

CHAPTER 4

1/4-TON TRUCK: M151, M718, AND M825 SERIES

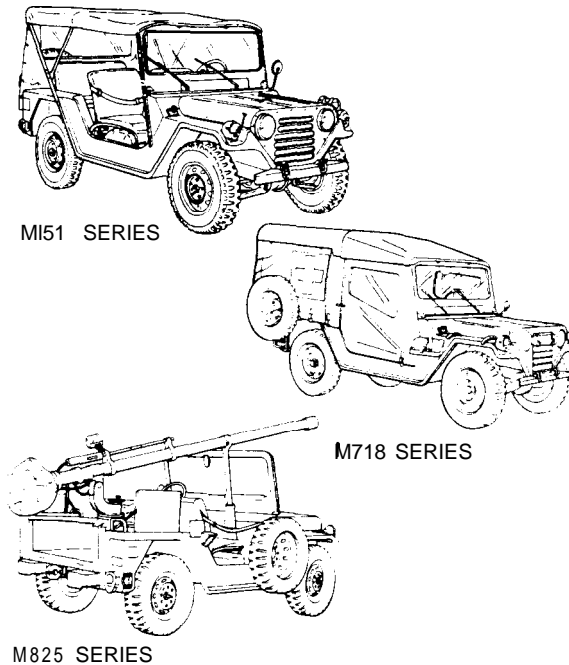
Section I. PRELIMINARY PROCEDURES

4-1. Component Removal.

a. Prior to rustproofing, the following components must be removed for access (see TM 9-2320-218-20 and TM 9-2320-218-34):

- (1) Spare tire and wheel assembly.
- (2) Release soft top rear panel tie-down straps, if equipped, and lay soft top panel over vehicle top.
- (3) Taillight assemblies (M151A2 Series only). Tape assemblies to bumperettes. Leave electrical leads connected.
- (4) Windshield frame-to-cowl seal.
- (5) Litter support and flange (M718A1 Series).
- (6) Gas tank.

b. The M151, M718, and M825 1/4-Ton Trucks referenced in this chapter are illustrated in Figure 4-1.



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Figure 4-1. M718, and M825
Series Trucks.

Section II. DRILLING AND CLEANING PROCEDURES

4-2. Drilling Procedures.

NOTE

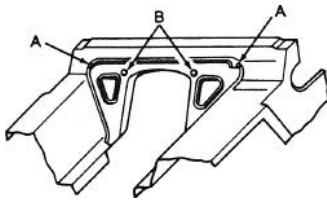
Unless **otherwise indicated**, all holes should be **sight drilled** and should be **1/2 inch (1.3 cm) in diameter**.

a. *General.* Refer to paragraph 3-15 for general drilling instructions.

b. *Drilling Engine Compartment [see Figure 4-2].* Drill two holes A and B in each side of firewall. Holes A are drilled into the edge of the raised area of the firewall. Holes B are drilled directly into the firewall.

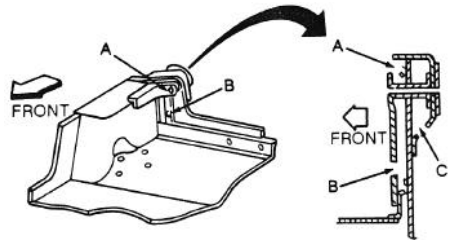
c. *Drilling Crew Compartment Inner Rails (see Figure 4-3).* Drill one hole A on each side of the crew compartment inner rails.

d. Drilling Spare Tire Mounting Bracket (see Figure 4-4). Locate by sight, and drill holes A, B, and C in spare tire carrier.



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Figure 4-2. Drilling Engine Compartment.



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Figure 4-4. Spare Tire Mounting Bracket.

e. Drilling Windshield Frame (see Figure 4-5).

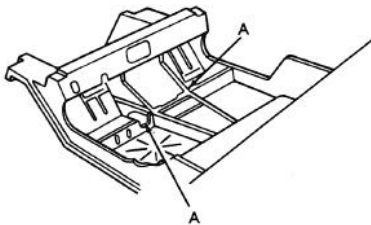
(1) Drill two holes A in the rear of windshield frame. Holes are to be drilled 7/16 inch (11 mm) from the top edge and 3 inches (7.6 cm) from each side edge.

NOTE

Drill holes B from underneath whenever possible.

(2) Drill a hole B in each side edge of windshield frame. Holes are to be drilled 1 1/2 inches (3.8 cm) from the top edge and 1/2 inch (13 mm) from the rear edge.

(3) Drill three holes C in the bottom edge of windshield frame. All holes are drilled 3/4 inch (19 mm) from the front edge of the windshield. One hole is drilled 1 1/2 inches (3.8 cm) toward the center from the hinges.



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Figure 4-3. Drilling Crew Compartment Inner Rails.

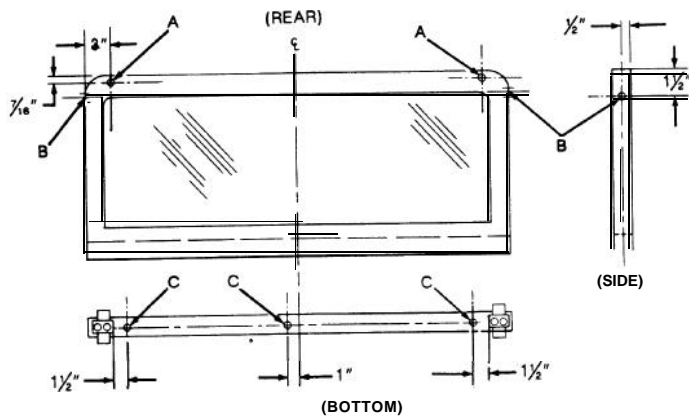


Figure 4-5. Drilling Windshield Frame.

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**f. Drilling Cargo Body Floor (M151 and M718A)
(see Figure 4-6).**

(1) Drill two holes A in cargo floor. Holes are to be drilled 13 3/16 inches (33.5 cm) from the floor plate weld seam and are to be sighted in line with the side walls of the fender wells.

(2) Drill two holes B in cargo floor. Holes are to be located 13 3/16 inches (33.5 cm) from floor plate weld seam and 3 1/2 inches (8.9 cm) from holes A.

(3) Drill two holes C. Holes are to be drilled 15 1/2 inches (39.4 cm) inside of the wheel wells, and 1 3/4 inches (4.4 cm) ahead of the floor plate weld seam.

(4) Drill two holes D in cargo floor. Holes are to be drilled in the center of the rear body reinforcement and 6 inches (15.2 cm) to either side of the body centerline.

g. Drilling Cargo Body Floor (M825 Only) (see Figure 4-7).

(1) Drill two holes A.

(2) Drill two holes B.

h. Drilling Underbody (M151 and M151A1) (see Figure 4-8).

(1) Drill all holes as shown.

(2) Holes D and F are drilled on the back side of the front crossmember.

(3) Holes A are drilled in the front bumper face for rustproofing the front framrails.

(4) Holes U are drilled in the rear face of the rear crossmember for rustproofing the rear framrails.

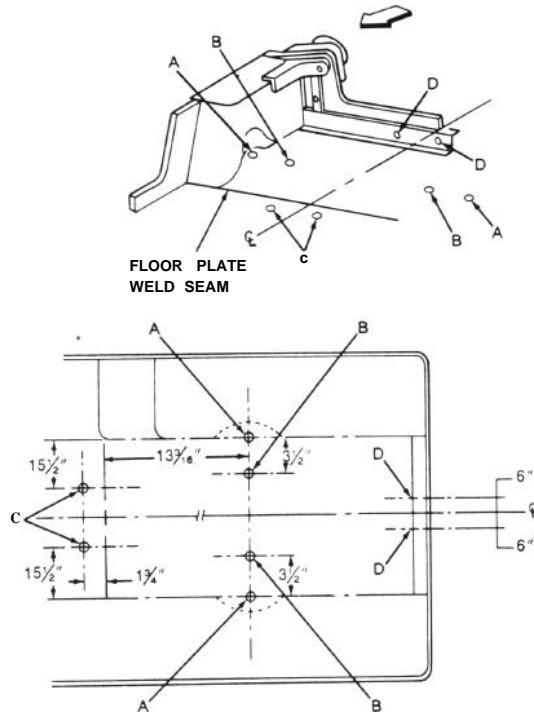


Figure 4-6. Drilling Cargo Body Floor (M151 and M718A).

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i. *Drilling Underbody (M151A2, M718A1 and M825) (see Figure 4-9).*

4-3. Cleaning Procedures.

(1) Drill all holes as shown.

(2) Holes V and W will penetrate two layers of metal on the M151A2 and the M718A1. They will penetrate only one layer on the M825 due to the rear cargo reinforcement having been removed.

(3) Two holes X are visually located on the bottom surface of the rear crossmember, directly in line with the outer bolts for the rear bumper guards.

(4) Holes D and F are drilled in the rear facing edge of the front crossmember. They are drilled about 1 inch (2.5 cm) from the angles.

(5) Holes Y and Z are drilled at the bottom of the inner and outer suspension arm brackets.

WARNING

When cleaning, water may be discharged in excess of 1200 psi (8274 kPa) from high pressure water equipment. Serious injury could result. Eye protection must be worn to prevent injury.

CAUTION

Steam cleaning will not be used.

a. Wash the interior of framerail structures through drilled access holes to remove mud, dirt, and rust. Use of a high pressure washer will facilitate this process. Observe the water flushed through the rails to determine when the structure is clean.

b. Allow at least four hours for vehicle drying. Additional drying time may be required if unfavorable weather conditions exist. Compressed air may be used to speed up the drying process.

c. Prime and paint those areas showing bare metal. Allow painted areas time to dry before rustproofing,

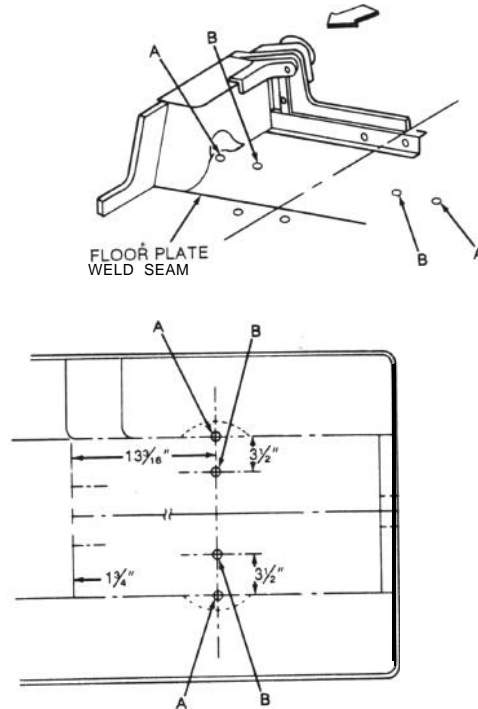
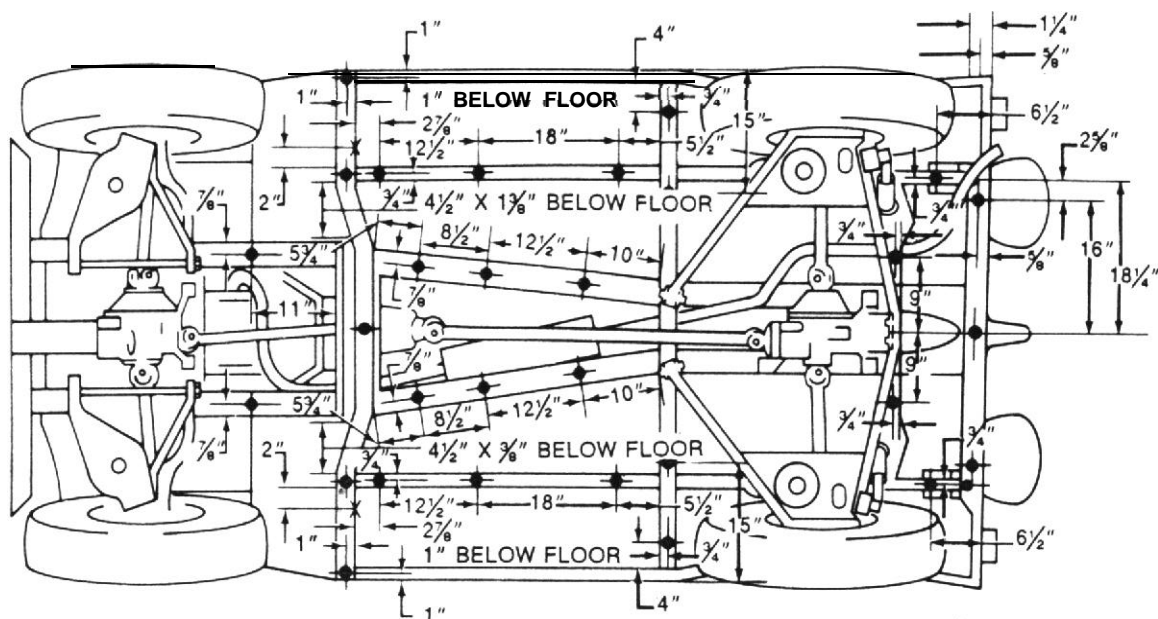


Figure 4-7. Drilling Cargo Body Floor (M825 Only).



NOTES:

1. TOLERANCE ON LONGITUDINAL DIMENSIONS +/- 1/2"
2. TOLERANCE ON TRANSVERSE DIMENSIONS +/- 1/4"
3. I IS OMITTED INTENTIONALLY

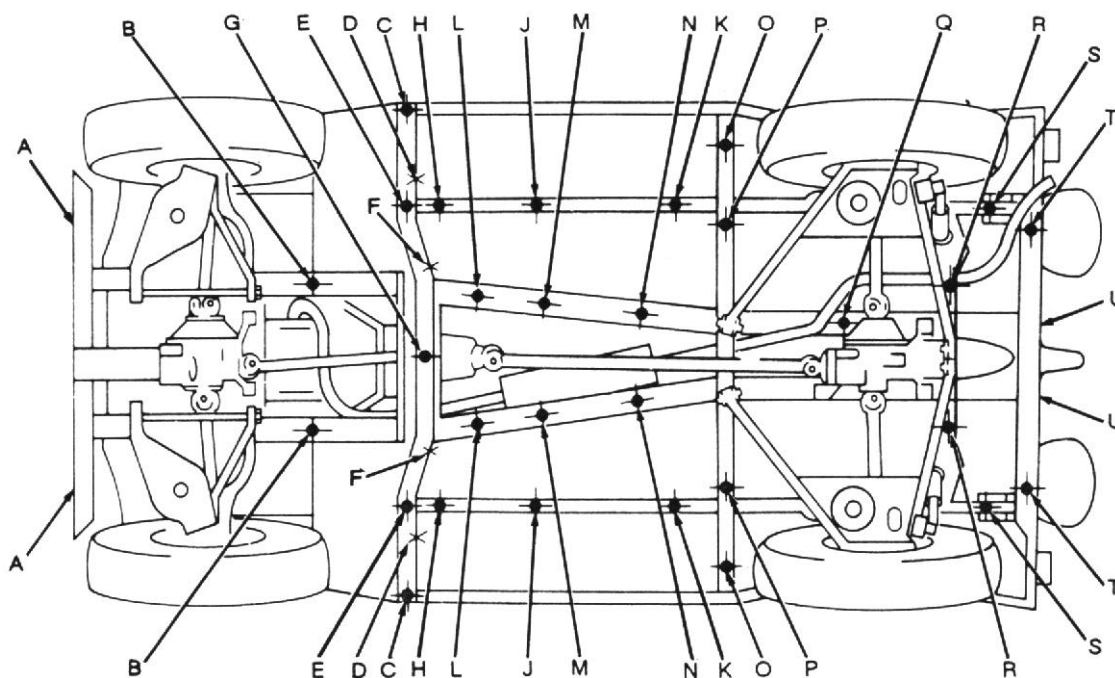
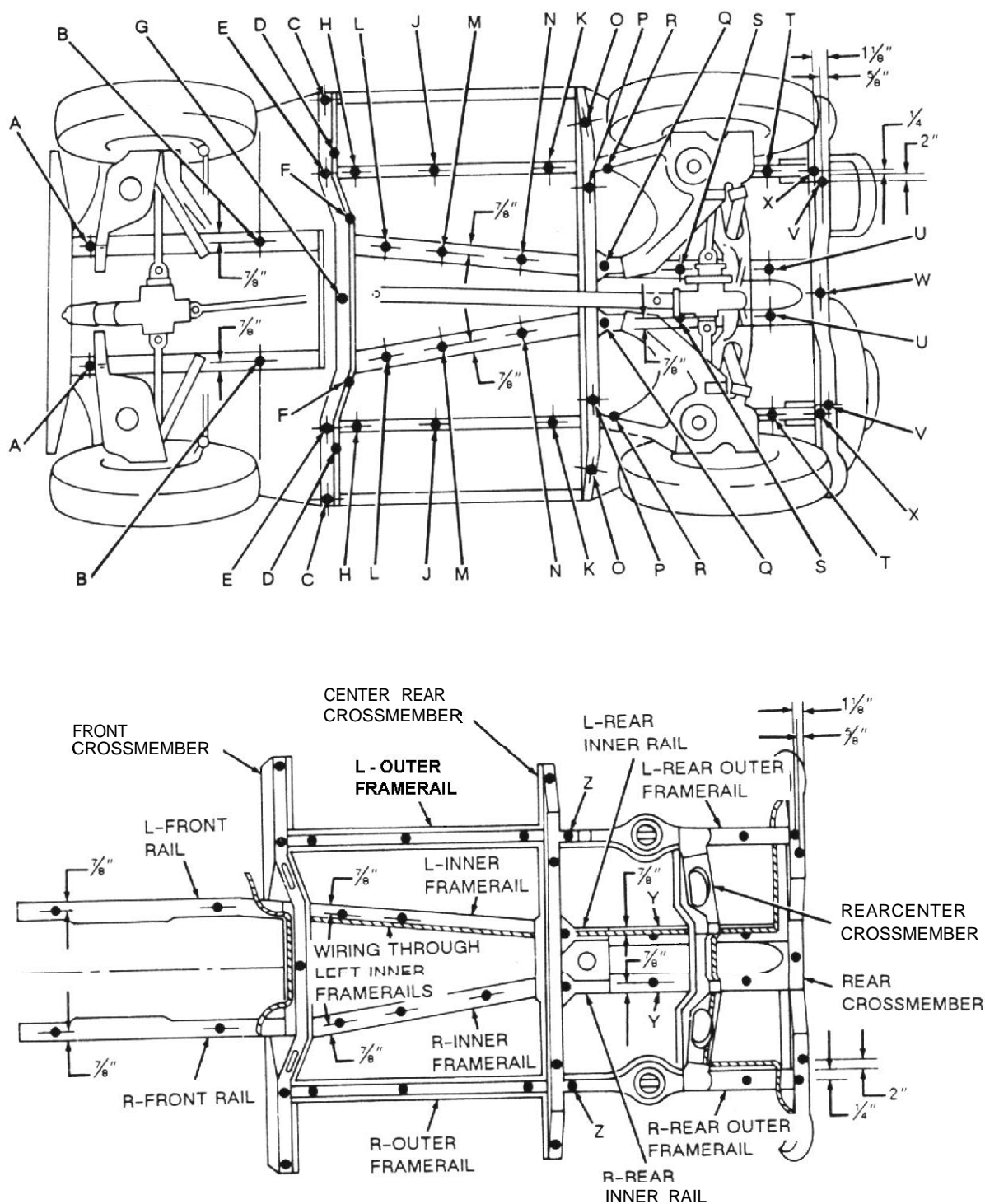


Figure 4-8. Drilling Underbody (M151 and M151 A1)



NOTE: I IS OMITTED INTENTIONALLY

Figure 4-9. Drilling Underbody (M151A2,

and M825).

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Section III. RUSTPROOFING PROCEDURES

4-4. Rustproofing Procedures.

CAUTION

Do not spray any portion of moving components, transmission, transfer case, cylinders, pumps, valves, prop shaft, exhaust system, rubber bump stops, brakedrums, brake backing plates, parking brake linkage, shift linkage, tires, electrical components, engine linkages, or air intake systems. Cover all areas with paper where necessary.

NOTE

- There are areas where a 10 mil wet film thickness cannot be obtained without wasting a large amount of compound. In those areas, complete coverage of the surface area is necessary at whatever thickness is obtainable.
- For rustproofing procedures of specific body items, refer to Figure 4-10 through Figure 4-15.

a. *Dry Film Thickness Requirements.* A five mil dry film thickness is required for adequate rustproofing protection. A 10 mil wet film thickness is required to obtain a minimum five mil dry film thickness. If needed, the vehicle can be resprayed to reach proper thickness.

b. *Spraying Pressure.* The rustproofing compound should be applied to sheet metal and structural members in even coats. Spraying pressure should be as low as possible while maintaining an even spray pattern. An acceptable starting point is 40 psi (276 kPa), but adjustments may have to be made, due to temperature changes and differences in rustproofing compound. Using too much pressure will waste compound by causing overspray and excessively thick coatings.

Rustproofing Firewall (see Figure 4-10).

(1) Insert flexible tool as far as possible into firewall holes A and B, then spray in all directions while slowly withdrawing tool. Enlarge holes to allow entrance of flexible tool, if necessary.

(2) Plug all holes.

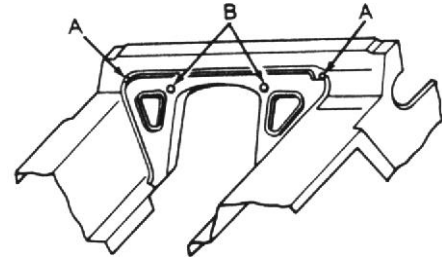


Figure 4-10. Rustproofing Firewall. TA504783

d. *Rustproofing Crew compartment Rails (see Figure 4-1).*

(1) Insert 90 degree short tool into hole A of the inner rails as far as possible, then spray in all directions.

(2) Plug all holes.

(3) Use short rigid tool to spray the floor areas under the gas tank and all areas including the surrounding sills.

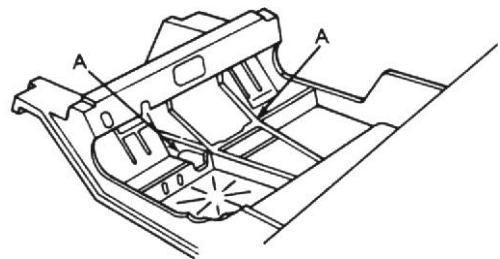


Figure 4-11. Rustproofing Crew Compartment Rails. TA504784

e. *Rustproofing Spare Tire (see Figure 4-4).* Insert 90 degree tool into holes A, B, and C of the spare tire carrier, then spray in all directions.

f. Rustproofing Windshield Frame (see Figure 4-12).

NOTE

Only holes B and C are used on the M825 Series.

(1) Insert flexible tool into hole A of the upper frame and hole B of the side frame, then spray slowly while withdrawing the tool.

(2) Insert 90 degree short tool into holes C of the lower frame and spray in all directions.

(3) Plug all holes.

g. Rustproofing Cargo Body (see Figure 4-13).

(1) Insert 90 degree short tool into holes A, B, C, and D of the cargo bed and spray in all directions.

(2) Use the short rigid tool to spray all surfaces of the taillight openings.

(3) (M825 only). Insert 90 degree shon tool in holes A and B and spray in all directions.

(4) Plug all holes

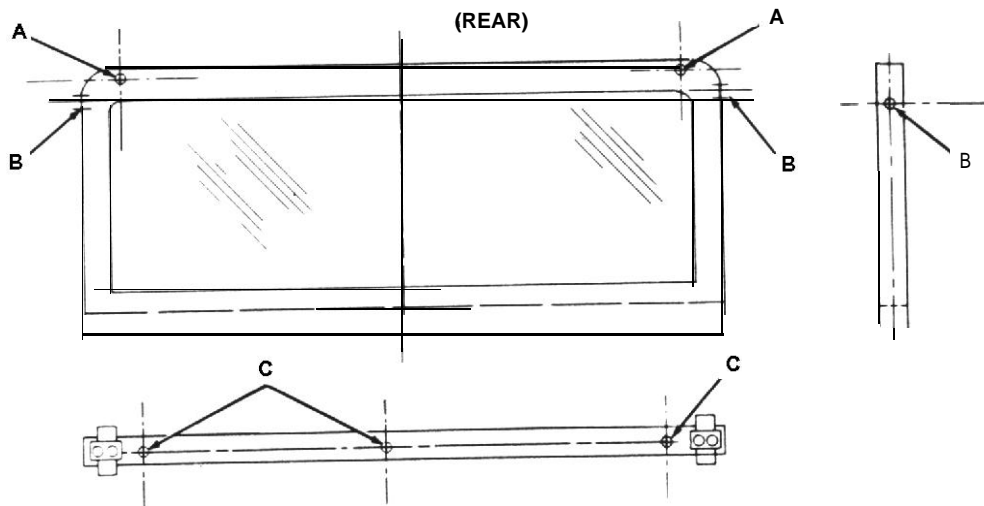


Figure 4-12. Rustproofing Windshield Frame.

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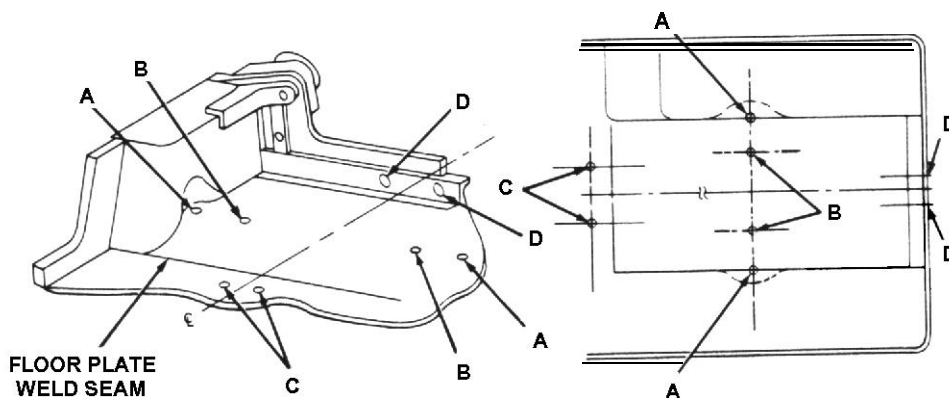


Figure 4-13. Rustproofing Cargo Body.

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h. Rustproofing Underbody (M151 and M151A1)
(see Figure 4-14).

(1) **Insert** long rigid tool into the front framerail holes A as far as possible and spray while slowly withdrawing tool.

(2) Insert 90 degree short tool into the following areas of the underbody and spray the rustproofing compound in all directions:

- (a) Front framerails - holes B.
- (b) Front crossmember - holes C, D, E, F, and G.
- (c) Center outer framerails - holes H, J, and K.
- (d) Center inner framerails - holes L, M, and N.
- (e) Rear crossmember - holes O and P.
- (f) Rear framerails - holes Q, R, and S.
- (g) Rear sill - holes T.

(3) Insert long rigid tool as far as possible into the rear sill hole U, then slowly withdraw tool while spraying.

(4) Use short rigid tool to completely spray all exterior underbody surfaces.

(5) Plug underbody holes A, U, F, and D.

Rustproofing Underbody (M151A2, M718, and M825) (see Figure 4-15).

(1) **Insert** 90 degree short tool into the following areas of the underbody and spray the rustproofing compound in all directions:

- (a) Front framerails - holes A and B.
- (b) Front crossmember - holes C, D, E, F, and G.

(c) Center outer framerails - holes H, J, and K.

(d) Center inner framerails - holes L, M, and N.

(e) Rear crossmember - holes O, P, Q, and R.

(f) Rear framerails - holes S, U, and T.

(g) Rear sill - holes V, W, and X.

NOTE

Holes 1 are the spring openings.

(2) **Insert** long rigid tool into the rear suspension arm holes 1 as far as possible. Withdraw slowly while spraying in all directions.

NOTE

Holes 2 are the shock absorber openings.

(3) **Insert** long rigid tool into the rear suspension arm holes 2 as far as possible. Withdraw slowly while spraying in all directions.

(4) Use short rigid tool to completely spray the underbody.

(5) Plug front crossmember holes D and F.

NOTE

- **Holes Y are located in the sides of the frame members.**
- **Holes Z are located under the rear suspension arms.**

(6) **Insert** flexible tool into rear frame sills Y and rear framerails Z and spray in all directions.

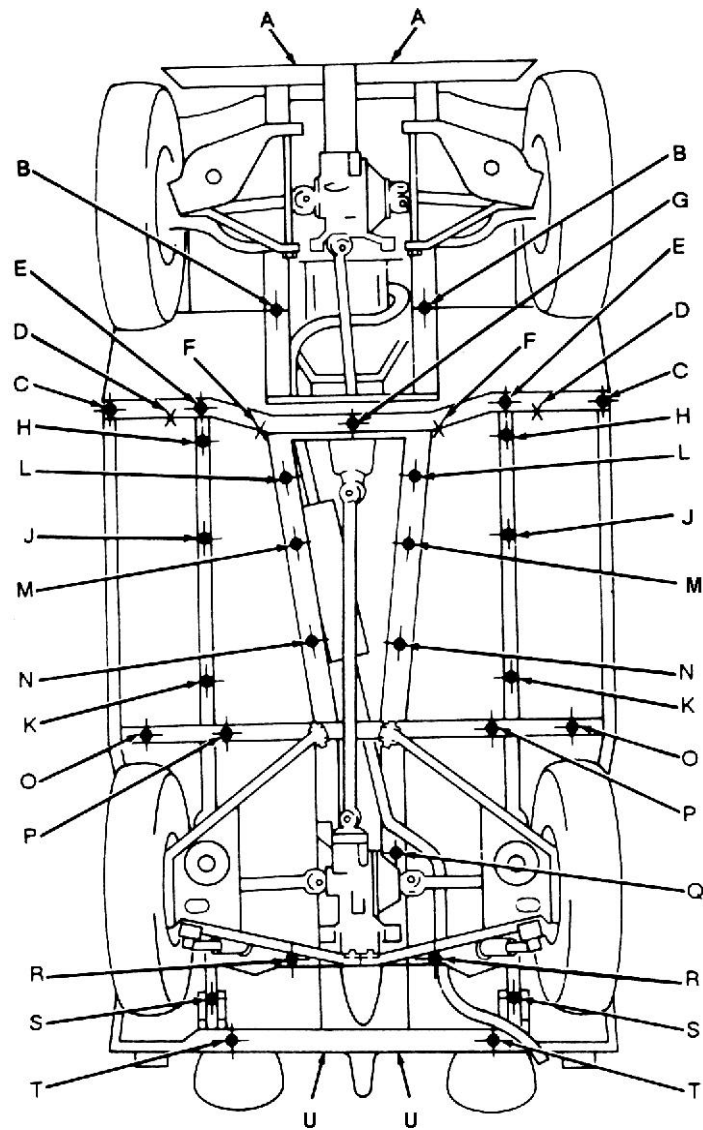


Figure 4-14. Rustproofing Underbody (M151 and M151A1)

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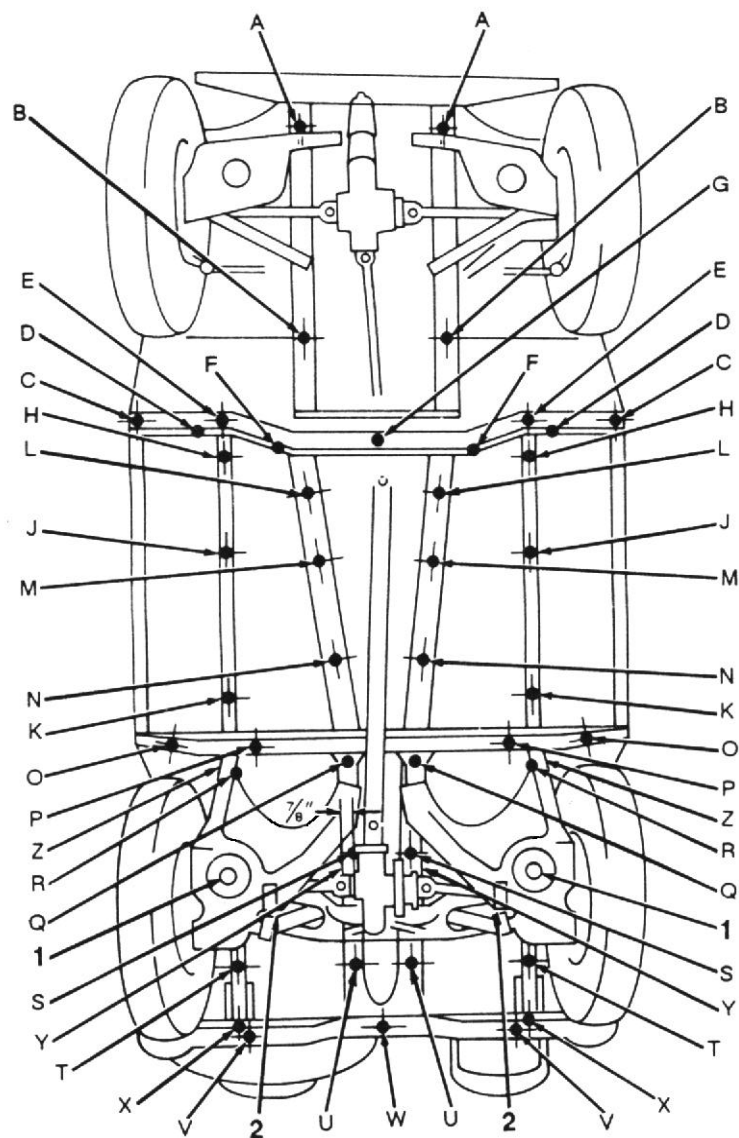


Figure 4-15. Rustproofing Underbody (M151A2, M718A. and

4-5. Rustproofing Inspection.

a. Check the vehicle to ensure that all areas requiring rustproofing compound have been properly and completely coated.

(1) Check seams, welds, corners, and boxed areas to ensure that they are adequately coated.

(2) Check wet film thickness with a wet film thickness gage (see Figure 4-16). A wet film thickness of 10 mils is required. In areas where a wet film thickness of 10 mils cannot be obtained or where thickness cannot be measured, inspect for completeness of coverage.

(3) Check all drain holes to ensure that they are open.

(4) Check all inspection holes and drilled access holes to ensure that compound coverage is adequate. Use of a high intensity inspection light will help with this process.

(5) Check vehicle to ensure that no compound has been applied to prohibited areas (see CAUTION, paragraph 4-4).

NOTE

Plugging of access holes may be delayed until after vehicle inspection, if inspection occurs immediately after rustproofing. If

inspection is delayed too long, rustproofing compound may drip from access holes.

b. Plug access holes.

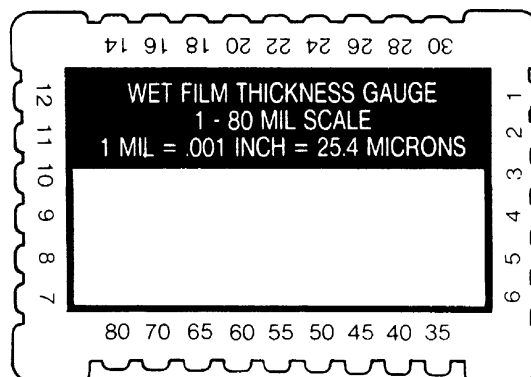


Figure 4-16. Film Thickness Gage.

4-6. Component Installation.

Install all components that were removed paragraph 4-1 of this chapter (see TM 9-2320-218-2 and TM 9-2320-218-34).