



Bone-Cutter



Operator's Manual

Model Number: BC-100/A

Revision: B

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Scope of Manual:

This manual contains procedures for safety, general unpacking, set-up, and operation of your DEMTECH Services, Inc. Bone-Cutter.

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Notice

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The material in the manual is for informational purposes only and is subject to change without notice.

DEMTECH Services, Inc. assumes no responsibility for any errors that may appear in this manual.

Manual Number: **BC-OPERATOR'S MANUAL, Revision: A**

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1 Safety Precautions

Safety precautions for operating personnel and equipment:

WARNING 1: Product has functional sharp edges. Contact may result in injury. Always keep fingers and body away from all sharp edges.

WARNING 2: Keep fingers and body away from lever mechanism during operation.

CAUTION 1: Observe the precautions given on the equipment and within this manual to prevent damage to the equipment.

CAUTION 2: Unauthorized personnel should not remove from the equipment those panels or covers that are provided for protection and/or require a tool to remove.

CAUTION 3: Place the Bone-Cutter on a stable and level surface prior to loading and cutting samples.

CAUTION 4: Ensure all hardware is fastened correctly, failure to do so could injure the user and/or damage the product.

CAUTION 5: Loading any material or items outside of the products designed use can cause injury to the user and/or damage the product.

2 General Safety & Maintenance Information

The Bone-Cutter utilizes applied force and a sharp blade to cut welded samples. Keep hands and other body parts clear of blade and lever mechanism. Ensure product is placed on a stable and level surface prior to cutting samples. If using the extendable handle ensure P/N BC-015 is fastened. The Bone-Cutter is designed to cut welded thermoplastics, any loading or cutting of materials outside of thermoplastics will cause damage to the unit and/or injury to the user.

2.1 *Intended Use*

For additional product information please refer to the product data sheet.

The Bone-Cutter is intended as professional use equipment and not intended for sale to the general public.

The Bone-Cutter has been manufactured according to the latest technology and current safety regulations. However, improper use or abuse may lead to hazardous conditions for the user or third party or damage to the unit.

Always have this manual handy at the location where the Bone-Cutter is being used so that it can be referred to quickly and easily.

The technician assigned to operate this cutter must have read through and become familiar with this manual before starting work, particularly the section on safety.

Do not make changes or modifications to the Bone-Cutter relative to safety without contacting the manufacturer for advice.

2.2 *Maintenance*

Before removing or installing spare parts or performing other repair operations to the Bone-Cutter, consult the manufacturer for advice on proper procedures. This will help insure a safe and successful outcome. Always make sure all screw connections are tight before attempting to operate the unit after maintenance or repair. Also make sure all covers, guards, and other safety devices have been reinstalled before use.

3 General Product Data

The DEMTECH Services, Inc. Bone-Cutter Test Coupon Cutter, hereinafter referred to as the Bone-Cutter or Cutter makes for a very efficient post weld testing process. The Bone-Cutter has been designed to withstand the wear and tear of a jobsite as well as provide the user with an easy-to-use reliable coupon cutter. A quick release retractable base and handle make packing and unpacking quick and easy. A lightweight durable cover helps prevent injury and a 10 sample chamber allows for efficient high volume testing.

4 Unpacking and Set-Up

4.1 Unpacking

Before opening the shipping/storage case for the first time and unpacking the Bone-Cutter, inspect the outside of the case thoroughly for any signs of mishandling or damage during shipping. Report any damage to the shipping carrier immediately and **do not proceed with unpacking**. You should consult your administration concerning claims for shipping damage. Please notify DEMTECH Services, Inc. or your authorized DEMTECH distributor where the product was purchased in the event of any shipping damage.

Unlatch and open the shipping/storage case lid and inspect inside the case and equipment thoroughly for any signs of mishandling or damage during shipping. Report any damage to the shipping carrier immediately and **do not proceed with unpacking**. You should consult your administration concerning claims for shipping damage. Please notify DEMTECH Services, Inc. or your authorized DEMTECH distributor where the product was purchased in the event of any shipping damage.

The Bone-Cutter Test Coupon Cutter is delivered to you in a sturdy, reusable shipping/storage case. The custom foam insert protects the unit from damage during shipping and should be stored in the case at all times when not in use. When the unit is out of the case, make sure the lid is closed to avoid dirt, dust and rain from getting inside. Once the Bone-Cutter has been removed from the case, it is ready for use except for any necessary set-up adjustments. For set-up procedure, refer to the set-up adjustment section in this manual.

Make note of the orientation of the equipment and packing foam inserts inside the shipping case to facilitate any repackaging requirements in the future. To avoid injury and/or damage to the cutter, be sure to use adequate care when lifting, removing or replacing the welder into the shipping/storage case. The cutter must be removed from the shipping/storage case and placed in an appropriate location suitable for the cutting you intend to perform.

4.2 Accessories

The Bone-Cutter has been designed to cut a wide-range of materials and comes with accessories to make the bone cutting process simple and easy. A handle extension is provided to increase leverage allowing the user to cut a wide range of thicknesses. An extendable leg is also provided to stabilize the unit while making high leverage cuts. (See Section 4.3 for complete Cutter Set-Up).

4.3 Cutter Set-Up

Upon unpacking the unit is not ready to use. Two threaded handles are provided for simple assembly when setting up the Bone-Cutter. The main handle fastens to the threaded housing on the main unit (See Figure 4.1). Once the main handle is fastened, the handle extension can then be threaded directly into the main handle (See Figure 4.1).



Figure 4.1

4.4 Loading Samples

The Bone-Cutter is designed to cut 7.5" wide weld samples, any material wider than that could damage the blade and/or the cutting levers ram. When loading your sample strip, ensure that the lengthwise edge is flush up against the sample strip guide (See Figure 4.2). Once the sample is loaded correctly, pull the ram lever down in one swift motion allowing for a clean and easy cut. If cutting extrusion welded samples, load the sample with the extrusion bead closest to the Bone-Cutters' pivot point (See Figure 4.2).

The Bone-Cutter chamber can hold up to ten test samples at a time, when removing test samples ensure the ram lever is propped in the upward position.

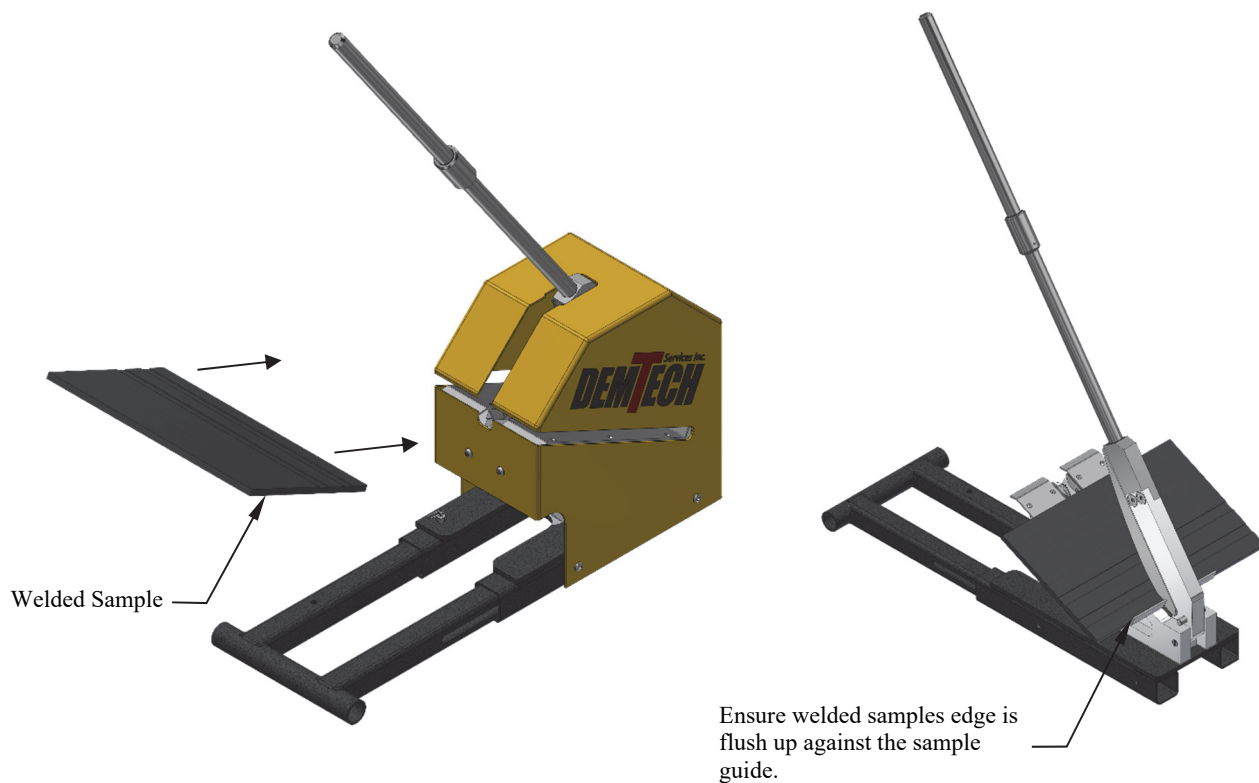


Figure 4.2

(Shown with cover off for clarity)

4.5 Blade Adjustment

- a. To adjust the blade width, first remove the 6 screws that hold the cover to the main body using a 4mm Hex T-handle (*See Item 2, Figure 4.3*) and remove the cover (*Item 3, Figure 4.3*). Use a 5/8" open-ended wrench to tighten or loosen the blade standoff (*See Item 1, Figure 4.3*). This adjustment tightens the contact interface between the ram and blades. If a cut does not feel clean or feels like it is taking more effort than it should be then most likely a blade adjustment is necessary.

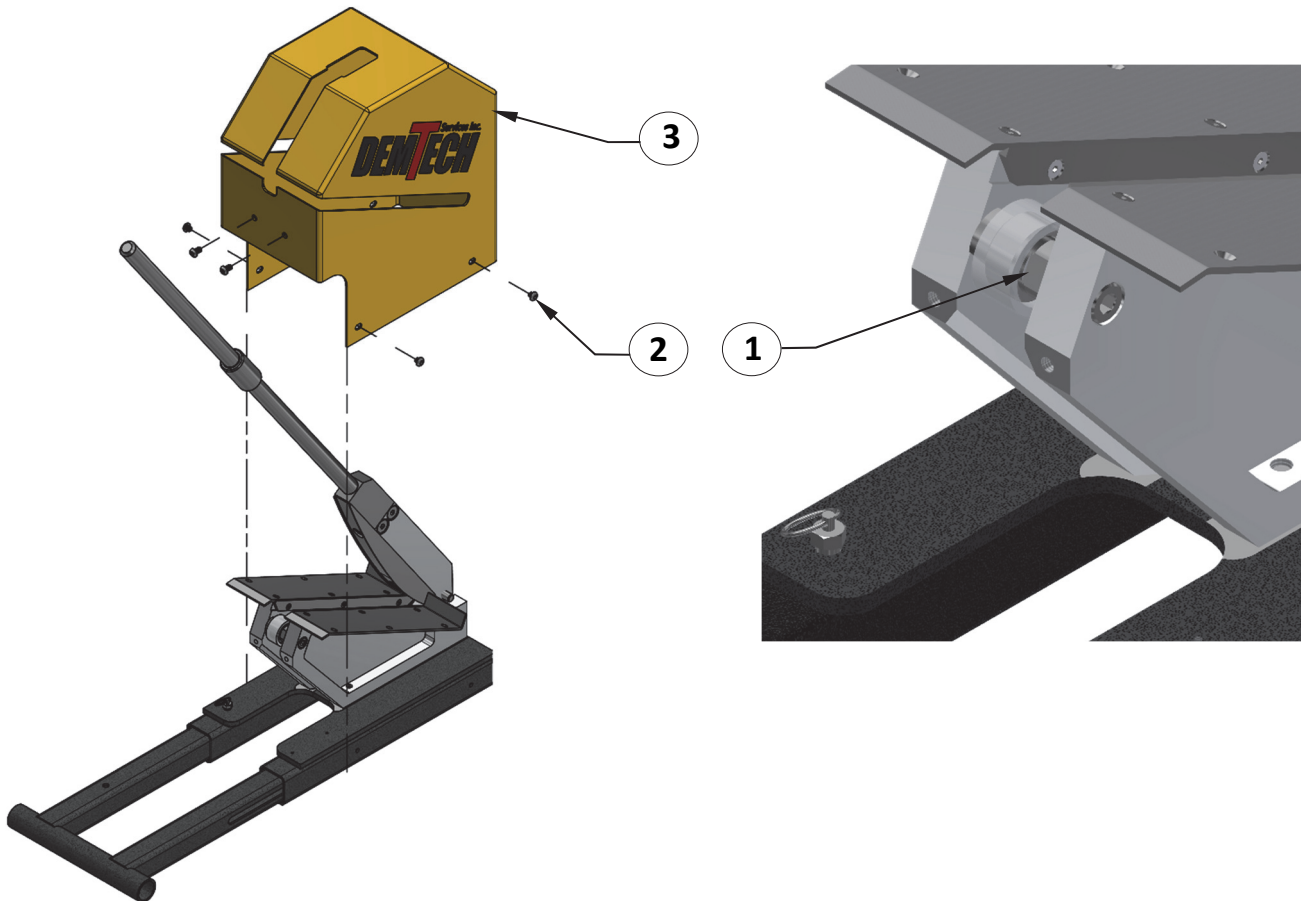


Figure 4.3

4.6 Replacing Blades

- a. With the cover removed, use a 2mm allen wrench to remove the 3 flat head screws that hold the blade to the main body (*See Item 1, Figure 4.4*). Note, there are a total of 6 screws that fasten the left and right blades to the main body. Warning, these blades are very sharp, wear gloves when removing fasteners and ensure the lever assembly is in the upright position prior to changing the blades (*See figure 4.4*).
- b. For all replacement part numbers, refer to the *Bone-Cutter Parts ID Manual*.

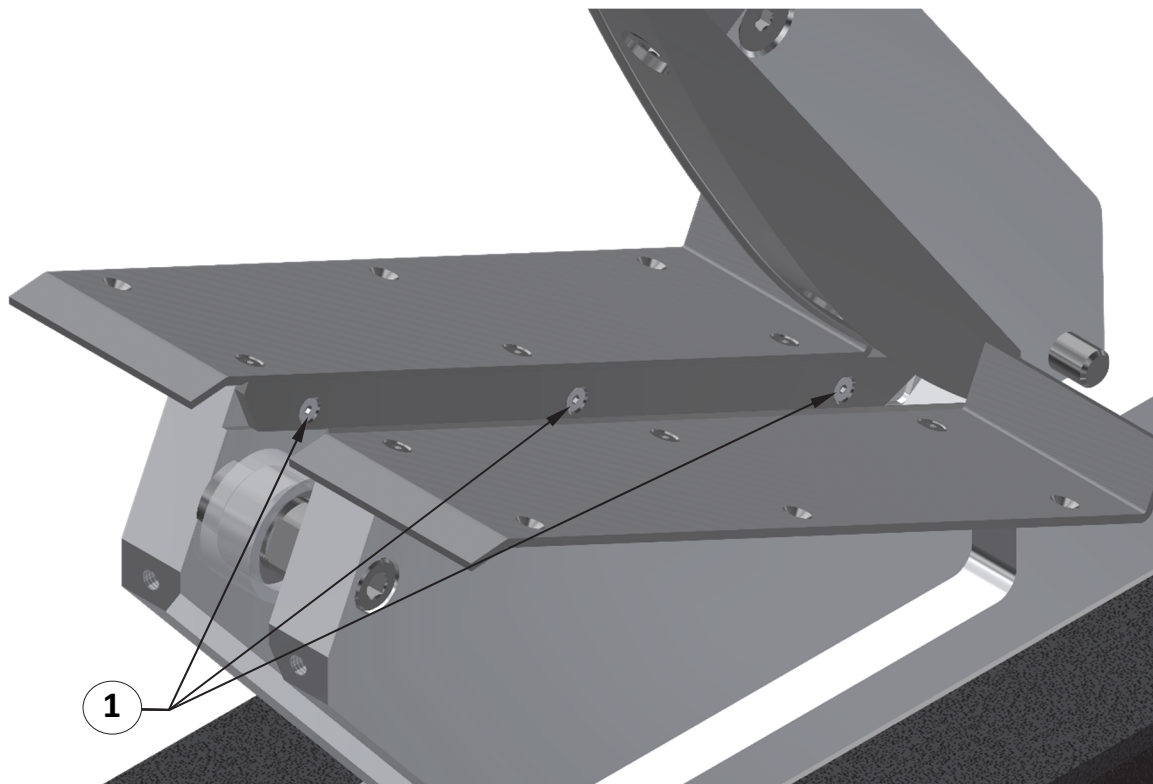


Figure 4.4

5 Factory Servicing

In the event your Bone-Cutter should require factory service, the entire Bone-Cutter needs to be returned to the factory. Refer to the following step for preparing the Bone-Cutter for return.

Carefully pack the Bone-Cutter in the reusable portable shipping/storage case provided with the welder for return to DEMTECH Services, Inc.'s factory for service. Unless previous arrangements are made, shipping charges and insurance are the customer's responsibility. Ship the Bone-Cutter to DEMTECH Services, Inc. at:

DemTech Services, Inc
Ship to address: 6414 Capitol Avenue
Diamond Springs, CA 95619
U.S.A.

6 Reference Documents

Appendix A, Bone-Cutter Product Warranty

6.1 *Appendix A, Warranty*

Warranty

DEMTECH Services, Inc. warrants all equipment of its manufacture to be free from defects in materials, workmanship, mechanical parts, and labor for a period of one year from the date of shipment to the original buyer and ninety days for electrical. This warranty excludes normal wear items such as gears, bearings and chains. The liability under this warranty is limited to replacement parts and labor on equipment when the equipment is returned prepaid to the factory or its authorized service center with prior authorization from DEMTECH Services, Inc., and upon examination by DEMTECH Services, Inc., is determined to be defective. At DEMTECH Services, Inc.'s option, a service representative may be dispatched to the equipment location.

As an additional protection, DEMTECH Services, Inc. warrants that for a period of 90 days from the date of shipment to the original buyer, pending prior authorization from DEMTECH Services, Inc., there will be no charge for service related shipping of parts and/or equipment or for authorized travel of a service representative to the equipment location. After 90 days, all costs incurred for shipping the equipment or parts thereof or for travel are the responsibility of the buyer. Our warranty for this equipment is rendered void if the unit has been repaired, taken apart or modified, or attempted to be, unless such actions have been taken in accordance with written instructions received from DEMTECH Services, Inc. The warranty is also void if the equipment has been subjected to abuse, accident or other abnormal conditions.

IF ANY FAULT DEVELOPS, THE FOLLOWING STEPS SHOULD BE TAKEN:

1. Notify DEMTECH Services, Inc. by calling 1-888-324-9353. Overseas customers should contact the local DEMTECH authorized service center. Please be prepared with the model number, serial number and full details of the difficulty. Upon receipt of this information, service data or shipping instructions will be provided by DEMTECH Services, Inc. Do not return the unit for repair without first contacting the factory or its representative for instructions.
2. After the initial 90 day period, on receipt of shipping instructions, forward the equipment prepaid to the factory or its authorized service center as instructed. If requested, an estimate of the charges will be made before work begins, especially with those cases where the DEMTECH Services, Inc. product is not covered by the warranty.
3. If the original carton and packing are not available, the product should be packed in a container with a strong exterior and surrounded by a protective layer of shock-absorbing material. DEMTECH Services, Inc. advises returning the equipment at full value to the carrier.

DEMTECH Services, Inc. reserves the right to make changes in design at any time without incurring any obligation to install the same changes on units previously purchased.

This warranty states the essence of the obligations or liabilities on the part of DEMTECH Services, Inc. THE FORMAL, COMPLETE AND EXCLUSIVE STATEMENT OF DEMTECH SERVICES, INC.'S WARRANTY IS CONTAINED IN ITS QUOTATIONS, ACKNOWLEDGEMENTS AND INVOICES. DEMTECH Services, Inc. neither assumes, nor authorizes any person to assume for it, any liability in connection with the sale of its equipment other than those set forth herein.