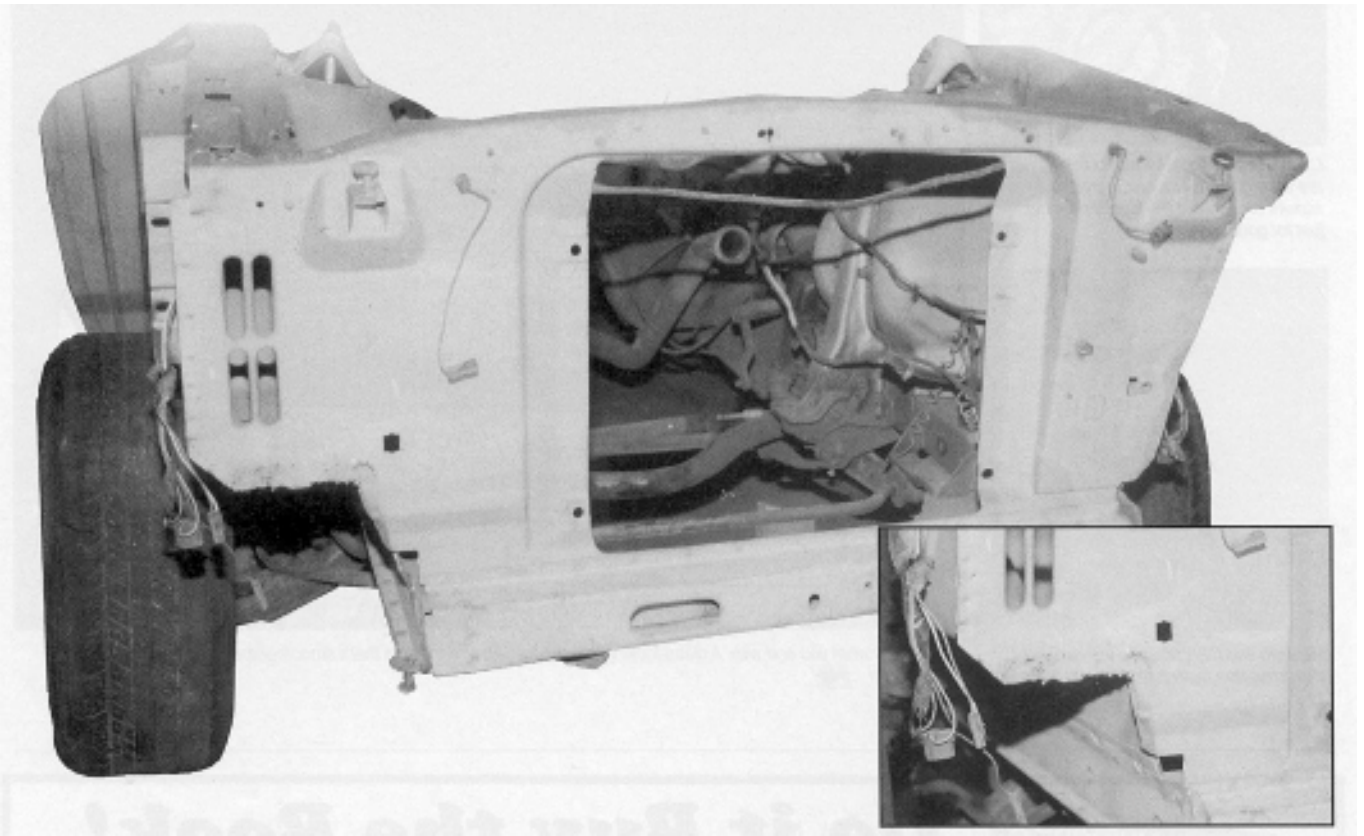


Replacing Radiator Supports

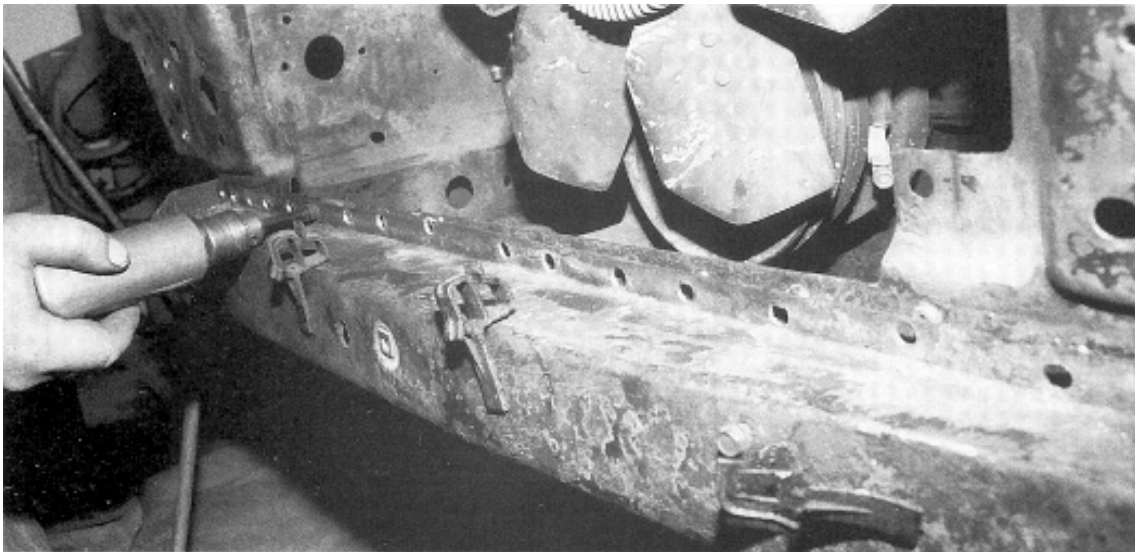


13 PHOTOS

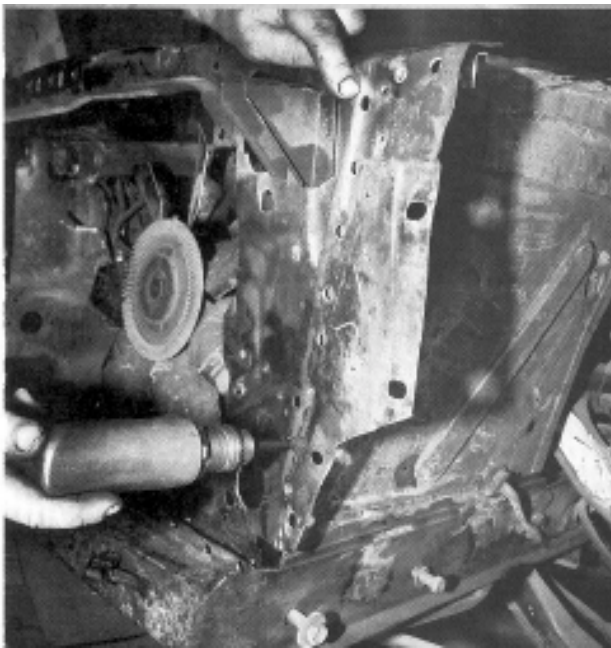
Radiator supports are often neglected areas on a restoration. Although our example is a Mustang these same techniques apply to any radiator support on a UNIBODY AUTO. Problems are most often brought on by leaky cooling systems and battery's being mounted up front against the support. If your vehicle has ever been in a front end collision, it's pretty likely that the core support has gotten banged up and probably not repaired properly.

Assuming that there is no existing major collision damage, meaning that the engine compartment aprons or forward framers have not been pushed around or back, a core support replacement is straight forward and can be done by almost anyone with basic body hand working tools, and a home mig welding unit or ox-acetelene. Reproduction replacement radiator core supports for all 1965-73 Mustangs are available through almost all Mustang parts specialists, and original Ford parts are still available for 1965-66 and 1967-68 models through the same parts specialists, as well as dealership parts departments. If you are going to use a salvage used support you do not want any sheetmetal from a "rust belt" salvage yard. There are plenty of sources in the nice arid southwest parts of the USA for rust-free panels from "retired" pony cars. If you do end up using salvage parts, just make sure UPFRONT (pun intended) that the replacement used core support is rust-free and is from a car that hasn't been hit on the nose.

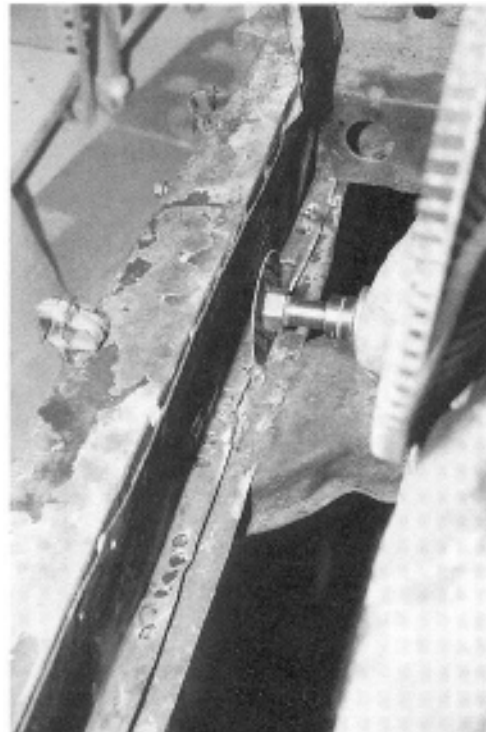
KEEP IN MIND THAT ALTHOUGH WE HAVE USED A MUSTANG AS OUR EXAMPLE, THESE SAME TECHNIQUES CAN BE USED FOR ANY UNI-BODY AMERICAN CAR OR IMPORT.



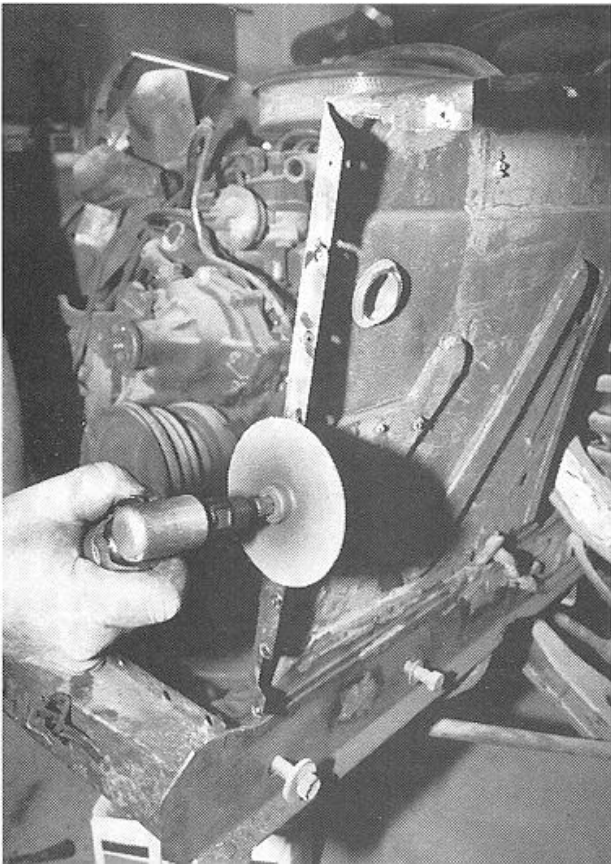
1. Before the radiator core support can be worked on, the radiator and front body panels (including front apron, fenders, grille, etc., must be removed. Use a wire brush attachment on an electric drill to clean the old metal and locate the original spot welds. Then drill pilot holes approximately halfway through the metal panels in the center of each factory spot weld, using a 7/64 inch drill bit. Use a spot weld cutter to drill through the first layer of metal only, which will release the panel from the underlying structure. These same holes will be used later to weld the replacement panel in position. Drill bits and spot weld cutters are available from any auto paint store.



2. The same process is repeated on the left and right side fender extension areas of the support. The welds run from the very top to just below where the drill is. Remember, drill through only the first layer of metal, which is the old radiator core support.

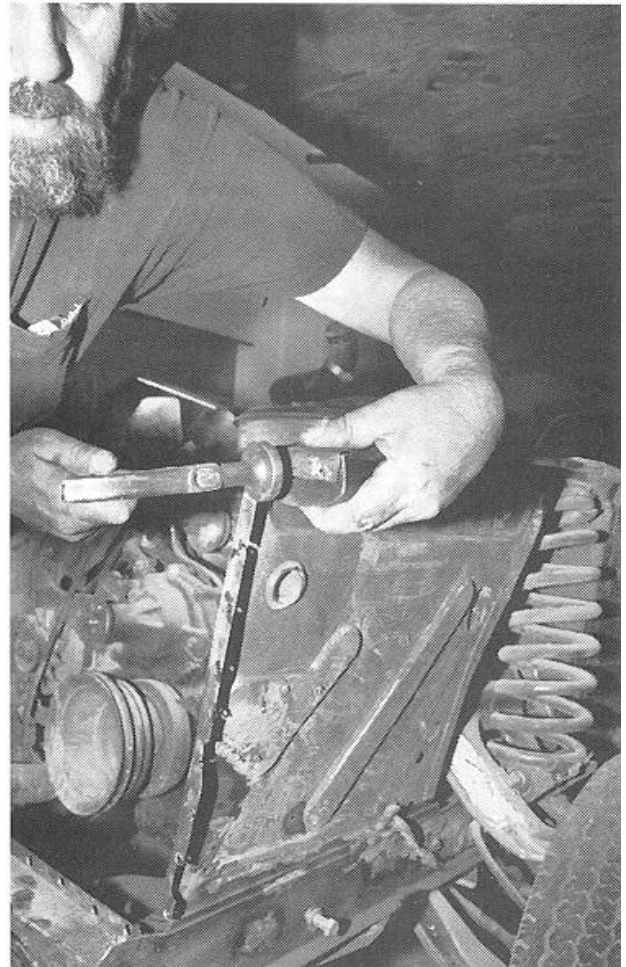


3. Looking from the left side of the engine compartment, you can see there are more spot welds on the inside of the core support. These are again drilled out like the ones across the front and on the extensions. There are also stitch welds attaching the core support to the inside of the forward cross rail or frame rails, seen here we are using a cutting wheel to slice through one of the stitch welds.



4. If the spot welds were cut through properly, the old core support can be tipped forward and removed. With the old panel out of the way, the welds left on the fender apron extensions are then ground smooth, using an angle grinder with a 40-80 grit disc..

5. Next use a hammer and dolly to get all the edges straight and smooth. If a salvage core support is being used, it should already have been stripped, media blasted then primed and ready to install.





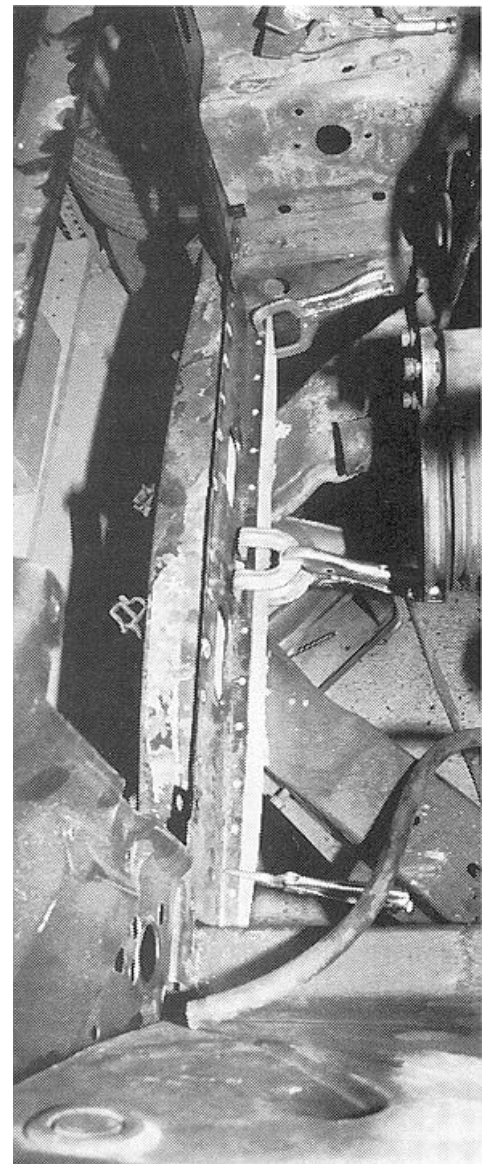
6. The replacement panel is then lifted in position, centered from side to side, and securely clamped in place. If a used support is being installed, the spot welding holes should already be there for welding the substitute panel in place. If a new original or repro core support is being installed, then while the panel is clamped in place a line should be traced along both sides (at the fender apron extensions) and at the bottom. Then, with the support temporarily removed, measure $\frac{3}{8}$ inch in from the line and drill a new hole every 2 inches. Then refit the panel and clamp it securely.

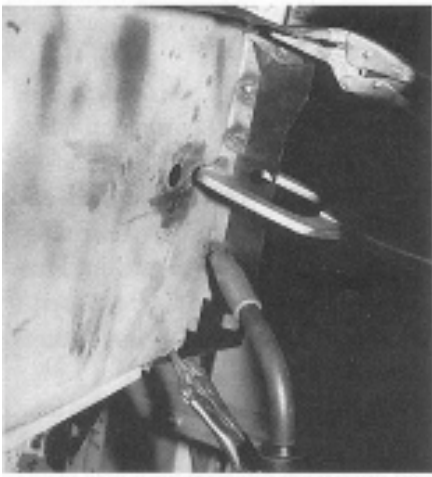


7. (On the left) There is an oval hole on both top outside edges of the radiator core support, as well as on each fender apron extension. These holes **MUST** line up exactly. These positions must be clamped with deep-reach vise grips. If you don't have at least one pair of these, then run small self-tapping sheetmetal screws approximately $\frac{1}{4}$ inch away from each welding hole to draw the panels tightly together. Once the welding is done, the screws are removed, their holes welded up, and the welds are ground smooth.

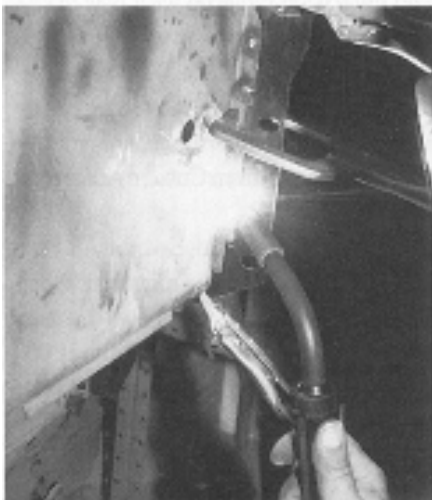


8. (On the right) The inside bottom of the core support must also be clamped securely in place before any welding is done. After recreating the spot welds, run stitch welds along both sides, where the factory welds were.





9. The final welds will be accomplished from the back or inner fender side, to fill the holes that may have been left by the initial drilling with the 7/64 inch drill bit. A light touch with the Mig welder is all that's needed.



10. Here's a look at the finished left side from within the fender well. Now grind smooth all your welds and prime/paint. This is not an especially difficult procedure, and almost any home craftsman with basic tools and a household type welder could duplicate what the pros do.

