

TR6 ROLLER BEARING CLUTCH MECHANISM INSTALLATION INSTRUCTIONS

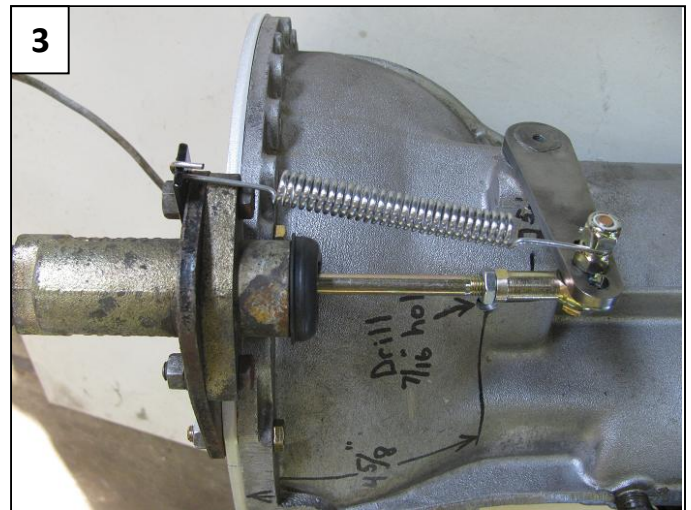
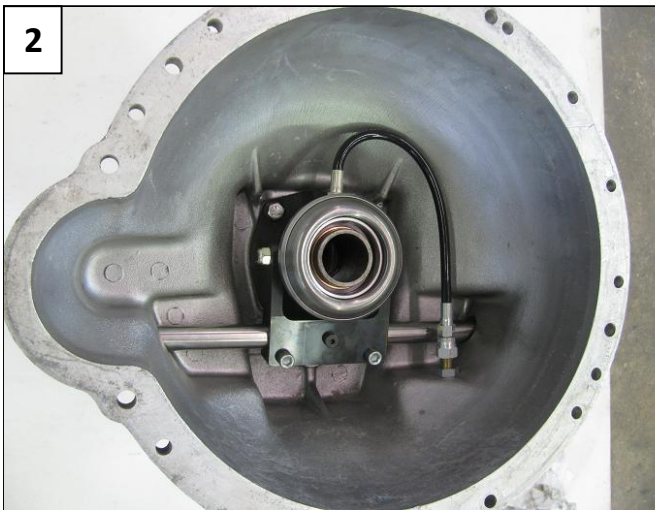
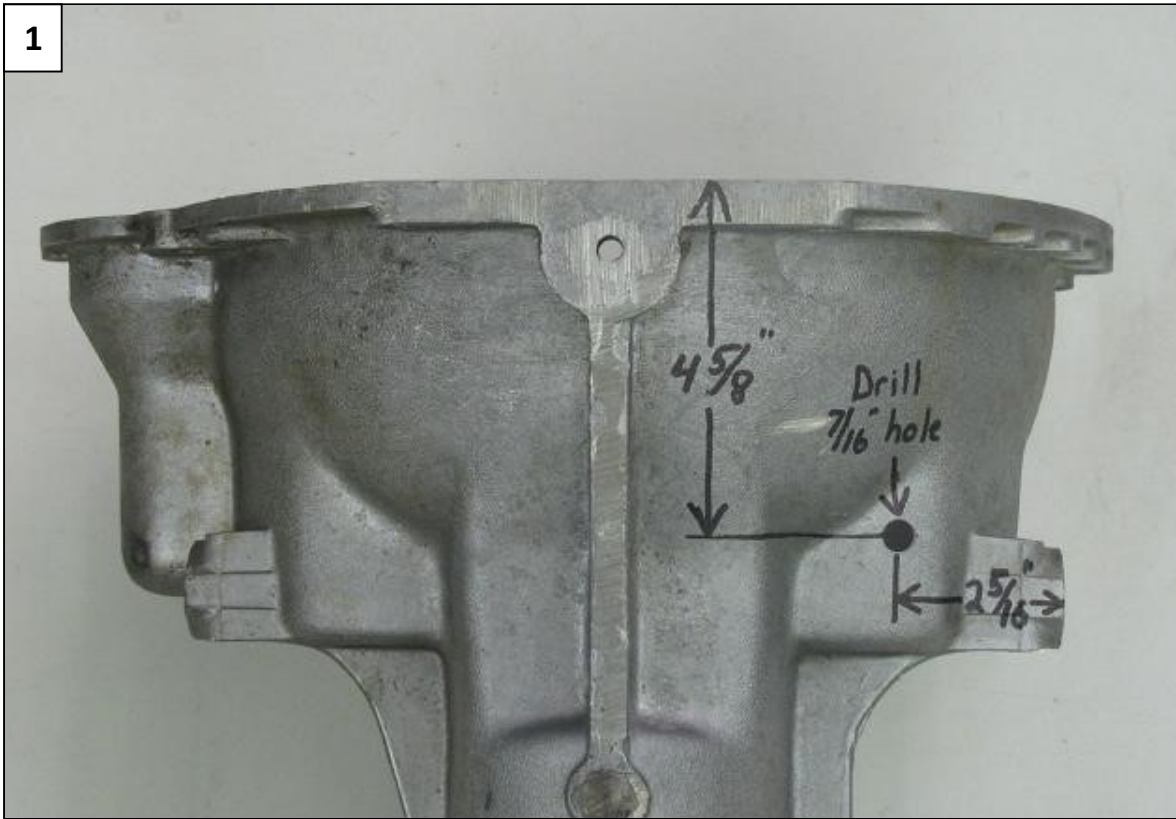
- 1) Drill 7/16" hole in transmission bell housing for grease fitting. See photo #1.
- 2) Enlarge cross shaft holes in bell housing from .875" to 1.000" (+.002", - .000") to depth of .813" for roller bearings. This should be done with a precision reamer or on a milling machine. Finished holes MUST be in-line with each other. Good Parts offers to loan a reamer designed for this job. A \$300 deposit is required. Customer must provide a heavy duty 1/2" drill to operate the reamer. Stock cross shaft bushings may be used in lieu of the roller bearings to avoid enlarging the holes in the housing, however the benefit of reduced friction in this area is lost.
- 3) After enlarging holes, press roller bearings into housing about 1/16" past flush.
- 4) Inspect transmission front cover for wear from the release bearing carrier sleeve. Replace if worn.
- 5) Install the bulkhead fitting in the 7/16" hole drilled in the housing with the flare end and nut inside the housing. Apply thread sealant or tape and install the grease zerk into the bulkhead fitting.
- 6) Slide cross shaft into housing and through fork. The heads of the clamp bolts should be forward. Do not install the original spring on the cross shaft.
- 7) Install shoulder bolt through fork and cross shaft and locking nut.
- 8) Torque the fork clamp bolts to 22 ft/lb then tighten the shoulder bolt nut.
- 9) Apply thread sealant or tape to the threaded end of the grease hose and thread into the release bearing carrier sleeve.
- 10) Apply a thin film of grease to the inside of the release bearing carrier sleeve and the outside of the trans cover. Slide the release bearing carrier sleeve onto the trans cover while engaging the fork rollers.
- 11) Thread the grease hose fitting onto the bulkhead fitting. Make sure the hose is arched in a way that it stays clear of the clutch. See photo #2.
- 12) Use a grease gun to fill the hose with grease. Stop pumping as soon as you see grease pushing out between the sleeve and cover. DO NOT over grease. One pump every few years should suffice.
- 13) Apply thread sealant or tape and install the 90 degree grease zerks into the ends of the cross shaft.
- 14) Bolt the push rod spherical rod end to the inside of the cross-shaft lever per photo #3 using one of the nylon stop nuts. Start with the center hole and move it later if needed to adjust travel vs. operating force.
- 15) After installing the trans in the car, adjust and lock the push rod length to allow 1/32" free play when slave cylinder piston is bottomed. As the clutch disc wears, the free play will be reduced and it may be necessary to re-adjust the push rod.

- 16) Attach return spring bracket to slave cylinder bolt per photo #3 using one of the 1.5" long bolts supplied. Attach return spring onto bracket and lever bolt as shown. If the spring has to be stretched excessively to reach, the bracket may be attached on the rear side of the cylinder ear. Thread the second nylon stop nut onto the bolt to hold the return spring but do not tighten against the spring.
- 17) The return spring is optional. Without a return spring to hold the release bearing away from the clutch fingers, the hydraulic head pressure against the slave cylinder piston will take up the free play and keep the release bearing against the clutch. One benefit of this is that the hydraulics are self adjusting. However, with the release bearing constantly against the clutch fingers, the fingers may wear. Another school of thought suggests that more wear will be caused by "spooling up" the release bearing each time the clutch is depressed after it was pulled away by a return spring and allowed to stop. With no return spring, the push rod should be adjusted shorter so the piston is about 1/2" away from bottoming when the clutch is not depressed.

PARTS LIST

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| 1 - Instructions with photos | 2 - Roller Bearing for Cross Shaft |
| 1 - Cross Shaft | 2 - Grease Zerk, 90 degree |
| 1 - Fork with Roller Bearings and Clamp Bolts | 1 - Adjustable Push Rod w/ Spherical Rod End Bearing |
| 1 - Shoulder Bolt, 5/16 x 1 with locking nut | 2 - Bolt, 5/16-24 x 1-1/2 |
| 1 - Release Bearing Carrier Sleeve | 3 - 5/16-24 Nylon Stop Nut |
| 1 - Release Bearing | 1 - Return Spring |
| 1 - Grease Hose with Bulkhead Fitting and Grease Zerk | 1 - Return Spring Bracket |

TR6 ROLLER BEARING CLUTCH MECHANISM INSTALLATION PHOTOS



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