mercruiser STERN DRIVES & INBOARDS

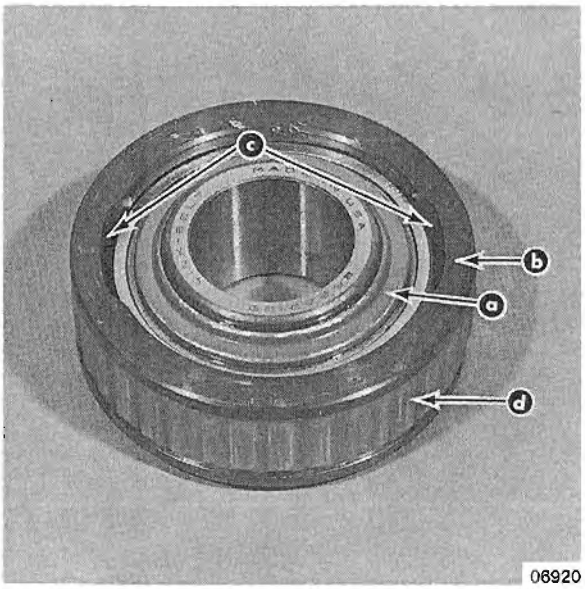
service bulletin

NUMBER: 85-26

GIMBAL BEARING SERVICING ON MERCRUISER I MODELS

CIRCULATE TO:
SERVICE MANAGER ☐
PARTS MANAGER ☐
MECHANICS ☐
"Place In a Service Bulletin Binder"

We frequently hear reports where someone has replaced a gimbal bearing without replacing the cartridge. (Figure 1) **This should not be done under any circumstances.** The bearing is selectively fitted to the cartridge during manufacturing and must remain together as a matched set. Failure to do this, could result in a loose fit between bearing and cartridge and cause a noise similar to U-joint knocking. Secondly, bearing may be damaged from lack of lubrication, if bearing is installed backward. (Figure 2)



a - Bearing
b - Cartridge
c - Bearing Removal and Installation Slots
d - Tolerance Ring

Figure 1. Gimbal Bearing Assembly

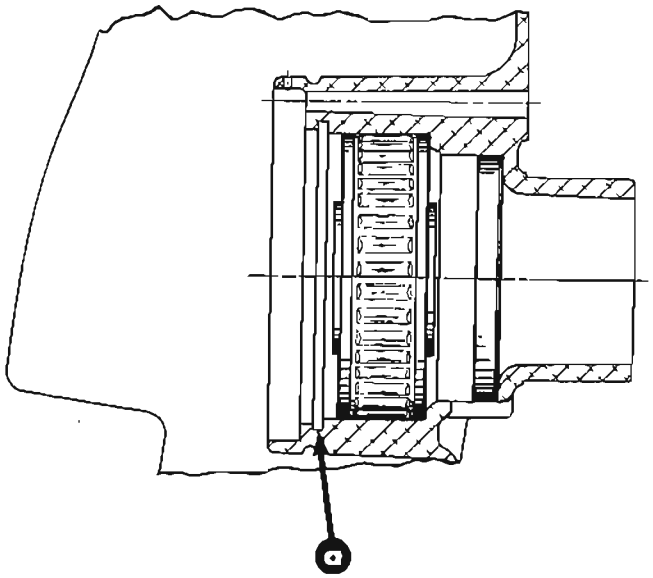
a - Hole In Bearing Must Align With Groove in Cartridge

Figure 2. Bearing Installation

To help ensure that the bearing is replaced as an assembly, current production MerCruiser 120-thru-300MR models have the gimbal bearing assembly installed with the bearing removal and installation slots (Figure 1) inward. Bearing can no longer be removed from the cartridge while installed in gimbal housing. If replacing a gimbal bearing assembly, the new assembly also should be installed in this manner.

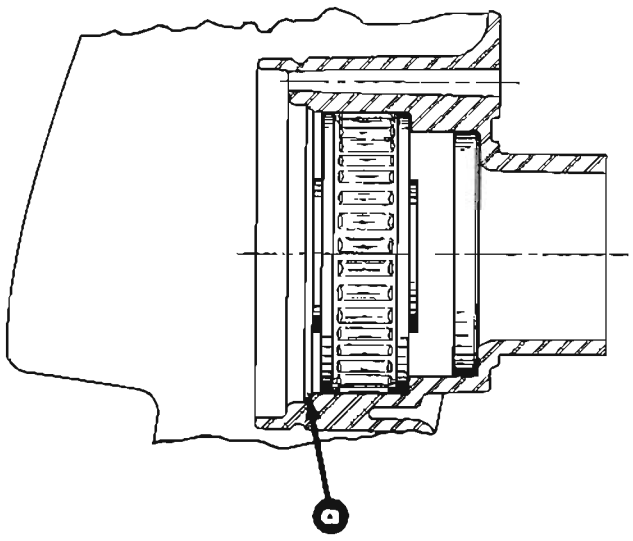
If a gimbal bearing assembly is to be reused, the tolerance ring (Figure 1) should always be replaced. It is essential that a tight fit be maintained between gimbal bearing cartridge and gimbal housing. A loose fit could allow bearing assembly to spin in the gimbal housing and/or cause U-joint knocking type noises.

When installing a gimbal bearing assembly, be sure bearing is fully seated in gimbal housing. **Cartridge must be pressed in past snap ring groove or lead in chamfer in gimbal housing,** as applicable. (Figure 3 or 4) Failure to do this, could cause U-joint yoke to contact bearing in turns with subsequent U-joint knocking resulting.



a - Cartridge Must Be Pressed In Past Groove

Figure 3. Gimbal Bearing Assembly Installation In Gimbal Housings With Snap Ring Groove



a - Cartridge Must Be Pressed In Past Lead In Chamfer

Figure 4. Gimbal Bearing Assembly Installation In Gimbal Housings Without Snap Ring (R & MR Models)