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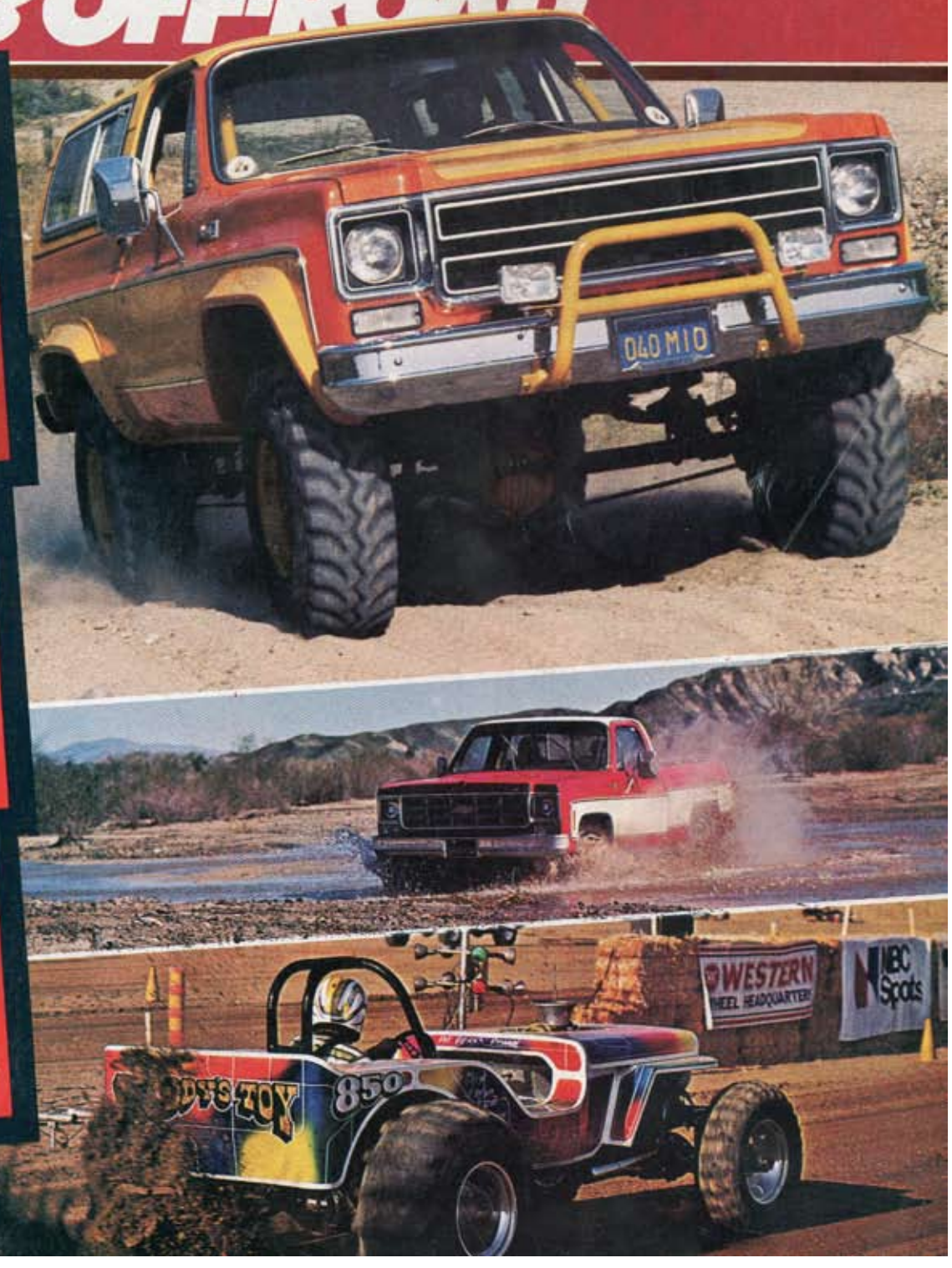


God may have intended man to shift for himself in this life, but automatic trannies have made many an off-road driver think he was in heaven.

CHEVY 4x4 TRANSMISSION SWAP

STICK TO AUTOMATIC AND YOU'LL NEVER MISS A SHIFT/By Chuck Coyne

Here's a deal that you don't have to worry about getting burned on. Take one 1976 Chevy 4x4 with a 3-speed trans, one Bulldog automatic trans from Advanced Transmissions, do a quick change and what do you get? A four-wheeler with the performance and convenience of a trick automatic.

The exchange is really simple and should only take about one day to do. The parts you'll need are one Bulldog transmission from Advanced Transmissions (1156 W. Holt, Ontario, California 91762), a Hurst cable shifter and the following parts from your local Chevy dealer: shaft Part No. 354650, gear Part No. 6273962, sleeve Part No. 6273964, adapter Part No. 6273963.

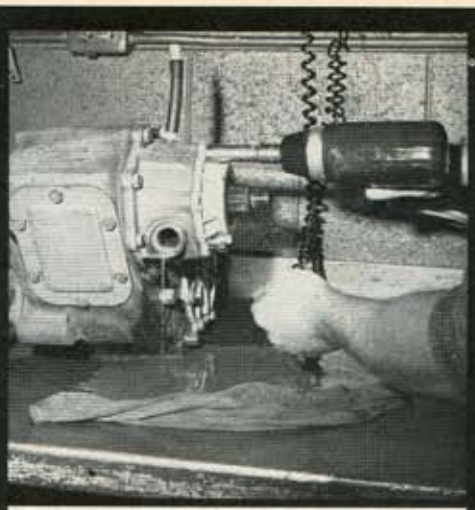
Since the standard 3-speed manual transmission is longer than the automatic, the adapter will make up the required length. Additionally, since the splines on the standard tranny are coarse and the splines on the automatic output shaft are fine, the shaft going into the transfer case must be changed along with the corresponding gear and sleeve.

During disassembly, there is no way in the world to keep the needle bearings from falling out of the case, so work on a surface that will keep them all in the same general area. Once the changeover is made on the transfer case, the rest of the job is just a matter of bolting things into place. The automatic trans will fit in without any modifications and the transfer case slips in right after it.

You'll need an oil cooler for the

7. *The snap ring retaining the bearing on the input shaft must be removed. Using the proper tool will prevent damage and temper tantrums.*

1. *The biggest part of changing from a funky self-shifter to a nifty Bulldog auto is in the transfer case. The first step is to remove the companion flange.*



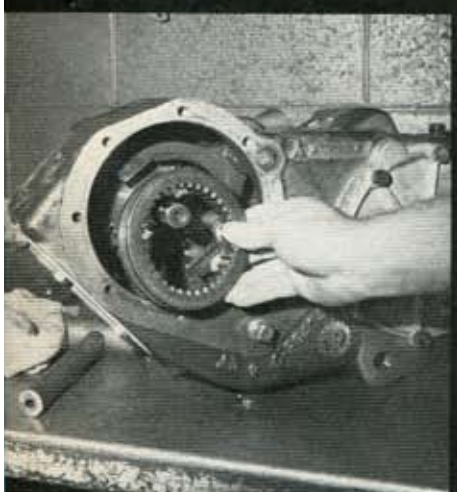
2. *In order to get at the insides of the truck's transfer case, this bearing retainer must first be removed from the rear of the unit.*

3. *After the bearing retainer is out of the way, the bearing housing is removed. There are many little roller bearings inside, waiting to fall out and get lost.*

4. *Working on the opposite side of the transfer case, the bolts holding the old adapter in place are removed, followed by the adapter itself.*

5. *This detent ball and spring must be removed from the case. A magnet on a long shaft will lift the detent ball out once the spring and cap are removed.*

6. *Going to the back of the case again, the rear drive gear can be extracted. There are several little needle bearings in there also waiting to get lost.*



8. *The gear sleeve is now removed from its location. Lifting out the detent ball makes it possible to get the sleeve away from the shifting fork inside.*

9. *Finally, the coarse splined gear can be retrieved from within the confines of the transfer case. Save it; it will make a great paperweight.*

10. *On the left is the old coarse-splined gear that coupled to the standard transmission. The new unit on the right replaces it with fine splines to match the Bulldog trans.*

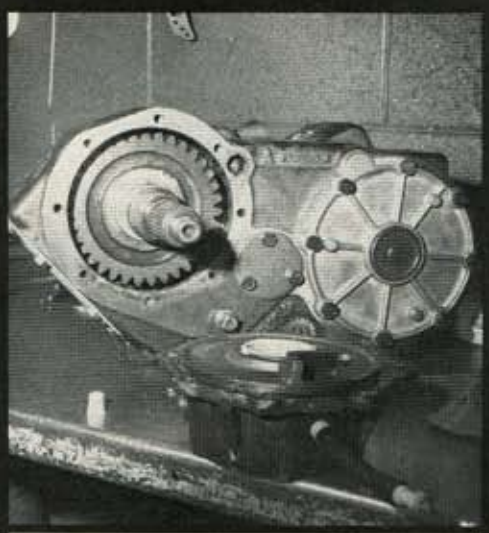
trans and for this installation we used a Hayden Cooler. This was a simple matter of hanging the cooler from the engine's radiator, using Hayden's nifty bolts, and then running the hoses to the trans.

With the job completed, the truck was ready for anything. The beefed-up Bulldog trans works wonders in the dirt and will last a long time thanks to the improved bearing surfaces and other modifications performed by Advanced Transmissions. If you are tired of shifting for yourself, what are you waiting for? Get into gear and get ready for a summer of automatic trucking. ●

11. *When installing the new fine-splined gear, the bearing should be put in as well. This will hold the gear into place while the rest of the parts are installed.*

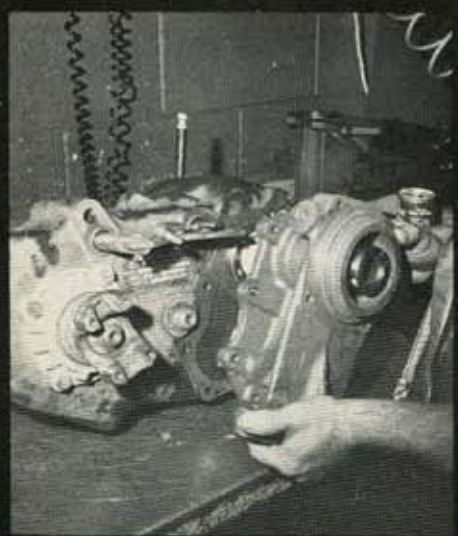
12. *With the new gear and bearing in place, the gear sleeve is slipped in against the gear, with the shifting forks in place on the sleeve.*

16. *With the drive gear up fully against the sleeve and the teeth aligned, turn the drive gear. It should turn freely without binding.*



17. *Repack the needle bearings into the rear bearing housing in the same manner as the bearings in the drive gear. Then, carefully reinstall the bearing housing.*

18. *When the bearing housing is installed and you're sure that no bearings have fallen out, replace the bearing retainer and tighten down the bolts.*

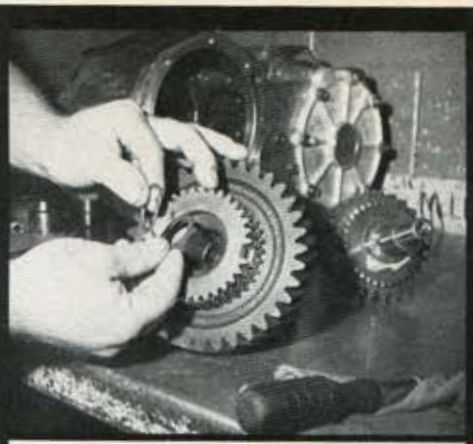


22. *The new adapter plate and the sleeve that fits inside it are put into place on the front of the transfer case. Be careful not to tear the O-ring.*

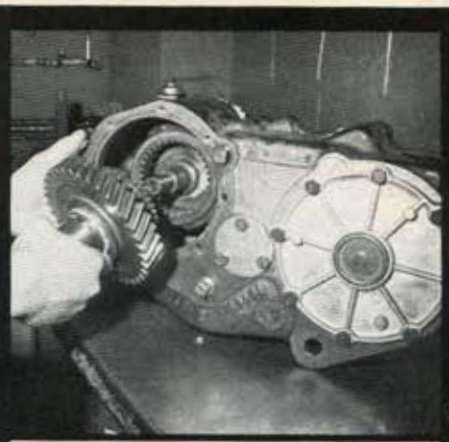
23. *These are some of the parts of the Bulldog transmission. More than 30 modifications make the Bulldog one of the best deals for off-roaders yet.*

24. *The Advanced Transmissions Bulldog tranny is ready to be lifted into place. The stock flywheel is used and standard mounts hold the strongbox in place.*

13. *All those little needle bearings that fell out earlier must now be replaced inside the drive gear. Using Lubriplate will help secure the bearings in place.*



14. *After the bearings are in place, the washer must go in, followed by the snap ring. The snap ring must be checked to ensure a tight fit inside the drive gear.*



15. *Now comes the tricky part. Being careful not to disturb any of the needle bearings, replace the rear drive gear against the sleeve.*

19. *This little O-ring is critical. Without it, the automatic transmission fluid will leak into the transfer case, and we don't want that to happen.*

20. *Again using Lubriplate, grease the O-ring to ensure that it forms a complete seal between the drive gear shaft and the transfer case housing.*

21. *After putting the O-ring in its place and making sure that the gears all turn freely, reinstall the detent ball, spring and cap.*

25. *The Bulldog is carefully guided into place behind the motor. Trans is pushed into place by hand to ensure that it is aligned correctly.*

26. *With the tranny in place, bolting in the transfer case is a piece of cake. Bolts should be torqued to specs to ensure that nothing shakes loose.*

27. *Locating the new cable shifter on the floor completes the project. Driving in the rough with an auto is a very relaxing experience that adds to your pleasure.*