

323 HEX

Hydraulic Excavator





Applications

Airfield Repair	Road Construction
Landing Zones	Infrastructure Repair
Base Camp Development	Gap Crossing
Horizontal and Vertical Construction	Modify Environments

Complete heavy-duty tasks with the highest productivity and precision.

Building base camp infrastructure and modifying landscapes to enhance mobility requires speed, efficiency and power. And the Cat® 323 Hydraulic Excavator (HEX) delivers it all for heavy-duty engineering operations. Built standard with worksite safety and productivity features like Cat GRADE with 2D, Cat Grade Assist and Cat Payload, the 323 HEX ensures operators of all abilities maintain the highest level of efficiency throughout the task.

Worksite safety and efficiency begins in the cab.

- ISO-certified ROPS Cab: All-around visibility and sound suppression increases operator's situational awareness.
- Touchscreen Monitor: Most machine settings can be controlled through an easy-to-reach high-resolution monitor.
- Smart Mode: Improve fuel efficiency with a setting to automatically adjust engine and hydraulic power.
- Customizable Joysticks: Operators can easily program and save individualized joystick patterns and response.

Dig, load and grade with complete confidence.

Every grade is on target, every load is tracked and every hazard is avoided. Onboard Cat Connect Technologies give combat engineers of all experience levels the control needed to perform with the highest accuracy and speed. So even the most complex environments can be modified efficiently and safely.

Cat® Connect Technologies

Cat GRADE with 2D

- Helps operators reach grade faster
- Cut and fill to exact specifications
- Save time with 4 programmable target depth and slope off sets

Cat GRADE with ASSIST

- Precise cuts with less effort
- Automated boom, stick and bucket movements
- Simply set depth and slope into the monitor to activate single-lever digging

Cat PAYLOAD

- Prevent over/under-loading while maximizing efficiency
- Precise load targets with on-the-go weighing
- Manage production with automated tracking



Onboard Cat® Connect Technology.



NATO slave receptacle.

Rifle bracket in cab.

MIL-STD-209K lift and tie downs.

Military Modifications

- Tier 3 NSE or LRC engines
- Keyless start
- MIL-STD-209K lift and tie downs
- USAF ATTLA certified C-17/C-5 air transportability
- NATO slave receptacle
- Military data plates, stencils and UIDs
- Rifle bracket in cab
- Military paint
- Armored cab and/or machine
(Consult Caterpillar Defense for details.)

Consult Caterpillar Defense for specific details on military modifications.



Standard 2D E-Fence Solution

The 323 HEX's 2D E-fence provides outstanding precision in every task and protects equipment from surrounding structural and utility hazards. Easily program the machine to automatically limit its motion using boundaries for the entire working envelope—above, below, sides and front. Automatic boundaries even help prevent operator fatigue by reducing over-swinging and over-digging.

E-Wall Swing



E-Wall Forward



E-Wall Cab Protection



E-Wall Ceiling



E-Wall Floor



Excavator Work Tool Solutions

As operating environments and tasks change, easily expand the capability and performance of the 323 HEX. The full line of Cat work tool attachments is specifically designed to fit the weight and horsepower of Cat Excavators, delivering the highest performance, safety and stability for every operation.

Buckets



Grapples



Hydraulic Hammers



Multi-Processors



Quick Couplers



Rakes



Rippers



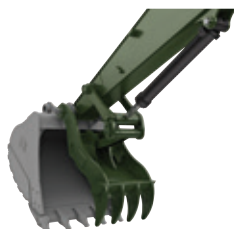
Secondary Pulverizers



Shears



Thumbs



Vibratory Plate Compactors



Support and Serviceability

Upgrade your Cat Connect Technology for even greater versatility.

Ensure 323 HEX operators maintain the highest levels of productivity and safety across all applications. Upgrading Cat Connect Technology to Cat GRADE with Advanced 2D or Cat GRADE with 3D allows combat engineers to perform a wider variety of tasks with the same level of precision.

Standard Cat GRADE with 2D includes:

- Bucket sensor
- Stick sensor
- Boom sensor
- Swing sensor
- Product Link™
- Rear camera
- Body tilt sensor
- STD operator’s display

OPTIONAL UPGRADES

Advanced 2D includes:

- Advanced 10 in (254 mm) display
- Advanced 2D R2 module

3D includes:

- Advanced 10 in (254 mm) display
- Advanced 2D R2 module
- GPS receivers and antennas (2 Und)

Easy to maintain. Ready for work.

Proper maintenance of your excavator will keep it running at peak performance with minimal downtime. The 323 HEX offers extended, synchronized maintenance intervals, allowing more work to be done at a lower cost.

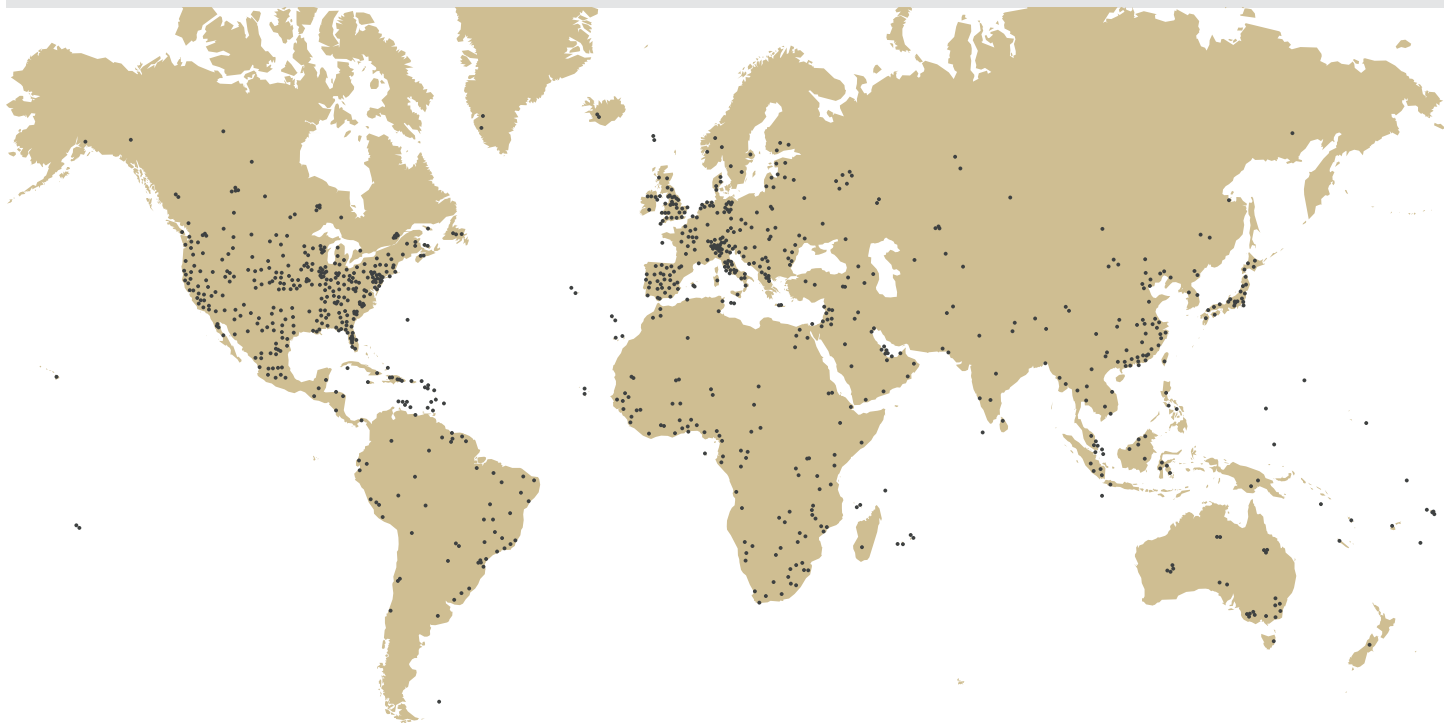
Consolidated filter locations reduce service time	Multiple oil filters with extended maintenance intervals, plus a new higher dirt capacity hydraulic filter
The new Cat air filter design results in a 100% increase in service life compared to our previous filter	Fuel filters are synchronized to be changed at 1,000 hours—double the interval from the previous filters

Worldwide Service Capabilities

Cat dealer field service technicians have the experience and tools necessary to service your machine on-site. Field service trucks are fully loaded with state-of-the-art tools and diagnostic equipment, as well as specifications and schematics for every Cat machine. Technical experts at the dealership and the Caterpillar team are available to provide assistance to field service technicians. When on-site repair isn't enough, Cat dealerships are fully-equipped to service your excavator quickly.

Dealer Support

The Caterpillar global network of dealers is the best in the world at providing support to keep your excavator up and running. With 99.7% of parts shipped within 24 hours, Cat dealers are partners in support.



Technical Specifications

Engine

MODEL	Cat® C7.1 ACERT™
Net Power - ISO 9249 (hp/kW)	157 / 117
Net Power - SAE J1349 (hp/kW)	157 / 117
Gross Power - ISO 14396/SAE J1995 (hp/kW)	158 / 118
Bore (in/mm)	4 / 105
Stroke (in/mm)	5 / 135
Displacement (in³/L)	428 / 7.01

- The 323 meets Tier 3 emission standards.
- Recommended for use up to 14,760 ft / 4500 m altitude with engine power derate above 9,840 ft / 3000 m.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.
- Rating at 1,800 rpm.

Engine RPM

Operation (rpm)	1,650
Travel (rpm)	1,800

Swing Mechanism

Swing Speed (rpm)	11.25
Maximum Swing Torque (ft-lb/Nm)	54,440 / 74

Weights

Operating Weight (lb/kg)	54,000 / 24 500
• HD reach boom - 18.6 ft / 5.7 m, HD stick - 9.5 ft / R2.9 m, HD bucket - 1.54 yd³ / 1.18 m³, HD triple grouser shoes - 24 in / 600 mm, 6 t / 5.4 mt counterweight.	

Track

Standard Track Shoe Width (in/mm)	24 / 600
Number of Shoes (each side)	49
Number of Track Rollers (each side)	8
Number of Carrier Rollers (each side)	2

Drive

Maximum Gradeability	35° / 70%
Maximum Travel Speed (mph/km/h)	3.5 / 5.7
Maximum Drawbar Pull (ft-lb/Nm)	45,614 / 203

Operating Weight and Ground Pressure

6 t/5.4 mt Counterweight + Long Undercarriage Base Machine

HD Reach Boom + HD Stick 9.6 ft / R2.9 m + HD Bucket 1.70 yd³/1.30 m³

- All operating weights include a 90% fuel tank with 165 lb/75kg operator.

Hydraulic System

Main System - Maximum Flow (gpm/Lpm) (Implement)	113 / 429 (57 x 2 pumps / 215 x 2 pumps)
Swing System - Maximum Flow	No swing pump
Maximum Pressure - Equipment - Normal (psi/kPa)	5,075 / 35 000
Maximum Pressure - Equipment - Lift Mode (psi/kPa)	5,510 / 38 000
Maximum Pressure - Travel (psi/kPa)	4,974 / 34 300
Maximum Pressure - Swing (psi/kPa)	3,886 / 26 800
Boom Cylinder - Bore (in/mm)	5 / 120
Boom Cylinder - Stroke (in/mm)	50 / 1260
Stick Cylinder - Bore (in/mm)	6 / 140
Stick Cylinder - Stroke (in/mm)	59 / 1504
Bucket Cylinder - Bore (in/mm)	5 / 120
Bucket Cylinder - Stroke (in/mm)	43 / 1104

Service Refill Capacities

Fuel Tank (gal/L)	86.6 / 345
Cooling System (gal/L)	6.6 / 25
Engine Oil (gal/L)	6.6 / 25
Swing Drive - each (gal/L)	1.3 / 5
Final Drive - each (gal/L)	1.3 / 5
Hydraulic System - Including Tank (gal/L)	61.8 / 234
Hydraulic Tank - (gal/L)	30.4 / 115

Standards

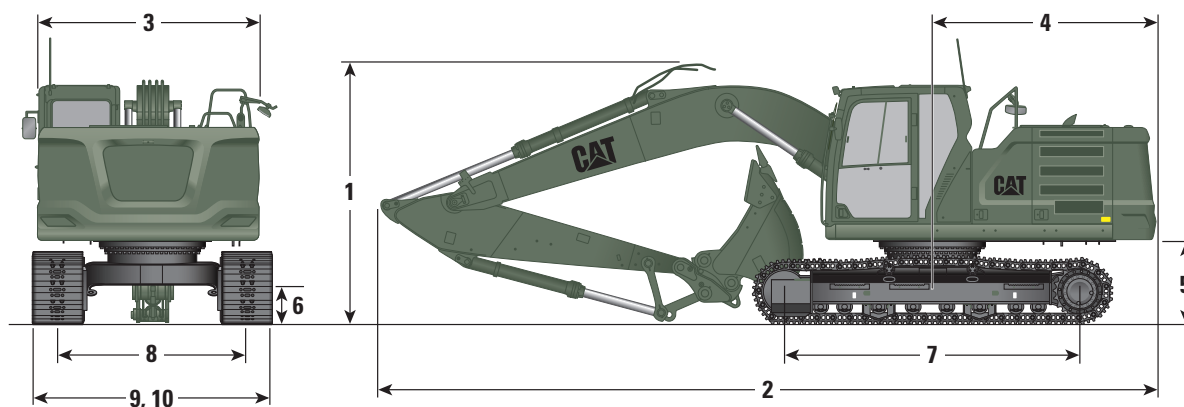
Brakes	ISO 10265:2008
Cab/FOGS	ISO 10262:1998
Cab/ROPS	ISO 12117-2:2008

Sound Performance

ISO 6395:2008 (external)	100 dB(A)
ISO 6396:2008 (inside cab)	70 dB(A)

- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in a noisy environment.

Dimensions



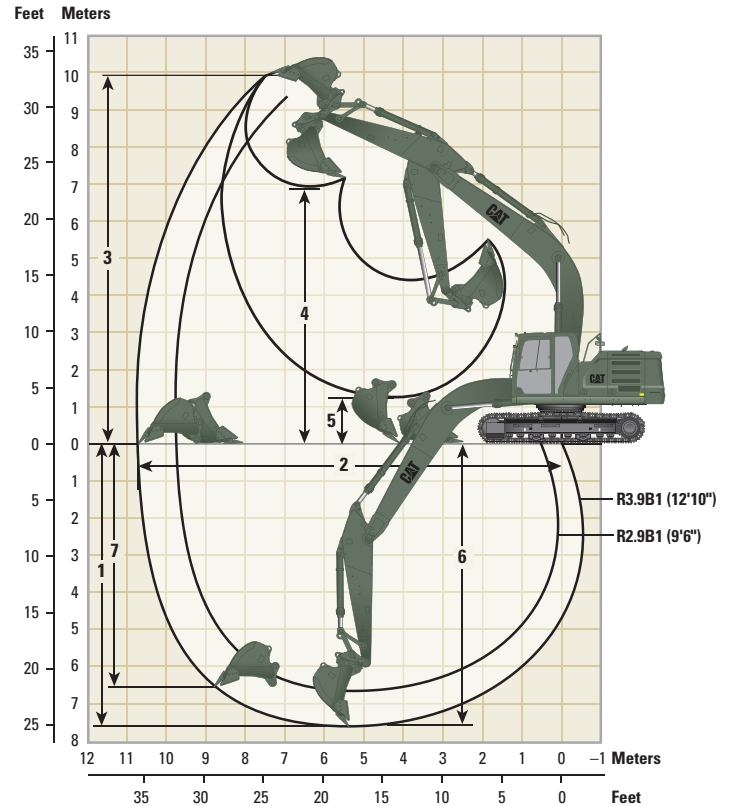
Boom	
- HD Reach Boom (ft/m)	18.6 / 5.7
Stick	
- HD Reach Sticks	9.5 ft / R2.9B1 and 8.2 ft / R2.5B1
1) Machine Height (in/mm)	
- Top of Cab	117 / 2960
- Top of FOGS	122 / 3100
- Handrails	116 / 2950
- With Boom/Stick/Bucket Installed	124 / 3160
- With Boom/Stick Installed	115 / 2910
- With Boom Installed	98 / 2480
2) Machine Length (in/mm)	
- With Boom/Stick/Bucket Installed	375 / 9530
- With Boom/Stick Installed	374 / 9500
- With Boom Installed	332 / 8450
3) Upper frame Width without Walkways (in/mm)	
4) Tail Swing Radius (in/mm)	
5) Counterweight Clearance (in/mm)	
6) Ground Clearance (in/mm)	
7) Track Length - Length to Center of Rollers (in/mm)	
8) Track Gauge - Extended (in/mm)	
9) Track Width - 24 in/600 mm Shoes (in/mm)	
10) Undercarriage Width - 24 in/600 mm Shoes (in/mm) (with steps/without steps)	
Bucket Type	
Bucket Capacity (yd³/m³)	
Bucket Tip Radius (in/mm)	

Standard equipment may vary. Consult Caterpillar Defense for details.

All dimensions are approximate and may vary with configuration.

Specific military service configurations are available upon request.

Working Ranges



Boom		
- HD Reach Boom (ft/m)	18.6 / 5.7	
Stick		
- HD Reach Sticks	9.5 ft / R2.9B1	8.2 ft / R2.5B1
1) Maximum Digging Depth (in/mm)	265 / 6730	248 / 6310
2) Maximum Reach at Ground Line (in/mm)	388 / 9870	373 / 9470
3) Maximum Cutting Height (in/mm)	372 / 9450	364 / 9250
4) Maximum Loading Height (in/mm)	255 / 6480	247 / 6280
5) Minimum Loading Height (in/mm)	85 / 2160	102 / 2580
6) Maximum Depth Cut for 96 in/2,440 mm Level Bottom(in/mm)	258 / 6560	241 / 6120
7) Maximum Vertical Wall Digging Depth	226 / 5740	210 / 5340
Bucket Digging Force - SAE (lbf/kN)	27,901 / 124	27,901 / 124
Bucket Digging Force - ISO (lbf/kN)	31,505 / 140	31,505 / 140
Stick Digging Force - SAE (lbf/kN)	23,720 / 104	25,684 / 114
Stick Digging Force - ISO (lbf/kN)	23,962 / 107	26,55 / 118

Standard Equipment

Engine

- C7.1 ACERT single turbo
- Three selectable power modes
- One-touch low idle with automatic engine speed control
- Automatic engine idle shutdown
- Work up to 9,842 ft / 3,000 m above sea level without engine power de-rating
- 125° F / 52° C high-ambient cooling capacity
- Cold starting capability for 0° F / -18° C
- Cold starting capability for -25° F / -32° C*
- Double element air filter with integrated precleaner
- Electric fuel priming pump
- Reversible electric cooling fans
- Biodiesel capability up to B20

Hydraulic System

- Boom and stick regeneration circuits
- Heavy lift configuration*
- Electronic main control valve
- Auto warm up
- Automatic two-speed travel
- Boom and stick drift reduction valve
- Element type main hydraulic filter
- Slider joysticks
- Tandem type electronic main pump
- Hammer return filter circuit*
- Combined flow/high pressure auxiliary circuit*
- Quick coupler circuit for Cat Pin Grabber*

Booms, Sticks and Linkages

- 24 in / 600 mm HD triple grouser track shoes
- 24 in / 600 mm HD double grouser track shoes*
- 18.6 ft / 5.7 m HD reach boom
- 9.5 ft / 2.9 m HD reach stick
- 8.2 ft / 2.5 m HD reach stick*
- Bucket linkage, B1-family with lifting eye
- Bucket linkage, B1-family without lifting eye*

Undercarriage and Structures

- Tie-down points on base frame (ISO 15818:2017 compliant)
- Track guiding guard, segmented two pieces
- Track guiding guard, full length
- Standard bottom guards*
- Heavy-duty bottom guard*
- Standard swivel guard*
- Standard travel motor guards
- Heavy-duty travel motor guards*
- Grease lubricated track links
- 6 t/5.4 mt counterweight
- HD swing frame
- HD swing bearing
- HD base frame with SD track rollers and standard carrier rollers
- SD base frame with SD track rollers and SD carrier rollers for long undercarriage*
- Final drive with standard travel motor

Electrical System

- Machine electronic control module (x2)
- 1,000 CCA maintenance-free batteries (x2)
- 1,000 CCA maintenance-free batteries (x4)*
- Centralized electrical disconnect switch
- Programmable time-delay LED working lights
- LED chassis light, LH and RH boom lights for Reach, cab lights - 850 lumens

Service and Maintenance

- Sampling ports for Scheduled Oil Sampling (S-O-SSM)
- Preventative Maintenance ready (QuickEvacTM)*
- Grouped location for engine oil and fuel filters
- Ground level second dipstick for engine oil
- Remote flash

*Optional.

Standard equipment may vary. Consult Caterpillar Defense for details.

All dimensions are approximate and may vary with configuration.

Specific military service configurations are available upon request.

Standard Equipment

Safety and Security

- Rear view camera and side RH mirror
- 360° visibility (must be used with 10 in/254 mm monitor and cab light with cover)*
- Neutral lever (lock out) for all controls
- Anti-skid plate and countersunk bolts on service platform
- Ground-level accessible secondary engine shutoff switch in cab
- Radiator screen*
- Bluetooth® receiver
- RH handrail and hand hold (ISO 2867:2011 compliant)
- Travel alarm*

Cab

- ROPS, standard sound suppression
- High-resolution 10 in/254 mm LCD touch screen monitor + additional monitor (only for use with 360° visibility and Cat GRADE with Advanced 2D or Cat GRADE with 3D)*
- Automatic bi-level air conditioner
- Jog dial and shortcut keys for monitor control
- Keyless push-to-start engine control

- Height-adjustable console, infinite with no tool
- Mechanically-adjustable seat suspension
- Air-adjustable seat suspension
- 2 in/51 mm seat belt
- Seat heater
- Fixed left side console
- Bluetooth integrated radio with USB ports
- 12V DC outlets
- Document storage
- Cup and bottle holders
- Two-piece front window, openable
- Upper radial wiper with 70/30 with washer
- Steel hatch, openable
- LED dome and lower interior lights
- Roller front sunscreen
- Roller rear sunscreen*
- Beacon ready
- Washable floor mat

**Optional.*

Standard equipment may vary. Consult Caterpillar Defense for details.

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Specific military service configurations are available upon request.

Kits and Attachments

Cab

- Radial lower wiper for 70/30 with washer
- RH electrical pedal for tool control
- Rain protector plus cab light cover
- Seat belt, retractable (3 in/75 mm width)
- Polycarbonate roof hatch kit (comfort cab only)

Security and Safety

- Bluetooth key fob

Electrical

- LED premium lighting package

Guards

- Side rubber bumper
- FOGS (not compatible with cab light cover, rain protector)
- Mesh guard full front (not compatible with cab light cover, rain protector)
- Mesh guard lower half front

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