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› HITBOX 45A Non-HF Non-Touch Pilot Arc Plasma Cutter (HBC45) User Manual

HITBOX HBC45

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Model: HBC45

1. SAFETY INFORMATION

Read and understand all safety warnings and instructions before operating the HITBOX 45A Plasma Cutter. Failure to follow these instructions may result in electric shock, fire, serious injury, or death.

General Safety Precautions:

- **Electric Shock:** Always ensure the machine is properly grounded. Do not operate in wet conditions. Wear dry welding gloves.
- **Fumes and Gases:** Ensure adequate ventilation. Avoid breathing fumes and gases. Use a fume extractor if necessary.
- **Fire and Explosions:** Keep flammable materials away from the cutting area. Have a fire extinguisher readily available.
- **Arc Rays:** Wear appropriate eye protection (welding helmet with proper shade) and protective clothing to shield skin from arc rays.
- **Noise:** Wear hearing protection to prevent hearing damage.
- **Hot Parts:** Allow the machine and workpiece to cool before handling.
- **Compressed Air:** Ensure air compressor is properly maintained and regulated. Do not exceed recommended air pressure.

2. PRODUCT OVERVIEW

The HITBOX 45A Plasma Cutter (HBC45) is a powerful and compact cutting machine designed for various metal cutting tasks. It features Non-HF (High Frequency) and Non-Touch Pilot Arc technology, a digital display, and inverter technology for efficient and precise cutting.

Key Features:

- **45A Cutting Capacity:** Capable of cutting various metals with precision.

- **Non-HF Non-Touch Pilot Arc:** Provides efficient cutting and extends consumable lifespan by initiating the arc without direct contact with the workpiece. This also minimizes interference with surrounding electrical equipment.
- **Digital Display:** For clear monitoring and adjustment of cutting parameters.
- **Inverter Technology:** Ensures stable output and energy efficiency.
- **240V Operation:** Suitable for standard workshop power supplies.
- **Portable & Compact Design:** Equipped with a carrying handle for easy transport.

Components and Accessories:

The HBC45 plasma cutter comes with essential accessories to get you started.



Figure 2.1: HITBOX HBC45 Plasma Cutter and its accessories. The image shows the main unit, an earth clamp, hose clamps, a wrench, an air filter, various electrodes and nozzles, a plasma torch, and a gas hose.

1. Earth Clamp
2. Hose Clamps
3. Wrench
4. Air Filter/Regulator
5. Electrodes
6. Nozzles
7. Plasma Torch
8. Gas Hose

3. SETUP

Proper setup is crucial for safe and effective operation.

3.1 Connecting the Air Supply

The plasma cutter requires a clean, dry compressed air supply. Connect the gas hose from your air compressor to the 'AIR IN' port on the plasma cutter. Ensure the quick air coupling is securely fastened.

SNABBLUFTKOPPLING

Det tar bara 30 sekunder att installera och börja arbeta



Figure 3.1: Quick Air Coupling. Installation takes approximately 30 seconds to begin operation.

Adjust the air pressure using the regulator to the recommended PSI for your cutting task (refer to Section 4.3 for cutting thickness guidelines).

3.2 Connecting the Plasma Torch and Earth Clamp

- Connect the plasma torch cable to the designated port on the front panel of the machine.
- Attach the earth clamp cable to the appropriate terminal.
- Securely attach the earth clamp to the workpiece or a clean, bare metal part of the work table, ensuring good electrical contact.

3.3 Power Connection

Connect the power cord to a suitable 240V power outlet. Ensure the power switch on the machine is in the 'OFF' position before plugging it in.

4. OPERATION

Follow these steps for safe and effective plasma cutting.

4.1 Powering On and Initial Settings

- Turn the power switch to the 'ON' position. The digital display will illuminate.
- Use the control knob and buttons on the front panel to select the desired cutting mode (e.g., 2T/4T) and adjust the amperage according to the material thickness.

4.2 Non-Touch Pilot Arc Technology

The HBC45 utilizes Non-Touch Pilot Arc technology, which means the arc starts without the torch nozzle needing to touch the workpiece. This improves cutting efficiency and extends the life of consumables.

KONTAKTFRI PILOTBÅGE

Kontaktfri teknik gör skärningen effektivare och förlänger förbrukningsmaterialens livslängd.



Figure 4.1: Non-Contact Pilot Arc in action. This technology makes cutting more effective and prolongs the lifespan of consumables.

Additionally, the Non-HF (High Frequency) feature ensures minimal interference with other electronic devices and is safer for human health.

INGEN HÖGFREKVENNS

Skonsam mot omgivande elektriska apparater och människors hälsa



Människors
hälsa



Elektriska
apparater



Figure 4.2: No High Frequency. This design is gentle on surrounding electrical equipment and human health.

4.3 Cutting Capacity and Materials

The HBC45 plasma cutter is capable of cutting various types of metal. Adjust the amperage and air pressure based on the material and thickness.

SCHNEIDSTÄRKE



Figure 4.3: Cutting Thickness. Ideal cut: 8mm (0.31") @ 60 PSI. Maximum cut: 16mm (0.55") @ 80 PSI.

The machine can cut through:

SKÄRBARA MATERIAL



Figure 4.4: Cuttable Materials. Includes Carbon steel, Stainless steel, Iron, and Aluminum.

- Carbon Steel
- Stainless Steel
- Iron
- Aluminum

4.4 Cutting Procedure

1. Ensure all safety gear is worn.
2. Position the workpiece on a non-flammable surface.

3. Hold the plasma torch firmly, positioning the nozzle a small distance (non-touch) from the edge of the workpiece.
4. Press the torch trigger to initiate the pilot arc.
5. Once the arc transfers to the workpiece, move the torch steadily along the desired cut line. Maintain a consistent speed for a clean cut.
6. Release the trigger to stop cutting.

5. MAINTENANCE

Regular maintenance ensures optimal performance and extends the life of your plasma cutter.

5.1 Consumable Replacement

- Regularly inspect the electrodes and nozzles on the plasma torch. Replace them when they show signs of wear or damage to maintain cut quality.
- Always use genuine HITBOX replacement parts.

5.2 Air Filter Maintenance

- Check the air filter/regulator for accumulated moisture and debris.
- Drain any accumulated water from the filter bowl regularly.
- Clean or replace the filter element as needed to ensure a clean and dry air supply to the machine.

5.3 General Cleaning

- Keep the machine clean and free from dust and metal particles.
- Periodically clean the cooling vents to ensure proper airflow and prevent overheating.
- Store the plasma cutter in a dry, clean environment when not in use.

6. TROUBLESHOOTING

This section addresses common issues you might encounter.

Common Issues and Solutions:

- **No Arc:**
 - Check power supply and connections.
 - Ensure earth clamp has good contact with the workpiece.
 - Inspect torch consumables (electrode, nozzle) for wear and replace if necessary.
 - Verify air pressure is within the recommended range.
- **Poor Cut Quality (rough, dross, wide kerf):**
 - Adjust cutting speed (too fast or too slow).
 - Check and replace worn consumables.
 - Verify correct amperage and air pressure settings for the material thickness.
 - Ensure air supply is clean and dry.
- **Machine Overheating:**

- Allow the machine to cool down.
- Ensure adequate ventilation around the machine.
- Check for blocked cooling vents.
- Ensure duty cycle is not exceeded.

- **Air Flow Issues:**

- Check air compressor operation and pressure.
- Inspect air hose for kinks or leaks.
- Clean or replace the air filter.

If problems persist after attempting these solutions, please contact HITBOX customer support.

7. SPECIFICATIONS

Detailed technical specifications for the HITBOX 45A Plasma Cutter (HBC45).

Specification	Value
Manufacturer	HITBOX
Item Number	HBC45
Package Dimensions	43.79 x 25.7 x 22.9 cm
Item Weight	6.47 kg
Style	HITBOX -HBC45-EU
Power Source Type	Air_powered
Number of Item Packages	1
Included Components	1 (refer to Section 2.2 for detailed list)
ASIN	B0CM8Q836L
First Available Date	1 November 2023

8. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the warranty card included with your product or visit the official HITBOX website. Keep your purchase receipt as proof of purchase.

HITBOX is committed to providing high-quality products and excellent customer service. If you have any questions or require assistance, do not hesitate to contact our support team.

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