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14 Bolt Truss Install Instructions

GM Corporate 14 Bolt 10.5" full-float rear axles



Your truss gives your upper links a rock-solid mounting point on a 14 Bolt. It welds to the axle tubes and ties into the pinion support with a removable bracket.

Included: the truss body, made from 1/2" steel plate; the pinion support bracket, made from 3/8" plate; and (5) 1/2" grade 5 bolts and lock nuts to join them. It ships unassembled and bare. The bracket reuses your factory pinion support bolts.

You'll need: a welder, a grinder with a flap disc, a drill with a 9/16" bit, a short pencil, a torch for preheating, paint, and your link tabs.

Off-road use only. You're responsible for confirming the truss fits your vehicle. Tack everything together and check the fit before you do any final welding. Welded parts can't be returned.

Pinion support bolts: with the bracket in place, the factory 7/16-14 bolts may not have enough thread engagement. Check before you torque them so you don't strip the threads, and buy longer bolts if they're short.

Ribbed housings: some 2001-and-later housings (2001–2002 C3500 and Express 3500 vans) have ribs. Grind the upper rib down so the truss body sits flush on the axle tubes.

Axle in or out: it's easiest with the axle out of the vehicle. You can also do it with the axle installed if the chassis is on jack stands and the axle hangs down with plenty of clearance.

Before you begin

Park on level ground, set the parking brake, and put an automatic transmission in Park or a manual transmission in gear. Support the vehicle safely on jack stands. Read these instructions all the way through before you start, and call us with any questions. Under Cover Fabworks assumes no liability for accidents from the use (proper or improper) of these instructions.

Installation

1. **Prep the axle.** Grind off the paint down to bare metal where the truss sits on the axle tubes. On ribbed housings, grind the upper rib down.
2. **Set the truss on the axle**, sitting on the tubes and pressed up against the housing.
3. **Fit the pinion bracket.** Remove the top three pinion support bolts, then reinstall them with the pinion bracket in place underneath the truss body.
4. **Mark the holes.** Reach in underneath and mark the two outer hole locations on the truss body with a short pencil (cut one down to fit).
5. **Drill.** Remove everything and take it to a table. Line the bracket up with your marks, mark the other holes, and drill all five through the truss body with a 9/16" bit.
6. **Assemble it loosely.** Set the truss back on the axle and bolt the bracket to the pinion support with the factory bolts. Install the (5) 1/2" bolts from the top with the lock nuts on the bottom, hand tight but pulled flat against the mounting surfaces.
7. **Tack and check clearance.** Tack the truss to the axle tubes. Cycle the suspension through full travel and check the driveshaft, exhaust, gas tank and links before any final welding.
8. **Final weld.** Preheat slightly, then weld the truss to the axle tubes. Weld a little at a time and move from side to side so nothing warps. Let it cool slowly.
9. **Optional housing weld.** It's not required, but for extra reinforcement you can add a weld about 4" long where the top back of the truss meets the housing. Preheat the housing well first to prevent cracking, and use a filler made for welding to cast housings, such as Harris Super Missileweld (stick or TIG) or a high-nickel rod.
10. **Link tabs and paint.** Weld your link tabs to the platform. Remove the pinion bracket and paint it and the truss body separately.
11. **Final assembly.** Reinstall the pinion bracket. Check thread engagement, then tighten the pinion support bolts to factory specifications and the (5) 1/2" bolts to 55 ft-lb.

That's it. Thanks for choosing Under Cover Fabworks. Call or email us with any questions.