

### 312B Hydraulic Excavator

Improved performance and rugged durability combine to maximize productivity.

### **Operator Station**

Roomy, quiet, automatically climate controlled cab has excellent sightlines to the work area to help keep operator fatigue low and production up throughout the entire shift. pg. 4-5

### Improved performance.

Better controllability, higher stick and bucket forces, increased lift capacity, simplified service and a more comfortable operator station increase your productivity and lower your operating costs.

#### Serviceability

Simplified service through many ground level service points, improved filtration and filter access, and electronic diagnostics means increased productivity. pg. 6

#### **Electronic Control System**

Maximizes fuel efficiency and performance by maintaining the optimum balance between engine speed and hydraulic demand. pg. 7



#### Hydraulics

✓ New higher pressure Caterpillar<sup>®</sup> hydraulics provide increased break-out and crowd forces to maximize bucket loads and decrease cycle times. The Cat Electronic Power Control system allows smooth, efficient operation, pg. 8

#### Engine

The 312B is powered by the Cat 3064T engine. This engine includes several design features which enhance performance, efficiency and reliability. pg. 9

#### Undercarriage and Blade

Cat designed excavator undercarriage is stable, durable and low maintenance.

✔ New smoother track roller frames are easier to clean. A new blade option adds versatility. pg. 10

#### **Booms and Sticks**

Two sticks are available to meet your needs. A selection of buckets helps pg. 11

#### Structures

Caterpillar design and manufacturing techniques assure outstanding durability and service life from these important



Operator Station

Designed for comfort and ease of operation.





# This operator work station is quiet with ergonomic control placement

and convenient adjustments, low lever and pedal effort, ergonomic seat design, and highly efficient ventilation. The result is a cab that puts the operator firmly and comfortably in control which can translate into greater productivity.

Excellent viewing area through large, wide windows. An optional large pushopen skylight provides upward visibility. The upper front windshield features a pillar mounted wiper to provide unobstructed front viewing. The upper left side door window can slide open. The lower window provides a view to the tracks and the ground next to the machine. The rear window offers a good view behind and to the left, aided by a low engine hood profile.

**Greater control convenience.** Each of the controls is positioned within easy reach of the operator.

The double wall, pressed cab shell is mounted to the swing frame using viscous mounts for reduced sound and vibrations.

1 Caterpillar Electronic Control System panel includes fuel level, hydraulic oil temperature and engine coolant temperature gauges, machine condition indicators and operator controls in a single console for ease of use (refer to Electronic Control System on page 7).

- 2 Ventilation system. At the touch of a switch, the operator can choose between fresh, recirculated or (optional) air conditioning.
- 3 Joysticks control all implements and swing functions with minimal effort. The integrated joystick consoles adjust to operator preference. Joystick consoles are suspended as part of the seat arrangement.
- 4 Dial throttle with ten settings for simple, precise engine speed adjustment.
- 5 Hand or foot actuated travel controls allow the operator to move the excavator while working the frontend. Hand levers are easily removable.
- 6 Hydraulic activation control lever deactivates hydraulic functions and prevents start-up when the operator exits the cab.
- 7 The fully adjustable standard suspension seat includes an impressive range of comfort features. It has fore/aft height and weight adjustments and a retractable seat belt.

# Serviceability

Simplified service and maintenance features save time and money.

Faster, easier maintenance means improved uptime and a better value.

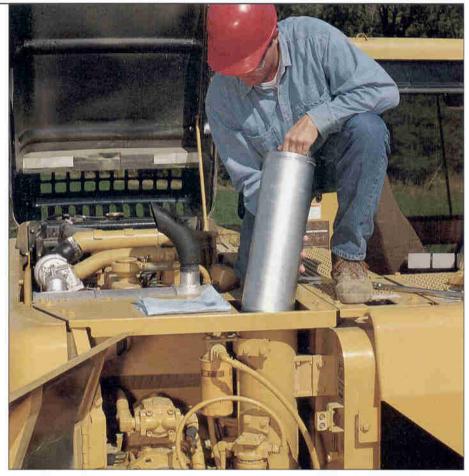
More ground level service points for fuel-water separator, battery, radiator fluid level, window washer fluid level and pilot system filter.

# Improved filters and filter locations makes maintenance easier.

- Hydraulic capsule filter moved to outside hydraulic tank. New design avoids spills and contamination during replacement. Indicator in cab signals when the filter needs to be replaced, extending filter service life. This system includes a Scheduled Oil Sampling port to simplify sampling.
- Radial seal air cleaner has double layered filter core for better filtration.
   No tools required to change.
   Operator is alerted to clogs.
- Engine oil filter is located higher in the engine compartment for easier access.
- Pilot hydraulic system filter keeps contaminates away from the pilot system.

# Design and layout improvements translate to ease of use.

- Front linkage pin puller holes promote easier disassembly of front linkage.
- Cotter pin retained track master pin simplifies disassembly and assembly.



Water separator removes water from fuel even when under pressure and is located in the pump compartment.

Remote greasing block on the boom and two grease points for the swing bearing deliver grease to hard to reach locations. **Electronic Power Unit Control** has diagnostic capabilities for Cat dealer's use.

 Dealer service technicians can quickly and easily diagnose and adjust machine components, maximizing uptime.

### **Electronic Control System**

The Electronic Control System manages the engine and hydraulics for maximum performance.

Electronic Power Unit Control System controls state-of-the-art hydraulics and engine performance for maximized productivity, increased fuel efficiency, and lower emission and sound levels.

Automatic Engine Speed Control reduces engine speed to 1300 rpm during light-load or no-load applications. Button on right control lever engages low idle function reducing engine speed to 1100 rpm. Press again to return to previous setting.

Electronic Engine Underspeed Control balances engine and hydraulic output for maximum performance and fuel efficiency.

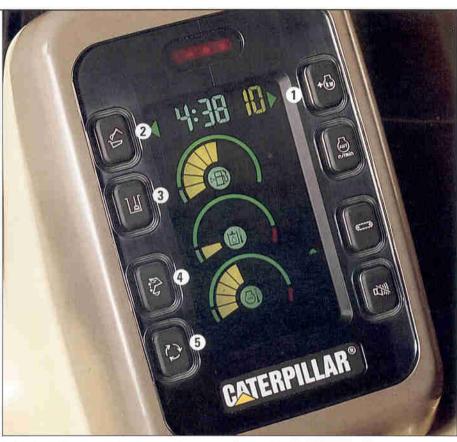
- It adjusts hydraulic pump output to maintain engine rpm in optimum range.
- 100 percent of engine power is available for the hydraulic system.

Operator control panel allows optimization of performance in all applications. The high contrast back-lit liquid crystal display includes:

- Power Mode Selector changes engine power and speed at the touch of a button.
  - Economy Mode sets engine power at 90 percent and is used during normal and utility operations to reduce fuel consumption and sound levels.
  - Power Up Mode sets engine power at 100 percent for high production truck loading, trenching, and highspeed travel.

Work Mode Selector matches hydraulic characteristics to the application.

2 Boom Priority Mode gives priority flow to the boom for deep trenching and truck loading, where there is significant boom movement relative to swing.



- 3 Swing Priority Mode gives swing flow priority and is especially suited to sidewall digging.
- 4 Fine Control Mode optimizes hydraulic pump output for applications like slope finishing or precision lifting which require smoother control.
- 5 User Mode allows the operator to choose from three submodes:
  - Tamping Mode adjusts boom speed and force to keep machine motion at a minimum when compacting material with the bucket.
  - Hammer Mode allows pump flow and hydraulic pressure adjustments to enhance hammer effectiveness.
  - Customer Mode allows a customized combination of a work mode, power mode, and hydraulic output to be selected, recorded, and recalled for later use.

Machine monitoring system uses a progression of indicators, action lamps, and alarms to inform the operator of machine conditions.

Service Mode of the Electronic Power Unit Control delivers fast, detailed diagnosis of machine conditions improving uptime (refer to Serviceability).

### **Hydraulics**

Caterpillar hydraulics deliver power and control to keep material moving at high volume.



Dramatically increased control responsiveness aids operation and improves cycle time.

- Control movements better matched to hydraulic action for improved operator performance.
- Improved swing damping restrains drift and improves positioning during finishing and lifting applications.

Nine percent increase in hydraulic relief pressure increases stick and bucket forces for better productivity, nine percent higher lift capacity (at lifting points limited by hydraulic pressure) and a wider range of workable material.

Hydraulic cross-sensing system improves productivity with faster implement speeds and quicker, stronger pivot turns.

- 100 percent of engine horsepower deliverable as hydraulic power.
- Full power to a single motor for strong, fast turns. Balanced power to two pumps for straight travel.

**Boom regeneration circuit** diverts oil to lower the boom. Pumps have all pressure and flow available for other circuits.

Stick regeneration circuit diverts oil to assist stick-in operation. Flow from the pumps can be directed to other circuits, saving energy.

**Pump flow** decreases when controls are in neutral for reduced fuel consumption and sound.

Auxiliary hydraulic valve is standard on the 312B for use with optional hydraulic circuits.

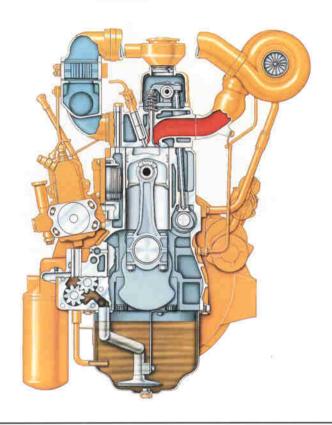
**Hydraulic cylinder snubbers** at rod-end of boom cylinders and both ends of stick cylinders cushion shocks, reduce sound and increase cylinder life.

Cat's XT hose meets the critical flexibility and strength demands of the 312B.

 O-ring face seal couplings provide positive sealing for reliable, leak-free connections.

### Cat 3064T Engine

The four cylinder turbo-charged engine is built for power, reliability, economy and low emissions.



Automatic Engine Control with convenient one-touch command (refer to page 7). Three-stage control maximizes fuel efficiency and reduces sound levels.

- When placed in the "OFF" mode, if a no-load condition or light-load condition continues more than three seconds, the automatic engine control reduces engine speed by 100 rpm.
- When placed in the "ON" mode, if a no-load condition or light-load condition continues more than three seconds, the automatic engine control reduces engine speed from high idle to 1300 rpm.
- At any time, the operator can activate a switch on the top of the right control lever to reduce the engine speed to 1100 rpm. This feature, referred to as one-touch idle, can be used both to conserve fuel and to reduce engine sound levels. Activate switch again to return to previous level.

Efficient, direct injection fuel system means lower operating costs.

**Turbo-charged** to increase engine power by burning fuel with greater efficiency.

Eight balance, one-piece, forged crankshaft enhances balance and decreases vibration and is induction hardened to improve abrasion resistance.

Heat resistant aluminum alloy pistons have a short compression height, reducing weight and improving efficiency.

Forged, high carbon steel connecting rods with smaller connecting rod to crank radius ratio results in a lightweight, powerful, compact engine.

The lubricating tube inside the engine has been replaced with integrated cast oil passages.

Air intake heating is standard on the 312B for easier cold starts. When coolant temperature is above 10° C (50° F) the air intake heater does not operate, below that temperature the length of the heating period automatically adjusts to the temperature.

## **Undercarriage and Blade**

Durable undercarriage absorbs stresses and provides excellent stability.



**Precision robotic welding** helps ensure quality welds. These welds increase rigidity, reduce internal stresses and enhance durability for the chassis and track roller frames.

Heavy-duty, X-shaped chassis design. Cat undercarriage components are purposely oversized to offer heavyduty performance and durability.

Strutted track links are sealed for longer life. Track rollers, carrier rollers and idlers are also sealed and lubricated for excellent service life.

Smoother auto shifting two-speed travel motors offer top travel speeds and plenty of pull on slopes or turns.

Two undercarriage choices:

Standard (STD) undercarriage is well suited for applications that require frequent repositioning of the machine, have restricted working space, or have uneven or rocky terrain.

Long (L) undercarriage maximizes stability and lifting capacity. Long and sturdy undercarriage offers a very stable work platform. The elimination of the ledge at carbody and roller frame juncture reduces material build-up and makes digging out easier.

Standard idler guards maintain track alignment. Optional center section guards (standard on the 312B L) are available for additional protection on side slopes.

- 1 Optional blade increases versatility.
  - Helps level a working space so the 312B sits firmly and digs vertically.
  - Dozes and backfills trenches.
     Blade even has a float position for ease of use, smooth results.
  - Speeds site cleanup objects can be trapped against the blade for easier bucket loading.
  - With the blade down, lift capacity over the front is increased (see lift charts in the specifications section).



### **Booms and Sticks**

The 312B has designed-in flexibility to help bring higher versatility and efficiency to your jobs.

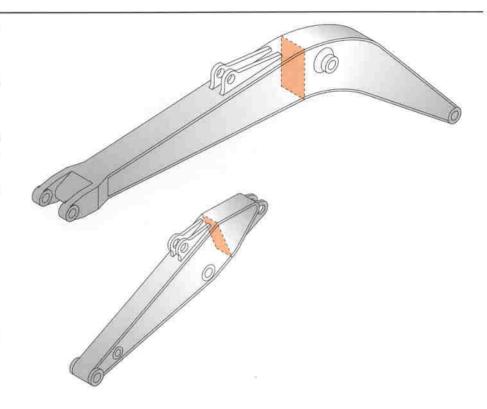
Select the right combination for the job with your Cat dealer and you'll help ensure top production from the start.

Caterpillar excavator booms and sticks are built for performance and long service life.

- Large, welded, box-section structures with thick, multi-plate fabrications in high-stress areas.
- Construction allows structures to flex and dissipate stresses.

The choice of two sticks plus a wide selection of buckets and attachments, means the 312B offers several combinations of reach and digging forces for optimum versatility.

Choose from a variety of work tools such as hammers, compactors, grapples or crushers. Ask your Cat dealer for information on attachments or special configurations.



### **Structures**

The 312B structural components are the backbone of the machine's durability.

Advanced carbody design stands up in the toughest applications.

- Modified X-shaped, box-section carbody provides excellent resistance to torsional bending.
- Upper structure weight and stresses are distributed evenly across the full length of the track roller frame.
- Smooth transitions and long welds reduce stresses at the carbody-toroller frame junctions for excellent durability.
- Robot welding ensures consistent, high-quality welds throughout the manufacturing process.

Robot-welded track roller frames are press-formed, pentagonal units that deliver exceptional strength and service life.

Rugged main frame is designed for maximum durability and efficient use of materials.

- Outer frame utilizes curved side rails, which are die-formed, for excellent uniformity and strength throughout the length.
- Box section channels improve upper frame rigidity under the cab.
- Inverted U-channels span the width of the main frame and are formed, rather than fabricated, for superior strength and reduced weight.

- Boom tower and main rails are constructed of solid, high-tensile strength steel plates.
- Boom foot and engine mount areas reinforced for additional strength.
- Sheet metal supporting structure is improved by integrating the mounting into upper frame structure.

### **Complete Customer Support**

Cat dealer services help you operate longer with lower costs.



Your Cat dealer offers a wide range of services that can be set up under a customer support agreement when you purchase your equipment. To help you get the best return on your investment, the dealer will help you choose a plan that can cover everything from machine and attachment selection to replacement.

Selection. Make detailed comparisons of the machines you are considering before you buy. What are the job requirements? What production is needed? What is the true cost of lost production? Your Cat dealer can give you precise answers to these questions.

Purchase. Look past initial price.

Consider the financing options available as well as day-to-day operating costs.

This is also the time to look at dealer services that can be included in the cost of the machine to yield lower equipment owning and operating costs over the long run.

**Operation.** Improving operating techniques can boost your profits. Your Cat dealer has training videotapes, literature and other ideas to help you increase productivity.

Maintenance. What is the cost of preventive maintenance? More and more equipment buyers are planning for effective maintenance before buying equipment. Choose from your dealer's wide range of maintenance services at the time you purchase your machine. Repair option programs guarantee the cost of repairs up front. Diagnostic programs such as Scheduled Oil Sampling and Technical Analysis help you avoid unscheduled repairs.

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

Product support. You will find nearly all parts at our dealer parts counter. Cat dealers utilize a worldwide computer network to find in-stock parts to minimize machine down time. Save money with remanufactured components. You receive the same warranty and reliability as new products at cost savings of 40 to 70 percent.

### Engine

Caterpillar 3064T turbo-charged diesel engine.

Ratings at 1900 rpm*	kW	hp
Gross power	68	91
Net power	63	84

The following ratings apply at 1900 rpm when tested under the specified standard conditions for the specified standard:

Net power	kW	hp
Caterpillar	63	84
ISO 9249	63	84
SAE J1349	62	83
EEC 80/1269	63	84

#### **Dimensions**

Bore	102 mm	4.02 in
Stroke	130 mm	5.12 in
Displacement	4.25 liters	259 in <sup>3</sup>

#### \*Power rating conditions

- · based on standard air conditions of 25°C (77°F) and 99 kPa (29.32 in Hg) dry barometer
- used 35° API gravity fuel having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 30°C (86°F) [ref. a fuel density of 838.9 g/L (7.001 lb/ U.S.
- 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 2300m (7,550 ft) altitude

#### **Features**

- fuel injectors control fuel delivery more efficiently, resulting in better performance, fuel economy, and reduced noise and smoke
- 24-volt electric system with 50-amp alternator and two 100-amp/hr batteries
- low profile, heat-resistant, aluminum alloy pistons
- high carbon, steel forged connecting
- precision cast cylinder head with helical intake ports
- one-piece, induction hardened forged alloy crankshaft

# **Hydraulic System**

Two variable displacement, axial-piston pumps power the boom, stick, swing, bucket, auxiliary and travel circuits. One single-section, gear-type pump powers the pilot circuit.

Main Implement System	
Maximum flow	2 x 120 liters/min (2 x 32 gpm)
Maximum pressure	
Implements	29 900 kPa (4340 psi)
Travel	34 300 kPa (4980 psi)
Swing	23 050 kPa (3340 psi)
Pilot System	

### Maximum pressure

Outlandary Dave and Charles

Cylinders, Bore and Stroke	
Boom (2)	110 x 1015 mm (4.3" x 40")
Stick (1)	120 x 1197 mm (4.8" x 47")
Bucket (1)	100 x 939 mm (4.0" x 37.5")

#### **Features**

Maximum flow

- main hydraulic pumps are electronically controlled and dependent on engine speed
- power modes match hydraulic output to application severity
- XT hose

### Drive

Drive system is fully hydrostatic.

Ratings			
Maximum drawbar pull	104 kN	(22,930 lb)	
Maximum travel speed	5.5 km/h	(3.4 mph)	

#### **Features**

18 liters/min 4.8 gpm)

3900 kPa (570 psi)

- each track is driven by one independent, automatic shifting, twospeed axial piston motor via integral planetary final drives
- each drive module is well integrated into the roller frame for total protection

### **Brakes**

Meets the following standards: SAE J1026 APR90

#### Service and parking brake features

- wet, multiple-disc brakes are used on the final drive input shafts
- · spring-applied, hydraulically released
- actuating a travel control simultaneously releases the brakes
- when the controls are released, the brakes automatically apply

### Buckets

Buckets have tapered sides, angled corner teeth, dual radius curvature, horizontal wear strips, and holes for optional side cutters.

				Recomm	ended Maxim	um Material	Density
Wic	ith	Cap	acity	Mediu	m Stick	Long	Stick
mm	in	m³	yd³	kg/m³	lbs/yd³	kg/m³	lbs/yd3
625	24	0.35	0.46	1800	3000	1800	3000
775	30	0.46	0.60	1800	3000	1800	3000
925	36	0.57	0.75	1800	3000	1500	2500
1075	42	0.67	0.88	1500	2500	1200	2000
1225	48	0.78	1.02	1500	2500	1200	2000

Material Densities

Material	kg/m³*	lb/yd³**	Material	kg/m³*	lb/yd³**
Clay, dry	1500	2500	Gravel, pit run	1930	3250
Clay, wet	1660	2800	Rock/dirt, 50%	1720	2900
Earth, dry	1510	2550	Sand, dry	1425	2400
Earth, wet	1600	2700	Sand, wet	1700	2850
Loam	1250	2100	Sand & Clay	1600	2700
Gravel, dry	1510	2550	Stone, crushed	1600	2700
Gravel, wet	2000	3400	Top soil	950	1600

kilograms per loose cubic meter

For densities of other materials see Caterpillar Performance Handbook

### Steering

Two rocker pedals with detachable hand levers control steering and travel functions.

#### Controls

- controls are pilot-operated for reduced efforts
- left pedal and lever control left track;
   right pedal and lever control right track
- when idlers are in front, pushing both pedals or levers forward moves the excavator straight ahead
- when the idlers are in front, rocking both pedals or pulling both levers backward moves the excavator straight back
- moving one pedal or lever more than the other, either forward or backward, results in a gradual turn
- moving one pedal or lever forward and the other pedal or lever backward counter-rotates the tracks for spot tums

### **Implement Controls**

Two joystick hand levers actuate boom, stick, bucket and swing (SAE pattern).

#### Boom/Bucket Controls (right joystick)

- move forward and backward to lower and raise boom
- move left and right to control bucket curl and dump
- · button on top is one-touch low idle

#### Stick/Swing Controls (left joystick)

- move forward and backward to move stick out and in
- move left and right to control direction of swing
- button on top controls horn

#### Other Features

- oblique movement of either lever operates two functions simultaneously
- manually applied lever on left console cuts off pilot pressure for joysticks and travel controls and electrical power for engine starting circuit

# **Service Refill Capacities**

L	Gallons
250	66
15.5	4.1
13.0	3,4
2.8	0.74
2.5	0.66
162	42.8
98	25.9
	15.5 13.0 2.8 2.5

### Undercarriage

Caterpillar designed and built track-type undercarriage.

Track width	Ground Pressure			
	312B	312B L		
500 mm (20") triple grouser	39 kPa (5.66 psi)	38 kPa (5.51 psi)		
600 mm (24") triple grouser	33 kPa (4.79 psi)	38 kPa (5.51 psi)		
700 mm (28") triple grouser	29 kPa (4.21 psi)	28 kPa (4.06 psi)		
770 mm (30") triple grouser	26 kPa (3.77 psi)	26 kPa (3.77 psi)		

### Swing Mechanism

Hydrostatic with independent planetary reduction.

Ratings	
Swing Torque	30.4 kN·m
5	(22,422 lb ft)
Swing Speed	12.0 rpm

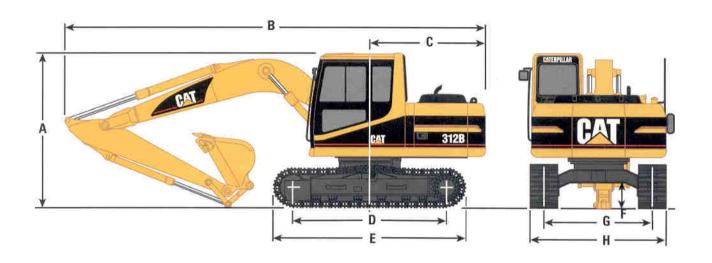
#### Features

 the swing mechanism is driven by a pinion gear sealed in a grease bath through a double-reduction planetary gear set.

<sup>\*\*</sup> pounds per loose cubic yard

# **Dimensions**

All dimensions are approximate.

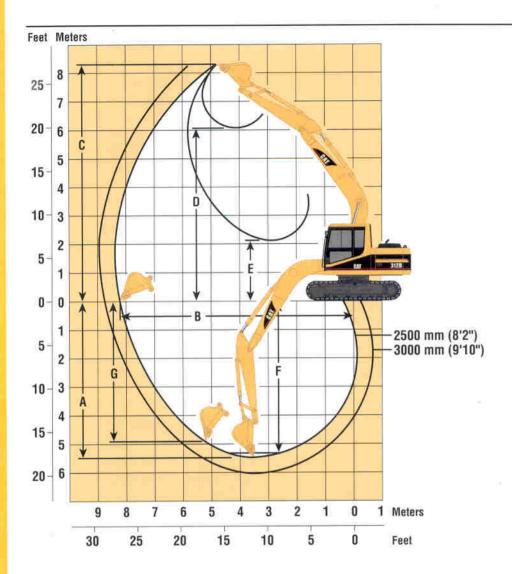


Boom 4.3 m (14'1")				2500 mm (8'2") Stick	3000 mm (9'10") Stick
Α	Shipping height		2760 mm (9'1")	2760 mm (9'1")	
В	Shipping length			7595 mm (24'11")	7610 mm (25'0")
C	Tail swing radius			2130 mm (7')	2130 mm (7')
D	Length to centers o	f rollers			
	312B			2780 mm (9'1")	2780 mm (9'1")
	312B L			3040 mm (10'0")	3040 mm (10'0")
E	Track length				
	312B			3490 mm (11'5")	3490 mm (11'5")
	312B L			3750 mm (12'4")	3750 mm (12'4")
F	Ground clearance			440 mm (1'5")	440 mm (1'5")
G	Track gauge			1990 mm (6'6")	1990 mm (6'6")
Н	Transport width	with 500 mm (20")	with 600 mm (24")	with 700 mm (28")	with 770 mm (30")
		2490 mm (8'2")	2590 mm (8'6")	2690 mm (8'10")	2760 mm (9'1")

Machine Weights
Caterpillar designed and built track-type undercarriage.

Track wid	ith			ne Weight um stick)		ne Weight g stick)
312B	500 mm (20") triple grouser		12 435 kg	(27,410 lb)	12 510 kg	(27,580 lb)
	600 mm (24") triple grouser		12 660 kg	(27,910 lb)	12 735 kg	(28,080 lb)
	700 mm (28") triple grouser		12 900 kg	(28,435 lb)	12 975 kg	(28,605 lb)
	770 mm (30") triple grouser		13 030 kg	(28,725 lb)	13 105 kg	(28,895 lb)
	11 Policy Service Control of the Con	Blade: add	780 kg	(1720 lb)	produced described to the second	THE CONTRACTOR OF CONTRACTOR
312B L	500 mm (20") triple grouser		12 705 kg	(28,010 lb)	12 780 kg	(28,170 lb)
	600 mm (24") triple grouser		12 935 kg	(28,520 lb)	13 010 kg	(28,680 lb)
	700 mm (28") triple grouser		13 120 kg	(28,925 lb)	13 195 kg	(29,085 lb)
	770 mm (30") triple grouser		13 250 kg	(29,215 lb)	13 325 kg	(29,375 lb)
	top in the control of	Blade: add	785 kg	(1730 lb)		

# **Working Ranges**



Stick Length	3000 mm (9'10") Stick*	2500 mm (8'2") Stick**
A Maximum Digging Depth	6050 mm (19'10")	5550 mm (18'3")
B Maximum Reach at Ground Level	8625 mm (28'4")	8175 mm (26'10")
C Maximum Cutting Height	8695 mm (28'6")	8475 mm (27'10")
D Maximum Loading Height	6330 mm (20'9")	6095 mm (20'0")
E Minimum Loading Height	1520 mm (5'0")	2010 mm (6'7")
F Maximum Depth Cut for 2440 mm (8') Level Bottom	5865 mm (19'3")	5340 mm (17'6")
G Maximum Vertical Wall Digging Depth	5345 mm (17'6")	4970 mm (16'4")
Stick Digging Force (SAE)	57 kN (13,000 lb)	63 kN (14,000 lb)
Bucket Digging Force (SAE)	84 kN (19,000 lb)	84 kN (19,000 lb)

Measurements shown are for machines equipped with the 0.46 m³ (0.60 yd³) bucket

<sup>\*\* -</sup> Measurements shown are for machines equipped with the 0.57 m³ (0.75 yd³) bucket

### Standard Equipment

Standard and optional equipment may vary. Consult your Caterpillar dealer for specifics.

Alternator, 50-amp
Automatic engine speed control
Automatic swing parking brake
Auxiliary hydraulic valve
Cab

Ash tray with cigar lighter Coat hook Drink holder Floor mat Heater and defroster

Horn

Instrument panel with gauges
Gauges and indicator lights for
fuel level, coolant temperature
and hydraulic oil temperature

Joysticks, adjustable pilot-operated Light, interior

Literature compartment Low fuel indicator light Metal roof hatch Positive filtered ventilation

Seat, suspension, fully adjustable Seat belt, retractable

Storage compartment suitable for a lunch box cooler

Travel control pedals

Two-speed auto shift travel Windshield wiper and washer

Counterweight, 2450 kg (5400 lb) Door locks and caps locks with

Caterpillar one-key security system Hydraulic neutralizer lever for all

controls
Light, working, frame mounted, one

Mirrors, frame and cab

Muffler

Pre-start monitoring system Power Mode Selector Power train

CAT 3064T Diesel engine with 24volt electric starting and air intake heater

Undercarriage

Hydraulic track adjusters Track-type sealed undercarriage

Idler section track guiding guards

312B 500 mm (20") triple grouser shoes

312B L 600 mm (24") triple grouser shoes and center section track guiding guards

Work Mode Selector

### **Optional Equipment**

Optional equipment may vary. Consult your Caterpillar dealer for specifics.

Air conditioner, with automatic climate control

Alarm, travel (required in U.S.)

Autolube system

Blade, 2700 mm 8'10" wide

Boom, with light, left side: 4.65 m (15'3")

Boom lowering check valve

Buckets

Bucket linkage

Bucket sidecutters and tips

Bumpers, steel side protectors

Cabs, optional:

Cab, with polycarbonate windows (required in the U.S.)

Cab, with radio mount and vandal bosses

Cooling, high ambient 52C (125F) Fuel tank, additional capacity (20 hr) Guards:

Center section track guiding, for 312B (standard on 312B L)

Swivel

Vandalism protection

Hand control pattern changer; 2 ways (SAE/STD BHL)

II. dest for the dest

Headrest for standard seat

Hydraulic arrangements, auxiliary: Single function arrangement

Double function arrangement

Combined function arrangement, includes two pump flow

Two pump flow arrangement

Hydraulic lines, auxiliary for boom and sticks

Lights, working, cab mounted two

Power supply, 12V-5A Radio, AM/FM, stereo Rain protection, cab front

Seat, suspension, fully adjustable

KAB524 Skylight, push-open

Starting aid, cold weather

Starting system, cold weather

Sticks:

3.0 m (9'10") 2.5 m (8'2")

Sun visor, windshield

Track:

500 mm (20") triple grouser 700 mm (28") triple grouser

770 mm (30") triple grouser Rubber belt

Water separator

Wiper, lower windshield

# Lift Capacities - 2500 mm (8'2") Stick, 600 mm (24") Shoes, Standard Undercarriage



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Over Side

R2.5 STICK - 2.5 m (8'2") BUCKET - 925 mm, 0.57 m3 (36", 0.75 yd3) UNDERCARRIAGE - Standard SHOES - 600 mm (24") triple grouser BOOM - 4650 mm (15'3") BLADE - UP

14		1.5 m	/5.0 ft	3.0 m	10.0 ft	4.5 m/	15.0 ft	6.0 m	20.0 ft	4		
	L	P	(F)	F	(FI	B	æ	B	c#	B		m ft
6.0 m 20.0 ft	kg Ib									*1310 *2910	*1310 *2910	6.64 21.52
4.5 m 15.0 ft	kg Ib					*2980 *6510	*2980 *6510	2940 6300	2210 4740	*1240 <b>*2730</b>	*1240 *2730	7.51 24.52
3.0 m 10.0 ft	kg Ib			*5040 *10,780	*5040 *10,780	*3770 *8150	3480 <b>7500</b>	2870 <b>6160</b>	2150 4610	*1250 <b>*2750</b>	*1250 *2750	7.93 <b>25.99</b>
1.5 m 5.0 ft	kg <b>lb</b>			*7630 *16,380	6030 12,980	4420 9490	3230 6960	2770 <b>5940</b>	2050 4400	*1330 *2920	1260 2760	8.00 26.24
Ground Line	kg lb			*6730 *15,630	5630 12,090	4200 <b>9020</b>	3040 6530	2670 <b>5730</b>	1960 <b>4210</b>	*1500 *3300	1310 2890	7.72 25.31
-1.5 m -5.0 ft	kg Ib	*4300 *9660	*4300 *9660	8310 17,760	5560 11,920	4110 8820	2950 <b>6340</b>	2620 5640	1920 4120	*1820 *4020	1520 3360	7.04 23.06
-3.0 m -10.0 ft	kg Ib	*7640 *17,230	*7640 *17,230	*7840 *16,930	5650 12,130	4130 8890	2970 6400			*2520 *5630	2100 4700	5.82 18.93

<sup>\*</sup> Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard J1097. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

R2.5 STICK - 2.5 m (8'2")

BUCKET - 925 mm, 0.57 m3 (36", 0.75 yd3)

**UNDERCARRIAGE** - Standard SHOES - 600 mm (24") triple grouser BOOM - 4650 mm (15'3") BLADE - DOWN

124		1.5 m	/5.0 ft	3.0 m	/10.0 ft	4.5 m/	15.0 ft	6.0 m/	20.0 ft	9		
		U	d	U	d l	F	Œ	B	dia.	P	ÇFJ	m ft
6.0 m 20.0 ft	kg Ib									*1310 *2910	*1310 *2910	6.64 21.52
4.5 m 15.0 ft	kg Ib					*2980 *6510	*2980 *6510	*2970 *6510	2210 4740	*1240 *2730	*1240 *2730	7.51 24.52
3.0 m 10.0 ft	kg Ib			*5040 *10,780	*5040 *10,780	*3770 *8150	3480 <b>7500</b>	*3250 *7090	2150 4610	*1250 *2750	*1250 *2750	7.93 25.99
1.5 m 5.0 ft	kg Ib			*7630 *16,380	6030 12,980	*4760 *10,290	3230 <b>6960</b>	*3680 *8000	2050 4400	*1330 *2920	1260 <b>2760</b>	8.00 26.24
Ground Line	kg Ib			*6730 *15,630	5630 12,090	*5500 *11,900	3040 <b>6530</b>	*4040 *8760	1960 <b>4210</b>	*1500 *3300	1310 2890	7.72 25.31
-1,5 m -5.0 ft	kg Ib	*4300 *9660	*4300 *9660	*8800 *19,070	5560 11,920	*5710 *12,360	2950 <b>6340</b>	*4100 *8850	1920 <b>4120</b>	*1820 *4020	1520 3360	7.04 23.06
-3.0 m -10.0 ft	kg Ib	*7640 *17,230	*7640 *17,230	*7840 *16,930	5650 12,130	*5230 *11,240	2970 6400			*2520 *5630	2100 <b>4700</b>	5.82 18.93

<sup>\*</sup> Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard J1097. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

## Lift Capacities - 2500 mm (8'2") Stick, 770 mm (30") Shoes, Standard Undercarriage



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

R2.5 STICK – 2.5 m (8'2") BUCKET – 925 mm, 0.57 m<sup>3</sup> (36", 0.75 yd<sup>3</sup>) UNDERCARRIAGE – Standard SHOES – 770 mm (30") triple grouser BOOM - 4650 mm (15'3") BLADE - UP

124		1.5 m	/5.0 ft	3.0 m	/10.0 ft	4.5 m/	15.0 ft	6.0 m/	20.0 ft			
	_	B	cial .	F	dia.	P.		B	Œ.	P		m ft
6.0 m 20.0 ft	kg Ib									*1310 *2910	*1310 *2910	6.64 21.52
4.5 m 15.0 ft	kg Ib					*2980 *6510	*2980 *6510	*2970 6480	2270 4860	*1240 *2730	*1240 *2730	7.51 24.52
3.0 m 10.0 ft	kg Ib			*5040 *10,780	*5040 *10,780	*3770 <b>*8150</b>	3570 <b>7670</b>	2950 <b>6340</b>	2210 4730	*1250 *2750	*1250 *2750	7.93 25.99
1.5 m 5.0 ft	kg Ib			*7630 *16,380	6180 13,300	4540 9750	3310 7130	2850 6110	2110 4520	*1330 *2920	1300 2850	8.00 26.24
Ground Line	kg Ib			*6730 *15,630	5770 12,410	4320 9280	3120 6710	2750 <b>5910</b>	2020 4330	*1500 *3300	1350 2980	7.72 25.31
-1.5 m -5.0 ft	kg Ib	*4300 *9660	*4300 *9660	8540 18,260	5700 12,240	4220 9080	3030 <b>6520</b>	2710 <b>5820</b>	1980 <b>4250</b>	*1820 *4020	1570 3470	7.04
-3.0 m -10.0 ft	kg Ib	*7640 *17,230	*7640 *17,230	*7840 *16,930	5800 12,450	4250 9140	3060 6580			*2520 *5630	2160 4830	5.82 18.93

<sup>\*</sup> Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard J1097. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

R2.5 STICK – 2.5 m (8'2") BUCKET – 925 mm, 0.57 m³ (36", 0.75 yd³) UNDERCARRIAGE – Standard SHOES – 770 mm (30") triple grouser BOOM - 4650 mm (15'3") BLADE - DOWN

144		1.5 m	/5.0 ft	3.0 m	/10.0 ft	4.5 m/	15.0 ft	6.0 m	20.0 ft	1		
	_	U	CF.	4	dia.	16		B	æ	13	Œ.	m ft
6.0 m 20.0 ft	kg Ib									*1310 *2910	*1310 <b>*2910</b>	6,64 21.52
4.5 m 15.0 ft	kg Ib					*2980 *6510	*2980 *6510	*2970 *6510	2270 4860	*1240 *2730	*1240 *2730	7.51 24.52
3.0 m 10.0 ft	kg Ib			*5040 *10,780	*5040 *10,780	*3770 *8150	3570 <b>7670</b>	*3250 *7090	2210 <b>4730</b>	*1250 *2750	*1250 *2750	7.93 <b>25.99</b>
1.5 m 5.0 ft	kg Ib			*7630 *16,380	6180 13,300	*4760 *10,290	3310 7130	*3680 *8000	2110 4520	*1330 *2920	1300 2850	8.00 26.24
Ground Line	kg Ib			*6730 *15,630	5770 12,410	*5500 *11,900	3120 6710	*4040 *8760	2020 4330	*1500 *3300	1350 2980	7.72 25.31
-1.5 m -5.0 ft	kg lb	*4300 *9660	*4300 *9660	*8800 *19,070	5700 12,240	*5710 *12,360	3030 6520	*4100 *8850	1980 <b>4250</b>	*1820 *4020	1570 3470	7.04 23.06
−3.0 m −10.0 ft	kg Ib	*7640 *17,230	*7640 *17,230	*7840 *16,930	5800 12,450	*5230 *11,240	3060 6580			*2520 *5630	2160 4830	5.82 18.93

<sup>\*</sup> Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard J1097. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

# Lift Capacities - 3000 mm (9'10") Stick, 600 mm (24") Shoes, Standard Undercarriage



Load Point Height



Load at Maximum Reach



ıs

Load Radius Over Side

R3.0 STICK - 3.0 m (9'10") BUCKET - 775 mm, 0.46 m<sup>3</sup> (30", 0.60 yd<sup>3</sup>) UNDERCARRIAGE - Standard SHOES - 600 mm (24") triple grouser **BOOM** – 4650 mm (15'3") **BLADE** – UP

141		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	5		
		F		B	d	B	de la	16	d l	P.	dia.	P	æ	m ft
7.5 m 25.0 ft	kg Ib											*1390 *3110	*1390 *3110	5.78 18.44
6.0 m 20.0 ft	kg Ib							*2230 *4430	*2230 *4430			*1210 *2670	*1210 *2670	7.18 23.35
4.5 m 15.0 ft	kg Ib							*2630 *5790	2270 4860			*1150 *2540	*1150 *2540	7.98 <b>26.10</b>
3.0 m 10.0 ft	kg Ib					*3320 *7200	*3320 *7200	2920 <b>6260</b>	2190 4700	*1660 *3660	1430 3160	*1170 *2570	*1170 *2570	8.38 27.46
1.5 m 5.0 ft	kg Ib			*6790 *14,580	6230 13,410	*4380 *9480	3290 7080	2790 <b>6000</b>	2070 <b>4450</b>	1900 <b>4070</b>	1400 2980	*1240 *2730	1150 <b>2520</b>	8.44 27.69
Ground Line	kg Ib			*7810 18,120	5690 12,220	4230 9080	3060 <b>6570</b>	2680 <b>5750</b>	1960 <b>4220</b>	1860 <b>4090</b>	1350 <b>2980</b>	*1400 *3080	1190 <b>2610</b>	8,18 26.83
-1.5 m -5.0 ft	kg Ib	*3960 *8880	*3960 *8880	8270 17,670	5520 11,840	4090 <b>8780</b>	2930 <b>6300</b>	2610 <b>5600</b>	1900 <b>4080</b>			*1680 *3720	1350 <b>2970</b>	7.55 24.74
-3.0 m -10.0 ft	kg Ib	*6600 *14,860	*6600 *14,860	*8280 17,760	5550 11,920	4080 <b>8760</b>	2920 <b>6280</b>	2620 5640	1910 <b>4110</b>			*2270 *5060	1760 <b>3930</b>	6.45 21.01
-4.5 m -15.0 ft	kg Ib			*6480 *13,780	5750 12,380	*4130 *8570	3040 6580					*3630 *8000	2750 <b>6260</b>	4.83 15.54

<sup>\*</sup> Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard J1097, Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

R3.0 STICK – 3.0 m (9'10") BUCKET – 775 mm, 0.46 m³ (30", 0.60 yd³) UNDERCARRIAGE – Standard SHOES – 600 mm (24") triple grouser **BOOM** – 4650 mm (15'3") **BLADE** – DOWN

134		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	3		
	1	P	æ	F	c#	F.	c File	U	CF.	I.	(F)	B	GF.	m ft
7.5 m 25.0 ft	kg Ib									14-20		*1390 *3110	*1390 *3110	5.78 18.44
6.0 m 20.0 ft	kg lb							*2230 *4430	*2230 *4430			*1210 *2670	*1210 *2670	7.18 23.35
4.5 m 15.0 ft	kg Ib							*2630 *5790	2270 4860			*1150 *2540	*1150 *2540	7.98 <b>26.10</b>
3.0 m 10.0 ft	kg Ib					*3320 *7200	*3320 *7200	*2970 *6480	2190 <b>4700</b>	*1660 *3660	1430 3160	*1170 *2570	*1170 <b>*2570</b>	8.38 27.46
1.5 m 5.0 ft	kg Ib			*6790 *14,580	6230 13,410	*4380 *9480	3290 7080	*3460 *7510	2070 <b>4450</b>	*2360 *4270	1400 <b>2980</b>	*1240 *2730	1150 2520	8.44 <b>27.69</b>
Ground Line	kg lb			*7810 *18,170	5690 <b>12,220</b>	*5260 *11,400	3060 6570	*3900 *8450	1960 <b>4220</b>	*2110 *4650	1350 2980	*1400 *3080	1190 2610	8.18 26.83
-1.5 m -5.0 ft	kg Ib	*3960 *8880	*3960 *8880	*8790 *19,260	5520 11,840	*5670 *12,270	2930 <b>6300</b>	*4100 *8870	1900 <b>4080</b>			*1680 *3720	1350 <b>2970</b>	7,55 24.74
-3.0 m -10.0 ft	kg lb	*6600 *14,860	*6600 *14,860	*8280 *17,900	5550 11,920	*5450 *11,760	2920 <b>6280</b>	*3790 *8060	1910 <b>4110</b>			*2270 *5060	1760 <b>3930</b>	6.45 21.01
-4.5 m -15.0 ft	kg Ib			*6480 *13,780	5750 12,380	*4130 *8570	3040 6580					*3630 *8000	2750 <b>6260</b>	4.83 15.54

<sup>\*</sup> Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard J1097. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

# Lift Capacities - 3000 mm (9'10") Stick, 770 mm (30") Shoes, Standard Undercarriage



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

R3.0 STICK - 3.0 m (9'10") BUCKET - 775 mm, 0.46 m<sup>3</sup> (30", 0.60 yd<sup>3</sup>) UNDERCARRIAGE – Standard SHOES – 770 mm (30") triple grouser BOOM - 4650 mm (15'3")

BLADE - UP

141		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			
0	Ţ	P <sub>0</sub>	CF-	U	C.	F.	æ.	B	d	B	diam'r.	B	Œ	m ft
7.5 m 25.0 ft	kg Ib											*1390	*1390 *3110	5.78 18.44
6.0 m 20.0 ft	kg <b>lb</b>							*2230 *4430	*2230 *4430			*1210 *2670	*1210 *2670	7.18 23.35
4.5 m 15.0 ft	kg Ib							*2630 *5790	2330 4980			*1150 *2540	*1150 *2540	7.98 26.10
3.0 m 10.0 ft	kg Ib					*3320 *7200	*3320 *7200	*2970 6440	2250 4830	*1660 *3660	1480 3250	*1170 *2570	*1170 *2570	8.38 27.46
1.5 m 5.0 ft	kg Ib			*6790 <b>*14,580</b>	6380 13,730	*4380 *9480	3370 <b>7260</b>	2870 <b>6170</b>	2130 4580	1960 <b>4200</b>	1440 3080	*1240 *2730	1180 <b>2610</b>	8.44 27.69
Ground Line	kg Ib			*7810 <b>18,170</b>	5830 12,530	4350 9340	3140 <b>6750</b>	2760 <b>5920</b>	2020 4340	1920 <b>4230</b>	1400 3080	*1400 *3080	1230 2700	8.18 <b>26.83</b>
−1.5 m − <b>5.0 ft</b>	kg Ib	*3960 *8880	*3960 *8880	8500 <b>18,160</b>	5660 12,160	4210 9040	3010 <b>6480</b>	2690 <b>5780</b>	1960 <b>4200</b>			*1680 *3720	1390 <b>3070</b>	7.55
−3.0 m −10.0 ft	kg Ib	*6600 *14,860	*6600 *14,860	*8280 *17,900	5700 <b>12,230</b>	4190 <b>9010</b>	3000 6460	2700 <b>5810</b>	1970 <b>4240</b>			*2270 *5060	1820 4050	6.45 21.01
-4.5 m -15.0 ft	kg <b>Ib</b>			*6480 *13,780	5900 12,690	*4130 *8570	3130 6760					*3630 *8000	2830 6430	4.83 15.54

<sup>\*</sup> Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard J1097. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

R3.0 STICK - 3.0 m (9'10") BUCKET - 775 mm, 0.46 m<sup>3</sup> (30", 0.60 yd<sup>3</sup>) UNDERCARRIAGE – Standard SHOES – 770 mm (30") triple grouser **BOOM** – 4650 mm (15'3") **BLADE** – DOWN

184		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	4		
	_	U	æ	U	æ	P		P		F	Œ.	P	æ	m ft
7.5 m 25.0 ft	kg <b>Ib</b>											*1390 *3110	*1390 *3110	5.78 18.44
6.0 m <b>20.0 ft</b>	kg Ib							*2230 *4430	*2230 *4430			*1210 *2670	*1210 *2670	7.18 23.35
4.5 m 15.0 ft	kg <b>lb</b>							*2630 * <b>5790</b>	2330 4980			*1150 *2540	*1150 *2540	7.98 26.10
3.0 m 10.0 ft	kg <b>lb</b>					*3320 *7200	*3320 *7200	*2970 *6480	2250 4830	*1660 *3660	1480 3250	*1170 *2570	*1170 *2570	8.38 27.46
1.5 m 5.0 ft	kg Ib			*6790 *14,580	6380 13,730	*4380 *9480	3370 <b>7260</b>	*3460 * <b>7510</b>	2130 4580	*2360 *4270	1440 3080	*1240 *2730	1180 2610	8.44 27.69
Ground Line	kg lb			*7810 *18,170	5830 12,530	*5260 *11,400	3140 6750	*3900 *8450	2020 4340	*2110 *4650	1400 3080	*1400 *3080	1230 2700	8.18 26.83
-1.5 m -5.0 ft	kg Ib	*3960 *8880	*3960 *8880	*8790 *19,260	5660 12,160	*5670 *12,270	3010 <b>6480</b>	*4100 *8870	1960 <b>4200</b>			*1680 *3720	1390 <b>3070</b>	7.55 24.74
−3.0 m −10.0 ft	kg Ib	*6600 *14,860	*6600 *14,860	*8280 *17,900	5700 12,230	*5450 *11,760	3000 6460	*3790 *8060	1970 <b>4240</b>			*2270 *5060	1820 <b>4050</b>	6.45 21.01
-4.5 m -15.0 ft	kg lb			*6480 *13,780	5900 <b>12,690</b>	*4130 *8570	3130 <b>6760</b>					*3630 *8000	2830 6430	4.83 15.54

<sup>\*</sup> Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard J1097. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

## Lift Capacities - 2500 mm (8'2") Stick, 600 mm (24") Shoes, Long Undercarriage



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

R2.5 STICK – 2.5 m (8'2") BUCKET – 925 mm, 0.57 m<sup>3</sup> (36", 0.75 yd<sup>3</sup>) UNDERCARRIAGE - Standard SHOES - 600 mm (24") triple grouser BOOM - 4650 mm (15'3")

BLADE - UP

141		1.5 m	/5.0 ft	3.0 m	/10.0 ft	4.5 m/	15.0 ft	6.0 m/	20.0 ft			
6.0 m 20.0 ft 4.5 m 15.0 ft 3.0 m 10.0 ft 1.5 m 5.0 ft		F6		P.	¢.	B			æ	P		m ft
	kg Ib									*1310 *2910	*1310 *2910	6.64 21.53
	kg Ib					*2980 <b>*6510</b>	*2980 *6510	*2970 <b>*6510</b>	2260 4840	*1240 *2730	*1240 *2730	7,51 24.53
	kg Ib			*5040 *10,780	*5040 *10,780	*3770 *8150	3550 7640	*3250 *7090	2200 4710	*1250 *2750	*1250 <b>*2750</b>	7.93 <b>25,99</b>
	kg Ib			*7630 *16,390	6150 13,240	*4760 *10,290	3300 7100	3200 6880	2100 4500	*1330 *2930	1290 2840	8.00 26.24
Ground Line	kg Ib			*6730 *15,630	5750 <b>12,350</b>	4920 10,560	3100 <b>6670</b>	3100 <b>6670</b>	2010 4310	*1500 *3300	1350 <b>2960</b>	7.71 25.31
-1.5 m -5.0 ft	kg Ib	*4310 *9670	*4310 *9670	*8800 *19,070	5680 12,180	4820 10,350	3020 <b>6490</b>	3060 <b>6580</b>	1960 <b>4220</b>	*1820 *4020	1560 3450	7.04 23.06
-3.0 m -10.0 ft	kg Ib	*7650 *17,240	*7650 *17,240	*7840 *16,920	5770 12,390	4850 10,420	3040 6550			*2520 *5630	2150 4810	5.82 18.92

<sup>\*</sup> Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard J1097. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

R2.5 STICK – 2.5 m (8'2") BUCKET – 925 mm, 0.57 m³ (36", 0.75 yd³) UNDERCARRIAGE – Long SHOES – 600 mm (24") triple grouser BOOM - 4650 mm (15'3")

BLADE - DOWN

124		1.5 m	/5.0 ft	3.0 m	/10.0 ft	4.5 m/	15.0 ft	6.0 m/	20.0 ft	į		
		P.	da.	Į,	Ċ₽	P	æ	F		P.		m ft
6.0 m 20.0 ft	kg Ib									*1310 *2910	*1310 <b>*2910</b>	6.64
4.5 m 15.0 ft	kg Ib					*2980 *6510	*2980 *6510	*2970 *6510	2260 4840	*1240 *2730	*1240 *2730	7.51 24.53
3.0 m 10.0 ft	kg Ib			*5040 *10,780	*5040 *10,780	*3770 *8150	3550 7640	*3250 *7090	2200 4710	*1250 *2750	*1250 *2750	7.93 <b>25.9</b> 9
1.5 m 5.0 ft	kg Ib			*7630 *16,390	6150 13,240	*4760 *10,290	3300 7100	*3680 *8000	2100 4500	*1330 *2930	1290 2840	8.00 26.24
Ground Line	kg Ib			*6730 *15,630	5750 12,350	*5500 *11,900	3100 6670	*4040 *8760	2010 4310	*1500 *3300	1350 2960	7.7° 25.3°
-1.5 m -5.0 ft	kg Ib	*4310 *9670	*4310 *9670	*8800 *19,070	5680 12,180	*5710 *12,360	3020 6490	*4100 *8850	1960 <b>4220</b>	*1820 *4020	1560 <b>3450</b>	7.04 23.06
−3.0 m −10.0 ft	kg Ib	*7650 *17,240	*7650 *17,240	*7840 *16,920	5770 <b>12,390</b>	*5220 *11,230	3040 6550			*2520 *5630	2150 4810	5.82 18.92

<sup>\*</sup> Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard J1097. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

# Lift Capacities - 2500 mm (8'2") Stick, 770 mm (30") Shoes, Long Undercarriage



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

R2.5 STICK – 2.5 m (8'2") BUCKET – 925 mm, 0.57 m³ (36", 0.75 yd³)

UNDERCARRIAGE – Medium SHOES – 770 mm (30") triple grouser BOOM - 4650 mm (15'3") BLADE - UP

14		1.5 m	1/5.0 ft	3.0 m	/10.0 ft	4.5 m/	15.0 ft	6.0 m	/20.0 ft	. 3		
71		P	Circle 1	P	(F)	16	d a	U	4	U	c#	m
6.0 m 20.0 ft	kg Ib									*1310 *2910	*1310 *2910	6.64
4.5 m 15.0 ft	kg Ib					*2980 *6510	*2980 *6510	*2970 *6510	2310 4950	*1240 *2730	*1240 *2730	7.51 24.53
3.0 m 10.0 ft	kg Ib			*5040 *10,780	*5040 *10,780	*3770 *8150	3620 7800	*3250 *7090	2250 4820	*1250 *2750	*1250 *2750	7.93 <b>25.99</b>
1.5 m 5.0 ft	kg (b			*7630 *16,390	6280 13,520	*4760 *10,290	3370 <b>7260</b>	3280 <b>7050</b>	2150 4610	*1330 *2930	1330 2920	8.00 26.24
Ground Line	kg lb			*6730 *15,630	5880 12,630	5040 10,820	3180 <b>6830</b>	3180 <b>6840</b>	2060 4420	*1500	1380 3040	7.71 25.31
-1.5 m -5.0 ft	kg Ib	*4310 *9670	*4310 *9670	*8800 *19,070	5800 12,460	4940 10,610	3090 6650	3140 6750	2020 4330	*1820 *4020	1600 3540	7.04
-3.0 m -10.0 ft	kg <b>Ib</b>	*7650 *17,240	*7650 *17,240	*7840 *16,920	5900 <b>12,670</b>	4970 10,680	3110 6710			*2520 *5630	2200 4930	5.82

<sup>\*</sup> Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard J1097. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

R2.5 STICK – 2.5 m (8'2") BUCKET – 925 mm, 0.57 m<sup>3</sup> (36", 0.75 yd<sup>3</sup>) UNDERCARRIAGE – Long SHOES – 770 mm (30") triple grouser BOOM - 4650 mm (15'3") BLADE - DOWN

124	144		1.5 m/5.0 ft 3.0 m/10.0 ft 4.5 m/15.0 ft 6.0 m/20.0 ft										
		B	Ċ₽	P	dia .	U	c	B	Œ.	F	Œ	m	
6.0 m 20.0 ft	kg Ib									*1310 *2910	*1310 *2910	6.64 21.53	
4.5 m 15.0 ft	kg Ib					*2980 *6510	*2980 *6510	*2970 *6510	2310 4950	*1240 *2730	*1240 *2730	7.51 24.53	
3.0 m 10.0 ft	kg Ib			*5040 *10,780	*5040 *10,780	*3770 *8150	3620 7800	*3250 *7090	2250 4820	*1250 *2750	*1250 *2750	7.93 <b>25.99</b>	
1.5 m 5.0 ft	kg (b			*7630 *16,390	6280 13,520	*4760	3370 <b>7260</b>	*3680 *8000	2150 4610	*1330 *2930	1330 2920	8.00 26.24	
Ground Line	kg Ib			*6730 *15,630	5880 <b>12,630</b>	*5500 *11,900	3180 <b>6830</b>	*4040 *8760	2060 4420	*1500 *3300	1380 3040	7.71 25.31	
-1.5 m -5.0 ft	kg Ib	*4310 *9670	*4310 *9670	*8800 *19,070	5800 <b>12,460</b>	*5710 *12,360	3090 6650	*4100 *8850	2020 4330	*1820 *4020	1600 3540	7.04 23.06	
-3.0 m -10.0 ft	kg Ib	*7650 *17,240	*7650 *17,240	*7840 *16,920	5900 12,670	*5220 *11,230	3110 6710			*2520 *5630	2200 4930	5.82 18.92	

<sup>\*</sup> Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard J1097. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

## Lift Capacities - 3000 mm (9'10") Stick, 600 mm (24") Shoes, Long Undercarriage



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

R3.0 STICK - 3.0 m (9'10") BUCKET - 925 mm, 0.57 m<sup>3</sup> (36", 0.75 yd<sup>3</sup>) UNDERCARRIAGE - Long SHOES - 600 mm (24") triple grouser BOOM - 4650 mm (15'3")

BLADE - UP

(K)		1.5 m/5.0 ft		3.0 m/	10.0 ft	4.5 m/	15.0 ft	6.0 m/	20.0 ft	7.5 m/	25.0 ft	9		
		F.	di-	B	æ	4		P <sub>0</sub>	(F)	U	c a	U	c =	m ft
7.5 m 25.0 ft	kg Ib											*1350 *3040	*1350 *3040	5.78 18.45
6.0 m 20.0 ft	kg Ib							*2200 *4360	*2200 *4360			*1170 *2590	*1170 *2590	7.19 23.35
4.5 m 15.0 ft	kg Ib							*2600 *5710	2290 4900			*1120 *2460	*1120 *2460	7.98 <b>26.10</b>
3.0 m 10.0 ft	kg Ib					*3290 *7140	*3290 *7140	*2940 *6410	2210 4740	*1630 *3590	1440 3170	*1130 *2490	*1130 *2490	8.38 27.46
1.5 m 5.0 ft	kg Ib			*6760 *14,520	6330 13,620	*4350 *9410	3330 7170	3210 6880	2090 <b>4490</b>	2190 *4210	1400 <b>2990</b>	*1210 *2660	1150 2520	8.44 27.69
Ground Line	kg Ib			*7760 *18,060	5780 12,410	4920 <b>10,570</b>	3100 6660	3090 <b>6630</b>	1980 <b>4260</b>	*2090 *4600	1360 <b>3000</b>	*1360 *3000	1190 <b>2610</b>	8.18 <b>26.83</b>
–1.5 m –5.0 ft	kg lb	*3930 *8810	*3930 *8810	*8750 *19,180	5610 12,030	4780 10,260	2970 <b>6390</b>	3010 6480	1920 <b>4120</b>			*1650 *3640	1350 <b>2980</b>	7.55 24.74
-3.0 m -10.0 ft	kg lb	*6560 *14,780	*6560 *14,780	*8250 *17,830	5640 12,120	4770 10,230	2960 6370	3020 <b>6510</b>	1930 4150			*2230 *4980	1780 3960	6.45 21.01
-4.5 m -15.0 ft	kg lb			*6440 *13,700	5850 12,580	*4090 *8500	3090 <b>6670</b>					*3600 *7930	2790 6350	4,83 15.54

<sup>\*</sup> Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard J1097. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

R3.0 STICK – 3.0 m (9'10") BUCKET – 925 mm, 0.57 m³ (36", 0.75 yd³) UNDERCARRIAGE – Long SHOES – 600 mm (24") triple grouser BOOM - 4650 mm (15'3") BLADE - DOWN

144	124		/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	3		
7		U		13	cipa	P.	F	B		U	æ	U	æ	m ft
7.5 m 25.0 ft	kg lb											*1350 *3040	*1350 *3040	5.78 18.45
6.0 m 20.0 ft	kg lb							*2200 *4360	*2200 *4360			*1170 *2590	*1170 *2590	7.19 23.35
4.5 m 15.0 ft	kg Ib							*2600 *5710	2290 4900			*1120 *2460	*1120 *2460	7.98 <b>26.10</b>
3.0 m 10.0 ft	kg Ib					*3290 *7140	*3290 *7140	*2940 *6410	2210 4740	*1630 *3590	1440 3170	*1130 *2490	*1130 *2490	8.38 27.46
1.5 m 5.0 ft	kg Ib			*6760 *14,520	6330 13,620	*4350 *9410	3330 7170	*3420 *7440	2090 4490	*2340 *4210	1400 2990	*1210 *2660	1150 2520	8.44 27.69
Ground Line	kg Ib			*7760 *18,060	5780 12,410	*5230 *11,330	3100 6660	*3860 *8380	1980 <b>4260</b>	*2090 *4600	1360 <b>3000</b>	*1360 *3000	1190 <b>2610</b>	8.18 26.83
-1.5 m -5.0 ft	kg Ib	*3930 *8810	*3930 *8810	*8750 *19,180	5610 12,030	*5640 *12,200	2970 <b>6390</b>	*4070 *8800	1920 <b>4120</b>			*1650 *3640	1350 <b>2980</b>	7.55 24.74
-3.0 m -10.0 ft	kg lb	*6560 *14,780	*6560 *14,780	*8250 *17,830	5640 12,120	*5420 *11,690	2960 <b>6370</b>	*3750 * <b>7990</b>	1930 <b>4150</b>			*2230 *4980	1780 3960	6.45 21.01
-4.5 m -15.0 ft	kg lb			*6440 *13,700	5850 <b>12,580</b>	*4090 *8500	3090 <b>6670</b>					*3600 * <b>7930</b>	2790 <b>6350</b>	4.83 15.54

<sup>\*</sup> Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard J1097. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

### Lift Capacities - 3000 mm (9'10") Stick, 770 mm (30") Shoes, Long Undercarriage



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

R3.0 STICK - 3.0 m (9'10") BUCKET - 925 mm, 0.57 m³ (36", 0.75 yd³) UNDERCARRIAGE - Long SHOES - 770 mm (30") triple grouser BOOM - 4650 mm (15'3")

BLADE - UP

假一		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	Œ	U	Œ.	B	Œ	B	4	F	æ	B	Ċ₽.	m ft
7.5 m 25.0 ft	kg Ib											*1350 *3040	*1350 *3040	5.78 18.45
6.0 m 20.0 ft	kg Ib							*2200 *4360	*2200 *4360			*1170 *2590	*1170 *2590	7.19 23.35
4.5 m 15.0 ft	kg lb							*2600 *5710	2340 5010			*1120 *2460	*1120 *2460	7.98 <b>26.10</b>
3,0 m 10.0 ft	kg Ib					*3290 *7140	*3290 *7140	*2940 *6410	2260 4850	*1630 *3590	1480 3260	*1130 *2490	*1130 *2490	8.38 27.46
1.5 m 5.0 ft	kg Ib			*6760 *14,520	6460 13,900	*4350 *9410	3410 7330	3290 7060	2140 4600	2250 *4210	1440 3080	*1210 *2660	1180 <b>2600</b>	8,44 27,69
Ground Line	kg <b>lb</b>			*7760 *18,060	5910 <b>12,690</b>	5040 <b>10,830</b>	3170 <b>6820</b>	3170 6800	2030 4370	*2090 *4600	1400 3080	*1360 *3000	1220 2690	8.18 26.83
-1,5 m -5.0 ft	kg <b>lb</b>	*3930 *8810	*3930 *8810	*8750 *19,180	5740 12,310	4900 10,520	3050 6550	3090 6650	1970 <b>4230</b>			*1650 *3640	1390 3070	7.55 24.74
−3.0 m −10.0 ft	kg Ib	*6560 *14,780	*6560 *14,780	*8250 *17,830	5770 <b>12,390</b>	4890 <b>10,490</b>	3030 6530	3100 6680	1980 <b>4260</b>			*2230 *4980	1820 4060	6.45 21.01
-4.5 m -15.0 ft	kg <b>Ib</b>			*6440 *13,700	5980 12,860	*4090 *8500	3160 <b>6830</b>					*3600 *7930	2860 <b>6500</b>	4.83 15.54

<sup>\*</sup> Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard J1097. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

R3.0 STICK - 3.0 m (9'10") BUCKET - 925 mm, 0.57 m<sup>3</sup> (36", 0.75 yd<sup>3</sup>) UNDERCARRIAGE – Long SHOES – 770 mm (30") triple grouser BOOM - 4650 mm (15'3")

BLADE - DOWN

144	144		/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	1		
		U	(F	I.		P <sub>1</sub>		F		P.	æ	F	串	m ft
7.5 m 25.0 ft	kg Ib											*1350 *3040	*1350 *3040	5.78 18.45
6.0 m 20.0 ft	kg lb							*2200 *4360	*2200 *4360			*1170 *2590	*1170 *2590	7.19 23.35
4.5 m 15.0 ft	kg lb							*2600 *5710	2340 <b>5010</b>			*1120 *2460	*1120 *2460	7.98 <b>26.10</b>
3.0 m 10.0 ft	kg Ib					*3290 *7140	*3290 *7140	*2940 *6410	2260 4850	*1630 *3590	1480 <b>3260</b>	*1130 *2490	*1130 *2490	8.38 27.46
1.5 m 5.0 ft	kg Ib			*6760 *14,520	6460 <b>13,900</b>	*4350 *9410	3410 7330	*3420 *7440	2140 4600	*2340 *4210	1440 3080	*1210 *2660	1180 <b>2600</b>	8.44 27.69
Ground Line	kg Ib			*7760 *18,060	5910 12,690	*5230 *11,330	3170 6820	*3860 *8380	2030 4370	*2090 *4600	1400 3080	*1360 *3000	1220 2690	8.18 26.83
-1.5 m -5.0 ft	kg lb	*3930 *8810	*3930 *8810	*8750 *19,180	5740 12,310	*5640 *12,200	3050 6550	*4070 *8800	1970 <b>4230</b>			*1650 *3640	1390 <b>3070</b>	7.55 24.74
-3.0 m -10.0 ft	kg Ib	*6560 *14,780	*6560 *14,780	*8250 *17,830	5770 <b>12,390</b>	*5420 *11,690	3030 6530	*3750 * <b>7990</b>	1980 <b>4260</b>			*2230 *4980	1820 <b>4060</b>	6.45 21.01
-4.5 m -15.0 ft	kg lb			*6440 *13,700	5980 <b>12,860</b>	*4090 <b>*8500</b>	3160 6830					*3600 *7930	2860 6500	4.83 15.54

<sup>\*</sup> Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard J1097. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

# 312B Hydraulic Excavator

1996 Caterpillar Printed in U.S.A.

Materials and specifications are subject to change without notice.

AEHQ5200 (11-96) Replaces AEHQ3832-02

