

MMS MS10C

MMS 1 Ton Mini Excavator MS10C B&S Engine User Manual

Model: MS10C (MS-BLT10C)

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation, maintenance, and troubleshooting of your MMS 1 Ton Mini Excavator, model MS10C (MS-BLT10C). Please read this manual thoroughly before operating the machine to ensure proper usage and to prevent injury or damage.

The MMS MS10C Mini Excavator is equipped with a 13.5 HP EPA Briggs & Stratton gasoline engine and a 15.7-inch digging bucket, designed for various tasks in courtyards, municipal engineering, agriculture, and light construction.

2. SAFETY INFORMATION

Operating heavy machinery requires strict adherence to safety protocols. Failure to follow these guidelines can result in serious injury or death.

- **Read the Entire Manual:** Understand all operating procedures and safety warnings before starting the machine.
- **Personal Protective Equipment (PPE):** Always wear appropriate PPE, including hard hat, safety glasses, hearing protection, safety boots, and gloves.
- **Operator Qualification:** Only trained and authorized personnel should operate this equipment.
- **Work Area Safety:** Ensure the work area is clear of bystanders, obstacles, and utility lines (electrical, gas, water). Mark the work area clearly.
- **Machine Inspection:** Perform a pre-operation inspection before each use. Check for loose parts, leaks, damaged hoses, and proper fluid levels.
- **Engine Safety:** Operate the gasoline engine in a well-ventilated area to avoid carbon monoxide poisoning. Refuel only when the engine is off and cool.
- **Stability:** Always operate the excavator on stable, level ground. Be aware of the machine's center of gravity and avoid overloading the bucket.
- **Attachment Safety:** Ensure all attachments are securely fastened before operation.
- **Emergency Procedures:** Know the location of emergency shut-off controls and how to use them.
- **Children and Pets:** Keep children and pets away from the operating machine at all times.

3. PRODUCT OVERVIEW

The MMS MS10C Mini Excavator is a compact and powerful machine designed for efficiency and versatility in various light-duty excavation tasks.



Figure 3.1: Front-side view of the MMS 1 Ton Mini Excavator MS10C, showcasing its compact design and 13.5 HP Briggs & Stratton gasoline engine.

Key Features:

- **Engine:** 13.5 HP EPA Briggs & Stratton gasoline engine for low fuel consumption and high performance.
- **Compact Design:** Maximum width of 35.3 inches allows access through narrow spaces.
- **Rubber Tracks:** Prevents surface damage and handles rough terrain effectively.
- **Attachment Compatibility:** Equipped with a 15.7-inch (400mm) digging bucket. Supports various standard excavator accessories (e.g., crusher, auger).
- **Easy Maintenance:** Features a double-layer filter and an accessible engine compartment for simplified upkeep.

FACTORY DISPLAY



Figure 3.2: Close-up view of the 13.5 HP Briggs & Stratton gasoline engine, which powers the MMS Mini Excavator MS10C.

ENGINE COMPARTMENT FULLY OPENED

Easy maintenance



Figure 3.3: A display of various attachments compatible with the MMS Mini Excavator MS10C, including different types of buckets, a ripper, and a hydraulic breaker.

4. SETUP

4.1 Unpacking and Assembly

Upon receiving your MMS Mini Excavator, carefully inspect the packaging for any signs of damage. Remove all packing materials and ensure all components listed in the packing list are present.

1. Carefully remove the excavator from its shipping crate or pallet.
2. Attach any components that were removed for shipping (e.g., canopy, specific controls) according to the assembly diagrams provided in the separate assembly guide.
3. Ensure all bolts and fasteners are tightened to the manufacturer's specifications.

4.2 Pre-Operation Checks

Before starting the engine, perform the following checks:

1. **Fuel Level:** Check the gasoline tank level. Use fresh, clean gasoline as specified by the engine manufacturer.
2. **Engine Oil Level:** Verify the engine oil level using the dipstick. Add oil if necessary, ensuring it meets the specified type and grade.
3. **Hydraulic Fluid Level:** Check the hydraulic fluid reservoir level. Ensure it is within the recommended range.
4. **Coolant Level:** If applicable, check the engine coolant level.
5. **Track Tension:** Inspect the rubber tracks for proper tension. Adjust if too loose or too tight.
6. **Controls:** Ensure all control levers and pedals move freely and return to their neutral positions.
7. **Safety Devices:** Verify that all safety guards, lights, and emergency stop buttons are functional.
8. **Attachment Security:** Confirm that the digging bucket or any other attached implement is securely pinned.

5. OPERATING INSTRUCTIONS

5.1 Starting the Engine

1. Ensure the machine is on level ground and the parking brake (if equipped) is engaged.
2. Turn the ignition key to the "ON" position.
3. If the engine is cold, apply choke as needed.
4. Turn the ignition key to the "START" position and release once the engine starts.
5. Allow the engine to warm up for a few minutes before operating.

5.2 Basic Controls and Movement

Familiarize yourself with the control levers and pedals. The MS10C typically uses a standard excavator control pattern.

MMS 1Ton MINI EXCAVATOR



Figure 5.1: A detailed diagram illustrating the key dimensions and technical parameters of the MMS Mini Excavator MS10C, including track width, digging depth, and height.

- **Travel Levers/Pedals:** Control forward and backward movement of the tracks.
- **Boom Control:** Raises and lowers the main boom arm.
- **Arm (Dipper) Control:** Extends and retracts the arm.
- **Bucket Control:** Curls and dumps the bucket.
- **Swing Control:** Rotates the upper structure of the excavator left or right.
- **Blade Control:** Raises and lowers the dozer blade.

Always operate controls smoothly and gradually to avoid sudden movements and maintain stability.

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Video 5.1: Demonstration of the MMS Mini Excavator MS10C in operation, showcasing its movement and digging capabilities.

5.3 Digging Operations

- Position the excavator appropriately for the digging task, ensuring a stable base.
- Lower the dozer blade for added stability if necessary.
- Use a combination of boom, arm, and bucket movements to efficiently excavate material.
- Avoid digging directly under the machine or creating unstable slopes.
- Do not exceed the machine's lifting capacity.



Figure 5.2: The MMS Mini Excavator MS10C performing digging operations in a residential backyard, demonstrating its maneuverability.

6. MAINTENANCE

Regular maintenance is crucial for the longevity and safe operation of your MMS Mini Excavator.

6.1 Daily Checks

- Check engine oil, hydraulic fluid, and fuel levels.
- Inspect all hoses and connections for leaks or damage.
- Lubricate all grease points as indicated in the lubrication chart (refer to separate service manual).

- Clean the machine, especially around the engine and hydraulic components.
- Check for loose bolts or nuts and tighten as necessary.

WHAT OUR CUSTOMERS HAD TO SAY



Figure 6.1: The engine compartment of the MMS Mini Excavator MS10C shown fully opened, highlighting the accessibility for routine inspections and maintenance.

6.2 Scheduled Maintenance

- **Engine Air Filter:** Clean or replace the double-layer air filter regularly, especially in dusty conditions.
- **Engine Oil Change:** Change engine oil and filter according to the engine manufacturer's recommendations (typically every 50-100 hours).
- **Hydraulic Filter:** Replace hydraulic filters as per the service schedule.
- **Spark Plug:** Inspect and replace the spark plug as needed.
- **Battery:** Check battery terminals for corrosion and ensure proper charge.

Refer to the detailed service manual for comprehensive maintenance schedules and procedures.

7. TROUBLESHOOTING

This section provides basic troubleshooting steps for common issues. For more complex problems, contact qualified service personnel.

Problem	Possible Cause	Solution
Engine fails to start	No fuel, dead battery, faulty spark plug, clogged fuel filter.	Check fuel level, charge/replace battery, inspect/replace spark plug, clean/replace fuel filter.
Loss of hydraulic power	Low hydraulic fluid, clogged hydraulic filter, faulty pump.	Check hydraulic fluid level, replace hydraulic filter, contact service for pump inspection.
Overheating engine	Low coolant, clogged radiator, excessive load.	Check coolant level, clean radiator fins, reduce load, allow engine to cool.
Unusual noises during operation	Loose components, worn bearings, hydraulic issues.	Inspect for loose parts, check lubrication, consult service manual or professional.

8. SPECIFICATIONS

Detailed technical specifications for the MMS MS10C Mini Excavator.

Feature	Specification
Model	MS10C (Item model number: MS-BLT10C)
Manufacturer	MMS
Engine	13.5 HP EPA Briggs & Stratton Gasoline Engine
Power Source	Gas Powered
Wattage	10 KW
Item Weight	1980 pounds
Product Dimensions (L x W x H)	35 x 48 x 85 inches
Material	Manganese Steel
Included Components	Bucket, Toolbox
Digging Bucket Size	15.7 inches (400mm)

MMS 1Ton MINI EXCAVATOR



Figure 8.1: Detailed dimensions and parameters of the MMS MS10C Mini Excavator.

9. WARRANTY AND SUPPORT

MMS is committed to providing reliable products and excellent customer service.

9.1 After-Sales Guarantee

The seat compartment can be opened for easy inspection of machine condition and maintenance. MMS has a professional after-sales team that provides technical support. For any faults or usage issues with the mini crawler excavator, you can contact us at any time.

9.2 Domestic Support in the United States

MMS maintains warehouses in the US to facilitate door-to-door consignment and avoid unexpected fulfillment charges. For inquiries regarding product parameters or information before placing an order, please consult our team to ensure you purchase the correct mini excavator for your needs.

For further assistance, please refer to the contact information provided with your purchase documentation or visit the official MMS website.

