F100 steering photos and how to

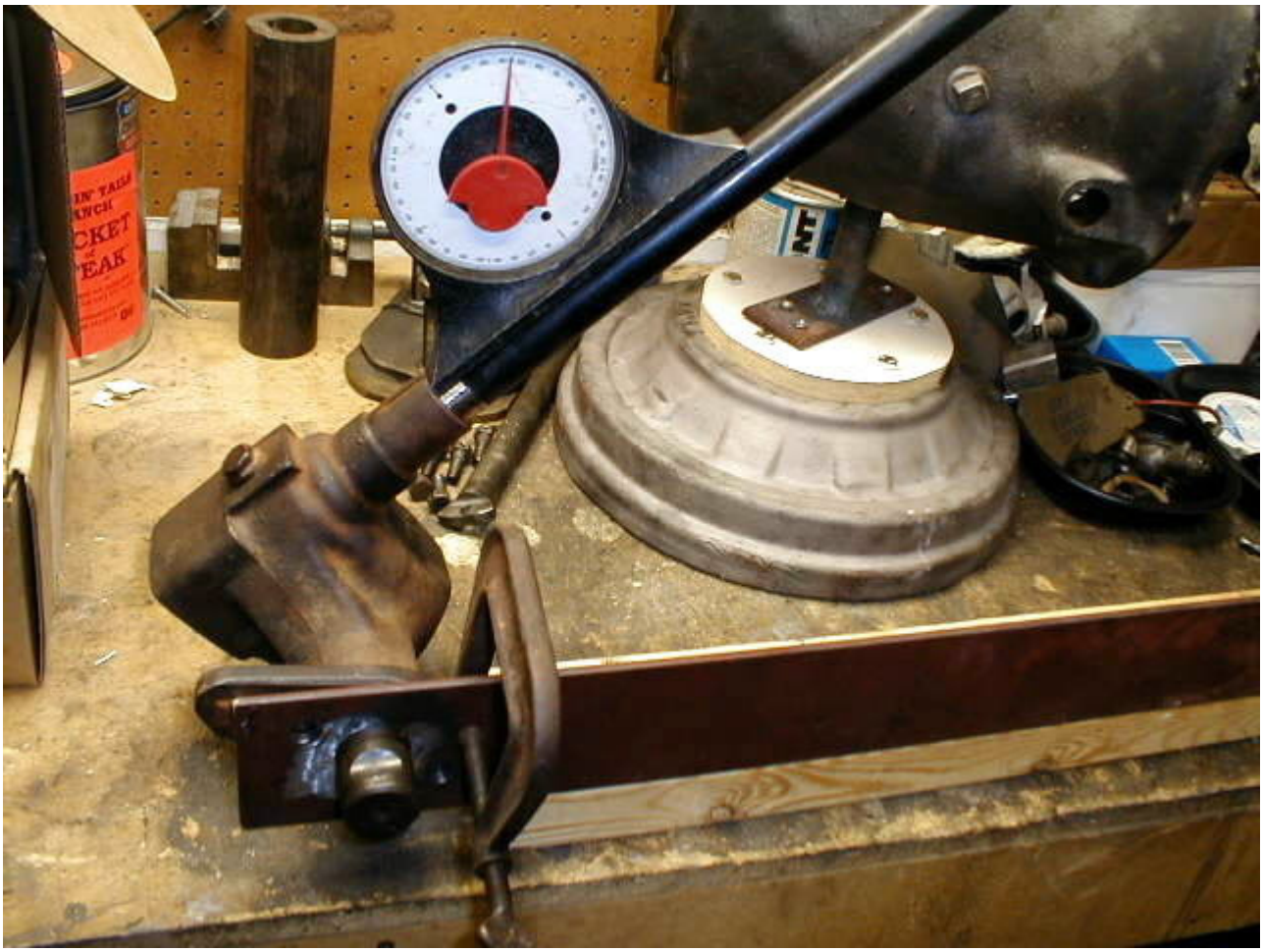
Posted by Dick Sparks / east Texas from 208-180-128-15-etwf.dpcomm.net (208.180.128.15) on Tuesday, August 18, 2009 at 2:56PM :

I have used several year model F100 sectors for conversions and all worked well. There are differences in the design but they are minor and don't present any major problems. 1955 - 56- 57- 58 - 59 all seem to work and there may be others as well but these are the ones I have converted. I don't own any production equipment so all the work is done in my shop with hand tools. I grind and file things to fit the old fashioned way. After you have the F100 core apart, inspect it for wear. The bearings, races, seals, gaskets, worm and shaft as well as the sector roller are all available from JobLot in NYC.



I made a jig to hold a Model "A" sector from 4" angle iron and drilled it to fit. With the jig level I then measured the angle of the shaft with an inclineometer. The F100 sector is clamped into the jig with the sector through the hole and the shaft angle set the same as the stock shaft. Then I mark and drill the two mounting holes with a 25/64 bit. I tap the holes with a 7/16 tap. Afterward I remove the excess flange from the F100 mounting so it will fit inside the frame rail, I made a simple template of the stock mounting surface and use the holes as alignment points. You don't need to be precise, just so it fits. If the angle is the same as the stock shaft the F100 will fit your car just fine.





Since the frame get wider as it goes back the rear attachment bolt of the F100 sector needs a shim inside the frame to compensate for the frame angle. You may opt to grind the face of the F100 to match this angle. Notice a stock sector is offset for this reason. Either way works but I have started using a shim ground at an angle and it works great. If you don't address the offset the column will not line up and forcing it into the bottom clamp inside the car will create a bind. It's a simple trial and grind fit. The F100 sector shaft can be ground square to accept a stock Pitman arm or you can use the F100 pitman arm but the fender must be shimmed up for clearance since the F100 arm is larger at the top. Again I use an angle grinder to accomplish this task. Go slow and check the fit often, you don't want to remove too much material.





The bottom plate is modified by removing the small tube and soldering in a 7/16" thin wall brass tube, available at hobby shops. This allows the horn/light rod to pass thru into the switch. No drilling is required inside the shaft as the brass tube

will fit. The end plate will need to have the hole enlarged to fit the brass tube and I weld tow flathead screws to the plate to hold the bail and switch collar.



The F100 steering shaft is cut about 18" above the sector and mated with the Model "A" shaft. I make a coupling from thick wall steel tubing to join the two shafts but they can be welded without one. Since the two shafts are different sizes I prefer the coupling. It is sized on a lathe to accept each shaft and hold them inline for welding. I don't have a lathe so I take a section of each shaft to the machinist and let him do the job. Measure the steering shaft carefully so the length is correct and the steering wheel attaches properly.









I think I've about covered the basics but if you have questions I'll do my best to explain my process. I'm sure other have good ideas to share on this subject. I'm adding a few photos but follow the link to see more. Dick Sparks

- F100 steering

Follow Ups:

- Re: F100 steering photos and how to - **Ross/Kzoo** *4:26PM 08/18/2009* (0)
- Re: F100 steering photos and how to - **RJ in LA** *3:41PM 08/18/2009* (0)