

# Installing a Deep Water Fording Kit on an M38 Jeep

by Joe Zylwitis

This article will show how to install a Deep Water Fording Kit on an M38 jeep. The installation process should be the same for an M38A1, M-17, and a variety of other vehicles. During the past year, a number of N.O.S. Deep Water Fording Kits have come onto the surplus marketplace, and, as the owner of a 1958 M38, I just had to have one. It seems that since the restoration of any military vehicle is finished, one is always looking for "options" to add to make their piece of history just a little bit cooler.

It seems that the Government tried to save paper by not including instructions with any of these add-on kits. At least when you buy that new gas grill, you have the option of trying to interpret the English/Chinese instructions that come with your grill. Your only option with the fording kit, however, is to figure it out on your own. As a result, I thought I would

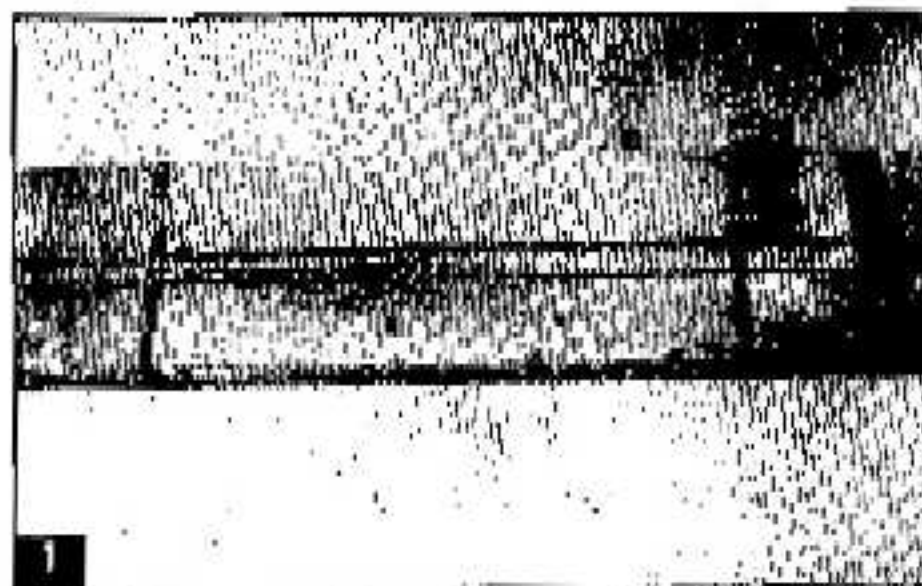
write this article to function as "the missing instructions."

Of course, any real guy doesn't look at the instructions, but just in case one should need a little help, this will give you the steps for a proper installation. By "proper," I mean, "what bracket goes where and which bolt is used for what application." It should serve as a buffer against those folks at rallies who delight in saying "that's not the right bolt in that place." For the guys that don't care what bolt goes where, this set of instructions will also serve to balance the bolts and holes thereby insuring that one doesn't end up with any "spare" parts.

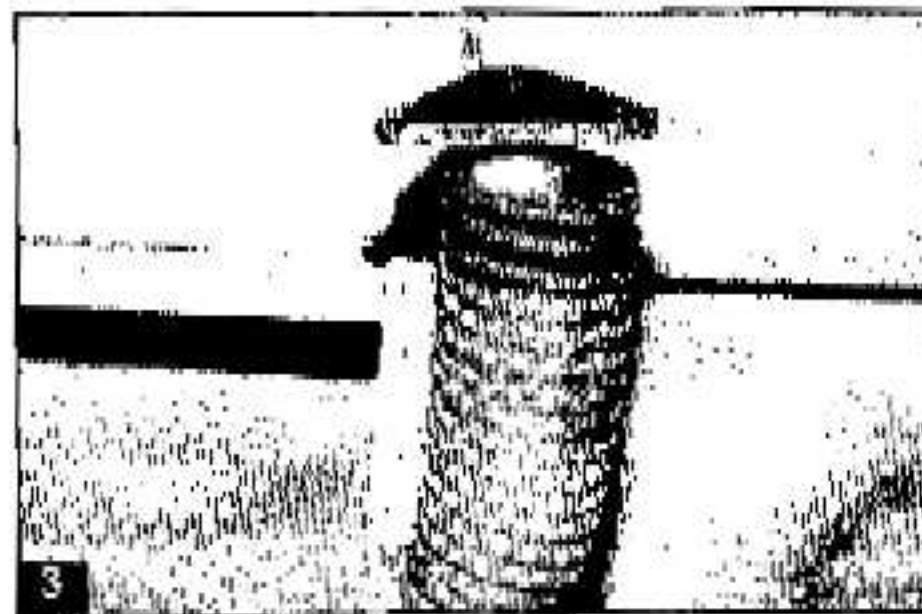
Before starting on this endeavor, memorize two simple rules for working on military vehicles:

**Rule 1: Nothing is ever as easy as it looks.**

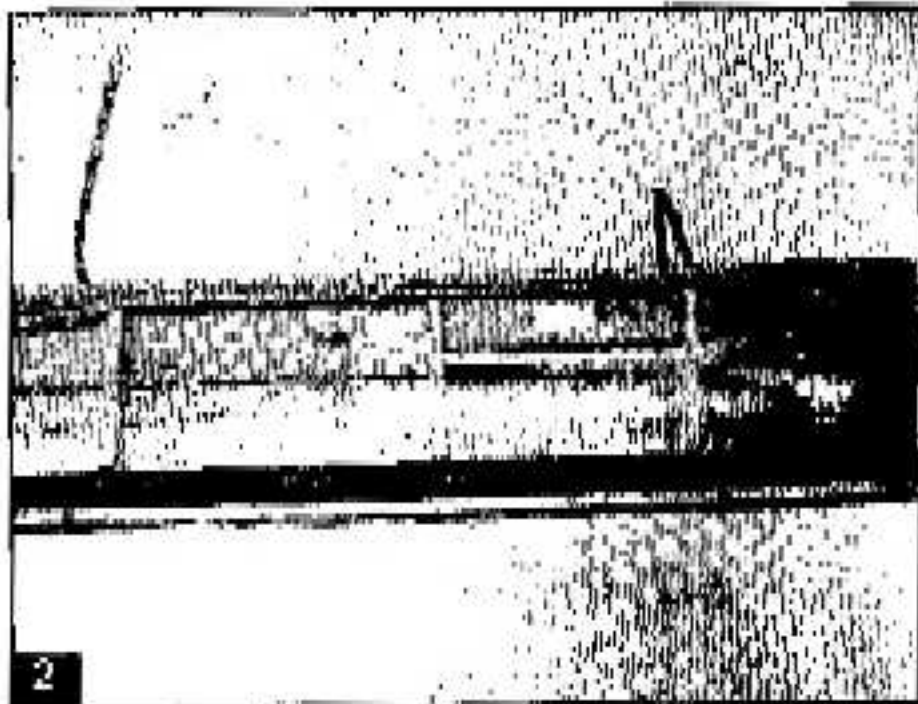
**Rule 2: Memorize Rule One!**



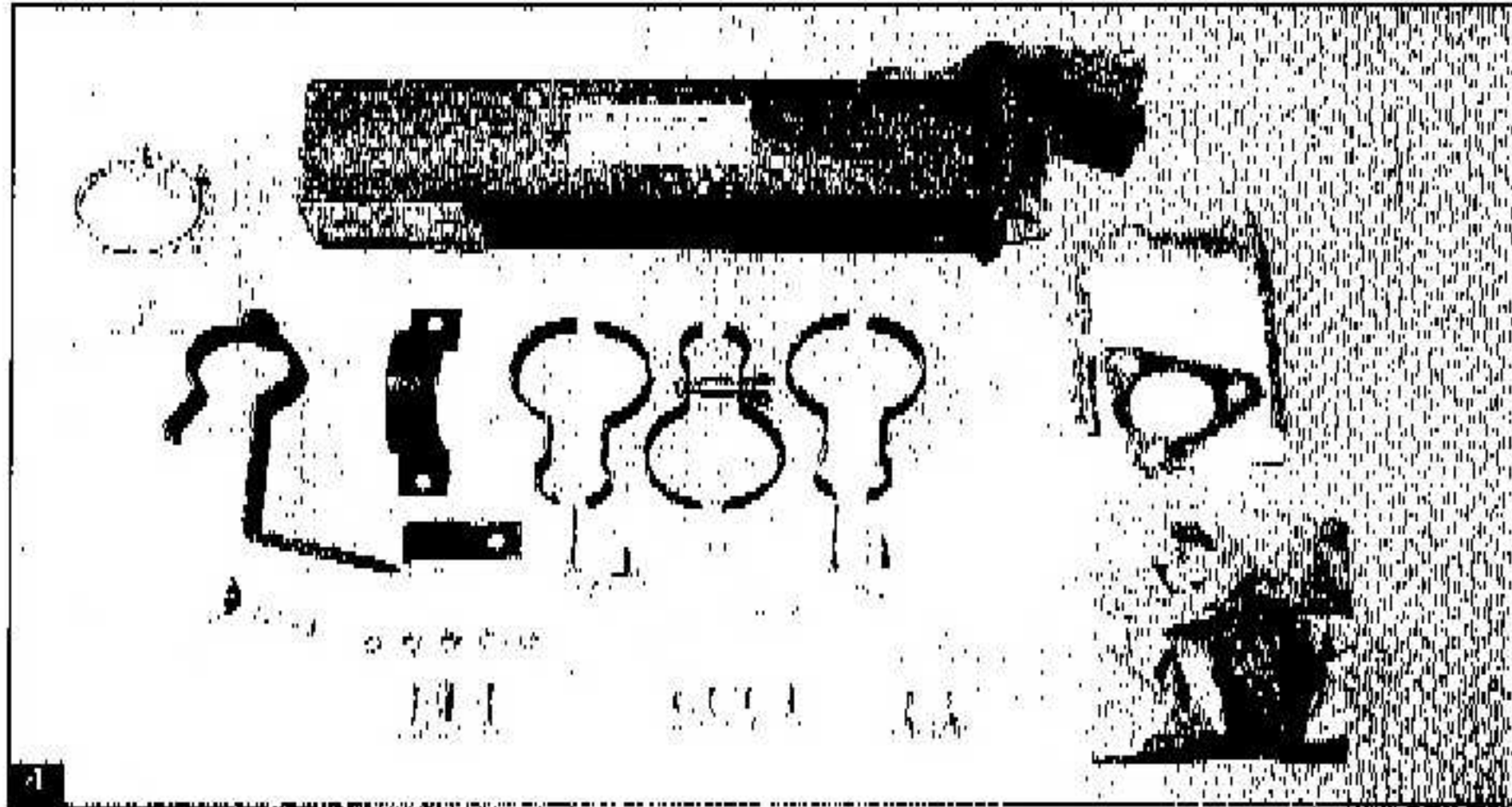
To begin, lay the big wooden crate that contains your treasure on the floor. You will see the steel bands are secured by staples on one side. This is the bottom of the crate.



For shipping, the exhaust pipe extension is packed in the flexible hose.



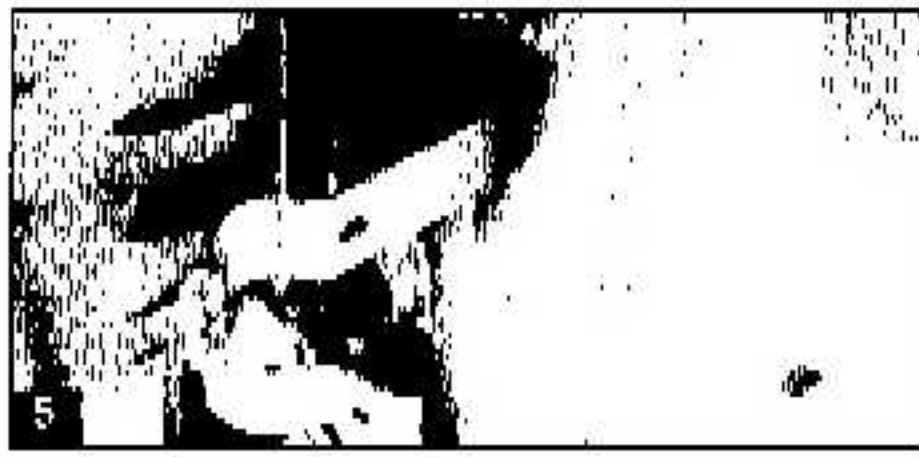
The contents should be one 74-inch piece of rubberized flexible hose, a 57-inch metal support rod, a corrugated box of parts, and an exhaust pipe extension. For shipping, the exhaust pipe extension is packed in the flexible hose. Even if you use extreme caution in removing the exhaust pipe, you will tear the flexible hose. This is because 48-year-old rubber hose doesn't want to bend without cracking. The conditions in which your kit was stored will also make a difference in the condition of this hose. Not to worry, we're going to replace that hose with a brand new Gates Air and Vapor Duct Hose, Series 635B, Item 4883-4812, Part #301213. The difference is this hose is the 2 1/2-inch inside diameter instead of the 2 8/32-inch specified in the ORD-8. I had to order mine through an industrial hose supplier, and it is only available in 10-foot lengths. So, whatever you paid for your fording kit, add another 70 bucks for a new flex hose. If you are contemplating purchasing a kit, I see that Army Jeep Parts is selling one for an M38A1 with a new hose included. This might be the most cost-effective way to go, depending on what you will pay for one without the new hose. Now let's inventory the contents of the corrugated box.



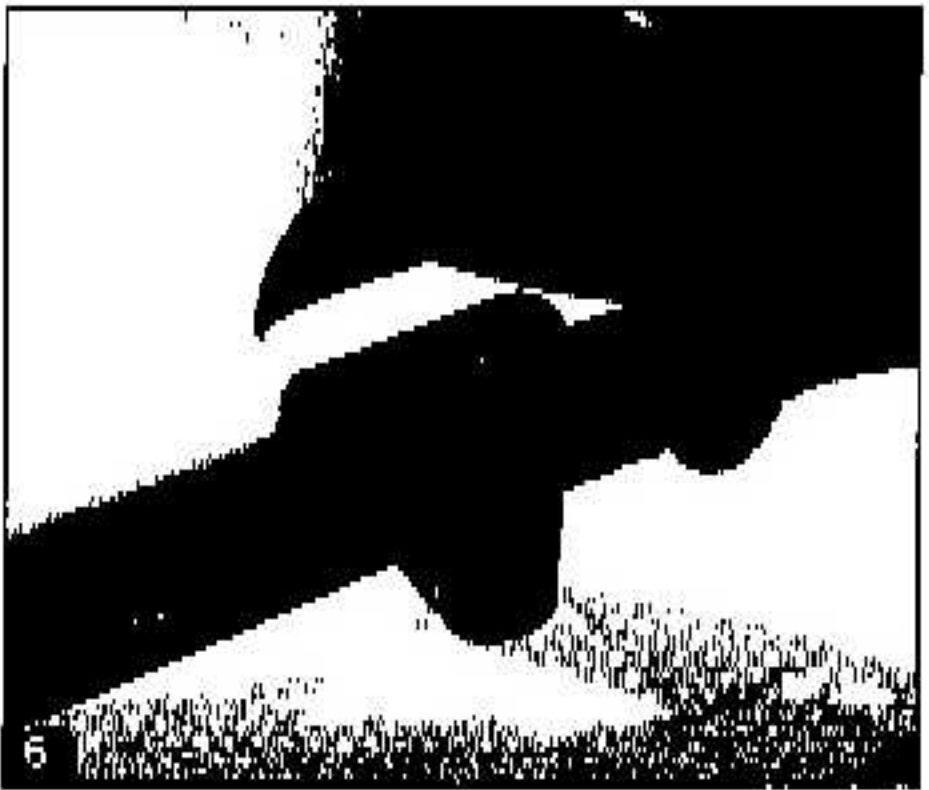
There should be six clamp halves, one hinged bracket, one half round bracket, one C bracket, and three bags. The bags should contain one hose clamp, one exhaust gasket, and numerous nuts and bolts. An inventory of this bag shows that we have:

- |  |                              |
|--|------------------------------|
| 3 - 1" 5/16 x 24ni bolts                                       | 4 - 1/2" 5/16 x 24ni bolts   |
| 2 - 5/16" x 5d hex nuts  | 1 - 5/8" spacer              |
| 3 - 1/2" lock washers  | 3 - 1/2" wing nuts           |
| 1 - 1" 5/16 x 18ni Bolt  | 1 - 5/16" wing nut           |
| 6 - 5/16" x 5dni brass self-lock nuts                          | 3 - 5/16" lock washers       |
| 3 - 5/16" small flat washers                                   | 2 - 5/16" large flat washers |
| 3 - 1/2" x 1 1/2" Roundhead flathead screws                    |                              |
| 2 - 1 5/16" x 18ni recessed-head bolts w/integral lock washers |                              |

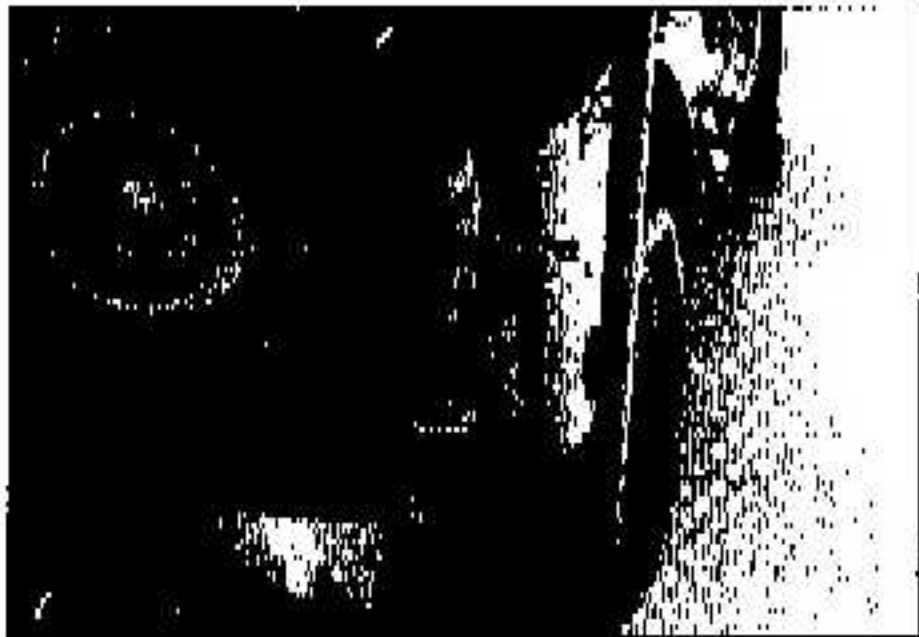
One of the clamps is shown assembled using 2 clamp halves, 1 roundhead screw, 1 lock washer, and 1 wing nut. After cleaning and painting all of the parts, I was ready to go to work. In researching the TM-9 and DHD-9, I was able to find what bolt and nuts went with what application.



Looking at the assorted parts I decided to start with the exhaust pipe and hanger because it looked easier. (I forgot Rule 2.) Attach the hinged bracket to the top right rear of the body tub with the hinge opposite the spacers using 2 of the 1/2" 5/16 bolts with 2 of the brass self locking nuts. Use the two large flat washers inside the body tub next to the lock washers.



Attach the Exhaust pipe extension to the tailpipe using the 3 1" x 5/16ni bolts, the remaining 3 brass self-locking nuts, and the exhaust gasket



Now clamp the exhaust pipe extension in the hinged clamp using the 1" x 5/16ni bolt and 5/16" wing nut, 1 small 5/16" flat washer, and 1 5/16" lock washer. I put the lock washer under the bolt head to hold it while turning the wing nut. If this all went together easily, do not buy lottery tickets ever again, because you just used up all the luck you will ever have! As you can see in the photo above, mine did not line up the best.



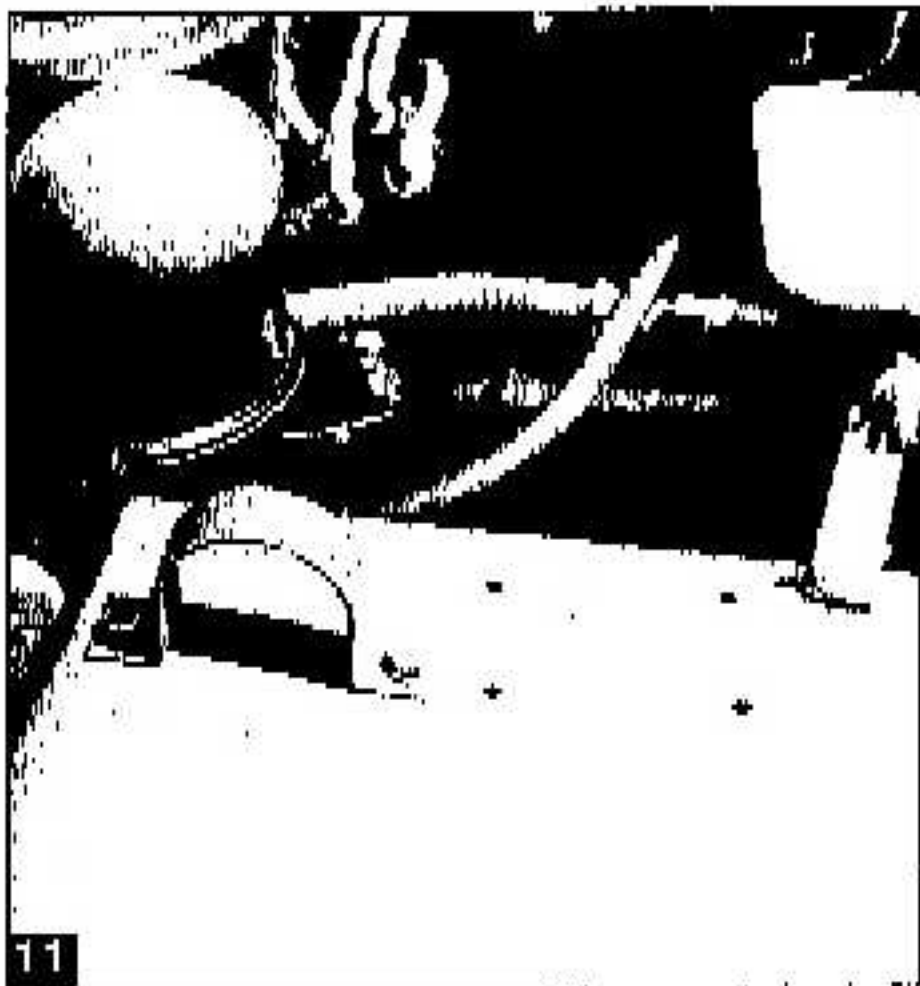
Remember Rule 1? Now the fun begins because you have to loosen both exhaust hanger brackets and move the whole exhaust system to get the exhaust pipe horizontal and the hangers to line up. This is the easy part, remember? After about an hour of prying, bracing, and cursing (I really believe the cursing helps a lot), I was finally able to line everything up. At this point I was wondering that if I quit now and grabbed a bear, would anyone notice that only the back was done? Remember Rule 1? Oh well, on to the front.



Actually, the front section was a lot easier and fairly straightforward. Start by removing the shovel, if installed. Next, remove the cover plate on the right side of the hood. Now, remove the flexible hose support to the body. There should be two holes, one on the top and one on the bottom near the shovel bracket.



Those holes may have a brass insert in them that give the impression that a smaller bolt should be used. Remove these inserts and you will see that the two 5/16" x 1" recessed hood bolts fit these holes. Attach the flexible hose support by inserting one of the bolts through the hole in the bottom of the support rod and fasten to the bottom hole. Use the C-clamp with the second bolt and mount to the upper hole.



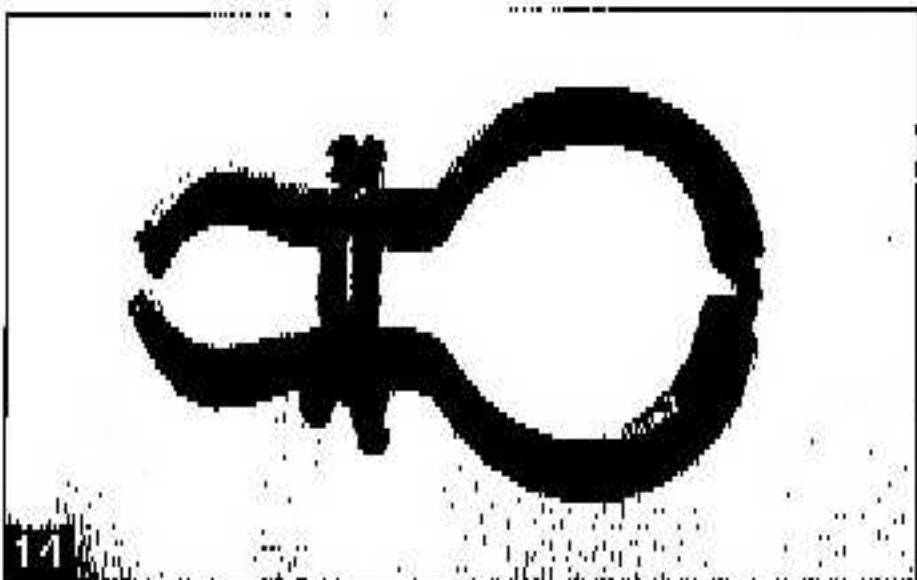
With the parts left at this point, it should be pretty clear where they go. Attach the half-round bracket to the fender using the rear-most holes below the hood cutout using the 2 remaining 1/2" x 24" bolts, 5/16" lock washers, 5/16" flat washers, and 5/16" hex nuts. Mount with the flat washers, lock washers, and hex nuts on the bottom of the fender.



Now trim the new flexible hose to 74 inches. If the piece of hose from the air filter to the air intake pipe is in rough shape, replace it with the leftover piece of hose. Remove the clamp and metal tube from the old flexible hose and install the new one. Remove the air pre-cleaner (mushroom) from the air cleaner and attach to the metal tube on the flexible hose.



Slide the flexible hose through the half-round clamp on the fender and, using the hose clamp that came with the kit, attach the flexible hose to the air cleaner.



Now loosely assemble the six clamp halves and 1/2" hardware using the photo (above, left) as a guide. Attach one clamp to the top of the support tube and the flexible hose. Space the other two clamps, one on the lower part of the support and one in the middle (above right). Something curious, there are three clamps for the flexible hose in the kit, yet all of the pictures in the TM-9 and OHD-9 only show two clamps.



The final step is to replace the shovel. A trick that I use is to cut a small piece of rubber tubing and put it on the point of the shovel. This will keep the shovel from wearing the paint off of the body tub at this point. Make sure that the windshield can still be lowered, then, attack a beer! You're done! Stand back and admire your work.

This has been my best guess at how this installation should be accomplished. If anyone knows where I've made an error, please let me know. Although I like the look of the installation, that bare spot in the hood next to the flexible hose bothers me. I guess I'll just have to find the glove cable receptacle and mount that next. Of course, if someone would like to donate a windshield, I'd love to do an article on installing it. If not, I see there are heater kits available. Maybe I'll try one of those. I wonder if they come with instructions?



