

303.5C CR

Mini Hydraulic Excavator



Engine

| | | |
|-------------------------------|-------------------|-------|
| Model | Mitsubishi S302-T | |
| Rated net power (ISO 9249) | 29 kW | 39 hp |

Weights

| | | |
|---------------------------------|---------|----------|
| Operating weight with canopy | 3790 kg | 8,355 lb |
| Operating weight with cab | 3910 kg | 8,620 lb |

- Weight with counterweight, rubber tracks, bucket, operator, full fuel and auxiliary lines
- Weight varies depending on machine configuration

303.5C CR Mini Hydraulic Excavator

Engineered by Caterpillar® to deliver high levels of productivity, versatility and serviceability.

Comfort and Ease of Operation

Cab or canopy, the 303.5C CR offers a spacious and comfortable work area with expansive legroom. Compact radius design gives greater machine versatility and the capability to work within confined areas. **pg. 4**

Performance and Versatility

High dig forces, fast cycle times and high bucket rotation angles deliver the productivity that customers demand. A choice of stick lengths and Cat® Work Tools makes the 303.5C CR even more versatile. **pg. 5**

Low Operating Costs

Robust, reliable and easily serviced are key attributes of the C Series CR design. Service points are easily accessed through rear door and side cover, and a 500-hour engine oil change period lowers operating costs. **pg. 6**

Impressive Performance

The Cat 303.5C CR has powerful turbo charged engine, high digging forces and fast cycle times for maximum productivity.



Angle Blade Configuration

The versatility and productivity of the Cat C Series machine can be made even more productive by ordering the hydraulic angling dozer blade configuration. **pg. 7**

Customer Support

Caterpillar dealers offer unmatched customer support with excellent equipment management services and fast parts availability, resulting in maximum uptime and minimum repair costs. **pg. 8**



Comfort and Ease of Operation

Class leading space and top level features contribute to a comfortable and productive environment.



Impressive Cab Dimensions. The CR C Series gives the operator a comfortable and spacious working environment with excellent visibility.

The clear flat floor space and superior operator legroom provide high levels of operator comfort and help minimize fatigue.

Optional Air Conditioning. Optional air conditioning or fan and sun blind package offers further operator comfort.

Sliding Cab Door. The sliding door system offers good access and maintains the machine's compact dimensions to reduce the risk of damage.

Fully Pilot Operated Controls. Pilot operated controls on all services including travel levers and dozer function ensure that "as new" levels of controllability are maintained throughout the machine life.

Automatic Two Speed Function. Improves machine maneuverability around the job site. Increased productivity by balancing high speed travel requirements with controllability.

Joystick Mounted Auxiliary and Boom Swing Functions. The new joystick mounted position of these functions gives "fingertip" control and a clear cab floor.

Compact Radius Design. Compact radius design gives greater machine versatility and the capability to work within confined areas. The radius of the upper body stays within the width of the undercarriage so the operator can concentrate on the work being done without having to worry about the back of the machine.

High Level of Standard Comfort Features. Reclining suspension seat, power point, adjustable wrist rests and a cup holder are standard features on the Cat C CR machines.

Performance and Versatility

The range of Cat buckets and hydraulically powered tools are machine matched to optimize performance.



Exceptionally High Digging Forces.

High digging forces and fast cycle times ensure that the Cat 303.5C CR delivers the productivity demanded by our customers.

Turbocharged Engine. Three cylinder diesel engine in the Cat 303.5C CR provides massive power, coupled with a variable displacement pump, making it ideal for work at high altitude.

Stick Options. A choice of standard or long stick enables matching of machine to application.



Bucket Angle. High rotation bucket angle combines good spoil retention and flat back trench characteristics.

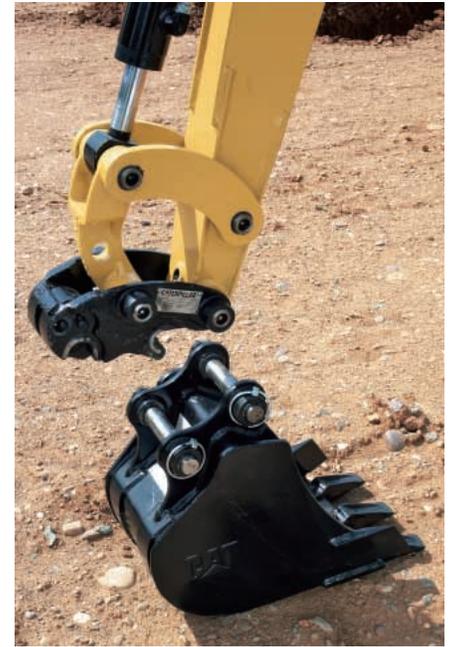


Wide Range of Work Tools. These tools are designed to get the best out of the machine and deliver excellent value through high productivity and long life. Tools include:

- Digging buckets
- Ditch cleaning buckets
- Angling ditching buckets
- Hydraulic hammers
- Augers



Auxiliary Lines and Connectors. The auxiliary lines and connectors including quick connections are fitted as standard, meaning the Cat 303.5C CR come ready to work. Hammer (one-way) and auger (two-way) auxiliary lines are also fitted as standard.



Mechanical Quick Coupler. The Cat Quick Coupler makes tool changes fast and easy. Maximizing performance and compatible with all standard work tools.

Work tool versatility is further enhanced with the option of a second additional auxiliary supply.

Dozer Blade Float Function. The dozer float enables easy ground levelling for landscaping and finishing applications, as well as more efficient site clean-up.

Low Operating Costs

Good access to main check points and major components makes servicing and maintaining the 303.5C CR easier.



Swing Out Rear Door. Provides access to major components and service points:

- Engine oil check and fill
- Vertically mounted engine oil filter
- Starter motor
- Alternator

S•O•SSM Oil Sampling Valve. Allows easy sampling of the hydraulic fluid for preventative maintenance.

500 Hour Oil and Filter Change Period. Reduces operating costs and machine down time.

Lifting Side Hood. Allows excellent access to:

- Air filter
- Main implement valve
- Auxiliary change over valve
- Accumulator
- Fuel filter
- Hydraulic tank
- Radiator and oil cooler

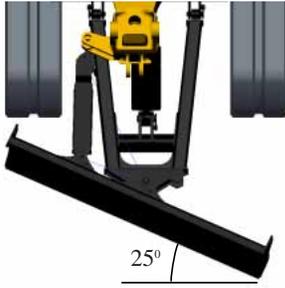
Front Linkage. Protected front linkage lines are routed above the boom and stick to help reduce damage and downtime.

End Dampening. End dampening on both boom and stick cylinders reduces shock loading, increasing component life and improving soil retention when loading at height.

Liner Bearings. Liner bearings in the swing casting deliver longer component life and reduced parts replacement costs.

Angle Blade Configuration

Increased versatility and productivity are offered with the Cat angle blade.



Versatility and Productivity. The Cat C Series machine can be made even more productive by ordering the angle dozer blade configuration.

Strong and Durable. The Cat hydraulic angle blade is engineered to be strong and durable with a hardened steel wear edge and good protection to cylinders and hydraulic lines.

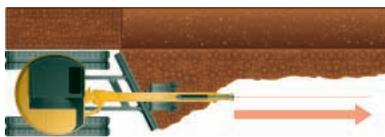
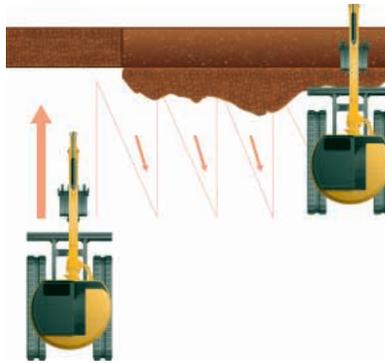
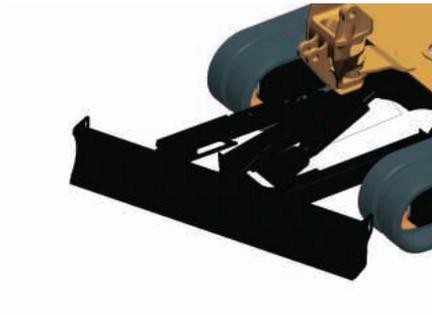
Angle Blade Positioning. The angle blade can be positioned straight ahead or angled up to 25 degrees to the left or right reducing the number of times required to back-up and reposition when backfilling thus reducing operation time.

Single Control Lever. All dozer functions are controlled from inside the cab, with fully proportional fingertip control to position the blade at any angle, from the start to 25 degrees left or right while travelling in either direction.

Full Pilot Control. Full pilot control means no cables or linkages to wear, keeping "as new" controllability throughout the machines life and reducing maintenance costs.

Load Sensing Hydraulics, High Traction Force and Auto 2-Speed Travel. These features are standard on the Cat C Series CR machines and ideally suited for getting the best out of the angling blade installation.

Excellent Blade Visibility. The compact radius design of the Cat C Series machine gives excellent visibility to the blade in any position, allowing the blade to be positioned behind the operator and away from the front linkage for better access when back dragging and finishing in tight areas.



Customer Support

Industry-leading customer support is provided by the Cat dealer network.



Selection. Make detailed comparisons of the machines under consideration before you purchase. Your Cat dealer can give you precise answers to your questions, as well as estimate component life, preventive maintenance cost and the true cost of lost production.

Purchase. Look past initial price. Consider the flexible financing options available, as well as day-to-day operating costs. 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 haul. Your Cat dealer can provide a package to meet your needs.

Operation. Improving operating techniques can boost your profits. Your Cat dealer has training literature, video tapes, classes and other ideas to help increase your productivity.

Equipment Maintenance Services.

More and more equipment buyers are planning for effective maintenance before buying. Choose from your dealer's wide range of maintenance services at the time you purchase your new machine. Repair option programs guarantee the cost of repairs up front. Services that help optimize machine performance include:

- Customer Support Agreements
- S•O•SSM and Coolant Sampling and Technical Analysis
- Maintenance contracts
- Scheduled technical inspections

Unmatched Product Support. You will find nearly all parts at our dealer parts counter. Cat dealers use a world-wide computer network to find in-stock parts to minimize machine downtime.

Save money with genuine Cat Remanufactured parts. You receive the same warranty and reliability as new products at a cost savings of 40-70 percent.

Engine

| | | |
|----------------------------|-------------------|-------|
| Model | Mitsubishi S3Q2-T | |
| Rated net power (ISO 9249) | 29 kW | 39 hp |
| Gross power | 30 kW | 41 hp |

- Net power rating per ISO 9249 and EEC 80/1269
- Meets U.S. EPA Tier 2 and EU Stage II emission regulations

Weights

| | | |
|------------------------------|---------|----------|
| Operating weight with canopy | 3790 kg | 8,355 lb |
| Operating weight with cab | 3910 kg | 8,620 lb |

- Weight with counterweight, rubber tracks, bucket, operator, full fuel and auxiliary lines
- Weight varies depending on machine configuration

Engine Dimensions

| | | |
|--------------|---------|-----------------------|
| Bore | 88 mm | 3.46 in |
| Stroke | 103 mm | 4.05 in |
| Displacement | 1.879 L | 114.6 in ³ |

Travel System

| | | |
|---------------------------------|----------|----------|
| Travel speed - high | 4.6 km/h | 2.8 mph |
| Travel speed - low | 2.6 km/h | 1.6 mph |
| Max traction force - high speed | 17.7 kN | 3,979 lb |
| Max traction force - low speed | 33.4 kN | 7,508 lb |
| Gradeability (max) - high | 30° | |

- 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

Service Refill Capacities

| | | |
|------------------|------|-----------|
| Cooling system | 6 L | 1.59 gal |
| Engine oil | 6 L | 1.59 gal |
| Fuel tank | 51 L | 13.47 gal |
| Hydraulic tank | 37 L | 9.77 gal |
| Hydraulic system | 65 L | 17.17 gal |

Hydraulic System

| | | |
|---|----------|---------------|
| Operating pressures - equipment | 245 bar | 3,553 psi |
| Operating pressure - travel | 245 bar | 3,553 psi |
| Operating pressure - swing | 181 bar | 2,625 psi |
| Auxiliary circuit - primary (186 bar, 2734 psi) | 70 L/min | 18.49 gal/min |
| Auxiliary circuits - Secondary - at 174 bar | 27 L/min | 7.13 gal/min |
| Digging forces - stick (standard) | 21.6 kN | 4,860 lb |
| Digging force - stick (long) | 19.5 kN | 4,385 lb |
| Digging force - bucket | 37.8 kN | 8,500 lb |

Swing System

| | |
|----------------------------------|-------|
| Machine swing speed | 9 RPM |
| Boom swing - left (without stop) | 70° |
| Boom swing - left (with stop) | 55° |
| Swing - right | 50° |

- Automatic swing brake, spring applied, hydraulic release
- Centralized lubrication

Sound Levels

| | |
|--------|----------|
| Canopy | 78 dB(A) |
| Cab | 78 dB(A) |

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

Electrical System

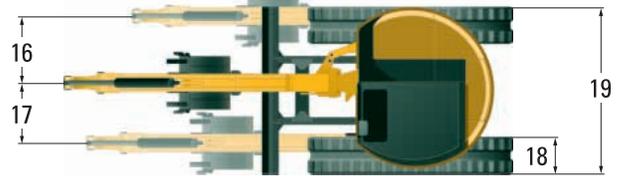
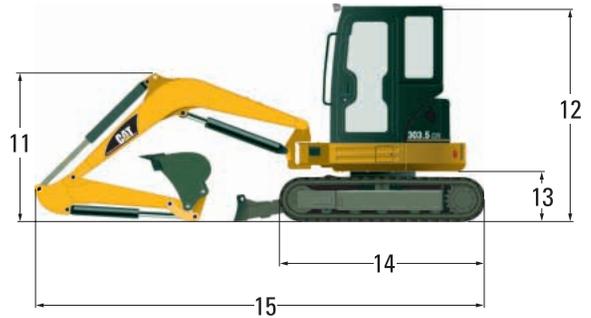
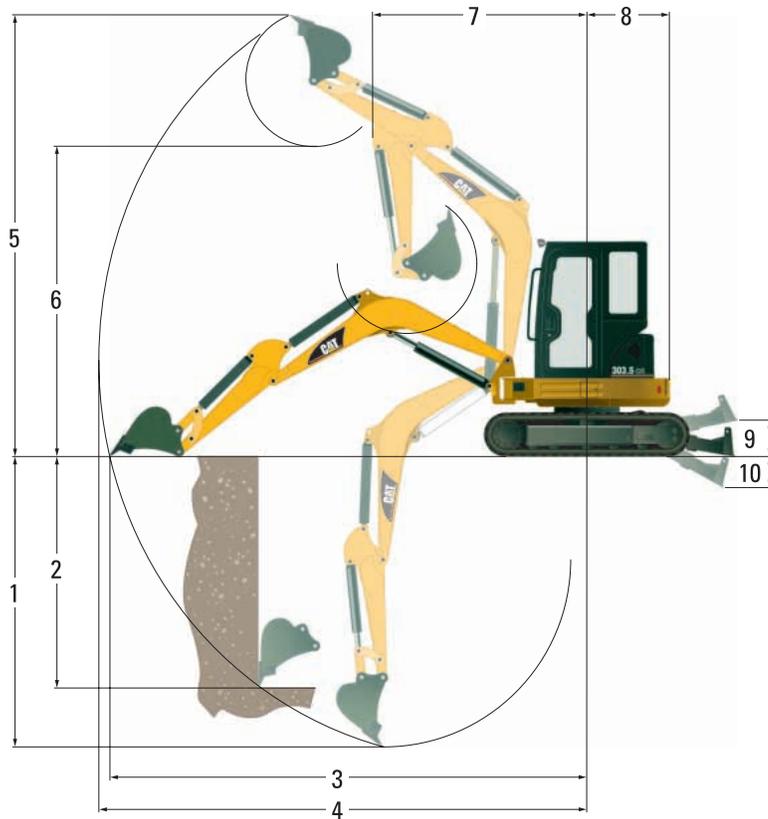
- 50-amp alternator
- 12-volt, 650 CCA, 52 amp/h maintenance-free battery
- Sealed electrical connectors

Blade

| | | |
|-------------|---------|----------|
| Width | 1780 mm | 70.08 in |
| Height | 325 mm | 12.8 in |
| Dig depth | 470 mm | 18.5 in |
| Lift height | 400 mm | 15.75 in |

- Blade flotation function provides easier operation
- Replaceable, hardened, wear resistant cutting edge

Dimensions and Lift Capacities



| | Standard Stick | | Long Stick | |
|-----------|----------------|-------|------------|-------|
| 1 | 3150 mm | 10'4" | 3450 mm | 11'1" |
| 2 | 2490 mm | 8'2" | 2650 mm | 8'8" |
| 3 | 5240 mm | 17'0" | 5500 mm | 18'1" |
| 4 | 5380 mm | 17'6" | 5620 mm | 18'5" |
| 5 | 5020 mm | 16'6" | 5110 mm | 16'9" |
| 6 | 3570 mm | 11'1" | 3670 mm | 12'0" |
| 7 | 2110 mm | 6'1" | 2220 mm | 7'3" |
| 8 | 970 mm | 3'2" | 970 mm | 3'2" |
| 9 | 400 mm | 1'4" | 400 mm | 1'4" |
| 10 | 470 mm | 1'7" | 470 mm | 1'7" |

| | Standard Stick | | Long Stick | |
|-----------|----------------|--------|------------|-------|
| 11 | 1420 mm | 4'8" | 1700 mm | 5'7" |
| 12 | 2500 mm | 8'2" | 2500 mm | 8'2" |
| 13 | 565 mm | 1'10" | 565 mm | 1'10" |
| 14 | 2220 mm | 7'3" | 2220 mm | 7'3" |
| 15 | 4820 mm | 15'10" | 4930 mm | 16'2" |
| 16 | 735 mm | 2'5" | — | — |
| 17 | 660 mm | 2'2" | — | — |
| 18 | 300 mm | 1'0" | 300 mm | 1'0" |
| 19 | 1780 mm | 5'10" | 1780 mm | 5'10" |

With tracks level on the ground.

| | | |
|-----------------------|---------|-------|
| Track and blade width | 1780 mm | 5'10" |
| Gauge width | 1480 mm | 4'10" |
| Shoe width | 300 mm | 1'0" |

Lift Capacities at Ground Level

| | Over Front | | Over Side | | Over Front | | Over Side | |
|-------------------|------------|-----------|-----------|----------|------------|-----------|-----------|--------|
| Lift point radius | 3000 mm | 9'11" | 3000 mm | 9'11" | 4950 mm | 16'3" | 4950 mm | 16'3" |
| Blade down | 1630 kg* | 3,594 lb* | 720 kg | 1,588 lb | 570 kg* | 1,257 lb* | 340 kg | 750 lb |
| Blade up | 750 kg | 1,654 lb | 660 kg | 1,455 lb | 350 kg | 772 lb | 310 kg | 684 lb |

*Limited by hydraulic capacity rather than tipping load.

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

The excavator bucket weight is not included on this chart. Lifting capacities for standard stick.

Standard Equipment

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

| | |
|---|---|
| Additional counterweight 165 kg (364 lb) | Gauges or indicators for fuel level engine coolant temperature, hour meter, engine oil pressure, air cleaner, alternator and glow plugs, service interval |
| Adjustable wrist rests | Horn |
| Alternator | Hydraulic oil cooler |
| Automatic swing park brake | Lockable storage box |
| Auxiliary hydraulic circuit valve, controls and 1 way hammer lines to the stick | Low maintenance linkage pin joints |
| 2 way (auger) auxiliary hydraulic lines to the stick | Maintenance free battery |
| Auxiliary line quick couplers | Rubber track |
| Boom cylinder guard | Retractable seatbelt |
| Cab mounted work light | Standard stick |
| Canopy with FOPS ISO10262 (Level 1) and Tip-Over protection ISO12117 | Suspension seat, vinyl covered |
| Coat hook and cup holder | 'Thumb ready' sticks |
| Control pattern changer | Travel alarm |
| Dial type accelerator | Two speed travel |
| Dozer blade with float function | |
| Floor mat | |
| Foot travel pedals | |

Optional Equipment

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

| | |
|--|---|
| Air conditioning | Long stick |
| Additional auxiliary lines | Mechanical quick coupler |
| Biodegradable hydraulic oil | Mirrors for cab and canopy |
| Boom check valve | Radio installation kit |
| Boom mounted light | Factory fitted radio/CD player |
| Cab, fully glazed with FOPS ISO10262 (Level 1) and Tip-Over Protection ISO 12117 with:heater/defroster, interior light and windshield wiper/washer | Seatbelt, 75 mm (3 in) wide |
| Ecology drain valve for hydraulic tank | Suspension seat, fabric covered |
| Ecology drain valve for engine oil | High back suspension seat, fabric covered |
| Fan and sun blind installation | Tool kit |
| Front screen guard for cab and canopy | Work tools |
| Immobilizer system | |

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