

MMS MS10C

MMS 1 Ton Mini Excavator MS10C Instruction Manual

Model: MS10C | Brand: MMS

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. Please read this manual thoroughly before operating the machine to ensure proper usage and to prevent injury or damage.



Figure 1: MMS 1 Ton Mini Excavator MS10C with included attachments (digging bucket, quick hitch coupler, rake, hydraulic thumb clip).

2. SAFETY INFORMATION

Always prioritize safety when operating heavy machinery. Familiarize yourself with all safety decals on the excavator and follow local safety regulations. Ensure all operators are trained and understand the machine's functions.

- **Read the Manual:** Understand all operating procedures and safety warnings before use.
- **Personal Protective Equipment (PPE):** Always wear appropriate PPE, including hard hat, safety glasses, hearing protection, and sturdy footwear.
- **Work Area:** Ensure the work area is clear of bystanders, obstacles, and utility lines.
- **Machine Stability:** Operate on stable, level ground. Be aware of the machine's center of gravity, especially when digging or moving loads.
- **Engine Safety:** Ensure proper ventilation when operating the gasoline engine. Do not refuel while the engine is running or hot.

3. SETUP AND ASSEMBLY

3.1 Initial Inspection

Upon receiving your MMS MS10C Mini Excavator, carefully inspect the packaging and the machine for any signs of shipping damage. Verify that all components listed in the packing slip are present.

3.2 Included Components

The standard package includes:

- MMS MS10C Mini Excavator main unit
- 15.7" (400mm) Digging Bucket
- Quick Hitch Coupler
- Rake
- Hydraulic Thumb Clip
- Toolbox

3.3 Pre-Operation Checks

1. **Fluid Levels:** Check engine oil, hydraulic fluid, and fuel levels. Refer to the Specifications section for recommended fluid types.
2. **Fueling:** Fill the fuel tank with unleaded gasoline. The MS10C is equipped with a 13.5 HP B&S EPA certified gasoline engine.
3. **Track Tension:** Inspect rubber track tension. Adjust if necessary according to maintenance guidelines.
4. **Controls:** Verify that all joysticks and levers move freely and return to neutral positions.
5. **Attachments:** Ensure all attachments (bucket, rake, thumb clip) are securely installed using the Quick Hitch Coupler.

4. OPERATING INSTRUCTIONS

4.1 Controls Overview

The MMS MS10C features intuitive joystick controls for precise operation of the boom, arm, and bucket. Foot pedals control track movement. Familiarize yourself with the control layout before starting the engine.

EXCAVATOR STRUCTURE



Figure 2: Excavator Structure and Controls. Key components include the digger bucket, joystick, hydraulic attachments oil pipe interface, removable roof, night light, thumb clip installation port, thick seats, machine maintenance switch, lift bulldozer shovel, rubber track, and track adjustment port.



Figure 3: Detailed view of the bucket, joysticks for control, the dozer blade (adjustable up to 5.9 inches), and the maintenance switch.

4.2 Starting the Engine

1. Ensure the machine is on level ground and the parking brake is engaged.
2. Turn the ignition key to the "ON" position.
3. Engage the choke if the engine is cold.
4. Turn the ignition key to "START" and release once the engine fires.
5. Allow the engine to warm up for a few minutes before operating.

4.3 Movement and Operation

The MS10C is designed for versatility in various environments, including narrow spaces. Its compact design (maximum width 35.3 inches) allows it to pass through confined areas, and rubber tracks prevent surface damage while handling rough terrain.

- **Driving:** Use the foot pedals to control forward and reverse movement of the tracks.
- **Excavation:** Use the joysticks to control the boom, arm, and bucket for digging, lifting, and dumping. The hydraulic

thumb clip assists in gripping and moving materials.

- **Dozer Blade:** The front dozer blade can be used for leveling, backfilling, or increasing stability during digging operations.

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Video 1: Demonstration of the MMS MS10C Mini Excavator's operational movements, including bucket articulation, boom swing, and track movement. This video illustrates the machine's agility and control capabilities.

5. MAINTENANCE

Regular maintenance is crucial for the longevity and optimal performance of your MMS MS10C Mini Excavator. The machine is designed with an easily accessible engine compartment for simplified inspection and maintenance.



Figure 4: The engine compartment of the MS10C can be fully opened, providing easy access for routine checks and maintenance procedures.

5.1 Daily Checks

- Check all fluid levels (engine oil, hydraulic fluid, coolant).
- Inspect tracks for damage or excessive wear.
- Clean debris from the engine compartment and radiator.
- Lubricate all grease points.
- Check for any loose bolts or connections.

5.2 Engine Maintenance

The 13.5 HP B&S gasoline engine features a double-layer filter to reduce the risk of failure. Regularly inspect and clean or replace the air filter. Follow the engine manufacturer's recommendations for oil changes and spark plug replacement.

5.3 Hydraulic System

Periodically check hydraulic hoses and fittings for leaks or damage. Ensure the hydraulic fluid is at the correct level and replace it according to the maintenance schedule.

6. TROUBLESHOOTING

This section provides guidance for common operational issues. For problems not covered here, or if issues persist, contact MMS customer support.

6.1 Common Issues

- **Engine Fails to Start:**
 - Check fuel level.
 - Ensure battery connections are secure and charged.
 - Verify ignition switch is in the correct position.
- **Loss of Hydraulic Power:**
 - Check hydraulic fluid level.
 - Inspect for visible leaks in hydraulic lines.
 - Ensure engine RPM is adequate.
- **Unusual Noises or Vibrations:**
 - Immediately stop operation and inspect the machine for loose components or foreign objects.
 - Check for proper lubrication.

7. SPECIFICATIONS

Detailed technical specifications for the MMS MS10C Mini Excavator.

MMS 10C MINI EXCAVATOR

Model:	MS10C
Engine:	Briggs & Stratton
Weight:	1000kg
Bucket Capacity:	0.025cbm/120kg
Bucket Width:	14.96 inch
Bore Stroke:	Single Cylinder

PARAMETERS

Track Width	7 inch
Max. Digging Depth:	68.90 inch
Max. Vertical Digging Depth:	61.02 inch
Max. Digging Height:	102.7 inch
Max. Dumping Height:	72.83 inch
Max. Digging Radius on Ground:	120.1 inch
Min. Rotation Radius:	52.36 inch
Max. Upgrade Height of Bulldozer Blade:	13.58 inch
Max. Digging Depth of Bulldozer Blade:	10.04 inch



Figure 5: Comprehensive specifications for the MMS 10C Mini Excavator.

MMS MS10C Mini Excavator Specifications

Feature	Specification
Model	MS10C (Variant: BLT10C)
Manufacturer	MMS
Engine	13.5 HP B&S Gasoline Engine (EPA Certified)
Wattage	9.5 KW
Item Weight	1980 pounds (approx. 900 kg)
Product Dimensions (L x W x H)	89 x 35 x 103 inches (approx. 226 x 89 x 261 cm)
Material	Manganese Steel

Feature	Specification
Max. Digging Depth	68.90 inches
Max. Vertical Digging Depth	61.02 inches
Max. Digging Height	102.7 inches
Max. Dumping Height	72.83 inches
Max. Digging Radius on Ground	120.1 inches
Min. Rotation Radius	52.36 inches
Max. Upgrade Height of Bulldozer Blade	13.58 inches
Max. Digging Depth of Bulldozer Blade	10.04 inches
Track Width	7 inches
Bucket Capacity	0.025 cbm / 120 kg
Bucket Width	15.7 inches (400mm)
Power Source	Gasoline

8. WARRANTY AND SUPPORT

8.1 After-sales Guarantee

MMS provides an after-sales guarantee for the MS10C Mini Excavator. The seat compartment is designed for easy access to facilitate inspection and maintenance, which helps in diagnosing potential issues.

8.2 Technical Support

MMS maintains a professional after-sales team dedicated to providing technical support. For any faults, operational questions, or usage issues with your mini crawler excavator, please contact MMS directly. They are available to provide consultation and support.

For inquiries, please refer to the contact information provided at the point of purchase or on the official MMS website.

Related Documents - MS10C

