# 313D2 L



2017





Engine			Weights		
Engine Model	Cat® C4.4		Minimum Operating Weight	13 200 kg	29,100 lb
Engine Power – ISO 14396	75 kW	100 hp	Maximum Operating Weight	13 900 kg	30,640 lb
Net Power – SAE J1349/ISO 9249	68 kW	91 hp			

### 313D2 L Features

### **Engine and Hydraulics**

The powerful C4.4 engine meets U.S. EPA Tier 3, EU Stage IIIA, Japan 2006 (Tier 3) equivalent and China Nonroad Stage III emission standards and is combined with a highly efficient hydraulics system providing excellent machine performance with low fuel consumption.

#### **Structures**

Caterpillar design and manufacturing techniques assure outstanding durability and service life.

### **Operator Station**

The spacious cab features excellent visibility and easy-to-access switches. The monitor features a full-color graphical display which is user intuitive and highly visual with built-in pre-start machine checks. Overall, the new cab provides a comfortable working environment for efficient day-long operation.

### **Service and Maintenance**

This machine has been designed so that routine service and maintenance can be completed quickly and easily to help reduce ownership costs. Convenient access points with extended intervals and advanced filtration keeps down-time 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.

### **Cat 313D2 L 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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Achieve high productivity and lower operating costs with the Cat 313D2 L Hydraulic Excavator. Unmatched versatility, improved controllability, easy operation and a comfortable, redesigned operator station help make the 313D2 L an industry-leading performer.

# **Operator Station**

Enhanced comfort, operation and visibility.

### **Operator Station**

The ergonomically designed operator station is spacious, quiet and comfortable, assuring high productivity during a long work day. All switches are located on the right-hand console for convenient access.

### **Monitor**

The monitor is a full-color Liquid Crystal Display (LCD) that can be adjusted to minimize sun glare. It has the capability of displaying information in Chinese and twenty-seven other languages.

### **Joystick Control**

Low-effort pilot-operated joystick controls are designed to match the operator's natural wrist and arm position for maximum comfort and minimum fatigue.

### Seat

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

### Console

The right and left joystick console can be adjusted to meet individual preferences, improving operator comfort and productivity during the course of a day.

### **Cab Exterior**

The cab shell features thick steel tubing along the bottom perimeter of the cab, improving resistance to fatigue and vibration.



### **Cab Structure and Mounts**

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

### **Windows**

To maximize visibility, all glass is affixed directly to the cab, eliminating window frames. The upper front windshield opens, closes and stores on the roof above the operator with a one-touch action release system.

### Wipers

Pillar-mounted wipers increase the operator's viewing area and offer continuous and intermittent modes.

# **Engine**

Delivering the most work per liter of fuel consumed.



The Cat C4.4 engine meets Tier 3, Stage IIIA, Japan 2006 (Tier 3) equivalent and China Nonroad Stage III emission standards. This engine incorporates a time-proven mechanical governor and a low pressure fuel injection system which are major contributors to the improvement of fuel system robustness, high fuel efficiency and ease of troubleshooting. High filtration performance from the primary filter incorporating a water separator and a secondary filter also help to improve fuel filtration system reliability.

### **Automatic Engine Control and Fuel Delivery**

With a net power of 68 kW (91 hp) the 313D2 L has been designed with fuel economy in mind.

### **Economy Mode**

Available as standard, economy mode allows you to balance the demands of performance and fuel economy while maintaining the breakout forces and lift capacity enjoyed at standard power.



# **Hydraulics**

Low effort and precise control for highly efficient performance.

### **Outstanding Performance**

The 313D2 L hydraulic system is designed for high efficiency and performance. This compact design utilizes short tubes and lines, reducing friction and pressure drops, resulting in a more efficient use of power.

- Hydraulic snubbers at the rod end of the boom cylinders and both ends of the stick cylinder cushion shock, reduce sound and increase cylinder life.
- Flow is reduced to a minimum when controls are in the neutral position to reduce fuel consumption and extend component life.
- Electronic under speed control electronically adjusts pump output to not exceed engine power, preventing the need to reserve engine power to avoid engine stalls.
- Hydraulic cross-sensing system uses two hydraulic pumps up to 100 percent of engine power under all operating conditions, improving productivity with faster implement speeds and quicker, stronger pivot turns.

### **Boom and Stick Regeneration Circuit**

The boom and stick regeneration circuit saves energy during boom-down and stick-in operation, increasing efficiency and lowering operating costs.

### **Easy Operation**

Work mode and power mode switches have been eliminated making full power available at all times. Operators do not need to learn different modes, an automatic boom and swing priority function automatically selects the best mode based on joystick movement.

# **Undercarriage** and **Structures**

Strong, stable and easy to maneuver.

Caterpillar uses advanced engineering and software to analyze all structures, creating a durable, reliable machine for the robust applications. More than 70 percent of the structural welds are robotic and achieve three times the penetration over manual welds. These structural components and undercarriage are the backbone of the machine's durability.

### **Carbody Design**

X-shaped, box-section carbody provides excellent resistance to torsional bending. Robot-welded track roller frames are press-formed, pentagonal units that deliver exceptional strength and service life.

### **Grease Lubricated Track**

Grease lubricated track seals protect the track link and deliver long track link pin and bushing inner wear.

### **Travel Motors**

Travel motors with automatic speed selection let the  $313D2\,L$  automatically change up and down from high and low speeds in a smooth, controlled manner.





# **Front Linkage**

# Reliable and durable meeting all your versatility needs.

Robust applications require robust machine designs. In order to meet your job site needs we use advanced engineering and software to analyze all structures, creating a durable, reliable machine.

### Stick

The 2.5 m (8'2") and 3 m (9'10") reach sticks incorporate new forging and welding processes for increased durability, digging force, and lifting capacity.

#### **Reach Boom**

A 4.65 m (15'3") one-piece, reach boom features parts made from a new forging pattern. A light attached to the left side offers improved visibility in dark and low-light conditions.

# **Work Tools**

Dig, hammer, rip, and cut with confidence.

Each Cat work tool is designed to optimize the versatility and performance of your machine. An extensive range which includes buckets, compactors, grapples, multi-processors, rippers, crushers, pulverizers, hammers and shears is available for your 313D2 L.

### **Couplers**

Quick couplers allow one person to change work tools in seconds for maximum performance and flexibility on a job site. One machine can move rapidly from task to task, and a fleet of similarly equipped machines can share a common work tool inventory.

### **CW Dedicated Coupler**

The CW quick coupler can pick up any work tool and is equipped with a wedge-style locking system that fits the quick coupler tight to the tool hinges. Due to the tapered wedge design, there won't be any play during its entire life. Also it is interchangeable with different machine classes. The CW is highly suitable for harsh applications, such as demolition and quarries.

### Center-Lock™ Pin Grabber Coupler

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



### **Buckets**

Cat Buckets and Cat Ground Engaging Tools (GET) are designed and matched to the machine ensuring optimal performance and fuel consumption.

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

These buckets are designed for digging in low-impact, moderately abrasive materials such as dirt, loam, gravel and clay.

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

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

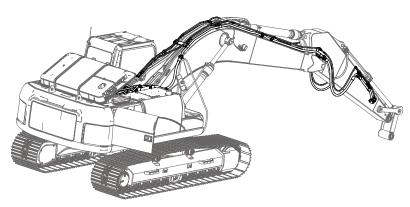
### **Severe Duty Buckets (SD)**

These buckets are best suited to highly abrasive applications such as shot rock, sand stone and granite.









### **Hydraulic Kits\***

Caterpillar offers field-installed hydraulic kits that are uniquely designed to integrate Cat Work Tools with Cat excavators. Hoses and tubes are pre-made, pre-shaped, and pre-painted to make installation quick and easy.

# **Comprehensive Product Support**

All Cat work tools are backed up by a world-wide network of well-stocked spare parts depots and highly experienced after-sales service and support personnel.

\*Offering varies for different regions

Work tools available vary by region. Contact your local Cat dealer for more information about the work tools available in your region.



# **Serviceability**

# Simplified service and maintenance features save you time and money.

### **Ground Level Service**

The design and layout of the 313D2 L was made with the service technician in mind. Many service locations are easily accessible from ground level allowing service and maintenance to get completed quickly and efficiently.

### **Pump Compartment**

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

### **Radiator Compartment**

The left service door allows easy access to the engine radiator, hydraulic oil cooler, water separator, primary and secondary fuel filter, and AC condenser. A reserve tank and drain cock are attached to the radiator for simplified ground level maintenance.

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

### **Hydraulic Filter**

The hydraulic return filter is an in-tank design with a service life of 2,000 hours. A sensor indicates through the in-cab monitor when the filter is plugged and needs to be replaced.

### **Greasing Points**

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

#### Fan Guard

Engine radiator fan is 180 degree enclosed by fine wire mesh, which provides maximum protection when carrying out routine service and maintenance.

### **Anti-Skid Plate**

Anti-skid plating covers the entire upper structure along with the tool box to prevent slipping during maintenance.



### **Diagnostics and Monitoring**

The 313D2 L is equipped with Scheduled Oil Sampling  $(S \cdot O \cdot S^{SM})$  ports for the hydraulic system, engine oil, and coolant. Standard hydraulic test ports situated throughout the hydraulic system enable quick and easy fault finding in the event of a problem.

### **Extended Service Interval**

313D2 L service and maintenance intervals have been extended to reduce machine service time and increase machine availability.



# **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 sized 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 which 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.

Engine		
Engine Model	Cat C4.4	
Engine Power – ISO 14396	75 kW	100 hp
Net Power – SAE J1349/ISO 9249	68 kW	91 hp
Bore	105 mm	4.13 in
Stroke	127 mm	5 in
Displacement	4.4 L	268.5 in <sup>3</sup>

- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.
- No engine derating required below 2300 m (7,546 ft) altitude.
- The 313D2 L meets Tier 3, Stage IIIA, Japan 2006 (Tier 3) equivalent and China Nonroad Stage III emission standards.
- The 313D2 L meets the Stage I of sound regulation.

Weights		
Minimum Operating Weight*	13 200 kg	29,100 lb
Maximum Operating Weight**	13 900 kg	30,640 lb

- \*Reach boom 4.65 m (15'3"), R2.5 m (8'2") stick, 500 mm (20") triple grousers track shoes, GD 0.53 m³ (0.69 yd³) bucket.
- \*\*Reach boom 4.65 m (15'3"), R3.0 m (9'10") stick, 770 mm (20") triple grousers track shoes, GD 0.53 m<sup>3</sup> (0.69 yd<sup>3</sup>) bucket.

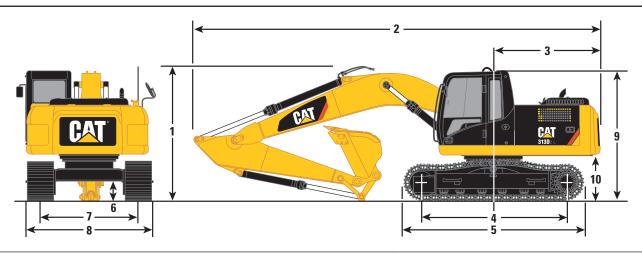
Swing Mechanism		
Swing Speed	12.2 rpm	
Maximum Swing Torque	31 kN·m	22,864 lbf-ft
Drive		
Maximum Travel Speed	5.6 km/h	3.5 mph
Maximum Drawbar Pull	114 kN	25,628 lbf

Hydraulic System		
Main System – Maximum Flow (Total)	254 L/min	67 gal/min
Swing System – Maximum Flow	127 L/min	34 gal/min
Maximum Pressure – Equipment	30 500 kPa	4,424 psi
Maximum Pressure – Travel	35 000 kPa	5,076 psi
Maximum Pressure – Swing	23 000 kPa	3,336 psi
Pilot System – Maximum Flow	21.9 L/min	5.79 gal/min
Pilot System – Maximum Pressure	4120 kPa	598 psi
Boom Cylinder – Bore	110 mm	4.33 in
Boom Cylinder – Stroke	1015 mm	40 in
Stick Cylinder – Bore	120 mm	4.72 in
Stick Cylinder – Stroke	1197 mm	47.1 in
Bucket Cylinder – Bore	100 mm	3.93 in
Bucket Cylinder – Stroke	939 mm	37 in
Service Refill Capacities		
Fuel Tank Capacity	250 L	66.05 gal

Service Refill Capacities		
Fuel Tank Capacity	250 L	66.05 gal
Cooling System	17.88 L	4.73 gal
Engine Oil (with filter)	16 L	4.23 gal
Swing Drive	3 L	0.8 gal
Final Drive (each)	3 L	0.8 gal
Hydraulic System (including tank)	96 L	25.4 gal
Hydraulic Tank	72.6 L	19.2 gal

### **Dimensions**

All dimensions are approximate.



Boom Options		Reach Boom 4.65 m (15'3")		
Stick Options	R3.0 (9'10")	R2.5 (8'2")		
1 Shipping Height*	2830 mm (9'3")	2830 mm (9'3")		
Shipping Height with Guard Rail	2830 mm (9'3")	2830 mm (9'3")		
2 Shipping Length				
Long Undercarriage	7620 mm (25'0")	7610 mm (25'0")		
Long Undercarriage with Blade	7970 mm (26'2")	7960 mm (26'1")		
<b>3</b> Tail Swing Radius	2140 mm (7'0")	2140 mm (7'0")		
4 Length to Center of Rollers				
Long Undercarriage	3040 mm (10'0")	3040 mm (10'0")		
<b>5</b> Track Length				
Long Undercarriage	3750 mm (12'4")	3750 mm (12'4")		
<b>6</b> Ground Clearance	440 mm (1'5")	440 mm (1'5")		
7 Track Gauge	1990 mm (6'6")	1990 mm (6'6")		
8 Transport Width				
500 mm (20") Shoes	2490 mm (8'2")	2490 mm (8'2")		
600 mm (24") Shoes	2590 mm (8'6")	2590 mm (8'6")		
700 mm (28") Shoes	2690 mm (8'10")	2690 mm (8'10")		
770 mm (30") Shoes	2760 mm (9'1")	2760 mm (9'1")		
<b>9</b> Cab Height	2760 mm (9'1")	2760 mm (9'1")		
Cab Height with Top Guard	2900 mm (9'6")	2900 mm (9'6")		
10 Counterweight Clearance**	900 mm (2'11")	900 mm (2'11")		
Bucket Type	GD	GD		
Capacity	0.53 m <sup>3</sup> (0.69 yd <sup>3</sup> )	0.53 m <sup>3</sup> (0.69 yd <sup>3</sup> )		
Tip Radius	1200 mm (3'11")	1200 mm (3'11")		

All dimensions based on bucket A (see table).

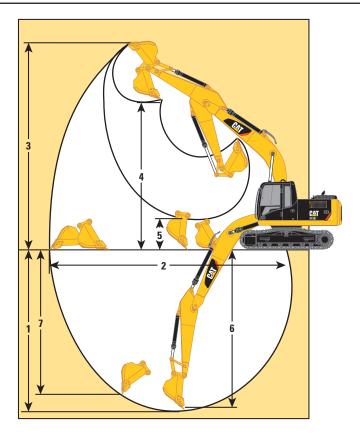
<sup>\*</sup>Including shoe lug height.

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

<sup>\*\*\*</sup>Offering varies for different regions.

# **Working Ranges**

All dimensions are approximate.



Boom Options		Reach Boom 4.65 m (15'3")		
Stick Options		R3.0 (9'10")	R2.5 (8'2")	
1 Maxin	num Digging Depth	6040 mm (19'10")	5540 mm (18'2")	
2 Maxin	num Reach at Ground Level	8630 mm (28'4")	8180 mm (26'10")	
3 Maxin	num Cutting Height	8710 mm (28'7")	8490 mm (27'10")	
4 Maxin	num Loading Height	6330 mm (20'9")	6100 mm (20'0")	
5 Minim	num Loading Height	1530 mm (5'0")	2010 mm (6'7")	
6 Maxin	num Depth Cut for 2440 mm Level Bottom	5860 mm (19'3")	5330 mm (17'6")	
7 Maxin	num Vertical Wall Digging Depth	4990 mm (16'4")	4640 mm (15'3")	
Bucket	Type	GD	GD	
	Capacity	0.53 m <sup>3</sup> (0.69 yd <sup>3</sup> )	0.53 m <sup>3</sup> (0.69 yd <sup>3</sup> )	
	Tip Radius	1200 mm (3'11")	1200 mm (3'11")	

# **Operating Weight and Ground Pressure**

	770 mr Triple Grou			n (28") ıser Shoes	600 mr Triple Grou	n (24") ıser Shoes	500 mr Triple Grou	,
Long Undercarriage wi	thout Blade							
Reach Boom – 4.65 m	(15'3")							
R3.0 (9'10")	13 900 kg (30,640 lb)	26.9 kPa (3.90 psi)	13 800 kg (30,420 lb)	29.4 kPa (4.26 psi)	13 500 kg (29,760 lb)	33.5 kPa (4.86 psi)	13 300 kg (29,320 lb)	39.7 kPa (5.76 psi)
R2.5 (8'2")	13 800 kg (30,420 lb)	26.7 kPa (3.87 psi)	13 700 kg (30,200 lb)	29.2 kPa (4.24 psi)	13 400 kg (29,540 lb)	33.3 kPa (4.83 psi)	13 200 kg (29,100 lb)	39.4 kPa (5.71 psi)

Weights are rounded up to nearest 100 kg and lb including GD 0.53  $\mathrm{m^3}$  (0.69  $\mathrm{yd^3}$ ) bucket (500 kg/1,100 lb).

### **Major Component Weights**

Base Machine (with boom cylinder, without counterweight, front linkage and track)	4490 kg (9,900 lb)
Undercarriage	
Long Undercarriage	2580 kg (5,690 lb)
Counterweight	
Standard Counterweight	2450 kg (5,400 lb)
Boom (includes lines, pins and stick cylinder)	
Reach Boom – 4.65 m (15'3")	1030 kg (2,270 lb)
Stick (includes lines, pins and bucket cylinder)	
R3.0 (9'10")	650 kg (1,430 lb)
R2.5 (8'2")	570 kg (1,260 lb)
Track Shoe (Long/per two tracks)	
500 mm (20") Triple Grouser	1570 kg (3,460 lb)
600 mm (24") Triple Grouser	1820 kg (4,010 lb)
700 mm (28") Triple Grouser	2090 kg (4,610 lb)
770 mm (30") Triple Grouser	2230 kg (4,920 lb)
Quick Coupler – Center Lock with Pin	480 kg (1,060 lb)

All weights are rounded up to nearest 10 kg and lb except for quick coupler and buckets. Kg and lb were rounded up separately so some of the kg and lb do not match. Base machine includes 75 kg (165 lb) operator weight and 90% fuel weight, and undercarriage with center guard.

<sup>\*</sup>Offering varies for different regions.

# **Bucket and Stick Forces**

		Boom (15'3")
Stick Options	R3.0 (9'10")	R2.5 (8'2")
General Duty		
Bucket Digging Force (ISO)	95 kN (21,400 lb)	95 kN (21,400 lb)
Stick Digging Force (ISO)	58 kN (13,100 lb)	65 kN (14,700 lb)
Bucket Digging Force (SAE)	85 kN (19,200 lb)	85 kN (19,100 lb)
Stick Digging Force (SAE)	57 kN (12,800 lb)	64 kN (14,300 lb)
Severe Duty		
Bucket Digging Force (ISO)	95 kN (21,400 lb)	95 kN (21,400 lb)
Stick Digging Force (ISO)	58 kN (13,100 lb)	65 kN (14,700 lb)
Bucket Digging Force (SAE)	84 kN (18,900 lb)	83 kN (18,700 lb)
Stick Digging Force (SAE)	57 kN (12,800 lb)	63 kN (14,200 lb)

# **Bucket Specifications and Compatibility**

Without Quick Coupler	313D2 L														
	Wi	Width Capacity		We	Weight Fill		Reach Boom								
								3.0	2.5	3.0	2.5	3.0	2.5	3.0	2.5
	mm	in	m³	yd³	kg	lb	%	500 mm	(20") TG	600 mm	(24") TG	700 mm	(28") TG	770 mm	(30") TG
General Duty (GD)	450	18	0.20	0.27	276	608	100	•	•	•	•	•	•	•	•
	600	24	0.31	0.40	326	719	100	•	•	•	•	•	•	•	•
	900	36	0.53	0.69	423	932	100	•	•	•	•	•	•	•	•
	1050	42	0.65	0.84	476	1,049	100	•	•	•	•	•	•	•	•
	1200	48	0.76	1.00	510	1,125	100	Х	Х	Х	Х	Х	Х	Х	Х
Severe Duty (SD)	600	24	0.31	0.40	367	810	90	•	•	•	•	•	•	•	•
	900	36	0.53	0.69	466	1,027	90	•	•	•	•	•	•	•	•
	1050	42	0.65	0.84	529	1,166	90	•	•	•	•	•	•	•	•
	1050	42	0.65	0.84	542	1,195	90	•	•	•	•	•	•	•	•
	kg	1750	1970	1765	1980	1800	2025	1820	2045						
	lb	3,857	4,342	3,890	4,364	3,967	4,463	4,011	4,507						

With Center-Lock Quick	313D2 L														
	Width		Capacity		Weight		Fill		Reach Boom						
								3.0	2.5	3.0	2.5	3.0	2.5	3.0	2.5
	mm	in	m³	yd³	kg	lb	%	500 mm	(20") TG	600 mm	(24") TG	700 mm	(28") TG	770 mm	(30") TG
General Duty (GD)	450	18	0.20	0.27	276	608	100	•	•	•	•	•	•	•	•
	600	24	0.31	0.40	326	719	100	•	•	•	•	•	•	•	•
	900	36	0.53	0.69	423	932	100	•	•	•	•	•	•	•	•
	1050	42	0.65	0.84	476	1,049	100	$\Theta$	•	$\Theta$	•	θ	•	$\Theta$	•
	1200	48	0.76	1.00	510	1,125	100	0	$\Theta$	0	$\Theta$	0	$\Theta$	0	$\Theta$
Severe Duty (SD)	600	24	0.31	0.40	367	810	90	•	•	•	•	•	•	•	•
	900	36	0.53	0.69	466	1,027	90	•	•	•	•	•	•	•	•
	1050	42	0.65	0.84	529	1,166	90	$\Theta$	•	$\Theta$	•	•	•	•	•
	1050	42	0.65	0.84	542	1,195	90	$\Theta$	•	$\Theta$	•	•	•	•	•
	kg	1504	1724	1519	1734	1554	1779	1574	1799						
	lb	3,315	3,800	3,348	3,822	3,425	3,921	3,470	3,965						

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)
- X Not recommended

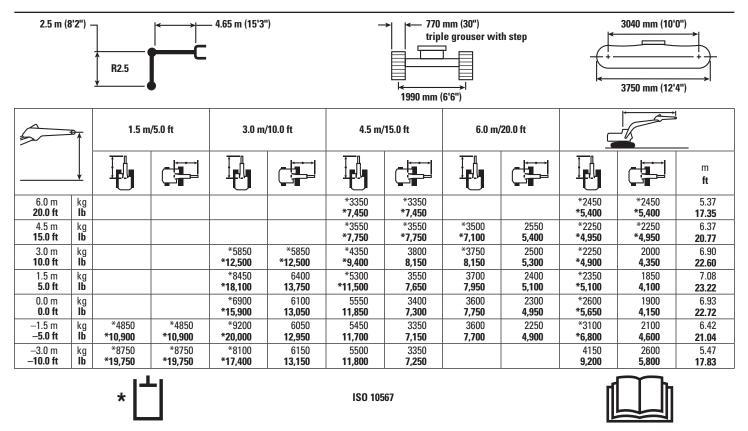
# Reach Boom Lift Capacities – Counterweight: 2.45 mt (5,400 lb) – without Bucket

3.0 m (9	R3.0		4.65 m	ı (15'3")		<b>→</b>		0 mm (30") ple grouser (6'6")	3040 mm (10'0") 3750 mm (12'4")						
5	1.5 m/5.0 ft			1.5 m/5.0 ft 3.0 m/10.		3.0 m/10.0 ft 4.5 m/15.0 ft		15.0 ft	6.0 m/	⁄20.0 ft	7.5 m/25.0 ft				
														m <b>ft</b>	
7.5 m <b>25.0 ft</b>	kg <b>Ib</b>											*2550	*2550	4.37	
6.0 m <b>20.0 ft</b>	kg <b>Ib</b>											*2100 <b>*4.650</b>	*2100 <b>*4.650</b>	5.95 <b>19.26</b>	
4.5 m <b>15.0 ft</b>	kg <b>Ib</b>							*3150 <b>*6,900</b>	2550 <b>5,500</b>			*2000 <b>*4,350</b>	*2000 <b>*4,350</b>	6.86 <b>22.39</b>	
3.0 m <b>10.0 ft</b>	kg <b>Ib</b>					*3850 <b>*8,400</b>	3850 <b>8,250</b>	*3450 <b>*7,500</b>	2500 <b>5,350</b>			*2000 <b>*4,350</b>	1800 <b>3,950</b>	7.35 <b>24.09</b>	
1.5 m <b>5.0 ft</b>	kg <b>Ib</b>			*7550 <b>*16,250</b>	6500 <b>14,000</b>	*4900 <b>*10,650</b>	3600 <b>7,700</b>	3700 <b>7,950</b>	2400 <b>5,100</b>	*2150	1700	*2050 <b>*4,550</b>	1700 <b>3,700</b>	7.52 <b>24.67</b>	
0.0 m <b>0.0 ft</b>	kg <b>Ib</b>			*7850 <b>*18,150</b>	6050 <b>13,050</b>	5500 <b>11,850</b>	3400 <b>7,250</b>	3600 <b>7,700</b>	2300 <b>4,900</b>			*2300 <b>*5,000</b>	1700 <b>3,750</b>	7.38 <b>24.20</b>	
−1.5 m <b>−5.0 ft</b>	kg <b>Ib</b>	*4500 <b>*10,050</b>	*4500 <b>*10,050</b>	*9350 <b>*20,200</b>	5950 <b>12,750</b>	5400 <b>11,600</b>	3300 <b>7,050</b>	3550 <b>7,550</b>	2200 <b>4,750</b>			*2700 <b>*5,900</b>	1850 <b>4,050</b>	6.91 <b>22.63</b>	
−3.0 m − <b>10.0 ft</b>	kg <b>Ib</b>	*7500 * <b>16,850</b>	*7500 * <b>16,850</b>	*8550 * <b>18,500</b>	6000 <b>12,850</b>	5400 <b>11,600</b>	3300 <b>7,050</b>	3550	2250			3550 <b>7,800</b>	2250 <b>4,950</b>	6.04 <b>19.69</b>	
−4.5 m <b>−15.0 ft</b>	kg <b>Ib</b>			*6450 <b>*13,700</b>	6200 <b>13,350</b>	*4050	3450					*4000 <b>*8,800</b>	3400 <b>7,700</b>	4.53 <b>14.54</b>	
		*	٦_				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.

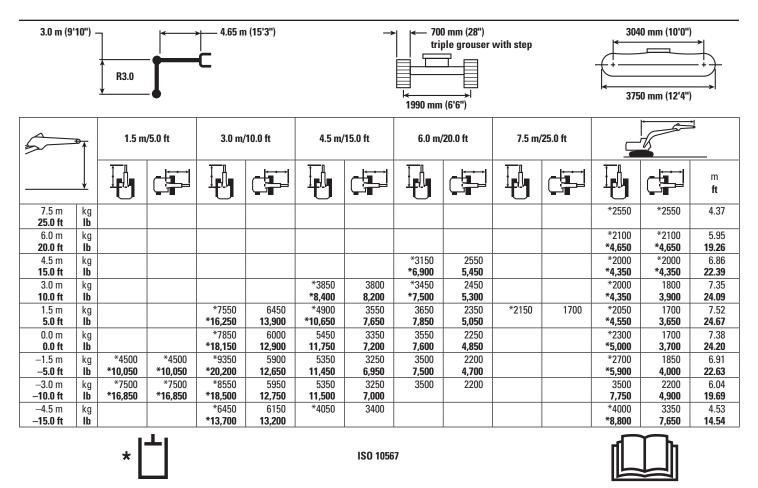
### Reach Boom Lift Capacities – Counterweight: 2.45 mt (5,400 lb) – without Bucket



<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.

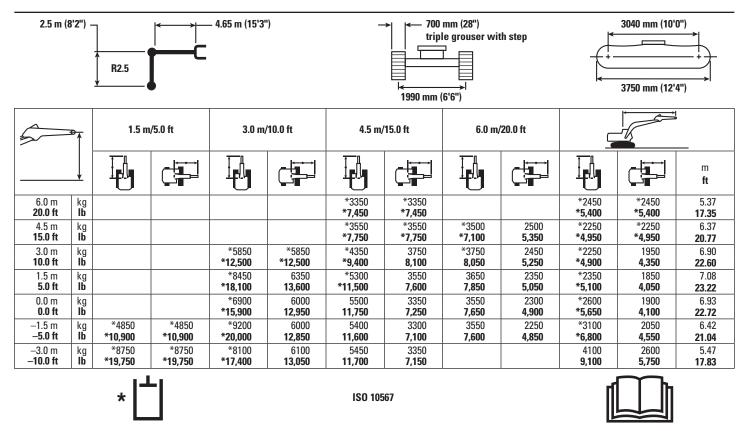
### Reach Boom Lift Capacities – Counterweight: 2.45 mt (5,400 lb) – without Bucket



<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.

### Reach Boom Lift Capacities – Counterweight: 2.45 mt (5,400 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.

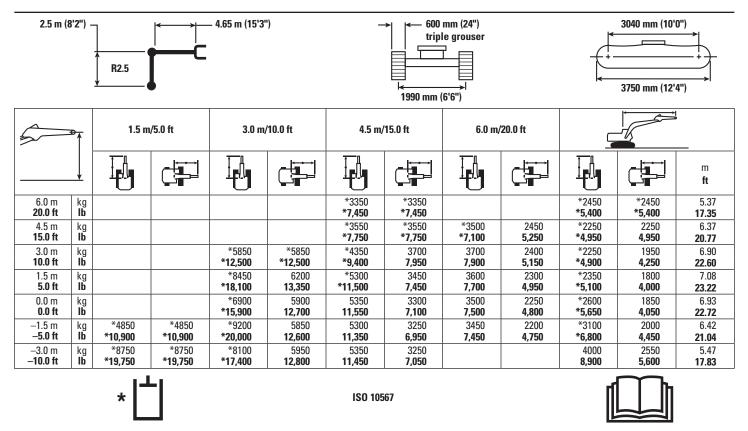
# Reach Boom Lift Capacities – Counterweight: 2.45 mt (5,400 lb) – without Bucket

3.0 m (9'10") 4.65 m (15'3")								600 mm (24") triple grouser 1990 mm (6'6")									
5	1.5 m/5.0 ft			1.5 m/5.0 ft 3.0		3.0 m/10.0 ft		4.5 m/	4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft				
	<u> </u>													m ft			
7.5 m <b>25.0 ft</b>	kg <b>Ib</b>											*2550	*2550	4.37			
6.0 m <b>20.0 ft</b>	kg <b>Ib</b>											*2100 <b>*4.650</b>	*2100 <b>*4,650</b>	5.95 <b>19.26</b>			
4.5 m <b>15.0 ft</b>	kg <b>Ib</b>							*3150 <b>*6,900</b>	2500 <b>5,350</b>			*2000 <b>*4,350</b>	*2000 <b>*4,350</b>	6.86 <b>22.39</b>			
3.0 m <b>10.0 ft</b>	kg <b>lb</b>					*3850 <b>*8,400</b>	3750 <b>8,050</b>	*3450 <b>*7,500</b>	2400 <b>5,200</b>			*2000 <b>*4,350</b>	1750 <b>3,800</b>	7.35 <b>24.09</b>			
1.5 m <b>5.0 ft</b>	kg <b>Ib</b>			*7550 <b>*16,250</b>	6350 <b>13,650</b>	*4900 <b>*10,650</b>	3500 <b>7,500</b>	3600 <b>7,700</b>	2300 <b>4,950</b>	*2150	1650	*2050 <b>*4,550</b>	1650 <b>3,600</b>	7.52 <b>24.67</b>			
0.0 m <b>0.0 ft</b>	kg <b>Ib</b>			*7850 <b>*18,150</b>	5900 <b>12,650</b>	5350 <b>11,500</b>	3300 <b>7,050</b>	3500 <b>7,450</b>	2200 <b>4,750</b>			*2300 <b>*5,000</b>	1650 <b>3,600</b>	7.38 <b>24.20</b>			
−1.5 m <b>−5.0 ft</b>	kg <b>lb</b>	*4500 <b>*10,050</b>	*4500 <b>*10,050</b>	*9350 <b>*20,200</b>	5800 <b>12,400</b>	5250 <b>11,250</b>	3200 <b>6,850</b>	3400 <b>7,350</b>	2150 <b>4,600</b>			*2700 <b>*5,900</b>	1800 <b>3,950</b>	6.91 <b>22.63</b>			
−3.0 m − <b>10.0 ft</b>	kg <b>Ib</b>	*7500 <b>*16,850</b>	*7500 <b>*16,850</b>	*8550 * <b>18,500</b>	5850 <b>12,500</b>	5250 <b>11,250</b>	3200 <b>6,850</b>	3450	2200			3400 <b>7,600</b>	2150 <b>4,800</b>	6.04 <b>19.69</b>			
−4.5 m <b>−15.0 ft</b>	kg <b>Ib</b>			*6450 <b>*13,700</b>	6050 <b>12,950</b>	*4050	3350					*4000 <b>*8,800</b>	3300 <b>7,500</b>	4.53 <b>14.54</b>			
		*	1				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.

### Reach Boom Lift Capacities – Counterweight: 2.45 mt (5,400 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.

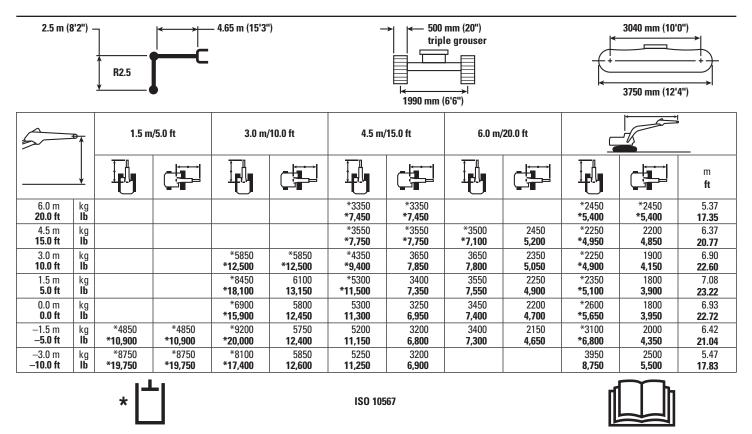
# Reach Boom Lift Capacities – Counterweight: 2.45 mt (5,400 lb) – without Bucket

3.0 m (9'10") 4.65 m (15'3")								500 mm (20") triple grouser  1990 mm (6'6")											
5	<b>→</b>	1.5 m	1.5 m/5.0 ft		1.5 m/5.0 ft		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				
	<u> </u>													m <b>ft</b>					
7.5 m <b>25.0 ft</b>	kg <b>Ib</b>											*2550	*2550	4.37					
6.0 m <b>20.0 ft</b>	kg <b>Ib</b>											*2100 <b>*4.650</b>	*2100 <b>*4,650</b>	5.95 <b>19.26</b>					
4.5 m <b>15.0 ft</b>	kg <b>Ib</b>							*3150 <b>*6,900</b>	2450 <b>5,250</b>			*2000 * <b>4,350</b>	1950 <b>4,300</b>	6.86 <b>22.39</b>					
3.0 m <b>10.0 ft</b>	kg <b>lb</b>					*3850 <b>*8,400</b>	3700 <b>7,950</b>	*3450 <b>*7,500</b>	2400 <b>5,100</b>			*2000 <b>*4,350</b>	1700 <b>3,750</b>	7.35 <b>24.09</b>					
1.5 m <b>5.0 ft</b>	kg <b>Ib</b>			*7550 <b>*16,250</b>	6250 <b>13,450</b>	*4900 <b>*10,650</b>	3450 <b>7,400</b>	3550 <b>7,550</b>	2250 <b>4,850</b>	*2150	1600	*2050 <b>*4,550</b>	1600 <b>3,550</b>	7.52 <b>24.67</b>					
0.0 m <b>0.0 ft</b>	kg <b>Ib</b>			*7850 <b>*18,150</b>	5800 <b>12,450</b>	5250 <b>11,300</b>	3250 <b>6,950</b>	3400 <b>7,350</b>	2150 <b>4,650</b>			*2300 <b>*5,000</b>	1600 <b>3,550</b>	7.38 <b>24.20</b>					
−1.5 m <b>−5.0 ft</b>	kg <b>lb</b>	*4500 <b>*10,050</b>	*4500 <b>*10,050</b>	*9350 <b>*20,200</b>	5700 <b>12,150</b>	5150 <b>11,050</b>	3100 <b>6,700</b>	3350 <b>7,200</b>	2100 <b>4,550</b>			*2700 <b>*5,900</b>	1750 <b>3,850</b>	6.91 <b>22.63</b>					
−3.0 m <b>−10.0 ft</b>	kg <b>lb</b>	*7500 <b>*16,850</b>	*7500 <b>*16,850</b>	*8550 <b>*18,500</b>	5750 <b>12,300</b>	5150 <b>11,050</b>	3150 <b>6,700</b>	3400	2150			3350 <b>7,450</b>	2100 <b>4,700</b>	6.04 <b>19.69</b>					
−4.5 m <b>−15.0 ft</b>	kg <b>Ib</b>			*6450 <b>*13,700</b>	5950 <b>12,750</b>	*4050	3250					*4000 <b>*8,800</b>	3250 <b>7,350</b>	4.53 <b>14.54</b>					
		*	_ ا				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.

### Reach Boom Lift Capacities – Counterweight: 2.45 mt (5,400 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.

# 313D2 L Standard Equipment

### **Standard Equipment**

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

#### **ENGINE**

- Diesel engine Cat C4.4 with mechanical governor
- -2300 m (7,546 ft) altitude capability
- 50 amp alternator, air intake heater
- Meets Tier 3, Stage IIIA, Japan 2006
   (Tier 3) equivalent and China Nonroad
   Stage III emission standards
- 10 micron fuel filter
- 4 micron fuel pre-filter
- One touch low idle with AEC
- Remote engine oil filter
- Radial seal air filter, double element
- Two speed travel
- Water separator in fuel line with indicator
- Waved fin radiator with side by side type oil cooler
- Fix type A/C condenser
- 46° C (114.8° F) high ambient cooling
- Air precleaner

#### CAB

- Bolt-on FOGS capability
- Openable front windshield with assist device
- Pillar mounted upper windshield wiper and washer
- Front windshield glass split by 70/30
- Cab sliding upper door window
- Rear window, emergency exit
- Removable lower windshield with in cab storage bracket
- · Metal hatch
- Interior lighting
- · Standard joystick
- · Laminated front upper windshield
- Seat high back, mechanical suspension with head rest

- Seat belt, retractable
- Floor mat
- Bi-level air conditioner (auto) with defroster
- · Windshield washer
- · Coat hook
- · Ashtray and lighter
- · Beverage holder
- Literature holder
- · Radio mounting
- Mounting for two stereo speakers
- Antenna flexible type
- Storage compartment suitable for lunch box
- Monitor
- Language display
- -Full graphic and full color display
- Warning information
- Filter/fluid change information
- Machine condition
- Error code and tool mode setting information
- -Full time clock on monitor
- Positive filtered ventilation
- Seat integrated control joystick
- · Adjustable armrest
- Adjustable console
- Neutral lever (lock out) for all controls
- Travel control pedals with removable hand levers
- Capability of installing two additional pedals

#### **ELECTRICAL**

- · Circuit breaker
- Cat battery

### **TECHNOLOGY**

• Product Link<sup>TM</sup>

### **HYDRAULIC**

- Hydraulic main pump
- High performance hydraulic return filter
- · Regeneration control for boom and stick
- Boom lowering device for back up
- · Boom drift reducing valve
- · Stick drift reducing valve
- Reverse swing damping valve
- Automatic swing parking brake
- · Auxiliary hydraulic valve
- Capability of stackable valves for main valve
- · Capability of auxiliary circuit

#### **SECURITY**

- · Cat one key security system
- Signaling/warning horn
- Mirrors, rearview (frame right, cab left)
- · Secondary engine shutoff switch
- · Door locks
- Cap locks on fuel and hydraulic tanks
- Lockable external tool/storage box
- Openable skylight for emergency exit

#### **LIGHTS**

- Halogen boom light (left side)
- Exterior lights integrated into storage box

### **UNDERCARRIAGE**

- Grease lubricated track (GLT2)
- Idler section track guiding guard
- Towing eye on base frame
- Standard idler tension spring
- Guard, standard bottom

# 313D2 L Optional Equipment

# **Optional Equipment**

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

### **ENGINE**

- Cold weather batteries, -25° C (-13° F)
- · Air precleaner

#### **HYDRAULIC**

- · Combined circuit
- Combined circuit with medium pressure
- Center-Lock quick coupler lines and control
- Joystick with modulation SW
- Boom and Stick high pressure, medium pressure and quick couple line options
- · Control pattern quick-changer, four way

#### CAB

- Seat with seat heater, high back, air suspension with head rest
- Pull-down sunscreen
- 12V-10A power supply with two cigar lighter type sockets

### **UNDERCARRIAGE**

- 500 mm (20") triple grouser shoes
- 600 mm (24") triple grouser shoes
- 770 mm (30") triple grouser shoes

### **COUNTERWEIGHT**

- Counterweight without lifting eye (2450 kg/5,400 lb)
- Counterweight without lifting eye (2650 kg/5,840 lb)

### FRONT LINKAGE

- Boom, 4.65 m (15'3")
- Stick, 2.5 m (8'2")
- Stick, 3.0 m (9'10")
- Bucket linkage
- · Quick coupler

### **LIGHTS**

- Cab lights
- Halogen boom light (right side)

#### **SECURITY**

- · Travel alarm
- Cab mirror

#### **GUARDS**

- FOGS (bolt on)
- Guard, heavy duty bottom
- · Swivel guard

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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AEHQ7905 (Indonesia, Southeast Asia)

