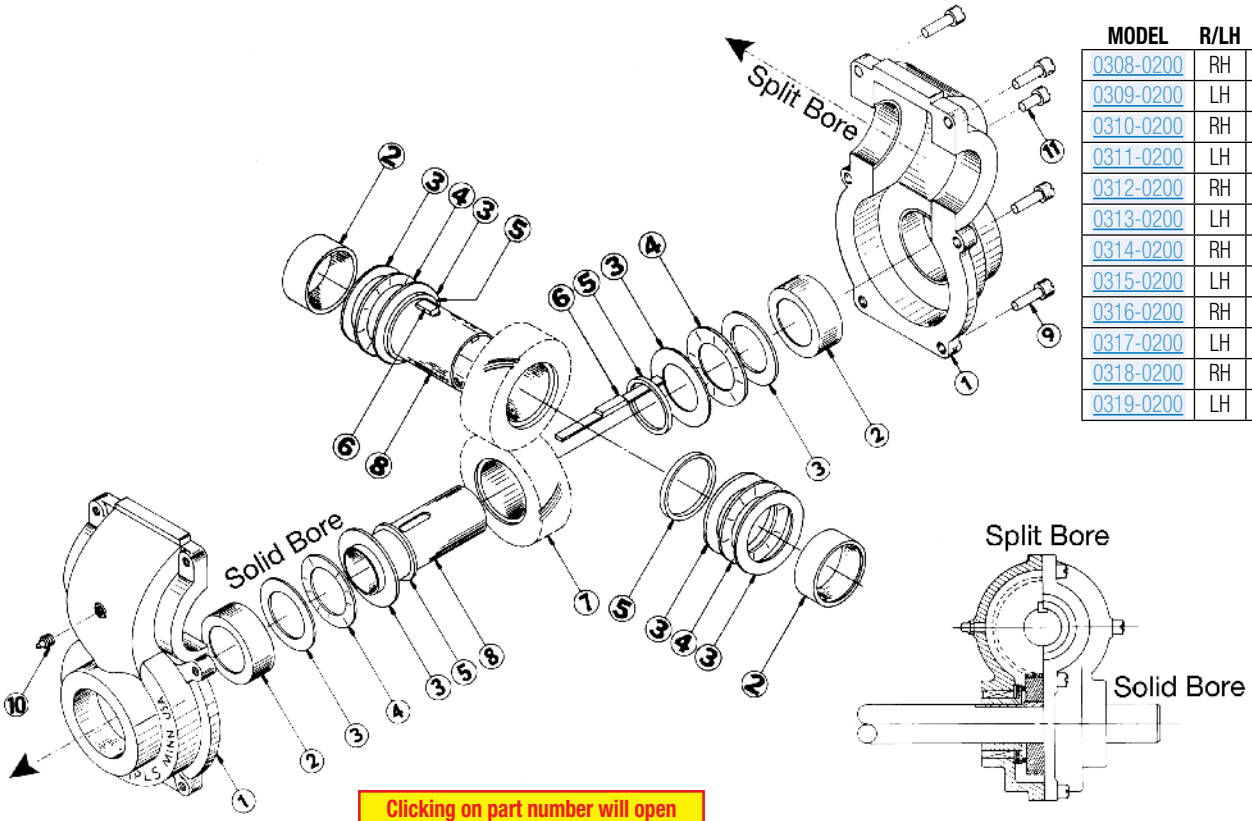
Tolomatic™
EXCELLENCE IN MOTION

Parts Sheet

0100-0220_05

FLOAT-A-SHAFT® Standard Series – 1:1 Ratio - METRIC

Standard - High Torque - Roller Bearing



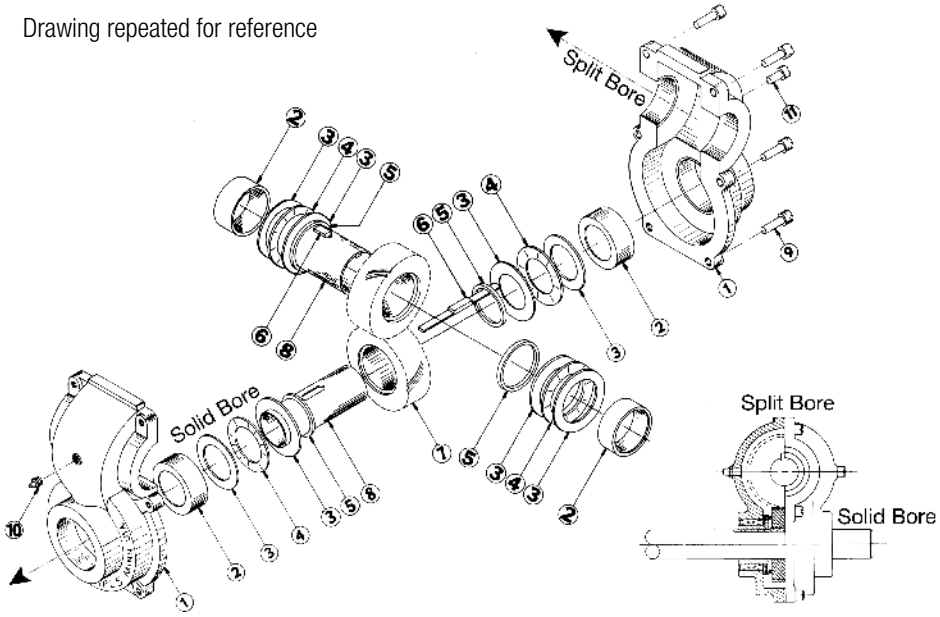
MODEL	R/LH	BORES
0308-0200	RH	20MM X 20MM
0309-0200	LH	20MM X 20MM
0310-0200	RH	20MM X 25MM
0311-0200	LH	20MM X 25MM
0312-0200	RH	20MM X 30MM
0313-0200	LH	20MM X 30MM
0314-0200	RH	25MM X 25MM
0315-0200	LH	25MM X 25MM
0316-0200	RH	25MM X 25MM
0317-0200	LH	25MM X 30MM
0318-0200	RH	30MM X 30MM
0319-0200	LH	30MM X 30MM

Clicking on part number will open tolomatic.com/cart and add quantity of 1 to cart. Change quantity as needed. CLICK ON BROWSER'S BACK BUTTON TO RETURN TO PARTS SHEET.

Click on Part No. to Add to Cart

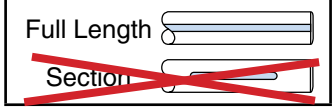
ITEM	PART NO.	DESCRIPTION	QUANTITY											
			0308-0200	0309-0200	0310-0200	0311-0200	0312-0200	0313-0200	0314-0200	0315-0200	0316-0200	0317-0200	0318-0200	0319-0200
1	0226-9026	GEAR CASE HOUSING	1	1	1	1	1	1	1	1	1	1	1	1
2	0200-1526	BEARING, NEEDLE, ROLLER	4	4	4	4	4	4	4	4	4	4	4	4
3	0200-1326	WASHER, THRUST	8	8	8	8	8	8	8	8	8	8	8	8
4	0200-1222	BEARING, THRUST	4	4	4	4	4	4	4	4	4	4	4	4
5	0200-1332	SPACER, PL, CELCON RING, .09" THICK	4	4	4	4	4	4	4	4	4	4	4	4
6	0200-1537	KEY, STEP, 8MM X 9.53MM					1	1			1	1	2	2
	0200-1536	KEY, STEP, 8MM X 11.89MM			1	1			2	2	1	1		
	0200-1535	KEY, STEP, 6MM X 13.36MM	2	2	1	1	1	1						
7	0200-1143	GEAR, 25 T, LH, 8MM BORE				1		1		2		2		2
	0200-2143	GEAR, 25 T, RH, 8MM BORE			1		1		1		2		2	
	0200-1142	GEAR, 25 T, LH, 6MM BORE		2		1		1						
	0200-2142	GEAR, 25 T, RH, 6MM BORE	2		1		1							
8	0200-3547	BUSHING, SLEEVE, STEEL, 20MM BORE	2	2	1	1	1	1						
	0200-3548	BUSHING, SLEEVE, STEEL, 25MM BORE			1	1			2	2	1	1		
	0200-3549	BUSHING, SLEEVE, STEEL, 30MM BORE					1	1			1	1	2	2
9	0200-1812	SCREW, FILL HD, 1/4-20	6	6	6	6	6	6	6	6	6	6	6	6
10	0100-1601	ZERK GREASE FITTING, 1/4-28	1	1	1	1	1	1	1	1	1	1	1	1
11	0100-2604	SCREW, FILL HD, 1/4-28	1	1	1	1	1	1	1	1	1	1	1	1

Drawing repeated for reference



Installation

Shaft Keyway Types



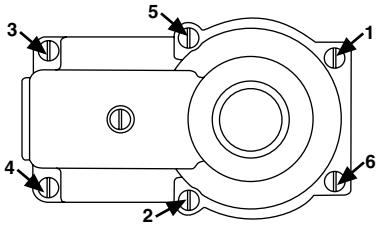
Keyway MUST extend to end of shaft. IT IS NOT POSSIBLE TO USE A SECTIONED SHAFT WITH A ROLLER BEARING FLOAT-A-SHAFT. Without removing the plastic tubes, align the Float-A-Shaft® with the shaft on which it is to be used and gently press it on. Be sure the key is properly aligned with the keyway. The plastic tubes will fall out as the shaft extends through the unit. Save the plastic tubes for removal of the Float-A-Shaft® for maintenance or repair. Be sure to reinsert the plastic tubes as the shaft is withdrawn, otherwise the internal parts will slip out of position and disassembly may be required to restore proper alignment.

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

SOLID BORE REASSEMBLY: Lay Gear Case Housing (1) horizontal, with inside surface facing up. Install Roller Bearing (2) in solid bores of Gear Case Housing (1). Press from inside to outside. Inside face of roller bearing must be flush with inside machined surface of gear case housing. Next, Insert Key (6) into slot of Sleeve Bushing (8) and insert the plastic tube to hold it in place. Install Gear (7) over the Sleeve Bushing (8) positioning it over Key (6). Install Plastic Spacer (5) on both sides of gear. Lubricate Roller Bearing (2), Thrust Bearing (4), and Gear (7) manually (See "Lubrication"). Install a Thrust Washer (3), Thrust Bearing (4), and Thrust Washer (3) on each side of gear. Lay the Gear Case Housing (1) horizontal, with the solid bore vertical and inside surface facing up. Install gear, sleeve and bearing assembly into the solid bore.

SPLIT BORE REASSEMBLY: Insert Key (6) into slot of Sleeve Bushing (8) and insert the plastic tube to hold it in place. Install Gear (7) over the Sleeve Bushing (8) positioning it over Key (6). Install Plastic Spacer (5) on both sides of gear. Lubricate all bearings and the Gear (7) manually (See "Lubrication"). Install a Thrust Washer (3), Thrust Bearing (4), and Thrust Washer (3) on each side of gear. Install a Roller Bearing (2) on each side of Gear (6). Lay the completed assembly into the split bore of 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, cover gears and bearings with approximately 3 oz. of lubricant. To complete assembly, install the other half of the Gear Case Housing (1) and tighten the Screws (9) in the order shown here. In case of shaft binding, check for possible misalignment of the shafts or for oversized shaft diameters.



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/ Heavy Duty	Intermittent/ 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
Float-A-Shaft® is a registered trademark of Tolomatic, Inc.

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