MERCURY MerCruiser **service bulletin**

No. 2000-8

☐ WARRANTY INFORMATION ☑ SERVICE INFORMATION

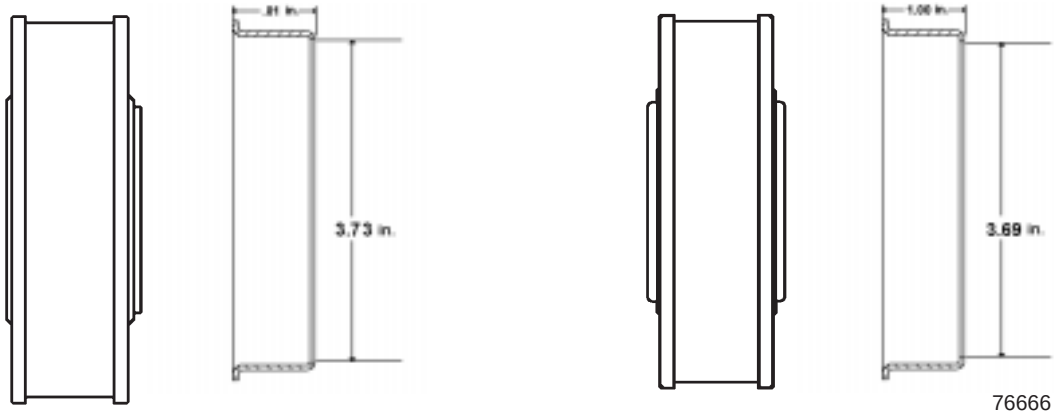
▲ = Revised August 2000

When replacing a current Bravo Drive with a Bravo One X / Two X / Three X, Bravo One XR or Bravo One XZ Drive a Magnum or Hi-Performance Transom must be used.

Problem

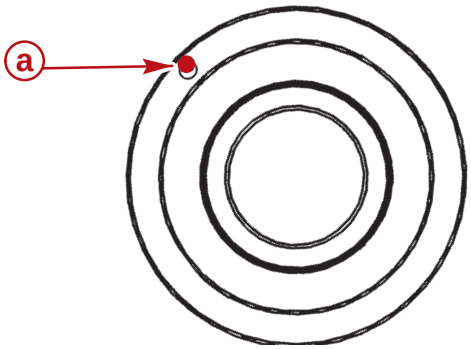
The gimbal bearing inner race thickness has changed to accommodate the larger U-Joint used in the X, XZ and XR Bravo drives. If an X, XZ or XR drive is installed on a transom with the thicker gimbal bearing, interference will occur between the U-Joint and the bearing. Either one or both components will fail.

Identification



76666

New **Old**



76667

a - Red Dot

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Inspection

1. Remove sterndrive unit.
2. Inspect gimbal bearing for red dot. If gimbal bearing has a red dot in the location specified previously, you do not need to replace the bearing. If the indentation is not painted, proceed with the following instructions.

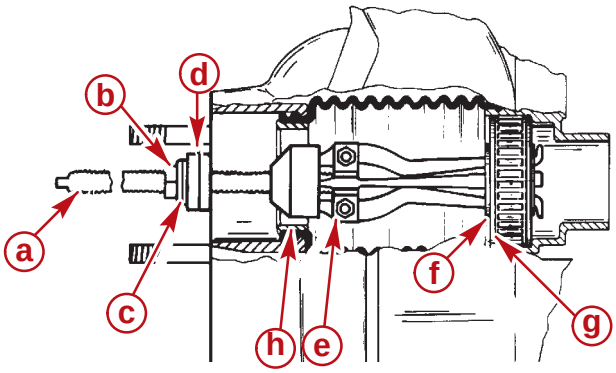
Removal

IMPORTANT: Gimbal bearing and cartridge are a matched set and must be replaced as an assembly. Tolerance ring must be replaced any time gimbal bearing is removed.

⚠ CAUTION

Do not remove gimbal bearing unless replacement is necessary, as damage to bearing may result during removal.

1. Remove gimbal bearing assembly and sleeve.

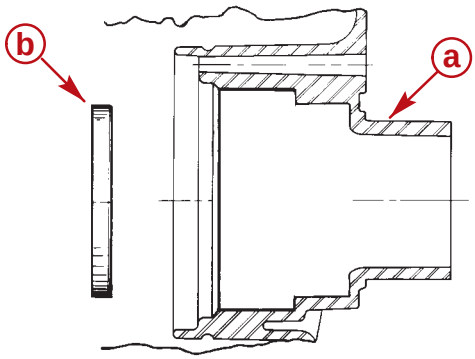


22119

- **a** - *Puller Shaft
- **b** - *Nut
- **c** - *Washer
- **d** - 3 Plates
- **e** - 3 Jaw Puller
- **f** - Gimbal Bearing Inner Race
- **g** - Gimbal Bearing Cartridge
- **h** - Bellows Sleeve

* From Bearing Removal and Installation Tool 91-31229A7

2. Remove and discard grease seal using a slide hammer.



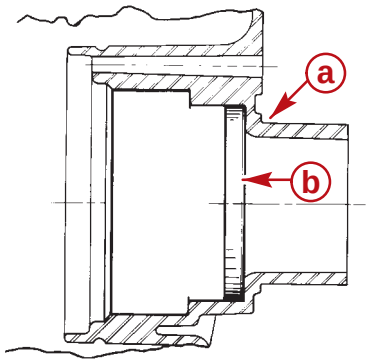
77017

- **a** - Gimbal Housing
- **b** - Grease Seal

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Installation

1. Install a new grease seal using a suitable mandrel.



22171

a - Gimbal Housing
b - Grease Seal

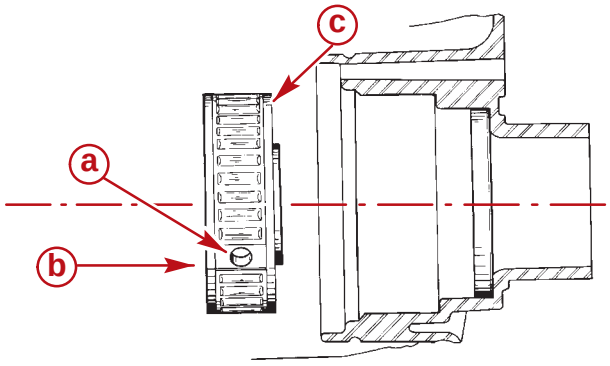
2. Install and position new tolerance ring.

3. Align opening in tolerance ring with grease hole in gimbal bearing cartridge.

IMPORTANT: Red dot on gimbal bearing cartridge must be positioned at 10 o'clock portside.

IMPORTANT: Ensure that notched edge of bearing cartridge faces inward in bore.

4. Align gimbal bearing cartridge grease hole and tolerance ring opening with grease cavity hole in gimbal housing.

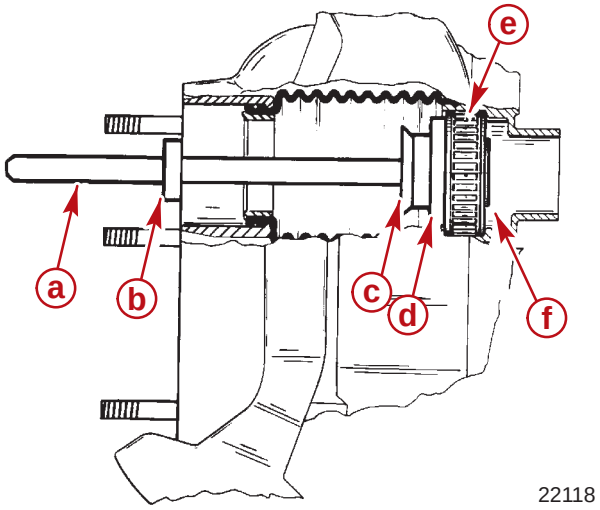


77020

a - Gimbal Bearing Cartridge Grease Hole
b - Tolerance Ring Opening
c - Gimbal Bearing Cartridge Notch - Face Inward

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5. Install gimbal bearing, using hammer and tools shown. Make sure gimbal bearing cartridge seats in gimbal housing.



a - *Drive Rod
b - *Plate
c - *Drive Head
d - *Mandrel
e - Gimbal Bearing Assembly
f - Chamfer

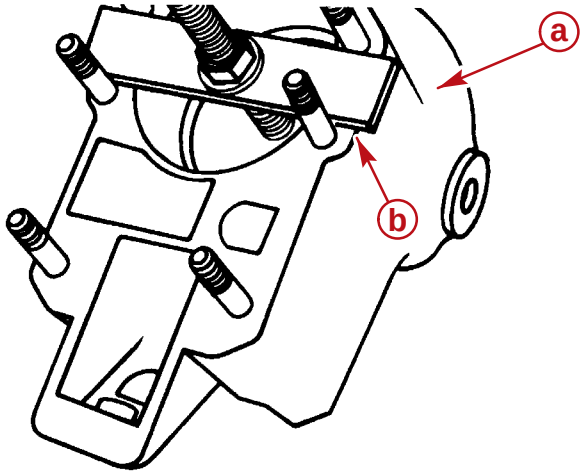
* From Bearing Removal and Installation Tool 91-31229A7

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Bellows Sleeve

Removal

1. Spray engine cleaner around edge of bellows sleeve and remove with U-joint bellows sleeve removal tool.

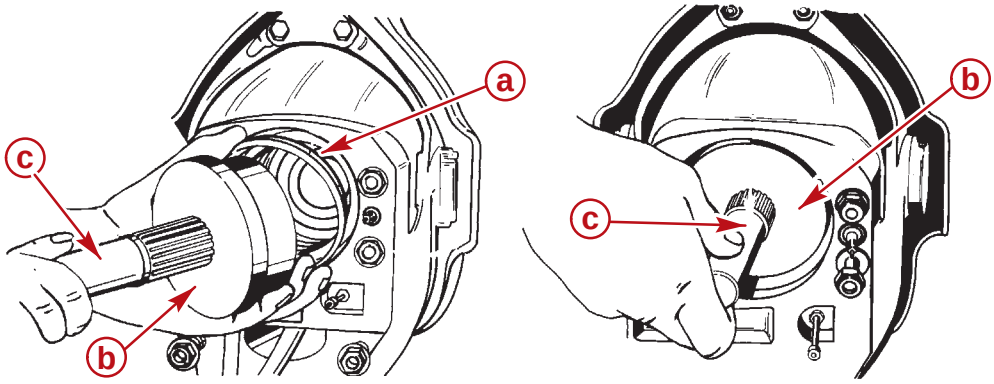


71526

a - Bell Housing
b - U-joint Bellows Sleeve Removal Tool

Installation

1. Lubricate sleeve outside diameter (O.D.) with soap and water or engine cleaner and install using U-joint bellows retention sleeve installation tool and a suitable driving rod.



50327

a - Sleeve
b - U-joint Bellows Retention Sleeve Installation Tool
c - Suitable Driving Rod

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Sterndrive Gimbal Bearing Installation Kit

Bearing kit containing the red dot bearing and correct sleeve **P/N 30-862540A2**

Parts List

NOTE: *When installing an X / XR / XZ drive unit, the trim cylinders must have the 15768A3 Tilt Limit Spacer Kit installed in the trim cylinder to prevent U-Joint damage when the unit is in a full up position. To identify if the cylinder already has the spacer kit installed extend the cylinder to full trailer position. With the spacer installed, the cylinder should only extend to 26 7/16 in. (671 mm). Without the spacer, the cylinder will extend to 27 1/16 in. (687 mm).*

Qty.	Description	Part Number
1	Tilt Limit Spacer Kit	15768A3
1	Gimbal Bearing	30-862540A1
1	Bellows Sleeve	862209
1	Tolerance Ring	61075
1	Grease Seal	26-88416

Special Tools

Description	Part Number
3 Jaw Puller (From Slide Hammer)	91-34569A1
Hex Nut	11-24156
Puller Plates (3)	91-29310
Threaded Rod	91-31229
U-joint Bellows Sleeve Removal Tool	91-862546
U-joint Bellows Retention Sleeve Installation Tool	91-818162
Washer	12-34961
Spanner Wrench	91-821709T
Mandrel	91-30366
Drive Head	91-32325
Drive Rod	91-37323

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