Material Handler

Cat® C7 Diesel Engine with ACERT™ Technology

Net Power (ISO 9249) at 1800 rpm 140 kW/190 hp
Operating Weight without tool 34 900-35 300 kg
Maximum Reach 13 029 mm
Maximum Height 13 387 mm

325D MH
Material Handler
325D MH Material Handler

The Cat 325D MH is specifically designed for the scrap and port handling applications, and incorporate many innovations for excellent performance and durability.

**Engine**
- The Cat C7 engine with ACERT™ Technology offers better fuel efficiency and reduced wear. ACERT Technology works at the point of combustion to optimize engine performance and provide low exhaust emissions. By combining ACERT Technology with the new Economy Mode, customers can balance the demands of performance and fuel economy to suit their requirements and application. pg. 4

**Hydraulics**
- The hydraulic system has been designed to provide reliability and outstanding controllability with increased lifting capacity. The Cat Tool Control System provides enhanced flexibility. The Heavy Lift Mode maximizes lifting performance and maintains excellent stability. pg. 5

**Electronic Control System**
- The compact, full-color, graphical monitor displays machine, maintenance, diagnostic and prognostic information in twenty different languages. The new Economy Mode can also be selected from the monitor. To minimize sun glare, the monitor angle is adjustable. pg. 7

**Environmentally Responsible Design**
- Quieter operation, lower engine emissions, less fluid disposal and cleaner service can help you meet or exceed worldwide regulations and protect the environment. pg. 4

**Elevated Cab**
- The 325D MH is equipped with a hydraulic cab riser to maximize viewing to all sides of the machine. It offers infinitely variable heights up to 2600 mm of additional height. pg. 8

**SmartBoom™**
- More productive. Faster cycle times for material handling. pg. 5

**The 325D MH uses the most sophisticated manufacturing technology to ensure the highest level of manufacturing quality. Excellent control, impressive lift capacity, simplified service and more comfortable operator station increase your productivity and lower your operating costs.**

**New feature**
Operator Comfort
✔ The new cab provides maximum space, wider visibility and easy access to switches. The monitor is a full-color graphical display that allows the operator to understand the machine information easily. pg. 6

Structures
The structural components are the backbone of the machine’s durability. Caterpillar design and manufacturing techniques assure outstanding durability and service life. Caterpillar booms and sticks are large, welded box-section structures with thick, multi-plate fabrications that resist high stress. Structures are stress relieved, thanks to a heat treatment, to significantly improve structures fatigue strength. Stick options allow you to pick the best match for your material handling job. pg. 9

Work Tools
✔ Orange peel grapples and rehandling clamshell buckets are offered to maximize performance of the 325D MH. pg. 8

Service and Maintenance
Fast, easy service has been designed in with extended service intervals, advanced filtration, convenient filter access and user-friendly electronic diagnostics for increased productivity and reduced maintenance costs. pg. 10

Complete Customer Service
Your Cat dealer offers a wide range of services that can be set up under a customer support agreement when you purchase your equipment. The dealer will help you choose a plan that can cover everything from machine and attachment selection to replacement. pg. 10
Engine
Built for power, reliability, economy and low emissions.
Meeting regulations... Exceeding expectations.

**Engine Controller.** ADEM™ A4 (Advanced Diesel Engine Management) electronic control module manages fuel delivery to get the best performance per liter of fuel. The controller uses sensors in fuel, air intake, exhaust and cooling systems and provides flexible fuel mapping, allowing the engine to respond quickly to varying application needs. It tracks engine and machine conditions while keeping the engine operating at peak efficiency.

**Fuel Delivery.** The Cat C7 features electronic controls that govern the mechanically actuated unit fuel injection system. Multiple injection fuel delivery involves a high degree of precision. Precisely shaping the combustion cycle lowers combustion chamber temperatures, generating fewer emissions and optimizing fuel combustion. This translates into more work output for your fuel cost.

**Cooling System.** To reduce fan noise, the cooling fan is driven from a viscous clutch which is electrically controlled by the machine ECM. It calculates optimum fan speed based on the target engine speed, coolant temperature, hydraulic oil temperature and actual fan speed. The Cat C7 delivers a completely new layout that separates the cooling system from the engine compartment.

**Air Cleaner.** The radial seal air filter features a double-layered filter core for more efficient filtration and is located in a compartment behind the cab. A warning is displayed on the monitor when dust accumulates above a preset level.

**Performance.** The Cat C7 engine with ACERT Technology offers more engine power, and runs at lower speeds for better fuel efficiency and reduced wear.

**Automatic Engine Speed Control.** The two-stage, one-touch control maximizes fuel efficiency and reduces sound levels.

**Outstanding Performance.** Many features designed to provide outstanding performance which can mean more work done in a day, less fuel consumption and minimal impact on our environment.

**Emissions.** ACERT Technology is a differentiated technology that reduces emissions at the point of combustion. The technology capitalizes on Caterpillar’s proven leadership in three core engine systems: fuel, air and electronics.

**Fewer Leaks and Spills.** Engine oil and encapsulated hydraulic oil filters are positioned vertically and are easy to reach to minimize spillage. Service intervals are extended to reduce the times fluids are changed and handled.

- Hydraulic oil service interval can be extended to 4000 hours with the S•O•S program.
- In addition to the S•O•S program fine filtration system attachment extends the service interval to 5000 hours.
- Cat Extended Life Coolant extends service to 6000 h, less need for fluid disposal.
- The hydraulic system is compatible with Cat HEES hydraulic bio-oil for ecologically sensitive applications.

Environmentally Responsible Design
Caterpillar machines not only help you build a better world, they help maintain and preserve the fragile environment.
Hydraulics

The 325D MH hydraulic system is designed to handle the specific requirements of the material handling industry.

**Pilot System.** The pilot pump is independent from the main pumps and controls the front linkage, swing and travel operations.

**Hydraulic Cross-Sensing System.** It utilizes each of two hydraulic pumps to 100%, under all operating conditions. This improves productivity with faster implement speeds and quicker, stronger pivot turns.

**Boom and Stick Regeneration Circuit.** Saves energy during boom-down and stick-in operation which increases efficiency, reduces cycle times and pressure loss for higher productivity, lower operating costs and increased fuel efficiency.

**Boom and Swing Priority.** The hydraulic system provides automatic priority function for boom-up and swing operations eliminating the need for work mode buttons. When the boom or swing lever is activated, the system automatically assigns priority based on operator demand.

**Hydraulic Cylinder Snubbers.** Located at the rod-end of the boom cylinders and both ends of the stick cylinders to cushion shocks while reducing sound levels and extending component life.

**Improved Hydraulic Attachments.** New damping valves, lowering check valves and pressure reducing valves on 325D MH significantly improve operator comfort and combined movements’ smoothness. Machine is less aggressive with even more lifting capacity and improved controllability.

**Heavy Lift Mode.** The operator can select the heavy lift mode at the push of a button to boost lifting capability and provide improved controllability of heavy loads.

**Medium Pressure Circuit.** The on/off grapple rotate function on 325C MH has been replaced by a modular grapple rotate function on the 325D MH with a sliding switch on left joystick to help the operator to precisely position the tool. The grapple open/close function is activated through high pressure circuit on right joystick.

**SmartBoom Feature.** It allows the operator to fully concentrate on production. The unique Cat SmartBoom™ significantly enhances operator comfort and job efficiency. Loading barges is more productive and more fuel efficient as the return cycle is reduced while the boom down function does not require pump flow. Unloading barges is easier and safer because the SmartBoom™ avoids excessive force being put on the barge’s floor.
Operator Station

*Designed for simple, easy operation, high visibility and comfort, the 325D MH allows the operator to focus on production.*

**Operator Station.** The workstation is spacious, quiet and comfortable, assuring high productivity during a long workday. The air conditioner and attachment switches are conveniently located on the right-hand wall, and the key switch and throttle dial are on the right-hand console. The monitor is easy to see and maximizes visibility.

**Seat.** An optional air suspension seat is available in the 325D MH. The standard and optional seats provide a variety of adjustments to suit the operator's size and weight including fore/aft, height and weight. Wide adjustable armrests and a retractable seat belt are also included.

**Climate Control.** Positive filtered ventilation with a pressurized cab is standard. Fresh air or re-circulated air can be selected with a switch on the right console.

**Hydraulic Activation Control Lever.** For added safety, this lever must be in the operate position to activate the machine control functions.

**Controls.** The 325D MH uses pilot operated control levers, positioned so that the operator can operate with arms on the armrests. The vertical stroke is longer than the horizontal, reducing operator fatigue. The control lever grips are shaped to fit into the operator’s hands. The horn switch and one-touch low idle switch are positioned on the left and right grip.

**Implement Controls.** Easy to handle joysticks with integrated push buttons and sliding switches control all implement and swing functions. The sliding switches, designed to increase operator comfort and reduce operator fatigue, provide modulated control for tool rotation and cab elevating.

**Skylight.** A unique large polycarbonate skylight provides very good upward visibility, especially useful in above ground applications.

**Windows.** To maximize visibility, all glass is affixed directly to the cab eliminating the use of window frames. Choice of fixed or easy-to-open split front windshield meet operator preference and application conditions.
- 50/50 split front windshield allows both upper and lower portions to be stored in an overhead position.
- 70/30 split front windshield stores the upper portion above the operator. The lower front windshield features a rounded design to maximize downward visibility and improves wiper coverage.
- Both openable versions feature a one-touch action release system.
- The fixed front windshield is available in standard duty laminated glass or high impact resistant laminated glass.

**Wiper.** Designed to maximize visibility in poor weather conditions. The parallel wiper system covers almost the complete front window without leaving unwiped areas in the immediate line of sight of the operator.

**Cab Exterior.** The exterior design uses thick steel tubing along the bottom perimeter of the cab, improving the resistance of fatigue and vibration. This design allows the FOGS to be bolted directly to the cab, enabling the machine to meet specifications and job site requirements.
Electronic Control System
*Manages the engine and hydraulics for maximum performance.*

**Monitor Display Screen.** The monitor is a full color 400x234 pixels Liquid Crystal Display (LCD) graphic display. The Master Caution Lamp flashes when one of the critical conditions below occurs:
- Engine oil pressure low
- Coolant temperature high
- Hydraulic oil temperature high

Under normal conditions or the default condition, the monitor display screen is divided into four areas; clock and throttle dial, gauge, event display and multi-information display.

**Clock and Throttle Dial Area.**
The clock and the throttle dial position are in this area and the gas-station icon with green color is also displayed.

**Gauge Area.** Three analog gauges, fuel level, hydraulic oil temperature and coolant temperature, are displayed in this area.

**Event Display Area.**
Machine information is displayed in this area with the icon and language.

**Multi-information Display Area.**
This area is reserved for displaying information that is convenient for the operator. The “CAT” logo mark is displayed when information to display does not exist.

**Keypad.** The keypad allows operator to select machine operation conditions and to set view preferences.

**Consoles.** Redesigned consoles feature a simple, functional design to reduce operator fatigue, ease of switch operation and excellent visibility. Both consoles have attached armrests with height adjustments.

**Standard Cab Equipment.** To enhance operator comfort and productivity, the cab includes a lighter, drink holder, coat hook, service meter, literature holder, magazine rack and storage compartment.
**Elevated Cab and Cab Access**

*Hydraulic cab riser is available to maximize viewing to all sides of the machine.*

**Hydraulic Cab Riser.** The new design of the parallelogram hydraulic cab riser offers increased visibility as well as optimized operator comfort thanks to higher, larger and more robust structures. The activation of the hydraulic cab riser is modular, and thus, allows the operator to control the riser speed and decrease shocks. In case of emergency, the cab can be lowered while using a safety lever either inside the cab or inside the radiator compartment.

**Bottom Position.** The bottom position is used for shipping and travel.

**Medium Position.** The medium position places the cab forward by 500 mm more than in the travel position, for increased visibility.

**Top Position.** The top position raises the cab by 2600 mm. This provides optimal viewing to all sides in different applications such as scrap handling and port handling. The cab can be positioned at any level between lowest and highest positions.

**Cab Access System.** The 325D MH is equipped with a newly designed cab access system. This cab features an additional cab platform with handrails located to provide the operator with safe ingress and egress.

---

**Work Tools – Attachments**

*A variety of grapples and clamshells are available to maximize machine performance in material handling applications.*

<table>
<thead>
<tr>
<th>Work Tools – Attachments</th>
<th>HDHW</th>
<th>Square</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>m³</td>
<td></td>
</tr>
<tr>
<td><strong>Rehandling Clamshell Buckets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GOS-35</td>
<td>0.62</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.7-0.78</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.05</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.26</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.46</td>
<td>N</td>
</tr>
<tr>
<td><strong>Orange Peel Grapples (5 tines)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GSM-35</td>
<td>0.5-0.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.0</td>
<td>N</td>
</tr>
<tr>
<td>GSH-20B</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.0</td>
<td>N</td>
</tr>
<tr>
<td><strong>Orange Peel Grapples (4 tines)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GSH-20B</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.0</td>
<td></td>
</tr>
</tbody>
</table>

Work tools have been calculated with machine in stability position; over-the-side and at maximum horizontal reach at approximately 2 meters above ground level. When choosing a work tool please consider work tool application, productivity requirements and durability. Refer to work tool specifications for application recommendations and productivity information. Check with your Cat dealer for more details on specifications, sizes and other work tool types.
Structures

The 325D MH structural components are the backbone of the machine’s durability. Durable frames absorb stresses and provide excellent stability.

Efficient Design of Welded Box-section Structures.
The design with thick, multi-plate fabrications in high stress areas allows structures to flex, dissipating stresses and maximizing strength.

- Finite element analysis is used in the determination of structural stresses and enables optimization of weight, durability and performance.
- Internal baffle plates provide additional strength and durability throughout the structure to withstand torsional loads.
- Robotic welding: up to 95% of the structural welds on a Cat material handler are completed by robots. Robotic welds achieve over three times the penetration of manual welds.
- Stress relieving: booms and sticks are stress relieved, thanks to heat treatment, to maximize strength for greater durability.

Purpose Designed Upper Structure and Counterweight.
The upper structure is specifically designed for the scrap and material handling markets. It is built of higher strength material and thicker steel sections to handle the increased swing loads developed with the longer front parts, heavier counterweights and cab risers used in Material Handling.

Material Handling Front Parts.
Select the right combination of front linkage and undercarriage with your Cat dealer to ensure high productivity from the very start of your job. The front parts and 2 sets of undercarriages meet your material handling needs with excellent lift performance and working range. Built for strong performance and long service life.

Advanced carbody design stands up to 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 track roller frames.
- 5mm thicker carbody plates and increased box-section height provide increased weight and load capacities.
- High strength swing bearing bolts provide superior joint retention and durability

Rollers and Idlers.
Sealed and lubricated track rollers, carrier rollers, and idlers provide excellent service life, to keep the material handler longer in the field.

Track.
The 325D MH comes standard with the new grease lubricated track. The track links are assembled and sealed with grease to decrease internal bushing wear, reduce travel noise and extend service life lowering operating costs.

Strong and Stable Undercarriage.
Two undercarriage options, long heavy duty high wide (HDHW) and long heavy duty high square allow you to choose the best machine for your application and business needs. Both undercarriages provide a high ground clearance and are equipped with full length track guiding guards. The diameter of the 325C MH idlers have been increased on 325D MH to improve even more machine stability.

Heavy Duty High Wide Undercarriage (HDHW).
The 325D MH comes standard with a long, heavy duty, high and wide undercarriage, to provide the best match between your material handling applications and business needs.

Square Undercarriage.
An optional long, heavy duty, high and square undercarriage maximizes the over-the-side stability and improve productivity. Lifting capacities are improved over-the-side required to handle heavy loads.
Extended Service Intervals. 325D MH service and maintenance intervals have been extended to reduce machine service time and increase machine availability.

Air Filter Compartment. The air filter features a double-element construction for superior cleaning efficiency. When the air cleaner plugs, a warning is displayed on the monitor screen inside the cab.

Service. The design and layout was made with the service technician in mind. Many service locations are easily accessible by ascending to the maintenance walkways allowing critical maintenance to get done quickly and efficiently.

Pump Compartment. A service door on the right side of the upper structure allows access to the pump and pilot filter.

Capsule Filter. The hydraulic return filter, a capsule filter, is situated outside the hydraulic tank. This filter prevents contaminants from entering the system when hydraulic oil is changed and keeps the operation clean.

Diagnostics and Monitoring. Equipped with S•O•SSM sampling ports and hydraulic test ports for the hydraulic system, engine oil, and for coolant. A test connection for the Electronic Technician (ET) service tool is located behind the cab.

Anti-Skid Plate. Anti-skid plate covers top of and maintenance walkways and upper structure to prevent slipping during maintenance.

Fan Guard. Engine radiator fan is completely enclosed by fine wire mesh, reducing the risk of an accident.

Greasing Points. Concentrated remote greasing blocks deliver grease to hard-to-reach locations on the Material Handlers.

Radiator Compartment. The left rear service door allows easy access to the engine radiator, oil cooler and air-to-air aftercooler. Reserve tank and drain cock are attached to the radiator for simplified maintenance.

Complete Customer Support
Cat dealer services help you operate longer with lower costs.

Machine Selection. Make detailed comparisons of the machines you are considering before you buy. What are the job requirements, machine attachments and operating hours? What production is needed? Your Cat dealer can provide recommendations.

Purchase. 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.

Customer Support Agreements. Cat dealers offer a variety of product support agreements, and work with customers to develop a plan that best meets specific needs. These plans can cover the entire machine, including attachments, to help protect the customer’s investment.

Operation. Improving operating techniques can boost your profits. Your cat dealer has videotapes, literature and other ideas to help you increase productivity, and Caterpillar offers certified operator training classes to help maximize the return on your investment.

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 downtime. You can save money with Cat remanufactured components.

Maintenance Services. Repair option programs guarantee the cost of repairs up front. Diagnostic programs such as Scheduled Oil Sampling, Coolant 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.
Engine

Cat C7 Engine with ACERT Technology
Net power at 1800 rpm

<table>
<thead>
<tr>
<th>ISO 9249</th>
<th>140 kW/190 hp</th>
</tr>
</thead>
<tbody>
<tr>
<td>80/1269/EEC</td>
<td>140 kW/190 hp</td>
</tr>
</tbody>
</table>

Bore 110 mm
Stroke 127 mm
Displacement 7.2 liters

- All engine horsepower (hp) are metric including front page.
- The C7 engine meets Stage IIIA emission requirements.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler, and alternator.
- Full engine net power up to 2300 m altitude

Hydraulic System

Main System
Maximum flow 2 x 235 l/min
Maximum pressure
- Normal 350 bar
- Heavy lift 360 bar
- Travel 350 bar
- Swing 275 bar

Pilot System
Maximum flow 32.4 l/min
Maximum pressure 39 bar

Drive

Maximum travel speed 5.3 km/h
Drawbar pull 244 kN

Swing Mechanism

Swing Speed 10.2 rpm
Swing Torque 82.2 kNm

Sound Levels

Operator Sound. The operator sound level measured according to the procedures specified in ISO 6394:1998 is 76 dB(A), for cab offered by Caterpillar, when properly installed and maintained and tested with the doors and windows closed. Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in noisy environment.

Exterior Sound. The labeled spectator sound power level measured according to the test procedures and conditions specified in 2005/88/EC is 104 dB(A).

Cab

Cab/FOGS meets ISO 10262.

Brakes

Meets the standard ISO 10265:1998

Service Refill Capacities

<table>
<thead>
<tr>
<th></th>
<th>Liter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel tank capacity</td>
<td>500</td>
</tr>
<tr>
<td>Cooling system</td>
<td>30</td>
</tr>
<tr>
<td>Engine oil</td>
<td>30</td>
</tr>
<tr>
<td>Swing drive</td>
<td>10</td>
</tr>
<tr>
<td>Final drive</td>
<td>6</td>
</tr>
<tr>
<td>Hydraulic system (including tank)</td>
<td>310</td>
</tr>
<tr>
<td>Hydraulic tank</td>
<td>145</td>
</tr>
</tbody>
</table>

Weights

<table>
<thead>
<tr>
<th></th>
<th>HDHW</th>
<th>Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boom</td>
<td>3050</td>
<td>3050</td>
</tr>
<tr>
<td>Stick</td>
<td>1550</td>
<td>1550</td>
</tr>
<tr>
<td>Upperframe</td>
<td>16 440</td>
<td>16 440</td>
</tr>
<tr>
<td>Undercarriage</td>
<td>12 710</td>
<td>13 010</td>
</tr>
<tr>
<td>Counterweight</td>
<td>7700</td>
<td>7700</td>
</tr>
<tr>
<td>Operating weight with hydraulic cab riser</td>
<td>34 910</td>
<td>35 220</td>
</tr>
</tbody>
</table>
Dimensions
All dimensions are approximate.

<table>
<thead>
<tr>
<th></th>
<th>HDHW</th>
<th>Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boom length</td>
<td>8400</td>
<td>8400</td>
</tr>
<tr>
<td>Stick length</td>
<td>5500</td>
<td>5500</td>
</tr>
<tr>
<td>Overall length</td>
<td></td>
<td></td>
</tr>
<tr>
<td>with boom and stick installed</td>
<td>11 640</td>
<td>11 640</td>
</tr>
<tr>
<td>with boom without stick</td>
<td>11 445</td>
<td>11 445</td>
</tr>
<tr>
<td>Overall height</td>
<td></td>
<td></td>
</tr>
<tr>
<td>without boom and stick (at hydraulic cab riser)</td>
<td>3445</td>
<td>3445</td>
</tr>
<tr>
<td>with boom and stick</td>
<td>3545</td>
<td>3545</td>
</tr>
<tr>
<td>Overall width</td>
<td></td>
<td></td>
</tr>
<tr>
<td>with 800 mm triple grouser shoes</td>
<td>3720</td>
<td>4195</td>
</tr>
<tr>
<td>with platform</td>
<td>4024</td>
<td>4024</td>
</tr>
<tr>
<td>Track length</td>
<td>4860</td>
<td>4860</td>
</tr>
<tr>
<td>Length to center of rollers</td>
<td>3990</td>
<td>3990</td>
</tr>
<tr>
<td>Tail swing radius</td>
<td>3080</td>
<td>3080</td>
</tr>
<tr>
<td>Ground clearance</td>
<td>695</td>
<td>645</td>
</tr>
<tr>
<td>Cab height</td>
<td>3270</td>
<td>3270</td>
</tr>
<tr>
<td>with FOGS</td>
<td>3400</td>
<td>3400</td>
</tr>
<tr>
<td>with raised cab, without FOGS</td>
<td>5860</td>
<td>5860</td>
</tr>
<tr>
<td>with raised cab and FOGS</td>
<td>5990</td>
<td>5990</td>
</tr>
<tr>
<td>Upper structure width</td>
<td>2900</td>
<td>2900</td>
</tr>
<tr>
<td>Track gauge</td>
<td>2920</td>
<td>3395</td>
</tr>
<tr>
<td>Counterweight ground clearance</td>
<td>1295</td>
<td>1245</td>
</tr>
</tbody>
</table>

*HDHW 325D MH with Heavy Duty High Wide undercarriage
Square 325D MH with High Wide Square undercarriage
**Working Ranges and Lift Capacities**

Material handling front parts (no work tool) with Heavy Duty High Wide (HDHW) undercarriage and Square undercarriage.

---

### With Heavy Duty High Wide Undercarriage

<table>
<thead>
<tr>
<th></th>
<th>3.0 m</th>
<th>4.5 m</th>
<th>6.0 m</th>
<th>7.5 m</th>
<th>9.0 m</th>
<th>10.5 m</th>
<th>12.0 m</th>
<th>m</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.0 m</td>
<td>*6060</td>
<td>*6060</td>
<td>*4620</td>
<td>*4620</td>
<td>8.40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.5 m</td>
<td>*7380</td>
<td>*7380</td>
<td>*6050</td>
<td>*6050</td>
<td>*4330</td>
<td>*4330</td>
<td>9.52</td>
<td></td>
</tr>
<tr>
<td>9.0 m</td>
<td>*7640</td>
<td>*7640</td>
<td>*6840</td>
<td>*6400</td>
<td>*5420</td>
<td>*4890</td>
<td>*4210</td>
<td>11.03</td>
</tr>
<tr>
<td>7.5 m</td>
<td>*7780</td>
<td>*7780</td>
<td>*7010</td>
<td>*6270</td>
<td>*6410</td>
<td>*4830</td>
<td>*4190</td>
<td>11.85</td>
</tr>
<tr>
<td>6.0 m</td>
<td>*9720</td>
<td>*9720</td>
<td>*8300</td>
<td>*8090</td>
<td>*7300</td>
<td>*6060</td>
<td>12.43</td>
<td></td>
</tr>
<tr>
<td>4.5 m</td>
<td><em>14 220</em>14 220<em>10 740</em>8 760<em>7 670</em>5 790<em>6 200</em>5 450<em>5 010</em>4 380*3 250</td>
<td>12.81</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.0 m</td>
<td><em>16 490</em>15 020<em>12 010</em>9 880<em>7 570</em>5 500<em>6 010</em>4 360<em>4 900</em>3 540</td>
<td>13.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5 m</td>
<td>*8340</td>
<td>*8340</td>
<td><em>12 750</em>9 140<em>7 280</em>5 230<em>5 820</em>4 190<em>3 490</em>2 420</td>
<td>13.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.0 m</td>
<td>*6970</td>
<td>*6970</td>
<td>8 640</td>
<td>*9 100</td>
<td>8 400</td>
<td>5 670</td>
<td>4 890</td>
<td>3 240</td>
</tr>
<tr>
<td>−1.5 m</td>
<td>*4750</td>
<td>*4750</td>
<td>*7140</td>
<td>*8390</td>
<td>*6880</td>
<td>6 190</td>
<td>4 780</td>
<td>1 510</td>
</tr>
<tr>
<td>−3.0 m</td>
<td>*7670</td>
<td><em>11 320</em>8 320*7 870</td>
<td>5 610</td>
<td>4 780</td>
<td>1 510</td>
<td>12.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>−4.5 m</td>
<td>*8290</td>
<td><em>9 750</em>8 370</td>
<td>*8 100</td>
<td>6 110</td>
<td>*6 990</td>
<td>4 780</td>
<td>1 510</td>
<td>12.51</td>
</tr>
<tr>
<td>−6.0 m</td>
<td>*6430</td>
<td>*6 220</td>
<td>*5 210</td>
<td>4 670</td>
<td>4 670</td>
<td>4 670</td>
<td>4 670</td>
<td>4 670</td>
</tr>
</tbody>
</table>

### With Square Undercarriage

<table>
<thead>
<tr>
<th></th>
<th>3.0 m</th>
<th>4.5 m</th>
<th>6.0 m</th>
<th>7.5 m</th>
<th>9.0 m</th>
<th>10.5 m</th>
<th>12.0 m</th>
<th>m</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.0 m</td>
<td>*6060</td>
<td>*6060</td>
<td>*4620</td>
<td>*4620</td>
<td>8.40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.5 m</td>
<td>*7380</td>
<td>*7380</td>
<td>*6050</td>
<td>*6050</td>
<td>*4330</td>
<td>*4330</td>
<td>9.52</td>
<td></td>
</tr>
<tr>
<td>9.0 m</td>
<td>*7640</td>
<td>*7640</td>
<td>*6840</td>
<td>*6400</td>
<td>*5420</td>
<td>*4890</td>
<td>*4210</td>
<td>11.03</td>
</tr>
<tr>
<td>7.5 m</td>
<td>*7780</td>
<td>*7780</td>
<td>*7010</td>
<td>*6270</td>
<td>*6410</td>
<td>*4830</td>
<td>*4190</td>
<td>11.85</td>
</tr>
<tr>
<td>6.0 m</td>
<td>*9720</td>
<td>*9720</td>
<td>*8300</td>
<td>*8090</td>
<td>*7300</td>
<td>*6060</td>
<td>12.43</td>
<td></td>
</tr>
<tr>
<td>4.5 m</td>
<td><em>14 220</em>14 220<em>10 740</em>8 760<em>7 670</em>5 790<em>6 200</em>5 450<em>5 010</em>4 380*3 250</td>
<td>12.81</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.0 m</td>
<td><em>16 490</em>16 490<em>12 010</em>9 880<em>7 570</em>5 500<em>6 010</em>4 360<em>4 900</em>3 540</td>
<td>13.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5 m</td>
<td>*8340</td>
<td>*8340</td>
<td><em>12 750</em>9 140<em>7 280</em>5 230<em>5 820</em>4 190<em>3 490</em>2 420</td>
<td>13.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.0 m</td>
<td>*6970</td>
<td>*6970</td>
<td>8 640</td>
<td>*9 100</td>
<td>8 400</td>
<td>5 670</td>
<td>4 890</td>
<td>3 240</td>
</tr>
<tr>
<td>−1.5 m</td>
<td>*4750</td>
<td>*4750</td>
<td>*7140</td>
<td>*8390</td>
<td>*6880</td>
<td>6 190</td>
<td>4 780</td>
<td>1 510</td>
</tr>
<tr>
<td>−3.0 m</td>
<td>*7670</td>
<td><em>11 320</em>8 320*7 870</td>
<td>5 610</td>
<td>4 780</td>
<td>1 510</td>
<td>12.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>−4.5 m</td>
<td>*8290</td>
<td><em>9 750</em>8 370</td>
<td>*8 100</td>
<td>6 110</td>
<td>*6 990</td>
<td>4 780</td>
<td>1 510</td>
<td>12.51</td>
</tr>
<tr>
<td>−6.0 m</td>
<td>*6430</td>
<td>*6 220</td>
<td>*5 210</td>
<td>4 670</td>
<td>4 670</td>
<td>4 670</td>
<td>4 670</td>
<td>4 670</td>
</tr>
</tbody>
</table>

- Boom: 8400 mm
- Stick: 5500 mm
- Shoes (triple grouser): 800 mm
- Counterweight: 7700 kg
- A Maximum horizontal reach at ground level: 13 030 mm
- B Maximum vertical pin depth: 6070 mm
- C Maximum vertical pin height: 13 390 mm

The range is applicable in 360°, and dependent on maximum weight of work tool.
Standard Equipment

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

**Electrical**
- Alternator – 65 amp
- Heavy duty maintenance free batteries (2)
- Lights working:
  - Boom, guarded light
  - Stick, guarded lights, both sides
  - Cab interior
  - Cab mounted, two
  - Frame mounted
- Signal/warning horn

**Operator Environment**
- 12 V/7 A power supply for radio and multipurpose socket
- Adjustable pilot operated joystick type (wrist lever) controls each with 3 on/off buttons and 1 sliding switch
- Alternate exit: hammer to break rear window glass
- Ashtray and 24volt lighter
- Automatic climate control with bi-level air conditioner, heater and defroster
- Beverage holder
- Bolt-on FOGS capability
- Capability to install 2 additional pedals
- EU Sound criteria package
- Floor mat, washable
- Interior lighting and coat hook
- Instrumental panel and gauges
- Heavy Lift mode selection
- Monitor:
  - Full graphic and full color display with language capability
  - Warning information, filter and fluid change information
  - Working hour information
- Laminated front windshield
- Literature compartment
- Machine condition, error code and tool mode setting information
- Start up level check for hydraulic oil, engine oil and engine coolant
- Neutral lever lockout for all controls
- Parking brake
- Polycarbonate skylight
- Positive filtered ventilation (pressurized cab)
- Radio mounting (DIN), with antenna and mounting for two stereo speakers
- Rear window, emergency exit
- Retractable seatbelt
- Sliding door window
- Storage compartment suitable for lunch box
- Sun shade for skylight and front windshield
- Travel control pedals with removable hand levers
- Windshield wiper (parallel type) and washers
- Wiring provision for electrical seat heating and rotating beacon

**Engine**
- Automatic engine speed control with one-touch low idle switch
- Caterpillar C7 diesel engine (140 kW)
- Stage IIIA emission
- Altitude capability to 2300 m
- Caterpillar extended life coolant
- Fuel economy mode
- Fuel filter
- High ambient cooling
- Muffler
- Secondary engine shut-off switch
- Side-by-side cooling system with separately mounted AC condenser
- Water separator, with level indicator, for fuel line

**Undercarriage**
- 6 mm swivel guard on undercarriage
- 800 mm Triple grouser shoes
- Automatic swing parking brake
- Automatic travel parking brakes
- Full length track guiding guards
- Grease lubricated tracks
- Heavy duty travel motor guards on undercarriage
- Hydraulic track adjusters
- Steps – four
- Two speed travel
- Undercarriage, Heavy Duty High Wide (HDHW)

**Other Standard Equipment**
- Boom and stick regeneration circuit.
- Capability to add auxiliary valve and attachment hydraulic pump and controls.
- Cat Datalink and capability to use ET
- Cat 2600 mm hydraulically adjustable cab riser
- Counterweight Material Handling
- Counterweight with lifting eyes
- Cross-roller type swing bearing
- Doors and cab lock with Caterpillar one key security system
- Fine swing control
- Heavy duty upper structure with bottom guards
- Heavy lift mode
- Mirrors (frame right, cab left)
- Overheating protection system
- Regeneration circuit for boom and stick
- Separate hydraulic filter with re-useable metal tube for the filter element (no drop oil filter)
- S•O•S quick sampling valves for engine oil, hydraulic oil and coolant
- Sound suppression, meets EU sound level regulation 2005/88/EC
- Steel Fire wall between pump compartment and engine
- Travel alarm
- Wiring provisions for Cat Product Link

**Hydraulic System**
- High pressure grapples open-close hydraulic circuit
- High pressure lines with CVC Quick Disconnects (male)
- Hydraulic and electric circuits for:
  - boom lowering check valves
  - stick lowering check valves
- SmartBoom
- Medium pressure functions (hydraulic cab riser and grapple rotate)
- Medium pressure lines with CVC Quick Disconnects (male)
Optional Equipment
Optional equipment may vary. Consult your Caterpillar dealer for specifics.

Operator Compartment
Converter 12 V/7 A
Cover for storage compartment, suitable for a lunch box
Machine Security System with programmable keys
Radio
  AM/FM radio mounted in right hand side console
  with antenna and speakers
  Radio ready mounting rear location including
  24 V to 12 V converter
Seat
  Adjustable high-back seat with air suspension with heater
  Adjustable high-back seat with mechanical suspension
  Adjustable high-back seat with air suspension with heater
Headrest
Lunchbox storage compartment
Straight travel pedal
Visor Rain protector
Windshield
  1-piece standard heavy duty
  1-piece high impact resistant
  50/50 split, sliding
  70/30 split, sliding

Front Parts
Material Handling straight boom 8400 mm
Material Handling drop nose stick 5500 mm

Miscellaneous Options
Antifreeze
Beacon, rotating
Bio hydraulic oil package
Falling Object Guard, FOGS, bolt-on, including lights
Lights, working, front & rear
Starting aid cold weather
Undercarriage, SQUARE

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