# **336F L**Hydraulic Excavator





Engine			Drive		
Engine Model	Cat® C9.3 (	ATAAC)	Maximum Travel Speed	4.8 km/h	3 mph
Net Power – SAE J1349	226 kW	303 hp	Maximum Drawbar Pull	294 kN	66,139 lbf
			Weight		
			Minimum Weight	36 500 kg	80,500 lb
			Maximum Weight	40 100 kg	88,400 lb

#### Introduction

The 336F is built to keep your production numbers up and your owning and operating costs down. Not only does the machine's C9.3 engine meet U.S. EPA Tier 4 Final emission standards, but it does so while giving you all the power, fuel efficiency, and reliability you need to succeed.

Where the real power comes in is through the hydraulic system. You can literally move tons of material all day long with a great deal of speed and precision. When you add in a quiet operator environment that keeps you comfortable and productive, ground-level service points that make your routine maintenance easy, and multiple Cat work tools that help you take on a variety of jobs, you simply won't find a better 36-ton machine.

If productivity, comfort, versatility, and fuel efficiency are what you want, the 336F excavator is what you need.

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### A Powerful, Efficient Design

When it comes to moving heavy material quickly and efficiently, you need hydraulic horsepower — the type of ground-breaking power the 336F can deliver. Major hydraulic components like pumps and valves are located close together so shorter tubes and lines can be used. This design leads to less friction loss, reduced pressure drops, and more power to the ground for the work you need to get done.

# **Hydraulics**

Power to move your material with speed and precision

### **Control Like No Other**

Controllability is one of the main attributes of Cat excavators, and one of the key contributors to this is the main control valve. The valve opens slowly when your range of joystick lever movement is small and opens rapidly when movement is high. It puts flow where you need it when you need it, which leads to smoother operation, greater efficiency, and lower fuel consumption.

### **Auxiliary Hydraulics For Added Versatility**

Auxiliary hydraulics give you greater tool versatility so you can take on more work with just one machine, and there are several options from which you can choose. A quick coupler circuit, for example, will allow you to switch from one tool to another in a matter of minutes — all from the comfort and convenience of the cab.



### **Boom & Stick Oil Re-Circulation For Added Efficiency**

The 336F regenerates the flow of oil from the head end of the boom and stick cylinders to the rod end of the boom and stick cylinders during the work cycle to save energy and improve fuel efficiency. It's optimized for any dial speed setting you select, which results in less pressure loss for higher controllability, more productivity, and lower operating costs for you.





### A Helpful Monitor

The LCD monitor is easy to see and navigate.

Programmable in up to 42 languages to meet today's diverse workforce, the monitor clearly displays critical information you need to operate efficiently and effectively. Plus it projects the image from the standard rearview camera to help you see what's going on around you so you can stay safely focused on the job at hand.

#### A Safe, Quiet Cab

The ROPS cab provides you with a safe working environment. It also contributes to your comfort because it's attached to a reinforced frame with special viscous mounts that limit vibration and unnecessary sound. Add in special roof lining and sealing and you have a cab that's as quiet inside as any of today's top pickup trucks.

### **Comfortable Seat Options**

The seat range includes air suspension, heated, and air cooled options. All seats include a reclining back, upper and lower slide adjustments, and height and tilt angle adjustments to meet your needs for maximum comfort.

### A Cool & Warm Environment

The automatic climate control system features multiple air outlets with filtered ventilation. Air flows on the floor, behind the seat, and in front of you to make your work in either hot or cold weather much more pleasant and productive.

#### **Controls Just For You**

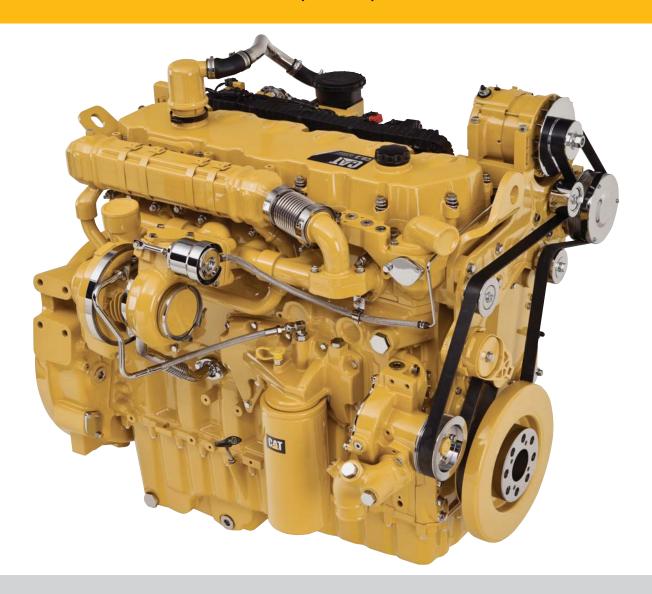
The right and left joystick consoles can be adjusted to improve your comfort and productivity during the course of a day. Also, the right joystick features a button that will reduce engine speed when you are not working to help save fuel. Touch it once and speed reduces; touch it again and speed increases for normal operation.

### Ample Storage & Auxiliary Power

Storage spaces are located in the front, rear, and side consoles of the cab. A drink holder accommodates a large mug with handle, and a shelf behind the seat stores large lunch or toolboxes. Two 12-volt power supply sockets are conveniently located near the key storage areas for charging your electronic devices like an MP3 player, a cell phone, or a tablet.

# **Engine**

# Powerful and fuel efficient to meet your expectations



### **Proven Technology**

Every U.S. EPA Tier 4 Final ACERT™ engine is equipped with a combination of proven electronic, fuel, air, and aftertreatment components. Applying these time-tested technologies lets us meet your high expectations for productivity, fuel efficiency, reliability, and service life. Following are the results you can expect:

- Improved fluid efficiency of up to 5% over Tier 4 Interim products, including Diesel Exhaust Fluid (DEF) consumption.
- High performance across a variety of applications.
- Enhanced reliability through commonality and simplicity of design.
- Maximized uptime and reduced cost with world-class Cat dealer support.
- Minimized impact on emission systems with no operator interaction required.
- Durability with long service life.
- Better fuel economy with minimized maintenance costs.
- Same great power and response.

### More Powerful, Reliable Engine Electronics

The electronics used in Cat Tier 4 Final engines are more powerful and robust than ever. Enhanced features like an over-foam wiring harness improve your experience and increase quality and reliability through the most demanding applications.

### **Next Generation Fuel Systems**

As a key component of Cat Tier 4
Technology, injection timing precisely controls the fuel injection process through a series of carefully timed microbursts. This injection timing provides more control of combustion for the cleanest, most efficient fuel burn. To maximize your value, Caterpillar engineers specified fuel systems based on the power and performance demands for each engine. The high-pressure common rail fuel system with full electronic injection improves precision and control, reducing soot and boosting the engine's performance.

### **Innovative Air Management**

Cat Tier 4 Final engines feature innovative air management systems that optimize airflow and enhance power, efficiency, and reliability. We apply a range of simple, reliable turbocharging solutions based on engine size and application. This allows us to match turbo performance to rated output for high productivity, excellent fuel efficiency, long life, and low operating costs for you.

### Cat NO<sub>x</sub> Reduction System

The Cat  $\mathrm{NO_x}$  Reduction System captures and cools a small quantity of exhaust gas, then routes it back into the combustion chamber where it drives down combustion temperatures and reduces  $\mathrm{NO_x}$  emissions. The result of more than a decade of Caterpillar engineering research into this technology is the most reliable system of its type.

### **Aftertreatment Technologies**

Caterpillar designed Tier 4 Interim products with Tier 4 Final standards in mind. By planning ahead, we were able to minimize design changes and deliver the reliability and performance you demand. The aftertreatment solution utilized for Tier 4 Final products is the next evolutionary step for Cat engines with ACERT Technology. To meet the additional 80% reduction in  $NO_x$  emissions required by U.S. EPA Tier 4 Final emission standards, Caterpillar engineers only needed to add one new system to the already proven aftertreatment solution in use, Selective Catalytic Reduction (SCR).

### Diesel Exhaust Fluid (DEF)

Cat engines equipped with an SCR system inject DEF into the exhaust to reduce  ${\rm NO}_{\rm x}$  emissions. DEF is a precisely mixed solution of 32.5% high purity chemical grade urea and 67.5% de-ionized water. DEF used in Cat SCR systems must meet the requirements outlined in the International Organization for Standardization (ISO) standard 22241-1. ISO 22241-1 requirements are met by many brands of DEF, including those that carry the AdBlue or API certifications.

# An Emissions Solution That Really Works

The Cat C9.3 engine meets today's U.S. EPA Tier 4 Final emission standards, and it does so without interrupting your job process. Simply turn the engine on and go to work. It will look for opportunities in your work cycle to regenerate itself, and it will give you plenty of power for the task at hand – all to help keep your owning and operating costs to an absolute minimum.

### **Fuel Savers That Add Up**

The 336F consumes less fuel than the previous series model, and the automatic engine speed control contributes by lowering rpm when the machine doesn't need it for work. You also have a choice of three power modes — high power, standard power, and eco mode. Simply change between modes through the console switch panel to meet the work needs in front of you. Collectively, all of these benefits add up to reduced fuel consumption, reduced exhaust and sound emissions, reduced repair and maintenance costs, and increased engine life for you.

# A Cool Design For Any Temperature

The 336F features a side-by-side cooling system that allows you to put the machine to work in extremely hot and cold conditions. The system is completely separated from the engine compartment to reduce noise and heat. Plus it features easy-to-clean cores and an efficient variable-speed fan.

#### **Biodiesel Not A Problem**

The C9.3 engine can run on B20 biodiesel fuel that meets ASTM 6751 standards – all to give you more potential fuel-saving flexibility.



#### **Robust Frames**

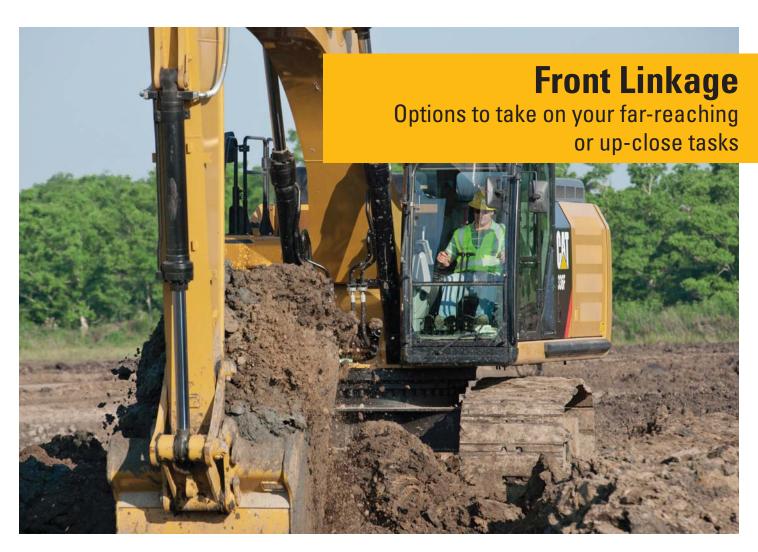
The 336F is a well-built machine designed to give you a very long service life. The upper frame has mountings made specifically to support the heavy-duty cab; it's also reinforced around areas that take on a lot of stress like the boom foot and skirt. Massive bolts are used to attach the track frames to the body, and additional bolts are used to increase the machine's digging force, which leads to more productivity for you.

### **Durable Undercarriage**

The 336F's undercarriage contributes significantly to its outstanding stability and durability. Track shoes, links, rollers, idlers, and final drives are all built with long-lasting, high-tensile-strength steel. Cat Grease Lubricated Track 2 (GLT2) track link protects moving parts by keeping water, debris, and dust out and grease sealed in, which delivers longer wear life and reduced noise when traveling. Optional guide guards help maintain track alignment to improve the machine's overall performance — whether you're traveling on a flat, heavy bed of rock or a steep, wet field of mud.

### **Counterweight Options**

6.0 mt (6.6 t) and 7.0 mt (7.7 t) counterweights are available, with the heavier weight matched to a unique extreme service configuration that is designed to give you more lift. Both weights are built with thick steel plates and reinforced fabrications to make them less susceptible to damage, and both have curved surfaces that match the machine's sleek, smooth appearance along with integrated housings to help protect the standard rearview camera.



### **Booms & Sticks**

The 336F is offered with a range of booms and sticks. Each is built with internal baffle plates and stress-relieved for added durability, and each undergoes ultrasound inspection to ensure quality and reliability. Large box-section structures with thick, multi-plate fabrications, castings, and forgings are used in high-stress areas such as the boom nose, boom foot, boom cylinder, and stick foot to improve durability. Also, the boom nose pin retention method is a captured flag design for enhanced durability.

### **Three Types Available**

Three types of booms and sticks are offered: heavy-duty (HD) reach, extreme service (ES) reach, and mass excavation (ME).

HD reach booms and sticks offer you excellent all-around versatility for general excavation work like multipurpose digging and loading. ES booms and sticks are built for tougher work like breaking rock and lifting heavy material where stress loads on the boom are increased. In fact, the ES boom has a new nose that is considerably lighter and just as durable as the previous series' design to improve lift performance. ME booms and sticks offer you enhanced performance in heavy-duty material. They provide higher digging forces due to special boom and stick geometry, and bucket linkage and cylinders are built for greater durability.

Sticks are matched to the boom.

Longer sticks are better for when
you need to dig deep or load trucks.

Shorter sticks provide greater breakout
force and increase your productivity
when using hydromechanical work tools.

Talk to your Cat dealer to pick the best front linkage for your applications.

# **Attachments**

Tools to make you productive and profitable



### Get The Most Out Of One Machine

You can easily expand the performance of your machine by utilizing any of the variety of attachments offered by Cat Work Tools.

### **Change Jobs Quickly**

A quick coupler brings the ability to quickly change attachments and switch from job to job. The Cat Pin Grabber coupler is the secure way to decrease downtime and increase job site flexibility and overall productivity.

### Dig, Finish, Load & Compact

A wide range of buckets dig everything from top soil to harsh, abrasive material. For finishing and grading work, compact and shallow ditch cleaning buckets fit the need. A Cat compactor prepares the area for the next phase of construction.

### Mining, Demolition & Scrap

A hydraulic hammer equips your machine for breaking rock in quarries and preparing trenches on construction sites.

Taking down bridge pillars and heavily reinforced concrete is no problem. Multi-processor, pulverizer, and shear attachments take your machine into structure demolition jobs and process the debris for reuse and recycle.

#### Move & Handle

Add a thumb and you have the ability to move and handle brush, rocks, and debris. For constant material handling, a grapple is your solution. Choose from three different styles for picking, sorting, and loading trash, demolition debris, or recyclables.

# **Set Up Your Machine For Profitability**

Your Cat dealer can install hydraulic kits to properly operate all Cat Work Tool attachments – maximizing the machine's uptime and your profits. All Cat Work Tool attachments are supported by the same Cat dealer network as your Cat machine.



# **Integrated Technologies**

Monitor, manage, and enhance your job site operations





CAT CONNECT









Cat Connect makes smart use of technology and services to improve your job site efficiency. Using the data from technology-equipped machines, you'll get more information and insight into your equipment and operations than ever before.

Cat Connect technologies offer improvements in these key areas:



EQUIPMENT

operating costs. **Productivity** – monitor

**Equipment Management –** 

increase uptime and reduce



production and manage job site efficiency.



**Safety** – enhance job site awareness to keep your people and equipment safe.

# **LINK Technologies**

LINK technologies like Product Link<sup>TM</sup> wirelessly connect you to your equipment, giving you valuable insight into how your machine or fleet is performing. The system tracks location, hours, fuel usage, productivity, idle time, and diagnostic codes through the online VisionLink® interface so you can make timely, fact-based decisions to maximize efficiency, improve productivity, and lower operating costs.

### **GRADE Technologies**

GRADE technologies like Cat Grade
Control Depth and Slope combine digital
design data and in-cab guidance to
help you work more productively and
accurately with less rework. Real-time
bucket tip positioning and cut and fill
data on the standard cab monitor guide
you to grade, saving money on fuel and
materials. Easily upgrade to AccuGrade™
when 3D control is required.



### **Ground-Level Access**

You can reach most routine maintenance items like fuel and oil filters, fluid taps, and grease points from the safety and convenience of ground level. Not only do compartments feature wide service doors designed to help prevent debris entry, but they also securely latch in place to help make your service work simpler.

# **Serviceability**

Designed to make your maintenance quick and easy



### A Cool Design

The high-ambient cooling system features a fuel-saving variable-speed fan and a side-by-side-mounted radiator and oil and air coolers for easy cleaning. Wider clearance between the two make blowing off debris easy for you, which can help improve your machine's reliability and performance.

#### Other Service Benefits

The fuel tank's drain cock makes it easy and simple for you to remove water and sediment during routine maintenance. Plus an integrated fuel level indicator pops up to help you reduce the possibility of fuel tank overfilling.

### A Fresh Idea

When you select ventilation inside the cab, outside air enters through the fresh air filter. The filter is conveniently located on the side of the cab to make it easy to reach and replace, and it is protected by a lockable door that can be opened with the engine key.

# **Safety**

# Features to help protect you day in and day out

### A Safe, Quiet Cab

The ROPS cab provides you with a safe working environment. It also contributes to your comfort because it's attached to a reinforced frame with special viscous mounts that limit vibration and unnecessary sound. Add in special roof lining and sealing and you have a cab that's as quiet inside as any of today's top pickup trucks.

### **Secure Contact Points**

Multiple large steps get you into the cab as well as a leg up to the compartments. Extended hand and guard rails allow you to safely climb to the upper deck. Anti-skid plates reduce your slipping hazards in all types of weather conditions, and they can be removed for cleaning.

#### **Great Views**

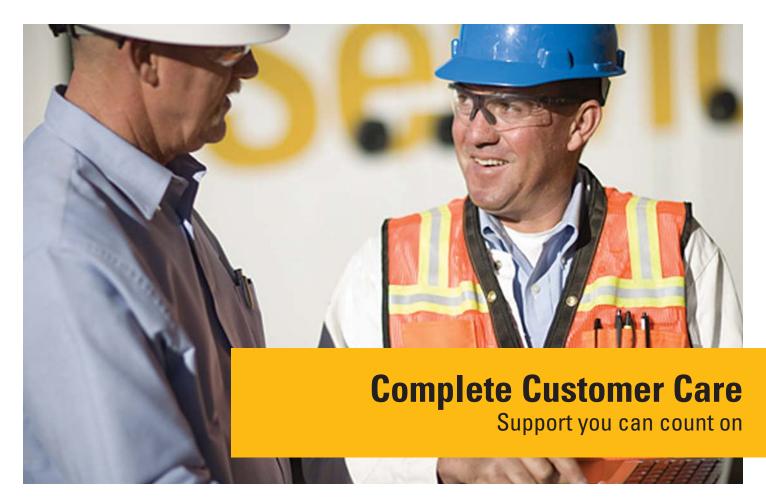
Ample glass gives you excellent visibility out front and to the side, and the standard rearview camera gives you a clear field of view behind the machine through the cab monitor. The available split-configuration windshield features an upper window with handles that make it easy to slide and store above you and a lower window that can be removed and stored on the inside wall of the cab. The large skylight also serves as an emergency exit and provides you with enhanced overhead visibility.

### **Smart Lighting**

Halogen lights provide plenty of illumination, and the cab and boom lights can be programmed to stay on for up to 90 seconds after the engine has been turned off to help you safely exit the machine. Optional High Intensity Discharge (HID) lights are available for enhanced night-time visibility.







# **Worldwide Parts Availability**

Cat dealers utilize a worldwide parts network to maximize your machines' uptime. Plus they can help you save money with Cat remanufactured components.

### **Advice You Can Trust**

What are the job requirements and machine attachments? What production is needed? Your Cat dealer can provide recommendations to help you make the right machine choices.

# **Financial Options Just For You**

Consider financing options and dayto-day operating costs. Look at dealer services that can be included in the machine's cost to yield lower owning and operating costs over time.

# **Support Agreements To Fit Your Needs**

Cat dealers offer a variety of customer support agreements and work with you to develop a plan to meet your specific needs. These plans can cover the entire machine, including attachments, to help protect your investment.

### Operating Techniques To Boost Your Profits

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

### What's Best For You Today... And Tomorrow

Repair, rebuild, or replace? Your Cat dealer can help you evaluate the cost involved so you can make the best choice for your business.

# **Sustainability**

Generations ahead in every way



- The C9.3 ACERT engine meets U.S. EPA Tier 4 Final emission standards.
- The 336F consumes 5% less fluid than 336E, which means more efficiency and less CO<sub>2</sub> emissions.
- The engine has the flexibility of running on either ultra-low-sulfur diesel (ULSD) fuel with 15 ppm of sulfur or less or biodiesel (B20) fuel blended with ULSD.
- An overfill indicator rises when the tank is full to help the operator avoid spilling.
- Quick fill ports with connectors ensure fast, easy, and secure changing of engine and hydraulic oil.
- The machine is built to be rebuilt with major structures and components remanufactured to reduce waste and replacement costs.
- The 336F is an efficient, productive machine that's designed to conserve our natural resources for generations ahead.







Engine		
Engine Model	Cat C9.3 (A7	TAAC)
Net Power – SAE J1349	226 kW	303 hp
Gross Power – SAE J1995	240 kW	322 hp
Bore	115 mm	4.53 in
Stroke	149 mm	5.87 in
Displacement	9.3 L	568 in <sup>3</sup>

Weights		
Minimum Weight*	36 500 kg	80,500 lb
Maximum Weight**	40 100 kg	88,400 lb

<sup>\*</sup>HD Reach boom, R3.2DB (10'6") stick, 2.28 m<sup>3</sup> (2.98 yd<sup>3</sup>) GP bucket, 700 mm (28") TG shoes.

<sup>\*\*</sup>Mass boom, M2.55TB (8'4") stick, 2.41 m³ (3.15 yd³) SD bucket, 850 mm (34") TG shoes.

Hydraulic System		
Main System – Maximum Flow (Total)	570 L/min	151 gal/min
Swing System – Maximum Flow	279 L/min	74 gal/min
Maximum Pressure – Equipment		
Heavy Lift	38 000 kPa	5,511 psi
Normal	35 000 kPa	5,076 psi
Maximum Pressure – Travel	35 000 kPa	5,076 psi
Maximum Pressure – Swing	28 000 kPa	4,061 psi
Pilot System – Maximum Flow	29 L/min	8 gal/min
Pilot System – Maximum Pressure	4100 kPa	595 psi
Boom Cylinder – Bore	150 mm	5.9 in
Boom Cylinder – Stroke	1440 mm	56.7 in
Stick Cylinder – Bore	170 mm	6.7 in
Stick Cylinder – Stroke	1738 mm	68.4 in
DB Family Bucket Cylinder – Bore	150 mm	5.9 in
DB Family Bucket Cylinder – Stroke	1151 mm	45.3 in
TB Family Bucket Cylinder – Bore	160 mm	6.3 in
TB Family Bucket Cylinder – Stroke	1356 mm	53.4 in

Drive		
Maximum Travel Speed	4.8 km/h	3 mph
Maximum Drawbar Pull	294 kN	66,139 lbf

Swing Mechanism		
Swing Speed	8.9 rpm	
Swing Torque	109 kN·m	80,144 lbf-ft
Service Refill Capacities		
Fuel Tank Capacity	620 L	164 gal
Cooling System	56 L	15 gal
Engine Oil (with filter)	31 L	8 gal
Swing Drive (each)	19 L	5 gal
Final Drive (each)	8 L	2 gal
Hydraulic System (including tank)	380 L	100 gal
Hydraulic Tank	175 L	46 gal
DEF Tank	41 L	11 gal
Track		

Irack		
Number of Shoes (each side)		
Long Undercarriage	49	
Number of Track Rollers (each sid	e)	
Long Undercarriage	9	
Number of Carrier Rollers (each si	de)	
Long Undercarriage	2.	

# **Sound Performance**

Curing Machaniam

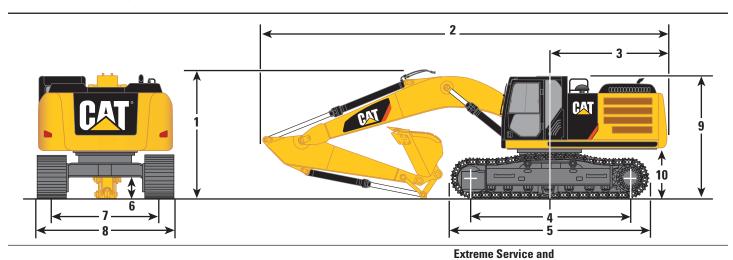
Operator Noise SAE J1166 71 dB(A)

- When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to ANSI/SAE J1166, meets OSHA and MSHA requirements for operator sound exposure limits in effect 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	ISO 10265 2008
Cab/FOGS	ISO 10262 1998

# **Dimensions**

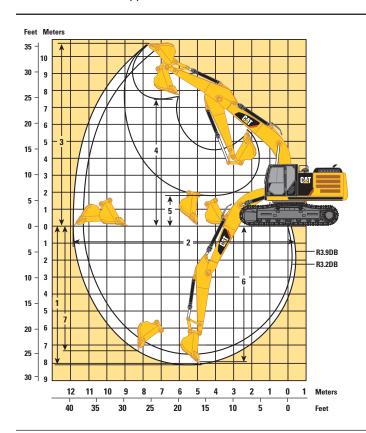
All dimensions are approximate.

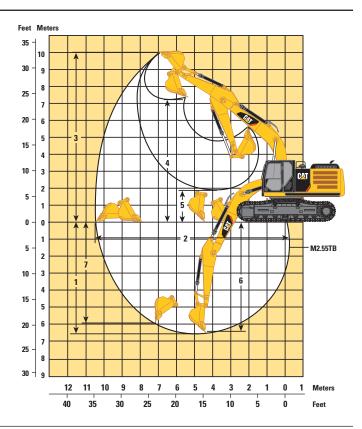


	Heavy Duty F 6.50 m	Mass Boom 6.18 m (20'3")		
Stick	R3.9DB (12'10")	R3.2DB (10'6")	M2.55TB (8'4")	
	mm (ft)	mm (ft)	mm (ft)	
1 Shipping Height (with Shoe Lug Height)	3660 (12'0")	3510 (11'6")	3600 (11'10")	
2 Shipping Length	11 170 (36'8")	11 160 (36'7")	10 890 (35'9")	
3 Tail Swing Radius	3470 (11'5")	3470 (11'5")	3470 (11'5")	
4 Length to Center of Rollers				
Long Undercarriage	4040 (13'3")	4040 (13'3")	4040 (13'3")	
5 Track Length				
Long Undercarriage	5030 (16'6")	5030 (16'6")	5030 (16'6")	
<b>6</b> Ground Clearance				
With Shoe Lug Height	510 (1'8")	510 (1'8")	510 (1'8")	
Without Shoe Lug Height	480 (1'7")	480 (1'7")	480 (1'7")	
7 Track Gauge				
Long Undercarriage	2590 (8'6")	2590 (8'6")	2590 (8'6")	
8 Transport Width				
Long/Std U/C – 700 mm (28") Shoes	3290 (10'10")	3290 (10'10")	3290 (10'10")	
Long/Std U/C – 800 mm (32") Shoes	3390 (11'1")	3390 (11'1")	3390 (11'1")	
Long/Std U/C – 850 mm (34") Shoes	3440 (11'3")	3440 (11'3")	3440 (11'3")	
9 Cab Height	3150 (10'4")	3150 (10'4")	3150 (10'4")	
Cab Height with Top Guard	3360 (11'0")	3360 (11'0")	3360 (11'0")	
10 Counterweight Clearance (without Shoe Lug Height)	1220 (4'0")	1220 (4'0")	1220 (4'0")	

# **Working Ranges**

All dimensions are approximate.





	Extreme S Heavy Duty I 6.50 m	Mass Boom 6.18 m (20'3")		
Stick	R3.9DB (12'10")	R3.2DB (10'6")	M2.55TB (8'4")	
	mm (ft)	mm (ft)	mm (ft)	
1 Maximum Digging Depth	8190 (26'10")	7490 (24'7")	6650 (21'10")	
2 Maximum Reach at Ground Level	11 720 (38'5")	11 020 (36'2")	10 260 (33'8")	
3 Maximum Cutting Height	10 740 (35'3")	10 320 (33'10")	9970 (32'9")	
4 Maximum Loading Height	7500 (24'7")	7110 (23'4")	6620 (21'9")	
5 Minimum Loading Height	1910 (6'3")	2610 (8'7")	2920 (9'7")	
<b>6</b> Maximum Depth Cut for 2440 mm (8'0") Level Bottom	7610 (25'0")	6820 (22'5")	5810 (19'1")	
7 Maximum Vertical Wall Digging Depth	6310 (20'8")	5500 (18'1")	4450 (14'7")	

# **Operating Weights and Ground Pressures**

		850 mm (34") Triple Grouser Shoes		800 mm (32") Triple Grouser Shoes		8") r Shoes
	kg (lb)	kPa (psi)	kg (lb)	kPa (psi)	kg (lb)	kPa (psi)
Long Undercarriage						
HD Reach Boom – 6.50 m (21'4")						
R3.9DB (12'10")	37 700 (83,100)	49.6 (7.2)	37 400 (82,500)	52.2 (7.6)	36 700 (80,900)	58.6 (8.5)
R3.2DB (10'6")	37 500 (82,700)	49.3 (7.2)	37 200 (82,000)	52.0 (7.5)	36 500 (80,500)	58.3 (8.5)
ES Reach Boom – 6.50 m (21'4") – includi	ng 7.0 mt (7.7 t) counte	erweight				
R3.9DB HD (12'10")	39 300 (86,600)	51.7 (7.5)	39 000 (86,000)	54.5 (7.9)	38 300 (84,400)	61.2 (8.9)
R3.2DB HD (10'6")	39 100 (86,200)	51.4 (7.5)	38 800 (85,500)	54.2 (7.9)	38 100 (84,000)	60.8 (8.8)
Mass Boom – 6.18 m (20'3")						
M2.55TB (8'4")	40 100 (88,400)	52.7 (7.6)	39 800 (87,700)	55.6 (8.1)	39 100 (86,200)	62.4 (9.1)

# **Major Component Weights\***

	kg	lb
Lower Structure (without counterweight and track)		
Long Undercarriage	8900	19,600
Upper Structure (without front linkage)		
For 6.0 mt (6.6 t) counterweight	9900	21,800
For 7.0 mt (7.7 t) counterweight	10 000	22,000
Counterweight		
6.0 mt (6.6 t)	6000	13,200
7.0 mt (7.7 t)	7000	15,400
Boom (includes lines, pins and stick cylinder)		
HD Reach Boom – 6.50 m (21'4")	4100	9,000
ES Reach Boom – 6.50 m (21'4")	4300	9,500
Mass Boom – 6.18 m (20'3")	4200	9,300
Stick (includes lines, pins and bucket cylinder)		
R3.9DB HD (12'10")	1900	4,200
R3.9DB ES (12'10")	2100	4,600
R3.2DB HD (10'6")	1800	4,000
R3.2DB ES (10'6")	1900	4,200
M2.55TB (8'4")	2100	4,600
Track Shoes (Long)		
700 mm (28") triple grouser	4400	9,700
800 mm (32") triple grouser	5100	11,200
850 mm (34") triple grouser	5400	11,900
Quick Coupler	600	1,300
Buckets		
DB1536GP-C 342-2192 SAE 2.28 m <sup>3</sup> (2.98 yd <sup>3</sup> )	1500	3,300
TB1676SD 339-3748 SAE 2.41 m <sup>3</sup> (3.15 yd <sup>3</sup> )	2500	5,500

<sup>\*</sup>Base machine includes 75 kg (165 lb) operator weight and 90% fuel weight, and undercarriage with center guard.

# **Bucket and Stick Forces**

	Heavy Duty F	Extreme Service and Heavy Duty Reach Booms 6.50 m (21'4")				
Stick	R3.9DB (12'10")	R3.2DB (10'6")	M2.55TB (8'4")			
	kN (lbf)	kN (lbf)	kN (lbf)			
General Duty						
Bucket Digging Force (SAE)	188.5 (42,380)	188.5 (42,380)	234.7 (52,760)			
Stick Digging Force (SAE)	141.5 (31,810)	162.1 (36,440)	184.6 (41,500)			
Heavy Duty						
Bucket Digging Force (SAE)	184.9 (41,570)	184.9 (41,570)	234.7 (52,760)			
Stick Digging Force (SAE)	140.7 (31,630)	161.1 (36,220)	184.6 (41,500)			
Severe Duty						
Bucket Digging Force (SAE)	184.9 (41,570)	184.9 (41,570)	231.0 (51,930)			
Stick Digging Force (SAE)	140.7 (31,630)	161.1 (36,220)	183.9 (41,340)			
Extreme Duty						
Bucket Digging Force (SAE)	184.9 (41,570)	184.9 (41,570)	_			
Stick Digging Force (SAE)	140.7 (31,630)	161.1 (36,220)	_			

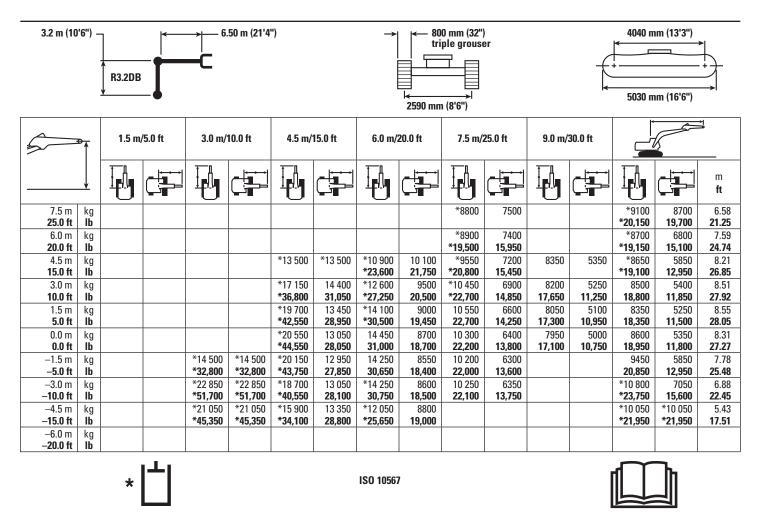
# Heavy Duty Reach Boom Lift Capacities - Counterweight: 6.0 mt (6.6 t) - Heavy Lift: On

3.9 m (12)	3.9 m (12'10") 6.50 m (21'4")							**)							4040 mm (13'3") 5030 mm (16'6")					
5	1.5 m/5.0 ft 3.0 m/10.0 ft 4.5 m/15.0 ft 6.0 m/20.0 ft 7.5 m/25.0 ft 9.0 m/30.0 ft												<b>↑</b>							
																m ft				
9.0 m <b>30.0 ft</b>	kg <b>Ib</b>													*6250 <b>*13,950</b>	*6250 <b>*13.950</b>	7.35 <b>23.64</b>				
7.5 m	kg									*7700	7650			*5800	*5800	8.53				
25.0 ft	lb									*17,050	16,450			*12,850	*12,850	27.74				
6.0 m	kg									*8000	7550	*7500	5550	*5650	5150	9.33				
20.0 ft	lb									*17,550	16,200	*14,550	11,850	*12,450	11,500	30.48				
4.5 m <b>15.0 ft</b>	kg <b>lb</b>							*9800 <b>*21,200</b>	*9800 <b>*21,200</b>	*8750 <b>*19,100</b>	7300	*8200 <b>*17,950</b>	5450	*5650 <b>*12,450</b>	4650	9.84 <b>32.22</b>				
3.0 m	kg					*15 300	14 850	*11 600	9700	*9750	<b>15,650</b> 6950	8250	<b>11,650</b> 5250	*5850	<b>10,250</b> 4350	10.10				
10.0 ft	lb.					*32,900	32,000	*25,100	20,850	* <b>21,150</b>	14,950	17,700	11,300	*12,850	9,600	33.11				
1.5 m	kg					*18 450	13 700	*13 300	9100	10 600	6650	8050	5100	*6200	4250	10.12				
5.0 ft	ΙĎ					*39,800	29,450	*28,800	19,600	22,750	14,250	17,300	10,900	*13,600	9,350	33.22				
0.0 m	kg			*8550	*8550	*20 100	13 050	14 450	8700	10 300	6400	7900	4950	*6750	4300	9.93				
0.0 ft	lb	*0000	*0000	*19,400	*19,400	*43,450	28,050	31,000	18,700	22,150	13,700	16,950	10,600	*14,850	9,450	32.56				
−1.5 m <b>−5.0 ft</b>	kg <b>lb</b>	*8900 <b>*19,900</b>	*8900 <b>*19,900</b>	*13 300 <b>*30,050</b>	*13 300 <b>*30,050</b>	*20 350 <b>*44,100</b>	12 800 <b>27,500</b>	14 150 <b>30,450</b>	8450 <b>18,200</b>	10 100 <b>21,750</b>	6200 <b>13,400</b>	7800 <b>16.800</b>	4850 <b>10.450</b>	7250 <b>16,000</b>	4550 <b>10.000</b>	9.48 <b>31.09</b>				
-3.0 m	kg	*14 100	*14 100	*19 400	*19 400	*19 500	12 800	14 100	8400	10 100	6200	10,000	10,430	8150	5050	8.76				
-10.0 ft	lb	*31,550	*31,550	*43,850	*43,850	*42,150	27,550	30,350	18,100	21,700	13,350			18,000	11,200	28.66				
–4.5 m	kg	*20 200	*20 200	*24 050	*24 050	*17 350	13 000	*13 200	8550	*9900	6350			*9450	6150	7.69				
–15.0 ft	lb	*45,400	*45,400	*51,900	*51,900	*37,450	28,000	*28,300	18,400	*20,850	13,700			*20,850	13,700	25.01				
-6.0 m	kg					*13 250	*13 250	*9400	8950					*9250	8850	6.06				
–20.0 ft	lb					*27,950	*27,950							*20,250	20,100	19.44				
		*						ISO 1056	7											

<sup>\*</sup>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 10567:2007. 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. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with ±5% for all available track shoes.

### Heavy Duty Reach Boom Lift Capacities – Counterweight: 6.0 mt (6.6 t) – Heavy Lift: On



<sup>\*</sup>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 10567:2007. 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. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with ±5% for all available track shoes.

# Heavy Duty Reach Boom Lift Capacities - Counterweight: 6.0 mt (6.6 t) - Heavy Lift: On

3.9 m (12*	10") -	R3.9DB		-C	50 m (21'4	")							4040 mm (13'3") 5030 mm (16'6")					
5	1.5 m/5.0 ft 3.0 m/10.0 ft 4.5 m/15.0 ft 6.0 m/20.0 ft 7.5 m/25.0 ft 9.0 m/30.0 ft												។ 					
																m <b>ft</b>		
9.0 m <b>30.0 ft</b>	kg <b>Ib</b>													*6250 <b>*13,950</b>	*6250 <b>*13.950</b>	7.35 <b>23.64</b>		
7.5 m	kg									*7700	*7700			*5800	*5800	8.53		
25.0 ft	lb									*17,050	16,550			*12,850	*12,850	27.74		
6.0 m	kg									*8000	7600	*7500	5600	*5650	5200	9.33		
20.0 ft	lb									*17,550	16,300	*14,550	11,900	*12,450	11,550	30.48		
4.5 m <b>15.0 ft</b>	kg <b>lb</b>							*9800 <b>*21,200</b>	*9800 <b>*21,200</b>	*8750 <b>*19,100</b>	7350	*8200 <b>*17,950</b>	5450	*5650 <b>*12,450</b>	4700	9.84 <b>32.22</b>		
3.0 m	kg					*15 300	14 950	*11 600	9750	*9750	<b>15,750</b> 7000	8300	<b>11,750</b> 5300	*5850	<b>10,350</b> 4400	10.10		
10.0 ft	lb					*32,900	32,200	*25,100	21,000	* <b>21,150</b>	15,100	17,850	11,400	*12,850	9.650	33.11		
1.5 m	kg					*18 450	13 750	*13 300	9150	10 650	6700	8100	5100	*6200	4300	10.12		
5.0 ft	ΙĎ					*39,800	29,700	*28,800	19,750	22,950	14,400	17,450	11,000	*13,600	9,400	33.22		
0.0 m	kg			*8550	*8550	*20 100	13 150	*14 500	8750	10 400	6450	7950	5000	*6750	4350	9.93		
0.0 ft	lb	*0000	*0000	*19,400	*19,400	*43,450	28,250	31,250	18,850	22,300	13,850	17,100	10,700	*14,850	9,500	32.56		
−1.5 m <b>−5.0 ft</b>	kg <b>lb</b>	*8900 <b>*19,900</b>	*8900 <b>*19,900</b>	*13 300 <b>*30,050</b>	*13 300 <b>*30,050</b>	*20 350 <b>*44,100</b>	12 900 <b>27,700</b>	14 300 <b>30,700</b>	8500 <b>18,350</b>	10 200 <b>21,950</b>	6250 <b>13,500</b>	7850 <b>16.950</b>	4900 <b>10.550</b>	7300 <b>16,150</b>	4600 <b>10.050</b>	9.48 <b>31.09</b>		
-3.0 m	kg	*14 100	*14 100	*19 400	*19 400	*19 500	12 900	14 250	8450	10 150	6250	10,330	10,330	8200	5100	8.76		
-10.0 ft	lb	*31,550	*31,550	*43,850	*43,850	*42,150	27,750	30,550	18,250	21,900	13,450			18,100	11,300	28.66		
–4.5 m	kg	*20 200	*20 200	*24 050	*24 050	*17 350	13 100	*13 200	8600	*9900	6400			*9450	6200	7.69		
−15.0 ft	lb	*45,400	*45,400	*51,900	*51,900	*37,450	28,250	*28,300	18,550	*20,850	13,800			*20,850	13,800	25.01		
-6.0 m	kg					*13 250	*13 250	*9400	9000					*9250	8900	6.06		
–20.0 ft	lb					*27,950	*27,950							*20,250	*20,250	19.44		
		*						ISO 1056	7									

<sup>\*</sup>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 10567:2007. 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. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with ±5% for all available track shoes.

# Extreme Service Reach Boom Lift Capacities – Counterweight: 7.0 mt (7.7 t) – Heavy Lift: On

3.9 m (12'	10") -	R3.9DB		6.	50 m (21'4	")		<b>→</b>		0 mm (32" ple grouss			4040 mm (13'3") 5030 mm (16'6")				
5	<b>₽</b>	1.5 m/	/5.0 ft	3.0 m/	10.0 ft	4.5 m/	15.0 ft	6.0 m/20.0 ft 7.5 m/25.0 ft				9.0 m/	30.0 ft		÷ }		
	<u> </u>															m ft	
9.0 m	kg													*6150	*6150	7.35	
<b>30.0 ft</b> 7.5 m	lb									*7500	*7500			<b>*13,650</b> *5700	<b>*13,650</b> *5700	<b>23.64</b> 8.53	
25.0 ft	kg <b>lb</b>									*16,550	*16,550			*12,600	*12,600	27.74	
6.0 m	kg									*7800	*7800	*7400	5900	*5550	5500	9.33	
20.0 ft	lb									*17,050	*17,050	*14,250	12,600	*12,200	*12,200	30.48	
4.5 m	kg							*9550	*9550	*8550	7750	*7950	5800	*5550	4950	9.84	
15.0 ft	lb							*20,650	*20,650	*18,550	16,700	*17,400	12,400	*12,200	10,900	32.22	
3.0 m	kg					*15 000	*15 000	*11 300	10 350	*9500 <b>*20.550</b>	7400	*8450	5600	*5700	4600	10.10 <b>33.11</b>	
10.0 ft 1.5 m	lb kg					<b>*32,200</b> *18 050	<b>*32,200</b> 14 650	<b>*24,450</b> *13 000	<b>22,300</b> 9700	*10 450	<b>15,950</b> 7050	<b>*18,350</b> 8500	<b>12,000</b> 5400	<b>*12,550</b> *6050	<b>10,150</b> 4500	10.12	
5.0 ft	lb					*38,900	31,550	* <b>28,050</b>	<b>20,950</b>	* <b>22,600</b>	15,200	18,300	11,600	*13,300	9.900	33.22	
0.0 m	kg			*8400	*8400	*19 650	13 950	*14 150	9250	10 950	6800	8350	5250	*6600	4550	9.93	
0.0 ft	lb			*19,150	*19,150	*42,450	30,000	*30,600	19,950	23,500	14,600	17,950	11,250	*14,550	10,000	32.56	
−1.5 m	kg	*8800	*8800	*13 200	*13 200	*19 850	13 700	*14 600	9000	10 750	6600	8250	5150	*7500	4800	9.48	
-5.0 ft	lb	*19,600	*19,600	*29,800	*29,800	*43,050	29,400	*31,600	19,400	23,100	14,250	17,800	11,100	*16,550	10,600	31.09	
−3.0 m	kg	*13 950	*13 950	*19 250	*19 250	*19 000	13 700	*14 250	8950	10 700	6600			8600	5400	8.76	
-10.0 ft	lb	*31,250	*31,250	*43,600	*43,600	*41,150	29,450	*30,800	19,300	23,050	14,200			19,050	11,900	28.66	
−4.5 m <b>−15.0 ft</b>	kg <b>lb</b>	*20 100 * <b>45,150</b>	*20 100 <b>*45,150</b>	*23 450 <b>*50,600</b>	*23 450 <b>*50,600</b>	*16 900 <b>*36,450</b>	13 950 <b>30,000</b>	*12 800 <b>*27,500</b>	9100 <b>19,650</b>	*9600 <b>*20,200</b>	6750 <b>14,600</b>			*9150 <b>*20,150</b>	6550 <b>14,600</b>	7.69 <b>25.01</b>	
-6.0 m	kg	40,130	40,100	30,000	30,000	*12 850	*12 850	*9050	*9050	20,200	14,000			*8900	*8900	6.06	
-20.0 ft	lb					*27,050	*27,050	3030	3030					*19,500	*19,500	19.44	
_		*	Ц					ISO 10567	7								

<sup>\*</sup>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 10567:2007. 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. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with ±5% for all available track shoes.

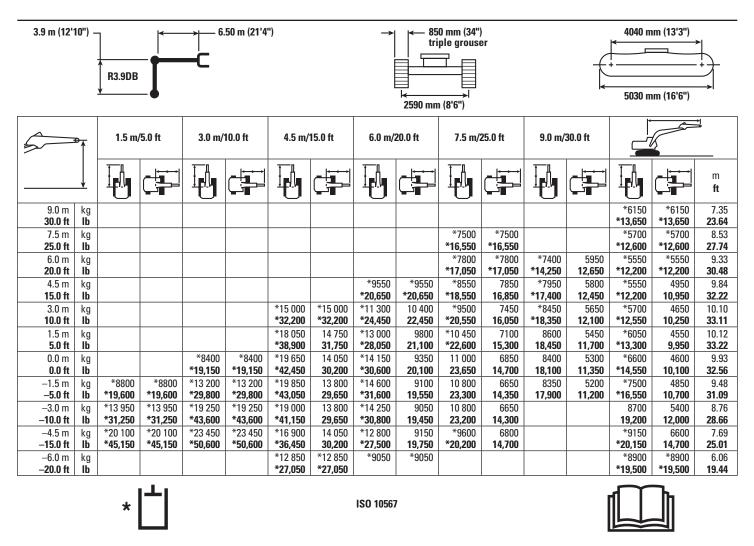
# Extreme Service Reach Boom Lift Capacities – Counterweight: 7.0 mt (7.7 t) – Heavy Lift: On

3.2 m (10	'6") -	R3.2DB			50 m (21'4	")		<b>→</b>		0 mm (32") ple grouse		4040 mm (13'3") 5030 mm (16'6")					
5	•	1.5 m/	/5.0 ft	3.0 m/	10.0 ft	4.5 m/	m/15.0 ft 6.0 m/20.0 ft 7.5 m/25.0 ft			25.0 ft	9.0 m/3	30.0 ft		7 3			
	<u></u>															m ft	
7.5 m <b>25.0 ft</b>	kg <b>lb</b>									*8600	8000			*7300 <b>*16,200</b>	*7300 <b>*16.200</b>	7.70 <b>24.98</b>	
6.0 m	kg									*8700	7950			*7100	6300	8.58	
20.0 ft	lb									*19,100	17,050			*15,650	14,050	28.00	
4.5 m <b>15.0 ft</b>	kg <b>lb</b>					*13 300	*13 300	*10 700 <b>*23,150</b>	*10 700 <b>*23,150</b>	*9350 <b>*20,350</b>	7700 <b>16,600</b>	*8400	5750	*7150 <b>*15,750</b>	5600 <b>12,400</b>	9.13 <b>29.88</b>	
3.0 m	kg					*16 850	15 450	*12 350	10 200	*10 200	7400	8750	5600	*7450	5250	9.40	
10.0 ft	lb					*36,150	33,350	*26,700	<b>22,050</b>	* <b>22,200</b>	15,900	18, <b>750</b>	12,050	*16,350	11,500	30.84	
1.5 m	kg					*19 350	14 450	*13 850	9700	*11 050	7100	8550	5450	*7950	5100	9.43	
5.0 ft	ΙĎ					*41,800	31,150	*29,900	20,850	*23,950	15,250	18,450	11,750	*17,500	11,200	30.96	
0.0 m	kg					*20 200	14 000	*14 700	9350	11 000	6900	8450	5350	8150	5200	9.22	
0.0 ft	lb					*43,750	30,150	*31,800	20,100	23,650	14,800	18,200	11,500	18,000	11,400	30.25	
-1.5 m	kg			*14 400	*14 400	*19 800	13 900	*14 750	9200	10 900	6750			8800	5550	8.74	
<b>−5.0 ft</b> −3.0 m	lb ka			<b>*32,600</b> *22,750	<b>*32,600</b> *22,750	<b>*42,900</b> *18 350	<b>29,950</b> 14 050	<b>*32,000</b> *13 950	<b>19,750</b> 9200	<b>23,450</b> *10 800	<b>14,600</b> 6800			<b>19,350</b> *9850	<b>12,200</b> 6350	<b>28.65</b> 7.96	
-3.0 m - <b>10.0 ft</b>	kg <b>lb</b>			* <b>51.500</b>	* <b>51.500</b>	* <b>39,700</b>	<b>30,200</b>	* <b>30,150</b>	19.850	* <b>23.150</b>	14.700			* <b>21.750</b>	14.000	26.00	
-4.5 m	kg			*20 600	*20 600	*15 500	14 400	*11 750	9450	20,100	14,700			*9900	8100	6.75	
-15.0 ft	lb			*44,350	*44,350	*33,350	30,950	*25,000	20,400					*21,800	18,100	21.90	
−6.0 m <b>−20.0 ft</b>	kg <b>Ib</b>																
		*	Ľ					ISO 10567	•								

<sup>\*</sup>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 10567:2007. 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. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with ±5% for all available track shoes.

### Extreme Service Reach Boom Lift Capacities – Counterweight: 7.0 mt (7.7 t) – Heavy Lift: On



<sup>\*</sup>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 10567:2007. 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. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with ±5% for all available track shoes.

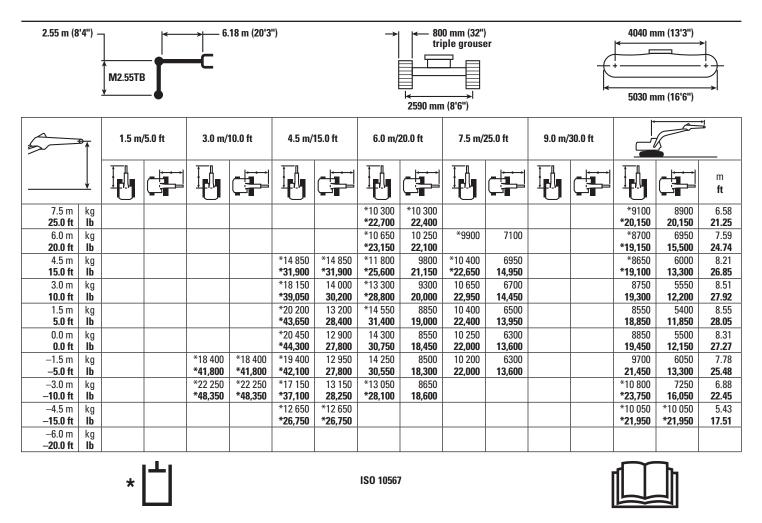
# Extreme Service Reach Boom Lift Capacities – Counterweight: 7.0 mt (7.7 t) – Heavy Lift: On

3.2 m (10	'6") -	R3.2DB			50 m (21'4	")		<b>→</b>		0 mm (34") ple grouse		4040 mm (13'3") 5030 mm (16'6")					
5	•	1.5 m/	/5.0 ft	3.0 m/	10.0 ft	4.5 m/	n/15.0 ft 6.0 m/20.0 ft 7.5 m/25.0 ft			25.0 ft	9.0 m/3	30.0 ft		ት 3			
	<u></u>															m ft	
7.5 m <b>25.0 ft</b>	kg <b>lb</b>									*8600	8050			*7300 <b>*16,200</b>	*7300 <b>*16.200</b>	7.70 <b>24.98</b>	
6.0 m	kg									*8700	8000			*7100	6350	8.58	
<b>20.0 ft</b> 4.5 m	lb					*13 300	*13 300	*10 700	*10 700	<b>*19,100</b> *9350	<b>17,200</b> 7750	*8400	5800	<b>*15,650</b> *7150	<b>14,150</b> 5650	<b>28.00</b> 9.13	
4.5 III 15.0 ft	kg <b>lb</b>					13 300	13 300	*23,150	* <b>23,150</b>	* <b>20,350</b>	16,700	6400	3800	*15,750	12,450	29.88	
3.0 m	kg					*16 850	15 550	*12 350	10 300	*10 200	7450	8800	5650	*7450	5250	9.40	
10.0 ft	ΙĎ					*36,150	33,600	*26,700	22,200	*22,200	16,000	18,900	12,150	*16,350	11,600	30.84	
1.5 m	kg					*19 350	14 550	*13 850	9750	*11 050	7150	8650	5500	*7950	5150	9.43	
5.0 ft	lb					*41,800	31,350	*29,900	21,000	*23,950	15,400	18,550	11,800	*17,500	11,300	30.96	
0.0 m <b>0.0 ft</b>	kg <b>lb</b>					*20 200 <b>*43,750</b>	14 100 <b>30,350</b>	*14 700 <b>*31,800</b>	9400 <b>20,250</b>	11 100 <b>23,850</b>	6950 <b>14,900</b>	8500 <b>18,350</b>	5400 <b>11,600</b>	8250 <b>18,100</b>	5200 <b>11,450</b>	9.22 <b>30.25</b>	
-1.5 m	kg			*14 400	*14 400	*19 800	14 000	*14 750	9250	10 950	6800	10,000	11,000	8850	5600	8.74	
-5.0 ft	lb			*32,600	*32,600	*42,900	30,150	*32,000	19,900	23,600	14,700			19,500	12,300	28.65	
−3.0 m	kg			*22 750	*22 750	*18 350	14 150	*13 950	9300	*10 800	6850			*9850	6400	7.96	
-10.0 ft	lb			*51,500	*51,500	*39,700	30,400	*30,150	20,000	*23,150	14,800			*21,750	14,100	26.00	
-4.5 m	kg			*20 600	*20 600	*15 500	14 500	*11 750	9500					*9900 <b>*21.800</b>	8150	6.75	
<b>−15.0 ft</b> −6.0 m	lb ka			*44,350	*44,350	*33,350	31,150	*25,000	20,550					"Z1,8UU	18,250	21.90	
-0.0 III - <b>20.0 ft</b>	kg <b>Ib</b>																
		*	Ш					ISO 10567	1								

<sup>\*</sup>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 10567:2007. 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. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with ±5% for all available track shoes.

### Mass Boom Lift Capacities – Counterweight: 6.0 mt (6.6 t) – Heavy Lift: On



<sup>\*</sup>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 10567:2007. 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. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with ±5% for all available track shoes.

# **Work Tool Offering Guide\***

Boom Type	Heavy Duty	Reach Boom	Extreme Servi	ce Reach Boom	Mass Boom
Stick Size	R3.9 (HD) (12'10")	R3.2 (HD) (10'6")	R3.9 (ES) (12'10")	R3.2 (ES) (10'6")	M2.55 (8'4")
Hydraulic Hammer	H140E s H160E s**	H140E s H160E s H180E s**^	H140E s H160E s**	H140E s H160E s H180E s**	H140E s H160E s H180E s**
Multi-Processor	MP324 CC Jaw MP324 D Jaw MP324 P Jaw MP324 S Jaw MP324 TS Jaw MP324 U Jaw MP30 CC Jaw*** MP30 CR Jaw***	MP324 CC Jaw MP324 D Jaw MP324 P Jaw MP324 S Jaw MP324 TS Jaw MP324 U Jaw MP30 CC Jaw^^ MP30 CR Jaw^^ MP30 PP Jaw**^ MP30 PS Jaw^* MP30 TS Jaw**#	MP324 CC Jaw MP324 D Jaw MP324 P Jaw MP324 S Jaw MP324 TS Jaw MP324 U Jaw MP30 CC Jaw*** MP30 CR Jaw***	MP324 CC Jaw MP324 D Jaw MP324 P Jaw MP324 S Jaw MP324 TS Jaw MP324 U Jaw MP30 CC Jaw MP30 CR Jaw MP30 PP Jaw** MP30 PS Jaw MP30 S Jaw MP30 TS Jaw***	MP30 CC Jaw MP30 CR Jaw MP30 PP Jaw** MP30 PS Jaw MP30 TS Jaw**
Pulverizer	P225 P235***	P225 P235^^	P225	P225 P235	P235
Demolition and Sorting Grapple	G325B G330***	G325B G330^^	G325B G330***	G325B G330	G330
Mobile Scrap and Demolition Shear	S325B S365C##	S325B S365C##	S325B** S365C##	S325B S365C##	S340B*** S365C##
Compactor (Vibratory Plate)	CVP110	CVP110	CVP110	CVP110	CVP110
Orange Peel Grapple					
Rippers	These weeks to	a ala ama available fee	the 226E L. Carrent	your Cot doolor for	muanan matah
Pin Grabber Coupler	- I nese work to	oois are available for	the 336F L. Consult	your Cat dealer for	ргорег шассп.
Dedicated Quick Coupler	_				

<sup>\*</sup>Matches are dependent on excavator configurations. Consult your Cat dealer for proper work tool match.

#Over the front only.

##Boom mount.

<sup>\*\*</sup>Pin on or dedicated coupler.

<sup>\*\*\*</sup>Pin on only.

<sup>^</sup>Over the front only with dedicated coupler.

<sup>^^</sup>Over the front only with Pin Grabber coupler.

# **Bucket Specifications and Compatibility**

		Wi	dth	Capa	acity	We	ight	Fill	Mass Boom		y Duty Boom		Service Boom
	Linkage	mm	in	m³	yd³	kg	lb	%	M2.55 (8'4")	R3.2 HD (10'6")	R3.9 HD (12'10")	R3.2 ES (10'6")	R3.9 ES (12'10")
Without Quick Coupler		•		•									
General Duty (GDC)	DB	750	30	0.94	1.23	952	2,099	100%			•	•	•
	DB	900	36	1.19	1.56	1040	2,292	100%		•	•	•	•
	DB	1050	42	1.46	1.91	1147	2,528	100%		•	•	•	•
	DB	1200	48	1.73	2.26	1232	2,716	100%		•	•	•	•
	DB	1350	54	2.00	2.62	1342	2,957	100%		•	θ	•	$\Theta$
	DB	1500	60	2.27	2.98	1451	3,197	100%		$\Theta$	0	$\Theta$	0
	DB	1650	66	2.55	3.33	1536	3,386	100%		Х	Х	$\oplus$	0
Heavy Duty (HD)	DB	750	30	0.73	0.95	1031	2,273	100%		•	•	•	•
	DB	900	36	0.95	1.24	1178	2,595	100%		•	•	•	•
	DB	1050	42	1.17	1.54	1267	2,793	100%		•	•	•	•
	DB	1200	48	1.40	1.84	1398	3,080	100%		•	•	•	•
	DB	1350	54	1.64	2.14	1459	3,215	100%		•	•	•	•
	DB	1500	60	1.88	2.46	1566	3,452	100%		•	$\Theta$	•	$\Theta$
	DB	1650	66	2.12	2.77	1697	3,740	100%		Х	Х	•	0
	DB	1800	72	2.36	3.08	1851	4,080	100%		Х	Х	$\oplus$	0
	ТВ	1800	71	2.69	3.52	2423	5,340	100%	0				
Severe Duty (SD)	DB	750	30	0.73	0.95	1096	2,415	90%		•	•	•	•
	DB	900	36	0.95	1.24	1252	2,760	90%		•	•	•	•
	DB	1050	42	1.17	1.54	1353	2,981	90%		•	•	•	•
	DB	1200	48	1.40	1.84	1493	3,292	90%		•	•	•	•
	DB	1350	54	1.64	2.14	1599	3,524	90%		•	•	•	•
		Ma	ximum l	oad pin	on (pa	yload +	bucket)	kg	5790	4990	4360	5315	4585
								lb	12,761	10,998	9,609	11,714	10,105

The above loads are in compliance with hydraulic excavator standard EN474, 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.

Bucket weight with General Duty 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)
- O 1200 kg/m³ (2,000 lb/yd³)
- X Not Recommended

# **Bucket Specifications and Compatibility**

		Wi	dth	Cap	acity	We	ight	Fill	Mass Boom		y Duty Boom		Service Boom
	Linkage	mm	in	m³	yd³	kg	lb	%	M2.55 (8'4")	R3.2 HD (10'6")	R3.9 HD (12'10")	R3.2 ES (10'6")	R3.9 ES (12'10")
With Quick Coupler				•									
General Duty (GDC)	DB	750	30	0.94	1.23	952	2,099	100%		•	•	•	•
	DB	900	36	1.19	1.56	1040	2,292	100%		•	•	•	•
	DB	1050	42	1.46	1.91	1147	2,528	100%		•	•	•	•
	DB	1200	48	1.73	2.26	1232	2,716	100%		•	$\Theta$	•	$\Theta$
	DB	1350	54	2.00	2.62	1342	2,957	100%		$\Theta$	0	θ	0
	DB	1500	60	2.27	2.98	1451	3,197	100%		0	$\Diamond$	θ	$\Diamond$
	DB	1650	66	2.55	3.33	1536	3,386	100%		Х	Х	0	$\Diamond$
Heavy Duty (HD)	DB	750	30	0.73	0.95	1031	2,273	100%		•	•	•	•
	DB	900	36	0.95	1.24	1178	2,595	100%		•	•	•	•
	DB	1050	42	1.17	1.54	1267	2,793	100%		•	•	•	•
	DB	1200	48	1.40	1.84	1398	3,080	100%		•	•	•	•
	DB	1350	54	1.64	2.14	1459	3,215	100%		•	$\Theta$	•	$\Theta$
	DB	1500	60	1.88	2.46	1566	3,452	100%		$\ominus$	0	$\Theta$	0
	DB	1650	66	2.12	2.77	1697	3,740	100%		Х	Х	$\Theta$	$\Diamond$
	DB	1800	72	2.36	3.08	1851	4,080	100%		Х	Х	0	$\Diamond$
	TB	1800	71	2.69	3.52	2423	5,340	100%	$\Diamond$				
Severe Duty (SD)	DB	750	30	0.73	0.95	1096	2,415	90%		•	•	•	•
	DB	900	36	0.95	1.24	1252	2,760	90%		•	•	•	•
	DB	1050	42	1.17	1.54	1353	2,981	90%		•	•	•	•
	DB	1200	48	1.40	1.84	1493	3,292	90%		•	•	•	•
	DB	1350	54	1.64	2.14	1599	3,524	90%		•	$\Theta$	•	$\Theta$
	·	//aximum	load wi	th cou	oler (pa	yload +	bucket)	kg	5232	4432	3802	4757	4027
								lb	11,531	9,768	8,379	10,484	8,875

The above loads are in compliance with hydraulic excavator standard EN474, 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.

Bucket weight with General Duty 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)
- $\diamondsuit$  900 kg/m³ (1,500 lb/yd³)
- X Not Recommended

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.

### **Standard Equipment**

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

#### **ENGINE**

- Cat C9.3 ACERT diesel engine
- · Biodiesel capable
- Meets U.S. EPA Tier 4 Final emission standards
- 2300 m (7,500 ft) altitude capability
- Electric priming pump
- Automatic engine speed control
- Standard, economy and high power modes
- Two-speed travel
- Side-by-side cooling system
- · Radial seal air filter
- Primary filter with water separator and water separator indicator switch
- Fuel differential indicator switch in fuel line
- 2×4 micron main filters and 1×10 micron primary filter in fuel line
- Water level indicator for water separator

#### **HYDRAULIC SYSTEM**

- · Regeneration circuit for boom and stick
- Reverse swing dampening valve
- Automatic swing parking brake
- High performance hydraulic return filter
- Capability of installing HP stackable valve and medium and QC valve
- Capability of installing additional auxiliary pump (up to 80 L/min [20 gal/min]) and circuit
- Capability of installing boom lowering control device and stick lowering check valve
- · Capability of installing Cat Bio hydraulic oil

#### CAB

- Pressurized operator station with positive filtration
- · Mirror package
- Sliding upper door window (left-hand cab door)
- Glass-breaking safety hammer
- Removable lower windshield with in cab storage bracket
- Coat hook
- · Beverage holder
- Literature holder
- Radio with MP3 auxiliary audio port
- Two stereo speakers
- Storage shelf suitable for lunch or toolbox
- Color LCD display with warning, filter/fluid change, and working hour information
- · Adjustable armrest
- Height adjustable joystick consoles
- Neutral lever (lock out) for all controls
- Travel control pedals with removable hand levers
- Capability of installing two additional pedals
- Two power outlets, 10 amp (total)
- Laminated glass front upper window and tempered other windows

### UNDERCARRIAGE

- Grease Lubricated Track GLT2, resin seal
- Towing eye on base frame

#### **ELECTRICAL**

- 80 amp alternator
- · Circuit breaker
- Capability to electrically connect a beacon

#### **LIGHTS**

- Halogen boom and cab lights with time delay
- Exterior lights integrated into storage box

#### **SECURITY**

- · Cat one key security system
- Door locks
- Cap locks on fuel and hydraulic tanks
- Lockable external tool/storage box
- Signaling/warning horn
- · Secondary engine shutoff switch
- Openable skylight for emergency exit
- · Rearview camera

# 336F L Optional Equipment

### **Optional Equipment**

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

#### **ENGINE**

- Electric refueling pump with auto shut off
- Starting kit, cold weather, -32° C (-26° F)
- Jump start receptacle
- · Quick drains, engine and hydraulic oil
- Bio hydraulic oil package with compatible travel motors, fine filtration and bio oil

#### **HYDRAULIC SYSTEM**

- · Control pattern quick-changer, two way
- · Additional circuit
- · Boom and stick lines
- High-pressure line
- Medium-pressure line
- Cat quick coupler line high- and medium-pressure capable
- Quick coupler for high pressure
- · Tool control system

#### **CAB**

- Cab hatch emergency exit
- Seat, high-back air suspension with heater and cooling
- Seat, high-back air suspension with heater
- Sunscreen
- · Windshield wiper, lower with washer
- · AM/FM radio
- Air pre-filter
- Travel alarm
- Left foot switch
- Left pedal
- · Straight travel pedal
- Ashtray

#### **UNDERCARRIAGE**

- Long undercarriage:
- -700 mm (28") triple grouser shoes
- -800 mm (32") triple grouser shoes
- -850 mm (34") triple grouser shoes
- Guard, full length for long undercarriage
- Guard, heavy-duty bottom, 4 mm (0.16"), without swivel guard and travel motor protection
- · Center track guiding guard
- Segmented (3 piece ) track guiding guard
- · Heavy-duty travel motor protection

#### **COUNTERWEIGHT**

- 6.0 mt (6.6 t)
- 7.0 mt (7.7 t)

#### **FRONT LINKAGE**

- · Bucket linkage
  - -DB family with lifting eye
  - -TB family with lifting eye
- Extreme Service
- -6.5 m (21'4") reach boom with leftand right-side light
- -3.9 m (12'10") stick
- -3.2 m (10'6'') stick
- · Heavy Duty
- -6.5 m (21'4") reach boom with leftand right-side light
- -R3.9DB (12'10") stick
- -R3.2DB (10'6") stick
- · Mass boom
- -6.18 m (20'3") with left- and right-side light
- -M2.55TB (8'4") stick

#### **LIGHTS**

- Working lights, cab mounted with time delay
- HID lights, cab mounted with time delay

#### **SECURITY**

- FOGS, bolt-on
- · Guard, cab front, mesh
- · Guard, vandalism
- Cat MSS (anti-theft device)
- Rubber bumper

#### **TECHNOLOGY**

- Cat Grade Control Depth and Slope
- Product Link

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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