

M318



Wheeled Excavator



Cat® 3116 DIT Engine		98 kW	131 HP
Operating Weight:	One Piece Boom	15 370 to 17 940 kg	33,891 to 39,558 lb
	VA Boom	15 940 to 18 510 kg	35,148 to 40,815 lb
Bucket Capacities		0.40 to 1.05 m ³	.52 to 1.37 yd ³
Maximum			
Reach at GL:	One Piece Boom	9380 mm	30'9"
	VA Boom	9350 mm	30'8"
Digging Depth:	One Piece Boom	6090 mm	20'0"
	VA Boom	6180 mm	20'3"
Travel Speed		34 km/h	21 MPH

M318 Wheeled Excavator

Setting the standard in mobility, versatility, operator comfort and ease of maintenance.

The 300 Family sleek styling on wheels

Cab and body have smooth, rounded contours with "blended-in" roading lights for a modern look. Cab interior combines new styling with a soft and pleasing color scheme.

The cab: a new reference

Pilot operated joysticks control all front end and swing functions. The curved steering column and pedal controls offer optimal comfort. The control panel informs the operator at all times of the machine status. Large windows offer good visibility while roading and working in tight quarters.

The fully adjustable seat has lumbar support. Heater, defroster and fan keep positive filtered air (warm, fresh or cool if equipped with air conditioner option) flowing through the cab with the flip of a switch. **pg. 4-5**



State of the art hydraulic system

The load-sensing hydraulic system with load independent flow distribution offers exceptional operation control, modulation and multi-function capability. Up to four additional hydraulic functions can be added for maximum application flexibility. **pg. 6-7**

Electronics

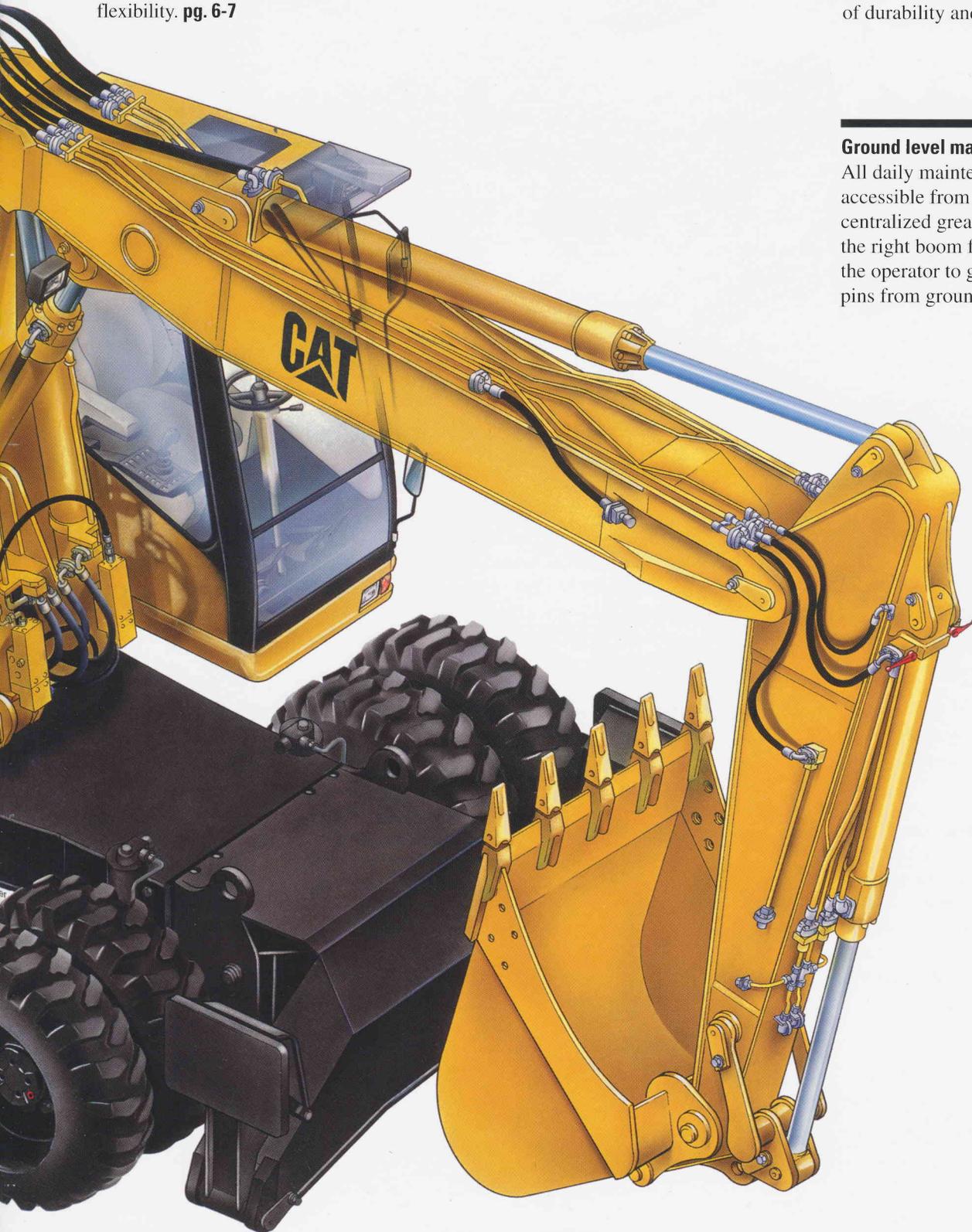
A microprocessor and modern electronics translate the operator's commands and manage the engine as well as pump interface for maximum fuel efficiency and production.

Choose your best boom-stick attachment match

Two booms and four different sticks allow you to choose the best match for your job needs. Computer aided design and stress analysis of all front-end structures results in the best combination of durability and weight control. **pg. 9**

Ground level maintenance

All daily maintenance points are accessible from ground level. A centralized greasing port is located at the right boom foot. This feature allows the operator to grease all front linkage pins from ground level.



Operator Station

Practical design offers comfort, visibility and easy operation.



Easy Access

Conveniently located grab irons and large steps mounted to the undercarriage allow easy access in and out of the cab.

Quiet Cab

The cab is resiliently mounted. Sound suppression panels reduce outside noise levels to a very low level.

Comfortable Seat

The suspension seat adjusts to weight and offers excellent lumbar support, adjustable height armrests and numerous seat adjustments.

Outstanding Visibility

Wide, large windows help assure excellent visibility in all directions, which is especially critical when roading the machine or working on public roadways. A parallelogram windshield wiper efficiently clears the front window in rainy weather. Rear visibility is optimized due to the small engine cover. The standard skylight provides upward visibility.

Excellent Ventilation

Strategically located vents circulate forced air, heat or defrost air for maximum comfort. The two-piece front window offers multiple positions and adjustments. In rainy conditions, the lower front window can be tilted inward to provide fresh air. The skylight can be opened for additional ventilation. For areas with higher ambient temperatures, an optional air conditioner is available.

Practical Controls

The control panel switches are conveniently located. Warning lights are clearly displayed on the upper portion of the control panel. Joysticks require low effort and short stroke for maximum control and productivity. Ample space is reserved for the additional switches and pedals used to activate optional equipment.

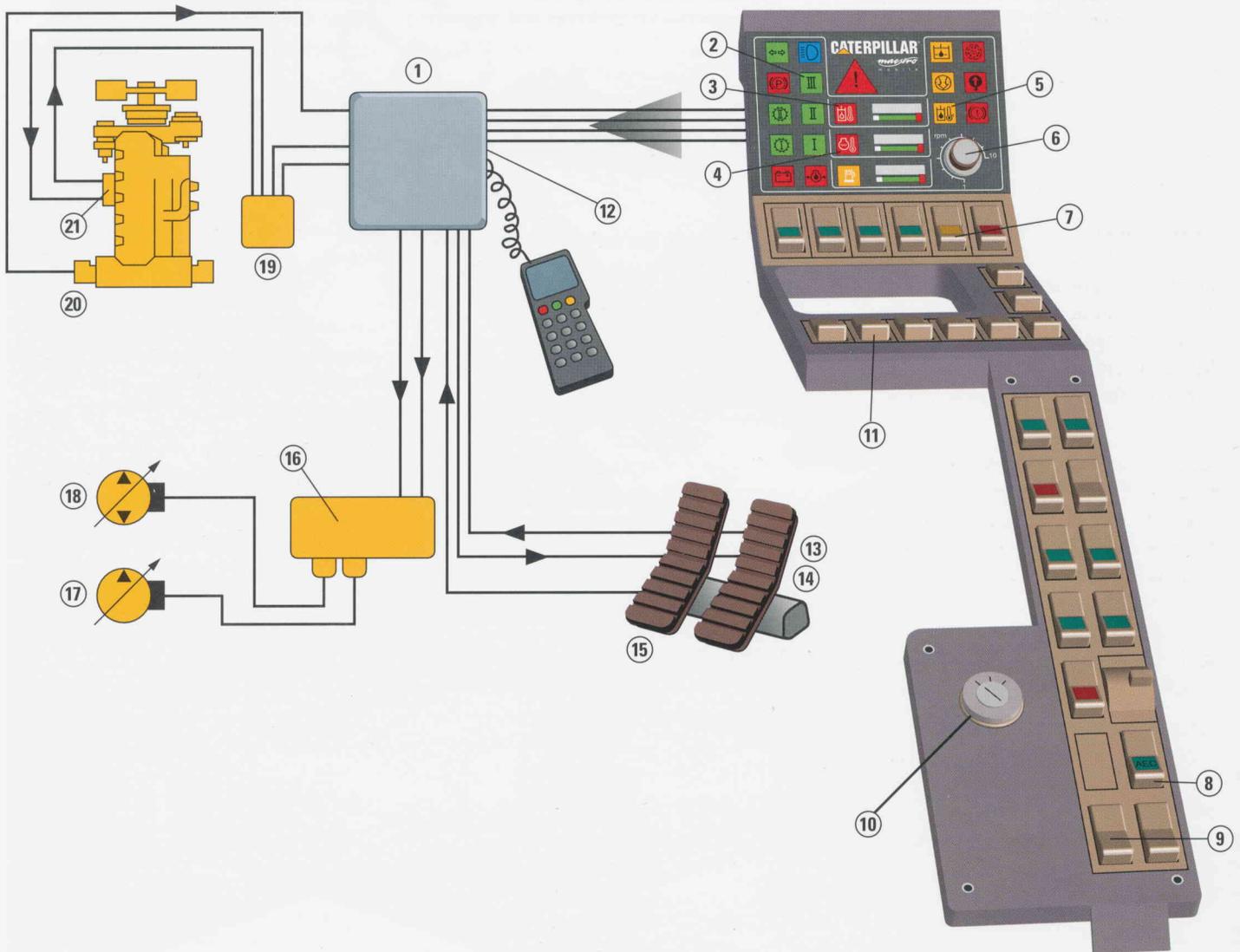




The Electronic Control Systems

State-of-art hydraulic and electronic system

designed specifically for wheeled excavator applications.



- | | | |
|--|--|--|
| 1 Microprocessor | 8 Automatic engine control (AEC) switch | 15 Brake light pressure switch |
| 2 Power mode indicators | 9 Microprocessor back-up switch | 16 Pilot manifold |
| 3 Hydraulic oil temperature warning light | 10 Key switch: off/on/start | 17 Main pump |
| 4 Engine coolant temperature warning light | 11 Power Mode I and II selector switches | 18 Swing pump |
| 5 Hydraulic oil temperature warning light | 12 Connection jack for portable diagnostic connector | 19 Engine Electronics |
| 6 Engine speed dial / Governor | 13 Travel pedal switch (activates Power Mode III) | 20 Engine speed sensor |
| 7 Travel lock switch | 14 Travel speed lock magnet | 21 Governor actuator and feedback sensor |

State of the art hydraulic system –

Closed center, variable flow, load-sensing hydraulic system. A variable displacement piston pump powers the boom, stick, bucket, outriggers/dozer and travel circuit. A gear pump powers the steering system, the brake system and the pilot control system.

Dedicated swing pump –

A separate dedicated variable displacement piston pump and fixed displacement piston motor power the swing mechanism. This closed hydraulic circuit provide maximum swing performance and control at all times.

Efficient and expandable hydraulic system –

Up to three optional hydraulic valves can be added to the main valve stack for additional hydraulic functions. A low pressure auxiliary hydraulic circuit is also available. These features offer almost unlimited auxiliary hydraulic capability.

Control Panel – The right side console, shown on page 6, contains switches for the power mode selector, automatic engine control, lights, windshield wiper and washer and travel speed selector.

Integrated electronic system –

A microprocessor monitors and controls M318 parameters and functions. The microprocessor was designed specifically for a wheeled excavator to maximize engine and hydraulic system efficiency.

The Electronic Control System monitors and controls the following functions:

Three power mode settings – The operator can choose the optimum power settings for both engine and hydraulics, without any reduction in hydraulic forces.

Mode III – Works only during travel and is automatically engaged. Provides maximum speed and drawbar power.

Mode II – Standard Mode is used for normal truck loading, trenching and hydraulic hammer use.

Mode I – Economy mode is used for lifting, pipe setting, bank forming, grading, slope finishing and close quarter and precise work. This mode offers minimum fuel consumption.

Automatic Engine Speed Control –

When activated, this device reduces engine speed to a minimum during periods of inactivity which reduces noise and saves fuel.

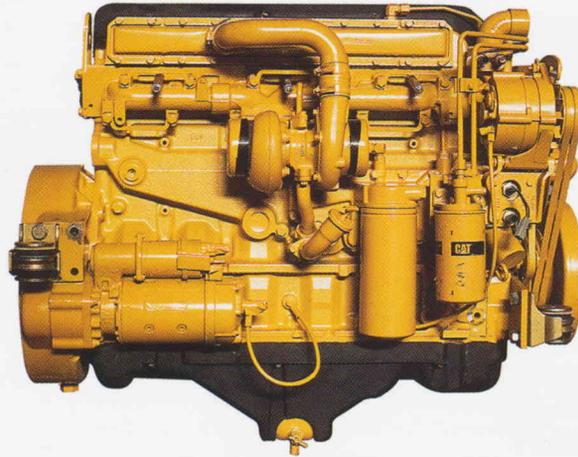
Electronic Underspeed Control –

Constant electronic monitoring assures that pump output is always matched to diesel engine power. As a result, a nearly constant diesel engine speed is maintained.

Protective Measures –Maximum engine power is reduced when engine temperature is too high or hydraulic oil temperature is too low or too high.

Diagnostic System – System parameters and failure identification codes can be read by using a diagnostic tool.

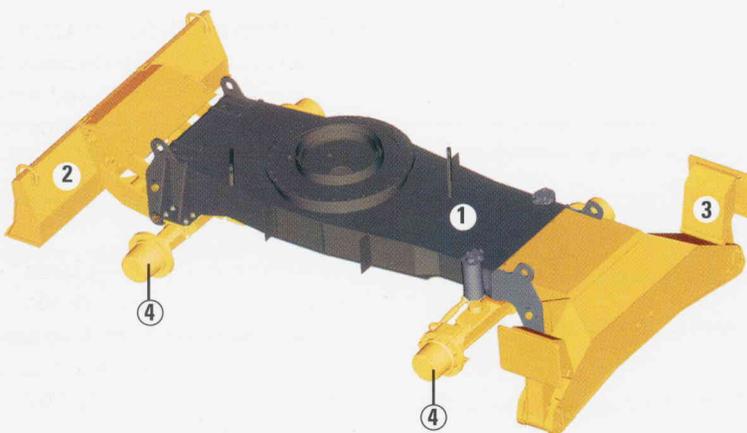
Cat 3116 DIT Engine



- Conservative 98 kW/131 HP rating, high displacement to power ratio of 3.66 and low rpm operation ensure long life and exceptional reliability.
- Direct-injection fuel system with adjustment-free pumps, provides efficient, accurate fuel metering.
- Long-life design includes: large bearing surfaces, alloy steel valves, lightweight cam roller followers, easily replaceable crankshaft seals.
- The engine is designed for high torque rise at middle rpm which is ideal for excavator applications.
- The engine is longitudinally mounted on the right for easy ground access for service/maintenance of: oil filter, oil filler, oil drain valve, fuel filter, V-belt tightener, dipstick.
- Valve cover and oil pan have special noise barriers for maximum engine noise emission reduction.

Undercarriage, Outriggers, Dozer Blade, Axles

Providing maximum flexibility and mobility.



1 Undercarriage – Strong and durable welded frame structure built with large cross sections for maximum stiffness. Both the dozer blade and the outriggers can be installed on either end of undercarriage for maximum flexibility.

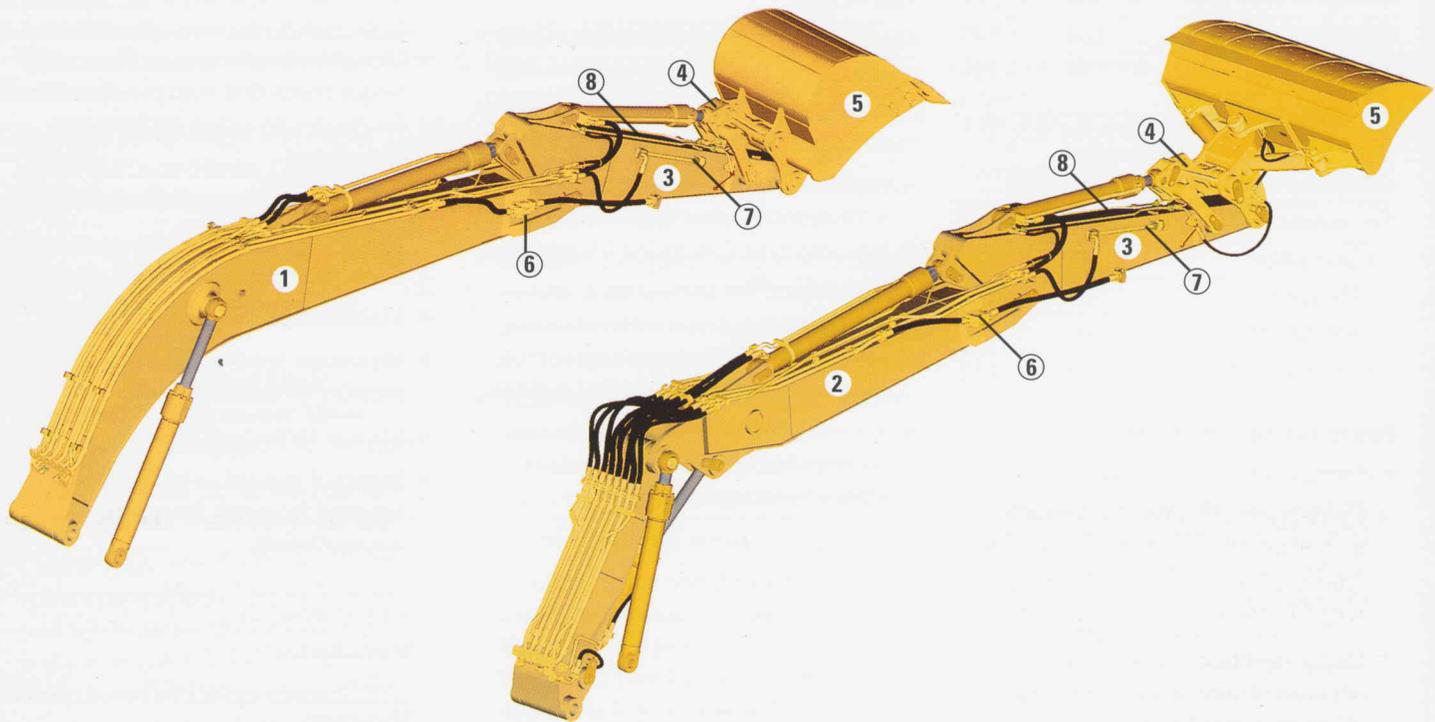
2 Optional Dozer Blade – A very useful addition for leveling and back-filling or clean-up work. Is also used to improve machine stability when digging or lifting. The design includes blade cylinder guards. Blade can be mounted on the front or the rear.

3 Optional Outriggers – For maximum stability when digging and lifting. Can be controlled individually to level machine on slopes. Includes standard outrigger cylinder guards. Outriggers can be mounted on the front and/or the rear.

4 Axles – Heavy duty. Front axle offers the best axle oscillation and steering angles in the industry for optimized flexibility and mobility.

Booms, Sticks, Buckets, Additional Hydraulic Lines

Choose your tools for the job from these options.



Booms and sticks are built with large cross sections for maximum strength and durability while keeping the weight as low as possible to enhance payloads and lifting capacity.

1 One-piece Boom – Recommended for general applications and for hammer use. 5.3 m (17'5") long.

2 Variable Angle (VA) or Hydraulically Adjustable Boom – Improves visibility and machine balance while roading. Good for work in tight quarters. 5.25 m (17'3") long when fully extended.

3 Sticks – Four sticks are offered to allow the machine to be tailored to the job:

- Short stick: 1.8 m (5'11")
 - Medium stick: 2.4 m (7'10")
 - Long stick: 2.8 m (9'2")
 - Material Handling stick: 3.2 m (10'6")
- A special droop nose stick optimized for clamshell or grapple use is also available. (Buckets cannot be mounted to this stick.)

4 Bucket Cylinder / Linkage Group – Lower power link has additional hole for lifting. The bucket cylinder/linkage group can be ordered with or without diverter valves which facilitate hydraulic connections when using a clamshell.

5 Buckets – General purpose, extreme service, as well as rigid and tilting ditch cleaning buckets are offered.

In addition, "B Family" buckets from the 320 Track-Type Excavators can also be used, subject to some limitations on larger sizes.

6 Hammer Lines* – Factory installed Hammer Hydraulic Lines are available for booms and sticks. Proportional foot control switch for maximum comfort and precision.

7 High Pressure Hydraulic Lines* – Factory installed High Pressure Lines are available for booms and sticks. They are designed to function with 2-way hydraulic attachments such as shears and crushers at maximum working pressure and flow.

8 Low Pressure Hydraulic Lines* – Factory installed Low Pressure Lines are available. They are designed to function with double-acting devices such as the ditch cleaning bucket tilt and clamshell rotation.

* M318 can be ordered with any combination of 6-7-8 above.

Engine

Caterpillar four-stroke-cycle, six cylinder 3116 DIT direct injection turbocharged diesel engine.

Ratings at 2000 rpm	kW	HP
Gross power	104	140
Net Power	98	131

The following ratings apply at 2000 rpm when tested under the specified conditions for the specified standard:

Net power	kW	HP
Caterpillar	98	131
ISO 9249	98	131
DIN 70020	100	134
EEC 80/1269	98	131

Power rating conditions

- Ratings of Caterpillar machine engines are based on standard air conditions of 25°C (77°F) and 99 kPa (29.32" Hg.) dry barometer. Power is based on using 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 density of 838.9 g/L [7.001 lb/U.S. gal]). Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler, and alternator. No derating is required up to 2950 m (9,700 ft).

Dimensions

Bore	102 mm	4.0"
Stroke	130 mm	5.0"
Displacement	6.6 liters	402.6 in ³

- Electric 24-volt starting system with a 55 amp alternator and two, 12-volt, 100 amp hour Caterpillar Maintenance Free batteries.
- Air cleaner, dry type with radial seal primary and secondary element. Easy and rapid to service and replace.
- 3 micron fuel filter with relief valve: protects high pressure fuel system from contaminants.

Swing Mechanism

Dedicated variable displacement axial-piston pump and fixed-displacement axial-piston motor powers the swing mechanism.

- Closed hydraulic circuit. Flow and torque controlled with pressure cut-off for maximum swing performance and control.
- Double-reduction, planetary swing drive.
- Splash lubricated.
- Maintenance free gear mechanism.
- Maximum holding torque at operating pressure in standstill position.
- Manual swing parking brake standard.
- Standard manual swing lock pin actuated from cab for machine transportation.

Swing system

Maximum flow	112 l/min	30 gpm
Maximum pressure	315 bar	4,568 psi
Swing torque	46.4 kNm	34,300 lb-ft
Max. swing speed		9.4 rpm

Brakes

Maintenance free wet disc service brakes on all four wheels enclosed in the axle hubs.

- Fully hydraulic service brake system. Braking system includes a separate gear pump mounted on the engine.
- Dual-circuit braking system. Independent front and rear axle service brake circuits.
- Two separate pre-charged hydraulic accumulators, one per circuit, for maximum reliability.
- Disc parking brake located in the transmission housing. Spring applied and hydraulically released.

Axles and Final Drives

Axles with planetary gear reduction final drives located in the axle hubs.

- All-wheel drive.
- High quality graphite iron axle housings for maximum strength and durability.
- Front steering axle oscillates 9° for improved maneuverability and stability and in rough terrain.
- Front axle can be locked from operator station in any position of oscillation for maximum working stability.

Ground clearance (10.00-20 tires)	375 mm	1'3"
Axle static load capacity	30 000 kg	66,000 lb

Steering

Fully hydraulic, powered by a separate gear pump mounted on the engine.

- Maintenance-free steering system.
- Synchronized steering cylinder integrated in the steering axle housing for maximum protection.
- Steering angle of 35° for reduced turning circle and maximum mobility.
- Optional battery-powered secondary steering system.

Turning circle diameter	12.7 m	41'8"
Vehicle clearance turning circle with one-piece boom	17.0 m	55'9"
with VA boom	14.5 m	47'7"

Microprocessor

The microprocessor monitors and controls the engine and hydraulic interface.

- Automatically goes into Power Mode III for maximum power when travel is activated.
- Balances pump output and engine power in Power Modes I and II for maximum efficiency.
- Automatic engine control (AEC) provides automatic engine low idle for noise and fuel reduction and operator comfort.
- 3 power modes: Travel Mode, Standard Mode, Economy Mode. Travel mode is engaged automatically.
- Back-up system for the microprocessor is standard. Switch is in the cab.
- Central diagnostic function records system parameters or faults. Can be read by dealer technicians with portable diagnostic tool for fast analysis and troubleshooting.

Undercarriage and Drive

- 2-speed powershift transmission and all wheel drive.
- Single rocker pedal controls both direction and speed.
- Transmission protected by downshift inhibitor to prevent power train damage.
- Overspeed valve limits downhill travel speed in forward and reverse gear.
- Standard two-piece drive shaft with an intermediate bearing for maximum ground clearance and maximum durability even at maximum speed.
- Transmission is attached to the differential housing of the rear axle for maximum protection by axle and base frame and improved ground clearance.
- Standard creeper speed.
- Optional travel speed lock for maximum operator comfort. Magnet holds pedal down in the maximum speed position until brake is applied or key is switched to the "off" position.

Speeds

1st gear, forward/reverse (work)	9 km/h	6 mph
2nd gear, forward (travel)	34 km/h	21 mph
2nd gear, reverse	20 km/h	12 mph
Creeper speed	3.8 km/h	2.4 mph
Drawbar pull	91 kN	20,475 lb
Gradeability		61%

Hydraulic System

Closed center, variable flow, load-sensing hydraulic system. Load-sensing axial-piston pump powers boom, stick, bucket, outriggers/dozer and travel circuit.

- The pump flow is independently and proportionally distributed to the flow users. This is a flow on demand hydraulic system offering multi-function capability, precision control and modulation.
- Minimum loss hydraulic system. Flow distances between hydraulic components are minimized.
- Optional hydraulic valves can be attached to the main valve bank (up to 4) for maximum hydraulic system flexibility.

Main Hydraulic System

Maximum flow	260 l/min	67 gpm
Maximum pressure		
Implements	330 bar	4,785 psi
Travel	330 bar	4,785 psi

Pilot System

Maximum flow	15 l/min	4 gpm
Maximum pressure	25 bar	363 psi

Service Refill Capacities

Fuel Tank	320 L	85 gal
Cooling	35 L	9 gal
Lubrication,		
Engine	21 L	5.5 gal
Rear axle housing, differential	11 L	3 gal
Front steering axle, differential	8.5 L	2.2 gal
Final drives, front (each)	2 L	.50 gal
Final drives, rear (each)	2 L	.50 gal
Powershift transmission	3 L	.80 gal
Hydraulic system (including tank)	220 L	58 gal
Hydraulic tank	135 L	36 gal

Tires

Dual pneumatic 10.00-20 16PR tires are standard.

Optional dual tires:

- 10.00-20, 14PR
- 11.00-20, 16PR

Optional super single tires:

- 18R 19.5 XF
- 18R 22.5 XF

Weights

Operating weights include 0.80 m³ (1.05 yd³) general purpose bucket and operator.

	One-piece boom 2 sets of outriggers	
1800 mm (5'11") stick	17 940 kg	39,558 lb
2400 mm (7'10") stick	17 910 kg	39,492 lb
2800 mm (9'2") stick	17 910 kg	39,492 lb

For the following equipment change the above weights:

One-piece boom	no change	no change
VA boom	+570 kg	+1,257 lb
Dozer only	-1 640 kg	-3,616 lb
1 set of outriggers only	-1 270 kg	-2,800 lb
2 sets of outriggers	no change	no change
1 set of outriggers/dozer	-370 kg	-816 lb

Controls

Two pilot-operated joysticks actuate boom, stick, bucket and swing (SAE pattern).

Right Lever

- Move forward and backward to lower and raise boom.
- Move left and right to control bucket curl and dump.
- Press button on top of control to activate auxiliary circuit. (If ordered)

Left Lever

- Move forward and backward to move stick out and in.
- Move left and right to control direction of swing.
- Press button on top of control to activate auxiliary circuit. (If ordered)

Pedals

- Service brake pedal is immediately to the right of the steering column.
- Forward and reverse rocker travel pedal is located to the right of the service brake pedal.
- Optional VA boom rocker control pedal is immediately to the left of the steering column. (If ordered)
- Optional hammer control pedal is located to the left of the VA boom rocker control pedal. (If ordered)

Hydraulic Lock

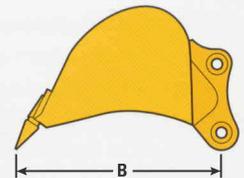
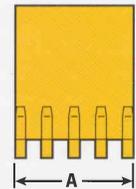
- Left armrest lifts for operator entry and exit. Raising the armrest prevents actuation of all hydraulic functions except steering.
- Left armrest must be raised to start engine.

Bucket Specifications

		General Purpose			Extreme Service	
A	Bite width	mm (in)	1000 (39")	1100 (43")	1200 (47")	1200 (47")
B	Tip radius	mm (in)	1340 (53")	1340 (53")	1340 (53")	1340 (53")
	SAE rated capacity	m ³ (yd ³)	0.70 (.92)	0.80 (1.05)	0.90 (1.18)	0.90 (1.18)
	Weight	kg (lb)	600 (1,323)	640 (1,411)	660 (1,455)	710 (1,566)
	Number of teeth		5	5	5	5
		Ditch Cleaning				
			Tilting	Tilting	Tilting	Rigid
A	Bite width	mm (in)	1800 (71")	2000 (79")	2300 (91")	2000 (79")
B	Tip radius	mm (in)	1250 (49")	1400 (55")	1250 (59")	900 (35")
	SAE rated capacity	m ³ (yd ³)	0.48 (.63)	0.58 (.76)	0.62 (.81)	0.70 (.92)
	Weight	kg (lb)	477 (1,052)	680 (1,499)	569 (1,255)	640 (1,411)
	Total Tilt Range		88°	88°	88°	-

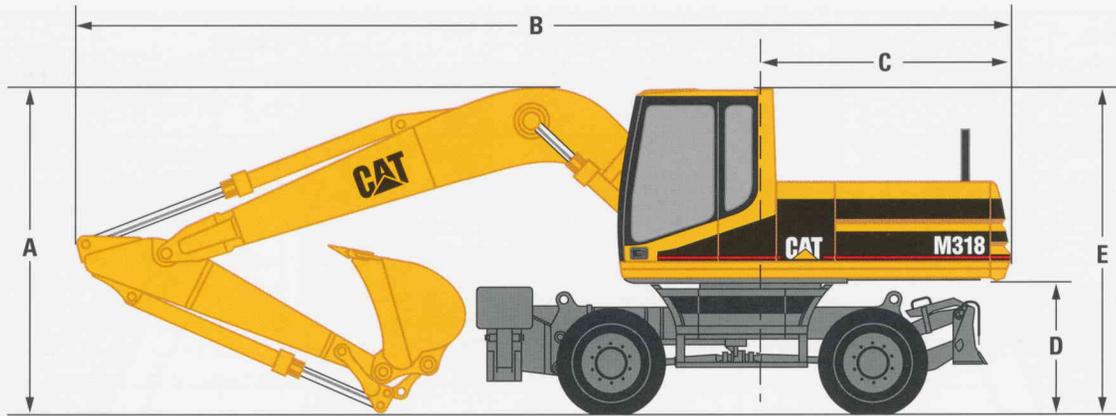
GP and Extreme Service bucket weights include weld-on tooth adapters and tooth tips.

"B Family" buckets from the 320 Track-Type Excavators can also be used, subject to some weight/capacity limitations.



Dimensions

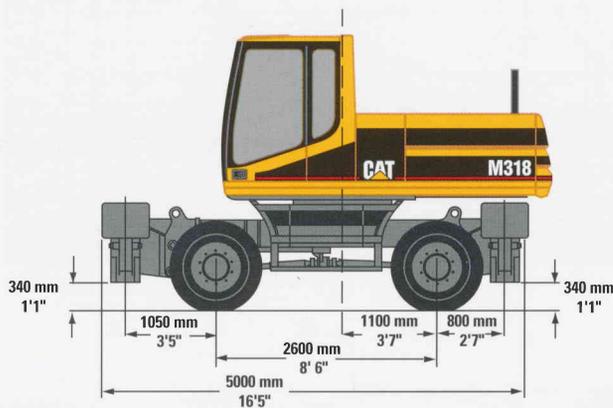
All dimensions are approximate.



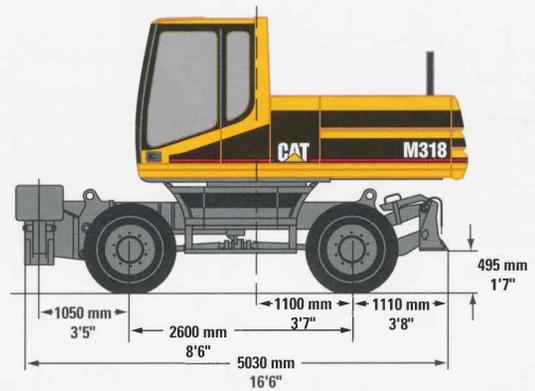
A Shipping height	One-piece boom	VA boom	C Tail swing radius	2450 mm (8'1")	
	1800 mm (5'11") stick	3200 mm (10'6")	3370 mm (11'7")	D Counterweight clearance	1280 mm (4'2")
	2400 mm (7'10") stick	*3100 mm (10'2")	3340 mm (10'11")	E Cab height	3100 mm (10'2")
B Shipping length	2800 mm (9'2") stick	*3100 mm (10'2")	3390 mm (11'1")		
	1800 mm (5'11") stick	9180 mm (30'1")	9080 mm (29'9")		
	2400 mm (7'10") stick	8970 mm (29'5")	8900 mm (29'2")		
	2800 mm (9'2") stick	9350 mm (30'8")	8900 mm (29'2")		

* Dimension A is less than dimension E; therefore, the highest point for this configuration is dimension E.

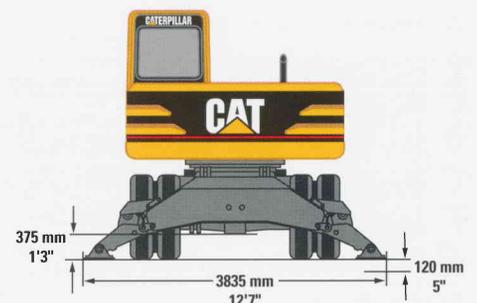
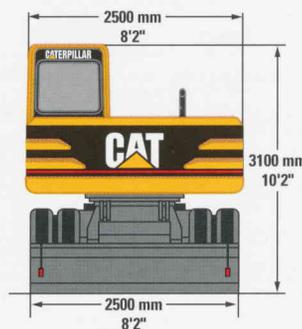
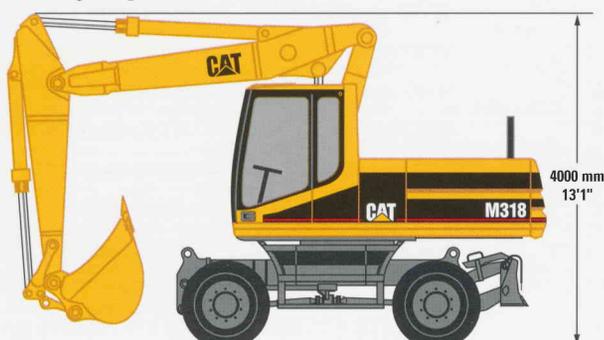
Undercarriage with 2 sets of outriggers



Undercarriage with 1 set of outriggers and dozer

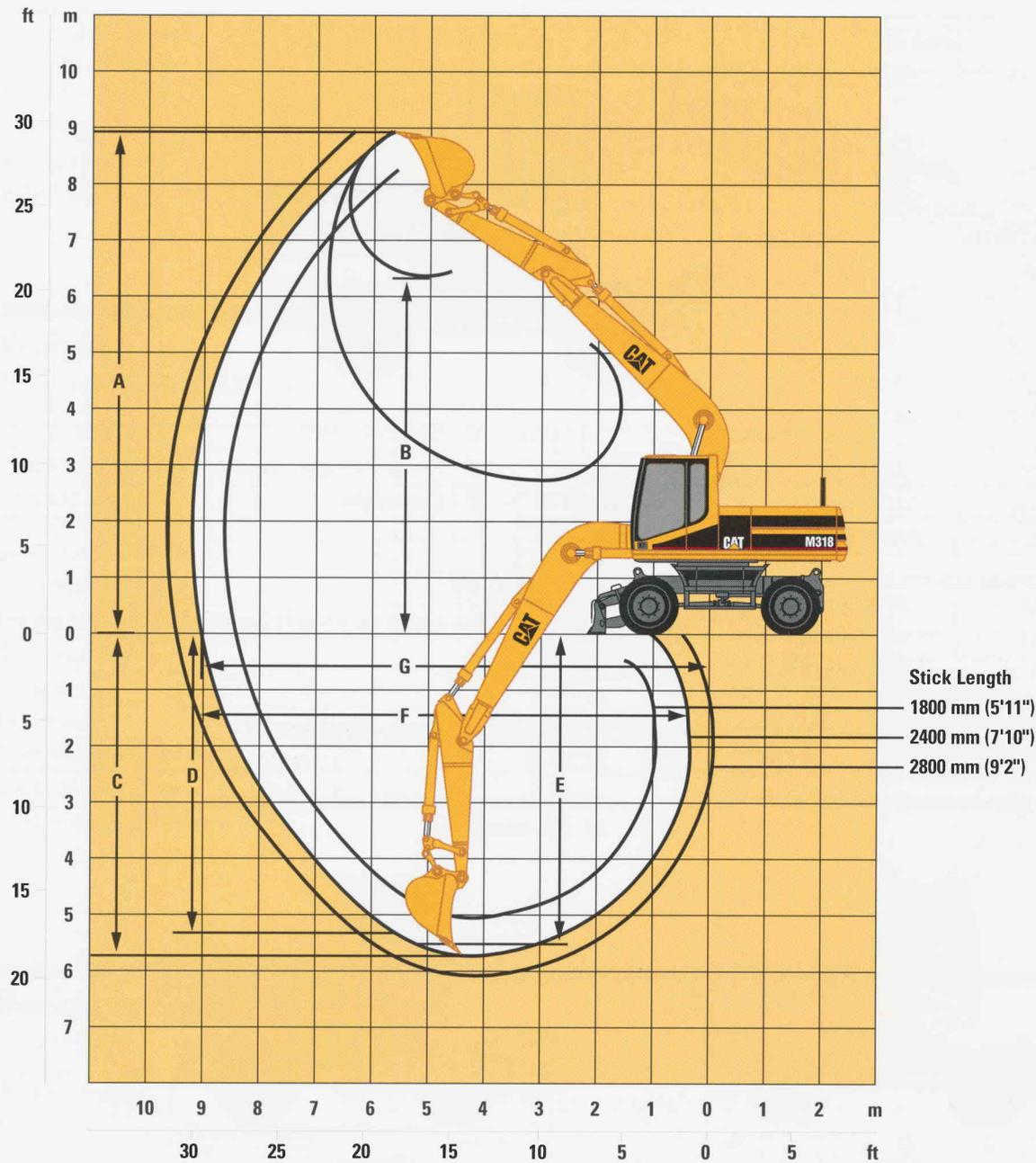


Roading height with 2.4 m (7'10") stick and VA boom



Working Ranges

With One-piece boom



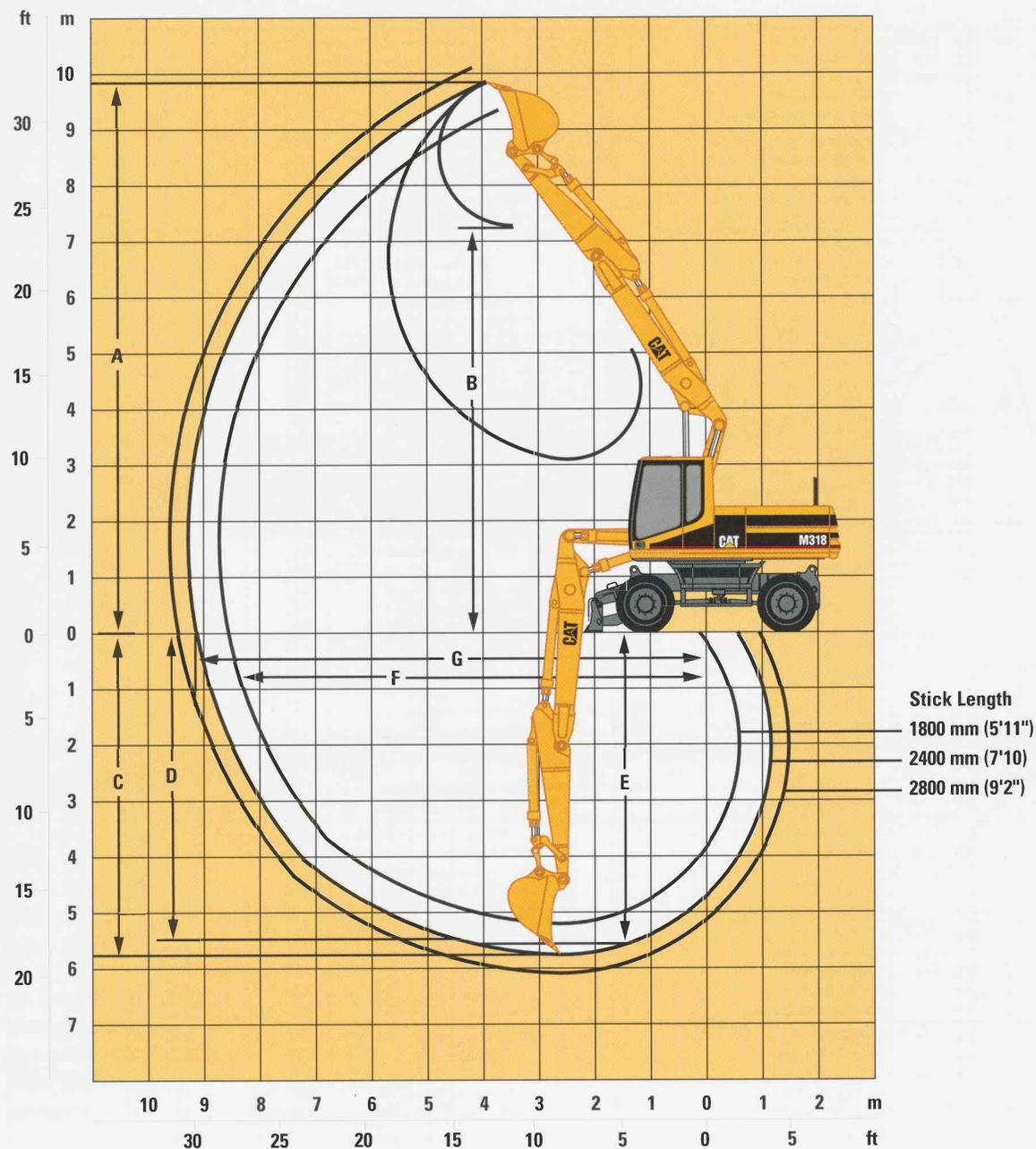
Stick	1800 mm (5'11")	2400 mm (7'10")	2800 mm (9'2")
Bucket	0.90 m ³ (1.18 yd ³)	0.80 m ³ (1.05 yd ³)	0.70 m ³ (.92 yd ³)
A Maximum cutting height	8530 mm (28'0")	8890 mm (29'2")	8950 mm (29'4")
B Maximum loading height	6080 mm (19'11")	6330 mm (20'9")	6420 mm (21'1")
C Maximum digging depth	5090 mm (16'8")	5690 mm (18'8")	6090 mm (20'0")
D Maximum vertical wall digging depth	2930 mm (9'7")	4360 mm (14'4")	4560 mm (15'0")
E Maximum depth of cut, for 2440 mm (8') level bottom	4820 mm (15'10")	5470 mm (17'11")	5890 mm (19'4")
F Maximum reach	8690 mm (28'6")	9230 mm (30'3")	9560 mm (31'4")
G Maximum reach at ground level	8490 mm (27'10")	9040 mm (29'8")	9380 mm (30'9")

Digging forces:

Stick	108 kN (24,300 lb)	83 kN (18,675 lb)	75 kN (16,875 lb)
Bucket	122 kN (27,450 lb)	114 kN (25,650 lb)	114 kN (25,650 lb)

Working Ranges

With VA boom



Stick	1800 mm (5'11")	2400 mm (7'10")	2800 mm (9'2")
Bucket	0.90 m ³ (1.18 yd ³)	0.80 m ³ (1.05 yd ³)	0.70 m ³ (.92 yd ³)
A Maximum cutting height	9380 mm (30'9")	9840 mm (32'3")	10 020 mm (32'10")
B Maximum loading height	6780 mm (22'3")	7180 mm (23'7")	7380 mm (24'3")
C Maximum digging depth	5200 mm (17'7")	5790 mm (19'0")	6180 mm (20'3")
D Maximum vertical wall digging depth	3170 mm (10'5")	4430 mm (14'6")	4730 mm (15'6")
E Maximum depth of cut, for 2440 mm (8') level bottom	5080 mm (16'8")	5690 mm (18'8")	6150 mm (20'2")
F Maximum reach	8630 mm (28'4")	9190 mm (30'2")	9530 mm (31'3")
G Maximum reach at ground level	8430 mm (27'8")	9000 mm (29'6")	9350 mm (30'8")
Digging forces:			
Stick	108 kN (24,300 lb)	83 kN (18,675 lb)	75 kN (16,875 lb)
Bucket	122 kN (27,450 lb)	114 kN (25,650 lb)	114 kN (25,650 lb)

M318 Lift Capacities

All weights are in pounds (multiply by 1,000).

One-piece Boom

5.3 m (17'5")

Stick

1.8 m (5'11")

Bucket

0.9 m³ (1.18 yd³)

Undercarriage configuration	10'0"			15'0"			20'0"			25'0"			Max
20'0" Rear dozer up													
20'0" Rear dozer down													
20'0" Rear stab down													
20'0" 2 sets stab down													
20'0" Dozer and stab down													
15'0" Rear dozer up													
15'0" Rear dozer down													
15'0" Rear stab down													
15'0" 2 sets stab down													
15'0" Dozer and stab down													
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Ground 0'0" Dozer and stab down													
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-10'0" Rear dozer down													
-10'0" Rear stab down													
-10'0" 2 sets stab down													
-10'0" Dozer and stab down													

One-piece Boom

5.3 m (17'5")

Stick

2.4 m (7'10")

Bucket

0.8 m³ (1.05 yd³)

Undercarriage configuration	10'0"			15'0"			20'0"			25'0"			Max
20'0" Rear dozer up													
20'0" Rear dozer down													
20'0" Rear stab down													
20'0" 2 sets stab down													
20'0" Dozer and stab down													
15'0" Rear dozer up													
15'0" Rear dozer down													
15'0" Rear stab down													
15'0" 2 sets stab down													
15'0" Dozer and stab down													
10'0" Rear dozer up													
10'0" Rear dozer down													
10'0" Rear stab down													
10'0" 2 sets stab down													
10'0" Dozer and stab down													
5'0" Rear dozer up													
5'0" Rear dozer down													
5'0" Rear stab down													
5'0" 2 sets stab down													
5'0" Dozer and stab down													
Ground 0'0" Rear dozer up													
Ground 0'0" Rear dozer down													
Ground 0'0" Rear stab down													
Ground 0'0" 2 sets stab down													
Ground 0'0" Dozer and stab down													
-5'0" Rear dozer up													
-5'0" Rear dozer down													
-5'0" Rear stab down													
-5'0" 2 sets stab down													
-5'0" Dozer and stab down													
-10'0" Rear dozer up													
-10'0" Rear dozer down													
-10'0" Rear stab down													
-10'0" 2 sets stab down													
-10'0" Dozer and stab down													



Load Point Height



Load Radius Over Front



Load Radius Over Rear



Load Radius Over Side



Load at Maximum Reach

* Limited by hydraulic rather than tipping load.

The above loads are in compliance with hydraulic excavator lift capacity ratings standard ISO/DIS 10567, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. Weight of all lifting accessories must be deducted from the above lifting capacities.

M318 Lift Capacities

All weights are in pounds (multiply by 1,000).

One-piece Boom

5.25 m (17'5")

Stick

2.8 m (9'2")

Bucket

0.7 m³ (.92 yd³)

Undercarriage configuration	10'0"			15'0"			20'0"			25'0"			Max		
15'0" Rear dozer up							*7.8				6.2				
15'0" Rear dozer down									*7.8	5.2					
15'0" Rear stab down									*7.8	6.0					
15'0" 2 sets stab down							*7.8			*7.8					
15'0" Dozer and stab down							*7.8			*7.8					
10'0" Rear dozer up	*19.0		14.8	*11.8		8.0	9.0			4.8	6.0			3.2	*3.2
10'0" Rear dozer down		*19.0	17.4		*11.8	9.2		*9.2		5.6				3.8	*3.2
10'0" Rear stab down		*19.0	19.0		*11.8	11.8		*9.2		8.8				6.0	*3.2
10'0" 2 sets stab down	*19.0		*19.0	*11.8		*11.8	*9.2			*9.2	*8.0			7.4	*3.2
10'0" Dozer and stab down	*19.0		*19.0	*11.8		*11.8	*9.2			*8.0	*8.0			6.0	*3.2
5'0" Rear dozer up				13.4		7.0	8.4			4.6	5.8			3.0	*3.2
5'0" Rear dozer down					*14.8	8.2		*10.6		5.2				3.6	2.0
5'0" Rear stab down					*14.8	13.0		*10.6		8.4				5.8	*3.2
5'0" 2 sets stab down				*14.8		*14.8	*10.6			10.2	*8.6			7.2	*3.2
5'0" Dozer and stab down				*14.8		13.0	*10.6			8.4	*8.6			5.8	*3.2
Ground 0'0" Rear dozer up	*8.6		*8.6	12.8		6.6	8.2			4.2	5.6			2.8	*3.4
Ground 0'0" Rear dozer down		*8.6	*8.6		*16.4	7.6		*11.6		5.0				3.4	*3.4
Ground 0'0" Rear stab down		*8.6	*8.6		*16.4	12.4		*11.6		8.0				5.6	*3.4
Ground 0'0" 2 sets stab down	*8.6		*8.6	*16.4		15.8	*11.6			10.0	*9.0			7.0	*3.4
Ground 0'0" Dozer and stab down	*8.6		*8.6	*16.4		12.4	*11.6			8.0	*9.0			5.6	*3.4
-5'0" Rear dozer up	*15.2		12.0	12.6		6.4	8.0			4.0	5.6			2.8	*4.0
-5'0" Rear dozer down		*15.2	14.4		*16.6	7.6		*11.8		4.8				8.6	*4.0
-5'0" Rear stab down		*15.2	*15.2		*16.6	12.2		*11.8		7.8				5.6	*4.0
-5'0" 2 sets stab down	*15.2		*15.2	*16.6		15.6	*11.8			9.8	*8.8			7.0	*4.0
-5'0" Dozer and stab down	*15.2		*15.2	*16.6		12.2	*11.8			7.8	*8.8			5.6	*4.0
-10'0" Rear dozer up	*22.6		12.2	12.6		6.4	8.0			4.2					*4.8
-10'0" Rear dozer down		*22.6	14.8		*15.2	7.6		*10.8		4.8					*4.8
-10'0" Rear stab down		*22.6	*22.6		*15.2	12.4		*10.8		7.8					*4.8
-10'0" 2 sets stab down	*22.6		*22.6	*15.2		15.2	*10.8			9.8					*4.8
-10'0" Dozer and stab down	*22.6		*22.6	*15.2		12.4	*10.8			7.8					*4.8
-15'0" Rear dozer up	*16.8		13.0	*11.4		6.8									
-15'0" Rear dozer down		*16.8	15.4		*11.4	8.0									
-15'0" Rear stab down		*16.8	*16.8		*11.4	*11.4									
-15'0" 2 sets stab down	*16.8		*16.8	*11.4		*11.4									
-15'0" Dozer and stab down	*16.8		*16.8	*11.4		*11.4									

Hydraulically Adjustable (VA) Boom

Max. 5.25 m (17'3")

Stick

1.8 m (5'11")

Bucket

0.9 m³ (1.18 yd³)

VA Boom lift capacities vary with the degree of VA Boom extension. The lift capacities shown are minimums.

Undercarriage configuration	10'0"			15'0"			20'0"			25'0"			Max		
20'0" Rear dozer up				*7.2		*7.2	*8.4			4.8					
20'0" Rear dozer down					*7.2	*7.2	*8.4			5.6					
20'0" Rear stab down					*7.2	*7.2	*8.4			7.2					
20'0" 2 sets stab down				*7.2		*7.2	*8.4			*8.4					
20'0" Dozer and stab down				*7.2		*7.2	*8.4			*8.4					
15'0" Rear dozer up				*7.6		*7.6	*6.6			5.0					
15'0" Rear dozer down					*7.6	*7.6	*6.6			5.8					
15'0" Rear stab down					*7.6	*7.6	*6.6			*6.6					
15'0" 2 sets stab down				*7.6		*7.6	*6.6			*6.6					
15'0" Dozer and stab down				*7.6		*7.6	*6.6			*6.6					
10'0" Rear dozer up				*7.2		*7.2	*6.8			4.6				5.4	2.8
10'0" Rear dozer down					*7.2	*7.2	*6.8			5.4				*6.0	3.2
10'0" Rear stab down					*7.2	*7.2	*6.8			*6.8				*6.0	4.2
10'0" 2 sets stab down				*7.2		*7.2	*6.8			*6.8				*6.0	*6.0
10'0" Dozer and stab down				*7.2		*7.2	*6.8			*6.8				*6.0	5.2
5'0" Rear dozer up	*12.0		*12.0	*7.4		6.8	8.4			4.2				5.0	2.4
5'0" Rear dozer down		*12.0	*12.0		*7.4	*7.4	*8.4			5.0				*6.0	2.8
5'0" Rear stab down		*12.0	*12.0		*7.4	*7.4	*8.4			6.6				*6.0	3.8
5'0" 2 sets stab down	*12.0		*12.0	*7.4		*7.4	*8.4			*8.4				*6.0	6.0
5'0" Dozer and stab down	*12.0		*12.0	*7.4		*7.4	*8.4			8.2				*6.0	4.8
Ground 0'0" Rear dozer up	*18.2		13.0	*11.2		6.2	8.0			4.0				5.0	2.4
Ground 0'0" Rear dozer down		*18.2	15.4		*11.2	7.4		*10.8		4.8					*6.4
Ground 0'0" Rear stab down		*18.2	*18.2		*11.2	9.8		*10.8		6.2					*6.4
Ground 0'0" 2 sets stab down	*18.2		*18.2	*11.2		*11.2	*10.8			9.8				*6.4	6.0
Ground 0'0" Dozer and stab down	*18.2		*18.2	*11.2		11.2	*10.8			7.8				*6.4	4.8
-5'0" Rear dozer up	*15.8		12.0	12.6		6.2	8.0			4.0				5.4	2.6
-5'0" Rear dozer down		*15.8	14.4		*16.0	7.4		*11.4		4.8				*7.0	3.2
-5'0" Rear stab down		*15.8	*15.8		*16.0	9.6		11.0		6.2				*7.0	4.2
-5'0" 2 sets stab down	*15.8		*15.8	*16.0		15.6	*11.4			9.8				*7.0	6.6
-5'0" Dozer and stab down	*15.8		*15.8	*16.0		12.2	*11.4			7.8				*7.0	5.2
-10'0" Rear dozer up	*22.0		12.6	13.0		6.6								6.6	3.2
-10'0" Rear dozer down		*22.0	15.2		*13.8	7.8								*7.0	4.0
-10'0" Rear stab down		*22.0	20.0		*13.8	10.0								*7.0	5.0
-10'0" 2 sets stab down	*22.0		*22.0	*13.8		*13.8								*7.0	*7.0
-10'0" Dozer and stab down	*22.0		*22.0	*13.8		12.6								*7.0	6.4



Load Point Height



Load Radius Over Front



Load Radius Over Rear



Load Radius Over Side



Load at Maximum Reach

* Limited by hydraulic rather than tipping load.

The above loads are in compliance with hydraulic excavator lift capacity ratings standard ISO/DIS 10567, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. Weight of all lifting accessories must be deducted from the above lifting capacities.

M318 Lift Capacities

Hydraulically Adjustable (VA) Boom

Max. 5.25 m (17'3")

Stick

2.4 m (7'10")

Bucket

0.8 m³ (1.05 yd³)

VA Boom lift capacities vary with the degree of VA Boom extension. The lift capacities shown are minimums.

All weights are in pounds (multiply by 1,000).

Undercarriage configuration	10'0"			15'0"			20'0"			25'0"			Max	
20'0" Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down							*5.4	*5.4	*5.4					
15'0" Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down				*7.4	*7.4	*7.4	*4.6	*4.6	*4.6					
10'0" Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down	*11.8	*11.8	*11.8	*6.8	*6.8	*6.8	*4.6	*4.6	*4.6	*5.0	*5.0	3.0	*3.2	2.4
5'0" Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down	*12.2	*12.2	*12.2	*7.0	*7.0	*7.0	*5.8	*5.8	*5.8	5.8	*6.8	3.0	*3.4	2.2
Ground 0'0" Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down	*9.4	*9.4	*9.4	*9.0	*9.0	*9.0	*7.8	*7.8	*7.8	5.6	*7.4	3.4	*3.6	2.2
-5'0" Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down	*15.8	*15.8	*15.8	12.6	12.6	12.6	8.0	8.0	8.0				*4.0	2.2
-10'0" Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down	*22.2	*22.2	*22.2	12.8	12.8	12.8	8.2	8.2	8.2				*4.8	2.8
-15'0" Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down	*21.6	*21.6	*21.6	13.6	13.6	13.6								2.8

Hydraulically Adjustable (VA) Boom

Max. 5.25 m (17'3")

Stick

2.8 m (9'2")

Bucket

0.7 m³ (.92 yd³)

VA Boom lift capacities vary with the degree of VA Boom extension. The lift capacities shown are minimums.

Undercarriage configuration	10'0"			15'0"			20'0"			25'0"			Max	
20'0" Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down							*4.6	*4.6	*4.6					
15'0" Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down				*7.8	*7.8	*7.8	*5.0	*5.0	*5.0	*5.2	*5.2	3.2		
10'0" Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down	*11.8	*11.8	*11.8	*7.0	*7.0	*7.0	*5.0	*5.0	*5.0	*5.4	*5.4	3.2	*2.8	2.2
5'0" Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down	*13.8	*13.8	*13.8	*7.0	*7.0	*7.0	*5.0	*5.0	*5.0	*4.8	*4.8	3.0	*2.8	2.0
Ground 0'0" Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down	*9.0	*9.0	*9.0	*7.6	*7.6	*7.6	*7.4	*7.4	*7.4	*5.4	*5.4	2.8	*3.0	2.4
-5'0" Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down	*15.6	*15.6	*15.6	12.6	12.6	12.6	*7.2	*7.2	*7.2	5.6	*7.6	2.8	*3.4	2.2
-10'0" Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down	*23.4	*23.4	*23.4	12.8	12.8	12.8	8.0	8.0	8.0				*4.2	2.6
-15'0" Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down	*22.2	*22.2	*22.2	*13.0	*13.0	*13.0	6.8	6.8	6.8					2.6



Load Point Height



Load Radius Over Front



Load Radius Over Rear



Load Radius Over Side



Load at Maximum Reach

*Limited by hydraulic rather than tipping load.

The above loads are in compliance with hydraulic excavator lift capacity ratings standard ISO/DIS 10567, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. Weight of all lifting accessories must be deducted from the above lifting capacities.

Standard Equipment

The M318 is a global model from Caterpillar. To provide you with the optimum configuration for your jobs, standard and optional equipment may vary. Please ask your Cat dealer for the latest equipment list for your country.

Anti-drift valve for boom cylinders	Mounting provision for radio	Hydraulic maximum speed limiter
Adjustable pilot-operated joystick type lever controls	Openable two piece front windshield	Lockable oscillating front axle
Alternator, 55-amp.	Openable skylight	Hydrostatic transmission, 2 speed, 4 wheel drive with on-the-go shifting and standard creeper speed
Automatic engine speed control	Power mode selector, economy and standard work modes	Internal oil disc brakes
Batteries, 2 Caterpillar	Suspension seat with: adjustable height/distance from steering wheel, adjustable armrests, lumbar support and retractable seat belt	Microprocessor with back-up system
Cab with:	Warning horn	Parking brake
Ash tray and lighter	Wiper and washer, upper windshield	Positive filtered ventilation with 3 speed fan
Bottle holder	Cat 3116 DIT diesel engine	Rearview mirrors, left and right
Coat hook	24 Volt electric starting	Roading lights including headlights, taillights and turn signals
Cooler box behind operators seat	2950 m (9,700 ft) altitude capacity	Variable displacement, load sensing hydraulic system
Floor mat	Downshift inhibitor	Wide steps on both sides
Glass, tempered and tinted	Dual tires 10.00-20 16PR	
Pressurized and sound suppressed	Fully hydraulic braking system	
Heater and defroster	Full hydraulic steering	
Hydraulic lock, left armrest activated		
Interior lighting		
Literature compartment		

Optional Equipment

Air conditioner	Check valves	Sidecutters
Air horn	Boom cylinders	Spacer rings, rubber, for use between dual tires
Alarm, back-up*	Stick cylinder	Starting aid, ether
Anti-drift valve	VA foreboom cylinder	Sticks
For VA foreboom cylinder	Dozer blade, front or rear mounted	1800 mm (5'11")
For stick cylinder	Guards, Vandalism protection	2400 mm (7'10")
Auxiliary hydraulic lines groups	Headrest for driver's seat	2800 mm (9'2")
Low pressure lines for booms and sticks	High ambient temperature cooling	Material handling, 3200 mm (10'6")
Hammer lines for booms and sticks	Lights	Secondary steering (battery powered)
High pressure lines for booms and sticks	Working for one piece boom	Tilting device (for ditch cleaning buckets only)
Combined hydraulic lines, high pressure lines and hammer for booms	Working for VA boom	Tires, see page 12
Booms	Working, front, cab mounted (2x)	Tooth tips
One piece boom	Working, rear, cab mounted (1x)	Tool box, left and/or right undercarriage-mounted
Hydraulically adjustable (VA)	Lower windshield wiper	Travel speed lock
Buckets, see page 12	Mirror, lower left	Wiper and washer for lower front windscreen
Bucket linkage (includes bucket cylinder)	Outriggers, individually controlled	
With diverter valve	1 set, front or rear mounted	
Without diverter valve	2 sets, front and rear mounted	
	Rain protective shade for front windscreen	
	Rotating beacon	

* Required in U.S.A. and Canada.

M318 Wheeled Excavator



Your Cat Dealer

There is one very important component included with every Caterpillar M318 Wheeled Excavator that no one else can offer: your Cat dealer.

Whether you have questions about performance, service or financing, your Cat Dealer has the answers. He is dedicated to helping you make the right equipment choice for your requirements.

Plus, your Cat dealer has most parts you will ever need for your Cat equipment right on the shelf. If not, the Dealer's worldwide computerized network will immediately find the closest location of the part you need, minimizing your downtime.

When you need more details about the M318, contact your Cat dealer. You'll find he's easy to talk to. And he's genuinely interested in talking to you.