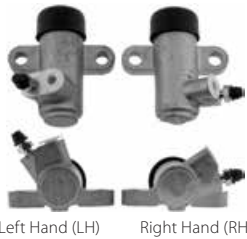
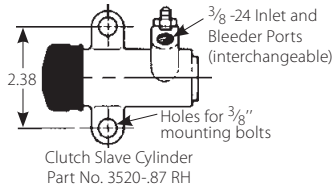


## Clutch Slave Cylinders

### Girling External Clutch Slave Cylinders and Repair Kits



This Girling slave cylinder was original equipment on Hewland Mk-series gearboxes. We stock both right and left hand versions with the common .87 bore size. We also stock a right hand version of the less common .75 bore size. Choose the one that allows bleeding without removal, or, in the case of a vertically mounted unit, the one that provides the most direct hose routing. The port positions on the left and right versions are not mirror images of each other (see photo). The inlet and bleeder ports are interchangeable.

- Right hand - .75 inch bore (not a common size).....Part No. 3520-.75 RH . \$164.99*
- Right hand - .87 inch bore, as illustrated.....Part No. 3520-.87 RH . \$134.99*
- Left hand - .87 inch bore, as shown in photo .....Part No. 3520-.87 LH . \$134.99*
- Slave Cylinder Repair Kit - .75 inch bore (not common).....Part No. 3521-.75..... \$27.99*
- Slave Cylinder Repair Kit - .87 inch bore.....Part No. 3521-.87..... \$27.99*

### Clutch Release Bearing & Bobbins for External Slave Cylinders



These parts are used on the Mk-series gearboxes with an external slave cylinder such as the Girling units shown at left. Bobbins are available for Formula Ford 1600 with the stock Ford clutch, Formula Ford 1600 with the F3 or Tilton single-disc racing clutch, FF2000/S2000 with the stock Ford clutch, and FF2000/S2000 with the F3 or Tilton single-disc racing clutch. These bobbins are sized for use with the common 2 1/8" thick gearbox adapter plate. The hydraulic release bearings shown below do not use bobbins.

- Clutch Release (Throwout) Bearing, VW.....Part No. 1410-C26..... \$49.99*
- Retaining Clip for release bearing, 2 required.....Part No. 1410-C27..... \$2.99*
- FF Bobbin, stock Ford clutch, 1.30" long, 7/8" ID.....Part No. 1410-C28-1 .. \$169.99*
- FF Bobbin, racing clutch, 1.94" long, 7/8" ID.....Part No. 1410-C28-2 .. \$169.99*
- S2000 Bobbin, stock Ford clutch, 1.10" long, 1" ID.....Part No. 1410-C28-3 .. \$129.99*
- S2000 Bobbin, racing clutch, 2.14" long, 1" ID.....Part No. 1410-C28-4 .. \$184.99*
- Bushing for FF bobbin (use 1 for stock, 2 for racing clutch).....Part No. 1410-C44-1 .... \$4.99*
- Bushing for S2000 bobbin, stock Ford clutch.....Part No. 1410-C44-3 .... \$5.99*
- Bushing for S2000 bobbin, racing clutch.....Part No. 1410-C44-4.....\$7.99*

## Hydraulic Release Bearings (Annular Slave Cylinders)

Some racing clutches require so much force to release that an external clutch slave cylinder acting through a linkage requires almost superhuman leg strength. Deflection and bending in the linkage also wastes motion, in some cases enough to prevent the clutch from disengaging at all.

Hydraulic release bearings (HRBs) eliminate all lost motion by mounting the throwout bearing directly on the hydraulic piston. This results in the most positive, simplest, and lightest release mechanism available. In many applications, an HRB can provide better leverage, reducing pedal effort.

### Important Note:

You must install a clutch pedal stop with any hydraulic release bearing! Overstroking the release will cause damage to the clutch and to the engine.

### Tilton Hydraulic Release Bearing Assemblies

Tilton 3000 Series Hydraulic Release Bearing Part No. TE 60-3000



The **Tilton 3000 Series** (left) has a compact 3x3.0" bolt circle mount designed to be mounted to an adapter plate (not included) in your bellhousing. The overall height is 3.00 inches. The 52mm contact diameter bearing works with Tilton 8.5" and AP 4.5", 5.5", and 7.25" racing clutches with a 1 7/8" diaphragm spring hole. Includes 3AN male adapter fittings for the 3/8-24 female inlet and bleed ports.

*3000-Series Hydraulic Release Bearing, 3.00" Tall, 52mm Contact Diameter.....Part No. TE 60-3000..... \$318.75*

The low-profile **Tilton 8000 Series** (right) leaves extra room for your adapter in tight installations (adapter base is not included). The overall height is just 1.87" (47.5mm). You can even remove a shim under the bearing to reduce the setup height to 1.82" (46.2mm). Simple 2-bolt mount (3.2" center-to-center, 180° apart). The 44mm contact diameter bearing works with Tilton 7.25" and QuarterMaster 4.5", 5.5", and 7.25" racing clutches.

*8000-Series Hydraulic Release Bearing, 1.87" Tall, 44mm Contact Diameter.....Part No. TE 60-8200..... \$297.50*

Tilton 8000 Series Hydraulic Release Bearing Part No. TE 60-8200



### Replacement Parts for Tilton Hydraulic Release Bearings

The modular design of Tilton Hydraulic Release Bearings means that pistons and bearings can be interchanged to make nearly any combination of base, height, and bearing diameter. Any of these replacement parts will fit either of the Tilton HRB assemblies above.

- Replacement Seal Kit for Tilton Hydraulic Release Bearing.....Part No. 163-51..... \$34.00*
- Replacement 52mm Contact Diameter Release Bearing.....Part No. 163-60..... \$55.25*
- Replacement 44mm Contact Diameter Release Bearing.....Part No. TE 62-031..... \$76.50*
- Replacement 38mm Contact Diameter Release Bearing.....Part No. TE 62-008..... \$72.25*

*Please visit our website for a full list of replacement pistons to alter the height of your Tilton HRB!*

### Hydraulic Release Bearing Assembly for FF1600

This hydraulic release bearing is designed just for the Hewland Mk-series gearbox! It fits most Formula Ford 1600 cars with 7.25" racing clutches and the standard 2 1/8" transmission adapter ring without any fabrication. (Will not fit Lotus, Swift, Lola T440, or early Titan chassis.) The adapter base bolts to the main case using three holes around the input shaft. Most Mk-series gearboxes already have these holes drilled and tapped - check your case before ordering. Includes mounting adapter, hydraulic release bearing, mounting hardware, 3AN inlet adapter, and 3AN bleed adapter. Inlet hose and remote bleed hose are sold separately.

- Release Bearing Assembly for FF1600 w/ Mk 9.....Part No. 163-55..... \$439.99*
- Replacement Bearing Only.....Part No. 163-61..... \$83.99*
- Rebuild Seal Kit, includes base seal and piston seals.....Part No. 163-52..... \$26.99*

*Bulkhead Mounted -3 Hose End with Bleeder Screw.....Part No. 3266-20.....\$28.99*  
*This hose end fits -3 braided hose. The 3/8-24 male bulkhead mount requires a 3/8-24 jam nut, sold separately.*

*3AN Bulkhead Mount for 3/8-24 Bleed Screw.....Part No. 3266-25..... \$21.49*  
*The male 3AN end fits a standard 3AN hose end. Accepts a 3/8-24 bleed screw. Bleed screw and 3/8-24 jam nut sold separately.*



### Hydraulic Release Bearing Tester

Don't waste time installing your transaxle only to find out too late that your hydraulic release bearing is leaking! Check it first with our **Hydraulic Release Bearing Tester**. This universal tool has been tested to work on FT200, LD200, Mk-series, and Staffs gearboxes. A wide range of adjustments will allow it to fit many other applications. Simply bolt the crossbar to the front of your transmission and adjust the stop plate about 1/4" away from the release bearing using the supplied assortment of spacers. Connect your clutch hydraulic line, bleed the system, and apply moderate pressure to the clutch pedal while watching for leaks. This slick tool could pay for itself the first time you discover a leak before assembly. Black anodized aluminum, includes all necessary hardware.

**Hint:** This tool can also help find any lost motion in an external clutch slave application! With all parts in the linkage exposed, you will be able to see any flexing.

*Internal Hydraulic Clutch Release Bearing Tester.....Part No. 3094..... \$167.99*

