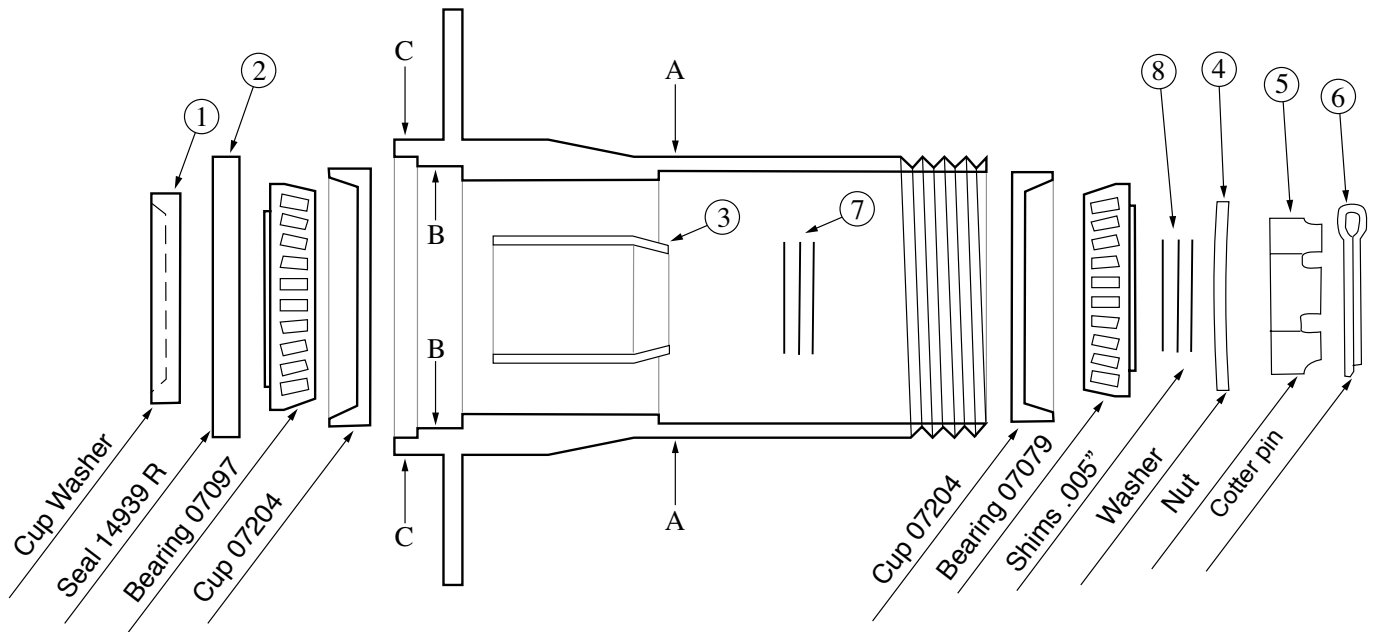




# TC Clinic

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## TC FRONT WHEEL BEARING CONVERSION by Jack Berry



This conversion requires no machine work, it is inexpensive and it gives you exact adjustment of the front wheel bearings. It does take time to get it right though.

1. Retain items marked 1, 2, 3, 4, & 5. All other internal parts will be discarded. Note that item 3 is necessary to add to axle rigidity when assembly is torqued down.

2. The following is a list of parts needed for both front wheels.

- 4 - 07204 (Timken) cups (bearing race)
- 2 - 07079 (Timken) bearings (outside on spline)
- 2 - 07097 (Timken) bearings (inside on spindle)
- 2 - 14939 grease seals (needed if old ones are discarded (item 3 above))

1 - tube 7212 Loctite cement to secure cups (bearing race) in hub at A-A & B-B

New cotter pins (item 6)

Various shims (item 7) as needed to adjust wheel bearing play.  $\frac{3}{4}$ " ID x  $1\frac{1}{8}$ " OD

.005 shims (item 8) as needed to align the nut for the cotter key (item 6).  $1$ " ID x  $1\frac{1}{8}$ " OD

(note: shims can be bought at machine shop suppliers, or you can make your own if you have shim stock. MGB shims could also be used for item 7)

### BEARING INSTALLATION

Before installing the cups be sure to clean all of the grease and dirt from the hubs by using soap and water and lacquer thinner. Any grease will interfere with the holding ability of the Loctite.

If your hubs are worn and the cups go in easily then it will be necessary to use Loctite to secure the cups to keep them from turning in the hub. I have found that some hubs are not worn and the cups will not go in even under considerable pressure. In this case it will be necessary to heat the hub with a torch until the cup will go in with a slight pressure. If it is necessary to heat the hub then the Loctite will not be required. Install one cup at point "A" and one at point "B". The seals go in at point "C". Be sure to install the inside bearing before installing the seal.

Note: If Loctite is used it is recommended that the hubs be placed in an oven and heated to set the Loctite but I have found that it holds very well after it has had time to dry.

### BEARING ADJUSTMENT

To adjust bearing play, add shims (items 7) between the spacer and the bearings (.025" is a good starting shim) or remove material from spacer to achieve adjustment when nut (item 5) is tightened (70-80 ft lb). This is done by trial and error. Trim shim OD if necessary if they bind on bearing. Use of a dial indicator may speed the process by indicating existing play. Try to get a little play as you can without any bearing drag when rotating wheel. You may want to install seal (item 2) after all this trial fitting is over.

Once proper bearing adjustment is achieved then add shims (items 8) as needed if necessary to achieve cotter pin alignment at 70-80 ft lb. These last shims do not affect bearing play, only nut slot/cotter alignment.

Make sure concave side of washer (item 4) is facing nut.

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