

Working Ranges

Boom Option	Mass Boom 7.25 m (23'9")	
Stick Option	M2.92JC (9'7")	
Maximum Digging Depth	7160 mm	23'6"
Maximum Reach at Ground Level	12 230 mm	40'1"
Maximum Cutting Height	12 360 mm	40'7"
Maximum Loading Height	7990 mm	26'3"
Minimum Loading Height	3680 mm	12'1"
Maximum Depth Cut for 2440 mm (8'0") Level Bottom	7020 mm	23'0"
Maximum Vertical Wall Digging Depth	4530 mm	14'10"

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