

NECESSITY IS THE MOTHER OF INVENTION OR HOW TO FLAG DURING INCLEMENT WEATHER.

BY ROGER HOFFMAN AND BOB HASTINGS

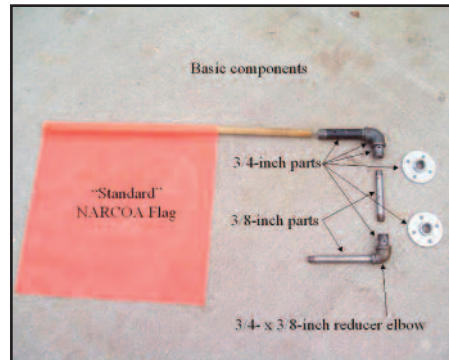
NARCOA rules require flagging our stops, which isn't a problem in an open car or during nice summer weather. But when it gets cold and wet, we hate opening the doors to "stick out the flag" especially with the rear hinged doors that our pumpkin car has.

So, the topic of the Saturday night dream was to devise a way to satisfy the rulebook and stay warm and dry at the same time.

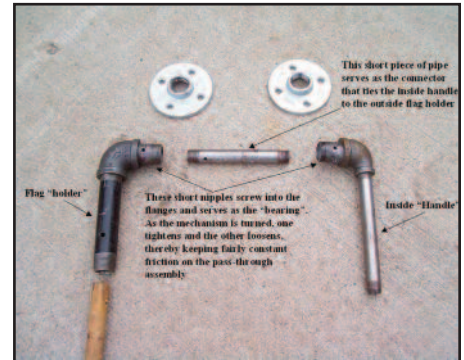
We did not want to cut a hole in our door and have to stick the flag out through it so we devised a means whereby the flag is always on the outside of the car and is simply raised and lowered as required. This meant some sort of pass-through rotary coupling would be needed and a trip to the local hardware store and some in-the-aisle real-time planning resulted in the design shown in the following pictures.

Basically it is simply a collection of 3/4-inch pipe components. The two floor flanges serve a dual role by providing the mounting for flag apparatus as well as part of the pass through bearing. Two short nipples complete the bearing and a short length of 3/8-inch pipe serves to tie the inside handle and the outside flag holder together. The 3/8-inch pipe is pinned to the 3/4-inch short nipples on each end to transfer the motion of the handle thru the "bearing" and to the flag holder end of the apparatus. This causes both 3/4-inch nipples to turn in the flanges. One tightens, the other loosens, and fairly constant friction is maintained in the bearing assembly. The pictures should present a reasonable explanation of how the parts are connected together.

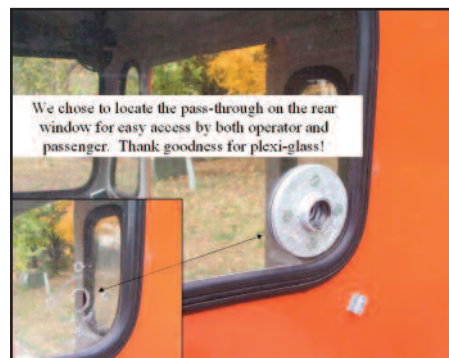
In practice, it works great. The only issue to date is sometimes forgetting to stow it after deploying it. Hmm, sounds like we need some sort of alarm. Perhaps we could wire it into the turntable circuit?



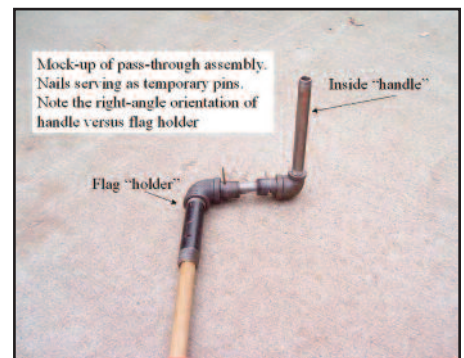
Parts



Subassembly parts



Position flanges



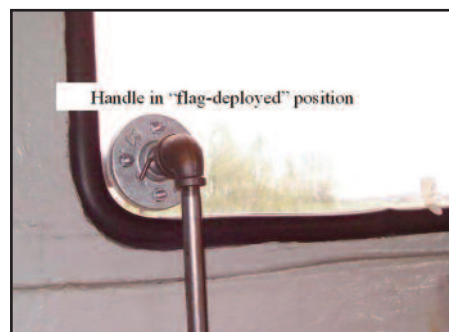
Mock-up Assembly



Assembly Begins



Interior view, 'stowed' position



Interior View 'deployed' position



Flag in 'stowed' position