

Limora Zentrallager

Industriepark Nord 21
D - 53567 Buchholz
Tel: +49 (0) 26 83 - 97 99 0
E-Mail: Limora@Limora.com
Internet: www.Limora.com

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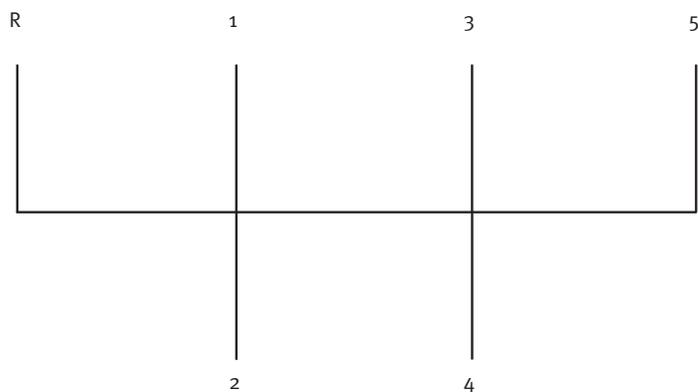
5-speed gearbox conversion kit (Part no. 318556)

1. Remove the engine and gearbox in accordance with the workshop manual instructions.
2. Remove the speedo cable.
3. Remove the seats and carpets from the floor and transmission tunnel.
4. Remove the sound insulating material from the transmission tunnel.
5. Separate the engine from the gearbox.
6. Remove the clutch and flywheel from the engine.
7. Remove the old spigot bush from the deeper recess of the crankshaft and discard.
8. Check that the new spigot bush slides freely over the Ford first motion shaft and modify as necessary, then fit it through the back, i.e. the engine side of the fly wheel. When fitted check that the bronze bush has not moved forward in its housing. Refit the flywheel and tighten to 40ft/lbs. Re-set the lock tabs.
9. Fit the clutch assembly using a clutch aligning tool and tighten down in accordance with workshop manual instructions - make sure that the clutch plate is fitted the correct way round.
10. Use the starter motor Bendix cover from the old gearbox as a template to drill three holes, with a 3.5mm drill, in the new bellhousing. Secure the cover with self tapping screws. Note the bellhousing drain hole position on the old gearbox and, with a 5mm drill, make a similar hole in the new bellhousing.
11. Add a smear of instant gasket around the gasket and the 'blind' hole at the top of the bellhousing then fit to the gearbox using Loctite or similar on the bolt threads.
12. Our clutch release bearing is designed to slide on the Ford centre tube as the original Ford bearing would have done. (NOTE: For 948cc cars - the end of this tube will need to be shortened by approximately 15-20mm to clear the clutch cover.) Fit the release bearing to the arm. Fit the new lever arm bracket to the bellhousing, sliding the bearing over the centre tube, and use the old lever arm pivot bolt and self lock nut provided to secure the arm. (NOTE: check the pivot and bolt for wear as this may impair the clutch travel and operation.) Tighten to remove side play but do not impair lever action. (See notes on clutch release bearing). Fit the slave cylinder.
13. Solder and insulate a 2" wire to each reverse light switch terminal and tape together to make a small sub-loom or use suitable push-fitting connectors.
14. Now refit the gearbox to the engine. This should be done without using excessive force. When the bellhousing is fitted to the gearbox check the release bearing to ensure a good position just off the pressure face of the clutch cover.
15. Using your available tools, cut back the front floor of the transmission tunnel, following the profile of the tunnel for a distance of 200mm then remove that section. (This will include removing the central box member which the original gearbox sat on.)
16. Slide the new reinforcing box sections provided into each side of the remaining central crossmembers as strengtheners. It is not necessary to weld in these sections though you can if you prefer. Seal the edges to prevent water getting in.
17. With the engine & gearbox supported on the crane offer them into the car. With one person inside the car, pass a rope through the transmission tunnel & around the end of the gearbox. This is used to lift the tail of the gearbox as the assembly is offered into position. When the gearbox is located in the tunnel you can re-fit the engine mounts. Don't bolt them tight until you have got the gearbox into place.
18. Centre the gearbox in the transmission tunnel from below, checking that it does not touch the tunnel at any point. Bolt the gearbox rubber mount and the new cross-member onto the gearbox then jack it firmly up to the underside of the car. Before final fitment, point 20 should be read. Drill through both the new & old crossmembers. Place a bolt into each hole as soon as you have drilled it to prevent any misalignment.
19. On the short remote kit, the new gear lever position will be towards the rear of the original aperture. Originally, this was cut by hand and does vary. In most cases no modification will be required to accommodate the new gear lever with sufficient clearance.
20. Fill the gearbox with approximately 1.5 litres of semi synthetic 75/90 gear oil. Allow oil to settle for 5 minutes then re-check.
21. Cut / drill a hole to allow the speedo cable to be fitted in the offside tunnel section with the cable entering into the car. Connect the speedo cable to the gearbox taking care that the inner cable is correctly fully entered into the drive gear. Route the cable around the driver's footwell behind the trim panels.
22. With the gearbox installed and bolted in, reposition the fuel and brake pipe lines using 'P' clips or similar so that they will not chafe anywhere.
23. Fit the gearlever and the gearlever gaiter. Make sure the rubber does not restrict the gear lever movement.

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24. Fit your chosen gear knob.
25. Bleed the clutch and carefully test and make any adjustments necessary. (Note: We recommend unbolting the slave cylinder from the original bellhousing and leaving the hydraulic pipes intact as bleeding the clutch hydraulics can be problematic.
26. Now you should be ready to test the conversion. Make sure that you are happy everything is where it should be & try it!!!



Trouble shooting

- If you get excessive noise or vibration, the probable cause is the gearbox or engine touching the body somewhere.
- If the clutch is not operating correctly, check that the clevis pins used on the clutch slave & master cylinders are not worn. Also check that the clutch system is correctly bled and is not leaking fluid. Both of these things would give less travel on the clutch arm & cause clutch drag which also makes gear engagement difficult.

Clutch release bearing (Special notes)

This clutch release bearing will improve the lift and feel quality of either a coil spring or diaphragm clutch. It will make the lift lighter and smoother to operate.

The clutch pivot is slotted to allow the clutch arm to slide in and out and therefore letting the clutch bearing slide back and forth on the centre tube. It is very important to check that this operation is smooth before completing the installation. If you have any resistance it could be due to one of the following:

- The pivot bolt I bracket is binding on the clutch arm. This is usually overcome by slackening the pivot bolt.
- The clutch arm is not exactly central on the bearing. This may be due to a twist or bend on the arm and can usually be overcome by filing the inside faces of the arm to match the bearing.

If you are in doubt please call us. It is better to take a little more time now than to have problems later.

The clutch plate supplied is slightly thicker than standard and can take higher loadings than the original plate so a greater travel of the clutch mechanism will be required to disengage the clutch. Any play in the mechanisms may result in clutch drag so please check all pivots in the clutch system.

Please do call us with any questions. We are here to help.