

TECHNICAL MANUAL

**OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT
AND GENERAL SUPPORT MAINTENANCE MANUAL
INCLUDING REPAIR PARTS LIST
FOR
BENDING , MACHINE, BAR
MODEL 4 JK**

**(CAR-ANTH MFG. & SUPPLY CO.)
(NSN3441-00-277-9070)**

**HEADQUARTERS, DEPARTMENT OF THE ARMY
SEPTEMBER 1980**

Technical Manual
No 9-3441-1103-14&P



HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 19 September 1980

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INCLUDING REPAIR PARTS LIST

FOR

BENDING MACHINE, BAR

MODEL 4 JK

NSN3441 - 00- 277 - 9070

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2, located in the back of this manual direct to: Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-MAS, Rock Island, IL 61299. A reply will be furnished directly to you.

NOTE

This manual is published for the purpose of identifying an authorized commercial manual for the use of the personnel to whom this bending machine is issued.

Manufactured by: Car-Anth Mfg. A Supply Co.
411 Eichelberger Street
St. Louis, MO 63101

Procured under Contract No. DAAA09-75-M-8756

This technical manual is an authentication of the manufacturers' commercial literature and does not conform with the format and content specified in AR 310-3, Military Publications. This technical manual does, however, contain available information that is essential to the operation and maintenance of the equipment.

INSTRUCTIONS FOR REQUISITIONING PARTS

NOT IDENTIFIED BY NSN

When requisitioning parts not identified by National Stock Number, it is mandatory that the following information be furnished the supply officer.

- 1 - Manufacturer's Federal Supply Code Number -
- 2 - Manufacturer's Part Number exactly as listed herein.
- 3 - Nomenclature exactly as listed herein, including dimensions, if necessary.
- 4 - Manufacturer's Model Number - Model 4 JK
- 5 - Manufacturer's Serial Number (End Item)
- 6 - Any other information such as Type, Frame Number, and Electrical Characteristics, if applicable.
- 7 - If DD Form 1348 is used, fill in all blocks except 4, 5, 6, and Remarks field in accordance with AR 725-50.

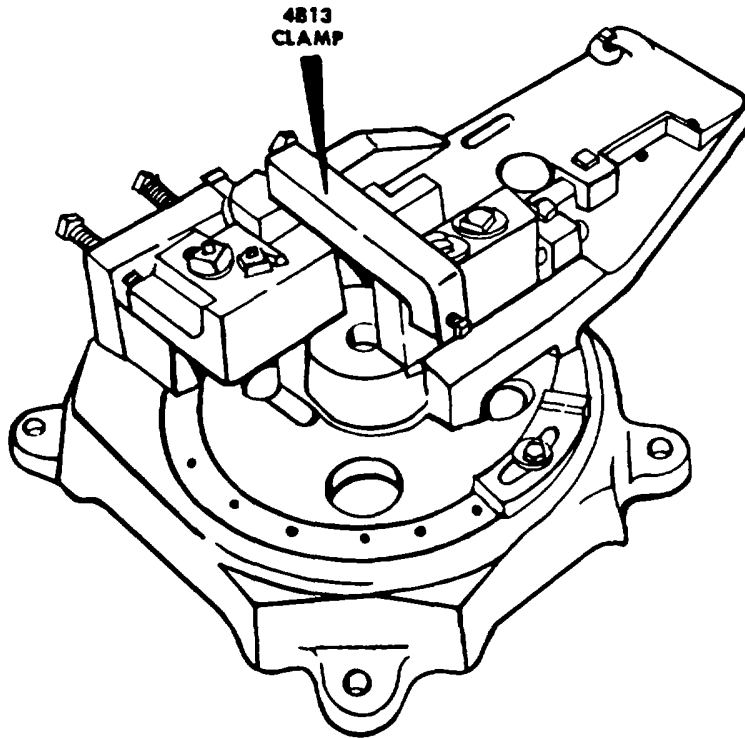
Complete Form as Follows:

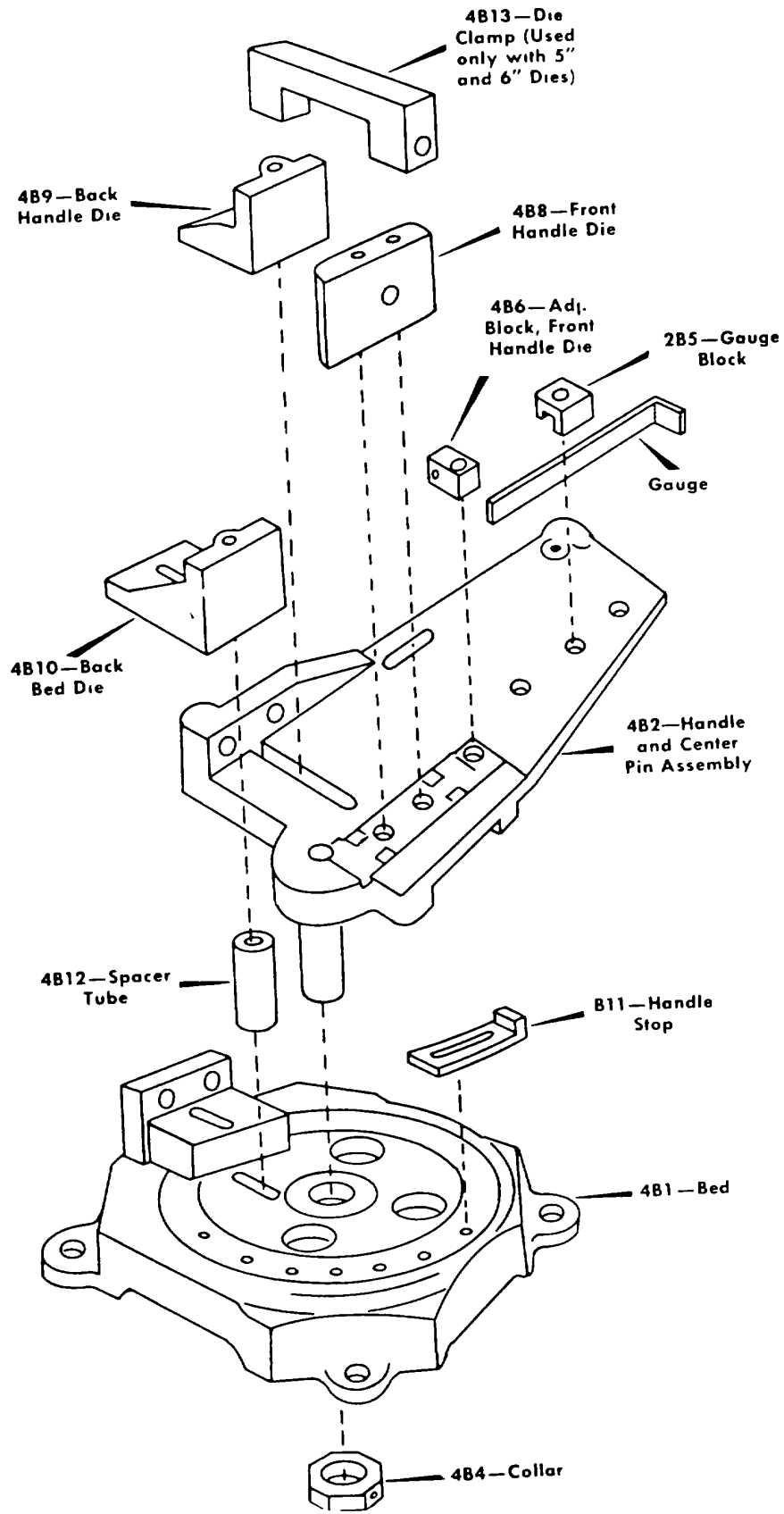
- (a) In blocks 4, 5, 6, list manufacturer's Federal Supply Code Number - followed by a colon and manufacturer's Part Number for the repair part.
- (b) Complete Remarks field as follows:
 Noun: (nomenclature of repair part)
 For: NSN: 3441-00-277-9070)
 Manufacturer: Car-Anth Mfg. and Supply Co.

Model: 4 JK
 Serial: (of end item)

Any other pertinent information such as Frame Number, Type, Dimensions, etc.

BAR BENDER





OPERATING INSTRUCTIONS

For convenience of operation, set the bender 28 to 32 inches above the floor, and make sure it is secure. This is especially true for heavier material.

IMPORTANT

Keep all nuts tight, and after machine has been in service for a couple of hours, be sure to securely tighten all bolts holding the dies. These bolts will have stretched after the first few hours work, and if they are not kept tight, breakage may result.

Be sure to keep sand, grit and scale away from center pin of handle and out of the center hole in the bed through which the center pin passes. If foreign matter is permitted to settle in here, galling may result. For further ease of operation, be sure to place a few drops of good medium grade oil through the oil hole provided. This is in the bed and marked with red paint.

Handle casting is designed to use a 2-inch pipe, 5 feet long (not furnished), as a lever. Illustration shows bender with 5-inch high dies (4B8C, 4B9C and 4B10C). Bender can be supplied with 2-, 3-, 5-, or 6-inch dies to prevent spreading of the dies.

ROD AND FLAT STOCK BENDING In order to bend rod or flat stock, place the material between the front hand die (4B8C) and move back handle die (4B9C) so that there is a snug fit. Align back bed die (4B10C) up against the stock. Be sure to tighten all dies securely. With 5 and 6-inch dies, be sure to clamp 4B13 across the dies as shown in the illustration. Move handle stop (B11) to secure the angle of bend. Insert the 2-inch pipe into the handle (4B2) and swing until 4B2 handle comes up against the B11 stop. In this way, all bends will be the same and duplicate parts will be produced.

U OR HOOK BENDS UP TO 7-INCH DIAMETER Remove front handle die (4B8C). Then bolt the U-Form to the machine by placing bolt through hole in center of handle pivot. Set back dies (4B9C and 4B10C) as for bending rod, far enough from U-Form to be used, to accommodate the stock in recess between U-Form and back dies (4B9C and 4B10C). Securely tighten nuts on U-Forms and die bolts. Place stock in recess and swing handle (4B2) half way around to complete U or hook.

U OR HOOK BENDS 7-INCH DIAMETER AND OVER In bending stock into U or hook bends 7- inch diameter and over, it is necessary to provide clearance between the U-Form and dies to make these bends. This is accomplished as follows:

- a. Remove all dies from machine.
- b. Insert U-Form bolt through the U-Form and into the pin of the handle. Be sure to tighten securely.
- c. Install back handle die (4B9C) into the location where back bed die (4B10C) ordinarily fits.
- d. Use adjusting block (4B6), and place in location of back handle die (4B9C). This now forms the back handle die.

Proceed as previously instructed. In extreme cases when using large U-Forms and working capacity stock, thin pieces of cast iron or steel may be used in lieu of the back dies (4B9C and 4B10C) to make more room for stock being worked.

ANGLE IRON BENDING In bending angle iron, it is necessary to notch the stock at the point of bend. Remove front handle die (4B8C). Replace with special angle iron die (744 not furnished as standard equipment) and adjust as bending flat stock. When ordering angle iron die (744) be sure to specify size of angle iron to be bent.

PARTS LIST

PART NUMBER	DESCRIPTION
4B1	Bed
4B2	Handle and Center Pin Assembly
4B4	Collar
2B5	Gauge Block
4B6	Adj Block, Front Handle Die
B11	Handle Stop
4B12	Spacer Tube
4B13	Die Clamp (Used only with 5- and 6-inch dies) Gauge
	Variable Sets of Dies--Specify Size:
	2-, 3-, 5-, 6-inch dies (3 pieces to a set) Standard Sizes Furnished
4B8	Front Handle Die (give size)
4B9	Back Handle Die (give size)
4B10	Back Bed Die (give size)

By Order of the Secretary of the Army:

Official:

J. C. PENNINGTON
Major General, United States Army
The Adjutant General

E. C. MEYER
General United States Army
Chief of Staff

U S GOVERNMENT PRINTING OFFICE 1980 0 - 310-980/1032

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PUBLICATION TITLE

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PARA-GRAPH

FIGURE NO.

TABLE NO.

IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

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DA FORM 2028-2
1 JUL 79

PREVIOUS EDITIONS ARE OBSOLETE.

P.S.—IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

BENDING MACHINE, BAR - 1980

PIN: 047164-000