



C-10 RACK & PINION

Congratulations on stepping up with improving the steering, safety, and driveability of your Chevy C-10. We did our very best to provide a complete bolt-in kit, but you still have some work to do. Mostly; drilling holes, and wrench work, but the quality of the install is up to you. Be patient, and PLEASE read and follow the directions. This rack started life as a GM unit, and is now highly modified to fit your C-10.

You will need the following items to succeed:

1. Tape Measure. *Yes, one you can read.*
2. Masking Tape. *- the sticky kind*
3. Center Punch.
4. Drill. *An Electric One, with a cord*
5. Drill Bits *5/16", 3/8", 5/8", 7/8".*
6. A Pen . *To Mark with*
7. Die Grinder.
8. Saw. *Chop Saw, Band Saw, or Sawzall*
9. Grinder.

I know, it sounds like a lot for a bolt in. You will also need wrenches. Before you can drive it you will need hoses (GM Part #'s will be provided) and the hardware to connect the steering shaft to you column.

-----**READ ALL THE DIRECTIONS FIRST**-----



PARTS LIST

- Rack & Pinion
- Rack Mounting Kit
- Rack Mounting Hardware
- Billet Rack Clamp and hardware
- Steering Support Bearing and hardware
- Lower steering shaft with u-joint (welded)
- Outer Tie Rod Kit

(For a complete break down of every nut and bolt - check website at www.nolimit.net)

1.



1. Here is a picture of the rack mounting plate on a stock C-10 crossmember. This is a front-steer set up. Yes, you can do this with the motor in place, as well as all the suspension. Start by removing the steering box, idler arm, and steering linkage. Keep the steering shaft for later.

2.



2. Once you have cleaned the crossmember, put a piece of masking tape on the front face, in the center

3.



3. Using a tape measure, find and mark the center of the crossmember. You can use the framerrails, and/or the u-bolts for the lower a-arms. Be accurate, and double check.

4.



4. Set the rack mounting bracket onto the stock cross-member. Line up the hole in the middle of the bracket with the centerline mark.
Mark the center of the hole.

5.



5. Center punch. Again, accuracy counts.
Double check everything!

6.



6. Drill this hole with a 3/8" bit. I recommend a 1/8" pilot hole first, so that the drill bit doesn't "walk around", and you loose the center.
But, that's just me.

7.



7. Use the 3/8" x 1 coarse thread bolt and nut to mock-up the rack bracket.

Now, get a wrench (2) and tighten it up so that the bracket doesn't move.

8.



8. Again, use the drill and a 3/8" bit, and drill out the remaining 4 holes for the rack mount.

When you're done, remove the bracket and clean up your mess.

9.



9. Mount the rack to the bracket. Use the 5/8" bolt, nut, and washers on the driver's side -- Finger tight only. Then.....

10.



10. Assemble the billet clamp as shown. Yes, you can cut the rubber isolator if you must. You may need to use the 5/16" drill bit to clean the holes in the bracket. Once this is snug, then tighten all 3 rack mounting bolts.

Yes, even the big one.

11.



11. Check for clearance. Set the rack and mount into place. Put the 3/8 x 1" bolt back in the center hole if you can. Check to see if the rack hits the stock crossmember. If it does, mark it for grinding and

12.

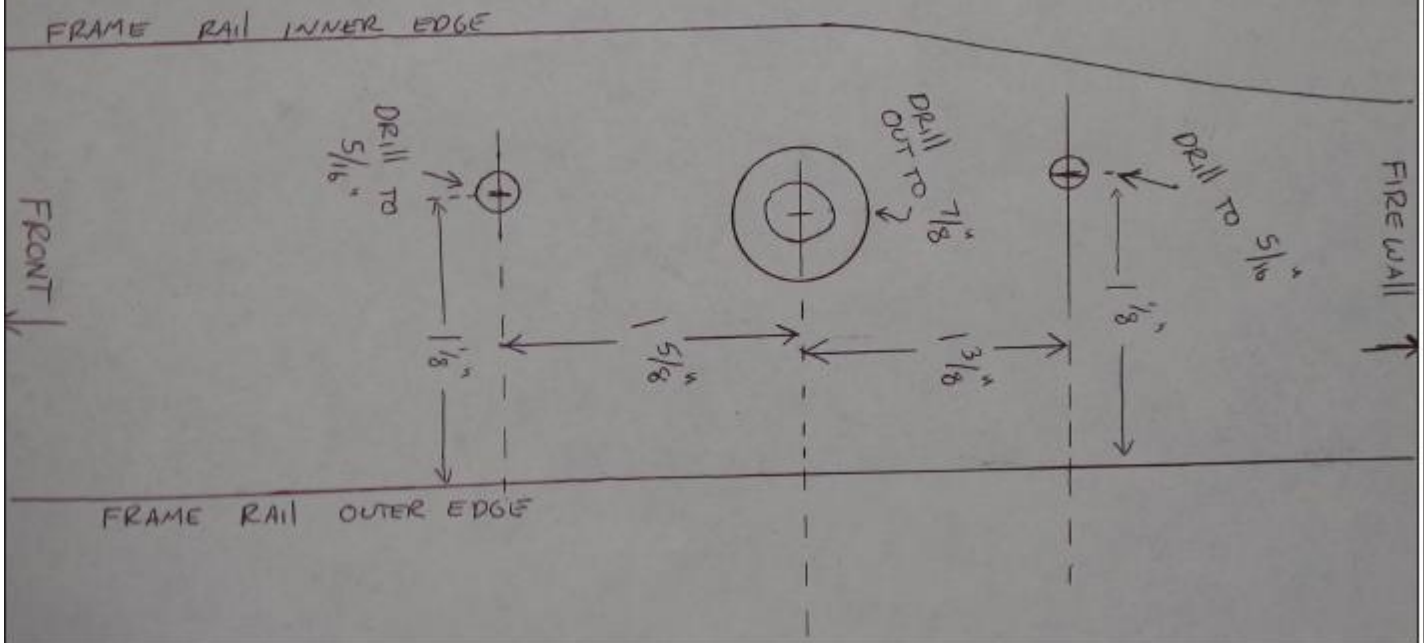


12. Use a grinder to cut the lip back for clearance. Repeat Step # 11. Until it clears.

Remove the rack and mount - Set aside. Save the 3/8" x 1" bolt & nut for fender or something later - or throw it away.

Take a break and go get a drink, but don't sit around - you've still got work to do!!

13.



13. Ahhhh!! Got that out of your system? Good. Pay attention now. We assume (hate that, but we had to) that the motor is using the back two holes (most are). There are three holes in the top of the frame. If the mounts are in the 'front' and 'center' holes, you will need to move them, and if there is a 4" gap between the motor and the firewall, you really need to consider moving it back. Otherwise, all the work spent upgrading the steering is sort of like putting lipstick on a pig.

The front hole of the three will be drilled out to 7/8". Before you do that, measure and drill the 5/16" holes as shown.

14.



14. This is what it should look like when you're done.

15.



15. Use the 5/16" bolts, nuts, and washers to bolt the bearing mount to the underside of the frame rail. Yes, we know the picture has the wrong bolts & nuts, and no washers. Just seeing if you were paying attention!! And, no need to call.....

16.



16. Oops - - You need to check one more thing. With the rack held in place, mark for clearance between the rack (with the steering u-joint in mind) and the frame.

17.



17. Grind the bottom edge of the rail for clearance. If you are actually reading all the directions, do this along with steps 11 & 12.

Aren't you smart?

When the clearance is done, use the five 3/8 n.f. x 1 1/4" bolts, nuts, and washers and bolt the rack and bracket to the crossmember.

Yes - -TIGHT!!

18.

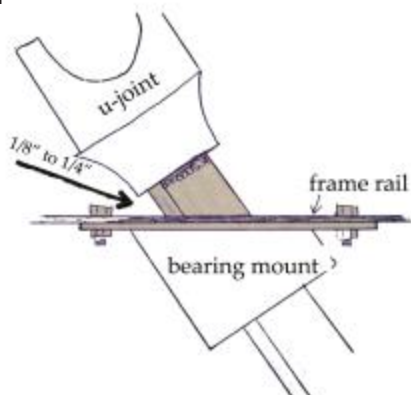


18. Slide the 3/4 - 36 spline u-joint onto the rack. Install and tighten the set screws.

DO NOT drill, grind, cut, or otherwise molest the input shaft of the rack.

Slide the u-joint and welded shaft through the bearing from the top side, and into the lower u-joint.

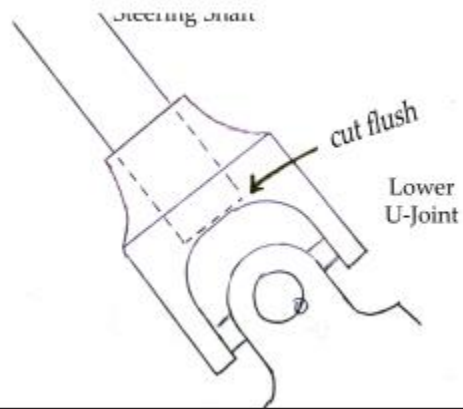
19.



19. You will need to cut the steering shaft.

When installed, you want 1/8" to 1/4" of clearance between the u-joint and the frame rail on the top.

20.



20. Cut the shaft so that it fits flush inside the lower u-joint on the bottom side.

21.



21. Sand and debur the cut shaft.
Re install and check the fit.
If it's good, -
use lock-tite (red) on the set screws
and jam nuts and tighten.

22.



22. Tie Rod Assembly.
STOP First you need to drill out the tie rod hole in the spindle. Use a 5/8" drill bit.
You can do this on the truck. Drill from the top down.
Follow the same angle as the tapered hole.
Double check.
Look from all sides, then drill.
Ha, the picture is a tease.

23.



23. It helps to pull the spring clamp off the end of the rack boot. This makes it easier to adjust.

24.



24. The tie rod end on the rack is metric. Put the metric jam nut on first. Thread the rod end, with jam nut on, into the adjuster so that only 1/4" of the thread is showing in the rod end. Then, thread the adjuster onto the tie rod.

25.



25. Using the 5/8" grade 8 bolts, washers, and nylock nuts, bolt the rod ends to the spindle as shown. Tighten to 100ft lbs. Yes - rod end on the bottom.

26.



26. This is what it should look like.

If you have bags, and a red oil pan

Finally, Connecting to the column is up to you. If you are using a stock column, and you save the stock shaft and upper joint like we told you, you can trim it down to fit into the new u-joint and you're good to go!

Aftermarket column installations will require an upper u-joint and shaft. No other support bearings are needed. As for the hoses, start with part #80331 pressure tube - back of pump, #80330 pressure flex line and part #7-3417 return line. You may need to change the end on the pressure hose to fit your pump. These hoses are for late model Chevy pickup.

If you are doing a 5.3 or LS Swap, use the new pump, it's a perfect fit. You can use the early type I or type II pumps also. Use GM specific fluid. Set the toe out 1/8"