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› iBELL M220-76 Inverter ARC Welding Machine User Manual

IBELL M220-76

iBELL M220-76 Inverter ARC Welding Machine

User Manual

1. INTRODUCTION

This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your iBELL M220-76 Inverter ARC Welding Machine. Please read this manual thoroughly before using the machine to ensure proper function and safety.

The iBELL M220-76 is a robust 220A Inverter ARC Welding Machine featuring advanced IGBT inverter technology, built-in Hot Start, Anti-Stick, and adjustable Arc Force. It is designed for heavy-duty welding tasks and supports electrodes from 1mm to 5mm.

2. SAFETY INFORMATION

WARNING: Welding can be dangerous. Always follow safety precautions to prevent injury or damage.

- Always wear appropriate personal protective equipment (PPE), including a welding helmet with proper shade, welding gloves, protective clothing, and safety shoes.
- Ensure the work area is well-ventilated to avoid inhaling welding fumes.
- Protect yourself and others from electric shock. Do not touch live electrical parts.
- Prevent fire and explosion. Keep flammable materials away from the welding area.
- Disconnect power before performing any maintenance or service.
- Do not operate the machine in wet conditions.
- Ensure proper grounding of the machine.

Refer to the "Safety Information" section in the original product packaging for complete safety guidelines.

3. PRODUCT OVERVIEW

3.1. Components and Controls

The iBELL M220-76 welding machine features a user-friendly interface with essential controls for efficient operation.



Figure 3.1: Front Panel Overview of iBELL M220-76

Digital Display: Shows current welding amperage.

Power/Heat/QC Indicator: Lights indicating machine status (Power, Overheat, Quality Control).

Current Adjusting Knob: Used to set the welding current (amperage).

Arc Force Regulator: Adjusts the arc force for better arc stability and penetration.

Quick Connector Sockets (+/-): For connecting electrode holder and earth clamp cables.

3.2. What's in the Box

Upon unpacking, ensure all the following components are present:

- 1 x iBELL M220-76 Inverter ARC Welding Machine

- 1 x Earth Cable
- 1 x Electrode Holder
- 1 x Wire Brush
- 1 x Goggle Glass
- 1 x User Manual (this document)



Figure 3.2: iBELL M220-76 and Included Accessories

4. SETUP

4.1. Power Connection

1. Ensure the welding machine's power switch is in the "OFF" position.
2. Connect the power cord to a suitable 220V $\pm 15\%$, 50/60Hz power outlet. Ensure the power source can provide the required 7.2KVA input.

4.2. Cable Connections

1. Connect the electrode holder cable to the positive (+) quick connector socket on the front panel.
2. Connect the earth clamp cable to the negative (-) quick connector socket on the front panel.
3. Securely attach the earth clamp to the workpiece or welding table, ensuring good electrical contact.
4. Insert the welding electrode into the electrode holder.

5. OPERATING INSTRUCTIONS

5.1. Basic Operation

1. After connecting all cables and ensuring safety, turn the power switch to the "ON" position. The digital display will light up.
2. Adjust the welding current using the "Current Adjusting Knob" according to the electrode size and material thickness. The digital display will show the set amperage.
3. Adjust the "Arc Force Regulator" as needed. Higher arc force can prevent the electrode from sticking and improve penetration.

Heavy-Duty Welding Power

Smooth, Clean Welds Every Time



Figure 5.1: Control Panel for Adjusting Settings

5.2. Welding Process

Once settings are configured, begin welding by striking an arc between the electrode and the workpiece. Maintain a consistent arc length and travel speed for optimal weld quality.

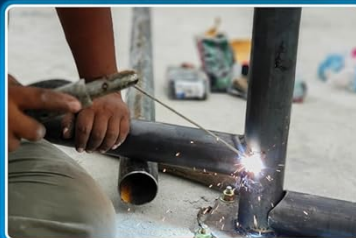
BUILT TOUGH FOR HEAVY-DUTY WELDING



DURABLE DESIGN MEETS PRACTICAL PERFORMANCE



WELDING ANGLE IRON



WELDED IRON PIPE



INDUSTRIAL WELDING



HOUSEHOLD WELDING



WELDED SQUARE TUBE



WELD METALS

Figure 5.2: Welding in Progress



Figure 5.3: Achieving Quality Welds

5.3. Electrode and Material Compatibility

The iBELL M220-76 supports electrodes from 1mm to 5mm, making it suitable for various materials and applications, including:

- Carbon Steel
- Iron Pipes
- Stainless Steel
- Metal Sheets
- Welding Angle Iron
- Welded Iron Pipe
- Welded Square Tube

CUSTOMER SUPPORT

iBELL[®]
POWER TOOLS
WELDING MACHINES &

- ✓ Open Monday to Saturday, 9:30 AM - 6:00 PM
- ✓ Pick & Drop available in 20,000+ pincodes*
- ✓ Full spare parts support
- ✓ Technical support

For sales and service,

iBELL[®] **Care**

Toll Free :

1800-103-4090

icare@ibelltools.com

WhatsApp Queries

9048 007 040

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Pickups may not be possible in certain areas.*

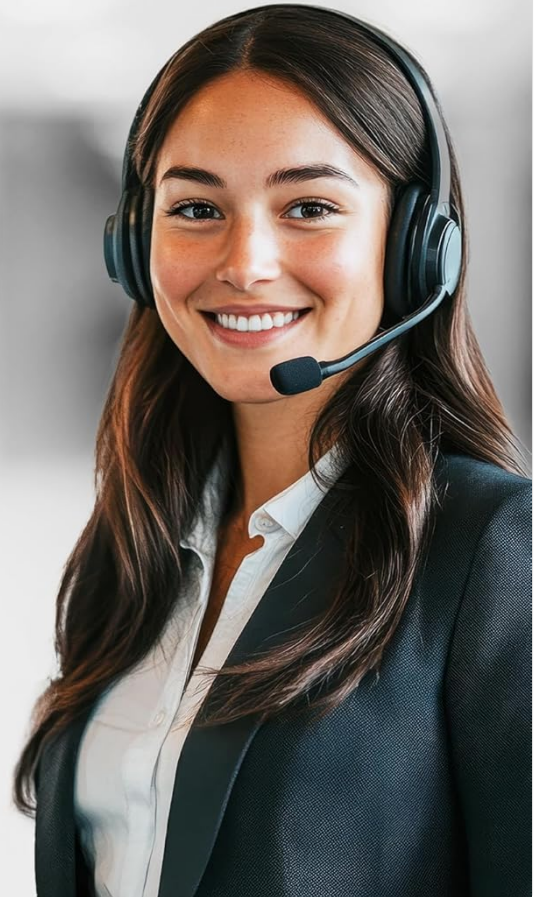


Figure 5.4: Compatible Materials for Welding



Figure 5.5: Diverse Welding Applications

6. MAINTENANCE

6.1. Cleaning and Storage

- Regularly clean the machine's exterior with a dry cloth. Do not use solvents.
- Ensure the cooling fan and vents are free from dust and debris to maintain optimal airflow.
- Store the welding machine in a dry, dust-free environment when not in use.

6.2. Cooling System

The iBELL M220-76 features a fan-cooled design for safe, stable, and long-duration welding. Ensure the fan intake and exhaust are not obstructed during operation.

7. TROUBLESHOOTING

This section provides solutions to common issues you might encounter. For problems not listed here, please contact customer support.

Problem	Possible Cause	Solution
Machine does not power on.	No power supply; loose connection; faulty power switch.	Check power outlet and connections. Ensure power switch is ON.
No arc or weak arc.	Poor earth connection; incorrect current setting; damp electrode; faulty electrode holder.	Ensure earth clamp has good contact. Adjust current. Use dry electrodes. Check electrode holder.
Electrode sticks frequently.	Low current setting; insufficient arc force; improper welding technique.	Increase current. Adjust Arc Force. Improve welding technique.
Overheat indicator is on.	Machine has exceeded duty cycle; obstructed ventilation.	Allow machine to cool down. Ensure vents are clear.

8. TECHNICAL SPECIFICATIONS

Detailed specifications for the iBELL M220-76 Inverter ARC Welding Machine:

Specification	Value
Model Number	M220-76
Output Current	220A (Max)
Input Voltage	220V ±15%
Frequency	50/60Hz
Input Power (KVA)	7.2 KVA
Input Current	33A
No-Load Voltage	45V
Usable Electrodes	1-5mm
Technology	IGBT
Protection Class	IP21S
Cooling	Smart Fan cooling
Item Weight	5.15 kg
Product Dimensions (LxWxH)	35 x 24.5 x 23.2 cm
Special Features	Built-in Hot Start, Anti-Stick, Adjustable Arc Force, VRD

MMA WELDING MACHINE **220A**

RATED VOLTAGE : 220V±15%,50/60HZ

INPUT CAPACITY : 7.2 KVA

INPUT CURRENT : 33 A

NO LOAD VOLTAGE : 45 V

MAX CURRENT : 220 A

USABLE ELECTRODES : 1 TO 5 MM

GENERATOR REQUIRED : 5.8 KW

WEIGHT : 5.2KG



IBL M220-76

Figure 8.1: Compact and Convenient Specifications

9. WARRANTY AND CUSTOMER SUPPORT

9.1. Warranty Information

The iBELL M220-76 Inverter ARC Welding Machine comes with a 2-year warranty. Warranty service will be provided at the Authorized Service Center address specified in the Warranty Card. The buyer is responsible for sending the product to this address during the warranty period.

9.2. Customer Support

For sales, service, and technical support, please contact iBELL Care:

Toll Free: 1800-103-4090

Email: icare@ibelltools.com

WhatsApp Queries: 9048 007 040

Customer support is available Monday to Saturday, 9:30 AM - 6:00 PM.



Figure 9.1: iBELL Customer Support Details