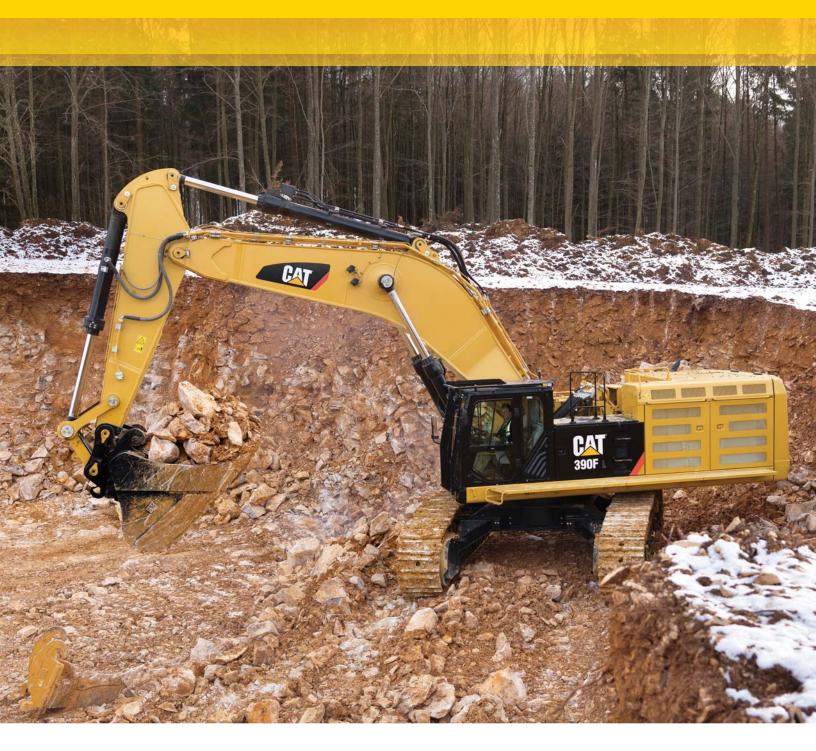
# 390F L Hydraulic Excavator





Model Cat® C18 ACERT™			
391 kW	524 hp		
4.5 km/h	2.8 mph		
590 kN	132,637 lbf		
	391 kW 4.5 km/h		

#### Weights

Minimum Operating Weight	70 970 kg	156,461 lb
Maximum Operating Weight	86 275 kg	190,204 lb

#### Introduction

The 390F is built to give you the highest production with the lowest owning and operating costs in its size class. Not only does the machine's C18 ACERT engine meet U.S. EPA Tier 4 Final emission standards, but it does so with all the power, efficiency, and reliability you need to succeed.

Where the real power comes in is through the advanced hydraulic system and the new Adaptive Control System (ACS) valve. You can literally move tons of material all day long with a great deal of speed, precision, and efficiency. In fact, the 390F's ACS valve and engine work together to increase production and significantly decrease fuel consumption compared to our 390D model. That means more work per unit of fuel for you. That's fuel efficiency.

When you add in a quiet operator environment that keeps you comfortable and productive, service points that make your routine maintenance quick and easy, and multiple Cat work tools that help you do a number of jobs very well, you simply won't find a better, more productive, more fuel-efficient machine in this size class.

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# **Hydraulics**

# Power to move your material with speed and precision

#### 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 390F can deliver. Major components like the pumps, main control valve, and oil tank are positioned to reduce the effects of heat and hydraulic sound level on operators. And they are close together so shorter tubes and lines can be used. All of this leads to less friction loss, reduced pressure drops, and more power to the ground for the tons of work you need to get done.

#### **Control Like No Other**

Controllability is one of the main attributes of Cat excavators, and one of the key contributors to this is the new ACS valve. The valve is designed to intelligently manage restrictions and flows. It opens slowly when your range of joystick lever movement is small and opens rapidly when movement is high. It puts flow exactly where you need it when you need it, which means you will experience much smoother operation, greater efficiency, and lower fuel consumption. The ACS valve also has a new automatic hydraulic oil warm-up function — a definite plus in putting your machine to work more quickly in cold weather conditions.

#### **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.





# **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:

- 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 of emission systems with no operator interaction required.
- Durability with long service life.
- Improved fuel efficiency with minimized maintenance costs.
- Same great power and response.



#### **An Emissions Solution That Works**

The Cat C18 ACERT 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 390F consumes significantly less fuel than the previous series model, and two built-in features help contribute to that: automatic engine speed control and automatic engine idle shutdown. Automatic engine speed control lowers rpm when the machine doesn't need it for work. Automatic engine idle shutdown turns the engine off when it's been idling for more than a specified amount of time, which will lower fuel consumption, hour accumulation, and lead to extended service intervals and higher resale value. A choice of two power modes — high power and economy mode — lets you manage fuel consumption for the work at hand. 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 390F features a new 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 a new variable-speed fan that reverses to blow out unwanted debris that may accumulate during your work day.

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

The Cat C18 ACERT engine can run on B20 biodiesel fuel that meets ASTM 6751 standards — all to give you more potential fuel-saving flexibility.



#### A Safe, Quiet Cab

The all-new 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 as any of today's top pickup trucks.

#### **Comfortable Seat Options**

Air suspension, heated, and cooled seat options are available. 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

Automatic climate control features multiple air outlets with filtered ventilation. Air flow surrounds you to make your work in either hot or cold weather more pleasant and productive.

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

Not only can the right and left joystick consoles be adjusted to improve your comfort and productivity during the course of a day, but the joystick levers themselves can be adjusted for gain and response. Gain is the relationship between the control lever stroke and cylinder speed, and response is the time elapsed from the moment the control lever is operated until the cylinder attains speed. The 390F has multiple gain and response settings to make the machine respond exactly how you want it to.

#### **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. You can even change between the backhoe pattern or excavator control pattern right through the monitor. 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.

#### **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.







# **Structures & Undercarriage**

Built to work in your tough, heavy-duty applications

#### **Robust Frames**

The 390F is a well-built machine designed to give you a very long service life. The upper frame has mountings made specifically to support the new heavy-duty cab; it's also reinforced around areas that take on a lot of stress like the boom foot, skirt, and counterweight removal system. Massive bolts are used to attach the track frames to the body, and additional bolts are used to increase the machine's digging forces, which leads to more productivity for you.

#### **Durable Undercarriage**

The 390F's undercarriage contributes significantly to its outstanding stability and durability. Track shoes, links, rollers, idlers, and final drives are all built with long-lasting, hightensile-strength steel. Cat Grease Lubricated Track 4 (GLT4) 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. Cat Positive Pin Retention 2 (PPR2) prevents looseness of the track pin in the track link, reduces stress concentrations, and eliminates pin walking for increased service life. Optional three-piece 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.

#### **Heavyweight Options**

A 12.4 mt (13.6 t) counterweight — with or without removal device — is available to balance your work needs. Built with thick steel plates and reinforced fabrications to make it less susceptible to damage, the counterweight has curved surfaces that match the machine's sleek, smooth appearance along with an integrated housing to help protect the standard rearview camera.







# **Integrated Technologies**

Monitor, manage, and enhance your job site operations



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:



MANAGEMENT

**Equipment Management** – increase uptime and reduce operating costs.



**Productivity** – monitor 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™ 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 operators work more productively and accurately with less rework. Real-time bucket tip positioning and cut and fill data on the standard cab monitor guide the operator to grade, saving money on fuel and materials. Easily upgrade to AccuGrade<sup>TM</sup> when 3D control is required.

Front Linkage
Options to take on your far-reaching or up-close tasks





#### **Booms & Sticks For Any Job**

The 390F is offered with a range of booms and sticks. Each is built with internal baffle plates and is 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, general purpose (GP), and mass excavation (ME).

The 10 m (32'10") HD reach boom and two stick options provide the reach needed for deep digging and loading applications. Following are the two stick length options:

- The 5.5 m (18'1") stick provides maximum reach and depth in deep trenching applications.
- The 4.4 m (14'5") stick is ideal for general excavating and use with work tools.

The 8.4 m (27'7") GP boom and two stick options offer you excellent all-around versatility for use with work tools and general excavation like multipurpose digging and loading. Following are the three stick length options:

- The 3.4 m (11'2") stick provides higher bucket payloads for truck loading applications; it's also a good choice with work tools.
- The 2.92 m (9'7") stick delivers more digging force and higher bucket payloads; it's also a good choice with work tools.

The 7.25 m (23'9") ME boom and two stick options offer you enhanced performance in heavy-duty material like rock. They provide higher digging forces due to special boom and stick geometry, and bucket linkage and cylinders are built for greater durability. Following are the two stick length options offered:

- The 3.4 m (11'2") stick is designed to provide high digging forces with a large bucket capacity.
- The 2.92 m (9'7") stick is designed for the highest digging forces and maximum bucket capacity.

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**

If you have multiple tasks to get done in a typical work day, Caterpillar can help. The 390F is a versatile, big machine with a lot of power and performance. You can easily expand that performance 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, Rip & Load

A wide range of buckets dig everything from basic top soil to extreme, harsh material like ore and high quartzite granite. Rip through rock as an alternative to blasting in quarries. High-capacity buckets load trucks in a minimum number of passes for maximum productivity.

#### Mining, Demolition & Scrap

Multi-processor attachments take your 390F into structure demolition jobs and processing the resulting debris. Shears with 360° rotation mount to the machine for processing scrap steel and metal.

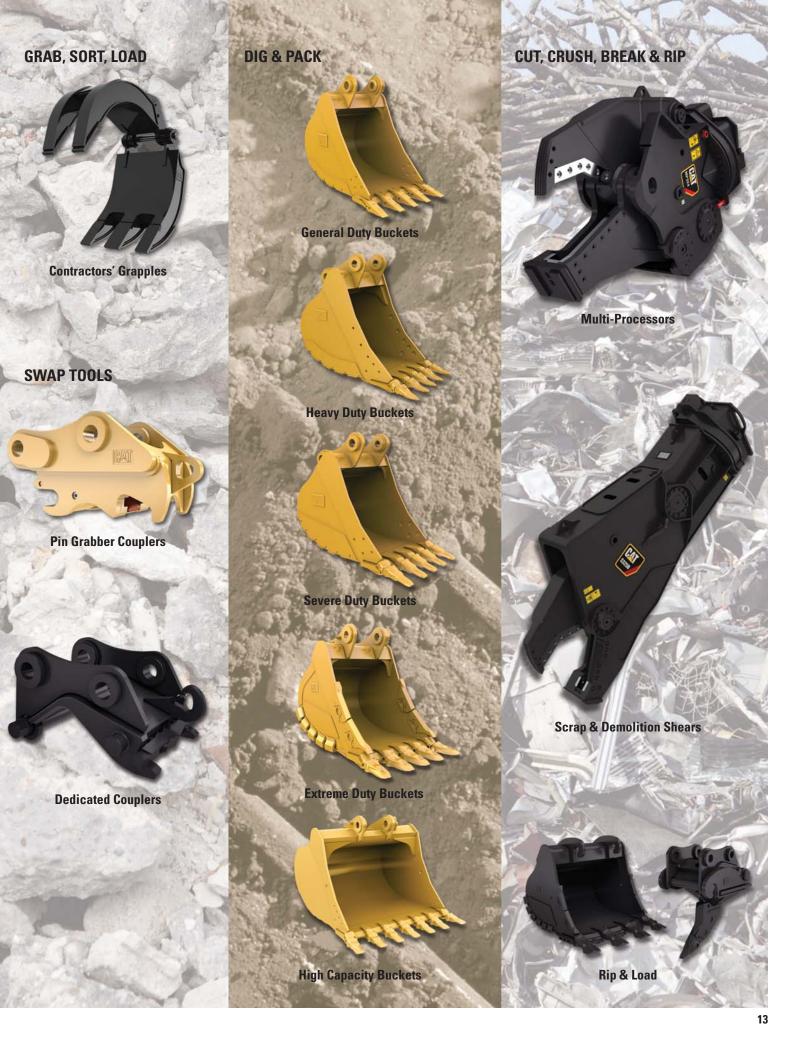
#### **Move & Handle Material**

When your job requires steady material handling and loading of heavy construction debris, a contractor's grapple is a good solution.

#### Set Your Machine Up For Maximum Profitability

Your Cat dealer can install hydraulic kits to properly operate all Cat Work Tool attachments, which will maximize the machine's uptime and your profits.

All Cat Work Tool attachments are supported by the same Cat dealer network as your Cat machine.



# **Serviceability**

# Designed to make your maintenance quick and easy

#### **Convenient Access Built In**

You can reach routine maintenance items like grease points at ground level and fuel and oil filters and fluid taps from the safety and convenience of the machine's slip-resistant catwalks. Compartments feature wide service doors designed to help prevent debris entry, and they also securely latch in place to help make your service work simpler.

#### A Cool Design

The 390F features a new side-by-side cooling system with easy-to-clean cores and a new variable-speed fan that reverses to blow out unwanted debris that may accumulate during your work day.

#### A Fresh Idea

Selecting ventilation inside the cab allows outside air to enter through a 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.

#### **Lube & Fuel Options**

On-board electric lubricator and auto lube systems are available time-saving attachments. The on-board lubricator has a grease container, greasing pump, and a hose with nozzle to help you reach all the greasing points. The auto lube system will do the work for you. An electric refueling pump attachment is also available, and it allows you to refuel from other sources like a barrel or fuel reservoir when a fuel truck or regular fuel pump isn't on site. The pump automatically shuts off when the fuel tank is full.

#### **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.







# **Safety**

## Features to help protect you day in and day out







#### A Safe, Quiet Cab

The all-new 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 will get you into the cab as well as a leg up to the catwalks and compartments. Extended hand and guard rails allow you to safely climb to the upper deck. Anti-skid plates on the catwalks, the surface of the upper structure, and the top of the storage box area reduce your slipping hazards in all types of weather conditions. And they can be removed for cleaning.

#### **Great Views**

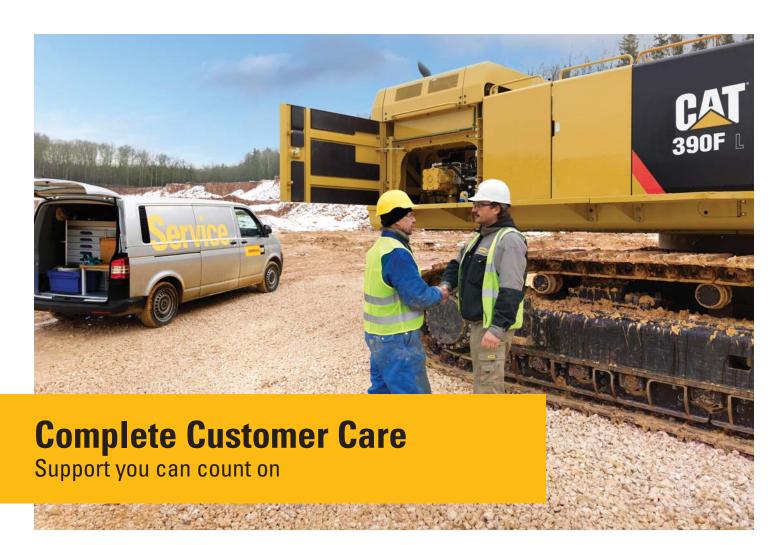
Ample glass gives you excellent visibility out front and to the side, and the standard rearview camera gives you a clear field of view behind the machine through the cab monitor. The available split-configuration windshield features an upper window with handles that make it easy to slide and store above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

#### **Smart Lighting**

Halogen lights provide plenty of illumination. 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 day-to-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.



- The C18 ACERT engine meets U.S. EPA Tier 4 Final emission standards.
- The 390F performs the same amount of work while burning significantly less fuel than the previous D Series model, which means more efficiency, less resources, and fewer CO<sub>2</sub> emissions.
- The 390F 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 hydraulic oil.
- The machine is built to be rebuilt with major structures and components remanufactured to reduce waste and replacement costs.
- The 390F is an efficient, productive machine that's designed to conserve our natural resources for generations ahead.

Engine			
Engine Model	Cat C18 ACERT		
Net Flywheel Power	391 kW	524 hp	
Net Power – SAE J1349	391 kW	524 hp	
Engine rpm			
Operation	1,700 rpm		
Travel	1,900 rpm		
Bore	145 mm	5.7 in	
Stroke	183 mm	7.2 in	
Displacement	18.1 L	1,104.5 in <sup>3</sup>	

- The 390F L meets U.S. EPA Tier 4 Final emission standards.
- No engine power derating required below 2300 m (7,500 ft) altitude.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.
- Rating at 1,700 rpm (Implement).

# Weights86 275 kg190,204 lb

 Long Undercarriage, 8.4 m (27'7") GP Boom, R4.4 (14'5") Stick, 4.6 m³ (6.0 yd³) GD Bucket and 650 mm (26 in) Shoes.

Track		
Standard with Long Undercarriage	900 mm	35 in
Optional for Long Undercarriage	750 mm	30 in
Optional for Long Undercarriage	650 mm	26 in
Number of Shoes Each Side – Long Undercarriage	51	
Number of Track Rollers Each Side – Long Undercarriage	9	
Number of Carrier Rollers Each Side	3	

Swing Mechanism		
Swing Speed	6.2 rpm	
Swing Torque	260 kN⋅m	191,766 lbf-ft
Drive		
Maximum Travel Speed	4.5 km/h	2.8 mph

Maximum Travel Speed	4.5 km/h	2.8 mph
Maximum Drawbar Pull – Long Undercarriage	590 kN	132,637 lbf
Sarving Pofill Connection		_

Service Refill Capacities		
Fuel Tank Capacity	1240 L	328 gal
Cooling System	74 L	20 gal
Engine Oil	60 L	16 gal
Swing Drive (each)	19 L	5.0 gal
Final Drive (each)	21 L	5.5 gal
Hydraulic System (including tank)	997 L	263 gal
Hydraulic Tank	813 L	215 gal
DEF Tank	48 L	13 gal

Hydraulic System		
Main System – Maximum Flow (total)		
Implement	952 L/min	266 gal/min
Travel	1064 L/min	281 gal/min
Main System – Maximum Flow (× 2 pu	mps)	
Implement	476 L/min	133 gal/min
Travel	532 L/min	141 gal/min
Swing System – Maximum Flow	No swing pur	mp
Maximum Pressure		
Equipment – Normal	35 000 kPa	5,076 psi
Travel	35 000 kPa	5,076 psi
Swing	26 000 kPa	3,770 psi
Pilot System		
Maximum Flow	67 L/min	17.7 gal/min
Maximum Pressure	4.0-4.4 MPa	580-638 psi
Boom Cylinder		
Bore	210 mm	8.3 in
Stroke	1967 mm	77 in
Stick Cylinder		
Bore	220 mm	8.7 in
Stroke	2262 mm	89 in
HB2 – Family Bucket Cylinder		
Bore	200 mm	7.9 in
Stroke	1451 mm	57 in
JC – Family Bucket Cylinder		
Bore	220 mm	8.7 in
Stroke	1586 mm	62 in

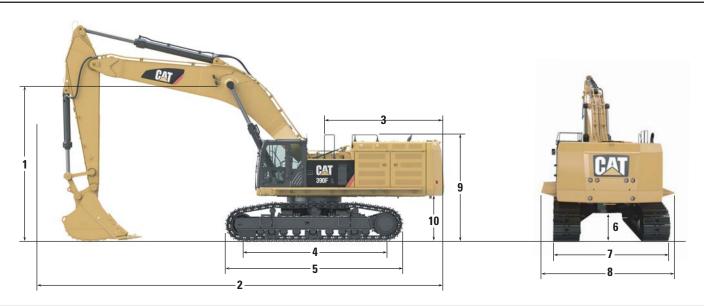
<b>Sound Performance</b>		
ISO 6395 (external)	109 dB(A)	
ISO 6396 (inside cab)	74 dB(A)	

- When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to ANSI/SAE J1166 OCT98, 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 a noisy environment.

Standards	
Brakes	SAE J1026 APR90
Cab/FOGS	SAE J1356 FEB88
	ISO 10262

#### **Dimensions**

All dimensions are approximate.



Boom Options		Reach Boom GP Boom 10.0 m (32'10") 8.4 m (27'7")				Mass Boom 7.25 m (23'9")			
Stick Options		R5.5HB2 (18'1")	R4.4HB2 (14'5")	R5.5HB2 (18'1")	R4.4HB2 (14'5")	GP3.4JC (11'2")	GP2.92JC (9'7")	M3.4JC (11'2")	M2.92JC (9'7")
1 Shipping Height	mm	5490*	5070*	5840**	5290**	5160**	5000**	5310***	4890***
	ft	18'0"*	16'8"*	19'2"**	17'4"**	16'11"**	16'5"**	17'5"***	16'0"***
2 Shipping Length	mm	16 290*	16 330*	14 500**	14 690**	14 720**	14 930**	13 550***	13 690***
	ft	53'5"*	53'7"*	47'7"**	48'2"**	48'3"**	49'0"**	44'6"***	45'0"***
3 Tail Swing Radius	mm	4700*	4700*	4700**	4700**	4700**	4700**	4700***	4700***
	ft	15'5"*	15'5"*	15'5"**	15'5"**	15'5"**	15'5"**	15'5"***	15'5"***
4 Length to Center of Rollers –	mm	5120	5120	5120	5120	5120	5120	5120	5120
Long Undercarriage	ft	16'10"	16'10"	16'10"	16'10"	16'10"	16'10"	16'10"	16'10"
5 Track Length – Long Undercarriage	mm	6358	6358	6358	6358	6358	6358	6358	6358
	ft	20'10"	20'10"	20'10"	20'10"	20'10"	20'10"	20'10"	20'10"
<b>6</b> Ground Clearance	mm	900	900	900	900	900	900	900	900
	ft	2'11"	2'11"	2'11"	2'11"	2'11"	2'11"	2'11"	2'11"
7 Track Gauge – Long Undercarriage (Shipping)****	mm	2750	2750	2750	2750	2750	2750	2750	2750
	ft	9'0"	9'0"	9'0"	9'0"	9'0"	9'0"	9'0"	9'0"
8 Transport Width – Long Undercarriage									
650 mm (24 in) Shoes	mm	4160	4160	4160	4160	4160	4160	4160	4160
	ft	13'8"	13'8"	13'8"	13'8"	13'8"	13'8"	13'8"	13'8"
750 mm (30 in) Shoes	mm	4260	4260	4260	4260	4260	4260	4260	4260
	ft	14'0"	14'0"	14'0"	14'0"	14'0"	14'0"	14'0"	14'0"
900 mm (35 in) Shoes	mm	4410	4410	4410	4410	4410	4410	4410	4410
	ft	14'6"	14'6"	14'6"	14'6"	14'6"	14'6"	14'6"	14'6"
<b>9</b> Guardrail Height	mm	3830	3830	3830	3830	3830	3830	3830	3830
	ft	12'7"	12'7"	12'7"	12'7"	12'7"	12'7"	12'7"	12'7"
<b>10</b> Counterweight Clearance	mm	1640	1640	1640	1640	1640	1640	1640	1640
	ft	5'5"	5'5"	5'5"	5'5"	5'5"	5'5"	5'5"	5'5"

<sup>\*</sup>With 3.9  $\mbox{m}^{3}$  (5.1  $\mbox{yd}^{3}\mbox{)}$  bucket and 750 mm (30 in) shoes.

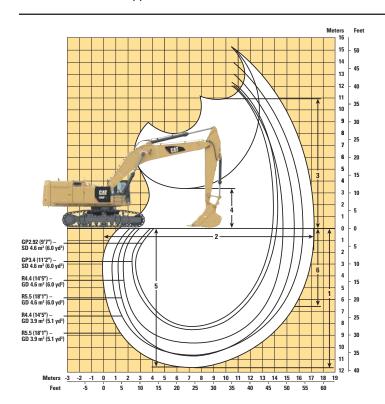
<sup>\*\*</sup>With 4.6 m³ (6.0 yd³) bucket and 750 mm (30 in) shoes.

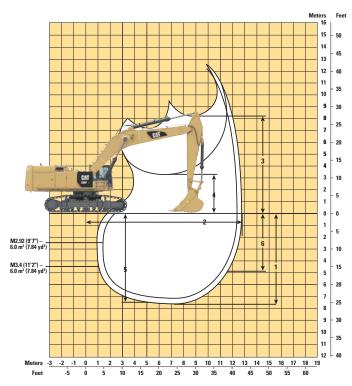
<sup>\*\*\*</sup>With 6.0  $\mathrm{m}^3$  (7.84  $\mathrm{yd}^3$ ) bucket and 750  $\mathrm{mm}$  (30 in) shoes.

<sup>\*\*\*\*</sup>Track gauge in extended (working) position: 3510 mm (11.52 ft).

#### **Working Ranges**

All dimensions are approximate.





Boom Options			Boom (32'10")		GP E 8.4 m	Mass Boom 7.25 m (23'9")			
Stick Options		R5.5 (18'1")	R4.4 (14'5")	R5.5 (18'1")	R4.4 (14'5")	GP3.4 (11'2")	GP2.92 (9'7")	M3.4 (11'2")	M2.92 (9'7")
Bucket		GD 3.9 m³ (5.1 yd³)	GD 3.9 m³ (5.1 yd³)	GD 4.6 m³ (6.0 yd³)	GD 4.6 m³ (6.0 yd³)	SD 4.6 m <sup>3</sup> (6.0 yd <sup>3</sup> )	SD 4.6 m <sup>3</sup> (6.0 yd <sup>3</sup> )	SDV 6.0 m³ (7.84 yd³)	SDV 6.0 m³ (7.84 yd³)
1 Maximum Digging Depth	mm	11 800	10 700	10 750	9650	8680	8210	7640	7160
	ft	39'9"	35'1"	35'3"	31'8"	28'6"	26'11"	25'1"	23'6"
2 Maximum Reach at Ground Line	mm	17 250	16 230	15 730	14 690	13 910	13 450	12 680	12 230
	ft	56'7"	53'3"	51'7"	48'2"	45'8"	44'1"	41'7"	40'1"
3 Maximum Loading Height	mm	10 960	10 530	9730	9280	9100	8860	8210	7990
	ft	36'0"	34'7"	31'11"	30'5"	29'10"	29'0"	26'11"	26'3"
4 Minimum Loading Height	mm	3320	4420	1950	3050	4030	4500	3210	3680
	ft	10'11"	14'6"	6'5"	10'0"	13'2"	14'9"	10'6"	12'1"
5 Maximum Depth Cut for	mm	11 700	10 590	10 650	9540	8550	8070	7510	7020
2240 mm (8'0") Level Bottom	ft	38'5"	34'9"	34'11"	31'4"	28'1"	26'6"	24'8"	23'0"
6 Maximum Vertical Wall Digging Depth	mm	6670	5730	6330	5390	5960	5570	4920	4530
	ft	21'10"	18'9"	20'9"	17'8"	19'6"	18'3"	16'1"	14'10"
Bucket Digging Force (SAE)	kN	322.2	320.8	322.2	320.8	411.7	411.2	404.2	403.8
	lbf	72,433	72,118	72,433	72,119	92,553	92,441	90,868	90,778
Bucket Digging Force (ISO)	kN	364.8	363.3	364.8	363.3	470.9	470.4	470.9	470.4
	lbf	82,010	81,673	82,010	81,673	105,862	105,750	105,863	105,750
Stick Digging Force (SAE)	kN	229.8	267.8	229.8	267.8	314.9	343.3	313.5	341.6
	lbf	51,661	60,204	51,661	60,203	70,792	77,177	70,478	76,795
Stick Digging Force (ISO)	kN	235.9	276.0	235.9	276.0	325.5	356.3	325.5	356.3
	lbf	53,032	62,047	53,032	62,047	73,175	80,099	73,175	80,099

## **Operating Weights and Ground Pressures**

	Do	650 mm ouble Grou		s	Do	750 mm ouble Grou		S	900 mm (35 in) Double Grouser Shoes			
	We	ight	Ground I	Pressure	We	ight	<b>Ground Pressure</b>		We	eight	Ground	Pressure
	kg	lb	kPa	psi	kg	lb	kPa	psi	kg	lb	kPa	psi
Reach Boom – 10.0 m (32'10")												
3.9 m³ (5.1 yd³) GD Bucket												
R5.5 m (18'1") Stick	87 906	193,800	119.4	17.3	88 780	195,726	104.5	15.2	89 827	198,034	88.1	12.8
R4.4 m (14'5") Stick	87 398	192,680	118.7	17.2	88 272	194,606	103.9	15.1	89 319	196,914	87.6	12.7
GP Boom – 8.4 m (27'7")												
4.6 m³ (6.0 yd³) GD Bucket												
R5.5 m (18'1") Stick	86 783	191,324	117.8	17.1	87 657	193,251	103.2	15.0	88 704	195,559	87.0	12.6
R4.4 m (14'5") Stick	86 275	190,204	117.2	17.0	87 149	192,131	102.6	14.9	88 196	194,439	86.5	12.5
G3.4 m (11'2") Stick	88 682	195,510	120.4	17.5	89 556	197,437	105.4	15.3	90 603	199,745	88.9	12.9
G2.92 m (9'7") Stick	88 379	194,842	120.0	17.4	89 253	196,769	105.0	15.2	90 300	199,077	88.6	12.9
Mass Boom – 7.25 m (23'9")												
6.0 m³ (7.84 yd³) SDV Bucket												
M3.4 m (11'2") Stick	90 101	198,639	122.4	17.8	90 975	200,566	107.1	15.5	92 022	202,874	90.3	13.1
M2.92 m (9'7") Stick	89 843	198,070	122.0	17.7	90 717	199,997	106.8	15.5	91 764	202,305	90.0	13.1

### **Major Component Weights**

	kg	lb
Base Machine with Counterweight and 650 mm (26 in) Shoes without Front Linkage	66 739	147,134
Base Machine with Counterweight and 750 mm (30 in) Shoes without Front Linkage	67 613	149,061
Base Machine with Counterweight and 900 mm (35 in) Shoes without Front Linkage	68 660	151,369
Two Boom Cylinders	1804	3,977
Counterweight Removal Type	12 400	27,337
Counterweight Non Removal Type	12 400	27,337
10.0 m (32'10") Reach Boom (includes lines, pins, stick cylinder)	9839	21,691
8.4 m (27'7") GP Boom (includes lines, pins, stick cylinder)	8392	18,501
7.25 m (23'9") Mass Boom (includes lines, pins, stick cylinder)	8437	18,600
R5.5 m (18'1") Stick (includes lines, pins, bucket cylinder and linkage)	5430	11,971
R4.4 m (14'5") Stick (includes lines, pins, bucket cylinder and linkage)	4922	10,851
G3.4 m (11'2") Stick (includes lines, pins, bucket cylinder and linkage)	5186	11,433
G2.92 m (9'7") Stick (includes lines, pins, bucket cylinder and linkage)	4883	10,765
M3.4 m (11'2") Stick (includes lines, pins, bucket cylinder and linkage)	5447	12,009
M2.92 m (9'7") Stick (includes lines, pins, bucket cylinder and linkage)	5189	11,440

#### Reach Boom Lift Capacities – Counterweight: 12.4 mt (27,337 lb) – without Bucket

5.5 m (18'1")															
	• <del>•</del>	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>	<u> </u>	-   -   -   -	F.¶	-   -   -   -	<u> </u>	-   -   -   -   -   -   -   -   -   -	<u> </u>	-   -   -   -	F-¶	-   -   -   -   -   -   -   -   -   -	F-¶	-   -	m ft	
12.0 m <b>40.0 ft</b>	kg <b>Ib</b>				*9600 *21,300 *9300								*9600 <b>*21,300</b>	11.83 <b>38.81</b>	
10.5 m	kg				*9300 *20,500										
35.0 ft	lb				*20,500 * *9150										
9.0 m	kg														
<b>30.0 ft</b> 7.5 m	lb kg						*9150	<b>*20,150</b> 8350	<b>44.88</b> 14.28						
25.0 ft	lb.											*20,100	18,550	46.85	
6.0 m	kg							*19 800	*19 800	*16 850	*16 850	*9250	7700	14.69	
20.0 ft	lb							*42,650	*42,650	*36,400	*36,400	*20,350	17,050	48.20	
4.5 m	kg					*28 600	*28 600	*22 050	*22 050	*18 250	17 150	*9500	7300	14.95	
15.0 ft	lb					*61,450	*61,450	*47,550	*47,550	*39,450	36,950	*20,900	16,050	49.05	
3.0 m <b>10.0 ft</b>	kg <b>Ib</b>					*20 000 <b>*49,350</b>	*20 000 <b>*49,350</b>	*24 050 <b>*51,900</b>	20 750 <b>44,850</b>	*19 550 <b>*42,250</b>	16 050 <b>34,600</b>	*9900 <b>*21,750</b>	7000 <b>15,450</b>	15.05 <b>49.38</b>	
1.5 m	kg					*15 650	*15 650	*25 400	19 450	*20 550	15 150	*10 450	6900	14.99	
5.0 ft	lb					*37,200	*37,200	*54,900	42,000	*44,400	32,650	*23,000	15,150	49.18	
0 m	kg					*16 950	*16 950	*25 950	18 600	*21 100	14 450	10 950	6900	14.79	
0 ft	lb					*39,400	*39,400	*56,200	40,150	*45,650	31,150	24,100	15,200	48.52	
−1.5 m	kg			*11 250	*11 250	*20 650	*20 650	*25 800	18 150	*21 150	14 050	11 250	7100	14.42	
-5.0 ft	lb	¥10.000	*10.000	*25,700 *10.750	*25,700 *10,750	*47,600	*47,600	*55,850	39,100	*45,750	30,250	24,850	15,650	47.31	
−3.0 m <b>−10.0 ft</b>	kg <b>Ib</b>	*12 200 <b>*27,500</b>	*12 200 <b>*27,500</b>	*16 750 <b>*37,950</b>	*16 750 <b>*37,950</b>	*26 100 <b>*59,850</b>	25 350 <b>54,500</b>	*24 950 <b>*54,000</b>	18 000 <b>38,750</b>	*20 650 <b>*44,650</b>	13 850 <b>29,800</b>	11 900 <b>*26,200</b>	7500 <b>16,550</b>	13.88 <b>45.54</b>	
-4.5 m	kg	*17 800	*17 800	*22 900	*22 900	*28 300	25 600	*23 400	18 100	*19 550	13 850	*11 800	8200	13.14	
-15.0 ft	lb	*40,100	*40,100	*51,950	*51,950	*61,300	<b>55,050</b>	*50,600	38,900	*42,200	29,800	*26,000	18,100	43.11	
-6.0 m	kg	*24 050	*24 050	*30 050	*30 050	*25 150	*25 150	*21 100	18 350	*17 700	14 000	*11 500	9300	12.17	
–20.0 ft	lb	*54,250	*54,250	*64,950	*64,950	*54,250	*54,250	*45,400	39,550	*38,000	30,200	*25,300	20,650	39.93	
−7.5 m	kg			*24 250	*24 250	*20 850	*20 850	*17 700	*17 700	*14 800	14 450	*10 850	*10 850	10.91	
-25.0 ft	lb			*51,950	*51,950	*44,600	*44,600	*37,750	*37,750	*31,300	31,200	*23,700	*23,700	35.79	
−9.0 m <b>−30.0 ft</b>	kg <b>Ib</b>					*14 850	*14 850	*12 650 <b>*26,000</b>	*12 650 <b>*26,000</b>	*9800	*9800	*9250 <b>*19,850</b>	*9250 <b>*19,850</b>	9.23 <b>30.28</b>	
		*   -				ISC	) 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  $\pm 5\%$  for all available track shoes.

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

(continued on next page)

#### Reach Boom Lift Capacities – Counterweight: 12.4 mt (27,337 lb) – without Bucket (continued)

5.5 m (18	'1") <i>-</i>	R5.5HB		– 10.0 m (32'10	")	-		mm (35 in) ble Grouser S	ihoes		5120 mm (16'1 6358 mm (20'1	
	<u> </u>	10.5 m	/35.0 ft	12.0 m/40.0 ft		13.5 m	/45.0 ft	15.0 m	/50.0 ft	_		
	<u> </u>	F-1	- 1	F-1	- 1	F-¶	-   1	F-1	- 1	F-1	- 1	m <b>ft</b>
12.0 m <b>40.0 ft</b>	kg <b>lb</b>									*9600 <b>*21,300</b>	*9600 <b>*21,300</b>	11.83 <b>38.81</b>
10.5 m	kg			*12 100	*12 100					*9300	*9300	12.88
35.0 ft	lb			*25,100	*25,100					*20,500	*20,500	42.26
9.0 m	kg	*13 350	*13 350	*12 550	12 100	*10 050	9550			*9150	*9150	13.68
30.0 ft	lb	*29,050	*29,050	*27,350	25,900					*20,150	*20,150	44.88
7.5 m	kg	*14 000	*14 000	*12 900	11 800	*12 100	9400			*9150	8350	14.28
25.0 ft	lb	*30,400	*30,400	*28,100	25,250	*25,450	20,050			*20,100	18,550	46.85
6.0 m <b>20.0 ft</b>	kg <b>Ib</b>	*14 850 <b>*32,150</b>	14 250 <b>30,650</b>	*13 400 <b>*29,150</b>	11 350 <b>24,350</b>	*12 350 <b>*26,900</b>	9150 <b>19,600</b>			*9250 <b>*20,350</b>	7700 <b>17,050</b>	14.69 <b>48.20</b>
4.5 m	kg	*15 750	13 500	*14 000	10 850	*12 700	8850			*9500	7300	14.95
15.0 ft	lb	*34,100	29,050	*30,350	<b>23,350</b>	*27,600	18,950			*20,900	16,050	49.05
3.0 m	kg	*16 600	12 800	*14 550	10 400	*13 000	8550	*10 250	7050	*9900	7000	15.05
10.0 ft	lb	*35,950	27,500	*31,550	22,300	28,200	18,300			*21,750	15,450	49.38
1.5 m	kg	*17 300	12 150	*15 000	9950	12 800	8250			*10 450	6900	14.99
5.0 ft	lb	*37,400	26,150	*32,450	21,350	27,550	17,650			*23,000	15,150	49.18
0 m	kg	*17 700	11 650	15 000	9600	12 550	8000			10 950	6900	14.79
0 ft	lb	*38,300	25,050	32,200	20,600	27,000	17,150			24,100	15,200	48.52
-1.5 m	kg	*17 750	11 300	14 700	9300	12 400	7850			11 250	7100	14.42
<b>−5.0 ft</b> −3.0 m	lb_ka	* <b>38,400</b> *17 400	<b>24,300</b> 11 100	<b>31,650</b> 14 550	<b>20,050</b> 9200	<b>26,650</b> 12 350	<b>16,850</b> 7800			<b>24,850</b> 11 900	<b>15,650</b> 7500	<b>47.31</b> 13.88
−3.0 m − <b>10.0 ft</b>	kg <b>lb</b>	*17 400 * <b>37,550</b>	23,950	31,350	9200 <b>19,800</b>	26,600	7800 <b>16,800</b>			* <b>26,200</b>	16,550	45.54
-4.5 m	kg	*16 450	11 100	*13 850	9200	20,000	10,000			*11 800	8200	13.14
-15.0 ft	lb	*35,450	23,900	*29,600	19,850					*26,000	18,100	43.11
−6.0 m	kg	*14 800	11 250	*11 900	9450					*11 500	9300	12.17
-20.0 ft	lb	*31,550	24,300							*25,300	20,650	39.93
−7.5 m	kg	*11 800	11 700							*10 850	*10 850	10.91
-25.0 ft	lb	*24,350	*24,350							*23,700	*23,700	35.79
−9.0 m <b>−30.0 ft</b>	kg <b>lb</b>									*9250 <b>*19,850</b>	*9250 <b>*19,850</b>	9.23 <b>30.28</b>
		* 💾				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  $\pm 5\%$  for all available track shoes.

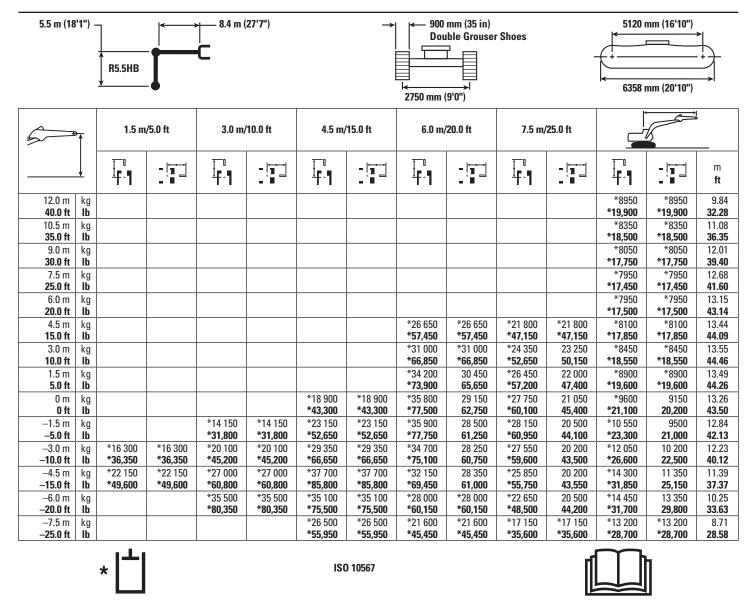
#### Reach Boom Lift Capacities - Counterweight: 12.4 mt (27,337 lb) - without Bucket

4.4 m (14'5")												*						
5	<b>•</b>	4.5 m/	15.0 ft	6.0 m/	20.0 ft	7.5 m/	25.0 ft	9.0 m/	30.0 ft	10.5 m	/35.0 ft	12.0 m	/40.0 ft	13.5 m	/45.0 ft		6	<b>∄</b>
	<u> </u>	F-1	- 133	F-1	-   -											m ft		
12.0 m <b>40.0 ft</b>	kg <b>Ib</b>									*13 000	*13 000					*12 950 <b>*28,750</b>	*12 950 <b>*28,750</b>	10.51 <b>34.48</b>
10.5 m	kg										*14 450					*12 450	*12 450	11.68
<b>35.0 ft</b> 9.0 m	lb kg									<b>*31,650</b> *14 750	<b>*31,650</b> *14 750	*13 800	11 800			<b>*27,500</b> *12 250	* <b>27,500</b> 10 750	<b>38.32</b> 12.56
30.0 ft	lb									*32,100		* <b>30,250</b>	<b>25,200</b>			* <b>26,950</b>	24,000	41.21
7.5 m	kg <b>lb</b>							*17 150 <b>*37,100</b>		*15 300 * <b>33,250</b>	14 550 <b>31,300</b>	*14 050	11 550 <b>24,750</b>			*12 250 <b>*26,950</b>	9600	13.21 <b>43.34</b>
<b>25.0 ft</b> 6.0 m	kg			*28 100	*28 100	*21 950	*21 950	*18 400	<b>*37,100</b> 17 750	*16 100	13 950	<b>*30,650</b> *14 500	11 200	*13 350	9050	*12 450	<b>21,350</b> 8850	13.66
20.0 ft	lb			*60,200	*60,200	*47,250	*47,250	*39,750	38,250	*34,850	30,050	*31,450	24,050			*27,350	19,550	44.82
4.5 m <b>15.0 ft</b>	kg <b>lb</b>					*24 050 <b>*51,850</b>	21 600 <b>46,700</b>	*19 700 <b>*42,550</b>	16 700 <b>36,050</b>	*16 900 <b>*36,550</b>	13 300 <b>28,600</b>	*14 950 <b>*32,400</b>	10 750 <b>23,150</b>	13 400 <b>28,800</b>	8800 <b>18,900</b>	12 700 <b>28,050</b>	8350 <b>18,350</b>	13.94 <b>45.73</b>
3.0 m	kg					*25 700	20 150	*20 750	15 750	*17 600	12 650	*15 350	10 350	13 150	8600	12 350	8000	14.04
10.0 ft 1.5 m	lb kg					<b>*55,450</b> <b>*26</b> 450	<b>43,550</b> 19 200	* <b>44,900</b> *21 450	<b>34,000</b> 15 050	<b>*38,100</b> *18 050	<b>27,300</b> 12 150	* <b>33,300</b> 15 400	<b>22,300</b> 10 000	<b>28,250</b> 12 900	<b>18,400</b> 8350	<b>27,200</b> 12 250	<b>17,650</b> 7900	<b>46.06</b> 13.98
5.0 ft	lb					*57,250	41,450	*46,450	32,400	*39,100	26,150	33,150	21,550	27,800	17,950	27,000	17,400	45.87
0 m <b>0 ft</b>	kg <b>lb</b>			*13 250 <b>*31,500</b>	*13 250 <b>*31,500</b>	*26 400 <b>*57,150</b>	18 700 <b>40,250</b>	*21 650 <b>*46,850</b>	14 550 <b>31,350</b>	*18 250 <b>*39,450</b>	11 750 <b>25,350</b>	15 100 <b>32,550</b>	9750 <b>20,950</b>	12 750 <b>27,450</b>	8200 <b>17,650</b>	12 400 <b>27,350</b>	8000 <b>17,550</b>	13.76 <b>45.14</b>
−1.5 m	kg			*20 150	*20 150	*25 600	18 500	*21 300	14 300	*18 000	11 550	14 950	9600	21,730	17,030	12 900	8250	13.37
<b>−5.0 ft</b> −3.0 m	lb kg	*18 050	*18 050	<b>*46,650</b> *28 450	* <b>46,650</b> 26 250	<b>*55,550</b> <b>*24</b> 200	<b>39,800</b> 18 550	*46,100 *20 350	<b>30,800</b> 14 250	<b>*38,900</b> *17 200	<b>24,850</b> 11 500	<b>32,200</b> *14 500	<b>20,650</b> 9550			<b>28,400</b> *13 050	<b>18,200</b> 8850	<b>43.86</b> 12.78
-3.0 iii -10.0 ft	lb	* <b>41,100</b>	* <b>41,100</b>	*62,250	<b>56,350</b>	* <b>52,450</b>	<b>39,900</b>	* <b>44,050</b>	30,650	*37,150	<b>24,750</b>	*31,150	<b>20,650</b>			* <b>28,800</b>	19,500	41.93
−4.5 m <b>−15.0 ft</b>	kg <b>Ib</b>	*26 900 * <b>61.100</b>	*26 900 <b>*61.100</b>	*25 800 <b>*56.000</b>	*25 800 <b>*56,000</b>	*22 100 <b>*47,800</b>	18 750 <b>40.350</b>	*18 750 <b>*40,400</b>	14 350 <b>30,950</b>	*15 750 <b>*33,800</b>	11 600 <b>25,000</b>					*12 800 <b>*28.150</b>	9800 <b>21,700</b>	11.97 <b>39.27</b>
–13.0 IL –6.0 m	kg	*24 450	*24 450	*22 000	*22 000	*19 100	*19 100	*16 150	14 700	*13 100	11 950					*12 150	11 400	10.90
-20.0 ft	lb	*52,850	*52,850	*47,450	*47,450	*41,000	*41,000	*34,500	31,750	*27,450	25,850					*26,650	25,450	35.76
−/.5 m <b>−25.0 ft</b>	-7.5 m   kg     *16 750   *16 750   *14 650   *14 650   *11 850   *11 850																	
		*   -	1					ISO 1	0567									

<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  $\pm 5\%$  for all available track shoes.

#### GP Boom Lift Capacities - Counterweight: 12.4 mt (27,337 lb) - without Bucket



<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.

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

(continued on next page)

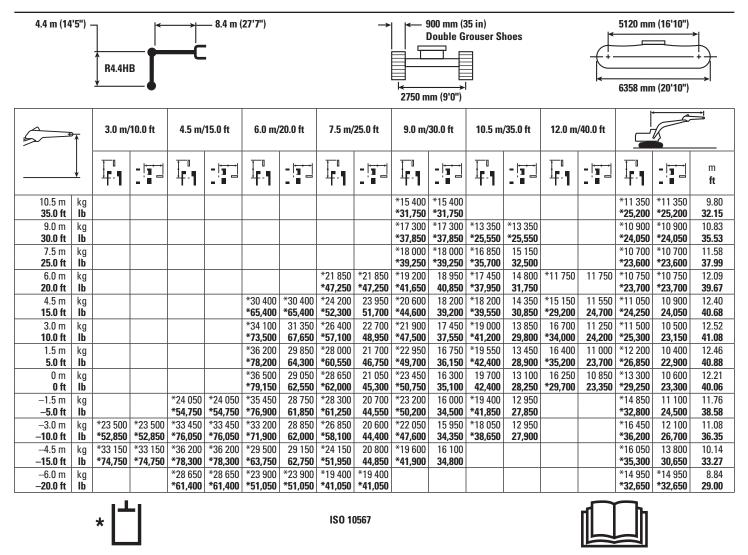
#### GP Boom Lift Capacities - Counterweight: 12.4 mt (27,337 lb) - without Bucket (continued)

5.5 m (18	3'1") -	R5.5HB		– 8.4 m (27'7")		_	1 1	mm (35 in) ble Grouser S	Choes		5120 mm (16'1 6358 mm (20'1	
5	<b>₹</b>	9.0 m/	30.0 ft	10.5 m/35.0 ft		12.0 m	/40.0 ft 13.5 m/45.0 ft					
	<u>↓</u>	F-¶	- 1	F-¶	- 1	F-1	-   <del>-</del>   <del>-</del>   -   -   -   -   -   -   -   -   -	F-¶	- 13	F-¶	- 1	m <b>ft</b>
12.0 m	kg									*8950	*8950	9.84
40.0 ft	lb			*10.050	*10.050					*19,900	*19,900	32.28
10.5 m <b>35.0 ft</b>	kg <b>lb</b>			*10 850 <b>*21,700</b>	*10 850 <b>*21,700</b>					*8350 <b>*18,500</b>	*8350 <b>*18,500</b>	11.08 <b>36.35</b>
9.0 m	kg			*12 900	*12 900	*8050	*8050			*8050	*8050	12.01
30.0 ft	lb			*27,500	*27,500					*17,750	*17,750	39.40
7.5 m	kg			*14 300	*14 300	*11 400	*11 400			*7950	*7950	12.68
25.0 ft	lb			*30,850	*30,850	*22,950	*22,950			*17,450	*17,450	41.60
6.0 m	kg	*17 300	*17 300	*15 850	15 050	*13 400	11 950			*7950	*7950	13.15
<b>20.0 ft</b> 4.5 m	lb ka	*37,500 *18 800	* <b>37,500</b> 18 550	* <b>34,550</b> *16 800	<b>32,350</b> 14 500	<b>*27,950</b> *15 250	<b>25,600</b> 11 600			<b>*17,500</b> *8100	<b>*17,500</b> *8100	<b>43.14</b> 13.44
15.0 ft	kg <b>lb</b>	* <b>40.800</b>	40,000	*36,550	31,200	*32,100	<b>24,950</b>			*17,850	*17,850	44.09
3.0 m	kg	*20 400	17 700	*17 800	13 950	*15 950	11 250	*8850	*8850	*8450	*8450	13.55
10.0 ft	lb	*44,200	38,100	*38,600	30,000	*34,650	24,200			*18,550	*18,550	44.46
1.5 m	kg	*21 750	16 900	*18 650	13 450	16 350	10 950			*8900	*8900	13.49
5.0 ft	lb	*47,100	36,350	*40,450	28,900	35,150	23,500			*19,600	*19,600	44.26
0 m	kg	*22 700 *40 100	16 250	*19 200	13 000	16 050	10 650			*9600 *21.100	9150	13.26
<b>0 ft</b> −1.5 m	lb kg	* <b>49,100</b> *23 000	<b>34,950</b> 15 800	* <b>41,600</b> 19 300	<b>27,950</b> 12 700	<b>34,550</b> 15 850	<b>22,900</b> 10 500			<b>*21,100</b> *10 550	<b>20,200</b> 9500	<b>43.50</b> 12.84
-1.5 iii -5.0 ft	lb	* <b>49,750</b>	34,000	41,500	27,300	34,150	<b>22,550</b>			* <b>23,300</b>	21,000	42.13
-3.0 m	kg	*22 550	15 600	*18 800	12 550	*15 350	10 450			*12 050	10 200	12.23
-10.0 ft	lb	*48,750	33,550	*40,500	27,000	*27,050	22,550			*26,600	22,500	40.12
–4.5 m	kg	*21 150	15 550	*17 250	12 600					*14 300	11 350	11.39
-15.0 ft	lb	*45,450	33,550	*36,800	27,200					*31,850	25,150	37.37
−6.0 m <b>−20.0 ft</b>	kg <b>lb</b>	*18 250 <b>*38,650</b>	15 850 <b>34,200</b>							*14 450 <b>*31,700</b>	13 350 <b>29,800</b>	10.25 <b>33.63</b>
−7.5 m <b>−25.0 ft</b>	kg <b>Ib</b>									*13 200 <b>*28,700</b>	*13 200 <b>*28,700</b>	8.71 <b>28.58</b>
		*				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  $\pm 5\%$  for all available track shoes.

#### GP Boom Lift Capacities - Counterweight: 12.4 mt (27,337 lb) - without Bucket



<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.

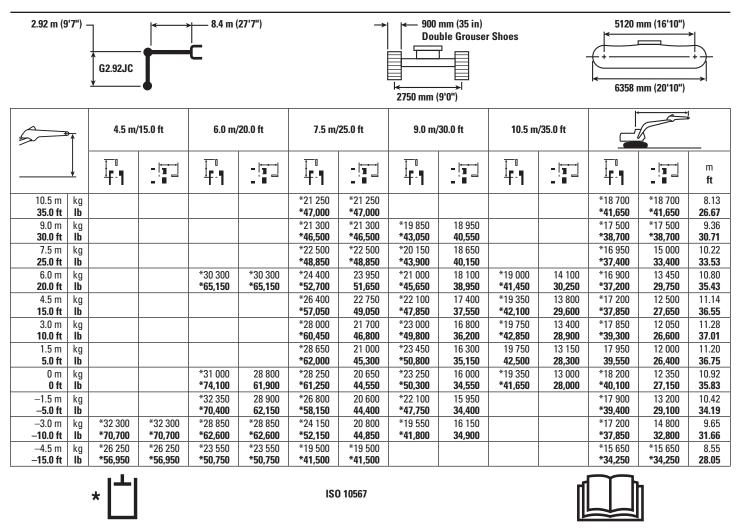
#### GP Boom Lift Capacities - Counterweight: 12.4 mt (27,337 lb) - without Bucket

3.4 m (11	l <b>'2"</b> ) -	G3.4JC		8.4 m (27'7") ————————————————————————————————————												
		43.400	-					  ≼     2750 mm	(9'0")			6358 r	nm (20'10")			
5	<b>*</b>	4.5 m/	/15.0 ft	6.0 m/	/20.0 ft	7.5 m/	/25.0 ft	9.0 m/	/30.0 ft	10.5 m	/35.0 ft	<u> </u>		,		
	<u> </u>	F-¶	-   -   -	<u> </u>	-	F-¶	-	F-¶	-	<u> </u>	-   -   -   -   -   -   -   -   -   -	<u>∓</u> " <b>-F</b> - <b>¶</b>	-	m ft		
10.5 m	kg											*15 450 <b>*34,350</b>	*15 450 <b>*34,350</b>	8.74 <b>28.67</b>		
<b>35.0 ft</b> 9.0 m <b>30.0 ft</b>	kg Ib				*18 750 *18 750 *14 500 *14 500 *32,10											
7.5 m	kg					13 850	10.71									
25.0 ft	lb			*28 700	*28 700	*46,450 *23 350	*46,450	14 100	*31,100	<b>30,800</b> 12 500	<b>35.14</b> 11.26					
6.0 m <b>20.0 ft</b>	kg <b>lb</b>			*61.750	*61.750	* <b>50.500</b>	*23 350 <b>*50.500</b>	*20 200 <b>*43.850</b>	18 150 <b>39.050</b>	*18 250 <b>*39.750</b>	14 100 <b>30,300</b>	*14 050 <b>*30.900</b>	27.650	36.94		
4.5 m	kg			*32 800	31 700	*25 500	22 850	*21 400	17 450	*18 800	13 750	*14 250	11 650	11.59		
15.0 ft	lb			*70,500	68,500	*55,050	49,350	*46,350	37,550	*40,800	29,500	*31,400	25,750	38.02		
3.0 m <b>10.0 ft</b>	kg <b>lb</b>					*27 300 <b>*58,950</b>	21 750 <b>46,900</b>	*22 450 <b>*48,600</b>	16 750 <b>36,100</b>	*19 300 <b>*41,850</b>	13 350 <b>28,700</b>	*14 800 <b>*32,550</b>	11 250 <b>24,800</b>	11.72 <b>38.45</b>		
1.5 m	kg					*28 250	20 950	*23 100	16 200	*19 550	13 000	*15 650	11 150	11.65		
5.0 ft	lb			*64,950	62,150	*61,150	45,150	*50,000	34,900	42,150	27,950	*34,500	24,600	38.22		
0 m	kg			*33 250	28 550	*28 200	20 500	*23 100	15 850	*19 350	12 800	*17 050	11 450	11.38		
0 ft	lb			*76,750	61,350	*61,150	44,150	*50,050	34,150	41,700	27,500	*37,500	25,200	37.34		
−1.5 m <b>−5.0 ft</b>	kg <b>lb</b>	*21 450 <b>*49.500</b>	*21 450 <b>*49.500</b>	*33 300 <b>*72,400</b>	28 550 <b>61,350</b>	*27 150 <b>*58.800</b>	20 350 <b>43,850</b>	*22 300 <b>*48.200</b>	15 700 <b>33,850</b>	*18 250 <b>*39.100</b>	12 750 <b>27.500</b>	*17 050 <b>*37.600</b>	12 150 <b>26,800</b>	10.90 <b>35.76</b>		
−3.0 m	kg	*35 400	*35 400	*30 150	28 800	*24 900	20 500	*20 350	15 800	00,100	27,000	*16 600	13 500	10.71		
-10.0 ft	lb	*77,250	*77,250	*65,400	61,900	*53,800	44,100	*43,650	34,100			*36,500	29,900	35.14		
–4.5 m	kg	*29 450	*29 450	*25 450	*25 450	*21 000	20 900	*16 050	*16 050			*15 500	*15 500	9.13		
-15.0 ft	lb	*63,800	*63,800	*54,800	*54,800	*45,000	*45,000					*33,900	*33,900	29.95		
−6.0 m <b>−20.0 ft</b>	kg <b>lb</b>			*18 000 <b>*37.850</b>	*18 000 <b>*37.850</b>	*13 500	*13 500					*13 000 <b>*30,250</b>	*13 000 <b>*30,250</b>	7.61 <b>24.97</b>		
-20.0 Il	IN			37,030	37,000							30,230	30,230	24.37		
		* 📋				ISO	O 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.

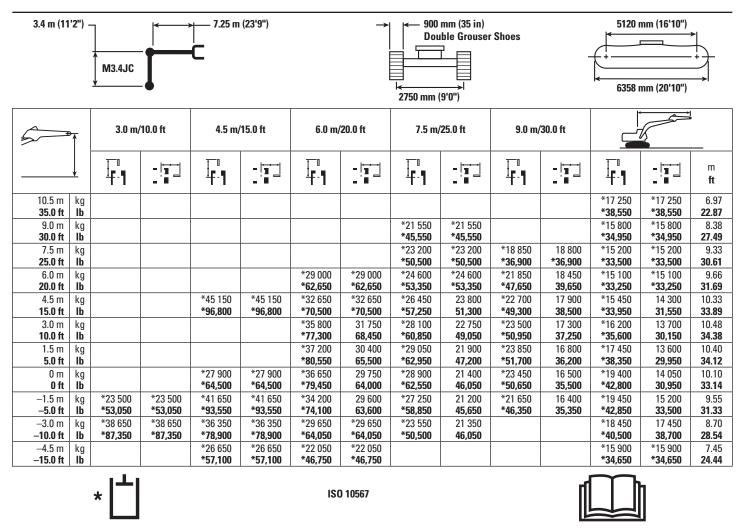
#### GP Boom Lift Capacities - Counterweight: 12.4 mt (27,337 lb) - without Bucket



<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.

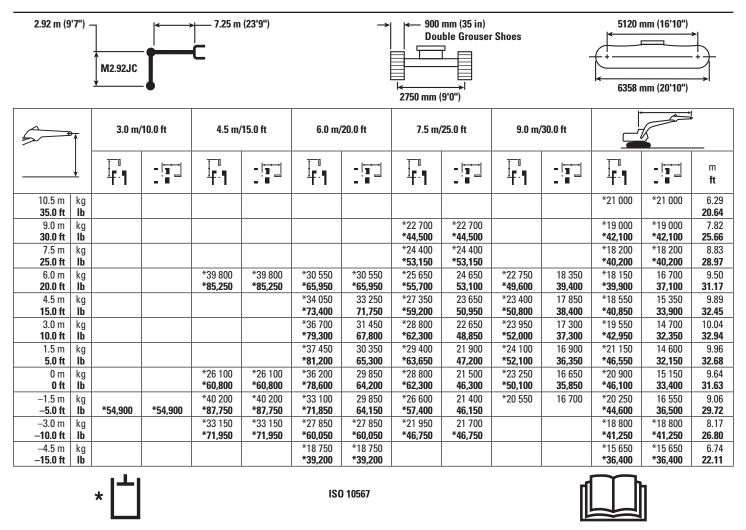
#### Mass Boom Lift Capacities – Counterweight: 12.4 mt (27,337 lb) – without Bucket



<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: 12.4 mt (27,337 lb) – without Bucket



<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		n Boom (32'10")		GP Boom 8.4 m (27'7")						
Stick Size	R5.5 m (18'1") HD	R4.4 m (14'5") HD	R4.4 m (14'5") HD	G3.4 m (11'2") HD	G2.92 m (9'7") HD	M3.4 m (11'2")				
Multi Processor	MP40 CC	MP40 CC	MP40 CC							
	Jaw**# MP40 CR	Jaw** MP40 CR	Jaw MP40 CR							
	Jaw**#	Jaw** MP40 PS	Jaw MP40 PS							
	MP40 S	Jaw** MP40 S	Jaw** MP40 S							
	Jaw**#	Jaw**	Jaw**							
Mobile Scrap and Demolition Shear		S365C**	S365C**	S385C**	S385C**	S385C**				
Rippers										
Pin Grabber Coupler	These work tools are available for the 390F L.  Consult your Cat dealer for proper match.									
Dedicated Quick Coupler		Cons	suit your Cat de	ealer for proper	match.					

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

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

<sup>#</sup>Over the front only

#### **Bucket Specifications and Compatibility**

		Wi	dth	Cap	acity	We	ight	Fill	ill 900 mm (35 in) Double Grouser				
										12.4 mt (27,337 ll	o) Counterweight		
									Reach Boom	GP E	Boom	Mass Boom	
	Linkage	mm	in	m³	yd³	kg	lb	%	4.4 m (14'5")	5.5 m (18'1")	4.4 m (14'5")	3.4 m (11'2")	
Without Quick Coupler		,					,						
General Duty (GD)	HB2	1350	54	3.00	4.00	3406	7,507	100	$\Theta$	•	•		
	HB2	1650	66	3.90	5.10	3794	8,362	100	$\Diamond$	0	•		
	HB2	1900	75	4.60	6.00	4155	9,158	100	⊗	$\Diamond$	0		
	HB2	1100	43	2.20	2.80	2856	6,295	100	•	•	•		
	HB2	1350	54	2.90	3.80	3187	7,024	100	$\Theta$	•	•		
	HB2	1650	66	3.70	4.90	3650	8,045	100	$\Diamond$	$\Theta$	•		
	HB2	1900	75	4.30	5.70	3923	8,646	100	$\Diamond$	0	$\Theta$		
	HB2	2000	79	4.60	6.00	4032	8,887	100	8	$\Diamond$	0		
	JC	2300	91	5.70	7.40	5822	12,832	100				$\Diamond$	
	JC	2420	95	6.00	7.90	6004	13,233	100				$\Diamond$	
	JC	2575	101	6.50	8.50	6238	13,749	100				8	
General Duty XL (GDXL)	HB2	2000	79	5.30	7.00	4400	9,698	100	8	$\Diamond$	0		
	HB2	2200	87	6.00	8.00	4796	10,570	100	8	8	$\Diamond$		
Heavy Duty (HD)	JC	1750	69	4.10	5.30	4799	10,577	100				$\Theta$	
	JC	2090	82	5.10	6.60	5441	11,992	100				0	
	JC	2300	91	5.70	7.40	5892	12,986	100				$\Diamond$	
Severe Duty (SD)	HB2	1100	43	2.30	3.00	3282	7,234	90	•	•	•		
	HB2	1350	54	3.00	4.00	3736	8,234	90	$\Theta$	•	•		
	HB2	1650	66	3.90	5.10	4163	9,175	90	$\Diamond$	0	•		
	HB2	1900	75	4.60	6.00	4553	10,035	90	8	$\Diamond$	$\Theta$		
	JC	1960	77	4.60	6.00	6229	13,729	90				0	
Severe Duty (SDV)	JC	2200	87	5.40	7.00	6809	15,007	90				$\Diamond$	
	JC	2350	93	5.40	7.60	7015	15,462	90				$\Diamond$	
Extreme Duty (XDV)	JC	2200	87	5.00	6.50	7411	16,334	90				$\Diamond$	
	JC	2350	93	5.40	7.10	7758	17,099	90				8	
	JC	2500	98	5.70	7.50	7993	17,617	90				8	
Extreme Duty Granite (XDG)	JC	2090	82	5.0	6.50	7729	17,035	90				$\Diamond$	
	JC	2090	82	5.0	6.50	7826	17,249	90					
With Quick Coupler (CW-70)	1	1		'									
Severe Duty (SD)	JC	2150	85	5.4	7.10	6243	13,760	90				$\Diamond$	
	JC	2300	90	5.4	7.10	6556	14,449	90					
Extreme Duty (XDV)	JC	2350	93	5.4	7.10	7881	17,370	90				8	

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 long tips.

#### **Maximum Material Density:**

- 2100 kg/m³ (3,500 lb/yd³)
- 1800 kg/m³ (3,000 lb/yd³)
- → 1500 kg/m³ (2,500 lb/yd³)
- O 1200 kg/m³ (2,000 lb/yd³)
- 900 kg/m³ (1,500 lb/yd³)
- ⊗ 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.

### **390F L Standard Equipment**

#### **Standard Equipment**

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

#### **MACHINE**

- C18 ACERT diesel engine meets U.S. EPA Tier 4 Final emission standards
- 2300 m (7,500 ft) altitude capability with no derate
- 80 amp alternator
- Eco mode
- Lift mode
- Main control valve with ACS
- Hydraulic main pump (2 pump)
- Three SBS radiators for easy cleaning
- Automatic engine speed control
- Water separator in fuel line including water level sensor and indicator
- Four micron fuel filter
- Electrical priming pump with switch
- Electrical connector for a beacon requires additional hardware
- · Bio fuel capability
- · Regeneration circuit for boom and stick
- · Two speed travel
- · Circuit breaker
- Right-side light
- Cab skirt light
- Platform light
- Door locks and cap locks
- Signaling/warning horn
- Mirrors, rearview (frame right, cab left)
- Steel wall between engine and pump compartment
- Cat data link with capability of using E.T.
- Boom drift reducing valve
- Stick drift reducing valve
- Reverse swing damping valve
- Automatic swing parking brake
- Counterweight with lifting eyes
- · Secondary engine shutoff switch
- · Product Link standard
- High-performance hydraulic return filter
- Provision for Cat Grade Control, depth and slope – base machine (2D)
- · Reversing cooling fan
- Cat walk
- Air cleaner
- Battery

#### CAB

- · Rearview camera
- Bolt-on FOGS capability
- Sliding upper door window
- Safety hammer for breaking glass
- Removable lower windshield with in-cab storage bracket
- · Openable skylight
- Interior lighting
- Coat hook
- · Beverage holder
- · Literature holder
- Utility space for magazine
- · Radio mounting
- · Two stereo speakers
- · Storage compartment suitable for lunch box
- Language display full graphic, video ready
- Warning information, filter/fluid change information, working hour information
- Machine condition, error code and tool mode setting information
- Start up level check for hydraulic oil, engine oil and engine coolant
- Full time clock on monitor
- Height-adjustable armrest
- Height-adjustable consoles
- Neutral lever (lock out) for all controls
- Travel control pedals with removable hand levers
- Power supply 12V with 2 socket, 1 × 10A converter
- Pressurized operator station
- Gain/response map selection (production, normal, control)
- Cat one key security system

#### **UNDERCARRIAGE**

- Track rollers, single flange type
- · Towing eye on base frame
- · Heavy-duty track roller
- · Track motor guards

#### **Optional Equipment**

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

#### **FRONT LINKAGE**

- Booms
- -Mass excavation 7.25 m (23'9") with two working lights
- General Purpose excavation 8.4 m (27'7") with two working lights
- Reach 10.0 m (32'10") with two working lights
- Sticks
- M2.92JC (9'7") for mass excavation boom
- -M3.4JC (11'2") for mass excavation boom
- -GP 2.92JC (9'7") for GP boom
- -GP 3.4JC (11'2") for GP boom
- -GP 4.4HB2 (14'5") for GP boom
- -GP 5.5HB2 (18'1") for GP boom
- -R 4.4HB2 (14'5") for reach boom
- -R 5.5HB2 (18'1") for reach boom
- · Bucket linkages
- JC-family for JC sticks
- -HB2-family for HB2 sticks
- Buckets
- Tips, sidecutters and edge protectors

#### **TRACK**

- Double grouser 650 mm (26 in)
- Double grouser 750 mm (30 in)
- Double grouser 900 mm (35 in)

#### **GUARDS**

- FOGS (Falling Object Guard System) including overhead and windshield guards
- · Track guiding guards
- -Full length
- -Center section
- -Three piece
- · Vandal guards for windshield

#### **AUXILIARY CONTROLS AND LINES**

- Basic control arrangements
- Single action one-way high pressure for hammer application
- Combined function one-way high pressure circuit for hammer application function for one-way or two-way high pressure
- Quick coupler circuit
- Quick coupler lines for booms
- Quick coupler lines for sticks
- Auxiliary boom lines
  - -High pressure for reach and mass booms
- Medium pressure for reach and mass booms
- Auxiliary stick lines
- High pressure lines for reach and mass sticks
- Medium pressure lines for reach and mass sticks

#### **MISCELLANEOUS OPTIONS**

- Adjustable high-back heated seat with mechanical suspension
- Adjustable high-back seat with air suspension and heater
- Boom lowering control device
- Counterweight removal system
- Cold weather package with additional battery, ether aid, jump start and engine block heater
- Stick lowering control device
- Straight travel pedal
- Cab front rain protector
- HID boom lights
- HID cab lights with time delay
- Radio
- AM/FM radio mounted in right-hand console with antenna and two speakers
- Radio ready mounting at rear location including 24 volt to 12 volt converter
- · Fast fill fuel system
- Quick fill and drains for engine oil and hydraulic oil
- · Cat Grade Control

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