# 336D2 GC

**Hydraulic Excavator** 





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Engine Model Engine Power (ISO 14396) Net Power (SAE J1349/ISO 9249)

Cat<sup>®</sup> C9 ACERT™ 209 kW 281 hp

208 kW 279 hp

Operating Weight – Standard Undercarriage

73,000 lb

#### **336D2 GC Differentiating Features**

#### **Engine and Hydraulics**

A fuel efficient Cat C9 ACERT engine that meets U.S. EPA Tier 2, EU Stage II, Japan 2001 (Tier 2) equivalent, or U.S. EPA Tier 3, EU Stage IIIA, Japan 2006 (Tier 3) equivalent emission standards and China Stage III Nonroad emission standards combined with a highly efficient hydraulic system provides reduced owning and operating costs.

#### **Structures**

Caterpillar design and manufacturing techniques assure you get outstanding durability and service life in the toughest applications.

#### **Operator Station**

The spacious cab features excellent visibility and easy-to-access switches. The monitor features a full-color graphical display that is easy to see and use. Overall, the new cab provides you with a comfortable working environment for maximum production and efficiency.

#### **Reduced Service and Maintenance Cost**

Routine service and maintenance can be completed quickly and easily to help you reduce ownership costs. Convenient access points, extended service intervals, and advanced filtration help keep downtime to a minimum.

#### **Complete Customer Support**

Your Cat dealer offers a wide range of services that can be set up under a customer support agreement when you purchase your equipment.

#### **Total Solutions**

Caterpillar and its extensive dealer network offer a wide variety of solutions designed to meet the unique needs of your business.

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The 336D2 GC is focused on life cycle value customers who work in a broad range of applications where fuel consumption and competitive performance are key attributes.





#### **Cab Structure and Mounts**

The cab shell is attached to the frame with viscous rubber mounts, which dampen vibrations and sound levels while enhancing your comfort. Thick steel tubing along the bottom perimeter improves the cab's resistance to fatigue and vibration.

#### Seat

The suspension seat provides a variety of adjustments to accommodate a wide range of operators. The seat includes a reclining back, upper and lower seat slide adjustments, and height and tilt adjustments to meet your needs for comfort and productivity.

### **Joystick Control and Console**

Low-effort pilot-operated joystick controls are designed to match your natural wrist and arm position for maximum comfort and minimum fatigue. The right and left joystick console can be adjusted to meet your individual preferences, improving overall comfort and productivity during the course of a long work day.

#### **Climate Control**

Positive filtered ventilation with a pressurized cab is standard. Fresh air or re-circulated air can be selected with a switch on the left console.

#### Windows and Wipers

All glass is affixed directly to the cab to maximize visibility, eliminating window frames. The upper front windshield opens, closes, and stores on the roof above the operator with a one-touch action release system. Pillar-mounted wipers increase your viewing area and offer continuous and intermittent modes.



#### Monitor

The new monitor features a 40 percent larger screen with four times increased resolution display. The LCD monitor is equipped with a warning lamp and buzzer for critical engine oil pressure, coolant temperature and oil temperature. Programmable in up to 42 languages to meet today's diverse workforce, the monitor clearly displays critical information needed to operate efficiently and effectively.

Filters and fluid change intervals are available in the main menu which also projects the image from the optional rearview camera, further enhancing your job site safety and productivity.



#### **Emission Standards**

The Cat C9 ACERT engine has been designed to meet Tier 2, Stage II, Japan 2001 (Tier 2) equivalent, or Tier 3, Stage IIIA, Japan 2006 (Tier 3) equivalent emission standards and China Stage III Nonroad emission standards. The fuel efficient engine incorporates proven robust components and precision manufacturing you can count on for reliable and efficient operation. The engine features optimized eco mode that delivers excellent performance to help reduce owning and operating costs.

#### **Filtration System**

The engine features an improved filtration system to ensure reliability even with less-than-quality fuel. Service intervals have been extended and the number of filters reduced to maximize your profit potential.

#### **Automatic Engine Speed Control**

Automatic engine speed control is activated during no-load or light-load conditions to reduce engine speed — all to help minimize fuel consumption.

#### **Low Sound and Vibration**

The Cat C9 ACERT engine is built to run quietly with limited vibration, which contributes to improving your comfort.



#### **Hydraulic System**

Hydraulic system pressure from the two-pump system delivers terrific digging performance and productivity. The hydraulic system and component locations have been designed to provide a high level of system efficiency. The main pumps, control valves, and hydraulic tank are located close together to allow for shorter tubes and lines between components, reducing friction loss and pressure drops.

#### **Pilot System**

An independent pilot pump enables smooth, precise control for the front linkage, swing, and travel operations.

### **Hydraulic Cross-Sensing System**

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

### Boom and Stick Regeneration Circuit

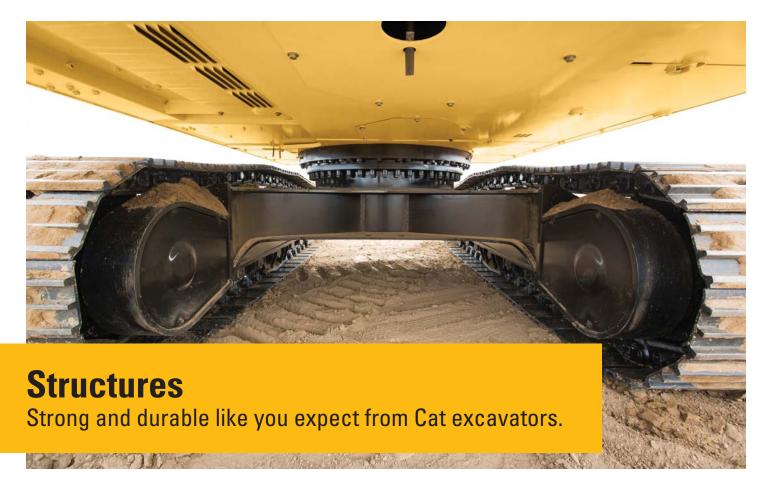
Boom and stick regeneration circuits save energy during boom-down and stick-in operation to increase efficiency and reduce cycle times and pressure loss for higher productivity, lower operating costs, and increased fuel efficiency.

#### **Hydraulic Cylinder Snubbers**

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

#### **Hydraulic Activation Control Lever**

With the hydraulic activation lever in the neutral position, all front linkage, swing, and travel functions are isolated.



#### **Main Frame**

The rugged main frame is built to perform in the toughest applications. The X-shaped, box-section carbody provides excellent resistance to torsional bending, and press-formed, robot-welded track roller frames provide exceptional strength and durability.

#### **Rollers and Idlers**

Sealed and lubricated track rollers, carrier rollers, and idlers provide excellent service life to keep your machine in the field and working longer.

#### **Standard Undercarriage**

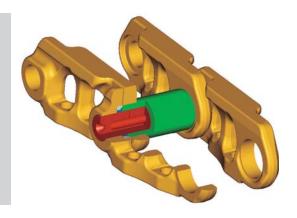
An optimized standard undercarriage makes an ideal choice for life cycle value customers working across a wide range of applications.

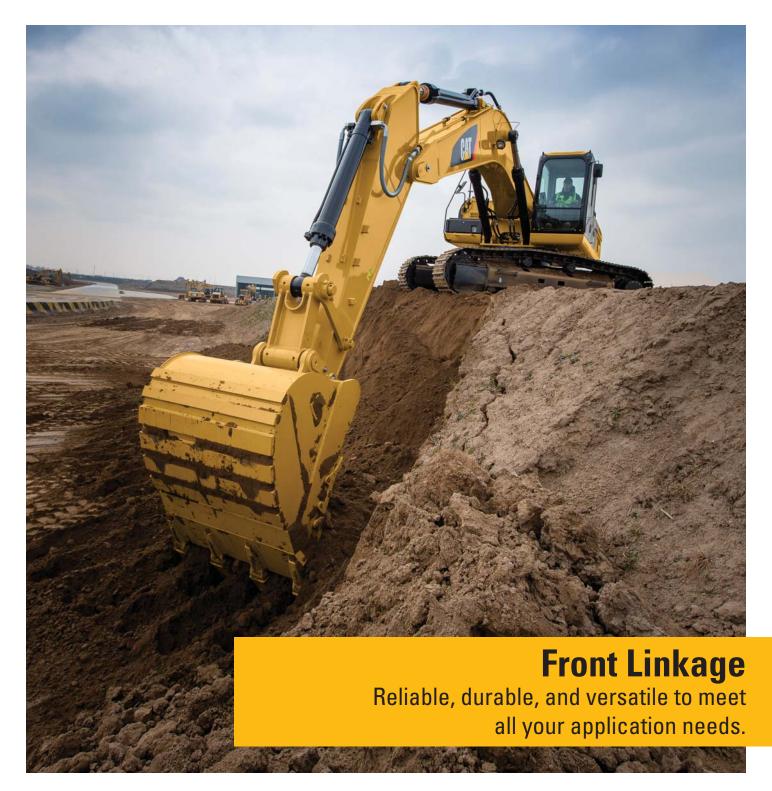
#### Counterweight

A 5.2 mt (5.7 t) weight works well in applications that require heavy lifting. It's bolted directly to the main frame for extra rigidity.

### **Undercarriage**

Durable Cat undercarriage absorbs stress and provides excellent stability. The 336D2 GC comes standard with grease lubricated tracks. The track links are assembled and sealed with grease to decrease internal bushing wear, reduce travel noise and extend service life lowering operating costs.





#### **Optimized Reach Front Linkage**

The optimized reach (R) front linkage is built to work in a variety of applications. The 6.5 m (21'4") optimized reach boom is made of high-tensile-strength steel using a large box-section design with interior baffle plates and an additional bottom guard for long life and durability. The optimized R6.5 m (21'4") boom and R2.8 m (9'2") stick are extremely durable and meet all of your application needs.

# **Integrated Technologies**

Monitor, manage, and enhance 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 offers improvements in these key areas:



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



**Productivity** – monitor production and manage job site efficiency.

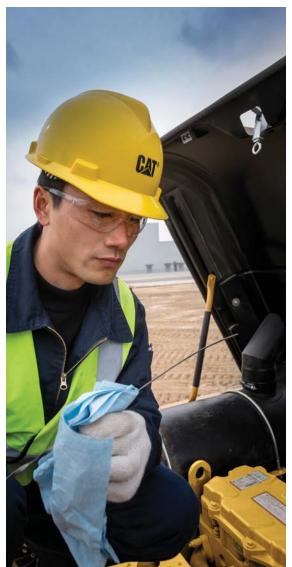
### **LINK Technologies**

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. Track location, hours, fuel usage, idle time, and event codes through the online VisionLink® interface so you can make timely, fact-based decisions that can boost job site efficiency and productivity, and lower operating costs.



# **Service and Maintenance**

Simplified design to save you time and money.



#### **Ground-Level Service**

The design and layout of the 336D2 GC was made with the service technician in mind. Most service locations are easily accessible at ground level to allow service and maintenance to get completed quickly and efficiently.

#### **Air Filter Compartment**

The air filter features a double-element construction for superior cleaning efficiency. When the air filter plugs, a warning is displayed on the cab monitor. Maintenance-free batteries are standard along with a battery disconnect switch.

#### **Greasing Points**

A concentrated remote greasing block on the boom allows greasing of hard-to-reach locations on the boom and stick.

#### **Fan Guard**

The engine radiator fan is enclosed by a steel guard that provides maximum protection when carrying out routine service and maintenance.

#### **Anti-Skid Plating**

Anti-skid plating covers the entire upper structure and storage box to prevent slipping during maintenance. Safety is further enhanced with the addition of countersunk bolts to reduce trip hazards.

#### **Diagnostics and Monitoring**

Standard hydraulic test ports enable a service technician to evaluate the hydraulic system, engine oil, and coolant quickly and easily for more efficient maintenance.



#### **Pump Compartment**

A service door on the right side of the upper structure allows ground-level access to the hydraulic pumps, hydraulic filters, engine oil filter, and fuel filters.

### **Radiator Compartment**

The left rear service door allows easy access to the engine radiator, hydraulic oil cooler, air-to-air aftercooler, and AC condenser. A reserve tank and drain cock are attached to the radiator for ground-level maintenance.



#### **Product Support**

Cat dealers utilize a worldwide computer network to find in-stock parts to minimize machine downtime. You can also save money with our line of remanufactured components.

#### **Machine Selection**

Your Cat dealers can provide specific recommendations with detailed comparisons of the Cat machines you are considering before you buy. This ensures you get the right size machine and appropriate work tools to meet all of your application needs.

#### **Maintenance Services**

Repair option programs guarantee the cost of repairs up front. Condition monitoring services and diagnostic programs such as scheduled oil sampling, coolant sampling, and technical analysis help you avoid unscheduled repairs.

#### **Customer Support Agreements**

Cat dealers offer a variety of product support agreements that can be tailored to meet your specific needs. These plans can cover the entire machine – including attachments – to help protect your investment.

#### Replacement

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

# **Work Tools**

Dig, hammer, rip, and cut with confidence.

#### **Versatility and Performance**

Each Cat work tool is designed to optimize the versatility and performance of your machine. An extensive range of buckets, compactors, grapples, multi-processors, rippers, crushers, pulverizers, hammers, and shears is available for your 336D2 GC.

#### **Buckets and GET**

Cat buckets and Cat Ground Engaging Tools (GET) are designed and matched to the machine to ensure optimal performance and fuel efficiency.

#### **General Duty Buckets (GD)**

GD buckets are for digging in low impact, lower abrasion materials such as dirt, loam, and mixed compositions of dirt and fine gravel.

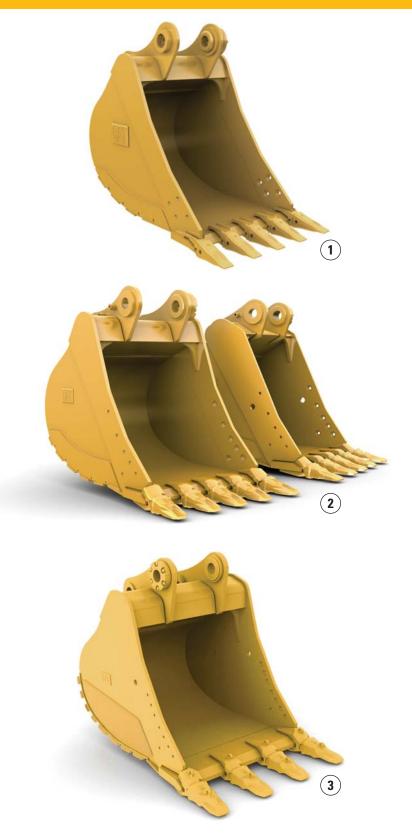
#### **Heavy-Duty Buckets (HD)**

HD buckets are a good starting point when application conditions vary – especially when conditions include mixed dirt, clay, sand, and gravel.

#### **Severe-Duty Buckets (SD)**

SD buckets are best suited to highly abrasive materials like shot rock, sand stone, and granite.

- 1) General Duty Buckets (GD)
- 2) Heavy-Duty Buckets (HD)
- 3) Severe-Duty Buckets (SD)



Engine		
Engine Model	Cat C9 AC	CERT
Engine Power (ISO 14396)	209 kW	281 hp
Net Power (SAE J1349/ISO 9249)	208 kW	279 hp
Bore	112 mm	4.41 in
Stroke	149 mm	5.87 in
Displacement	8.8 L	2.3 gal

- The Cat C9 ACERT meets exhaust emissions equivalent to Tier 2, Stage II, Japan 2001 (Tier 2), or Tier 3, Stage IIIA, Japan 2006 (Tier 3) and China Stage III Nonroad emission standards.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler, and alternator.
- The field-proven C9 ACERT engine can work efficiently at altitudes up to 2300 m (7,546 ft).

Weights		
Operating Weight		
Standard Undercarriage*	33 100 kg	73,000 lb
*Standard undercarriage, 6.5 m (21'4 reach stick, 600 mm (24 in) shoes, 5.	,	· /

Swing Mechanism		
Swing Speed	7.9 rpm	
Swing Torque	109 kN·m	80,144 lbf-ft

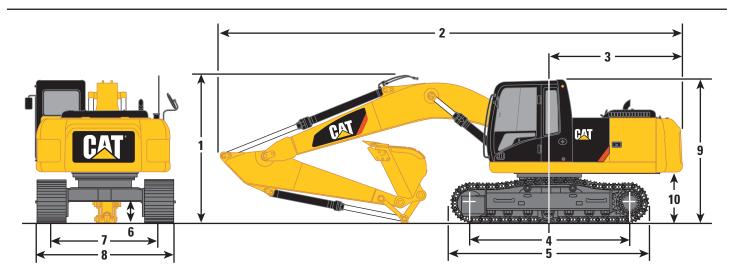
Swing Torque	100 KI ( III	00,11110110
Drive		
Maximum Travel Speed	4.6 km/h	2.9 mph
Maximum Drawbar Pull	302 kN	67,780 lbf

Hydraulic System		
Main System – Maximum Flow (each)	281 L/min	74 gal/min
Swing System – Maximum Flow	250 L/min	66 gal/min
Maximum Pressure – Equipment	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	40 L/min	11 gal/min
Pilot System – Maximum Pressure	4000 kPa	580 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
Bucket Cylinder – Bore	150 mm	5.9 in
Bucket Cylinder – Stroke	1151 mm	45.3 in
Service Refill Capacities		
Fuel Tank Capacity	620 L	164 gal
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Service Refill Capacities		
Fuel Tank Capacity	620 L	164 gal
Cooling System	40 L	11 gal
Engine Oil	41 L	11 gal
Swing Drive	19 L	5 gal
Final Drive (each)	8 L	2 gal
Hydraulic System Oil Capacity (including tank)	410 L	108 gal
Hydraulic Tank Oil	175 L	46 gal

### **Dimensions**

All dimensions are approximate.



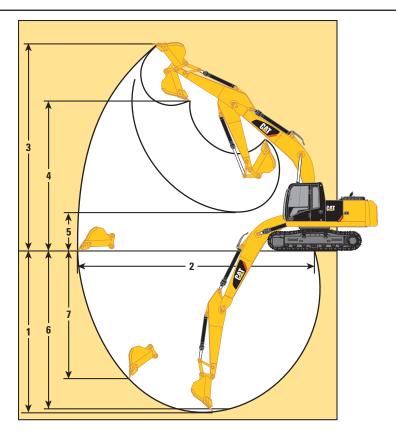
Boom Options	Reach Boom 6.5 m (21'4")		
Stick Options	R2.8DB (9'2")		
1 Shipping Height*	3620 mm	11'11"	
2 Shipping Length	11 150 mm	36'7"	
3 Tail Swing Radius	3490 mm	11'5"	
4 Length to Center of Rollers – Standard Undercarriage	3610 mm	11'10"	
5 Track Length – Standard Undercarriage	4590 mm	15'1"	
6 Ground Clearance*	510 mm	1'8"	
Ground Clearance**	480 mm	1'7"	
7 Track Gauge – Standard Undercarriage	2590 mm	8'6"	
8 Transport Width – Standard Undercarriage			
600 mm (24") Shoes	3190 mm	10'6"	
<b>9</b> Cab Height	3140 mm	10'4"	
<b>10</b> Counterweight Clearance**	1220 mm	4'0"	
Bucket Type	DB140	OHD	
Bucket Part Number	364-9	498	
Bucket Capacity (SAE)	1.64 m³	2.14 yd³	
Bucket Tip Radius	1757 mm	69"	

<sup>\*</sup>Including shoe lug height.

<sup>\*\*</sup>Without shoe lug height.

## **Working Ranges**

All dimensions are approximate.



Boom Options	ptions Reach Boom 6.5 m (21'4")			
Stick Options	R2.8DB	R2.8DB (9'2")		
1 Maximum Digging Depth	7110 mm	23'4"		
2 Maximum Reach at Ground Level	10 750 mm	35'3"		
3 Maximum Cutting Height	10 320 mm	33'10"		
4 Maximum Loading Height	7080 mm	23'3"		
5 Minimum Loading Height	2980 mm	9'9"		
<b>6</b> Maximum Depth Cut for 2440 mm (8'0") Level Bottom	6950 mm	22'10"		
7 Maximum Vertical Wall Digging Depth	5400 mm	17'9"		
Bucket Capacity (SAE)	1.64 m³	2.14 yd <sup>3</sup>		
Bucket Tip Radius	1757 mm	69"		

## **Major Component Weights\***

Lower Structure (without counterweight and track)		
Standard Undercarriage	8000 kg	17,600 lb
Upper Structure (without front linkage)		
For 5.2 mt (5.7 t) Counterweight	8900 kg	19,600 lb
Counterweight		
5.2 mt (5.7 t)	5200 kg	11,500 lb
Boom (includes lines, pins and stick cylinder)		
Reach Boom – 6.5 m (21'4")	3900 kg	8,600 lb
Stick (includes lines, pins and bucket cylinder)		
R2.8DB (9'2")	1700 kg	3,700 lb
Track Shoe – Standard Undercarriage		
600 mm (24 in) Triple Grouser	3700 kg	8,200 lb
Buckets		
DB1400HD 364-9498 SAE 1.64 m <sup>3</sup> (2.14 yd <sup>3</sup> )	1500 kg	3,300 lb
DB1400SD 356-4399 SAE 1.64 m³ (2.14 yd³)	1800 kg	4,000 lb
DB1500HD 456-1398 SAE 1.88 m³ (2.44 yd³)	1400 kg	3,100 lb

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

### **Operating Weights and Ground Pressures**

	600 mm (24 in) Triple Grouser Shoes			
	Operatin	g Weight	Ground F	Pressure
Standard Undercarriage – Reach Boom 6.5 m (21'4")				
R2.8DB (9'2")	33 100 kg	73,000 lb	68.4 kPa	9.9 psi

The weight of the configuration includes 5.2 mt (5.7 t) counterweight.

## **Bucket and Stick Digging Forces**

Boom Options		Reach Boom 6.5 m (21'4")			
Stick Options	R2.80	B (9'2")			
Heavy-Duty					
Bucket Digging Force (ISO)	211.1 kN	47,460 lbf			
Stick Digging Force (ISO)	185.8 kN	41,760 lbf			
Bucket Digging Force (SAE)	184.3 kN	41,440 lbf			
Stick Digging Force (SAE)	179.3 kN	40,320 lbf			

#### **Bucket Specifications and Compatibility – AME, CIS**

							Reach Boom 6.5 m (21'4")		
		Width Capacity			Weight		Fill	Stick 2.8 m (9'2") Triple Grouser Shoes	
				Capacity					
	Linkage	mm	in	m³	yd³	kg	lb	%	600 mm (24")
DB Linkage without Quick C	Coupler			•					
General Duty (GD)	DB	1500	60	1.88	2.46	1280	2,822	100	θ
Heavy Duty (HD)	DB	1350	54	1.64	2.14	1465	3,230	100	•
				Maxir	num load pii	n on (payloa	d + bucket)	kg	4415
								lb	9,733

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

Capacity based on ISO 7451.

Bucket weight with Long tips.

1800 kg/m³ (3,000 lb/yd³)

→ 1500 kg/m³ (2,500 lb/yd³)

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

#### **Bucket Specifications and Compatibility – APD**

							Reach Boom 6.5 m (21'4")		
						Weight		Fill	Stick 2.8 m (9'2") Triple Grouser Shoes
		w		Capacity					
	Linkage	mm	in	m³	yd³	kg	lb	%	600 mm (24")
DB Linkage without Quick C	oupler								
General Duty (GD)	DB	1500	60	1.87	2.44	1311	2,890	100	$\Theta$
Heavy Duty (HD)	DB	1350	54	1.64	2.14	1481	3,265	100	•
Severe Duty (SD)	DB	1400	55	1.64	2.14	1691	3,729	90	•
		•		Maxir	num load pi	n on (payloa	d + bucket)	kg	4415
								lb	9,733

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

Capacity based on ISO 7451.

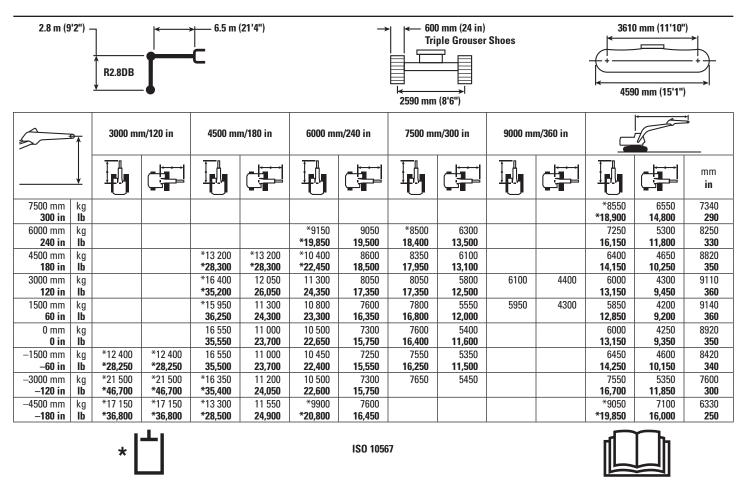
Bucket weight with Long tips.

1800 kg/m³ (3,000 lb/yd³)

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#### Reach Boom Lift Capacities – Counterweight: 5.2 mt (5.7 t)



<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.

# 336D2 GC Standard Equipment

#### **Standard Equipment**

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

#### **ENGINE**

- Diesel C9 ACERT engine
- 2300 m (7,546 ft) altitude capability
- 65 amp alternator
- · Air intake heater
- Radial seal air filters (primary and secondary filter)
- Automatic engine speed control
- Water separator with water level indicator sensor
- Waved fin radiator with space for cleaning
- · Two-speed travel
- Two (2) micron fuel filters
- Electric priming pump

#### **HYDRAULIC SYSTEM**

- Capability of installing additional valves and circuits
- · Regeneration circuits for boom and stick
- Reverse swing damping valve
- Automatic swing parking brake

#### **CAB**

- Retractable seat belt 51 mm (2 in)
- 70/30 split front windshield
- Laminated upper front windshield and tempered other windows
- Sliding upper door window
- Bi-level air conditioner (automatic) with defroster (pressurized cab)
- Color LCD display with warning, filter/ fluid change, and working hour information
- Neutral lever (lock out) for all controls
- Travel control pedals with removable hand levers
- Radio mounting (DIN size)
- · Two stereo speakers
- · Beverage holder
- · Coat hook, ashtray, literature holder
- · Openable roof hatch
- · Washable floor mat

#### FRONT PARTS

- 6.5 m (21'4") optimized Reach boom
- -Optimized R2.8DB stick
- · Bucket linkage
  - -DB Bucket linkage (without lifting eye)

#### **UNDERCARRIAGE**

- Idler and center section track guiding guards
- Towing eye on base frame
- · Grease lubricated track GLT2, resin seal
- 600 mm (24 in) Triple Grouser tracks

#### **ELECTRICAL**

- Circuit breaker
- · Light, boom mounted, left and right
- Light, storage box mounted

#### **SAFETY AND SECURITY**

- · Cat one key security system
- Door and compartment locks
- Signaling/warning horn
- · Rearview mirrors
- Emergency engine shutoff switch
- Emergency exit rear window
- Capability to connect a beacon

#### **COUNTERWEIGHT**

• 5.2 mt (5.7 t) counterweight

#### **INTEGRATED TECHNOLOGIES**

Cat Product Link

# Notes

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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