## 307D Mini Hydraulic Excavator

<table>
<thead>
<tr>
<th>Engine</th>
<th>MMC 4M40-TL</th>
<th>Net Power</th>
<th>41.5 kW</th>
<th>55.6 hp</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Gross Power</td>
<td>43 kW</td>
<td>57.6 hp</td>
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</table>

## Weights

| Operating Weight | 7075 kg | 15,598 lb |
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.

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.
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•S™ 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

<table>
<thead>
<tr>
<th>Engine</th>
<th>Mitsubishi 4M40 TL</th>
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<tr>
<td>Net power</td>
<td>41.5 kW 55.6 hp</td>
</tr>
<tr>
<td>Gross power</td>
<td>43 kW 57.6 hp</td>
</tr>
<tr>
<td>• Meets U.S. EPA Interim Tier 4 emission requirements</td>
<td></td>
</tr>
<tr>
<td>• Net power rating per ISO 9249 and EEC 80/1269</td>
<td></td>
</tr>
</tbody>
</table>

#### Weights

| Operating weight | 7075 kg 15,598 lb with cab |
| • 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 in³ |

#### 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 |
| • 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 | 35-amp alternator, 24-volt, Heavy Duty Batteries, Sealed electrical connectors |

#### Service Refill Capacities

<p>| 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 |</p>
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<tr>
<th></th>
<th>Standard Stick</th>
<th></th>
<th>Long Stick</th>
</tr>
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</table>
| 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 | 20"
 | 605 mm | 20"

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

#### 307D Specifications

<table>
<thead>
<tr>
<th>STICK – Standard</th>
<th>SHOES – 450 mm (18&quot;)</th>
<th>BLADE – Down</th>
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<tbody>
<tr>
<td></td>
<td>Front</td>
<td>Side</td>
</tr>
<tr>
<td>3.0 m 9.84 ft</td>
<td>3300 kg*</td>
<td>7275 lb*</td>
</tr>
<tr>
<td>Ground Line</td>
<td>2600 kg*</td>
<td>5732 lb*</td>
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<tr>
<td>3.0 m 9.84 ft</td>
<td>2050 kg*</td>
<td>4519 lb*</td>
</tr>
<tr>
<td>Ground Line</td>
<td>3650 kg*</td>
<td>8047 lb*</td>
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<tr>
<td>–3.0 m –9.84 ft</td>
<td>4000 kg*</td>
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*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 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.
### 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

**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

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### 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