

I don't claim to be an expert at this, but I have done it several times, and I've watched our current guru, Alex Ferrara, do it several times.

Since he doesn't seem to be online, I'll try to give you accurate

instructions:

It's not bolts to which you're trying to align; it's the flat which is perpendicular to the extension of the steering shaft. That is, look at the farthest thing from the steering wheel. That's a cover which is bolted to the flat of interest. Now Alex made a little tool which consists of two 3"-4" long pieces of 3/4" x 1/8" bar stock (approximately). One of them has two magnets to attach to the top two bolts of that cover, giving an easily visible target parallel to that surface. The second bar has a single magnet at its center.

The first step in his procedure is to lock the steering wheel in the straight ahead position. He does it by ty-wrapping a rigid pole to the wheel with its ends lodged on the side window sill and the dash.

Next, remove the lower steering shaft from the steering box input and the steering column shaft.

Now install the two magnetized bars, or just try to align the shaft flat and the cover flat by eye -- a short straight edge on the input flat helps. Rotate the steering box input shaft to align the two bars. **KEEP THAT**

POSITION 'cause it **SHOULD** be the "high spot".

Now, reinstall the lower shaft without turning either the steering column shaft or the input shaft.

Align the lower coupling to the input shaft by inserting the shank of a 27/32" (someone correct that for me!) drill bit through the bolt hole. If the bit won't fit, you must quit -- to select another spline alignment.

Once you've got that one in place, fit the upper one, making sure that the ridge around the inside of the clamp is seated **ON** the CV joint. To make the bolt notch in the steering shaft align with the bolt hole in the CV joint may require disassembly and reassembly of the upper CV joint if someone has previously done it wrong -- it's **EASY** to do. There are at least 6 ways (maybe more) to put it together, all but one of them wrong.

Make sure the steering wheel's still centered. Now tighten the dickens out of both clamp bolts. If you manage to break one, buy a stronger bolt.

They MUST be TIGHT -- especially the lower one -- like 70 ft-lb.

Your steering wheel, column and box should now be aligned. If the coach doesn't go straight with the steering wheel centered, correct it with the adjustable drag link you should have. Or with the tie rods if you don't. Do not tamper again with what you just got right -- there is no other correct position for those parts. And don't bother to pull the pitman arm -- it only fits on 1 way anyhow.

Feel free to correct this if I've scrambled something.

Best of all, come to GMCFMI Chippewa Falls, where Alex is scheduled to give a seminar on this!

Ken H.