



349

Hydraulic Excavator

Technical Specifications

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

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オフロード法2014年
基準適合

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Engine

Engine Model	Cat® C13	
Net Power – ISO 9249	316 kW	424 hp
Engine Power – ISO 14396	317 kW	425 hp
Bore	130 mm	5 in
Stroke	157 mm	6 in
Displacement	12.5 L	763 in ³

- Meets Japan 2014 (Tier 4 Final) emission standards.
- Recommended for use up to 4500 m (14,764 ft) altitude with engine power derate above 2600 m (8,530 ft).
- Net power is tested per ISO 9249. Standards in effect at the time of manufacture.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air intake system, exhaust system and alternator.
- Rated speed at 1,800 rpm.

Engine rpm

Operation	1,650 rpm
Travel	1,800 rpm

Swing Mechanism

Swing Speed	8.44 rpm
Maximum Swing Torque	187 kN·m 138,000 lbf-ft

Weights

Operating Weight	47 700 kg	105,300 lb
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- Reach boom, R3.35TB (11'0") stick, HD 1.90 m³ (2.48 yd³) bucket, 600 mm (24") double grouser shoes, 9.0 t (19,842 lb) counterweight.

Track

Track Shoes Width	750 mm	30 in
Track Shoes Width	600 mm	24 in
Number of Shoes (each side)	52	
Number of Track Rollers (each side)	9	
Number of Carrier Rollers (each side)	2	

Drive

Gradeability	35°/70%	
Maximum Travel Speed	4.8 km/h	3.0 mph
Maximum Drawbar Pull	335 kN	75,311 lbf

Hydraulic System

Main System – Maximum Flow – Implement	779 L/min (389 × 2 pumps)	206 gal/min (103 × 2 pumps)
Maximum Pressure – Equipment – Implement	35 000 kPa	5,076 psi
Maximum Pressure – Travel	35 000 kPa	5,076 psi
Maximum Pressure – Swing	26 000 kPa	3,771 psi
Boom Cylinder – Bore	170 mm	7 in
Boom Cylinder – Stroke	1524 mm	60 in
Stick Cylinder – Bore	190 mm	7 in
Stick Cylinder – Stroke	1758 mm	69 in
TB Bucket Cylinder – Bore	160 mm	6 in
TB Bucket Cylinder – Stroke	1356 mm	53 in

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Service Refill Capacities

Fuel Tank Capacity	715 L	188.9 gal
Cooling System	52 L	13.7 gal
Engine Oil (with filter)	40 L	10.6 gal
Swing Drive	10.5 L	2.8 gal
Final Drive (each)	15 L	4.0 gal
Hydraulic System (including tank)	550 L	145.3 gal
Hydraulic Tank (including suction pipe)	217 L	57.3 gal
DEF Tank	46 L	12.2 gal

Standards

Brakes	ISO 10265:2008
Cab/ROPS	ISO 12117-2:2008

Sound Performance

ISO 6395:2008 (external)	108 dB(A)
ISO 6396:2008 (inside cab)	72 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.

Operating Weights and Ground Pressures

	600 mm (24") Double Grouser Shoes				750 mm (30") Triple Grouser Shoes			
	Weight		Ground Pressure		Weight		Ground Pressure	
	kg	lb	kPa	psi	kg	lb	kPa	psi
Base Frame with Track Rollers and Carrier Rollers								
9.0 t (19,842 lb) Counterweight + Long Undercarriage Base Machine								
Reach Boom + Reach 3.35 m (11'0") Stick + 1.90 m ³ (2.48 yd ³) HD Bucket	47 700	105 300	88.9	12.9	48 500	106,900	90.4	13.1

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

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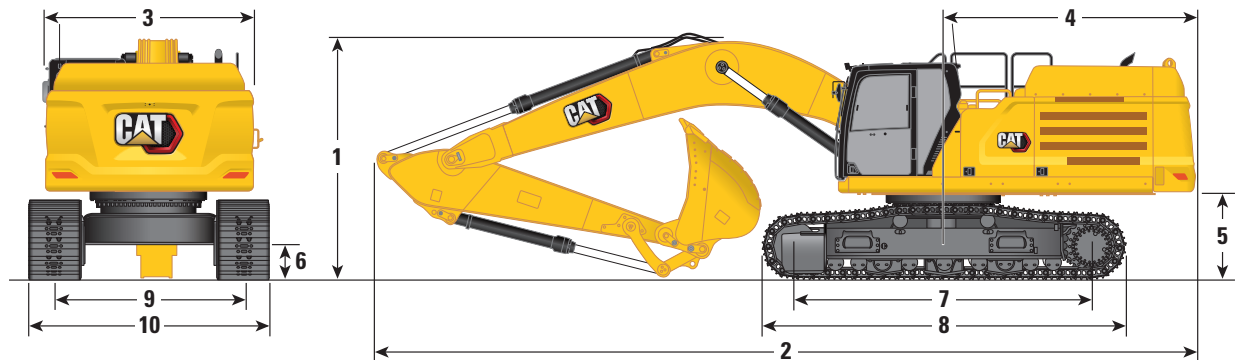
Major Component Weights

	kg	lb
Base machine with 9.0 t (19,842 lb) counterweight, standard swing frame, base frame with single flange track rollers and carrier rollers	32 520	71,700
Track Shoes:		
600 mm (24") Width, 15.5 mm (0.6") Thick, Double Grouser Track Shoes	5410	11,920
750 mm (30") Width, 15.5 mm (0.6") Thick, Triple Grouser Track Shoes	6040	13,310
Two Boom Cylinders	1760	3,880
Weight of 90% Fuel Tank and 75 kg (165 lb) Operator	630	1,380
Counterweight:		
9.0 t Counterweight	9000	19,842
Swing Frame:		
Standard Swing Frame	4070	8,980
Long Undercarriages:		
Base Frame with Single Flange Track Rollers and Carrier Rollers	6890	15,190
Base Frame with Double Flange Track Rollers and Carrier Rollers	6940	15,300
Boom (including lines, pins, stick cylinder):		
Reach Boom 6.9 m (22'8")	4390	9,680
Stick (including lines, pins, bucket cylinder, bucket linkage):		
Reach Stick R3.35TB (11'0")	2510	5,540
Buckets (without linkage):		
1.90 m ³ (2.48 yd ³) HD	2280	5,020

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Dimensions

All dimensions are approximate and may vary depending on bucket selection.

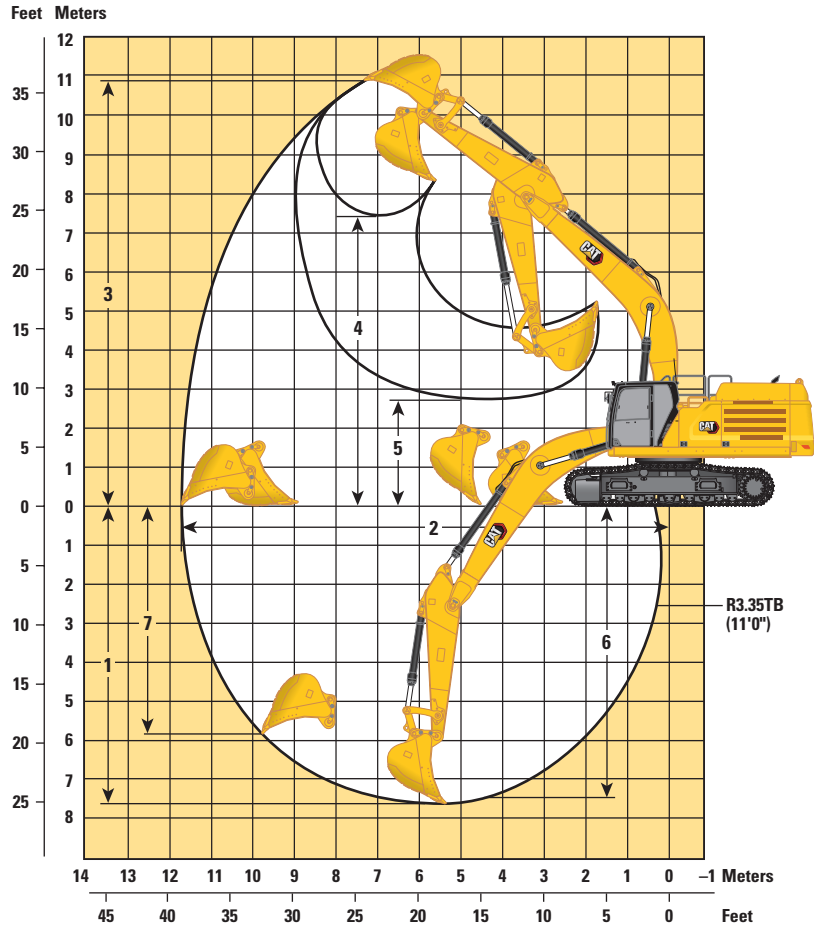


Boom Option	Reach Boom 6.9 m (22'8")	
Stick Option	Reach Stick R3.35TB (11'0")	
1 Machine Height:		
Cab Height	3230 mm	10.6 ft
FOGS Height	3370 mm	11.1 ft
Handrails Height	3370 mm	11.1 ft
With Boom/Stick/Bucket Installed	3680 mm	12.1 ft
With Boom/Stick Installed	3550 mm	11.6 ft
With Boom Installed	3100 mm	10.2 ft
With Boom/Stick/Bucket Installed (with Auxiliary Lines)	3680 mm	12.1 ft
With Boom/Stick Installed (with Auxiliary Lines)	3550 mm	11.6 ft
With Boom Installed (with Auxiliary Lines)	3130 mm	10.3 ft
2 Machine Length:		
With Boom/Stick/Bucket Installed	11 920 mm	39.1 ft
With Boom/Stick Installed	11 880 mm	39.0 ft
With Boom Installed	10 650 mm	34.9 ft
With Boom/Stick/Bucket Installed (with Auxiliary Lines)	11 920 mm	39.1 ft
With Boom/Stick Installed (with Auxiliary Lines)	11 880 mm	39.0 ft
With Boom Installed (with Auxiliary Lines)	10 650 mm	34.9 ft
3 Upperframe Width without Walkways	3020 mm	9.9 ft
4 Tail Swing Radius	3760 mm	12.3 ft
5 Counterweight Clearance without Shoe Lug	1280 mm	4.2 ft
6 Ground Clearance without Shoe Lug	475 mm	1.6 ft
7 Length to Center of Rollers	4360 mm	14.3 ft
8 Track Length	5370 mm	17.6 ft
9 Track Gauge	2740 mm	9.0 ft
10 Undercarriage Width:		
600 mm (24") Shoes	3530 mm	11.6 ft
750 mm (30") Shoes	3530 mm	11.6 ft
Bucket Type	Heavy Duty	
Bucket Capacity	1.90 m ³	2.48 yd ³
Bucket Tip Radius	1891 mm	6.2 ft

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Working Ranges and Forces

All dimensions are approximate and may vary depending on bucket selection.



Boom Option	Reach Boom 6.9 m (22'8")	
Stick Option	Reach Stick R3.35TB (11'0")	
1 Maximum Digging Depth	7660 mm	25.1 ft
2 Maximum Reach at Ground Line	11 730 mm	38.5 ft
3 Maximum Cutting Height	10 820 mm	35.5 ft
4 Maximum Loading Height	7430 mm	24.4 ft
5 Minimum Loading Height	2750 mm	9.0 ft
6 Maximum Depth Cut for 2440 mm (8 ft) Level Bottom	7520 mm	24.7 ft
7 Maximum Vertical Wall Digging Depth	5830 mm	19.1 ft
Bucket Digging Force (ISO)	268 kN	60,250 lbf
Stick Digging Force (ISO)	199 kN	44,740 lbf
Bucket Type	Heavy Duty	
Bucket Capacity	1.90 m ³	2.48 yd ³
Bucket Tip Radius	1891 mm	6.2 ft

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Bucket Specifications and Compatibility

	Linkage	Width		Capacity		Weight		Fill	Fixed Gauge Long Undercarriage		
		mm	in	m ³	yd ³	kg	lb		%	9.0 t (19,842 lb) Counterweight	
										Reach Boom 6.9 m (22'8")	
									R3.35 (11'0")		
Pin-On (No Quick Coupler)											
General Duty	TB	1500	59	1.90	2.48	1857	4,094	100	●		
	TB	1600	63	2.00	2.62	1904	4,197	100	●		
Heavy Duty	TB	1550	61	1.90	2.48	2275	5,015	100	●		
	TB	1700	67	2.10	2.75	2415	5,324	100	●		
Severe Duty	TB	1700	67	2.41	3.15	2496	5,502	90	⊙		
	TB	1850	74	2.69	3.52	2696	5,943	90	⊖		
								kg	6690		
Maximum load with pin-on (payload + bucket)								lb	14,749		
With Cat Pin Grabber Coupler											
General Duty	TB	1500	59	1.90	2.48	1857	4,094	100	⊙		
	TB	1600	63	2.00	2.62	1904	4,197	100	⊙		
Heavy Duty	TB	1550	61	1.90	2.48	2275	5,015	100	⊙		
	TB	1700	67	2.10	2.75	2415	5,324	100	⊖		
Severe Duty	TB	1700	67	2.41	3.15	2496	5,502	90	⊖		
	TB	1850	74	2.69	3.52	2696	5,943	90	○		
								kg	5637		
Maximum load with coupler (payload + bucket)								lb	12,428		

The above loads are in compliance with hydraulic excavator standard EN474-5:2006 + A3:2013, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled.

Capacity based on ISO 7451:2007.

Bucket weight with Long tips.

Maximum Material Density:

- 2100 kg/m³ (3,500 lb/yd³)
- ⊙ 1800 kg/m³ (3,000 lb/yd³)
- ⊖ 1500 kg/m³ (2,500 lb/yd³)
- 1200 kg/m³ (2,000 lb/yd³)

Caterpillar recommends using appropriate work tools to maximize the value customers receive from our products. Use of work tools, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of a work tool resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.

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Attachments Offering Guide

Not all Attachments are available in all regions. Consult your Cat dealer for configurations available in your region.

Match

† Allowed usage on machine less than 50%

PIN-ON ATTACHMENTS

Undercarriage	L	
Counterweight	9.0 t (19,842 lb)	
Boom Type	Reach HD	
Stick Length	3.35 m HD (11'0")	
Hydraulic Hammers	H160 S	✓
	H180 S	✓
Mobile Scrap and Demolition Shears	S3050	✓
Pulverizers	P235	✓

CAT PIN GRABBER ATTACHMENTS

Undercarriage	L	
Counterweight	9.0 t (19,842 lb)	
Boom Type	Reach HD	
Stick Length	3.35 m HD (11'0")	
Hydraulic Hammers	H160 S	✓
	H180 S	✓†
Pulverizers	P235	✓

BOOM-MOUNT ATTACHMENTS

Undercarriage	L	
Counterweight	9.0 t (19,842 lb)	
Boom Type	Reach HD	
Stick Length	3.35 m HD (11'0")	
Mobile Scrap and Demolition Shears	S2090	✓
	S3070	✓
	S3090	✓

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
ENGINE			UNDERCARRIAGE AND STRUCTURES		
Cold start block heaters		✓	Towing eye on base frame	✓	
Three selectable modes: Power, Smart, Eco	✓		Full-length track guiding guards		✓
Automatic engine speed control	✓		Segmented track guiding guards		✓
Up to 4500 m (14,764 ft) altitude capability	✓		Swivel guard	✓	
52° C (126° F) high-ambient cooling capacity	✓		Grease lubricated track	✓	
Hydraulic reverse fan		✓	9.0 t (19,842 lb) counterweight	✓	
-18° C (0° F) cold start capability	✓		600 mm (24") double grouser track shoes		✓
-32° C (-25° F) cold start capability		✓	750 mm (30") triple grouser track shoes		✓
Double element air filter with integrated precleaner	✓		BOOM, STICK AND LINKAGE		
115 amp alternator	✓		6.9 m (22'8") Reach boom	✓	
Single plane three horizontal cooling system	✓		3.35 m (11'0") stick	✓	
Dual stage 5.5 micron primary filter and 4.4 micron 2nd/3rd filters	✓		Bucket Linkage, TB family without lifting eye, Cat GRADE	✓	
Secure start with PIN code	✓		ELECTRICAL SYSTEM		
HYDRAULIC SYSTEM			Maintenance-free 1,000 CCA batteries (×4)	✓	
Boom and stick regeneration circuit	✓		Centralized electrical disconnect switch	✓	
Electronic main control valve	✓		LED chassis light, LH and RH boom lights, cab lights	✓	
Automatic hydraulic oil warm up	✓		Premium surround lighting package		✓
Automatic swing parking brake	✓				
High performance hydraulic return filter	✓				
Two speed travel	✓				
Bio hydraulic oil capability	✓				
Combined two-way auxiliary circuit		✓			
Medium-pressure auxiliary circuit		✓			
Advanced Tool Control		✓			

(continued on next page)

349 Standard and Optional Equipment

Standard and Optional Equipment (continued)

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

	Standard	Optional		Standard	Optional
CAT TECHNOLOGY			SERVICE AND MAINTENANCE		
Cat Product Link™	✓		Grouped location of engine oil and fuel filters	✓	
Work tool recognition	✓		Scheduled Oil Sampling (S·O·S SM) ports	✓	
Work tool tracking*	✓		SAFETY AND SECURITY		
Cat GRADE with 2D	✓		Caterpillar One Key security system	✓	
Cat GRADE with Advanced 2D		✓	Lockable external tool/storage box	✓	
Cat GRADE with 3D connectivity:		✓	Lockable door, fuel, and hydraulic tank locks	✓	
– Virtual Reference Station**			Lockable fuel drain compartment	✓	
– Internet Base Service Station**			Service platform with anti-skid plate and recessed bolts	✓	
– Trimble Connected Community**			RH handrail and hand hold (ISO 2867:2011 compliant)	✓	
Cat Assist:	✓		Standard visibility mirror package	✓	
– Boom Assist			Signaling/warning horn	✓	
– Bucket Assist			Ground-level secondary engine shutoff switch	✓	
– Swing Assist			Rearview camera	✓	
– Grade Assist			360° visibility		✓
– Lift Assist					
Cat Payload:	✓				
– Static Weigh					
– Auto Calibration					
– Payload/Cycle Information					
– USB reporting capability					
E-Fence:	✓				
– E-ceiling					
– E-floor					
– E-swing					
– E-wall					
– E-cab avoidance					
Auto hammer stop	✓				
Remote Services capability	✓				

*Paired with PL161 attachment locator.

**Subscription required.

349 Attachments

Dealer Installed Kit and Attachments

Attachments may vary. Consult your Cat dealer for details.

CAB

- Radial lower wiper
- LH/RH electrical pedal for tool control

GUARDS

- Falling object guard system (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
- Rain protector for front windshield with cab light cover

SAFETY AND SECURITY

- Bluetooth® key fob

Cab Options

	Deluxe	Premium
ROPS, standard sound suppression	●	X
ROPS, advanced sound suppression	X	●
High-resolution 254 mm (10") LCD touchscreen monitor	●	●
High-resolution 254 mm (10") LCD touchscreen 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	●	●
Heated seat with air-adjustable suspension	●	X
Heated and cooled seat with automatic adjustable suspension	X	●
51 mm (2") seat belt	●	●
Tilt-up left-side console	●	●
Bluetooth integrated radio with USB ports	●	●
12V DC outlets (×2)	●	●
Document storage	●	●
Cup and bottle holders	●	●
Openable two-piece front window	●	○
Radial wiper with washer	●	X
Parallel wiper with washer	X	●
Openable polycarbonate skylight hatch	●	○
LED dome and lower interior lights	●	●
Roller rear sunscreen	○	●

● Standard

○ Optional

X Not available

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

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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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Based on the Labor, Safety and Health Laws in Japan, employer of small construction equipment are required to provide specific training for all operators on machines with ship weight less than 3 metric ton. For machines greater than 3 metric ton, operator needs to obtain operator license certification from a Government approved registered training school.

AEXQ2491-01 (09-2020)
Replaces AEXQ2491
Build Number: 07C
(Japan)

