

349D/349D L

Hydraulic Excavator



Engine

Engine Model	Cat® C13 ACERT™
Net Flywheel Power	283 kW
Gross Power	305 kW

Weights

Operating Weight – Std. Undercarriage	46 285 kg
Operating Weight – Long Undercarriage	47 122 kg
• Reach Boom, R3.9 Stick, 1219 mm GD Bucket and 750 mm shoe.	

Features

Performance

High level of sustained production, improved performance, reliability and durability increase your productivity and lower your operating costs.

C13 Engine with ACERT™ Technology

ACERT™ Technology works at the point of combustion to optimize engine performance and provide low exhaust emissions, with exceptional performance capabilities and proven reliability.

Operator Station

Superior cab comfort and visibility provide an excellent working environment. The full-color monitor with graphic display features enhanced functionality to provide a simple, comprehensive machine interface.

Maximum Versatility

A variety of work tools, including buckets, are available for applications such as demolition, site clean-up, scrap processing, breaking up road surfaces and bedrock through Cat® Work Tools.

Service and Maintenance

Fast, easy service has been designed in with long service intervals, advanced filtration, convenient filter access and user-friendly electronic diagnostics for increased productivity and reduced maintenance costs.



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The 349D/349D L offers outstanding performance, excellent control, high stick and bucket forces, impressive lift capacity, simplified service and a comfortable operator station to increase your productivity and lower operating costs.

C13 Engine with ACERT™ Technology

Built for power, reliability, economy and low emissions.

Performance

The 349D, equipped with the C13 with ACERT Technology provides 283 kW horsepower.

Emissions

ACERT Technology is a differentiated technology that reduces emissions at the point of combustion. The technology capitalizes on Caterpillar's proven leadership in three core engine systems: fuel, air and electronics.

Fuel System

The Cat® C13 features electronic controls that govern the mechanically actuated unit fuel injection (MEUI) system. MEUI provides the high-pressure required to deliver better fuel economy through finer fuel atomization and more complete combustion.

ADEM™ A4 Engine Controller

The ADEM™ A4 electronic control module manages fuel delivery to get the best performance per liter of fuel used. The engine management system provides flexible fuel mapping, allowing the engine to respond quickly to varying application needs. It tracks engine and machine conditions while keeping the engine operating at peak efficiency.

Turbocharger

The Cat® C13 uses a wastegate turbocharger for improved performance.

- The wastegate valve controls excessive engine boost pressure by allowing exhaust to bypass the exhaust-side turbine.
- The wastegate also reduces turbine wear in high RPM; low load conditions and optimizes air and fuel delivery for peak engine performance.
- The turbocharger increases the density of the air, enabling the engine to produce more power with few effects from altitude.

Low Sound and Vibration Levels

The engine mounts are rubber-isolating mounts matched with the engine package to provide optimum sound and vibration reduction. Further noise reduction has been achieved through design changes to the isolated top cover, oil pan, multiple injection strategy, insulated timing cover, sculpted crankcase.

Air Cleaner

The radial seal air filter features a double-layered filter core for more efficient filtration and is located in a compartment behind the cab. A warning is displayed on the monitor when dust accumulates above a preset level.





Hydraulics

Cat[®] hydraulics deliver power and precise control to keep material moving.

Pilot System

The pilot pump is independent from the main pumps and controls the front linkage, swing and travel operations. The pilot control valve operation is proportional to control lever movement, delivering outstanding controllability.

Component Layout

The component location and hydraulic system design provide the highest level of system efficiency. The main pumps, control valve and hydraulic tank are located as close to each other as possible. This design makes it possible to use shorter tubes and lines between components, reducing friction losses and pressure drops.

Hydraulic Cross-Sensing System

The hydraulic cross sensing system utilizes each of two hydraulic pumps to 100 percent of engine power under all operating conditions. This improves productivity with faster implement speeds and quicker, stronger pivot turns.

Boom and Stick Regeneration Circuits

A hydraulically operated stick regeneration circuit saves energy and improves multi-function performance during the stick-in operation. New on the 349D, the boom regeneration circuit is operated electrically, and this system is managed by the machine ECM. The system improves cycle times and fuel efficiency, increasing your productivity and reducing operating costs.

Boom and Swing Priority

The hydraulic system on the 349D provides automatic priority function for boom-up and swing operations eliminating the need for work mode buttons. When the boom or swing lever is activated, the system automatically assigns priority based on operator demand.

Hydraulic Cylinder Snubbers

Snubbers are located at the rod-end of the boom cylinders and both ends of the stick cylinders to cushion shocks while reducing sound levels and extending component and structure life.

Operator Station

Designed for simple, easy operation, the 349D allows the operator to focus on production.

The spacious, quiet and comfortable operator station assures high productivity during a long work day.

- Switches, dials and controls are conveniently located within easy reach of the operator.
- The monitor is easy to see and helps maximize visibility.
- The standard air suspension seats adjust to suit the operator's size and weight.
- The pressurized cab provides positive filtered ventilation and fresh or recirculated air can be selected.
- Visibility is maximized with the elimination of window frames for all glass except the rear window. A large, polycarbonate skylight offers excellent upward visibility.

Hydraulic Activation Control Lever

For added safety, the hydraulic activation control lever must be in the operate position to activate the machine control functions.

Controls

The 349D uses pilot operated control levers positioned so the operator can operate with arms on the armrests. The vertical stroke is longer than the horizontal to reduce operator fatigue.

Joysticks with integrated buttons and sliding switches control all implement and swing functions. The sliding switches modulate control for hydro-mechanical tools and help increase operator comfort and reduce fatigue.

Prestart Check and Monitor Display

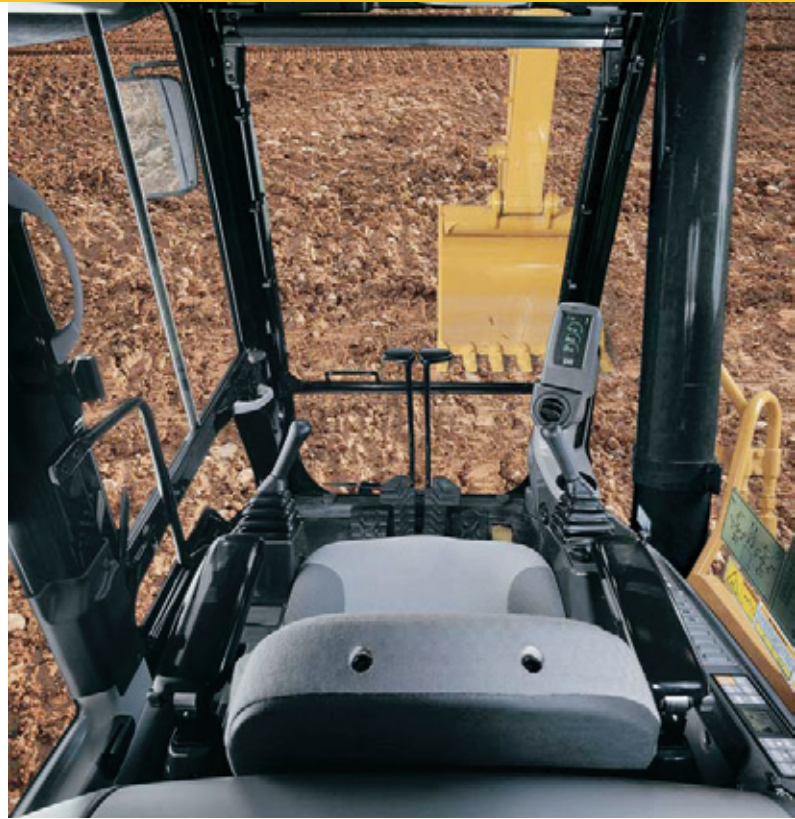
Prior to starting the machine, the system checks for low engine oil, hydraulic oil and engine coolant fluid levels and will warn the operator through a color Liquid Crystal Display (LCD) monitor. The LCD monitor displays vital operating and performance information in 27 different languages for operator convenience.

Cab Exterior

The exterior design uses thick steel tubing along the bottom perimeter of the cab, improving the resistance of fatigue and vibration. This design allows the FOGS to be bolted directly to the cab, at the factory or as an attachment later, enabling the machine to meet specifications and job site requirements.

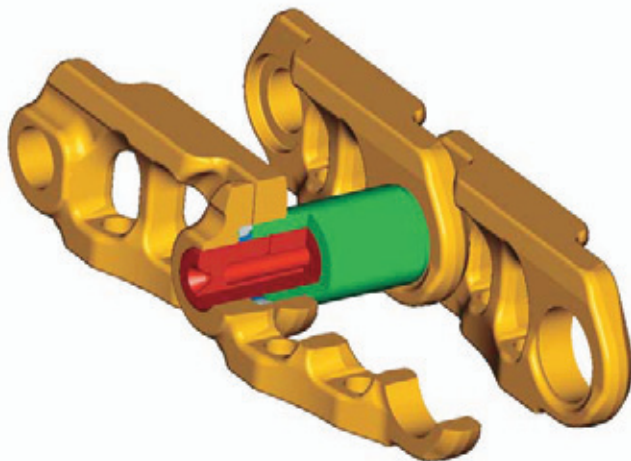
Cab Mounts

The cab shell is attached to the frame with viscous rubber cab mounts, which dampen vibrations and sound levels while enhancing operator comfort.



Undercarriage

Durable undercarriage absorbs stresses and provides excellent stability.



Undercarriage Options

Track with Positive Pin Retention 2 (PPR2) and cast idlers are available on the 349D. The PPR2 prevents loosening of the track pin from the track link and the cast idler is designed for extended life. Both options are ideal for extreme applications or those that require a large amount of travel.

Travel Motors

Two-speed axial piston hydraulic motors provide the 349D drive power and automatic speed selection when the high-speed position is selected. This enables the machine to automatically change between computer-controlled high and low speeds depending on drawbar-pull requirements.

Straight-line Travel Circuit

The straight-line travel circuit is incorporated into the hydraulic system, which maintains low-speed, straight-line travel, even when operating the front linkage.

Final Drive

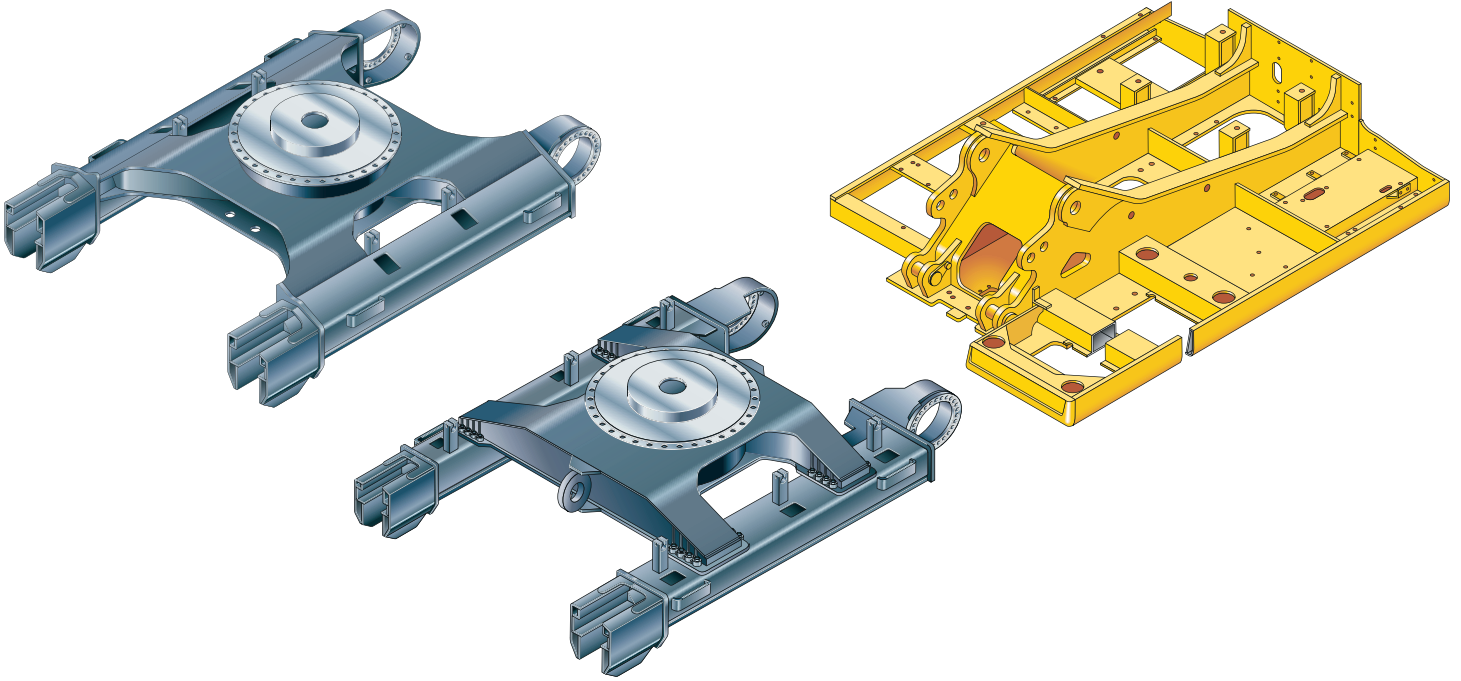
The three-stage planetary reduction final drives design results in a complete drive/brake unit that is compact and delivers excellent performance and reliability.

Track

The 349D comes standard with a grease lubricated track called GLT4. The track links are assembled and sealed with grease to decrease internal bushing wear, reduce travel noise and extend service life lowering operating costs. The track link for the 349D has been re-designed to avoid the concentration of stresses and improve durability and reliability.

Track Guards

The idler guard and bolt-on center guard are standard equipment. They help maintain track alignment while traveling or working on slopes. For applications that require additional track protection or alignment, optional guarding is available.



Structures

The 349D structural components are the backbone of the machine's durability.

Carbody

The 349D has three undercarriage options to meet regional transportation requirements and application needs.

- Standard and Long fixed gauge for narrow transport and weight sensitive areas.
- Variable gauge for increased track and ground clearance and over-side lift.

Upper Frame

The rugged main frame is designed for maximum durability. Robot welding is used for consistent, high-quality welds. The main channels are box sections connected by a large diameter tube in the boom foot area to improve rigidity and strength. The outer frame utilizes curved side rails for rigidity against bending and torsional loads.

Counterweights

The 349D has several counterweight options to best match the machine to your application.

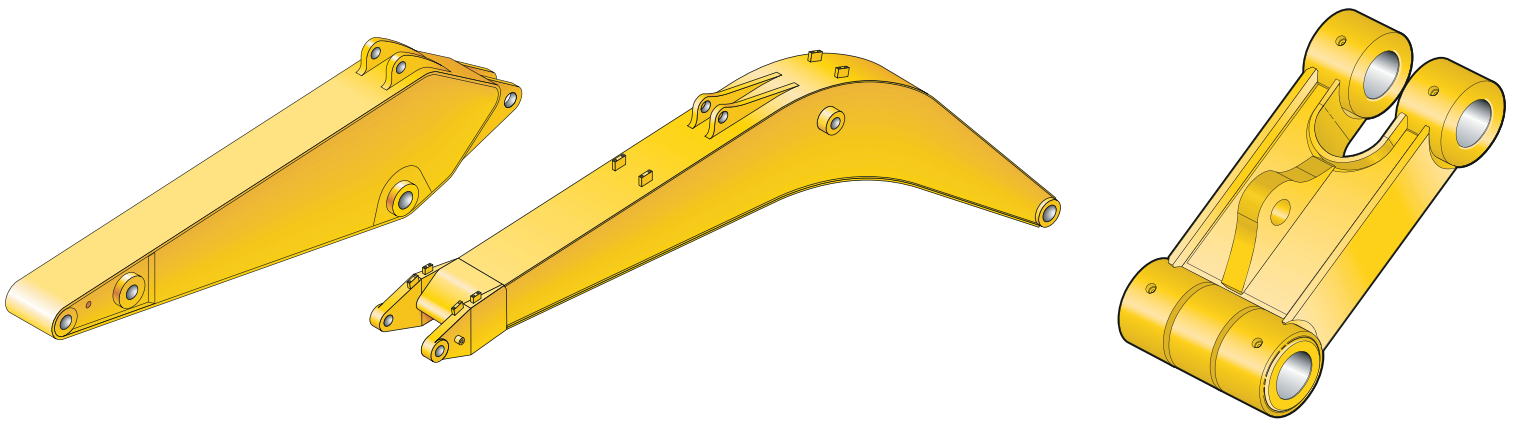
Track Roller Frame

Fixed Gauge Undercarriage

- Uses a press-formed, pentagonal section for the track frame that is robot-welded for weld consistency and quality. The track frame has been designed so that the top of the track frame has a steep angle to help prevent accumulation of mud and debris.

Variable Gauge Undercarriage

- The track roller frame is made of thick steel plate that is bent into a U-shape and welded to the bottom plate to create a box structure. The box structure design for increased rigidity and impact resistance.



Boom, Sticks and Attachments

Designed for maximum flexibility to keep productivity and efficiency high on all jobs.

Front Linkage Attachments

Three lengths of booms and five types of sticks are available, offering a range of configurations suitable for a wide variety of application conditions.

Boom Construction

The 349D booms have large cross-sections and internal baffle plates to provide long life durability. Forged steel is used in critical high-load areas such as the boom-foot and boom cylinder connection.

7.4 m Long Reach Boom

The Long Reach boom when combined with the 4.3 m stick provides an 8.9 m of dig depth. This boom/stick combination has a significantly reduced transport height, eliminating the need to remove the stick cylinder pin.

6.9 m Reach Boom

The Reach boom is designed to balance reach, digging force bucket capacity, offering a wide range of applications as digging, loading and trenching.

6.55 m Mass Excavation Boom

The Mass boom is designed to provide maximum digging forces, bucket capacity and truck loading productivity. The mass boom comes with two stick options for further job site versatility.

Stick Construction

The 349D sticks are made of high-tensile strength steel, use a large box section design, interior baffle plates and an additional bottom guard to provide years of service under the most demanding applications.

Power Link

The 349D power link improves durability, increases machine-lifting capability in key lifting positions, and is easier to use compared to the previous lift bar designs.

Work Tools

Solutions for your business

Increase Machine Versatility

The Cat combination of machine and tool provides a total solution for just about any application. Work tools can be mounted directly to the machine or a quick coupler can be added, making it quick and easy to release one work tool and pick up another.

Couplers

Caterpillar offers two quick coupler styles: dedicated and pin grabber. Each allows quick tool changes.

Cat Center-Lock™ Pin Grabber Coupler

Center-Lock is the Cat pin grabber style coupler and features a patent pending locking system. A highly visible secondary lock clearly shows the operator when the coupler is engaged or disengaged from the bucket or work tool.

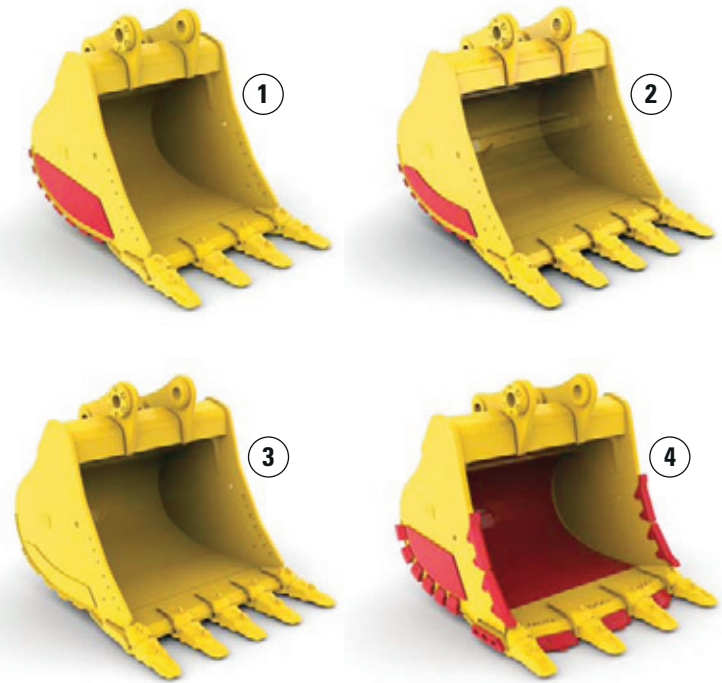
Work Tools

An extensive range of Cat Work Tools for the 349D includes buckets, hammers, grapples, shears, multi-processors and rippers. Each are designed to optimize the versatility and performance of your machine. Cat Work Tools and couplers are ready to work in a variety of applications, such as site and structure demolition, debris clean-up, truck loading, scrap processing, breaking road surfaces and bed rock.

Hydraulic Kits

Caterpillar offers field-installed hydraulic kits designed to simplify the process of ordering and installing the right kit. Modular kit designs integrate Cat Work Tools with Cat Hydraulic Excavators. Every kit is easy to install. Hoses are pre-made, tubes are pre-bent and pre-painted and there are comprehensive instructions.





Buckets and Teeth

Designed and built for total system performance.

Optimized Package

Caterpillar offers a wide range of buckets, each designed and field tested to function as an integral part of your excavator. All Cat Buckets feature K Series™ GET (Ground Engaging Tools). Buckets are available in four levels of durability and are built to take full advantage of the machine's power.

General Duty (GD)

General Duty buckets are designed for use in low impact, lower abrasion materials such as dirt, loam and mixed compositions of dirt and fine gravel.

Heavy Duty (HD)

Heavy Duty buckets are the most popular and a good “centerline” choice. This bucket style is a good starting point when application conditions are not known. Heavy Duty buckets are designed for a wide range of impact and abrasion conditions including mixed dirt, clay and rock.

Severe Duty (SD)

Severe Duty buckets are designed for higher abrasion conditions such as shot granite. When compared to the Heavy Duty bucket, wear bars and wear plates are substantially thicker and larger for added protection.

Extreme Duty (XD)

Extreme Duty buckets are designed for very high abrasion conditions such as granite quarries. Corner shrouds have been added and side wear plates are larger for added protection.

1) Severe Duty 2) Heavy Duty 3) General Duty 4) Extreme Duty

Versatility

A wide variety of optional and factory-installed attachments are available to enhance performance and improve job site management.

Tool Control System

The optional tool control system maximizes work tool productivity by configuring hydraulic flow, pressure, and operator controls to match a specific work tool. System versatility enables a wide range of tools to be used.

Control Levers

The operator's control lever preferences are diverse. Three types of tool controls are available:

- Foot Pedal – The hydraulic modulated foot pedal is used in conjunction with the hydraulic controller.
- Foot Switch – The electric on/off switch pedal is used in conjunction with either the hydraulic controller or attachment controller. The foot switch is located on cab floor.
- Tool controller joysticks – Two types of the tool control joysticks are available. Joystick with modulation contains two on/off switches, one trigger switch and one modulation switch. Joystick without the modulation switch has three on/off switches and one trigger switch.

Auxiliary Hydraulic Valve

A hydraulically controlled auxiliary valve is standard on the 349D. Control circuits are available as attachments, allowing operation of high and medium pressure tools such as shears, grapples, hammers, pulverizers, multi-processors and vibratory plate compactors.

Machine Security

An optional Machine Security System is available from the factory on the 349D. This system controls when the machine can be operated and utilizes specific keys to prevent unauthorized machine use, a significant theft deterrent.

Product Link

Product Link is available as an option on the 349D. The optional levels of service, including Asset Watch, Maintenance Watch, and Health Watch allow you to monitor and maintain your equipment for the lowest operating cost.





Service and Maintenance

Simplified service and maintenance save you time and money.

Extended Service Intervals

Extended service and maintenance intervals increase machine availability. The maintenance intervals for engine oil and engine oil filter have been extended to 500 hours.

Capsule Filter

The hydraulic return filters are located in the hydraulic tank. The filter elements are removable without spilling hydraulic oil.

Pilot Hydraulic System Filter

Pilot hydraulic system filter keeps contaminants from the pilot system and is located in the pump compartment.

Radial Seal Main Air Cleaner

Radial seal main air cleaner with precleaner has a double-layered filter element for more efficient filtration. No tools are required to change the element.

Fuel-Water Separator

The water separator has a primary fuel filter element and is located in the air cleaner compartment for easy access from the ground.

Service Points

Service points are centrally located with easy access to facilitate routine maintenance.

Oil Sample and Pressure Ports

Oil sample and pressure ports provide easy checking of machine condition and are standard on every machine.

Greasing Points

A concentrated remote greasing block on the boom delivers grease to hard-to-reach locations.

Complete Customer Support

Cat dealer services help you operate longer with lower costs.

Product Support

You will find nearly all parts at our dealer parts counter. Cat dealers utilize a worldwide computer network to find in-stock parts to minimize machine downtime. You can save money with Cat remanufactured components.

Machine Selection

Make detailed comparisons of the machines you are considering before you buy. What are the job requirements, machine attachments and operating hours? What production is needed? Your Cat dealer can provide recommendations.

Purchase

Look past initial price. Consider the financing options available as well as day-to-day operating costs. This is also the time to look at dealer services that can be included in the cost of the machine to yield lower equipment owning and operating costs over the long run.

Customer Support Agreements

Cat dealers offer a variety of product support agreements, and work with customers to develop a plan that best meets specific needs. These plans can cover the entire machine, including attachments, to help protect the customer's investment.

Operation

Improving operating techniques can boost your profits. Your Cat dealer has videotapes, literature and other ideas to help you increase productivity, and Caterpillar offers certified operator training classes to help maximize the return on your investment.

Maintenance Services

Repair option programs guarantee the cost of repairs up front. Diagnostic programs such as Scheduled Oil Sampling, Coolant Sampling and Technical Analysis help you avoid unscheduled repairs.

Replacement

Repair, rebuild or replace? Your Cat Dealer can help you evaluate the cost involved so you can make the right choice.

SAFETY.CAT.COM™



349D/349D L Hydraulic Excavator Specifications

Engine

Engine Model	Cat® C13 ACERT™
Net Flywheel Power	283 kW
Gross Power	305 kW
Net Power – ISO 9249	283 kW
Net Power – SAE J1349	283 kW
Net Power – EEC 80/1269	283 kW
Bore	130 mm
Stroke	157 mm
Displacement	12.5 L

- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.
- No engine derating needed up to 2300 m.

Weights

Operating Weight – Std. Undercarriage	46 285 kg
Operating Weight – Long Undercarriage	47 122 kg

- Reach Boom, R3.9 Stick, 1219 mm GD Bucket and 750 mm shoe.

Track

Number of Shoes (each side)	
Standard	49
Long – Fixed	52
Variable Gauge	52
Number of Track Rollers (each side)	
Standard	8
Long – Fixed	9
Variable Gauge	9
Number of Carrier Rollers (each side)	
Standard	2
Long – Fixed	2
Variable Gauge	3

Swing Mechanism

Swing Speed	8.7 rpm
Swing Torque	149 kN·m

Drive

Maximum Travel Speed	4.5 km/h
Maximum Drawbar Pull – Long Undercarriage	338 kN

Hydraulic System

Main System – Maximum Flow (Total)	734 L/min
Maximum Pressure – Equipment – Normal	35 000 kPa
Maximum Pressure – Travel	35 000 kPa
Maximum Pressure – Swing	31 400 kPa
Pilot System – Maximum Flow	43 L/min
Pilot System – Maximum Pressure	4110 kPa
Boom Cylinder – Bore	160 mm
Boom Cylinder – Stroke	1575 mm
Stick Cylinder – Bore	190 mm
Stick Cylinder – Stroke (for Long Reach and Reach fronts)	1778 mm
Stick Cylinder – Stroke (for Mass Excavation fronts)	1758 mm
TB Family Bucket Cylinder – Bore	160 mm
TB Family Bucket Cylinder – Stroke	1356 mm
UB Family Bucket Cylinder – Bore	170 mm
UB Family Bucket Cylinder – Stroke	1396 mm

Service Refill Capacities

Fuel Tank Capacity	705 L
Cooling System	35.5 L
Engine Oil	42 L
Swing Drive (each)	10 L
Final Drive (each)	15 L
Hydraulic System (including tank)	570 L
Hydraulic Tank	243 L

Sound Performance

Performance	ANSI/SAE J1166 MAY90 Meets OSHA and MSHA Requirements
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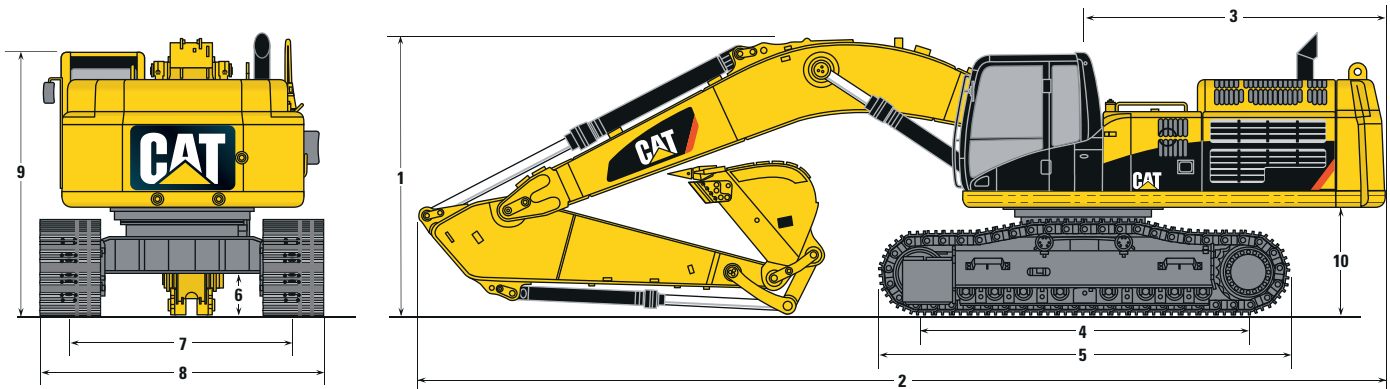
- When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to ANSI/SAE J1166 OCT 98, meets OSHA and MSHA requirements for operator sound exposure limits in effects at time of manufacture.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in noisy environment.

Standards

Brakes	SAE J1026 APR90
Cab/FOGS	SAE J1356 FEB 88 and ISO 10262-1998

Dimensions

All dimensions are approximate.

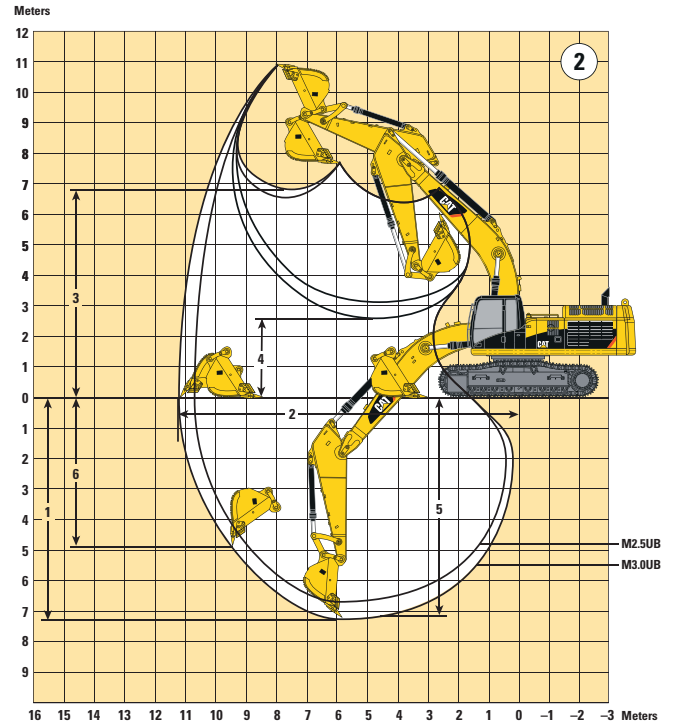
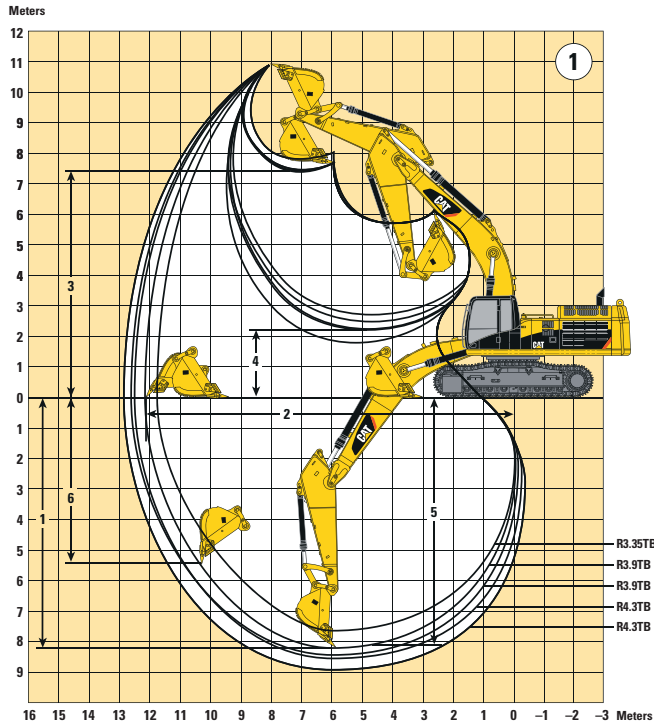


Boom	Long Reach Boom 7.4 m		Reach Boom 6.9 m		Mass Boom 6.55 m	
Stick	R4.3TB	R3.9TB	R3.9TB	R3.35TB	M3.0UB	M2.5UB
1 Shipping Height						
Fixed Gauge Undercarriage	3680 mm	3570 mm	3660 mm	3690 mm	4020 mm	3960 mm
Variable Gauge Undercarriage	3630 mm	3550 mm	3640 mm	3720 mm	4050 mm	4000 mm
2 Shipping Length						
Fixed Gauge Undercarriage	12 450 mm	12 430 mm	11 950 mm	11 940 mm	11 640 mm	11 710 mm
Variable Gauge Undercarriage	12 400 mm	12 370 mm	11 910 mm	11 910 mm	11 620 mm	11 680 mm
3 Tail Swing Radius	3770 mm	3770 mm	3770 mm	3770 mm	3770 mm	3770 mm
Undercarriage	Std. Fixed Gauge		Long Fixed Gauge		Variable Gauge	
4 Length to Center of Idler and Sprocket	4030 mm		4360 mm		4340 mm	
5 Track Length	5070 mm		5360 mm		5340 mm	
6 Ground Clearance	510 mm		510 mm		740 mm	
7 Track Gauge						
Retracted (Transport) Position	2740 mm		2740 mm		2390 mm	
Extended (Working) Position	2740 mm		2740 mm		2890 mm	
8 Track Width*						
Retracted (Transport) Position	3640 mm		3640 mm		3290 mm	
Extended (Working) Position	3640 mm		3640 mm		3790 mm	
9 Cab Height	3210 mm		3210 mm		3360 mm	
10 Counterweight Height (to bottom)	1320 mm		1320 mm		1470 mm	

* Track Width shown is for 900 mm track shoes. Subtract 150 mm for 750 mm track shoes and 300 mm for 600 mm track shoes.

349D/349D L Hydraulic Excavator Specifications

Working Ranges



349D/349D L Working Ranges – Long Fixed Gauge Undercarriage

1

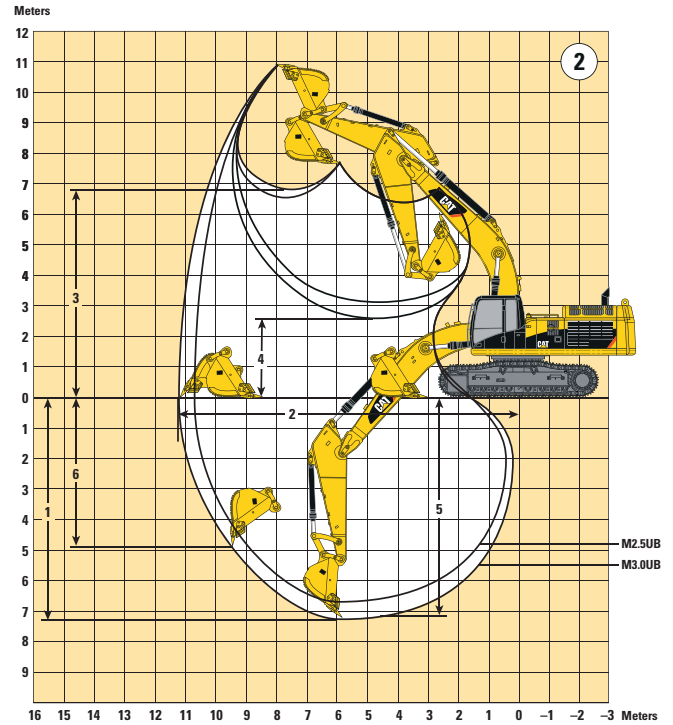
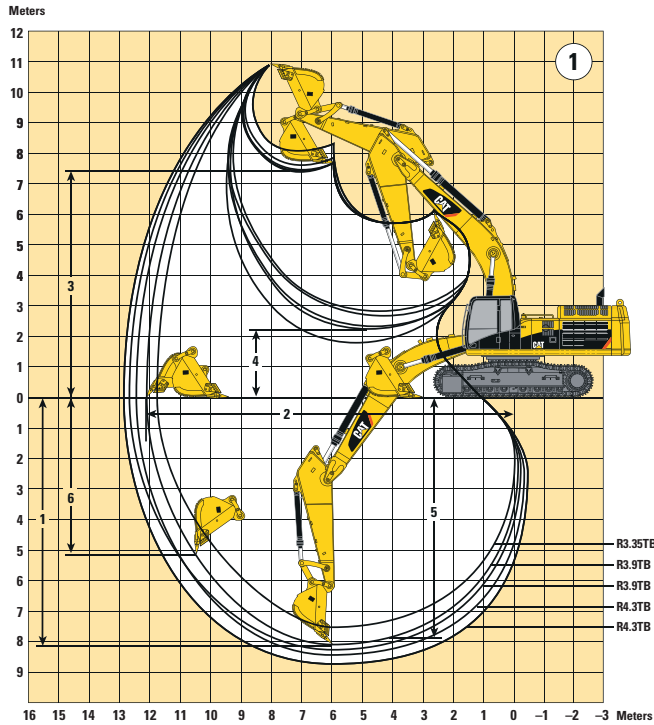
2

Reach Working Ranges

Mass Working Ranges

Stick Bucket	Long Reach Boom 7.4 m		Reach Boom 6.9 m			Mass Excavation Boom 6.5 m	
	R4.3TB	R3.9TB	R4.3TB	R3.9TB	R3.35TB	M3.0UB	M2.5UB
	GD 1.8 m ³	GD 1.8 m ³	GD 1.8 m ³	GD 1.8 m ³	GD 1.8 m ³	HD 3.11 m ³	HD 3.11 m ³
1 Maximum Digging Depth	8920 mm	8520 mm	8600 mm	8200 mm	7650 mm	7200 mm	6700 mm
2 Maximum Reach at Ground Level	12 940 mm	12 580 mm	12 490 mm	12 120 mm	11 710 mm	11 160 mm	10 700 mm
3 Maximum Loading Height	7870 mm	7750 mm	7540 mm	7410 mm	7420 mm	6830 mm	6640 mm
4 Minimum Loading Height	2240 mm	2640 mm	1800 mm	2200 mm	2750 mm	2670 mm	3170 mm
5 Maximum Depth Cut for 2440 mm Level Bottom	8790 mm	8380 mm	8480 mm	8070 mm	7500 mm	7050 mm	6530 mm
6 Maximum Vertical Wall Digging Depth	5860 mm	5330 mm	5820 mm	5300 mm	5210 mm	4660 mm	4220 mm

Working Ranges



349D L Working Ranges – Long Variable Gauge Undercarriages

①

Reach Working Ranges

②

Mass Working Ranges

Stick Bucket	Long Reach Boom 7.4 m		Reach Boom 6.9 m			Mass Excavation Boom 6.5 m	
	R4.3TB	R3.9TB	R4.3TB	R3.9TB	R3.35TB	M3.0UB	M2.5UB
1 Maximum Digging Depth	8770 mm	8370 mm	8450 mm	8050 mm	7500 mm	7050 mm	6550 mm
2 Maximum Reach at Ground Level	12 910 mm	12 550 mm	12 460 mm	12 100 mm	11 680 mm	11 130 mm	10 670 mm
3 Maximum Loading Height	8010 mm	7890 mm	7690 mm	7550 mm	7570 mm	6980 mm	6790 mm
4 Minimum Loading Height	2380 mm	2780 mm	1950 mm	2350 mm	2900 mm	2810 mm	3290 mm
5 Maximum Depth Cut for 2440 mm Level Bottom	8650 mm	8230 mm	8330 mm	7920 mm	7360 mm	6900 mm	6380 mm
6 Maximum Vertical Wall Digging Depth	5720 mm	5190 mm	5670 mm	5160 mm	5070 mm	4520 mm	4080 mm

349D/349D L Hydraulic Excavator Specifications

349D/349D L – Bucket and Stick Forces

Stick Forces			
		Sticks	
TB-Family Buckets	R4.3	R3.9	R3.35
	kN	kN	kN
GD, HD, SD			
Stick Digging Force (ISO)	171	183	199
Stick Digging Force (SAE)	167	179	194
GD, HD, SD with coupler			
Stick Digging Force (ISO)	161	171	186
Stick Digging Force (SAE)	157	169	181
Sticks			
UB-Family Buckets	M3.0	M2.5	
	kN	kN	
GD			
Stick Digging Force (ISO)	206	233	
Stick Digging Force (SAE)	198	223	
HD, SD with coupler			
Stick Digging Force (ISO)	213	242	
Stick Digging Force (SAE)	205	231	
Bucket Forces			
	TB-Family Buckets	UB-Family Buckets	
	kN	kN	
GD, HD, SD			
Bucket Digging Force (ISO)	268	240	
Bucket Digging Force (SAE)	238	212	
GD, HD, SD with coupler			
Bucket Digging Force (ISO)	219		
Bucket Digging Force (SAE)	200		

Reach Boom Lift Capacities



Boom – 6.9 m
Stick – R3.9 m

Bucket – 1.6 m³
Shoes – 750 mm triple grouser

Undercarriage – Long – fixed gauge
Counterweight – 9000 kg

		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
9.0 m	kg													*5100	*5100	8.44
7.5 m	kg									*7000	*7000			*4850	*4850	9.55
6.0 m	kg									*7350	7150			*4750	*4750	10.33
4.5 m	kg							*9000	*9000	*7900	6900	*6650	5100	*4800	4800	10.81
3.0 m	kg					*13 200	12 750	*10 250	8950	*8600	6550	*7550	4950	*5050	4450	11.05
1.5 m	kg					*15 050	11 850	*11 350	8450	*9250	6250	*7850	4750	*5450	4300	11.06
Ground Line	kg			*14 700	*14 700	*15 850	11 350	*12 050	8100	*9650	6050	*7950	4600	*6050	4350	10.85
-1.5 m	kg	*9650	*9650	*19 200	17 700	*15 750	11 150	*12 150	7900	*9650	5900			*7000	4650	10.39
-3.0 m	kg	*18 650	*18 650	*19 100	17 850	*14 750	11 150	*11 500	7850	*8950	5900			*7850	5250	9.67
-4.5 m	kg	*19 250	*19 250	*16 000	*16 000	*12 650	11 350	*9800	8000					*7700	6500	8.62
-6.0 m	kg													*6800	*6800	7.03

Boom – 6.9 m
Stick – R3.9 m

Bucket – 1.9 m³
Shoes – 750 mm double grouser

Undercarriage – Long – variable gauge
Counterweight – 9000 kg

		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
9.0 m	kg													*5000	*5000	8.55
7.5 m	kg									*7000	*7000			*4700	*4700	9.65
6.0 m	kg									*7300	*7300			*4650	*4650	10.39
4.5 m	kg					*10 950	*10 950	*9000	*9000	*7850	7600	*6750	5650	*4700	*4700	10.85
3.0 m	kg					*13 300	*13 300	*10 250	9900	*8550	7300	*7450	5500	*4950	4950	11.06
1.5 m	kg					*15 050	13 200	*11 350	9400	*9150	7000	*7750	5300	*5400	4850	11.05
Ground Line	kg			*15 100	*15 100	*15 800	12 700	*11 950	9050	*9550	6750	*7800	5200	*6000	4950	10.81
-1.5 m	kg	*10 400	*10 400	*19 100	*19 100	*15 550	12 550	*11 950	8850	*9450	6650			*7000	5300	10.33
-3.0 m	kg	*19 550	*19 550	*18 700	*18 700	*14 450	12 550	*11 250	8850	*8700	6650			*7700	6050	9.58
-4.5 m	kg	*19 050	*19 050	*15 450	*15 450	*12 250	*12 250	*9400	9000					*7500	7500	8.48
-6.0 m	kg													*6500	*6500	6.82

Boom – 6.9 m
Stick – R3.9 m

Bucket – 1.6 m³
Shoes – 600 mm triple grouser

Undercarriage – Long – fixed gauge
Counterweight – 9000 kg

		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
9.0 m	kg													*5100	*5100	8.44
7.5 m	kg									*7000	*7000			*4850	*4850	9.55
6.0 m	kg									*7350	7050			*4750	*4750	10.33
4.5 m	kg							*9000	*9000	*7900	6800	*6650	5000	*4800	4700	10.81
3.0 m	kg					*13 200	12 550	*10 250	8850	*8600	6450	*7550	4850	*5050	4350	11.05
1.5 m	kg					*15 050	11 700	*11 350	8300	*9250	6150	*7850	4650	*5450	4200	11.06
Ground Line	kg			*14 700	*14 700	*15 850	11 150	*12 050	7950	*9650	5900	*7950	4550	*6050	4300	10.85
-1.5 m	kg	*9650	*9650	*19 200	17 400	*15 750	10 950	*12 150	7750	*9650	5800			*7000	4550	10.39
-3.0 m	kg	*18 650	*18 650	*19 100	17 600	*14 750	10 950	*11 500	7700	*8950	5800			*7850	5150	9.67
-4.5 m	kg	*19 250	*19 250	*16 000	*16 000	*12 650	11 105	*9800	7850					*7700	6350	8.62
-6.0 m	kg													*6800	*6800	7.03

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load.

The above loads are in compliance with hydraulic excavator lift capacity standard ISO 105467:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

349D/349D L Hydraulic Excavator Specifications















Long Reach Boom Lift Capacities



Boom – HD 6.9 m
Stick – R3.4 m

Bucket – 2.1 m³
Shoes – 750 mm double grouser















Undercarriage – Long – variable gauge
Counterweight – 9000 kg

		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
														
9.0 m	kg											*5300	*5300	8.07
7.5 m	kg									*6150	*6150	*5000	*5000	9.16
6.0 m	kg							*8200	*8200	*7450	*7450	*4900	*4900	9.95
4.5 m	kg			*16 600	*16 600	*11 550	*11 550	*9250	*9250	*7950	7200	*4950	*4950	10.43
3.0 m	kg					*13 750	13 500	*10 400	9450	*8550	6900	*5150	4950	10.65
1.5 m	kg					*15 200	12 750	*11 350	9000	*9050	6600	*5600	4850	10.64
Ground Line	kg			*10 450	*10 450	*15 500	12 400	*11 750	8700	*9250	6450	*6250	5000	10.39
-1.5 m	kg			*19 550	*19 550	*14 950	12 300	*11 500	8550	*8950	6350	*7300	5450	9.88
-3.0 m	kg	*19 950	*19 950	*17 000	*17 000	*13 450	12 400	*10 450	8600			*7500	6350	9.10
-4.5 m	kg			*13 250	*13 250	*10 700	*10 700	*7900	*7900			*6950	*6950	7.92

Boom – HD 6.9 m
Stick – R3.4 m

Bucket – 2.0 m³
Shoes – 600 mm triple grouser













Undercarriage – Long – fixed gauge
Counterweight – 9000 kg

		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
														
9.0 m	kg											*5650	*5650	7.96
7.5 m	kg											*5400	*5400	9.06
6.0 m	kg							*8500	*8500	*7800	6850	*5250	*5250	9.88
4.5 m	kg			*16 350	*16 350	*11 750	*11 750	*9550	9150	*8300	6600	*5250	4900	10.39
3.0 m	kg					*13 950	12 200	*10 700	8600	*8900	6300	*5500	4600	10.64
1.5 m	kg					*15 500	11 450	*11 650	8150	*9450	6050	*5900	4450	10.65
Ground Line	kg					*15 950	11 050	*12 150	7850	*9700	5850	*6500	4550	10.43
-1.5 m	kg			*20 150	17 600	*15 450	10 950	*12 000	7700	*9450	5750	*7500	4900	9.95
-3.0 m	kg	*19 200	*19 200	*17 700	*17 700	*14 050	11 000	*11 000	7750	*8350	5800	*7950	5650	9.19
-4.5 m	kg			*14 150	*14 150	*11 500	11 300	*8750	7950			*7450	7150	8.07

Boom – HD 6.9 m
Stick – R2.9 m

Bucket – 2.2 m³
Shoes – 600 mm triple grouser

Undercarriage – Long – fixed gauge
Counterweight – 9000 kg

		4.5 m		6.0 m		7.5 m		9.0 m				m
												
9.0 m	kg									*6700	*6700	7.41
7.5 m	kg					*8400	*8400			*6700	*6700	8.41
6.0 m	kg					*8950	*8950	*8150	6650	*6200	6000	9.43
4.5 m	kg			*12 400	*12 400	*9900	8900	*8550	6450	*6250	5250	9.97
3.0 m	kg			*14 500	11 900	*11 000	8400	*9100	6150	*6500	4850	10.23
1.5 m	kg			*15 700	11 200	*11 800	8000	*9500	5950	*7000	4700	10.24
Ground Line	kg			*15 800	10 950	*12 100	7750	*9650	5750	*7750	4800	10.00
-1.5 m	kg	*19 000	17 700	*15 000	10 900	*11 750	7650	*9200	5700	*8300	5250	9.50
-3.0 m	kg	*16 300	*16 300	*13 300	11 050	*10 450	7750			*8100	6150	8.71
-4.5 m	kg	*12 350	*12 350	*10 250	*10 250					*7350	*7350	7.50

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load.

The above loads are in compliance with hydraulic excavator lift capacity standard ISO 105467:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

Reach Boom Lift Capacities



Boom – 6.9 m
Stick – R3.9 m

Bucket – 1.6 m³
Shoes – 600 mm double grouser

Undercarriage – Standard – fixed gauge
Counterweight – 9000 kg

		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
9.0 m	kg													*5100	*5100	8.45
7.5 m	kg									*7000	*7000			*4850	*4850	9.56
6.0 m	kg									*7350	7050			*4750	*4750	10.33
4.5 m	kg							*9050	*9050	*7950	6750	*6700	5000	*4800	4650	10.82
3.0 m	kg					*13 200	12 500	*10 250	8800	*8600	6450	7450	4800	*5050	4350	11.05
1.5 m	kg					*15 050	11 650	*11 350	8250	9250	6150	7300	4650	*5450	4200	11.06
Ground Line	kg			*14 750	*14 750	*15 850	11 100	*12 050	7900	9200	5900	7150	4500	*6050	4250	10.84
-1.5 m	kg	*9750	*9750	*19 200	17 350	*15 750	10 900	*12 100	7700	9050	5750			*7000	4550	10.38
-3.0 m	kg	*18 750	*18 750	*19 100	17 500	*14 700	10 900	*11 500	7650	*8950	5750			*7850	5150	9.67
-4.5 m	kg	*19 250	*19 250	*15 950	*15 950	*12 650	11 100	*9800	7800					*7700	6350	8.61
-6.0 m	kg													*6800	*6800	7.01

Boom – 6.9 m
Stick – R3.4 m

Bucket – 1.9 m³
Shoes – 600 mm double grouser

Undercarriage – Standard – fixed gauge
Counterweight – 9000 kg

		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
9.0 m	kg											*5350	*5350	7.97
7.5 m	kg											*5100	*5100	9.07
6.0 m	kg							*8200	*8200	*7500	6550	*4950	*4950	9.89
4.5 m	kg			*16 100	*16 100	*11 450	*11 450	*9200	8800	*7950	6300	*5000	4650	10.39
3.0 m	kg					*13 650	11 900	*10 400	8300	*8550	6000	*5200	4250	10.64
1.5 m	kg					*15 150	11 100	*11 350	7850	9050	5700	*5600	4150	10.65
Ground Line	kg					*15 600	10 750	*11 800	7500	8850	5500	*6250	4250	10.42
-1.5 m	kg			*19 850	17 300	*15 100	10 600	*11 650	7400	8750	5450	*7250	4600	9.94
-3.0 m	kg	*18 800	*18 800	*17 350	*17 350	*13 700	10 700	*10 650	7400	*8000	5500	*7600	5350	9.19
-4.5 m	kg			*13 800	*13 800	*11 100	11 100	*8350	7650			*7150	6850	8.06

Boom – 6.9 m
Stick – R2.9 m

Bucket – 2.0 m³
Shoes – 600 mm double grouser

Undercarriage – Standard – fixed gauge
Counterweight – 9000 kg

		4.5 m		6.0 m		7.5 m		9.0 m				m
9.0 m	kg									*6450	*6450	7.42
7.5 m	kg					*8100	*8100			*6450	*6450	8.42
6.0 m	kg					*8650	*8650	*7900	6400	*5950	5750	9.44
4.5 m	kg			*12 100	*12 100	*9650	8650	*8250	6150	*6000	4950	9.97
3.0 m	kg			*14 250	11 600	*10 700	8150	*8800	5900	*6300	4550	10.23
1.5 m	kg			*15 450	10 950	*11 550	7700	8950	5650	*6750	4450	10.24
Ground Line	kg			*15 500	10 650	*11 800	7450	8800	5500	7400	4550	10.00
-1.5 m	kg	*18 750	17 450	*14 700	10 600	*11 450	7350	8750	5450	*8000	5000	9.50
-3.0 m	kg	*16 000	*16 000	*13 000	10 750	*10 150	7450			*7800	5900	8.70
-4.5 m	kg	*12 050	*12 050	*9950	*9950					*7050	*7050	7.49

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load.

The above loads are in compliance with hydraulic excavator lift capacity standard ISO 105467:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface.

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349D/349D L Hydraulic Excavator Specifications

Mass Boom Lift Capacities



Load Point Height



Load at Maximum Reach

Boom – 6.55 m
Stick – M3.0 m

Bucket – 2.2 m³
Shoes – 600 mm triple grouser

Undercarriage – Long – fixed gauge
Counterweight – 9000 kg

		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				
														m
9.0 m	kg											*6050	*6050	7.35
7.5 m	kg							*8000	*8000			*6050	*6050	8.35
6.0 m	kg							*8400	*8400			*5800	5400	9.25
4.5 m	kg			*16 550	*16 550	*11 600	*11 600	*9350	7900	*8100	5550	*5850	4550	9.79
3.0 m	kg					*13 750	10 700	*10 400	7400	*8600	5250	*6100	4150	10.04
1.5 m	kg					*15 050	9950	*11 250	6900	*9000	4950	*6550	4000	10.04
Ground Line	kg					*15 300	9600	*11 550	6650	9000	4800	*7300	4100	9.79
-1.5 m	kg			*19 150	15 900	*14 500	9550	*11 150	6550	*8500	4750	*8050	4550	9.25
-3.0 m	kg	*19 600	*19 600	*16 100	*16 100	*12 650	9700	*9700	6650			*7800	5500	8.39
-4.5 m	kg			*11 200	*11 200	*9100	*9100					*6800	*6800	7.08

Boom – 6.55 m
Stick – M3.0 m

Bucket – 2.1 m³
Shoes – 600 mm double grouser

Undercarriage – Standard – fixed gauge
Counterweight – 9000 kg

		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				
														m
9.0 m	kg											*5950	*5950	7.25
7.5 m	kg							*7600	*7600			*5950	*5950	8.24
6.0 m	kg							*8100	*8100			*5400	*5400	9.32
4.5 m	kg					*11 350	*11 350	*9050	8250	*7800	5750	*5450	4700	9.84
3.0 m	kg					*13 500	11 200	*10 150	7700	*8300	5450	*5700	4250	10.08
1.5 m	kg					*14 750	10 450	*10 950	7250	8500	5150	*6150	4150	10.06
Ground Line	kg					*14 900	10 150	*11 200	6950	8300	5000	*6950	4250	9.79
-1.5 m	kg			*18 850	16 950	*14 050	10 100	*10 750	6850			*7650	4750	9.23
-3.0 m	kg	*19 350	*19 350	*15 750	*15 750	*12 100	10 250	*9200	7000			*7400	5850	8.33
-4.5 m	kg					*8400	*8400					*6300	*6300	6.98

Boom – 6.55 m
Stick – M2.5 m

Bucket – 2.4 m³
Shoes – 600 mm triple grouser

Undercarriage – Long – fixed gauge
Counterweight – 9000 kg

		4.5 m		6.0 m		7.5 m		9.0 m				
												m
9.0 m	kg									*6000	*6000	7.60
7.5 m	kg					*8750	8500			*8000	7700	7.82
6.0 m	kg					*9000	8250			*7700	6000	8.75
4.5 m	kg			*12 400	11 450	*9850	7750			*7750	5050	9.32
3.0 m	kg			*14 400	10 450	*10 850	7250	*8950	5200	8100	4550	9.59
1.5 m	kg			*15 350	9850	*11 500	6850	*9200	4950	8250	4400	9.59
Ground Line	kg			*15 150	9650	*11 600	6650			*8550	4550	9.31
-1.5 m	kg	*18 000	16 150	*14 000	9650	*10 900	6600			*8500	5100	8.74
-3.0 m	kg	*14 600	*14 600	*11 700	9850	*8850	6800			*8000	6350	7.83

*Indicates that the load is limited by hydraulic lifting capacity rather than tipping load.

The above loads are in compliance with hydraulic excavator lift capacity standard ISO 105467:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface.

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349D/349D L Standard Equipment

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

Auto-lube ready	Counterweight	Engine
Auxiliary hydraulic valve and auxiliary pump drive location	8000 kg for Standard Fixed and Long Fixed Gauge	Cat® C13 with ACERT™ Technology
Cab	9000 kg for Long Variable Gauge	Speed control, automatic
Air conditioner, heater, defroster with automatic climate control		Fuel-Water separator
Ashtray with lighter		Hydraulic neutralizer lever for all controls
Bolt-on FOGS capability		Lights, working
Coat hook		Frame mounted
Floor mat		Boom, both sides
Light, interior		Mirrors, frame and cab
Literature compartment		Monitor, full graphic color display
Positive filtered ventilation		Product Link ready
Radio mounting (DIN size)		S·O·S SM analysis, engine and hydraulic sampling ports
Seat belt, retractable		Start-up level checks (engine oil and coolant, hydraulic oil)
Seat, suspension, with high back and head rest		Swing parking brake, automatic
Skylight, openable, with sunshade		Track
Storage compartment suitable for a lunch box cooler		Grease lubricated
Windshield wiper and washer (upper and lower)		Guiding guards, idler and center sections

349D/349D L Optional Equipment

Optional equipment may vary. Consult your Cat dealer for details.

Auxiliary controls	Check valves	Machine Security System (MSS)
Hammer (One-way), thumb (two-way), combined (Tool Control)	Boom lowering	Radio, AM/FM with two speakers
Auxiliary hydraulic lines for Booms and Sticks	Stick lowering	Sticks
Auxiliary hydraulic valve and pump attachments	Counterweight	2.5 m M
Booms	Counterweight 8000 kg for Variable Gauge	2.9 m R
Long Reach 7.4 m	Counterweight 9000 kg for Fixed Gauge	3.0 m M
Mass Excavation 6.55 m	Guards	3.35 m R
Reach 6.9 m	Falling Object, for cab	3.9 m LR/R
Buckets	Front window	4.3 m LR/R
Bucket linkage:	Heavy-duty, under house	Straight travel pedal
TB family (with lift eye)	Swivel guard	Track
UB family (with lift eye)	Guiding, full length	600 mm double-grouser shoes
Bucket sidecutters and tips	Guiding, sprocket end	600 mm triple-grouser shoes
Cab	Coupler	750 mm double-grouser shoes
Power supply, 12V – 7A	Dedicated type, controls, lines	750 mm triple-grouser shoes
Rear window emergency exit	Engine	900 mm triple-grouser shoes
Sunscreen	Cold weather starting aid	Travel alarm
	Precleaner	Undercarriage
	Hand Control Pattern Changer	Fixed
	Lights, cab mounted, two	Variable

349D/349D L Hydraulic Excavator

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Replaces AEHQ6171

