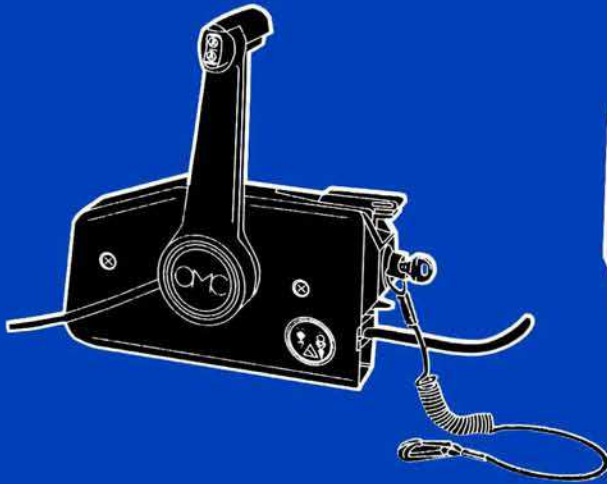
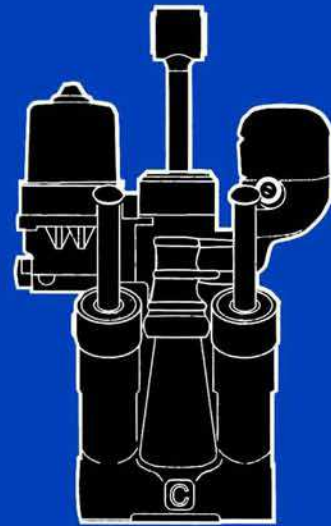




Johnson[®]
OUTBOARDS



**Service
Manual
ACCESSORIES**




EVINRUDE[®]
OUTBOARDS

Safety Warning

This Service Manual will alert you to certain procedures that must be done very carefully. If you ignore this information, you could . . .

- Injure yourself or people around you
- Injure the boat operator, boat passengers, or people around the boat
- Damage the outboard or its systems

Understand the following symbols before proceeding:

| | |
|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
|  Safety Warning | Alerts you to the possibility of danger and identifies information that will help prevent injuries. |
| Note | Identifies information that will help prevent damage to machinery. |
| Important | Appears next to information that controls correct assembly and operation of the product. |

This Service Manual is written for qualified, factory-trained service technicians familiar with the use of **OMC** Service Tools.

This Service Manual tells you how to correctly maintain and service the outboard and its systems. When correctly serviced, the outboard will be reliable and safe to operate.

When **OMC** Service Tools are called for, use them. Where mentioned, the tools are required to perform the service procedure.

If you use procedures or service tools that are not recommended in this manual, YOU ALONE must decide if your actions might injure people or damage the outboard.

Inspection

Note Before inspecting components, thoroughly clean them with a mild aerosol solvent, and blow dry with shop air of not more than 25 PSI (172 kPa).

1. Inspect the pump housing and gerotor.

- All components must be perfectly clean.
- Mating surfaces must be flat and have no irregularities.
- Gerotor and housing must not be scored or worn.

33 • Gerotor must be flush with upper surface of pump housing.

- O-ring grooves must be smooth and free of nicks.

2. Inspect the reservoir and its internal components.

- All components must be perfectly clean.
- All fitting threads and seal areas must be smooth and free of nicks.
- The shaft and pulley tapers must be clean and smooth. They must not show any signs of fretting.
- The bearings must be quiet and must not bind when rotated by hand.
- Check the relief valve seats, balls, and guides for nicks or distortion.

Assembly

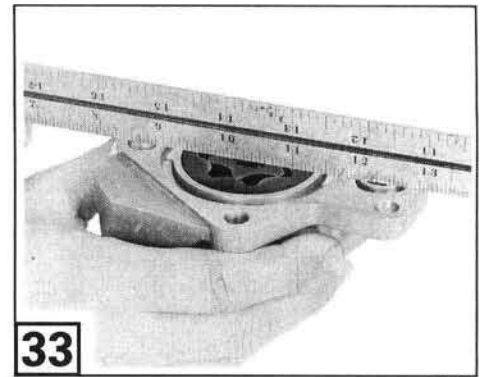
Note The seal and O-rings necessary to assemble the pump and reservoir are available in **OMC** O-ring Kit, P/N 985330. O-rings are identified by dimensions in this assembly procedure (I.D. x thickness in inches).

34 1. If removed, install a new lower shaft bearing. Place the lettered end of bearing against **OMC** Installing Tool, P/N 912101, and press into place.

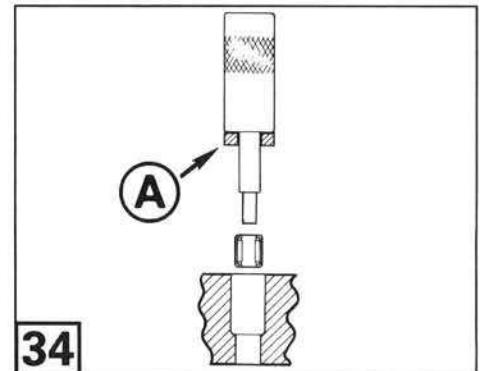
34 **Note** The ¼ in. (6,3 mm) spacer **A** must be used with all CC (1988) and newer engines. CU (1987) and older models do not require this spacer when using **OMC** Installer, P/N 912101.

35 2. Support the bearing cone and press pump shaft into the upper bearing until bearing seats completely on shoulder.

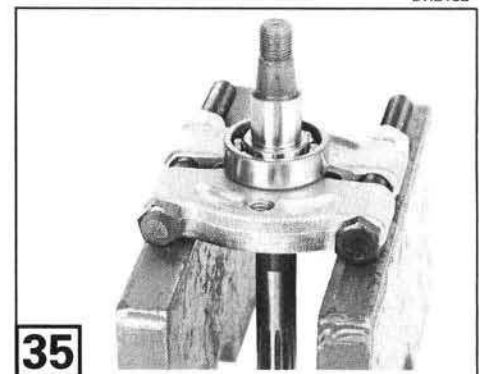
36 3. Use No. 4 external retaining ring pliers to install the bearing retainer. Sharp, square edges of retaining ring must face away from bearing when installed.



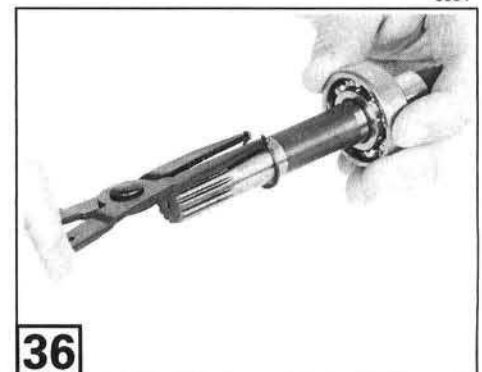
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