

HUAYEE HY12C (12c-6)

HUAYEE HY12C 1.2 Ton Mini Excavator Instruction Manual

Model: HY12C (12c-6)

1. INTRODUCTION

This instruction manual provides essential information for the safe and efficient operation, setup, and maintenance of your HUAYEE HY12C 1.2 Ton Mini Excavator. Please read this manual thoroughly before operating the machine to ensure proper usage and to prevent injury or damage. Keep this manual in a safe place for future reference.

2. SAFETY INFORMATION

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

- Always wear appropriate personal protective equipment (PPE), including a hard hat, safety glasses, hearing protection, and steel-toed boots.
- Ensure the work area is clear of bystanders, especially children and pets.
- Inspect the excavator before each use for any damage, leaks, or loose components.
- Never operate the machine under the influence of alcohol or drugs.
- Be aware of your surroundings, including overhead power lines, underground utilities, and unstable ground.
- Always lower the boom and bucket to the ground and engage the parking brake before leaving the operator's seat.
- Refer to local regulations and safety standards for operating heavy equipment.

3. PRODUCT OVERVIEW

The HUAYEE HY12C is a compact and versatile 1.2-ton mini excavator designed for various tasks, from digging and trenching to material handling. It features a robust 13.5HP EPA certified gasoline engine and a hydraulic thumb for enhanced functionality.

Key Features:

- **Hydraulic Thumb Attachment:** Allows for secure gripping and lifting of irregular objects like rocks, logs, and debris.
- **13.5HP EPA Certified Gasoline Engine:** Provides reliable power with environmental compliance and easy maintenance.
- **1.2-Ton Working Weight:** Offers superior stability and digging power for demanding tasks.
- **Smooth Hydraulic Control System:** Enables precise operations with continuous 360° rotation and responsive joysticks.
- **Included Attachments:** Comes standard with a digging bucket and a hydraulic thumb clamp.

Components:

HY12C		SPECIFICATIONS		HUAYEE	
BASIC		TRACK		PARAMETERS	
Operating weight :	1201kg/2648lbs	Ground pressure :	0.3kpa/cm²	Max ground digging radius :	2940mm/115in
Bucket capacity :	0.022m³	Material :	Rubber	Max digging radius :	3030mm/120in
Type of working :	Backhoe	Tension type :	Mechanical tightening	Max digging depth :	1725mm/67in
ENGINE		Length :	1200mm/47in	Max digging height :	2490mm/98in
Displacement :	420ml/cc	Width :	180mm/7in	Max dump height :	1725mm/67in
Rated power :	13.5hp	PUMP		Max vertical digging depth :	1655mm/65in
Fuel type :	Gasoline	Type :	Gear pump	Min slewing radius :	1490mm/58in
Environmental certification :	EPA	FUEL/HYDRAULIC		Max dozer blade height :	170mm/6in
SPEED		Working pressure :	16mpa	Max dozer blade depth :	240mm/9in
Max traveling speed :	1.2km/h	Hydraulic oil flow :	17.6L/min	Chassis width :	940mm/37in
Slewing speed :	9rpm	Hydraulic oil tank capacity :	13L/3.5gal	DIMENSION	
Max grade ability :	30°	Fuel tank capacity :	6.6L/1.6gal	size :	2340mm*940mm*2320mm(93in*37in*92in)

Figure 3.1: Overview of the HY12C Mini Excavator highlighting operating weight, power, and max digging height.

This image displays the HUAYEE HY12C Mini Excavator, showcasing its compact design and key performance indicators such as 1200kg/2646lbs operating weight, 13.5hp engine power, and 2490mm/98in max digging height.



Figure 3.2: Detailed view of the excavator's compact body features, including mechanical operation controls, hydraulic thumb, comfortable seat, and track chassis.

This image illustrates the ergonomic and functional aspects of the HY12C, detailing the mechanical operation levers, the robust hydraulic thumb, the comfortable operator's seat, and the durable track chassis for various terrains.



Figure 3.3: Close-up views of essential components: hydraulic oil gauge, ignition switch, travel motor, and hydraulic cylinder.

This image provides a closer look at critical operational components, including the hydraulic oil gauge for monitoring fluid levels, the main ignition switch, the powerful travel motor for track movement, and the hydraulic cylinders that control the excavator's arm and bucket.

4. SETUP AND PRE-OPERATION CHECKS

Before starting the excavator, perform the following checks to ensure safe and optimal performance.

1. **Fuel Level:** Check the gasoline fuel tank level. Ensure it is adequately filled with the correct fuel type.
2. **Engine Oil Level:** Verify the engine oil level using the dipstick. Add oil if necessary, ensuring it meets manufacturer specifications.
3. **Hydraulic Fluid Level:** Check the hydraulic oil level using the hydraulic oil gauge (refer to Figure 3.3). The level should be within the recommended range.
4. **Coolant Level:** Inspect the engine coolant level.
5. **Track Tension:** Ensure the tracks have proper tension. Adjust if too loose or too tight.
6. **Attachment Security:** Confirm that the digging bucket and hydraulic thumb are securely attached.
7. **Controls Check:** Test all control levers and pedals for smooth operation and responsiveness before starting the engine.
8. **Work Area Inspection:** Clear the work area of any obstacles, debris, or personnel. Identify potential hazards such as slopes, soft ground, or overhead obstructions.

5. OPERATING INSTRUCTIONS

Familiarize yourself with the controls before operating the excavator. Always operate from the designated operator's seat.

5.1 Starting the Engine

1. Ensure the parking brake is engaged and all control levers are in the neutral position.
2. Turn the ignition switch (refer to Figure 3.3) to the "ON" position.
3. If equipped, engage the choke for cold starts.
4. Turn the ignition key to the "START" position. Release once the engine starts.
5. Allow the engine to warm up for a few minutes before beginning operation.

5.2 Basic Operation

- **Travel:** Use the travel levers/pedals to move the excavator forward, backward, and to steer.
- **Boom and Arm Control:** Use the joystick controls to raise/lower the boom and extend/retract the arm.
- **Bucket Control:** Operate the bucket joystick to curl in or dump out material.
- **Slewing (Rotation):** The upper structure can rotate 360°. Use the slewing control to rotate the machine.
- **Hydraulic Thumb:** Engage the hydraulic thumb control to grip and release objects. Coordinate with bucket movements for effective material handling.

5.3 Shutting Down the Engine

1. Park the excavator on level ground.
2. Lower the boom and bucket to the ground.
3. Engage the parking brake.
4. Allow the engine to idle for a few minutes to cool down.
5. Turn the ignition switch to the "OFF" position.
6. Remove the key to prevent unauthorized use.

6. MAINTENANCE

Regular maintenance is crucial for the longevity and safe operation of your HY12C Mini Excavator. Refer to the detailed service manual for comprehensive maintenance schedules.

- **Daily Checks:** Inspect for leaks, loose fasteners, and general wear. Clean debris from the engine compartment and tracks.
- **Engine Oil Change:** Change engine oil and filter according to the manufacturer's recommended intervals (typically every 50-100 operating hours).
- **Hydraulic System:** Check hydraulic fluid levels regularly. Replace hydraulic filters as recommended.
- **Greasing:** Lubricate all grease points on the boom, arm, bucket, and swing mechanism daily or before each use.
- **Air Filter:** Inspect and clean or replace the engine air filter as needed, especially in dusty conditions.
- **Fuel System:** Keep the fuel tank clean and free of contaminants. Replace fuel filters periodically.
- **Track Maintenance:** Keep tracks clean and check for proper tension. Inspect for damage to rubber tracks.



Figure 6.1: View of the engine compartment, showing the key-operated body cover for easy maintenance, the gasoline engine, and its lightweight design.

This image highlights the accessible engine compartment of the HY12C, emphasizing the key-operated cover for convenient maintenance access, the reliable gasoline engine, and the overall design contributing to good fuel economy and low maintenance costs.

7. TROUBLESHOOTING

This section addresses common issues you might encounter during operation. For more complex problems, contact qualified service personnel.

Problem	Possible Cause	Solution
Engine fails to start	No fuel, dead battery, faulty ignition, clogged fuel filter.	Check fuel level, charge/replace battery, inspect ignition system, 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.
Tracks not moving	Travel motor issue, hydraulic pressure loss, track obstruction.	Inspect tracks for obstructions, check hydraulic system, contact service for travel motor.

8. SPECIFICATIONS

Detailed technical specifications for the HUAYEE HY12C Mini Excavator.

CUSTOMER FEEDBACK

New comers become neighbors, and then become partners with common aspiration.



Figure 8.1: Comprehensive specifications table for the HY12C Mini Excavator, including basic, engine, speed, track, pump, fuel/hydraulic, parameters, and dimension details.

This table provides a detailed breakdown of the HY12C's technical specifications, covering pump type, working pressure, hydraulic flow, tank capacities, various digging and dumping dimensions, and overall machine dimensions.

Category	Specification	Value
Basic		

Category	Specification	Value
Operating Weight		1201kg / 2648lbs
Bucket Capacity		0.022m³
Type of Working		Backhoe
Engine		
Displacement		420ml / cc
Rated Power		13.5HP
Fuel Type		Gasoline
Environmental Certification		EPA
Speed		
Max Traveling Speed		1.2km/h
Slewing Speed		9rpm
Max Grade Ability		30°
Track		
Ground Pressure		0.3kPa/cm²
Material		Rubber
Tension Type		Mechanical Tightening
Length		1200mm / 47in
Width		180mm / 7in
Pump		
Type		Gear pump
Fuel/Hydraulic		
Working Pressure		16mpa
Hydraulic Oil Flow		17.6L/min
Hydraulic Oil Tank Capacity		13L / 3.5gal
Fuel Tank Capacity		6.6L / 1.6gal
Parameters		
Max Ground Digging Radius		2940mm / 115in
Max Digging Radius		3030mm / 120in
Max Digging Depth		1725mm / 67in

Category	Specification	Value
Max Digging Height		2490mm / 98in
Max Dump Height		1725mm / 67in
Max Vertical Digging Depth		1655mm / 65in
Min Slewing Radius		1490mm / 58in
Max Dozer Blade Height		170mm / 6in
Max Dozer Blade Depth		240mm / 9in
Chassis Width		940mm / 37in
Dimension		
Overall Length		2340mm / 93in
Overall Width		940mm / 37in
Overall Height		2320mm / 92in

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided at the time of purchase or contact HUAYEE customer service. Keep your purchase receipt and model number (HY12C, 12c-6) readily available when contacting support.

Customer Support: For assistance, please visit the [HUAYEE Store on Amazon](#) or contact the seller directly.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question