

SHOP TALK

VOLUME 1

CHAPTER 3

Toady we have a Fire Truck that has a bad case of rust and rot thru the cabinets. You can see by the photos that the rust has gone all the way thru the metal.



(Outside view)



(Inside view)

After reviewing the situation the remaining metal was to far gone to fix and it needed to be replaced. The metal in the cabinet was 3/16 of an inch thick. First we measure the area

affected by the rust and bought a piece of steel the same thickness but slightly larger than the effected area.



The piece of metal is placed over the area and we trace a line around it.



Once this is done we take a cut off abrasive saw and cut out the old infected area right along the line.



The new piece of metal is place in the hole and we grind any area that is needed so we can get a flush fit.



At this point it is important that the new plate be almost a press fit in so we don't create to much heat with the welder.

Both the remaining material on the truck and the new plate are chamfered all the way around to allow room for the weld. This is done so that when we do a final grind we



don't grind the weld off. Magnets are used to hold the material flush with the existing body. Putting small tack welds at first will allow you to hold the metal in place without much heat distortion from the weld. A .035 wire feed welder was used to do this job. After you can remove the magnets and put in a full weld. The best way to do this is weld areas about a quarter of an inch long in different spots all around until you have a full and complete area. This keeps the heat down and will not warp the material from the excess heat.



The welds can now be ground flat and it's ready to send to the body shop for paint. There is still more to do on this job but it will have to wait for the next issue.

Written By Darrell Gilbert © 2006

