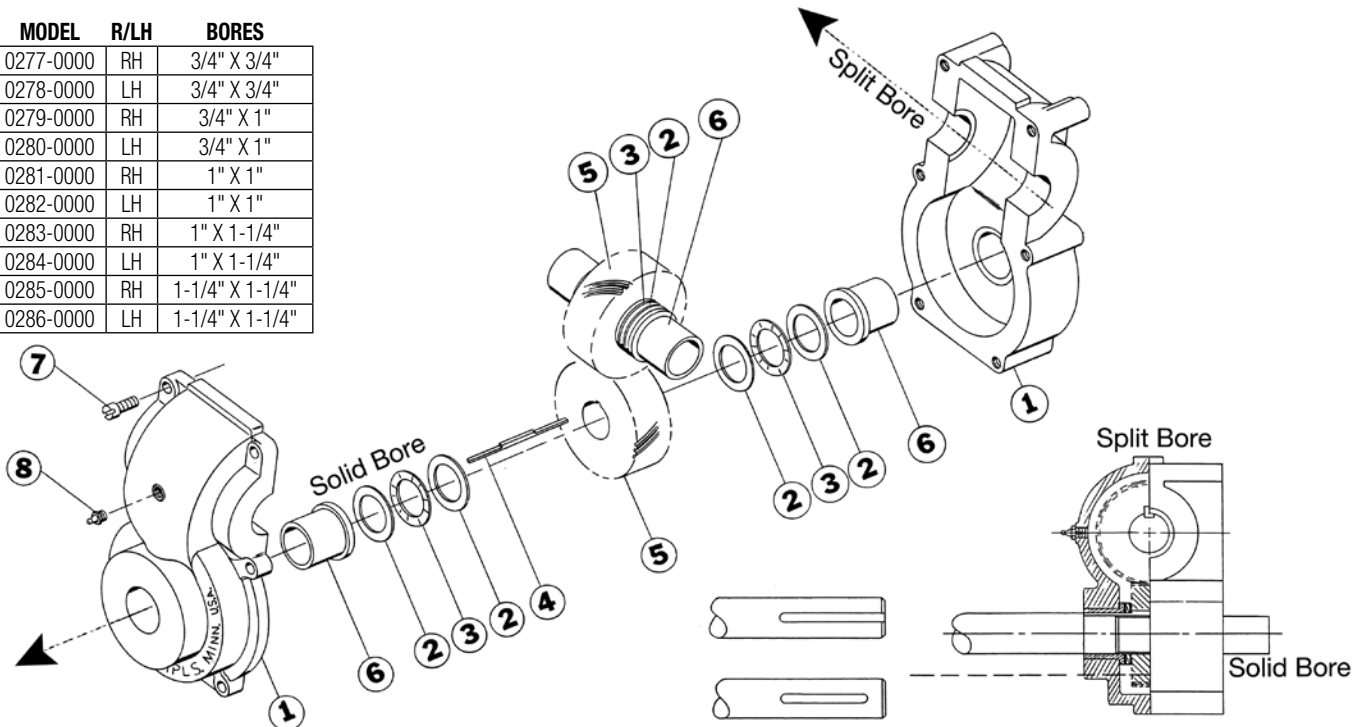


### FLOAT-A-SHAFT® Standard Series – 3:2 Ratio

Flat Base - Low Torque - Journal Bearing

| MODEL     | R/LH | BORES           |
|-----------|------|-----------------|
| 0277-0000 | RH   | 3/4" X 3/4"     |
| 0278-0000 | LH   | 3/4" X 3/4"     |
| 0279-0000 | RH   | 3/4" X 1"       |
| 0280-0000 | LH   | 3/4" X 1"       |
| 0281-0000 | RH   | 1" X 1"         |
| 0282-0000 | LH   | 1" X 1"         |
| 0283-0000 | RH   | 1" X 1-1/4"     |
| 0284-0000 | LH   | 1" X 1-1/4"     |
| 0285-0000 | RH   | 1-1/4" X 1-1/4" |
| 0286-0000 | LH   | 1-1/4" X 1-1/4" |

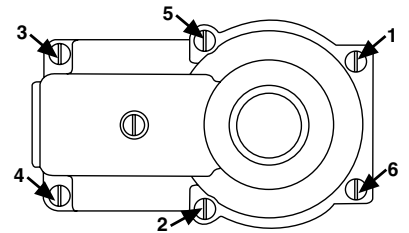
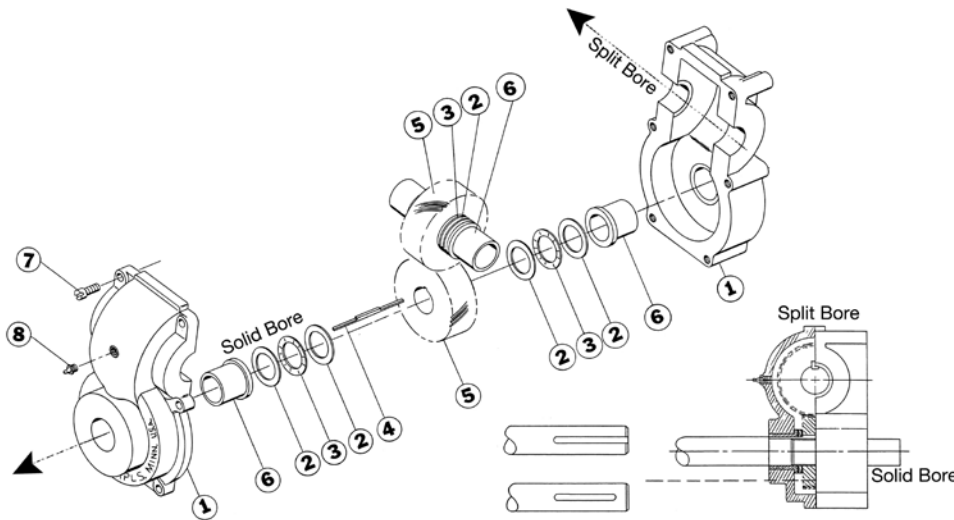


| ITEM | PART NO.  | DESCRIPTION                           | QUANTITY  |           |           |           |           |           |           |           |           |           |   |   |
|------|-----------|---------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---|---|
|      |           |                                       | 0277-0000 | 0278-0000 | 0279-0000 | 0280-0000 | 0281-0000 | 0282-0000 | 0283-0000 | 0284-0000 | 0285-0000 | 0286-0000 |   |   |
| 1.   | 0275-9500 | GEAR CASE HOUSING, FLAT BASE          | 1         | 1         | 1         | 1         | 1         | 1         |           |           |           |           |   |   |
|      | 0275-9600 | GEAR CASE HOUSING, FLAT BASE          |           |           |           |           |           |           | 1         | 1         |           |           |   |   |
|      | 0275-9400 | GEAR CASE HOUSING, FLAT BASE          |           |           |           |           |           |           |           |           | 1         | 1         |   |   |
| 2.   | 0100-1312 | WASHER, THRUST, 3/4" BORE             | 8         | 8         | 4         | 4         |           |           |           |           |           |           |   |   |
|      | 0100-1334 | WASHER, THRUST, 1" BORE               |           |           | 4         | 4         | 8         | 8         | 4         | 4         |           |           |   |   |
|      | 0100-1336 | WASHER, THRUST, 1-1/4" BORE           |           |           |           |           |           |           | 4         | 4         | 8         | 8         |   |   |
| 3.   | 0200-1212 | BEARING, THRUST, 3/4" BORE            | 4         | 4         | 2         | 2         |           |           |           |           |           |           |   |   |
|      | 0200-1216 | BEARING, THRUST, 1" BORE              |           |           | 2         | 2         | 4         | 4         | 2         | 2         |           |           |   |   |
|      | 0200-1220 | BEARING, THRUST, 1-1/4" BORE          |           |           |           |           |           |           | 2         | 2         | 4         | 4         |   |   |
| 4.   | 0200-1503 | KEY, STEP, 1/8" X 7/64"               | 2         | 2         | 1         | 1         | 2         |           |           |           |           |           |   |   |
|      | 0200-1504 | KEY, STEP, 1/4" X 1/4"                |           |           | 1         | 1         | 2         | 2         | 2         | 2         | 2         | 2         | 2 | 2 |
| 5.   | 0300-1112 | GEAR, 20 T, LH, 3/4" BORE             |           |           | 1         | 1         |           |           |           |           |           |           |   |   |
|      | 0300-2112 | GEAR, 20 T, RH, 3/4" BORE             | 1         |           | 1         |           |           |           |           |           |           |           |   |   |
|      | 0200-1129 | GEAR, 30 T, LH, 3/4" BORE             |           |           | 1         |           |           |           |           |           |           |           |   |   |
|      | 0200-1130 | GEAR, 30 T, RH, 3/4" BORE             | 1         |           |           |           |           |           |           |           |           |           |   |   |
|      | 0200-1116 | GEAR, 20 T, LH, 1" BORE               |           |           |           |           |           | 1         |           | 1         |           |           |   |   |
|      | 0200-2116 | GEAR, 20 T, RH, 1" BORE               |           |           |           |           | 1         |           | 1         |           |           |           |   |   |
|      | 0200-1126 | GEAR, 30 T, LH, 1" BORE               |           |           |           | 1         |           | 1         |           |           |           |           |   |   |
|      | 0200-1125 | GEAR, 30 T, RH, 1" BORE               |           |           |           | 1         |           | 1         |           |           |           |           |   |   |
|      | 0200-1120 | GEAR, 20 T, LH, 1-1/4" BORE           |           |           |           |           |           |           |           |           |           |           | 1 |   |
|      | 0200-2120 | GEAR, 20 T, RH, 1-1/4" BORE           |           |           |           |           |           |           |           |           |           |           | 1 |   |
|      | 0200-1127 | GEAR, 30 T, LH, 1-1/4" BORE           |           |           |           |           |           |           |           |           | 1         |           | 1 |   |
|      | 0200-1128 | GEAR, 30 T, RH, 1-1/4" BORE           |           |           |           |           |           |           |           |           | 1         |           | 1 |   |
| 6.   | 0200-3512 | BUSHING, BRONZE, FLANGED, 3/4" BORE   | 4         | 4         | 2         | 2         |           |           |           |           |           |           |   |   |
|      | 0200-1516 | BUSHING, BRONZE, FLANGED, 1" BORE     |           |           | 2         | 2         | 4         | 4         | 2         | 2         |           |           |   |   |
|      | 0200-3520 | BUSHING, BRONZE, FLANGED, 1-1/4" BORE |           |           |           |           |           |           | 2         | 2         | 4         | 4         |   |   |
| 7.   | 0200-1812 | SCREW, FILL HD, 1/4-20                | 6         | 6         | 6         | 6         | 6         | 6         | 6         | 6         | 6         | 6         | 6 | 6 |
| 8.   | 0100-1601 | ZERK GREASE FITTING, 1/4-28           | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1 | 1 |

Drawing repeated for reference

Thrust Washer (2), and the other Flanged Bushing (6). Position this assembly into the Gear Case Housing (1), making sure the teeth of the gears mesh.

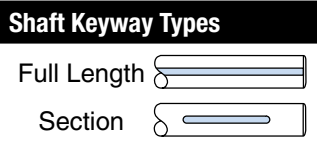
**CAUTION:** When trying to get the gears to mesh, rotate the gears to prevent possible damage to the teeth. Next, make sure the Flanged Bushings (6) are pushed all the way into the casting to allow maximum clearance between the gear and the bushings. To complete the assembly, install the other half of the Gear Case Housing (1) with the Flanged Bushing (6) already inserted, and tighten the Screws (7) in the order shown here. In case of shaft binding, check for possi-



**Installation**

**FULL LENGTH SHAFT KEYWAY:**

Keyway extends to end of shaft. In this case, it is not necessary to disassemble the Float-A-Shaft®. Without removing the plastic tubes, align the Float-A-Shaft® with the shaft on which it is to be used and gently press it on. Be sure the key is properly oriented with the keyway. The plastic tubes will fall out as the shaft extends through the unit. The plastic tubes should be saved if removal of the Float-A-Shaft® is required. Be sure the plastic tubes are inserted as the shaft is withdrawn, otherwise the internal parts will slip out of position and disassembly may be required to restore proper alignment.



**SECTION KEYWAY:** Keyway does not extend to end of shaft. The Float-A-Shaft® must be disassembled for installation.

**REASSEMBLY:** Reference the numbering diagram on page 1 to complete the following instructions, matching the numbers with corresponding bores.

**SOLID BORE REASSEMBLY:** Slide one end of the Gear Case Housing (1), which has the Flanged Bushing (6) already inserted into the most accessible end of one shaft. Then install a Thrust Washer (2), a Thrust Bearing (3), and another Thrust Washer (2). Next, place the Key (4) in the keyway and slide the Gear (5) onto the shaft over the key. On the opposite side of the gear, place a Thrust Washer (2), a Thrust Bearing (3), and another Thrust Washer (2).

**SPLIT BORE REASSEMBLY:** Slide the following parts onto the shaft, which is positioned at a 90° angle: a Flanged Bushing (6)—Flanged end toward gear, a Thrust Washer (2), a Thrust Bearing (3), and another Thrust Washer (2). Place the Key (4) in the keyway and slide the Gear (5) onto the shaft over the key (4). On the opposite side of the Gear (5), place a Thrust Washer (2), a Thrust Bearing (3), another

ble misalignment of the shafts or for an oversized shaft diameter. Insert Zerk Grease Fitting (8).

**SHAFT REQUIREMENTS:** Shafts should be made of power transmission steel grade 4140 or better. A tolerance of  $+.000/- .002$  is recommended for the shaft diameters. The shaft surfaces should be 32 RMS maximum for stationary applications, and 16 RMS maximum for traversing applications. Shaft straightness should be  $.0015$  TIR per foot.

**LUBRICATION AND MAINTENANCE SCHEDULE:** All Float-A-Shaft® gear boxes have been lubricated at the factory with Mobilith® SHC 460. Standard Float-A-Shaft® gear boxes are initially filled with 2.8 oz. (82.8 ml) of grease to achieve 54% fill on the units. However, units require more lubrication prior to operation. Periodic re-lubrication is also necessary for optimum performance. When re-lubricating, inject Mobilith® SHC 460 (maximum operating temperature of 300°F or higher and EP rated) into gear case, as required, via the grease zerk provided. *Mobilith® SHC 460 - 14 oz grease cartridge • P/N 0100-1605*

Lubrication and maintenance schedules are dependent on the application. General guidance is provided below and a maintenance plan can be developed based on the use case.

| MAINTENANCE                                                                                     | USE CASE                  |                             |          |
|-------------------------------------------------------------------------------------------------|---------------------------|-----------------------------|----------|
|                                                                                                 | Continuous/<br>Heavy Duty | Intermittent/<br>Light Duty | Minimal  |
| Inject 1/4 oz. of Mobilith SHC460 into gear housing                                             | 1 ½ Months                | 3 Months                    | 6 Months |
| Disassemble and purge unit. Hand lubricate all bearings and gears with 3 oz. of Mobilith SHC460 | 6 Months                  | 1 Year                      | 1 Year   |

Mobilith® SHC 460 is a registered trademark of Exxon Mobil Corporation, [www.mobil.com](http://www.mobil.com)  
Float-A-Shaft® is a registered trademark of Tolomatic, Inc.



COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV  
= ISO 9001 =

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