

307D

Mini Hydraulic Excavator

CATERPILLAR[®]



Engine

Engine Model	MMC 4M40-TL	
Net Power	41.5 kW	55.6 hp
Gross Power	43 kW	57.6 hp

Weights

Operating Weight	7075 kg	15,598 lb
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307D Features

Comfortable Cab

Intuitive seat-mounted controls and a spacious cab with an air suspension seat keep you comfortable all day.

Versatility

Machine is configured to operate with a wide selection of Cat® Work Tools increasing jobsite versatility.

Performance

High digging forces and fast cycle times maximize productivity without compromising controllability.

Stability

Conventional tail swing design with extended counterweight provides excellent stability while maximizing lifting.



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The Cat 307D Mini Hydraulic Excavator delivers superior performance and comfort while reducing your operating costs. The large spacious cab provides a comfortable work area. Intuitive seat-mounted controls are easy to use for greater job accuracy and efficiency. The standard tail swing design incorporates a counterweight that extends further back on the machine. This provides leverage to create a stable work platform during lifting and digging. The 307D sets the standard for conventional tail swing excavators in the eight-ton size class.

Operator Station

Simple, easy operation allows the operator to focus on production.

A larger, spacious cab provides operator comfort and improved visibility. Joystick controlled auxiliary switch clears space on the floor giving the operator plenty of foot and leg room. An intuitive cab layout for ease of operation reduces operator fatigue. Other cab features include:

- Air conditioning is standard.
- 12V power receptacle for charging cell phones.
- A reclining air suspension seat with adjustable armrests.
- Storage space for literature and cup holder.
- Low effort joystick controls designed to match the operator's natural wrist and arm positions.
- Consoles can be adjusted independently of the seat for maximum comfort.
- Overhead skylight improves visibility and can be opened to create air flow.
- Upper front windshield opens and easily stores on the roof above the operator with an automatic latching mechanism.
- All functions are fully pilot operated lowering owning and operating costs.
- Pattern control changer is located under the floor mat.

Monitor Display

Newly designed monitor is located to give a clear view of the machine's monitoring system, ensuring fuel level, water temperature and warning lights are easily seen.



Performance

Powerful digging with precise control.

Hydraulics

Smooth responsive hydraulics give the level of control demanded by the customer in any application, from fine grading and dozing to backfilling. Powerful bucket and stick digging forces combined with fast cycle times result in world class productivity and performance. Automatic two speed function improves jobsite maneuverability with precise control by balancing travel speed with the torque needed for turning and travelling on inclines. Dozer blade float function enables easy ground levelling for landscaping and finish grade applications as well as more efficient jobsite clean-up.

Controls

Joystick mounted auxiliary control enhances machine controllability. Intuitive controls give fine modulation. The levers and dozer function ensure “as new” levels of controllability are maintained throughout the machine life.

Lift Capacity

The new Caterpillar D-Series has industry leading lift capacity matched with outstanding stability. This provides the control required to meet the diverse and continually changing needs of the customer.

Stick and Boom

A choice of standard or long, thumb ready sticks enable the customer to match the machine’s digging envelope to their requirements. A fixed boom is featured to maximize stability and lifting.



Engine

Clean, quiet and efficient.

- Interim Tier 4 turbocharged engine gives higher power and maintains strong performance at high altitude.
- High digging forces give power through even the most compacted ground with smooth control and responsive hydraulics that deliver productivity that our customers demand.
- Load sensing hydraulics optimize the flow of oil for smooth powerful performance and increased fuel economy.
- Automatic engine idle lowers engine revolutions when not in use to conserve fuel and lower environmental noise/emissions.

Work Tools

Cat work tools are matched to meet your application needs.

A wide range of work tools have been developed and integrated into the machine design to maximize machine performance and deliver excellent value through high productivity and long life.

Cat Work Tools include:

- Heavy Duty Buckets
- Heavy Duty Rock Buckets
- Ditch Cleaning Buckets
- Hydraulic Hammers
- Auger
- Shear
- Compactor
- Thumbs
- Quick Couplers

Couplers

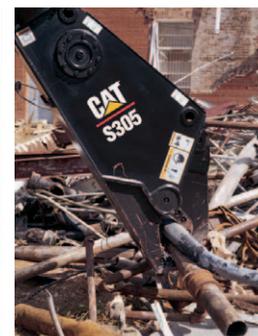
To maximize performance, Caterpillar Pin-Grabber Quick Couplers are compatible with all standard work tools, enabling the operator to simply release one work tool and pick up another, maximizing productivity. The couplers are available in hydraulic and manual versions.

Auxiliary Hydraulics

The combined function high-pressure auxiliary lines and quick connectors are fitted as standard. This auxiliary system includes a diverter valve which provides optimum performance when using a one-way flow (hammer) or two-way flow (auger and thumb) work tool. This feature allows the machine to adapt to a wide variety of applications without re-configuring the auxiliary lines. Versatility is further enhanced with optional hydraulic lines enabling the use of a hydraulic quick coupler. A secondary auxiliary supply circuit for work tools utilizing a rotating or other medium-pressure circuit is also available as an optional attachment.

Thumbs

Caterpillar offers three varieties of thumbs: Stiff Link, Hydraulic and Progressive Link. The stiff link thumb incorporates the use of a fixed link between the thumb and the stick, requiring bucket curl to secure the load. The hydraulic thumb replaces the stiff link with a cylinder that enables movement by both the thumb link and the bucket to grab an object. A progressive link thumb works much like a hydraulic thumb with more thumb rotation by incorporating an additional link. This additional rotation provides a better working range when securing material. The three varieties come with two lengths, one compatible with a pin-on bucket and one compatible with a pin-grabber coupler.



Undercarriage

Excellent stability.



The Cat 307D offers three different track options to choose from allowing the correct machine configuration to suit the job.

Steel Track

The standard track offering is a 450 mm (18 in) triple grouser track. Grease-lubricated track links, split master link and sealed track rollers reduce owning and operating costs. Steel tracks provide optimum stability when lifting over the side. This track is also offered in a 600 mm (24 in) width that provides additional stability and reduced ground pressure.

Segmented Rubber Track

The 450 mm (18 in) wide segmented rubber track incorporates the best attributes of both the steel track and the rubber belt. Stability is maximized due to the rigid rubber pads that bolt to the track chain. The thick rubber pads are individually serviceable, minimizing work site damage and provide long wear life.

Rubber Pads

Offered through the dealer parts system, the 450 mm (18 in) wide shoe has four holes that attach rubber pads to the track. This option will prevent damage to paved road surfaces minimizing noise and vibration during travel with a standard steel track system.

Blade Widths

The dozer blade is an important tool used for backfilling trenches, levelling, landscaping, lifting and jobsite clean-up. There are two blade options available. The standard 2320 mm (91 in) blade comes with a replaceable weld-on dozer wear edge and the optional 2470 mm (97 in) blade comes with a replaceable bolt-on dozer wear edge. Both blades are constructed of hardened steel for longer life and extreme dozing ability.

Tie-down Points

Tie-down points are located on the blade and undercarriage for easy and safe machine tie down for transportation.

Serviceability

Easy access and minimal maintenance requirements keep your machine on the job.



Robust, reliable and easily serviceable are the key attributes of Cat® Mini Hydraulic Excavators. Full steel body work panels and protected front linkage lines are routed neatly out of the way of potential damage above the boom. Easy access to all daily service points are accessed through the rear hood and side cover. A 500 hour engine oil change period lowers operating costs and the Cat S•O•SSM points assist easy oil sampling for preventative maintenance checks.

Product Link

The optional Product Link system simplifies equipment fleet tracking. Using satellite or cellular technology, the system automatically reports information such as location, machine hours, active and logged service codes and security alarms.

Machine Security System

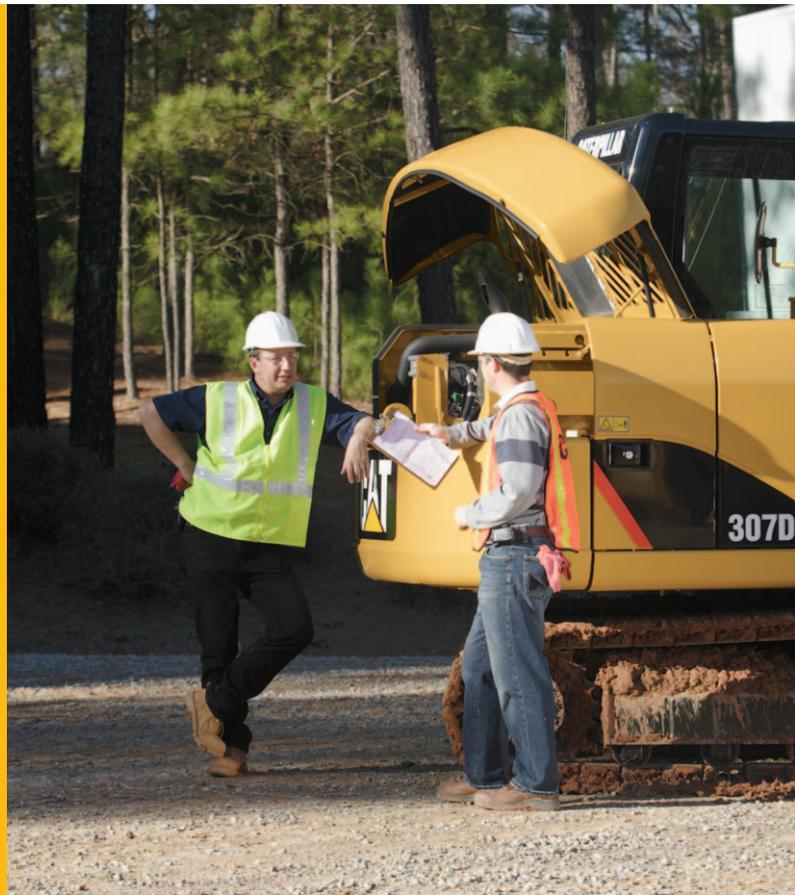
An optional Machine Security System (MSS) that utilizes a programmable key system deters theft, vandalism and unauthorized usage. MSS uses electronically coded keys selected by the customer to limit usage by individuals or time parameters.

Customer Support

Unmatched support makes the difference.

Your Cat dealer is ready to assist you with your purchase decision and everything after.

- Make comparisons of machines, with estimates of component life, preventative maintenance and cost of production.
- Financing packages are flexible to meet your needs.
- Your Cat dealer can evaluate the cost to repair, rebuild and replace your machine, so you can make the right choice.
- A worldwide computer network enables the dealer parts counter to locate nearly all parts.
- For more information on Cat products, dealer services and industry solutions, visit us at www.cat.com.



307D Specifications

Engine

Engine	Mitsubishi 4M40 TL	
Net power	41.5 kW	55.6 hp
Gross power	43 kW	57.6 hp

- Meets U.S. EPA Interim Tier 4 emission requirements
- Net power rating per ISO 9249 and EEC 80/1269

Weights

Operating weight with cab	7075 kg	15,598 lb
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- Weight varies depending on machine configuration
- Weight with counterweight, rubber tracks, bucket, operator, full fuel and auxiliary lines

Engine Dimensions

Bore	95 mm	3.7 in
Stroke	100 mm	3.9 in
Displacement	2.83 L	173 in ³

Travel System

Travel speed – high	5 km/h	3.1 mph
Travel speed – low	3.1 km/h	1.9 mph
Max traction force	56.7 kN	12,747 lb
Gradeability (max) – high	35 Degrees	

- Each track is driven by one independent 2-speed motor
- Drive modules are integrated into the roller frame for total protection
- Straight line travel when tracking and operating the front linkage simultaneously

Hydraulic System

Operating pressures – equipment	280 bar	4,061 psi
Operating pressure – travel	320 bar	4,641 psi
Operating pressure – swing	240 bar	3,481 psi
Auxiliary circuit – primary	128 L/min	33.8 gal/min
Auxiliary circuit – secondary	64 L/min	16.9 gal/min
Digging force – stick (standard)	36.2 kN	8,138 lb
Digging force – bucket	49.2 kN	11,061 lb

Swing System

Machine swing speed	10 rpm
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- Centralized lubrication
- Automatic swing brake, spring applied, hydraulic release

Sound Levels

Exterior Cab	98 dB(A)
Interior Cab	79 dB(A)

- Operator sound pressure levels measured per ISO 6396 (dynamic)

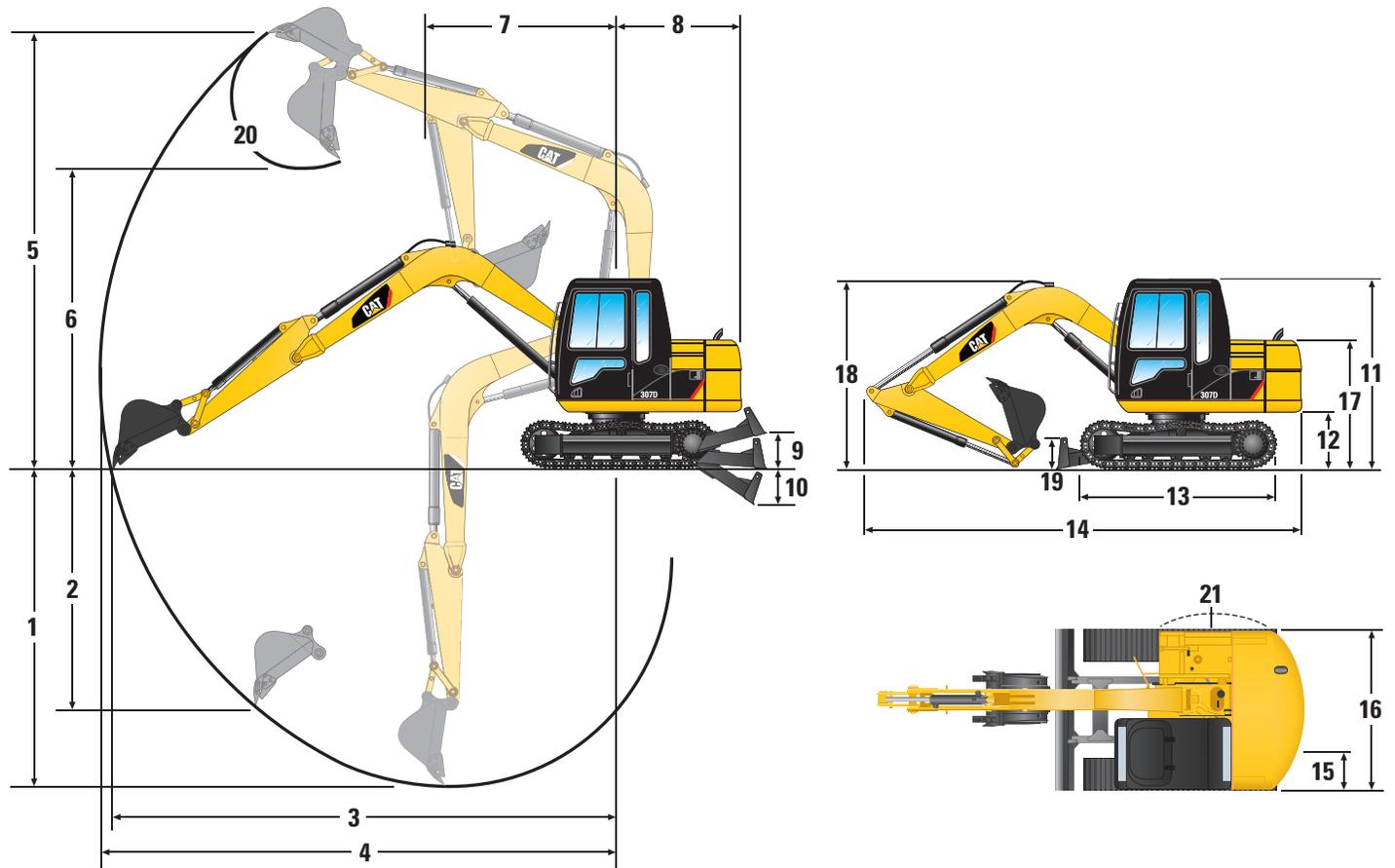
Electrical System

Type	<ul style="list-style-type: none"> • 35-amp alternator • 24-volt, Heavy Duty Batteries • Sealed electrical connectors
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Service Refill Capacities

Cooling system	15.7 L	4.1 gal
Engine oil	12.5 L	3.3 gal
Fuel tank	135 L	35.7 gal
Hydraulic tank	80 L	21.1 gal
Hydraulic system	94 L	24.8 gal

Dimensions



	Standard Stick		Long Stick	
1	4050 mm	13'3"	4600 mm	15'1"
2	3640 mm	11'11"	4170 mm	13'8"
3	6150 mm	20'2"	6670 mm	21'11"
4	6290 mm	20'8"	6790 mm	22'3"
5	7230 mm	23'9"	7640 mm	25'1"
6	5210 mm	17'1"	5610 mm	18'5"
7	1670 mm	5'6"	2230 mm	7'4"
8	1750 mm	5'9"	1750 mm	5'9"
9	380 mm	1'3"	380 mm	1'3"
10	360 mm	1'2"	360 mm	1'2"
11	2630 mm	8'8"	2630 mm	8'8"
12	760 mm	2'6"	760 mm	2'6"
13	2760 mm	9'1"	2760 mm	9'1"
14	5700 mm	18'8"	5730 mm	18'10"
15	450 mm	1'6"	450 mm	1'6"
16	2290 mm	7'6"	2290 mm	7'6"
17	1790 mm	5'10"	1790 mm	5'10"
18	2630 mm	8'8"	2725 mm	8'11"
19	450 mm	1'6"	450 mm	1'6"
20		180°		180°
21	605 mm	2'0"	605 mm	2'0"

Note: All working dimensions are with OSJ bucket.
Without shoe lug.

307D Specifications

Lift Capacities

STICK – Standard

SHOES – 450 mm (18")

BLADE – Down

	2.0 m (6.56 ft)		3.0 m (9.84 ft)		4.0 m (13.12 ft)		Max Load Radius		
	Front	Side	Front	Side	Front	Side	Front	Side	Maximum Reach
3.0 m 9.84 ft	3300 kg* 7,275 lb*	3300 kg* 7,275 lb*	2500 kg* 5,512 lb*	2500 kg* 5,512 lb*	2150 kg* 4,740 lb*	1850 kg 4,079 lb	650 kg* 1,433 lb*	650 kg* 1,433 lb*	5.88 m 19.29 ft
Ground Line	2600 kg* 5,732 lb*	2600 kg* 5,732 lb*	3800 kg* 8,378 lb*	2600 kg 5,732 lb	2800 kg* 6,173 lb*	1650 kg 3,638 lb	800 kg* 1,764 lb*	800 kg* 1,764 lb*	5.74 m 18.83 ft
-3.0 m -9.84 ft	3100 kg* 6,834 lb*	3100 kg* 6,834 lb*	2150 kg* 4,740 lb*	2150 kg* 4,740 lb*			1850 kg* 4,079 lb*	1850 kg* 4,079 lb*	3.26 m 10.70 ft

STICK – Standard

SHOES – 600 mm (24")

BLADE – Down

3.0 m 9.84 ft	3300 kg* 7,275 lb*	3300 kg* 7,275 lb*	2500 kg* 5,512 lb*	2500 kg* 5,512 lb*	2150 kg* 4,740 lb*	1950 kg 4,299 lb	650 kg* 1,433 lb*	650 kg* 1,433 lb*	5.88 m 19.29 ft
Ground Line	2600 kg* 5,732 lb*	2600 kg* 5,732 lb*	3800 kg* 8,378 lb*	2700 kg 5,952 lb	2800 kg* 6,173 lb*	1750 kg 3,858 lb	800 kg* 1,764 lb*	800 kg* 1,764 lb*	5.74 m 18.83 ft
-3.0 m -9.84 ft	3100 kg* 6,834 lb*	3100 kg* 6,834 lb*	2150 kg* 4,740 lb*	2150 kg* 4,740 lb*			1850 kg* 4,079 lb*	1850 kg* 4,079 lb*	3.26 m 10.70 ft

STICK – Long

SHOES – 450 mm (18")

BLADE – Down

3.0 m 9.84 ft			2050 kg* 4,519 lb*	2050 kg* 4,519 lb*	1850 kg* 4,079 lb*	1850 kg* 4,079 lb*	700 kg* 1,543 lb*	700 kg* 1,543 lb*	6.40 m 21.00 ft
Ground Line			3650 kg* 8,047 lb*	2550 kg 5,622 lb	2700 kg* 5,952 lb*	1650 kg 3,638 lb	850 kg* 1,874 lb*	800 kg 1,764 lb	6.27 m 20.57 ft
-3.0 m -9.84 ft	4000 kg* 8,818 lb*	4000 kg* 8,818 lb*	2800 kg* 6,173 lb*	2550 kg 5,622 lb			1300 kg* 2,866 lb*	1300 kg* 2,866 lb*	3.97 m 13.02 ft

STICK – Long

SHOES – 600 mm (24")

BLADE – Down

3.0 m 9.84 ft			2050 kg* 4,519 lb*	2050 kg* 4,519 lb*	1850 kg* 4,079 lb*	1850 kg* 4,079 lb*	700 kg* 1,543 lb*	700 kg* 1,543 lb*	6.40 m 21.00 ft
Ground Line			3650 kg* 8,047 lb*	2700 kg 5,952 lb	2700 kg* 5,952 lb*	1750 kg 3,858 lb	850 kg* 1,874 lb*	850 kg* 1,874 lb*	6.27 m 20.57 ft
-3.0 m -9.84 ft	4000 kg* 8,818 lb*	4000 kg* 8,818 lb*	2800 kg* 6,173 lb*	2700 kg 5,952 lb			1300 kg* 2,866 lb*	1300 kg* 2,866 lb*	3.97 m 13.02 ft

*Limited by hydraulic capacity rather than tipping load.

The above loads are in compliance with hydraulic excavator lift capacity rating standard SAE J1097 DEC2005 and do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.

Weight of all lifting accessories must be deducted from the above lifting capacities.

Lifting capacities are based on the machine standing on a firm, uniform supporting surface.

307D Standard Equipment

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

OPERATOR STATION

Cab fully glazed
Interior light
Pillar mounted windshield wiper and washer
Air conditioning, heater and defroster
Bolt-on FOGS capability
Openable upper front windshield
Removable lower front windshield
Openable skylight
Right and rear windows, polycarbonate
Sliding door window, tempered glass
Rear window, emergency exit
Seat, high back suspension, fabric covered, 4 way adjustment
Armrest, adjustable
Seatbelt 75 mm (3 in)
Coat hook
Cup holder
Literature compartment
Floor mat
Mirrors
AM/FM radio
Monitoring system, gauges and indicators
Neutral lever hydraulic lockout

Joystick pilot operated controls
Auxiliary control, joystick (proportional control)
Travel control pedals with hand levers
Power supply, 12V
Dial type accelerator
Work light, cab-mounted
Cat HD batteries, (cold weather start)
Alternator 35 amp
Warning horn
24-volt electric starting

HYDRAULICS and POWER TRAIN

MMC 4M40-TL Diesel Engine
Certified to meet U.S. EPA Interim Tier 4
Extended life coolant -37°C (-34°F)
Variable displacement load sense hydraulics
Combined function auxiliary hydraulic circuit
Quick disconnect fittings
Automatic swing parking brake
Control pattern changer
Travel alarm
Straight line travel
Boom check valve

Two speed auto-shift travel
Automatic engine idle
Boom lowering device (accumulator)
Reverse swing damping valve
1500 m (5,000 ft) altitude capability

UNDERCARRIAGE, BLADE and TRACK

Steel tracks, 450 mm (18 in)
Dozer blade with float function
Blade, weld on cutting edge
Grease lubricated track seals
Idler end track guiding guards
Hydraulic track adjusters

OTHER

Caterpillar Corporate "One Key" System
Fuel cap, lockable
Doors, lockable
Stick, standard, thumb ready
Bucket linkage with lifting eye
Additional counterweight
Toolbox
Antenna
Pictograph films

307D Optional Equipment

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

OPERATOR STATION

Headrest for KAB 528P/C, T8P/C
Cab fan
Sun visor
Light, boom-mounted

HYDRAULICS and POWER TRAIN

Cooling package, high ambient
Starting kit, cold weather
Coolant, extended life -50°C (-58°F)
Medium pressure auxiliary lines
Hydraulic quick coupler lines

UNDERCARRIAGE, BLADE and TRACK

Segmented rubber track, 450 mm (18 in)
Bolt on rubber pads
Steel tracks, 600 mm (24 in)
Blade, bolt on cutting edge

OTHER

Stick, long
Guard – Front screen cab and canopy
Guard – Vandalism
Guard – Falling objects
Guard – Swivel
Rain protector, cab front

WORK TOOLS

Quick Couplers: Mechanical, Hydraulic, Pin Lock and Wedge Style
Buckets: Heavy Duty, Heavy Duty Rock, Ditch Cleaning and Pin Lock
Thumbs: Hydraulic, Full Rotation and Stiff Link
Auger
Hammer
Shear
Compactor

307D

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

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Materials and specifications are subject to change without notice. Featured machines may include additional equipment. See your Caterpillar dealer for available options.

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