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› MMS MS12 Mini Excavator User Manual

MMS MS12

MMS MS12 Mini Excavator User Manual

Model: MS12

PRODUCT OVERVIEW

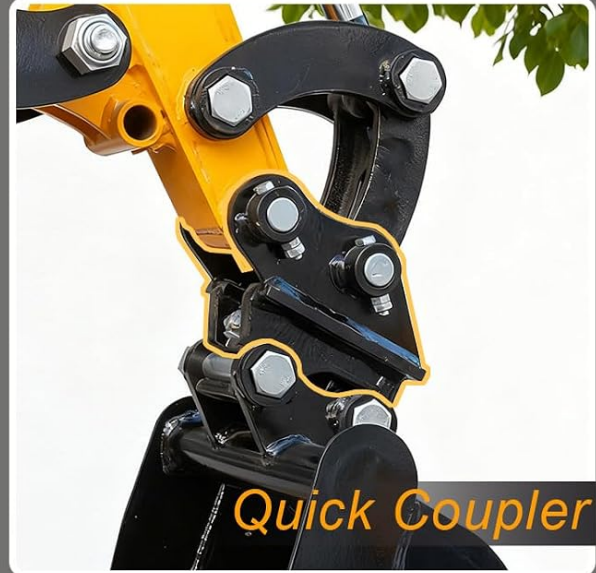
The MMS MS12 Mini Excavator is a compact crawler digger designed for various tasks including construction, landscaping, and trench digging. It features a robust B&S engine, a hydraulic thumb, and a quick-change coupler for enhanced versatility and efficiency.



Image: MMS MS12 Mini Excavator, showcasing its compact design and attachments.

Key Features:

- **Mechanical Quick Coupler:** Allows for rapid attachment changes, improving work efficiency.
- **Extended-Length Hydraulic Thumb:** Works in conjunction with the bucket to grip various materials like wood, rocks, or debris, ensuring precise operation.
- **Flexible Hydraulic Operation:** A 3-way hydraulic valve on the boom enables control of multiple attachments simultaneously, adapting to complex work scenarios.
- **Powerful 13.5HP B&S Gas Engine:** Provides reliable power for digging, lifting, and material handling.
- **Compact Design:** Operating weight of 2600lbs with a compact structure, ideal for tight spaces.
- **55lbs Rear Counterweight:** Enhances balance, prevents tipping, and ensures stable operation.



WHY CHOOSE US



Image: Detailed view of the 3-way hydraulic valve, quick coupler, hydraulic clamp, and rear counterweight.

PACKAGE CONTENTS

Upon receiving your MMS MS12 Mini Excavator, please ensure all the following components are present:

- MMS MS12 Mini Excavator Unit
- Excavator Bucket
- Hydraulic Thumb Clip
- Quick Change Coupler
- User Manual (this document)

SAFETY INFORMATION

Operating heavy machinery requires strict adherence to safety protocols to prevent injury or damage. Always read and understand this manual completely before operating the excavator.

- **Operator Training:** Ensure the operator is properly trained and familiar with all controls and safety procedures.
- **Personal Protective Equipment (PPE):** Always wear appropriate PPE, including hard hat, safety glasses, hearing protection, safety boots, and gloves.
- **Work Area Safety:** Clear the work area of bystanders, especially children and pets. Be aware of overhead power lines, underground utilities, and unstable ground.
- **Machine Inspection:** Before each use, perform a thorough inspection of the excavator. Check for loose parts, fluid leaks, damaged hoses, and proper functioning of all controls and safety devices.
- **Engine Safety:** Ensure adequate ventilation when operating the engine. Do not refuel while the engine is running or hot.
- **Stability:** Maintain proper machine stability. Avoid operating on excessively steep slopes or uneven terrain that could cause tipping. Use the dozer blade for stabilization when digging.
- **Hydraulic System:** Be cautious of high-pressure hydraulic fluid. Leaks can cause serious injury. Do not attempt to repair hydraulic lines under pressure.
- **Emergency Procedures:** Know the location of the emergency stop button and how to use it.

SETUP

Before initial operation, follow these setup steps:

1. **Unpacking and Assembly:** Carefully unpack the excavator and any accessories. Refer to the assembly diagrams for attaching the canopy (if separate) and any other components.
2. **Fluid Checks:**
 - Check engine oil level and fill to the recommended mark with the specified oil type.
 - Verify hydraulic fluid level.
 - Ensure the fuel tank is filled with the correct type of gasoline.
3. **Battery Connection:** Connect the battery terminals securely, ensuring correct polarity.
4. **Control Familiarization:** Sit in the operator's seat and familiarize yourself with the location and function of all levers, pedals, and switches.
5. **Initial Engine Start:** Follow the engine manufacturer's instructions for the first start-up. Allow the engine to warm up before operating.

OPERATION

This section provides general guidance for operating the MMS MS12 Mini Excavator. Always refer to specific control diagrams for detailed instructions.

Starting the Engine:

1. Ensure all controls are in the neutral or locked position.
2. Turn the ignition key to the ON position.
3. Engage the choke if starting a cold engine (refer to B&S engine manual).
4. Turn the ignition key to START. Release once the engine starts.
5. Disengage the choke as the engine warms up.

Driving the Excavator:

- Use the track drive levers or pedals to control forward, reverse, and turning movements.
- Operate at a slow, controlled speed, especially on uneven terrain.
- Keep the boom and bucket low to the ground for better stability when moving.

Operating the Boom and Bucket:

- The joystick controls typically manage boom lift/lower, stick in/out, bucket curl/dump, and swing left/right.
- Practice smooth, coordinated movements to achieve efficient digging and loading.
- Use the dozer blade to level the ground or provide additional stability during digging operations.

Using the Hydraulic Thumb and Quick Coupler:

- **Hydraulic Thumb:** The hydraulic thumb is controlled by a dedicated lever or pedal. Use it to grasp and secure objects like logs, rocks, or demolition debris in conjunction with the bucket.
- **Quick Coupler:** To change attachments, position the bucket on a flat surface. Operate the quick coupler release mechanism (refer to specific instructions for your coupler type). Remove the current attachment and secure the new one, ensuring all pins are correctly engaged and locked.

Your browser does not support the video tag.

Video: Demonstration of the MMS MS12 Mini Excavator's operational movements, including boom, bucket, and hydraulic thumb functions.
(Duration: 0:30)



MAINTENANCE

Regular maintenance is crucial for the longevity and safe operation of your MMS MS12 Mini Excavator. Perform checks and services as outlined below.

Daily Checks:

- Check engine oil, hydraulic fluid, and fuel levels.
- Inspect all hoses and connections for leaks or damage.
- Check track tension and condition.
- Lubricate all grease points.
- Clean debris from the engine compartment and radiator.

Periodic Maintenance:

- **Engine Oil Change:** Change engine oil and filter according to the B&S engine manual's recommended intervals (typically after the first 5-10 hours, then every 50-100 hours).
- **Hydraulic Fluid Filter:** Replace hydraulic fluid filter as recommended.
- **Air Filter:** Inspect and clean or replace the engine air filter regularly, especially in dusty conditions.
- **Spark Plug:** Inspect and replace the spark plug as per engine manufacturer guidelines.
- **General Cleaning:** Keep the excavator clean to prevent dirt and debris from interfering with moving parts and cooling systems.

MMS EXCAVATORS WITH B&S ENGINES



XR2100 / 13.5HP / 420CC

OHV Design, Lower Fuel Consumption and Operating Temperature
Large Capacity Air Filter Element, Improve Air Filtration Performance,
Reduce Engine Wear and Tear



Image: The 13.5HP B&S engine, highlighting its design for lower fuel consumption and improved air filtration.

Product details



Durable rubber tracks



High pressure oil pipes



Reliable and efficient operation



Lamps for night work

Image: Close-up of durable rubber tracks, high-pressure oil pipes, operator controls, and lamps for night work.

TROUBLESHOOTING

This section provides solutions to common operational issues. For problems not listed here, contact customer support.

Problem	Possible Cause	Solution
Engine Fails to Start	Low fuel level, dead battery, spark plug issue, choke not engaged (cold start).	Check fuel, charge/replace battery, inspect/replace spark plug, engage choke for cold starts.
Loss of Hydraulic Power	Low hydraulic fluid, clogged hydraulic filter, damaged hydraulic hose.	Check hydraulic fluid level, replace filter, inspect hoses for leaks or damage.
Machine Not Moving	Track drive levers not engaged, safety interlock system active, engine not running.	Ensure levers are engaged, check safety interlocks (e.g., seat switch), verify engine operation.

Problem	Possible Cause	Solution
Unusual Noises or Vibrations	Loose components, worn bearings, engine issue.	Stop operation immediately. Inspect for loose parts, check engine for irregularities. Contact service if unresolved.

SPECIFICATIONS

Detailed technical specifications for the MMS MS12 Mini Excavator:



2180MM/85.8IN

2900MM/114IN

93MM/36.6IN

MMS12 PARAMETERS

Operation Weight	1200kg	Max. vertical digging depth	1550mm
Engine Model	13.5HP B&S	Max.digging depth	1750mm
Rated Power	9.5KW/3600rpm	Max.diging height	2610mm
Bucket Capacity	0.025 m³/120kg	Max.dumping height	1850mm
Travel Speed	1.5km/h	Min.Rotation radius	1330mm
Climbing Capacity	30°	Max. Digging radius on ground	3050mm
Track ground length	1230mm	Wheelbase	930mm
Max. height of blldozer blade	345mm	Track width	180mm

Image: Visual representation of MMS MS12 Mini Excavator dimensions and key operational parameters.

Parameter	Value
Operation Weight	1200kg (2600lbs)

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Bucket Capacity	0.025 m³ / 120kg
Travel Speed	1.5km/h
Climbing Capacity	30°
Track Ground Length	1230mm
Max. Height of Dozer Blade	345mm
Max. Vertical Digging Depth	1550mm
Max. Digging Depth	1750mm
Max. Digging Reach	2610mm
Max. Dumping Height	1850mm
Min. Rotation Radius	1330mm
Max. Digging Radius on Ground	3050mm
Wheelbase	930mm
Track Width	180mm
Product Dimensions	114 x 37 x 86 inches
Item Weight	2000 pounds

WARRANTY AND SUPPORT

MMS provides a 30-day easy return policy for this product. For warranty claims, technical assistance, or any questions regarding your MS12 Mini Excavator, please contact MMS Customer Support. Keep your purchase receipt and product model number handy for faster service.

Manufacturer: MMS

Model Number: MS12

Customer Support: Refer to your purchase documentation or the MMS official website for contact details.

