



Cat[®]

302.7 CR

(WITH FIXED UNDERCARRIAGE)

MINI EXCAVATOR

FEATURES:

The Cat[®] 302.7 CR Mini Excavator delivers power and performance in a compact size to help you work in a wide range of applications.

ALL DAY COMFORT

- Choose either a canopy or a sealed and pressurized cab which can be equipped with air conditioning, adjustable wrist rests, and a suspension seat option to help keep you working comfortably all day long.

EASY TO OPERATE

- Controls are easy to use and the intuitive Next Generation LCD monitor provides easy to read machine information. An advanced touchscreen monitor can also be equipped.

STICK STEER TRAVEL MODE

- Moving around the job site is even easier with the Cat Stick Steer option. Easily switch from traditional travel controls with levers and pedals to joystick controls to move the machine and to operate the blade. The benefit of less effort and improved control is in your hands!

BIG PERFORMANCE IN A COMPACT DESIGN

- Strong lift and dig performance helps you get the job done faster. The compact radius design lets you access and work in the tightest areas. Dozer float allows for easy clean up.

SAFETY ON THE JOB SITE

- Your safety is our top priority. The Cat mini excavator is designed to help keep you safe on the job. Courtesy work lights and a fluorescent retractable seat belt are just a couple of the safety features we've built into the machine.

SIMPLE SERVICE FOR LESS DOWNTIME

- Maintenance is quick and easy on the Cat mini excavator. Routine check points are easy to access at ground level through the side doors. The unique tilt up cab or canopy lets you reach additional service areas when needed.

LOWER OPERATING COSTS

- Equipped with features such as auto idle, auto engine shutdown, and efficient hydraulics with a variable displacement pump, the Cat mini excavator was designed with reducing your operating costs in mind.

UNMATCHED DEALER SUPPORT

- Your Cat dealer is here to help you reach your business goals. From providing equipment solutions to operator training to service needs and beyond, your Cat dealer is ready to help.

Specifications

Engine

Engine Model	C1.1 Turbo	
Net Power @ 2,400 rpm		
ISO 9249, 80/1269/EEC	17.6 kW	23.6 hp
Gross Power @ 2,400 rpm		
SAE J1995:2014	18.4 kW	24.7 hp
Bore	77.0 mm	3.0 in
Stroke	81.0 mm	3.2 in
Displacement	1.1 L	69.0 in ³

- Meets U.S. EPA Tier 4 Final and EU Stage V emission standards.
- Net power advertised is the power available at the flywheel when the engine is at rated speed and rated power when the engine is installed with the factory configured fan, air intake system, exhaust system, and alternator with a minimum alternator load.

Weights

Minimum Operating Weight with Canopy*	2560 kg	5,645 lb
Maximum Operating Weight with Canopy**	2925 kg	6,450 lb
Minimum Operating Weight with Cab*	2680 kg	5,909 lb
Maximum Operating Weight with Cab**	3050 kg	6,725 lb
EU: CE Plate Weight with Canopy***	2695 kg	5,942 lb
EU: CE Plate Weight with Cab***	2800 kg	6,174 lb

*Minimum Weight is based on rubber tracks, operator, full fuel tank, standard stick, blade, bucket and no extra counterweight.

**Maximum Weight is based on steel tracks, operator, full fuel tank, long stick, blade, bucket and extra counterweight.

***CE Plate Weight is based on the most common EU configuration. Includes 75 kg (165 lb) operator and full fuel tank and excludes bucket.



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Weight Increase from Minimum Configuration

Cab	125 kg	276 lb
Counterweight (light)	100 kg	221 lb
Counterweight (extra)	250 kg	551 lb
Long Stick	15 kg	33 lb
Steel Tracks	100 kg	221 lb

Travel System

Travel Speed – High	4.5 km/h	2.8 mph
Travel Speed – Low	2.6 km/h	1.6 mph
Maximum Traction Force – High Speed	15.6 kN	3,507 lbf
Maximum Traction Force – Low Speed	26.8 kN	6,025 lbf
Ground Pressure – Minimum Weight	24.2 kPa	3.5 psi
Ground Pressure – Maximum Weight	29.0 kPa	4.2 psi
Gradeability (maximum)	30 degrees	

Service Refill Capacities

Cooling System	4.0 L	1.1 gal
Engine Oil	4.0 L	1.1 gal
Fuel Tank	45.0 L	11.9 gal
Hydraulic Tank	18.0 L	4.8 gal
Hydraulic System	35.0 L	9.2 gal

Hydraulic System

Load Sensing Hydraulics with Variable Displacement Piston Pump		
Pump Flow @ 2,400 rpm	100 L/min	26 gal/min
Operating Pressure – Equipment	245 bar	3,553 psi
Operating Pressure – Travel	245 bar	3,553 psi
Operating Pressure – Swing	176 bar	2,553 psi
Auxiliary Circuit – Primary		
Flow*	65 L/min	17 gal/min
Pressure*	245 bar	3,553 psi
Auxiliary Circuit – Secondary		
Flow*	25 L/min	7.0 gal/min
Pressure*	245 bar	3,553 psi
Digging Force – Stick (standard)	13.8 kN	3,102 lbf
Digging Force – Stick (long)	12.3 kN	2,765 lbf
Digging Force – Bucket	23.3 kN	5,238 lbf

*Flow and pressure are not combinable. Under load, as flow rises pressure goes down.

Swing System

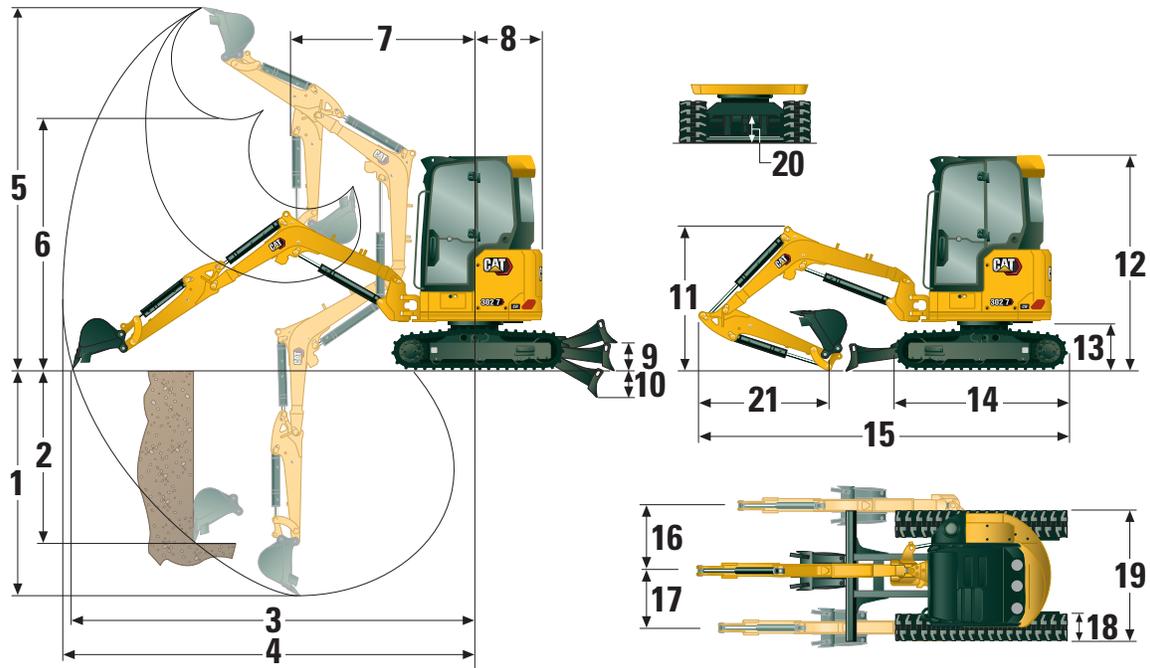
Machine Swing Speed	9.0 rpm
Boom Swing – Left	75 Degrees
Boom Swing – Right	50 Degrees

Blade

Width	1570 mm	61.8 in
Height	320 mm	12.6 in

Certification – Cab and Canopy

Roll Over Protective Structure (ROPS)	ISO 12117-2:2008
Tip Over Protective Structure (TOPS)	ISO 12117:1997
Top Guard	ISO 10262:1998 (Level I)



Dimensions

	Standard Stick	Long Stick
1 Dig Depth	2510 mm (98.8 in)	2710 mm (106.7 in)
2 Vertical Wall	1870 mm (73.6 in)	2050 mm (80.7 in)
3 Maximum Reach at Ground Level	4510 mm (177.6 in)	4710 mm (185.4 in)
4 Maximum Reach	4660 mm (183.5 in)	4850 mm (190.9 in)
5 Maximum Dig Height	4270 mm (168.1 in)	4390 mm (172.8 in)
6 Maximum Dump Clearance	2950 mm (116.1 in)	3070 mm (120.9 in)
7 Boom in Reach	1710 mm (67.3 in)	1730 mm (68.1 in)
8 Tail Swing		
without Counterweight	775 mm (30.5 in)	775 mm (30.5 in)
with Counterweight (light)	845 mm (33.3 in)	845 mm (33.3 in)
with Counterweight (extra)	890 mm (35.0 in)	890 mm (35.0 in)
9 Maximum Blade Height	395 mm (15.6 in)	395 mm (15.6 in)
10 Maximum Blade Depth	515 mm (20.3 in)	515 mm (20.3 in)
11 Boom Height in Shipping Position	1560 mm (61.4 in)	1650 mm (65.0 in)
12 Overall Shipping Height	2480 mm (97.6 in)	2480 mm (97.6 in)
13 Swing Bearing Height	560 mm (22.0 in)	560 mm (22.0 in)
14 Overall Undercarriage Length	2010 mm (79.1 in)	2010 mm (79.1 in)
15 Overall Shipping Length†	4240 mm (166.9 in)	4280 mm (168.5 in)
16 Boom Swing Right	830 mm (32.7 in)	830 mm (32.7 in)
17 Boom Swing Left	605 mm (23.8 in)	605 mm (23.8 in)
18 Track Belt/Shoe Width	300 mm (11.8 in)	300 mm (11.8 in)
19 Track Width	1570 mm (61.8 in)	1570 mm (61.8 in)
20 Ground Clearance	310 mm (12.2 in)	310 mm (12.2 in)
21 Stick Length	1060 mm (41.7 in)	1260 mm (49.6 in)

†Overall Shipping Length depends on blade position during shipment.

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Cab

Lift Capacities – Minimum Configuration			Lift Point Radius – 2 m (6.6 ft)			Lift Point Radius – 3 m (9.8 ft)			Lift Point Radius (Maximum)				
			Over Front			Over Side	Over Front		Over Side	Over Front		Over Side	m (ft)
			Blade Down	Blade Up	kg (lb)		Blade Down	Blade Up		Blade Down	Blade Up		
3 m (9.8 ft)	Standard Stick	kg (lb)				*777 (*1,713)	567 (1,250)	493 (1,087)	*470 (*1,036)	*470 (*1,036)	416 (917)	3.30 (10.8)	
	Long Stick	kg (lb)							*378 (*833)	*378 (*833)	368 (811)	3.54 (11.6)	
2 m (6.6 ft)	Standard Stick	kg (lb)				*886 (*1,953)	553 (1,219)	479 (1,056)	*426 (*939)	*426 (*939)	363 (800)	3.86 (12.7)	
	Long Stick	kg (lb)				*799 (*1,761)	553 (1,219)	479 (1,056)	*347 (*765)	*347 (*765)	331 (730)	4.06 (13.3)	
1 m (3.3 ft)	Standard Stick	kg (lb)				*1162 (*2,562)	517 (1,140)	445 (981)	*443 (*977)	*443 (*977)	330 (728)	4.03 (13.2)	
	Long Stick	kg (lb)				*1097 (*2,418)	515 (1,135)	443 (977)	*360 (*794)	*360 (*794)	303 (668)	4.22 (13.8)	
0 m (0 ft)	Standard Stick	kg (lb)	*1194 (*2,632)	928 (2,046)	767 (1,691)	*1299 (*2,864)	493 (1,087)	422 (930)	*525 (*1,157)	*525 (*1,157)	345 (761)	3.85 (12.6)	
	Long Stick	kg (lb)	*1190 (*2,623)	914 (2,015)	754 (1,662)	*1282 (*2,826)	486 (1,071)	415 (915)	*420 (*926)	*420 (*926)	313 (690)	4.05 (13.3)	

Minimum Weight includes cab, rubber tracks, no extra counterweight, operator, full fuel tank and blade.

Lift Capacities – Maximum Configuration			Lift Point Radius – 2 m (6.6 ft)			Lift Point Radius – 3 m (9.8 ft)			Lift Point Radius (Maximum)				
			Over Front			Over Side	Over Front		Over Side	Over Front		Over Side	m (ft)
			Blade Down	Blade Up	kg (lb)		Blade Down	Blade Up		Blade Down	Blade Up		
3 m (9.8 ft)	Standard Stick	kg (lb)				*777 (*1,713)	734 (1,618)	595 (1,312)	*470 (*1,036)	*470 (*1,036)	*470 (*1,036)	3.30 (10.8)	
	Long Stick	kg (lb)							*378 (*833)	*378 (*833)	*378 (*833)	3.54 (11.6)	
2 m (6.6 ft)	Standard Stick	kg (lb)				*886 (*1,953)	719 (1,585)	581 (1,281)	*426 (*939)	*426 (*939)	392 (864)	3.86 (12.7)	
	Long Stick	kg (lb)				*799 (*1,761)	721 (1,590)	583 (1,285)	*347 (*765)	*347 (*765)	*347 (*765)	4.06 (13.3)	
1 m (3.3 ft)	Standard Stick	kg (lb)				*1162 (*2,562)	684 (1,508)	548 (1,208)	*443 (*977)	*443 (*977)	360 (794)	4.03 (13.2)	
	Long Stick	kg (lb)				*1097 (*2,418)	683 (1,506)	547 (1,206)	*360 (*794)	*360 (*794)	332 (732)	4.22 (13.8)	
0 m (0 ft)	Standard Stick	kg (lb)	*1194 (*2,632)	*1194 (*2,632)	939 (2,070)	*1299 (*2,864)	659 (1,453)	525 (1,157)	*525 (*1,157)	*525 (*1,157)	464 (1,023)	3.85 (12.6)	
	Long Stick	kg (lb)	*1190 (*2,623)	*1190 (*2,623)	928 (2,046)	*1282 (*2,826)	653 (1,440)	519 (1,144)	*420 (*926)	*420 (*926)	344 (758)	4.05 (13.3)	

Maximum Weight includes cab, steel tracks, extra counterweight, operator, full fuel tank and blade.

Canopy

Lift Capacities – Minimum Configuration			Lift Point Radius – 2 m (6.6 ft)			Lift Point Radius – 3 m (9.8 ft)			Lift Point Radius (Maximum)				
			Over Front			Over Side	Over Front		Over Side	Over Front		Over Side	m (ft)
			Blade Down	Blade Up	kg (lb)		Blade Down	Blade Up		Blade Down	Blade Up		
3 m (9.8 ft)	Standard Stick	kg (lb)				*777 (*1,713)	535 (1,179)	466 (1,027)	*470 (*1,036)	450 (992)	393 (866)	3.30 (10.8)	
	Long Stick	kg (lb)							*378 (*833)	*378 (*833)	348 (767)	3.54 (11.6)	
2 m (6.6 ft)	Standard Stick	kg (lb)				*886 (*1,953)	520 (1,146)	452 (996)	*426 (*939)	340 (750)	296 (653)	3.86 (12.7)	
	Long Stick	kg (lb)				*799 (*1,761)	523 (1,153)	455 (1,003)	*347 (*765)	311 (686)	270 (595)	4.06 (13.3)	
1 m (3.3 ft)	Standard Stick	kg (lb)				*1162 (*2,562)	485 (1,069)	418 (922)	*443 (*977)	308 (679)	268 (591)	4.03 (13.2)	
	Long Stick	kg (lb)				*1097 (*2,418)	485 (1,069)	418 (922)	*360 (*794)	284 (626)	246 (542)	4.22 (13.8)	
0 m (0 ft)	Standard Stick	kg (lb)	*1194 (*2,632)	868 (1,914)	719 (1,585)	*1299 (*2,864)	460 (1,014)	395 (871)	*525 (*1,157)	321 (708)	278 (613)	3.85 (12.6)	
	Long Stick	kg (lb)	*1190 (*2,623)	860 (1,896)	711 (1,567)	*1282 (*2,826)	456 (1,005)	390 (860)	*420 (*926)	293 (646)	253 (558)	4.05 (13.3)	

Minimum Weight includes canopy, rubber tracks, no extra counterweight, operator, full fuel tank and blade.

Lift Capacities – Maximum Configuration			Lift Point Radius – 2 m (6.6 ft)			Lift Point Radius – 3 m (9.8 ft)			Lift Point Radius (Maximum)				
			Over Front			Over Side	Over Front		Over Side	Over Front		Over Side	m (ft)
			Blade Down	Blade Up	kg (lb)		Blade Down	Blade Up		Blade Down	Blade Up		
3 m (9.8 ft)	Standard Stick	kg (lb)				*777 (*1,713)	703 (1,550)	572 (1,261)	*470 (*1,036)	*470 (*1,036)	*470 (*1,036)	3.30 (10.8)	
	Long Stick	kg (lb)							*378 (*833)	*378 (*833)	*378 (*833)	3.54 (11.6)	
2 m (6.6 ft)	Standard Stick	kg (lb)				*886 (*1,953)	688 (1,517)	558 (1,230)	*426 (*939)	*426 (*939)	375 (827)	3.86 (12.7)	
	Long Stick	kg (lb)				*799 (*1,761)	690 (1,521)	559 (1,232)	*347 (*765)	*347 (*765)	344 (758)	4.06 (13.3)	
1 m (3.3 ft)	Standard Stick	kg (lb)				*1162 (*2,562)	653 (1,440)	524 (1,155)	*443 (*977)	423 (933)	343 (756)	4.03 (13.2)	
	Long Stick	kg (lb)				*1097 (*2,418)	652 (1,437)	523 (1,153)	*360 (*794)	*360 (*794)	316 (697)	4.22 (13.8)	
0 m (0 ft)	Standard Stick	kg (lb)	*1194 (*2,632)	1177 (2,595)	897 (1,978)	*1299 (*2,864)	628 (1,385)	501 (1,105)	*525 (*1,157)	442 (974)	357 (787)	3.85 (12.6)	
	Long Stick	kg (lb)	*1190 (*2,623)	1166 (2,571)	887 (1,955)	*1282 (*2,826)	622 (1,371)	495 (1,091)	*420 (*926)	406 (895)	327 (721)	4.05 (13.3)	

Maximum Weight includes canopy, steel tracks, extra counterweight, operator, full fuel tank and blade.

*The above loads are in compliance with hydraulic excavator lift capacity rating standard ISO 10567:2007 and they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. The excavator bucket weight is not included on this chart. Lifting capacities are for standard stick.

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
ENGINE			OPERATOR ENVIRONMENT (continued)		
Cat® C1.1 Turbo Engine (U.S. EPA Tier 4 Final/ EU Stage V)	✓		Retractable High Visibility Seat Belt (75 mm/3 in)	✓	
Automatic Engine Idle	✓		Coat Hook	✓	
Automatic Engine Shutdown	✓		Cup Holder	✓	
Automatic Two Speed Travel	✓		Storage Pocket	✓	
Fuel Water Separator	✓		Skylight	✓	
Power on Demand (not available in all regions)	✓		Mounting Bosses for Front	✓	
Variable Displacement Piston Pump	✓		Signaling/Warning Horn	✓	
Load Sensing/Flow Sharing Hydraulics	✓		Interior Light (Cab only)	✓	
HYDRAULICS			Boom Light, Halogen (not available in all regions)	✓	
Smart Tech Electronic Pump	✓		LED Front Lights		✓
Accumulator	✓		LED Front and Rear Lights		✓
Automatic Swing Brake	✓		LED Boom Light		✓
Auxiliary Hydraulic Lines	✓		Utility Space for Mobile Phone	✓	
One and Two Way Auxiliary Flow	✓		Mirrors Left and Right		✓
Continuous Auxiliary Flow	✓		Radio – Bluetooth®, Auxiliary, Microphone, USB (charging only) (Cab only)		✓
Auxiliary Line Quick Disconnects	✓		Next Generation Color LCD Monitor (IP66)	✓	
OPERATOR ENVIRONMENT			– Fuel Level and Coolant Temperature Gauges	✓	
Tilt-up Canopy or Tilt-Up Cab	✓		– Maintenance and Machine Monitoring	✓	
Cab with Air Conditioning		✓	– Performance and Machine Adjustments	✓	
Cab with Heater		✓	– Numeric Security Code	✓	
Top Guard ISO 10262:1998 Level I	✓		– Multiple Languages	✓	
ROPS – ISO 12117-2:2008	✓		– Hour Meter with Wake Up Switch	✓	
TOPS – ISO 12117:1997	✓		– Jog Dial (Cab only)	✓	
Stick Steer Mode	✓		Next Generation Advanced Monitor		✓
Travel Cruise Control	✓		– Touchscreen		✓
Control Pattern Changer (optional in some regions)	✓		– Site Reference System		✓
Adjustable Wrist Rests	✓		– High Definition Camera Capable (IP68 and IP69K)		✓
Washable Floor Mat	✓		– Numeric Security Code		✓
Travel Pedals and Hand Levers	✓				
No Travel Pedals and Hand Levers (optional in some regions)		✓			
Machine Security	✓				
Standard Key with Pass Code	✓				
Push to Start with Key Fob/Pass Code		✓			
Fabric Suspension Seat (Cab only)	✓				
Vinyl Suspension Seat (Canopy only)	✓				
Vinyl Non-Suspension Seat (Canopy only) (not available in all regions)		✓			
Hydraulic Lockout – All Controls	✓				

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Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
UNDERCARRIAGE			ELECTRICAL		
Rubber Belt (300 mm/11.8 in wide)	✓		12 Volt Battery	✓	
Steel Track (300 mm/11.8 in wide)		✓	Software (machine and monitor)	✓	
Dozer Blade	✓		Maintenance Free Battery	✓	
Dozer Blade Float	✓		Battery Disconnect	✓	
Tie Downs on Track Frame	✓		Signaling/Warning Horn	✓	
BOOM, STICK AND LINKAGES			12 Volt Power Socket	✓	
One Piece Boom (2085 mm/82.1 in)	✓		Product Link PL243 (regulations apply)		✓
Standard Stick (1060 mm/41.7 in)	✓		Product Link PLE643 (regulations apply)		✓
Long Stick (1260 mm/49.6 in)		✓	Travel Alarm (standard in some regions)		✓
Front Shovel Capable	✓		GUARDING		
Pin-On	✓		Polycarbonate Half Height Front Guard (Canopy only)		✓
Dual Lock Manual Coupler		✓	Polycarbonate Front Guard (ISO 10262 1998 Level I and EN356 P5A)		✓
Thumb Ready (not available in all regions)	✓		OTHER		
Certified Lifting Eye (optional in some regions)	✓		Bio Oil Capable		✓
Attachments including Couplers, Thumbs, Buckets, Augers and Hammers		✓	Eco Drain		✓
2nd Auxiliary Hydraulic Lines		✓	Water Jacket Heater		✓
Bucket Divert Lines		✓	Light Counterweight (100 kg/221 lb)		✓
Boom Lowering Check Valve		✓	Extra Counterweight (250 kg/551 lb)		✓
Stick Lowering Check Valve		✓			
Hydraulic Quick Coupler Lines (not available in all regions)		✓			

302.7 CR (Fixed Undercarriage) Environment Declaration

The following information applies to the machine at the time of final manufacture as configured for sale in the regions covered in this document. The content of this declaration is valid as of the date issued; however, content related to machine features and specifications are subject to change without notice. For additional information, please see the machine's Operation and Maintenance Manual.

For more information on sustainability in action and our progress, please visit <https://www.caterpillar.com/en/company/sustainability>.

Engine

- The Cat® C1.1 engine meets U.S. EPA Tier 4 Final and EU Stage V emission standards.
- Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels up to:
 - ✓ 20% biodiesel FAME (fatty acid methyl ester)
 - ✓ 100% renewable diesel, HVO (hydrogenated vegetable oil) and GTL (gas-to-liquid) fuelsRefer to guidelines for successful application. Please consult your Cat dealer or “Caterpillar Machine Fluids Recommendations” (SEBU6250) for details.

Paint

- Based on best available knowledge, the maximum allowable concentration, measured in parts per million (PPM), of the following heavy metals in paint are:
 - Barium < 0.01%
 - Cadmium < 0.01%
 - Chromium < 0.01%
 - Lead < 0.01%

Sound Performance

- Operator Sound Pressure 78 dB(A) (ISO 6396:2008)
Average Exterior Sound Pressure 94 dB(A) (ISO 6395:2008)
- European Union Directive “2000/14/EC”

Oils and Fluids

- Caterpillar factory fills with ethylene glycol coolants. Cat Diesel Engine Antifreeze/Coolant (DEAC) and Cat Extended Life Coolant (ELC) can be recycled. Consult your Cat dealer for more information.
- Cat Bio HYDO™ Advanced is an EU Ecolabel approved biodegradable hydraulic oil.
- Additional fluids are likely to be present, please consult the Operations and Maintenance Manual or the Application and Installation guide for complete fluid recommendations and maintenance intervals.

Features and Technology

- The following features and technology may contribute to fuel savings and/or carbon reduction. Features may vary. Consult your Cat dealer for details.
 - Advanced hydraulic systems balance power and efficiency
 - Power On Demand provides full time efficiency and power when you need it and is transparent to the operator
 - Auto idle and auto engine shutdown
 - Extended maintenance intervals reduce fluid and filter consumption
 - Remote Flash and Remote Troubleshoot (if equipped)

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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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AEHQ8349-03 (09-2022)
Replaces AEHQ8349-02
Build Number: 07A
(Global excluding
China and Japan)

