

MMS PC10Y

MMS 1 Ton Mini Excavator (Model PC10Y) Instruction Manual

Model: PC10Y | 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 PC10Y. This compact crawler excavator is equipped with a powerful 13.5 HP RATO gasoline engine, a bucket, canopy, and a hydraulic thumb clamp, making it suitable for various tasks in trenches, farms, construction, and gardening. Its design allows for operation in tight spaces with 360° rotation and features a retractable dozer blade for enhanced stability.

2. SAFETY INFORMATION

Always prioritize safety when operating heavy machinery. Failure to follow safety instructions can result in serious injury or death.

- **Read the Manual:** Thoroughly read and understand this entire instruction manual before operating the excavator.
- **Personal Protective Equipment (PPE):** Always wear appropriate PPE, including a hard hat, safety glasses, hearing protection, safety boots, and gloves.
- **Operator Training:** Ensure all operators are properly trained and familiar with the excavator's controls and capabilities.
- **Work Area:** Inspect the work area for hazards such as uneven terrain, underground utilities, overhead power lines, and bystanders. Keep a safe distance from others.
- **Machine Inspection:** Before each use, perform a pre-operation inspection, checking for loose parts, leaks, damaged hoses, and proper fluid levels.
- **Fueling:** Fuel the machine in a well-ventilated area with the engine off and cool. Avoid spills and open flames.
- **Stability:** Always operate the excavator on stable ground. Use the dozer blade for added stability when digging.
- **Attachments:** Ensure all attachments are securely fastened before operation.
- **No Modifications:** Do not modify the excavator or its safety features.

3. SETUP AND INITIAL OPERATION

Your MMS Mini Excavator is designed for quick setup. It arrives fully assembled and ready for use after initial checks.

3.1 Pre-Operation Checks

- **Fluid Levels:** Check engine oil, hydraulic fluid, and fuel levels. Ensure they are within recommended ranges. The fuel tank is located under the seat.
- **Visual Inspection:** Inspect tracks, hoses, connections, and all moving parts for any signs of damage or wear.
- **Controls:** Verify that all control levers and pedals move freely and return to their neutral positions.
- **Dozer Blade:** Ensure the retractable dozer blade operates smoothly. It can be fully extended to 900 mm for increased stability.

3.2 Starting the Engine

1. Turn on the main power switch, typically located on the side of the machine.
2. Open the throttle handle to the desired engine speed.
3. Pull out the engine choke (if applicable for cold starts).
4. Turn the start key to ignite the engine.
5. Once the engine starts, return the choke to its original position.

For a visual guide on starting the excavator, please refer to the operation demonstration video below.

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Video: MMS Compact Excavator-PC10 Yellow - Operation Demonstration. This video demonstrates the correct procedure for starting the excavator, including locating the power switch, throttle, choke, and ignition.

4. OPERATING THE EXCAVATOR

The MMS Mini Excavator features an intuitive control panel and smooth-response levers for easy operation.

4.1 Controls Overview

Familiarize yourself with the joystick controls for the boom, arm, and bucket, as well as the foot pedals for track movement and the lever for the hydraulic thumb clamp. Always operate controls smoothly to avoid sudden movements.

4.2 Digging and Material Handling

- **Boom and Arm:** Use the main joystick to control the raising and lowering of the boom and the extension and retraction of the arm.
- **Bucket:** The bucket control allows for curling and dumping actions.
- **Hydraulic Thumb Clamp:** Utilize the hydraulic thumb clamp for superior gripping performance, ideal for handling logs, rocks, or debris.
- **Dozer Blade:** The adjustable dozer blade can be used for leveling, backfilling, or providing additional stability during digging operations.

Observe the following videos for demonstrations of general operation and the hydraulic thumb clamp.

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Video: MMS 1 Ton Mini Excavator with Canopy & 13.5HP RATO Engine. This video provides a general overview of the excavator's operation and movement.

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Video: 1 Ton Mini Excavator with Hydraulic Thumb. This video demonstrates the functionality and use of the hydraulic thumb attachment.

5. MAINTENANCE

Regular maintenance is crucial for the longevity and optimal performance of your excavator.

- **Daily Checks:** Before each use, check engine oil, hydraulic fluid, and fuel levels. Inspect tracks for debris or damage.
- **Engine Maintenance:** Follow the engine manufacturer's recommendations for oil changes, air filter cleaning/replacement, and spark plug inspection.
- **Hydraulic System:** Regularly check hydraulic hoses and fittings for leaks or damage. Ensure hydraulic fluid is clean and at the correct level.
- **Lubrication:** Grease all pivot points and moving parts as specified in the detailed service manual (not provided here, but generally recommended for excavators).
- **Cleaning:** Keep the excavator clean, especially around the engine and hydraulic components, to prevent overheating and contamination.
- **Storage:** When not in use, store the excavator in a dry, secure location.

6. TROUBLESHOOTING

This section covers common issues you might encounter. For complex problems, contact professional service.

- **Engine Not Starting:**
 - Check fuel level.
 - Ensure the power switch is on and the choke is set correctly for starting.
 - Verify the spark plug is clean and properly connected.
- **Loss of Hydraulic Power:**
 - Check hydraulic fluid level.
 - Inspect hydraulic hoses for leaks or damage.
- **Machine Not Moving:**
 - Ensure tracks are free of obstructions.
 - Check hydraulic pressure and fluid levels.
- **Unusual Noises or Vibrations:**
 - Immediately stop operation and investigate the source.
 - Check for loose components or foreign objects.

If you are unable to resolve an issue, contact MMS customer support for assistance.

7. SPECIFICATIONS

Feature	Specification
Manufacturer	MMS
Part Number	PC10Y
Item Weight	1984 pounds
Product Dimensions	102 x 34.6 x 78 inches
Item Model Number	PC10Y
Size	1 Ton Mini Excavator

Color	1 Ton-Yellow
Material	Q355 Steel
Power Source	Gas Powered
Wattage	9.5 KW
Special Features	360° Rotation, Retractable Dozer Blade, Multiple Attachment Compatibility
Included Components	Mini Excavator; Toolbox

8. WARRANTY AND SUPPORT

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

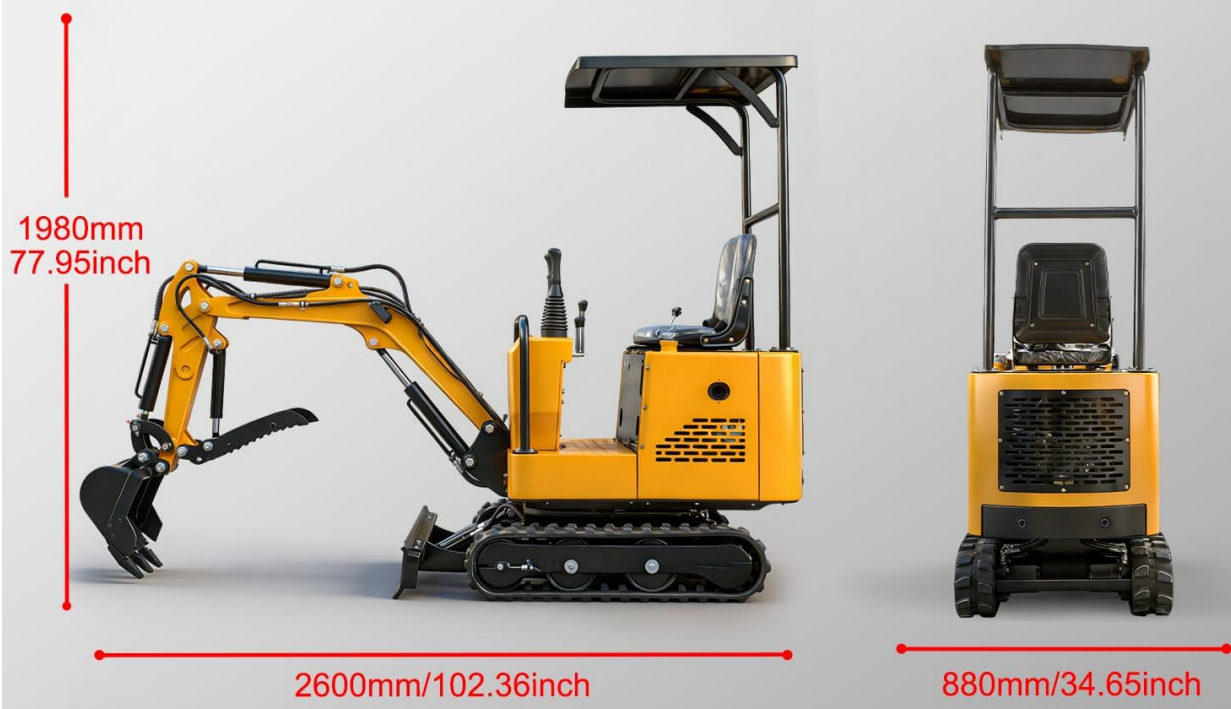
- **Returns:** This product is eligible for 30-day easy returns.
- **Customer Support:** MMS offers professional sales and maintenance teams ready to provide consultation and after-sales support. For assistance, please refer to the contact information provided at the time of purchase or visit the official MMS store.

9. PRODUCT IMAGES

**TO DOOR DELIVERY
NO EXTRA CHARGES
PROFESSIONAL UNLOADING INCLUDED**



Front view of the MMS 1 Ton Mini Excavator, showcasing its compact design and bucket attachment.



MSPC10 MINI EXCAVATOR PARAMETERS

Engine	RATO R420	Max.Digging Radius	2712mm
Rated Power	13.5HP	Max.Digging Depth	1450mm
Bore Stroke	Single cylinder, fan cool	Max.Diging Height	2600mm
Bucket Capacity	0.025m³	Max.Dumping Height	1760mm
Bucket Width	340mm	Trackground Length	1140mm
Travel Speed	2.2km/h	Gradeability	30°
Model	PC10	Min. Swing Radius	1300mm

Side view of the excavator, highlighting its tracks and overall structure.

*Comfortable
seats*



Led Light



*Hydraulic
Cylinder*



Driving Console



Rear view of the excavator, showing the engine compartment and counterweight.

RATO GASOLINE ENGINE



R420 / 13.5HP / 420CC

Low fuel consumption, safe, efficient,
durable, and has low operating noise



Detailed view of the hydraulic thumb clamp, designed for enhanced gripping capabilities.

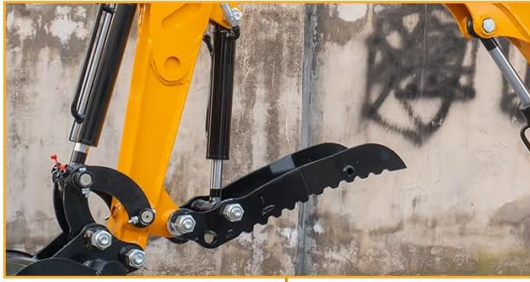
Compatible with a variety of ATTACHMENTS



The robust 13.5 HP RATO gasoline engine, providing reliable power for the excavator.

HYDRAULIC THUMB CLAMP

Hydraulically driven thumb clamp enables superior gripping performance and unlocks additional functionalities



An array of multi-functional attachments compatible with the excavator, including buckets, grapples, and augers.

Mini Excavator



Detachable ceiling

Optimize the boom structure and simplify the welding process. The oil pipe is inside the boom, reducing damage to the oil pipe



Built in oil pipe

Optimize the boom structure and simplify the welding process. The oil pipe is inside the boom, reducing damage to the oil pipe



Triangular track design

Enhances anti-slip traction, making it ideal for rugged terrain

The retractable dozer blade, which can be adjusted for leveling and increased stability.



The comfortable operator's seat and the intuitive control console with levers for precise operation.

MULTIPLE ATTACHMENTS

Suitable for a wide range of work scenarios.

			
One-piece hydraulic thumb clamp	Grapple	Ripper	Auger
			
Sand bucket	Rake	Plain Bucket	Break hammer

An image highlighting key features such as the comfortable seat, LED light, hydraulic cylinder, and driving console.




MMS SERVICES

 24 hours troubleshooting	 Pay attention to details with care
 One-to-one service	 One phone call from you, and I'll do it all

A close-up of the RATO gasoline engine, emphasizing its low fuel consumption and efficient performance.



The MMS PC10 Mini Excavator displayed in a working environment, showcasing its operational capabilities.



An illustration detailing the key dimensions and parameters of the MSPC10 Mini Excavator.