

Bell Housing 288522
Transmission HBW-10 2R
947.40
Nr. 04-20658
Carl Hurth Munchen

UNIVERSAL DIESEL TRANSMISSION

Model HBW-5 (2:1)

Model HBW-10 (2.14:1)

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A. DESCRIPTION:

The Hurth transmission housing is made of a high strength aluminum alloy that is resistant to sea water. The transmission is equipped with shaved and case hardened helical gears and with shafts mounted in heavy-duty roller bearings. Forward and reverse is accomplished by a mechanical friction clutch.

Gear shifting is mechanical and requires only a minimum effort on the gear lever. Precision setting or readjustment of the shifting control (Morse or Teleflex) is not required.

The transmission is designed to permit reversing at full engine speed. TO BE USED ONLY IN THE EVENT OF AN EMERGENCY!

B. SERVICING:

The transmission is filled with Type "A" transmission fluid at the factory during the engine load test.

Recheck and fill the gear box with the prescribed oil up to the top mark on the dipstick.

When checking the oil level, DIPSTICK TO BE INSERTED ONLY - DO NOT SCRW IN.

Tighten the dipstick after adding oil or checking the oil level.

1. Placing in service after storage.

If the transmission was completely filled with oil for for storage and preservation, make sure to drain the excess oil to the proper level. Use new oil if necessary.

2. Oil quantity.

Approximately 1.3 pints (.55 liter) - see servicing.

3. Oil grade.

Automatic Transmission Fluid, Type A.

ALWAYS USE THE SAME GRADE AND TYPE OF OIL WHEN ADDING OR CHANGING OIL.

WARNING: ADDITIVES SUCH AS MOYBDENUM SULPHITE OR THE LIKE MUST NOT BE CONTAINED IN THE OIL UNDER ANY CIRCUMSTANCES.

C. MAINTENANCE:

1. Oil level in the transmission should be checked weekly.

Oil level: See Servicing.

2. Changing oil.

Change oil after first 25 hours of operation. Then change every 300 hours of operation, or at least at intervals of once a year or season.

3. Placing transmission in storage.

If the transmission is put out of operation for long periods of time under unfavorable environmental conditions, it should be protected against corrosion by filling it completely with oil of the same grade and type. Otherwise, it should be operated briefly with a good oxidation inhibiting oil to allow the agent to contact all parts of the gearbox.

D. GENERAL INFORMATION:

1. General

If the transmission is being painted, care should be taken to protect the oil seals at the output shaft in back of the coupling. Make sure the venting hole on the oil filter screw is not covered with paint.

The assembly - (engine/transmission) should be flex mounted in the boat to avoid distortion of the transmission housing.

2. Angle of installation

The angle of installation must not exceed 15° in relation to the water line in operation.
(See illustration Fig. 3).

3. Operating temperature

Proper ventilation of the engine and transmission compartment should be insured. The operating temperature of the transmission oil should not exceed 250° F. (130° C).

4. Flexible couplings

The flex coupling between engine coupling and propeller shaft should be designed to absorb bending stresses to compensate for minor angular deviations after installation.

Coupling alignment should be rechecked with the boat in the water.

5. Gear shifting

Shifting requires little effort, therefore, the single lever control works well on this transmission.

Shift lever: Upon loosening the retaining screw (3), the shifting lever, item (2), can be rotated as required to meet the control cable connection. The operating cable or rod assembly should be positioned perpendicular to the shifting lever in its neutral position (Fig. 3).

The shifting travel, measured at the pivot point of the shifting lever, must be at least 1-3/8" (35mm) from neutral to forward and neutral to reverse position. Longer shifting movements have no detrimental effect on the transmission (Fig. 2).

When shifting transmission, engine R.P.M. should be rechecked to idle, then shift transmission firmly from one direction to another. A slight pause in neutral will allow propeller to slow and add life to transmission.

When running the engine to charge batteries in neutral, engage transmission for 1 or 2 minutes every 2 or 3 hours to lubricate all internal parts.

Transmission can be left in neutral when sailing.

HURTH TRANSMISSION ILLUSTRATIONS:

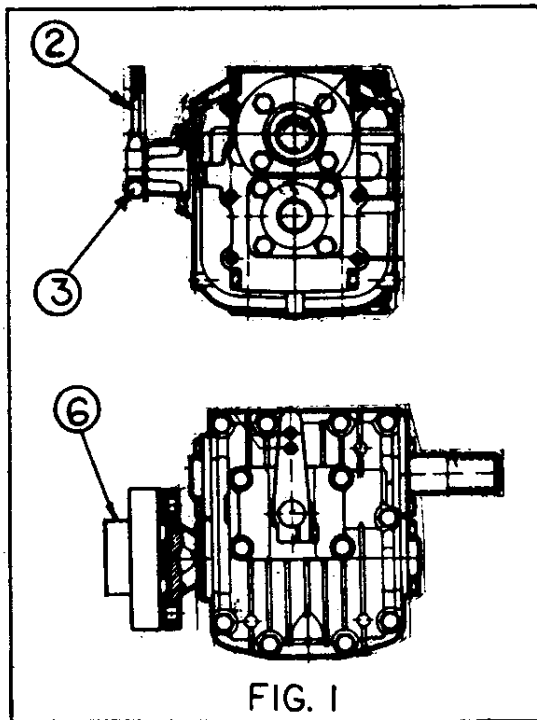


FIG. 1

1. Oil filler screw with dipstick & venting hole.
2. Shifting lever.
3. Retaining screw for shifting lever.
4. Oil drain plug.
5. Shifting cable and mount.
6. Flex coupling or solid coupling.

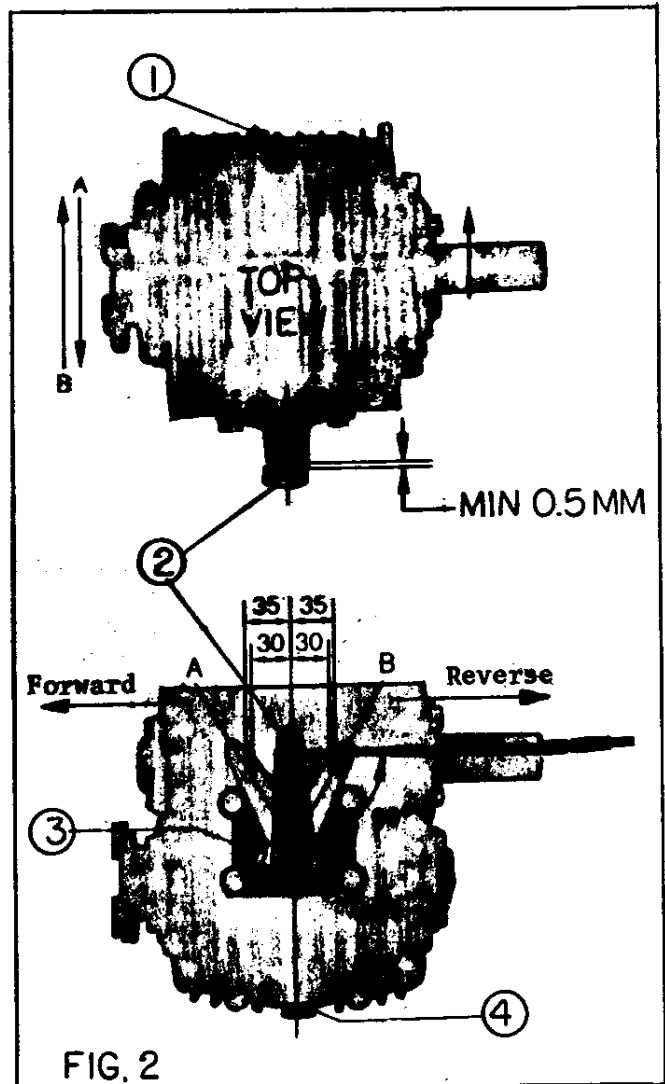


FIG. 2

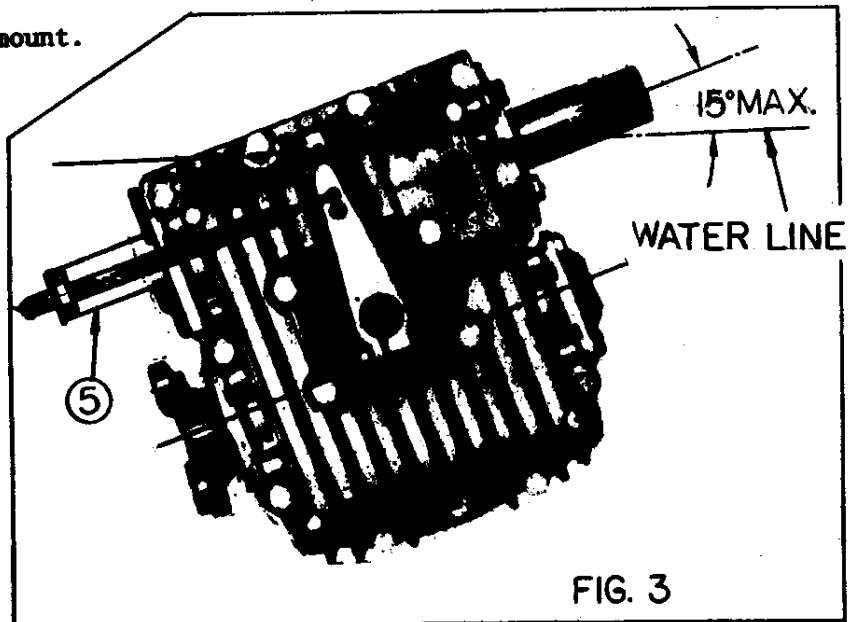


FIG. 3