



Cat[®] 320D3

Hydraulic Excavator

Lower your cost per hour. The Cat[®] 320D3 Excavator balances productivity, efficiency, and reliability to deliver you a reliable, highly efficient, low-cost-per-hour excavator for your work.

Use Less Fuel

- The excavator uses up to 15 percent less fuel than the 320D2 in similar applications. Reduce fuel consumption further by 15 percent in Economy mode with no loss in lifting or digging forces.
- Boom and stick regeneration circuits reduce fuel consumption by up to two percent while improving cycle times.
- Use automatic engine speed control (AEC) during no-load or light-load conditions to automatically reduce engine speed to minimize fuel consumption.
- New tandem hydraulic pumps provide seven percent more hydraulic power with less internal friction to increase overall efficiency. Each pump can produce a maximum flow of 200 L/min (52.8 gal/min). Hydraulic system components are close together to minimize power loss from friction and pressure drops.
- Standard one-touch low idle saves fuel by instantly reducing engine speed to 1,100 rpm at the push of a button. Return the engine speed to the throttle position by hitting the button again or simply moving the joysticks.

High Performance

- Balance power and efficiency using the open-center, negative flow control hydraulic system. Hydraulic cross-sensing makes full engine power always available from hydraulic pumps regardless of which function is used.
- Expect reliable performance from the double-filtered low-pressure fuel system and antirust fuel tank that protects the engine from lower quality fuel.
- Dig and lift from a stable platform created by the standard 3.7 ton (8,160 lb) counterweight and 4050 mm (13'5") length undercarriage. An optional 4460 mm (14'8") length undercarriage is available.
- Add versatility by adding tool control to run a hammer or other tools requiring one-way flow. Order tool control with the machine or add it later with a dealer-installed kit.
- Product Link[™] comes standard so you can remotely monitor location, hours, and idle time on demand through the Visionlink[®] online interface.
- The excavator has a high-ambient capability of 52° C (125° F) and cold start capability of -18° C (0° F). An optional -32° C (-25° F) cold start package is available.

Reliability You Expect from a Cat Machine

- A two-stage filtering system with integrated water separator protects the engine from particles larger than five microns when fuel quality is less than ideal.
- The stick and boom structures are designed using high-tensile steel fabricated into a large box section using internal baffles to absorb torsional stress. The X-shaped, box-section carbody provides excellent resistance to torsional bending, dissipating stress throughout the base of the machine.
- Traverse the jobsite on the grease lubricated track (GLT) undercarriage. Undercarriage rollers are rebuildable and sealed to prevent dirt and debris causing internal wear. Grease lubricated links minimize internal bushing wear, reducing noise and increasing life up to 25 percent.
- Robust bottom guards protect machine components that might be damaged while swinging. A thicker bottom guard plate is used under the pump compartment to protect the suction hose.
- Hydraulic snubbers in the boom and stick cylinders dampen end-of-stroke impact, prolonging the life of your machine.
- Safety fuses protect critical electrical components. Thick braiding protects the colored, numbered electrical wires. Non-abrasive connectors keep wiring harnesses in place to prevent failure.
- The capsule-type hydraulic return filter prevents contaminants from entering the system when hydraulic oil is changed. If the filter clogs, a warning is displayed on the monitor screen inside the cab.
- The swing system uses a ball bearing to help absorb stresses caused by swing torque.
- The standard, integrated idler guard helps maintain track alignment while traveling or working on the slopes.



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Work in Comfort

- The spacious cab provides excellent visibility from the operator's seat to keep you aware of your surroundings – without bending or straining to see.
- Critical machine information is always visible in the new high-resolution 178 mm (7 in) analog and LCD monitor. Intuitive menus mean more time working and less time looking for information.
- Work a full day with less fatigue using the ergonomically-designed pilot-operated joysticks matched to operator's wrist and arm position. Joystick consoles can be adjusted, further improving operator comfort and productivity.
- Automatic climate control helps maintain consistent cab temperature. Five outlets ensure proper air circulation to keep you comfortable regardless of outside temperatures.
- Keep your phone or other personal electronics charged using the dual USP charging port delivering up to 10 A of power.
- Seat adjusts to accommodate a variety of operator sizes and weights. Wide adjustable armrests and retractable seatbelt are also included.
- Standard Cab Equipment. To enhance operator comfort and productivity, the cab includes a lighter, drink holder, coat hook, service meter, magazine rack, and storage compartment.
- There is plenty of room for you to store your gear. There are two storage locations at the rear of the right console and one space for your lunchbox behind the seat.

Designed-In Safety

- The standard hydraulic lockout lever prevents operators from leaving the cab without first isolating all hydraulic functions. When necessary, you can activate the ground level shutoff switch to stop the fuel to the engine and shut down the machine.
- The machine provides you a safe work platform for all routine service and maintenance needs. Anti-skid plating with countersunk bolts reduces the potential for slippage and trip hazards.
- A battery disconnect switch helps to deter theft by isolating the battery and enhances safety when servicing the machine.
- A full-length firewall separates the engine from the hydraulic pump and offers protection in the event of an incident.
- The cab is designed to provide excellent visibility from the operator's seat. In addition, two standard mirrors help keep you aware of your surroundings.
- The machine can be equipped with a falling object guarding system (FOGS) guard that conforms to the ISO 10262:1998 standard. These guards are bolted directly to the cab shell.

Easy to Maintain

- Lower your maintenance costs by up to five percent with 20 percent less refill oil volume than the 320D2, an extended first engine oil change interval (500 hours), and maintenance free batteries.
- Easily maintain your machine. Most service locations are easily accessible at ground level to allow service and maintenance to get completed quickly and efficiently. A service door on the right side of the upper structure allows ground-level access to the hydraulic pumps, hydraulic filters, and fuel filters.
- Easily access the proven, high-efficiency radial seal engine air filter behind the cab. The machine constantly monitors the engine air filter and will notify you, via the monitor, when service is required.
- A remote greasing block on the boom allows the greasing of hard-to-reach locations. A remote mounted greasing point on the swing bearing allows ease of service.
- Robust service doors open wide for easy access to service points. Latches firmly hold the doors in the open position to prevent accidentally closing while servicing – even on windy days. On the top of the machine, the large engine hood provides easy access to the engine and cooling compartments.
- Routine cleaning is made easier with the single plane cooling package design.

Standard and Optional Equipment

Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional		Standard	Optional
CAB			BOOM AND STICK		
Sound suppressed cab with viscous mounts	✓		5.7 m (18'8") Reach boom	✓	
Full color 178 mm (7 in) analog and LCD monitor	✓		2.5 m (8'2") HD Reach stick	✓	
Mechanically adjustable seat with seatbelt	✓		UNDERCARRIAGE AND STRUCTURES		
Openable skylight, openable upper windshield, and removable bottom windshield	✓		600 mm (24") triple grouser shoes (10 mm/0.4" thick)	✓	
Automatic air conditioner	✓		600 mm (24") triple grouser shoes (8.5 mm/0.3" thick)		✓
Roll down sun screen		✓	Grease lubricated track link	✓	
Control pattern changer		✓	Tie down points on base frame	✓	
CAT CONNECT TECHNOLOGY			Center track guiding guard	✓	
Cat Product Link™	✓		Segmented track guiding guard		✓
ENGINE			3.7 mt (8,160 lb) counterweight	✓	
Two selectable power modes	✓		4050 mm (13'5") standard undercarriage	✓	
One-touch low idle with auto engine speed control	✓		4460 mm (14'8") long undercarriage		✓
Two stage fuel filtration system with water separator and indicator	✓		ELECTRICAL SYSTEM		
52° C (125° F) high-ambient cooling capacity	✓		Two 750 CCA maintenance free batteries	✓	
-32° C (-25° F) cold start capability		✓	Halogen chassis light, left-hand boom light, cab lights	✓	
4000 m (13,120 ft) altitude capability	✓		SERVICE AND MAINTENANCE		
Radial seal air filter with double filter element	✓		Sampling ports for Scheduled Oil Sampling (S-O-S SM)	✓	
Engine air prefilter		✓	Single plane cooling arrangement	✓	
HYDRAULIC SYSTEM			Radiator screen	✓	
Boom and stick regeneration circuit	✓		SAFETY AND SECURITY		
Boom and stick drift reduction valve	✓		Rear window emergency exit	✓	
Auto two-speed travel	✓		Two rearview mirrors	✓	
Reverse swing damping valve	✓		Hydraulic lock out lever	✓	
Fine swing control		✓	Ground level engine shutoff switch	✓	
Hammer return filter circuit		✓	Right-hand handrail and handhold	✓	
High performance hydraulic return filter	✓		Signaling/warning horn	✓	
Medium-pressure auxiliary circuit		✓			

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Technical Specifications

Engine			
Engine Model		ALUW06DTI	
Net Power			
ISO 9249:2007		92 kW	123 hp
ISO 9249:2007 (DIN)		123 hp (metric)	
Engine Power			
ISO 14396:2002		100 kW	134 hp
ISO 14396:2002 (DIN)		136 hp (metric)	
Bore		104 mm	4 in
Stroke		113 mm	4 in
Displacement		5.8 L	351 in³

Hydraulic System			
Main System – Maximum Flow – Implement	400 L/min	106 gal/min	
Maximum Pressure – Equipment	35 000 kPa	5,075 psi	
Maximum Pressure – Travel	35 000 kPa	5,075 psi	
Maximum Pressure – Swing	25 000 kPa	3,625 psi	

Machine Weight			
Operating Weight		21 000 kg	46,300 lb
• Standard undercarriage, 5.7 m (18'8") Reach boom, 2.5 m (8'2") HD Reach stick, 1.00 m³ (1.31 yd³) HD bucket, 600 mm (24") triple grouser shoes, and 3.7 mt (8,160 lb) counterweight.			

Service Refill Capacities			
Fuel Tank	350 L	92.5 gal	
Cooling System	19 L	5.0 gal	
Engine Oil	18 L	4.8 gal	
Swing Drive (each)	6 L	1.6 gal	
Final Drive (each)	5 L	1.3 gal	
Hydraulic System (including tank)	248 L	65.5 gal	
Hydraulic Tank	126 L	33.3 gal	

Dimensions			
Boom	Reach 5.7 m (18'8")		
Stick	HD Reach 2.5 m (8'2")		
Bucket	HD 1.00 m³ (1.31 yd³)		
Shipping Height (top of cab)	3050 mm	10'0"	
Handrail Height	2915 mm	9'7"	
Shipping Length	9460 mm	31'0"	
Tail Swing Radius	2750 mm	9'0"	
Counterweight Clearance	1020 mm	3'4"	
Ground Clearance	450 mm	1'6"	
Track Length	4080 mm	13'5"	
Length to Center of Rollers	3270 mm	10'9"	
Track Gauge	2200 mm	7'3"	
Transport Width – 600 mm (24") Shoes	2800 mm	9'2"	

Working Ranges and Forces			
Boom	Reach 5.7 m (18'8")		
Stick	HD Reach 2.5 m (8'2")		
Bucket	HD 1.00 m³ (1.31 yd³)		
Maximum Digging Depth	6300 mm	20'8"	
Maximum Reach at Ground Level	9470 mm	31'1"	
Maximum Cutting Height	9250 mm	30'4"	
Maximum Loading Height	6290 mm	20'8"	
Minimum Loading Height	2590 mm	8'6"	
Maximum Depth Cut for 2440 mm (8'0") Level Bottom	5960 mm	19'7"	
Maximum Vertical Wall Digging Depth	5720 mm	18'9"	
Bucket Digging Force (ISO)	140 kN	31,470 lbf	
Stick Digging Force (ISO)	118 kN	26,530 lbf	

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com.

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

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