

1968 HYDRAULIC CLUTCH SETUP

The master cylinder, slave cylinder and pushrod are from www.cncbrakes.com and I ordered them from www.carshopinc.com . I used a 36" long braided clutch line from www.longacracing.com part # 2805 and I also ordered this from www.carshopinc.com .

Parts list:

- | | | |
|----|-----------------------------|---------|
| 1. | Master Cylinder CNC 711-3/4 | \$61.95 |
| 2. | Slave Cylinder CNC305-B | \$49.95 |
| 3. | Pushrod CNC 1312 | \$13.95 |
| 4. | Longacre 36" Clutch Line | \$25.95 |

So I have about \$152 plus shipping in these parts and a few \$'s more in getting a remote reservoir from the junkyard and the attaching hardware.

I got my ideas for this on the Vintage-Mustang Forum site (<http://www.vintage-mustang.com/>). A VMFer (deathman68) did this and I copied much of it from his post: http://forums.vintage-mustang.com/forums/showflat.php?Cat=&Board=forum&Number=737118&fpart=&PH_PSESSID=

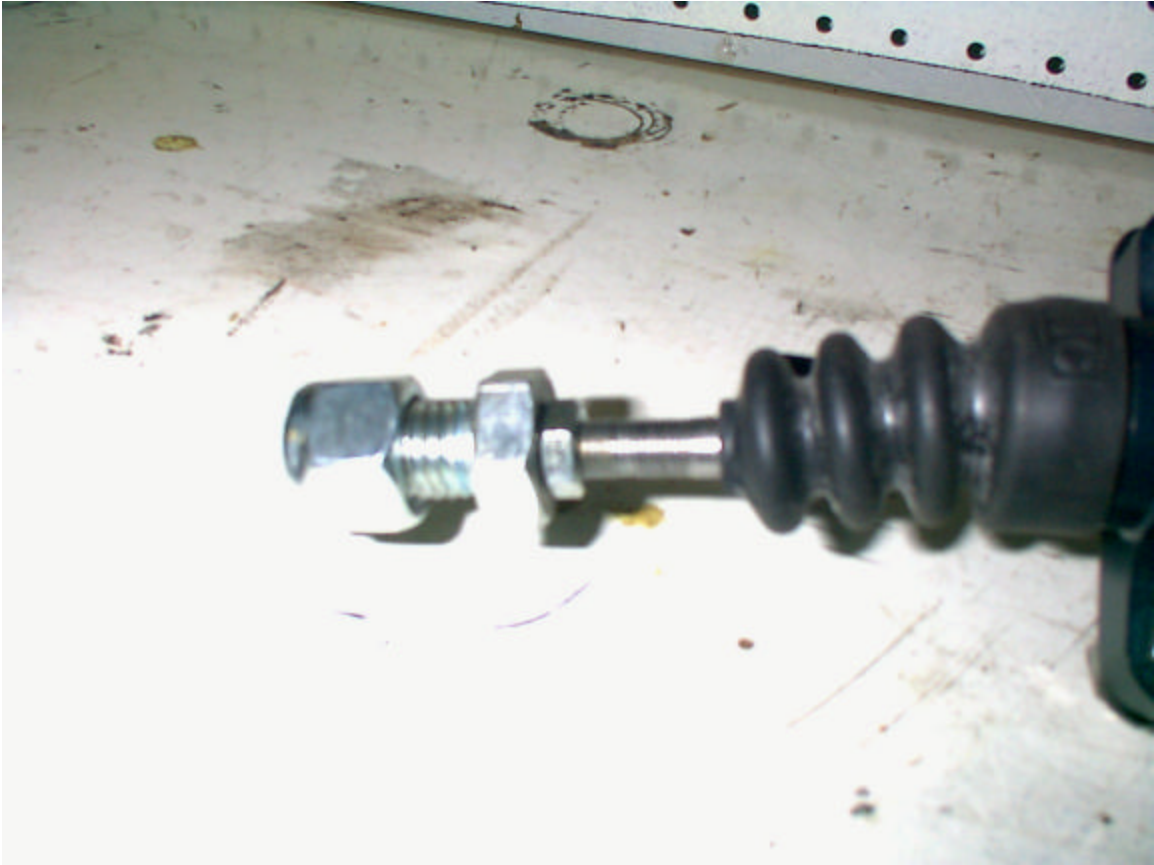
Send comment/questions to mattswabb@hotmail.com



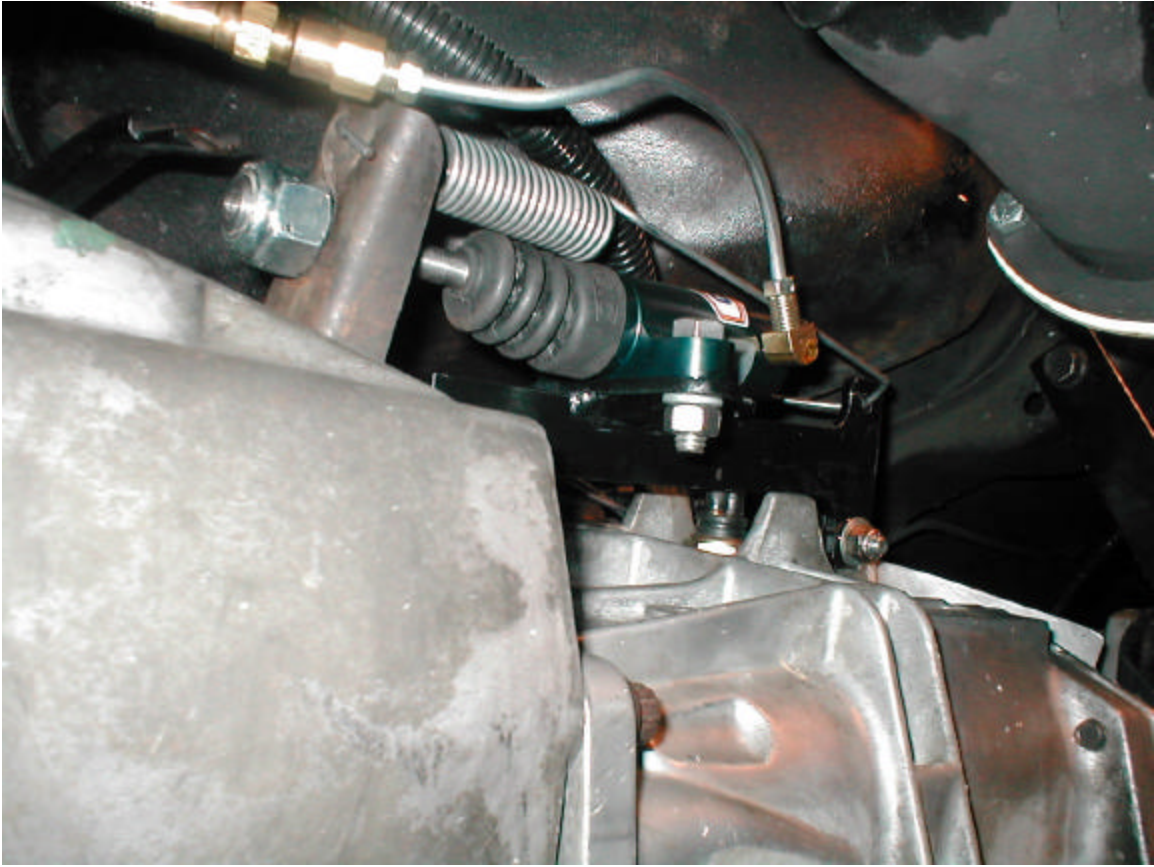
Slave cylinder assembly uses a 7/8" push style slave cylinder part # CNC 305-B and adjustable pushrod part # CNC 1312. On the end of the pushrod I made an adapter from a 5/8 bolt that I drilled and tapped 5/16-24 thru the center. This allowed the pushrod to fit into my clutch fork inner hole. I used a 5/8" nylon insert lock nut to ensure that it will not come loose. I left it slightly loose on the clutch fork to give some freedom of movement.



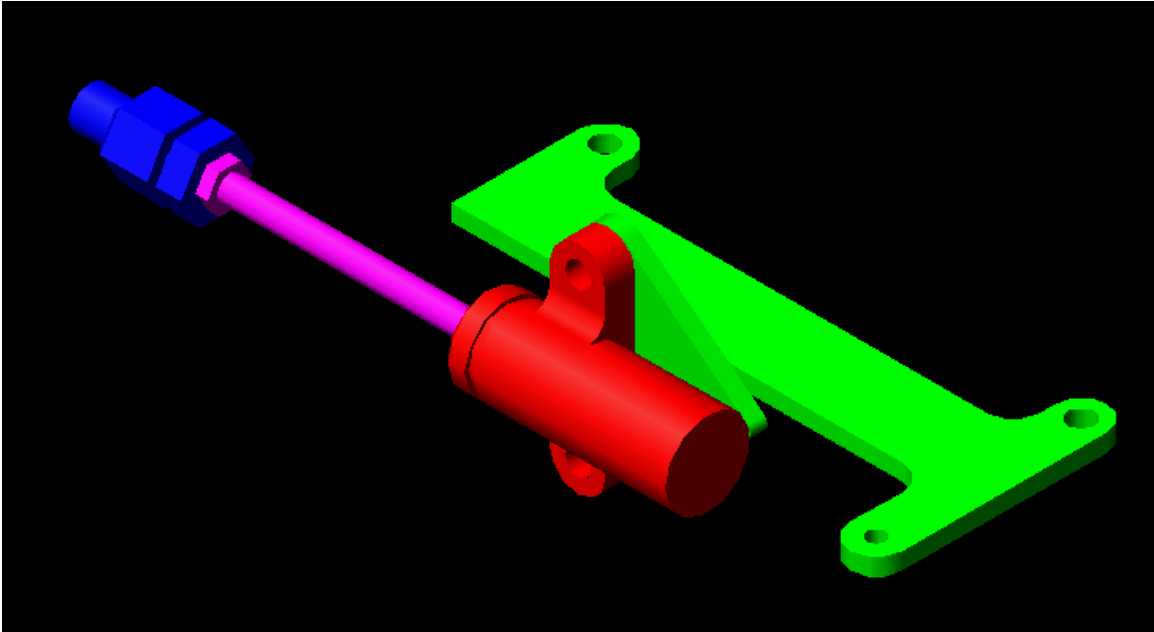
This shows a view of the bracket. I have made changes to the drawing that is not on my bracket. The tab for the return spring is longer on the drawing because my spring touches my slave cylinder.



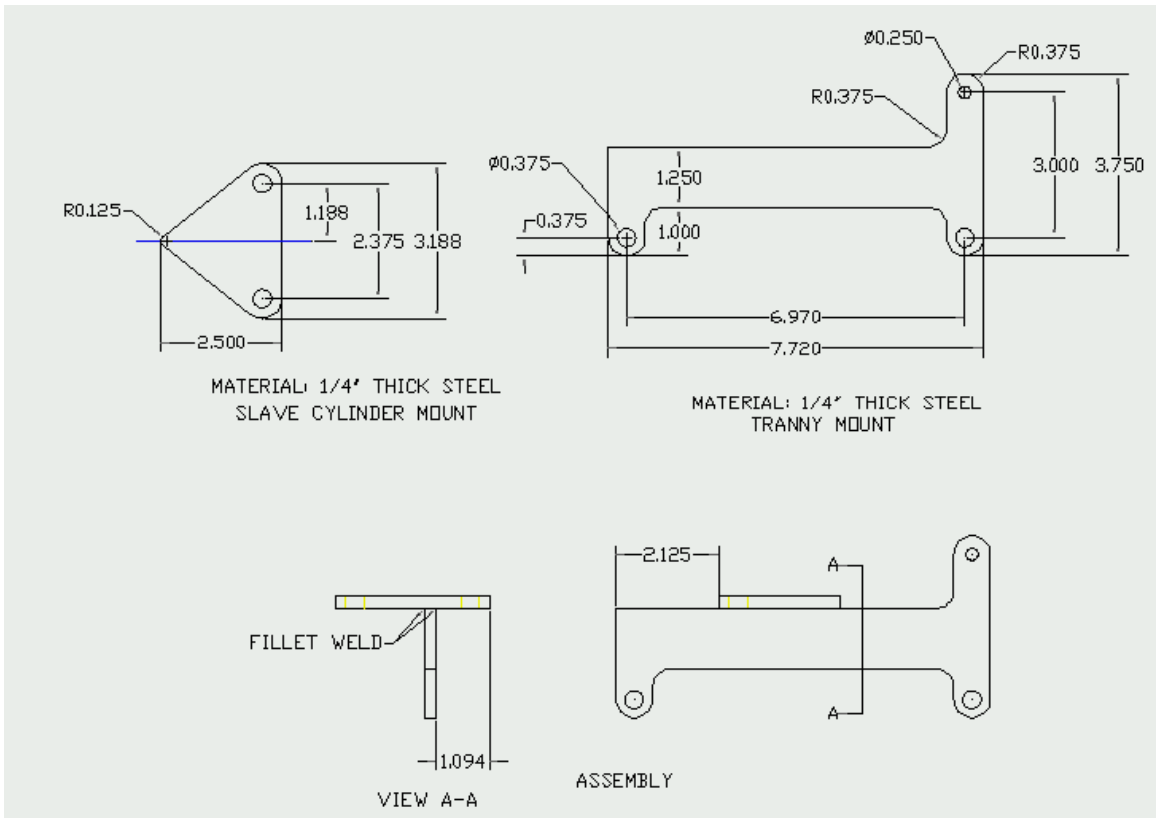
Slave cylinder rod end. This shows the 5/8" bolt I used for a better fit in my clutch fork. It is drilled and tapped thru with a 5/16-24 tap.



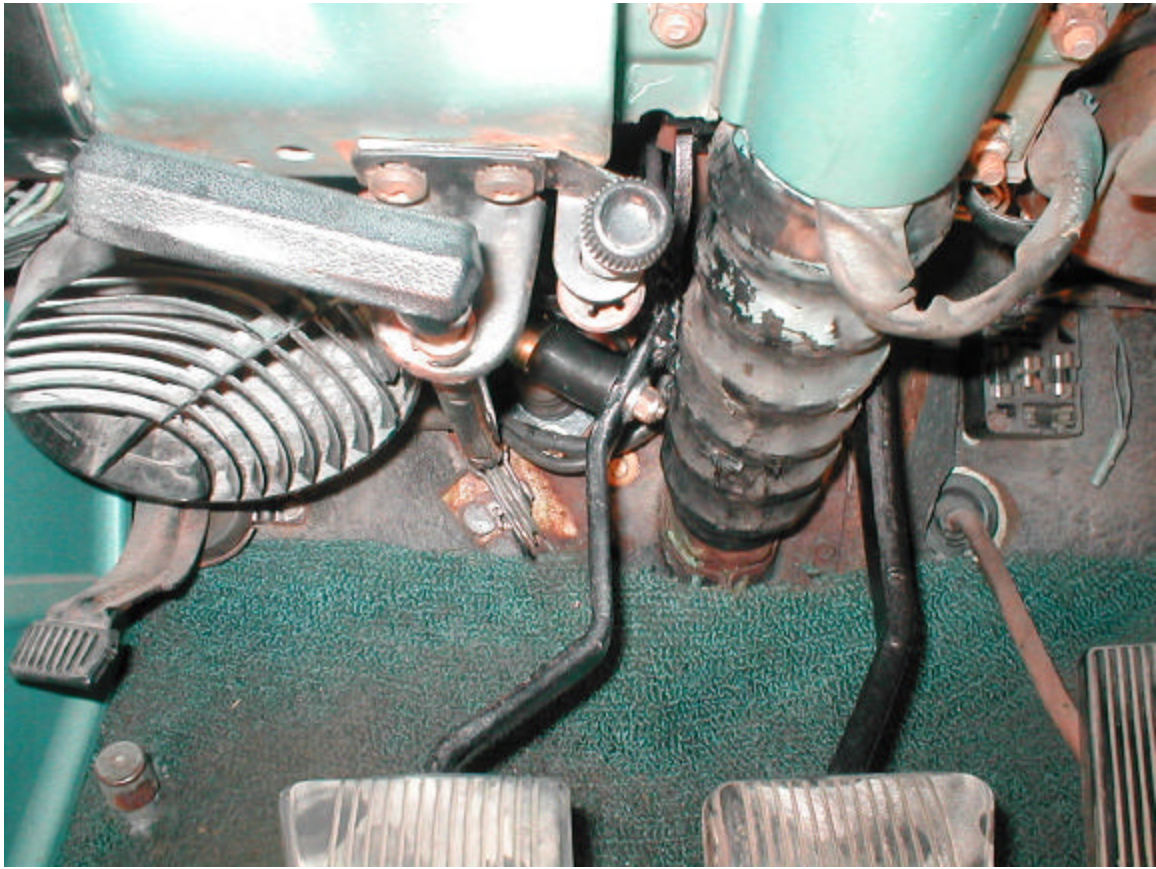
Here is a photo of the installed slave cylinder. You can see the how it attaches to the clutch fork. The spring can be bought at a local hardware store.



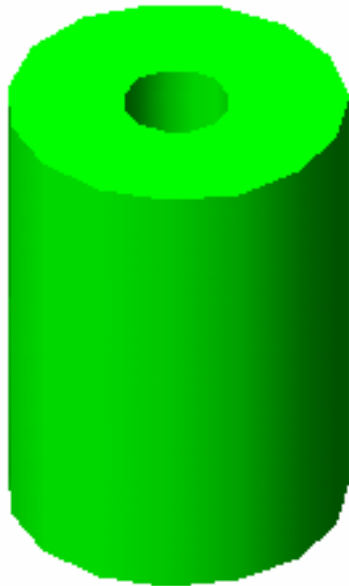
3D solid model of the clutch slave cylinder assembly.



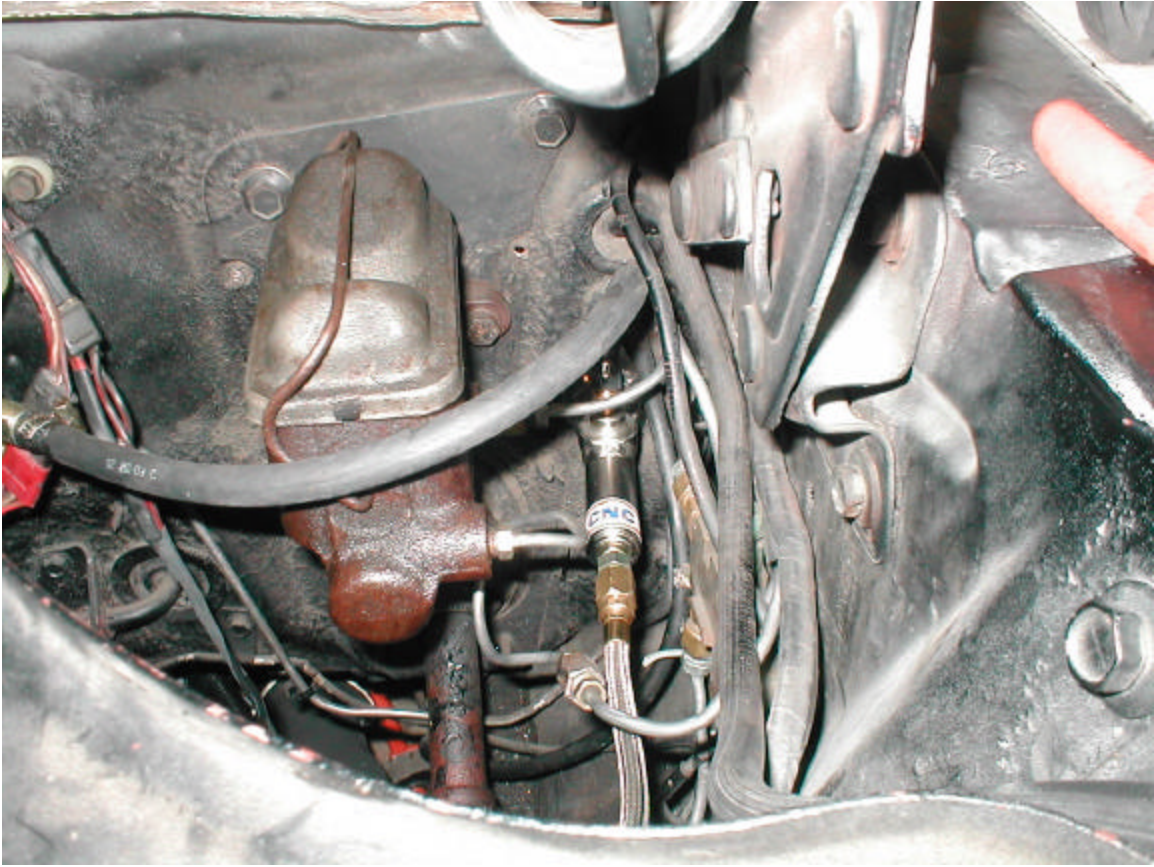
Here is a drawing of the parts I made for my slave cylinder bracket. Note: Test fit before welding.



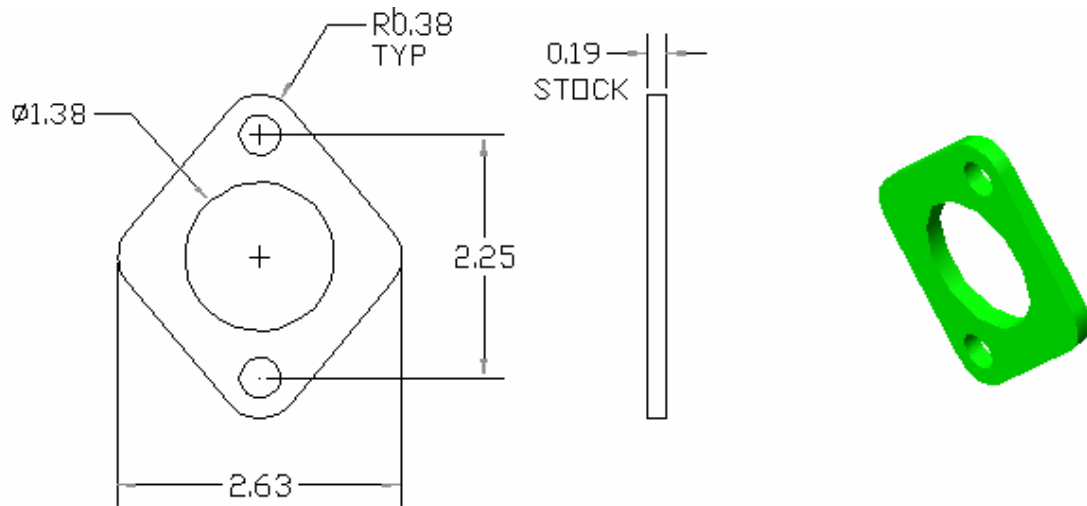
Master cylinder rod pedal attach. The m/c pushrod does not meet up with the original hole in the pedal. I had to drill a new hole (5/16") in the pedal. I drilled it with the pedal still in the car and drilled it as close as I could get the drill to the steering column. I then made a spacer and used a 5/16" grade 8 bolt to attach the rod end and spacer to the pedal. I used a rod end that I had laying around but McMaster-Carr rod end p/n 60645K33 (<http://www.mcmaster.com/>) should work just fine. The JMC setup uses a similar m/c but if you look closely at a picture of it you will notice that the mounting flange is welded on at a slight angle compared to the CNC 711 and this will allow the rod end to fit in the existing hole. With my setup the loading point is only a little lower than the original hole.



Here is the spacer for the pedal I made. It measures 1" OD, 5/16" ID and is 1.38" long and made from steel.



The master cylinder is a $\frac{3}{4}$ " steel CNC 711-3/4. I centered it in the existing clutch rod hole and had to drill 2 - $\frac{5}{16}$ " holes to mount the m/c. Mine was an automatic car so I had to knock out the plug for the clutch rod.



I made a firewall support as shown in the above drawing. The m/c is on the outside of the firewall and this is on the inside of the car.



Chevy truck remote reservoir part # 74470563, I got one from a full size mid 80's pickup and also from a mid 80's S-10. Another option to the remote reservoir would be to drill/tap a port into the large bowl of the master cylinder and use the fluid from the brake system. This is how it is done on my Ford Escort and would be a much cleaner look.



Longacre #2805 clutch line. It came with everything I needed to connect my master and slave cylinder. I only needed a few zip ties and no clearance problems with my long tube headers.