

NORMAL

Time Compliance Date 16 February 1971

MWO 9-2320-218-30/7

DEPARTMENT OF THE ARMY MODIFICATION WORK ORDER

TRUCK, UTILITY: ¼ TON, 4X4, M151A2; ALTERATION OF REAR WHEEL HOUSING TO ACCOMMODATE TIRE CHAIN

Headquarters, Department of the Army, Washington, D.C.
23 February 1971

1. Purpose of Modification. The purpose of this modification is to alter the vehicle body to prevent the tire chain from striking the rear wheel housing. Tire chain, FSN 2540-177-7235, now in the supply system, is the only authorized tire chain for the M151A2 vehicle. Refer to TB 750-981-4 (Oct 70), article 3-24, for modification procedure of chain, 2540-933-6924, to meet specifications of chain 2540-177-7235. Alteration of the body will be made at the discretion of the individual user.

2. Priority Classification. This modification is in the NORMAL category.

a. Equipment in Use (Including Equipment in Administrative Storage). Equipment which the local commander decides to modify will be modified as soon as practicable, but no later than 12 months from the effective date of this MWO.

b. Serviceable Equipment in Field and Depot Stock. Same as *a* above.

c. Unserviceable Equipment in Depot Stock. Same as *a* above.

3. End Item To Be Modified.

Nomenclature	FSN	Part No.	Type & model	Serial No. ranges	TM
Trk, Util, 4x4 ¼ Ton.	2320-177-9258	8736905	M151A1	02CX7070 through 02NA7571	9-2320 218-20

4. Assembly(ies) or Component(s) To Be Modified. None.

5. Part(s) To Be Modified. None.

6. Application.

a. Time Compliance Date. Time compliance period begins on 16 February 1971.

b. Category of Maintenance. Direct support.

c. Applied By. Welder — MOS 4420
Mechanic — MOS 63H30

d. Time Required.

(1) For complete MWO application to end item.

(a) Two man-hours for one end item using two men.

(b) One hour of end item downtime.

(2) For assemblies, components, or parts. Not applicable.

e. MWO's To Be Applied Prior to or Concurrently With This MWO. None

f. Publications Which Require Change as a Result of This MWO. TM 9-2320-218-10

g. Downtime. All downtime is accounted for in paragraph 6d; the equipment cannot be put into partial operation if the modification process is interrupted.

7. Supply-Kits/Parts and Disposition.
Free-Issue Period.

NOTE

Tool for this MWO is being furnished as free-issue item from U.S. Army Tank-Automotive Command until one calendar year from effective date of face of this MWO. If tool is unavailable, obtain by writing direct to Commanding General, U.S. Army Tank-Automotive Command, ATTN: AMSTA-ML, Warren, Mich. 48090.

Kits/Parts Required.

a. No kits are required to accomplish this MWO

b. Weight and cube data are not applicable to this MWO.

- c. Kits/Parts Detail Listing. Not applicable.
- d. Requisitioning Instructions. Not applicable.
- e. Bulk and Consumable Materials.

Federal stock No.	Nomenclature	Quantity	Rte Ident
8010-515-2208	Prime TT-P-8585	As reqd	
8010-664-4761	Final Paint TT-E-529	As reqd	
8010-615-5370	Epoxy — Plastic — Auto Body Type I	As reqd	
3439-247-2978	Braze Rod	As reqd	

- f. Parts Disposition. Not applicable.
- 8. Special Tools, Jigs, and Fixtures Required.

Nomenclature	FSN	P/N	Ref No.	Quantity
Tool, Forming:		11660570	None	1
Chain Clearance				

9. Modification Procedures.

- a. Of two body alteration methods, the preferred is as follows:
 - (1) Remove spare tire and rear seat assembly. Loosen and fold rear canvas panel over the top and clear vehicle cargo area of all debris.
 - (2) Place forming tool, P/N 11660570 (fig. 1), flat on cargo floor and align forming tool with the spring pocket as shown in figure 2.
 - (3) Hold forming tool firmly in place using vehicle OVE scissors jack (or equivalent) as shown in figure 2.



Figure 1. Forming tool.

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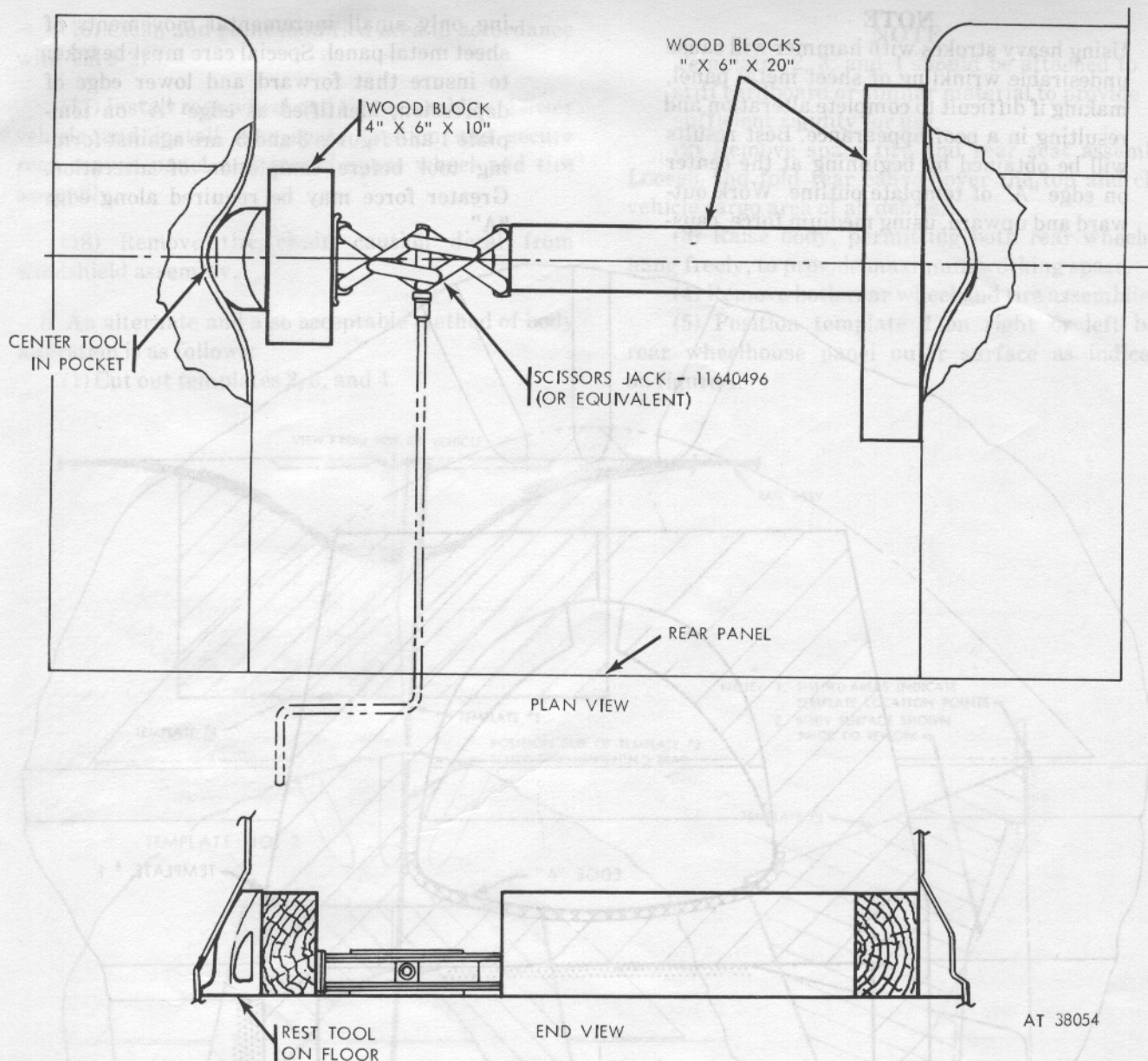


Figure 2. Application of forming tool.

NOTE

Figure 2 shows arrangement of jack, forming tool, and shoring material (wood blocks) Scissoring jack should be positioned to permit use of handle from rear of vehicle. One 4 x 6 x 20 - inch wood block must be centered as shown in figure 2 to insure proper load distribution on body side panel.

CAUTION

Tighten jack only sufficiently to hold tool firmly in position. Over-tightening will deform body sheet metal paneling.

- (4) Raise body, permitting both rear wheels to hang freely, to provide maximum working space.
- (5) Remove both rear wheel and tire assemblies.
- (6) Cut out template 1 and attach to stiff card-

board or similar material to provide sufficient rigidity for use.

(7) Position template 1 on right or left body rear wheelhouse panel outer surface as indicated on figure 3.

(8) Using a grease pencil, chalk or other suitable marker, trace the cutout opening profile on panel.

(9) Using a 2-pound hammer, form side of wheelhouse panel into forming tool by striking within marked area. Refer to figure 3 for template use and figure 6 for hammering procedure.

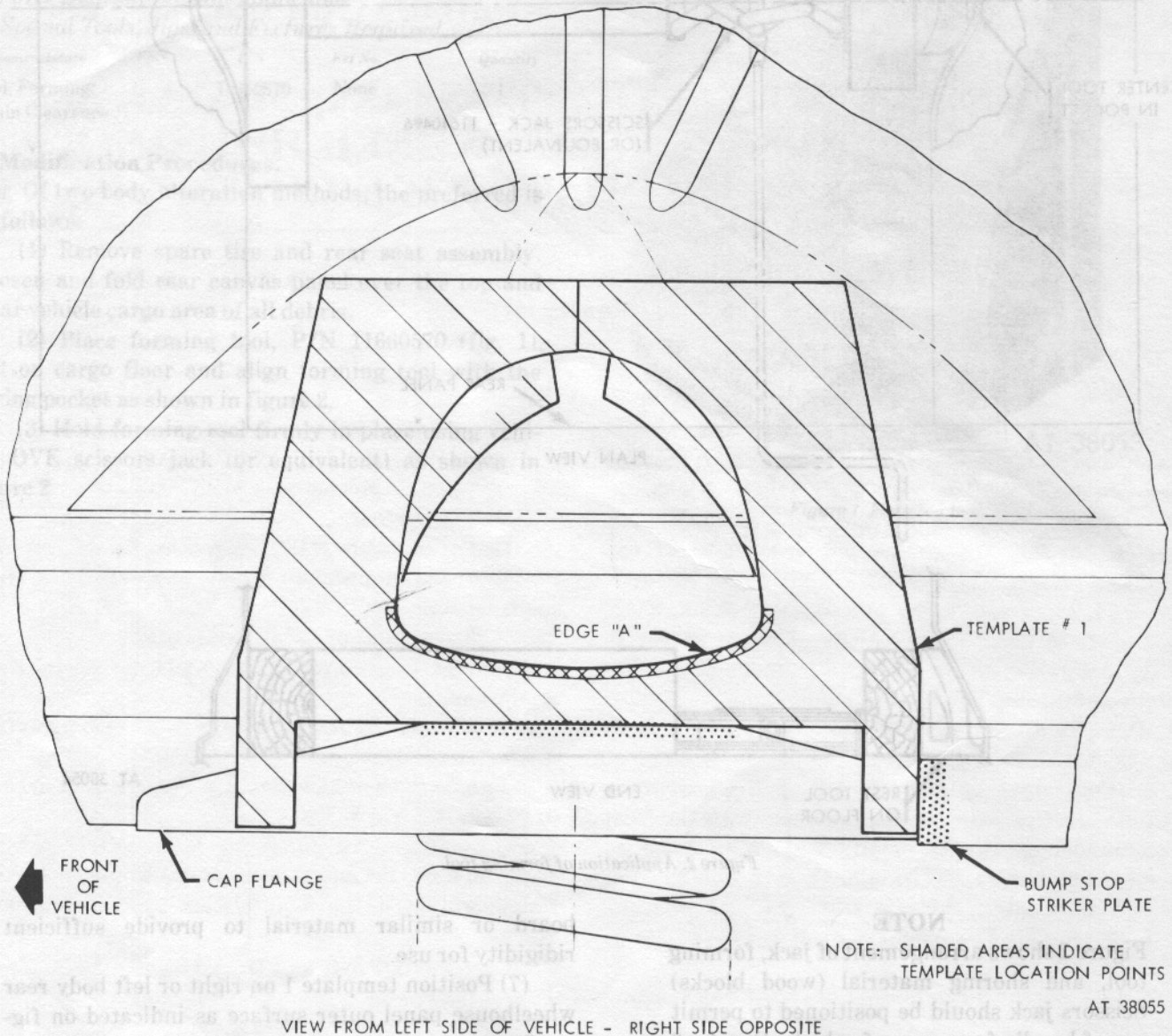
CAUTION

Do not strike panel beyond limits of template No. 1. Striking sheet metal beyond defined area will cause structural damage.

NOTE

Using heavy strokes with hammer will cause undesirable wrinkling of sheet metal panel, making it difficult to complete alteration and resulting in a poor appearance. Best results will be obtained by beginning at the center on edge "A" of template outline. Work outward and upward, using medium force, caus-

ing only small incremental movements of sheet metal panel. Special care must be taken to insure that forward and lower edge of depression, identified as edge "A" on template 1 and figures 3 and 5, are against forming tool before completion of alteration. Greater force may be required along edge "A".



VIEW FROM LEFT SIDE OF VEHICLE - RIGHT SIDE OPPOSITE

Figure 3. Application of template No. 1

(10) Remove jack, shoring material and forming tool.

(11) Repeat (2) through (10) above for opposite side of vehicle.

(12) Prepare reworked areas for brazing; refer to TM 9-237.

WARNING

Adequate fire hazard protection must be provided during brazing operation near vehicle fuel tank or

tank is to be removed. Refer to TM 9-2320-219-20 for fuel tank removal and installation procedures.

(13) Carefully hammer shut all seams which may have separated during alteration without reducing depression.

(14) Braze outside seams as shown on figure 5.

(15) If desired, fill all seams left open after above alteration with epoxy plastic, auto body type I, repair kit FSN 8010-615-5370. Refer to TB 2300-258-30.

(16) Clean and paint modified area in accordance with TM 9-213.

(17) Install rear wheel and tire assemblies. Lower vehicle and install rear seat. Position and secure rear canvas panel and install spare wheel and tire assembly.

(18) Remove tire chain caution decal from windshield assembly.

b. An alternate and also acceptable method of body alteration is as follows:

(1) Cut out templates 2, 3, and 4.

NOTE

Templates 2, 3, and 4 should be attached to stiff cardboard or similar material to provide sufficient rigidity for use.

(2) Remove spare tire and rear seat assembly. Loosen and fold rear canvas over the top and clear vehicle cargo area of all debris.

(3) Raise body, permitting both rear wheels to hang freely, to provide maximum working space.

(4) Remove both rear wheel and tire assemblies.

(5) Position template 2 on right or left body rear wheelhouse panel outer surface as indicated on figure 4.

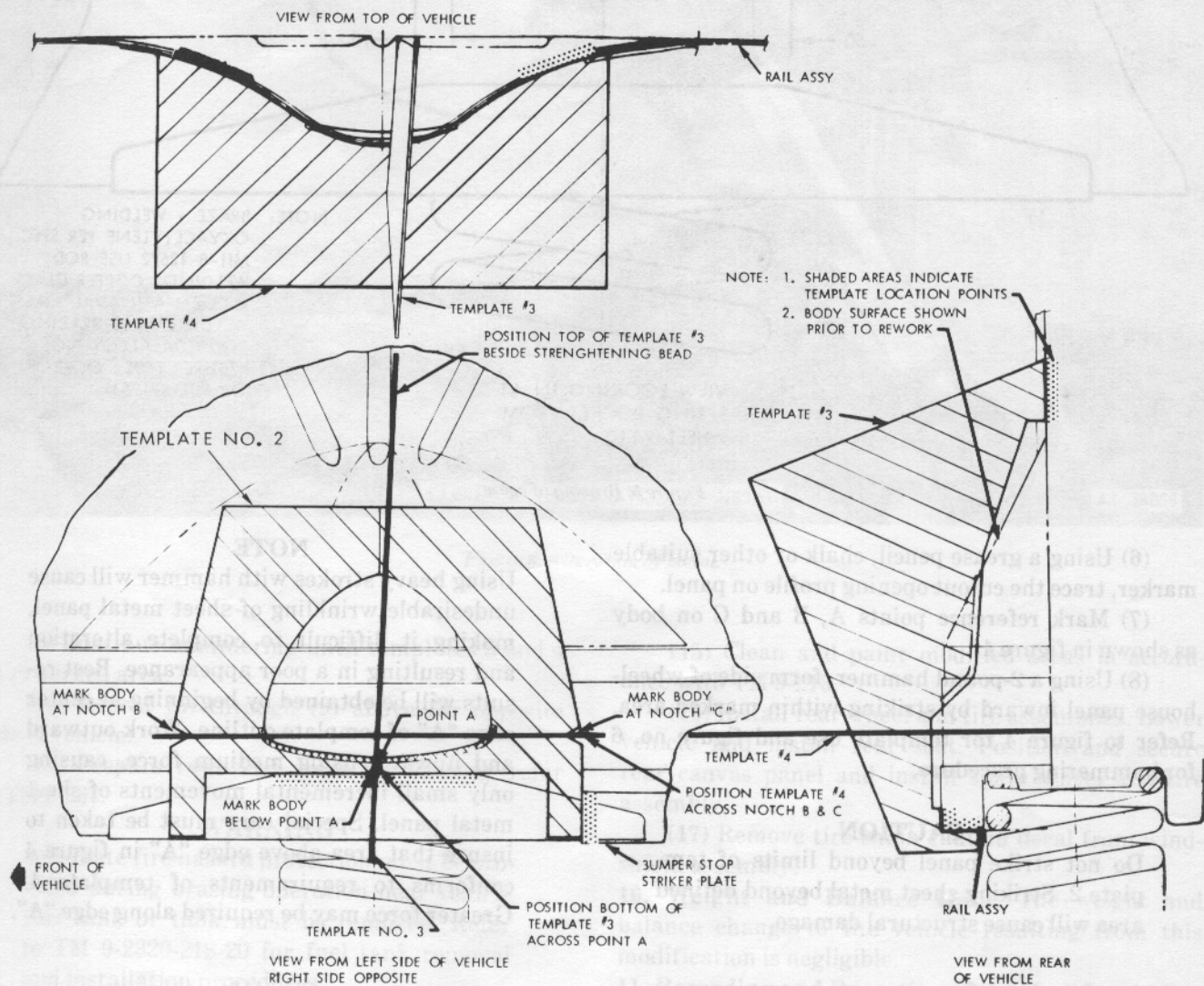


Figure 4. Positioning of templates.

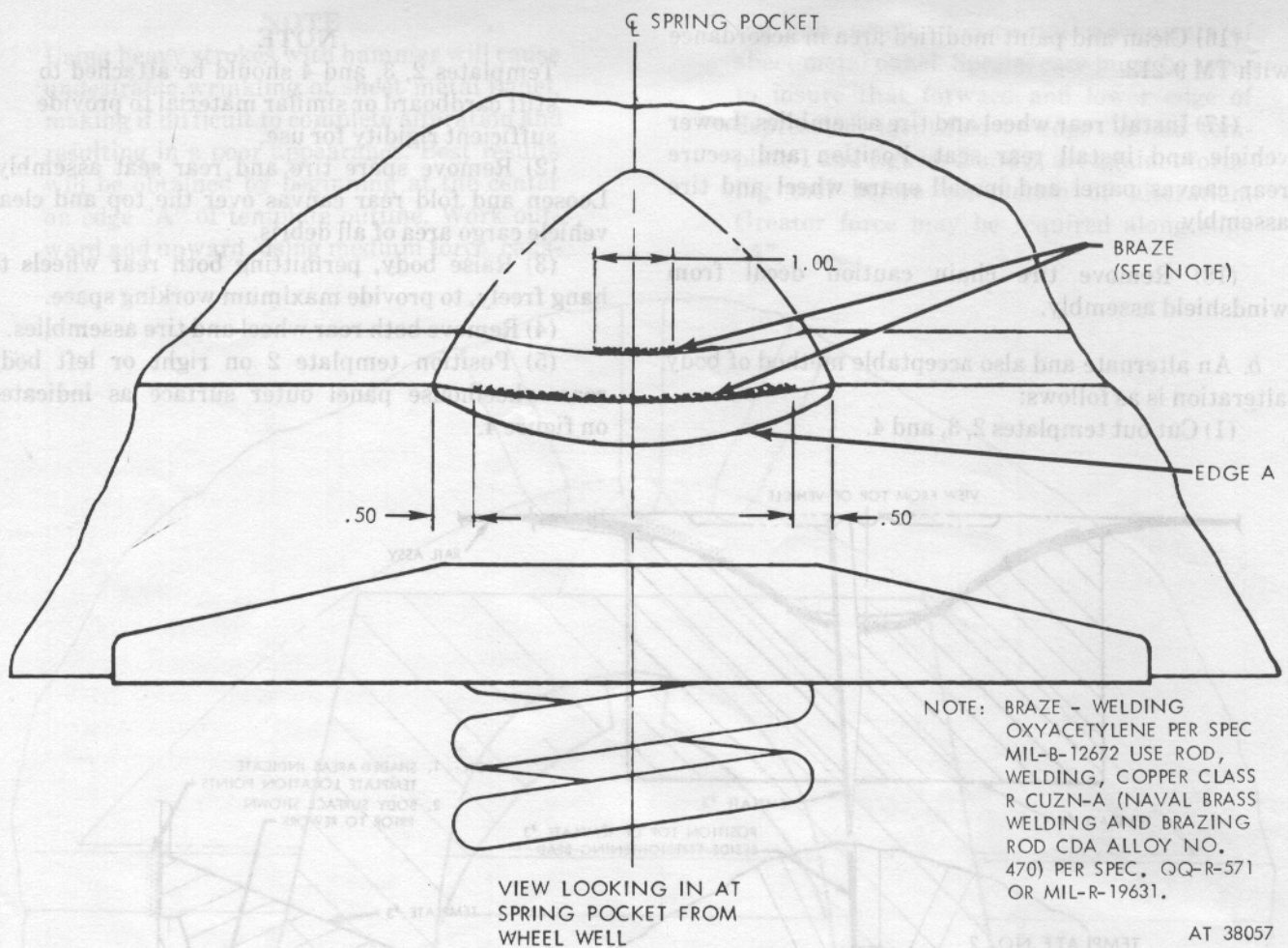


Figure 5. Brazing of seam.

(6) Using a grease pencil, chalk or other suitable marker, trace the cutout opening profile on panel.

(7) Mark reference points A, B and C on body as shown in figure 4.

(8) Using a 2-pound hammer, form side of wheel-house panel inward by striking within marked area. Refer to figure 4 for template use and figure no. 6 for hammering procedure.

CAUTION

Do not strike panel beyond limits of template 2. Striking sheet metal beyond defined area will cause structural damage.

NOTE

Using heavy strokes with hammer will cause undesirable wrinkling of sheet metal panel, making it difficult to complete alteration and resulting in a poor appearance. Best results will be obtained by beginning at center edge "A" of template outline. Work outward and upward, using medium force, causing only small incremental movements of sheet metal panel. Special care must be taken to insure that area above edge "A" in figure 4 conforms to requirements of template 4. Greater force may be required along edge "A".

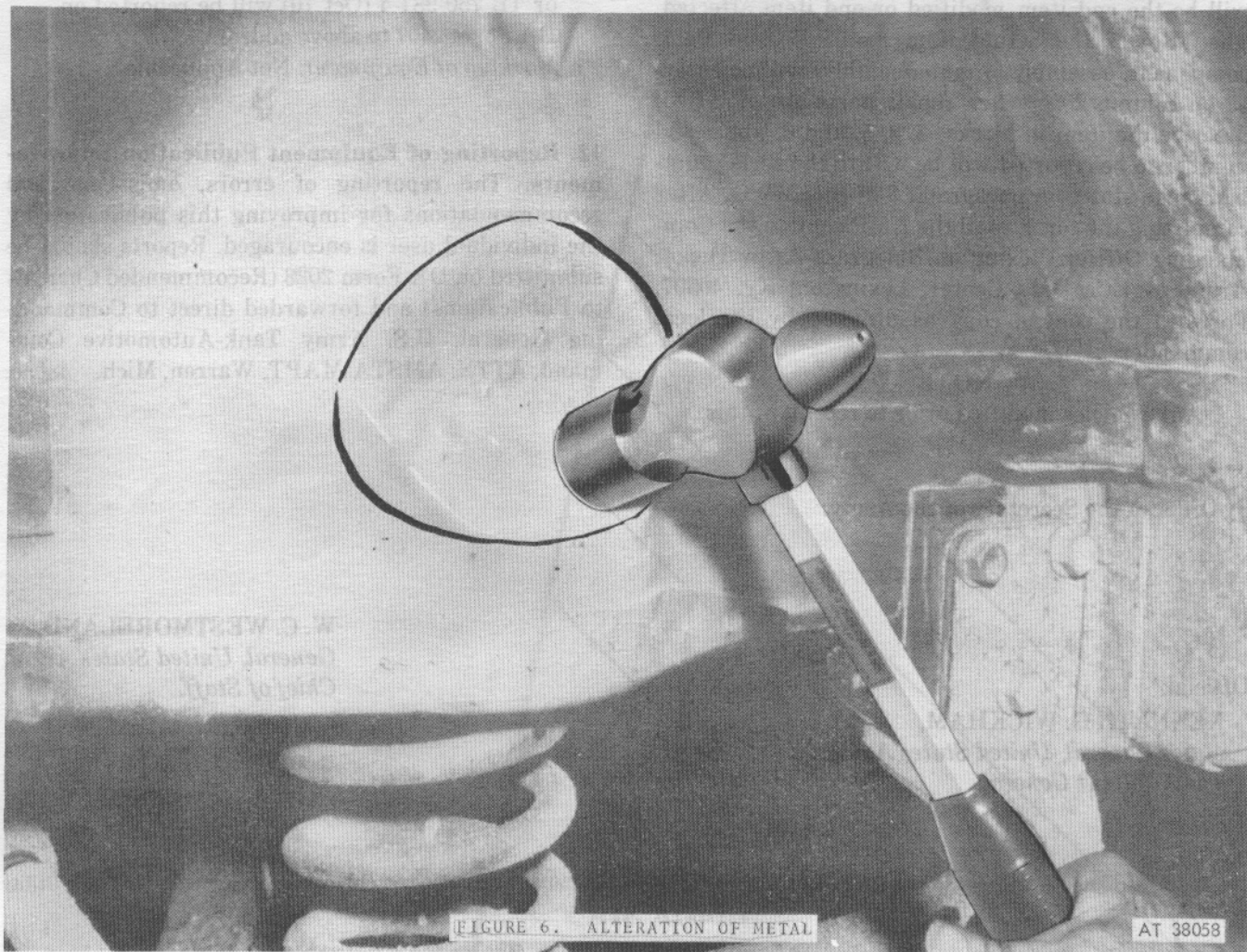


FIGURE 6. ALTERATION OF METAL

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Figure 6. Alteration of metal.

(9) Continue hammering until templates 3 and 4 fit reworked area.

(10) Repeat (5) through (9) above for opposite side of vehicle.

(11) Prepare reworked areas for brazing; refer to TM 9-237.

WARNING

Adequate fire hazard protection must be provided during brazing operation near vehicle fuel tank or tank must be removed. Refer to TM 9-2320-218-20 for fuel tank removal and installation procedures.

(12) Carefully hammer shut all seams which were separated during alteration without reducing depression.

(13) Braze outside seams as shown on figure 5.

(14) If desired, fill all seams left open by the above alterations with epoxy poastic auto body, type I, repair kit FSN 8010-615-5370. Refer to TB 9-2300-258-30.

(15) Clean and paint modified areas in accordance with TM 9-213.

(16) Install rear wheel and tire assemblies. Lower vehicle and install rear seat. Position and secure rear canvas panel and install spare wheel and tire assembly.

(17) Remove tire chain caution decal from windshield assembly.

10. Weight and Balance Data. The weight and balance change to the vehicle resulting from this modification is negligible.

11. Recording and Reporting of the Modification

a. *DA Form 2408-5 or DA 2409.* Record the modification on DA Form 2408-5 (Equipment Modification Record) when multiple-form assembled equipment logbook is applicable, or DA Form 2409 (Equipment Maintenance Log (Consolidated)) as indicated in TM 38-750.

b. *Completion of DA Form 2407 (Maintenance Request).* Identify the equipment for which the form

is initiated in blocks 2, 3, 5, and 6. Normally this will be the end item modified or end item affected. The FSN of the actual item modified (end item, component, assembly, or subassembly) will be entered on column 20h. When repair parts are modified, describe the item in blocks, 2, 3, 5, and 6. The serial number to be reported will be within the serial number range stated in paragraph 3 of this MWO. After completing the form, mail the NMP copy to the Commanding Officer, Lexington-Bluegrass Army Depot, Army Logistic Data Center, Lexington, Ky. 40507. Forward the control copy as directed by the local commander.

NOTE

Any vehicles modified prior to receipt of this

By Order of the Secretary of the Army:

Official:

KENNETH G. WICKHAM,
Major General, United States Army,
The Adjutant General.

Distribution:

To be distributed in accordance with DA Form 12-38, (qty rqr block No. 250) Organizational maintenance requirements for Truck, Utility: ¼ Ton, M151.

MWO by NMP letter, dated 26 October 1970, or TB 750-981-4 (Oct 70) will be reported on DA Form 2407 to above address.

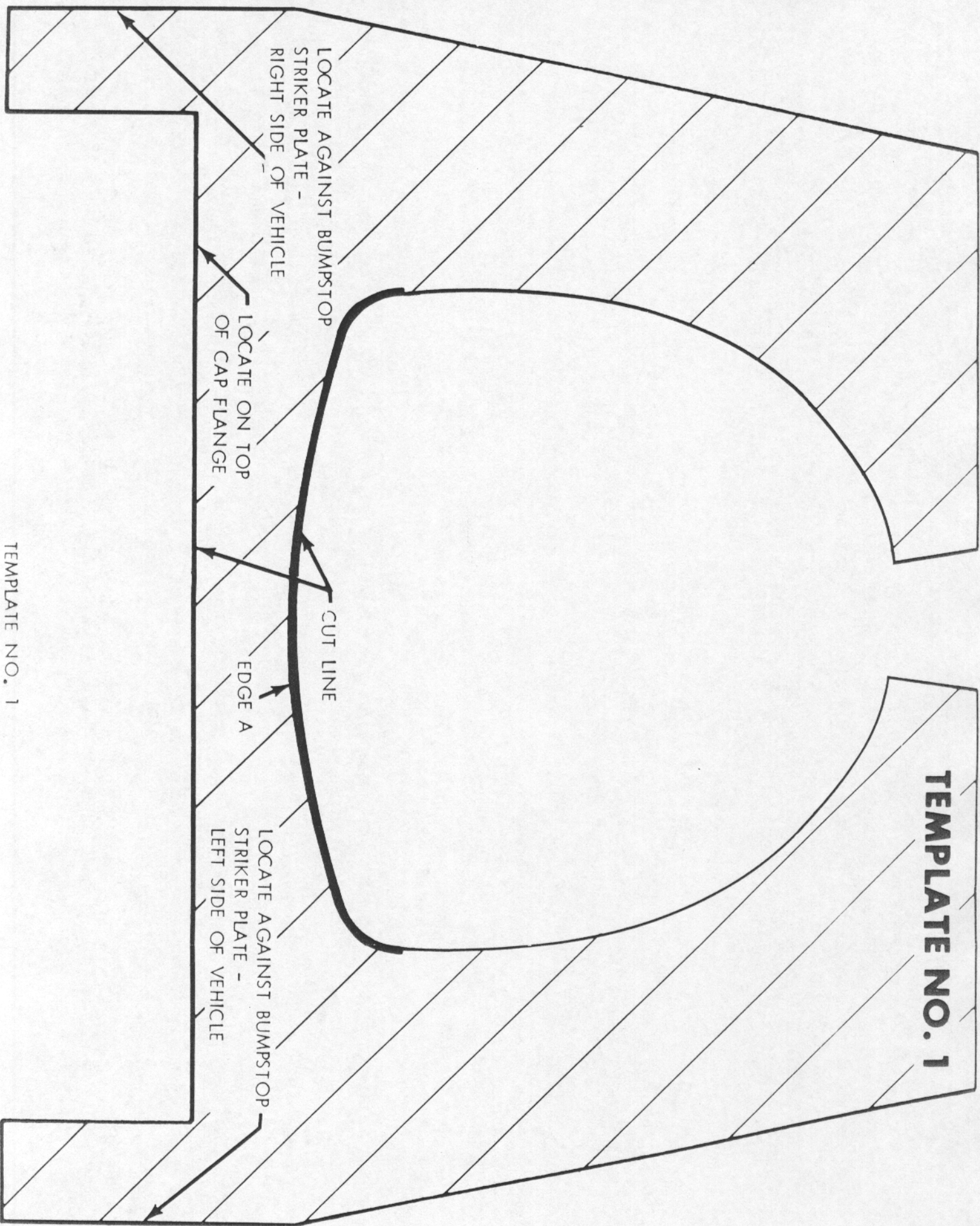
c. *Marking of Equipment.* Not Applicable.

12. Reporting of Equipment Publication Improvements. The reporting of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications) and forwarded direct to Commanding General, U.S. Army Tank-Automotive Command, ATTN: AMSTA-MAPT, Warren, Mich. 48090.

W. C. WESTMORELAND,
General, United States Army,
Chief of Staff.

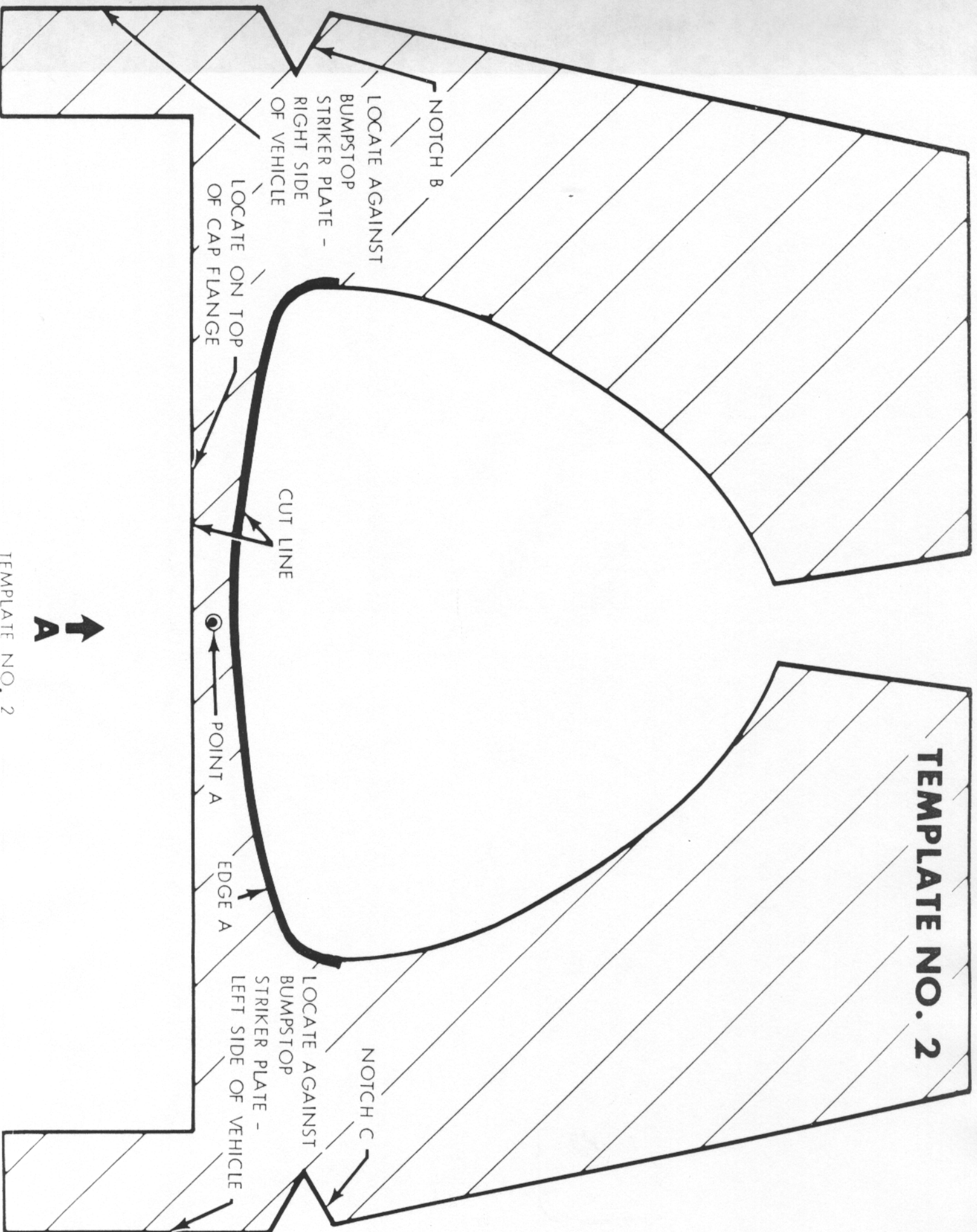
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TEMPLATE NO. 1

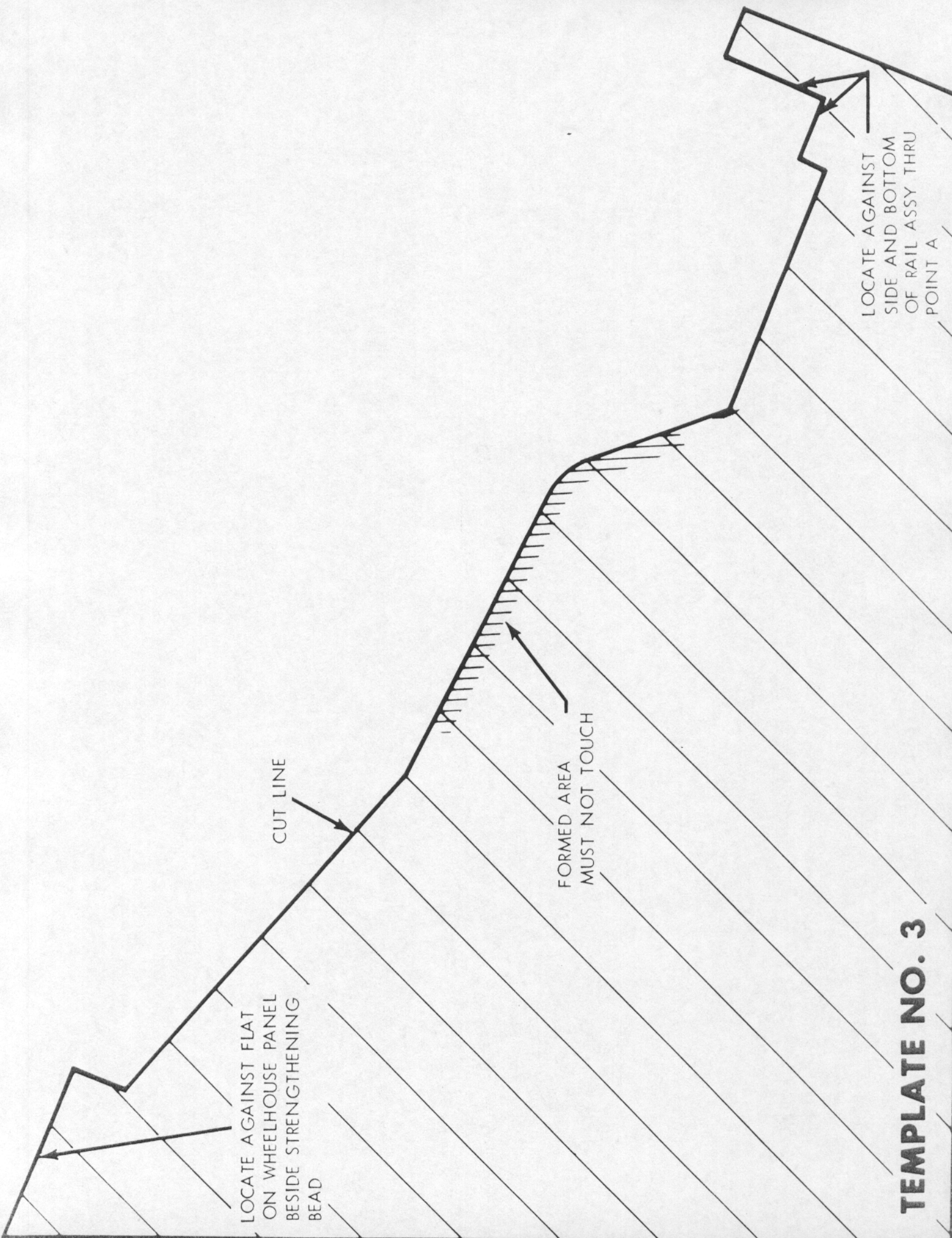


TEMPLATE NO. 1

TEMPLATE NO. 2



TEMPLATE NO. 2



LOCATE AGAINST FLAT
ON WHEELHOUSE PANEL
BESIDE STRENGTHENING
BEAD

CUT LINE

FORMED AREA
MUST NOT TOUCH

LOCATE AGAINST
SIDE AND BOTTOM
OF RAIL ASSY THRU
POINT A

TEMPLATE NO. 3

