

Diagnosing Bearing Noises

1. Clutch release bearing

A. Depress the clutch pedal approximately 2". the bearing is now in contact with the diaphragm. Should the bearing rumble or squeal then the clutch release bearing is most likely at fault (providing it has been pressed onto the carrier the right way around.)

2. Pilot Bearing or Bush.

A. With engine running depress the clutch fully.
B. Select first gear.

C. Release the clutch.

If the squeal is heard at the point of the clutch taking up, then the pilot bearing is faulty. In the event it is a bronze bush it will indicate lack of lubrication on the I.D. of the bush. If the bush has been lubricated on the I.D. there is a greater possibility that the O.D. of the bush is under sized and worn. The noise is then caused by the bush spinning in the end of the crank. If new pilot bush has not been pressed in evenly this could also result in the bush spinning which would cause a grumbling

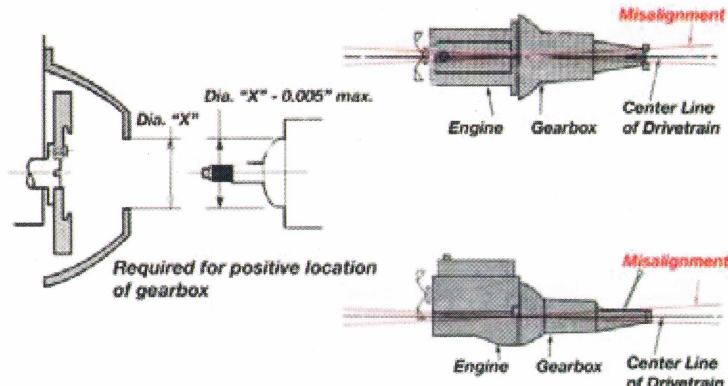
or squealing noise. Pilot bush noises are more apparent when engine and transmission are cold. (i.e. In the morning).

3. Front gear box bearing

A. Drive the vehicle at approximately 25 mph in gear. If a noticeable grumble noise is apparent, depress the clutch pedal to the floor. This will, in turn, stop the main drive and bearing from spinning. If noise ceases it is probable that the front gear box bearing is faulty (as there is no load on the bearing).

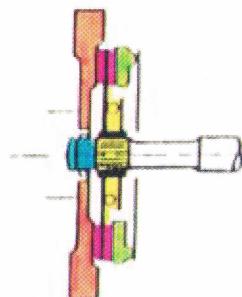
General Misalignment Issues/Tips

1. Check for a warped alloy bell housing
2. Examine tubular dowel pins for damage during fitting of bell housing or for missing dowel pins.
3. Examine gearbox quill/gearbox main drive nose cone/bearing slide: Excessive wear can cause bearing to come in contact with the cover assembly diaphragm unevenly while actuating the clutch.
4. Ensure the proper mating of bell housing to motor, and crankshaft to flywheel. These may not mate properly due to debris, grease or other parts in the way of the mating surfaces.
5. Examine all bearings/bushings for excessive wear, replace if necessary.
6. Replacement engines and gearboxes may have missing dowel pins. Ensure that you remove pins from your product when you send your core for remanufacture, and refit or replace them when installing new clutch.

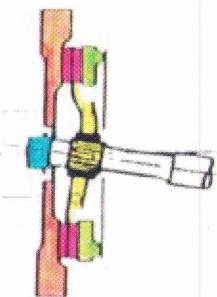


Hanging the Gearbox

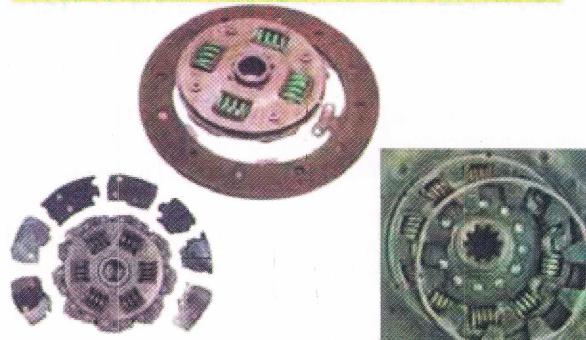
Right



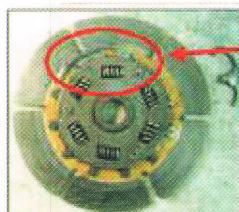
Wrong!



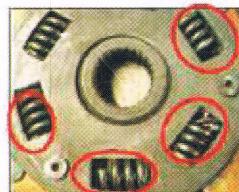
DON'T HANG THE RESULTS ON US



Examples of Common Warranty Exclusions



Hub and springs are broken because of misalignment. Also outside of hub has excessive wear like groove as shown.



Spline teeth are worn excessively because of misalignment.

This much clearance (wear) because of misalignment.



Splined teeth are stripped off because of misalignment.

