



The majority of these tips have appeared in club newsletters over the years. Please note that you use them at your own risk as neither the Bristol Austin 7 Club nor the authors can be responsible for the results of trying to follow the instructions given.

Speedo Spindle Bush 3spd Gearbox - Direct Drive Model - Ian Moorcraft

Gathering parts from my spares stock to build up a three speed gearbox recently my attention was drawn to the differences between the rear felt seal covers 1A3068. Some had an extra hole others did not, the later scroll type all had this extra hole, my six spare spindle bushes one was different than the other five.

Speedo- meter Spindle Bush.	Since June last, improved lubrication has been provided for the speedometer spindle bush by the drilling of oil holes in the gear box and rear cover. This necessitates a different position for oil hole and groove in the speedometer spindle bush. The modified gear box, rear cover and cover washer, can be used as replacement for the previous type, the bush however, is not interchangeable, and stocks of the previous design will be available for replacements. Particulars of the new bush are given hereunder.				
	BHx09	Speedometer Spindle Bush	...	<i>Price.</i> 4/-	...

This is an extract from my Austin Service Journal for January 1929, but notice that this was being implemented earlier to cars from June 1928.

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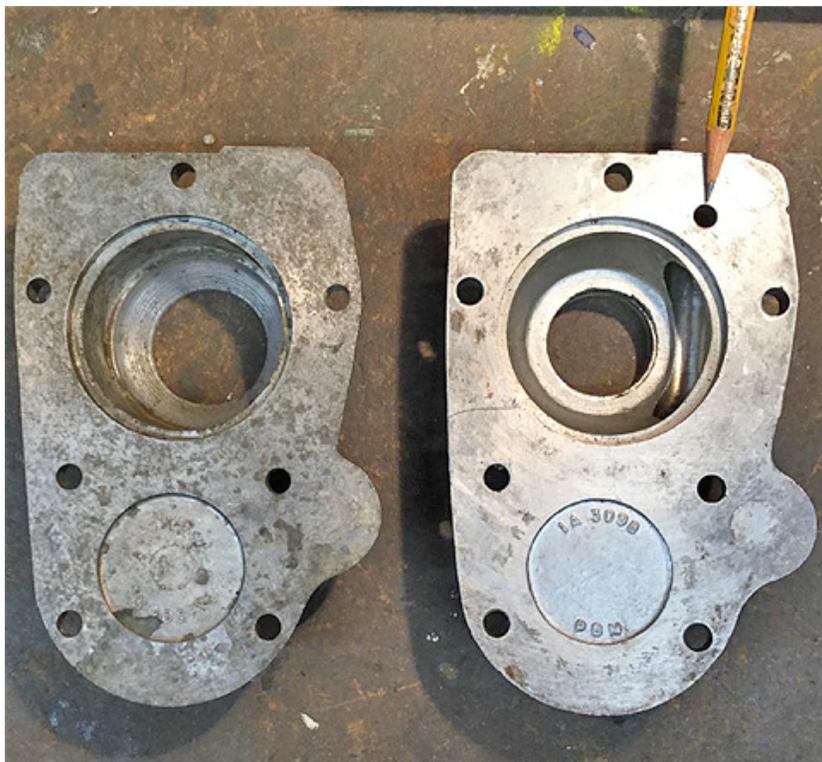
BH103 = Original and BH109 = Modified

There must have been a lubrication problem identified on the earlier cars for Austin to look at the design again. Some of the gear spindles do show a lot more wear than others, so maybe its a lack of enough oil getting to them buried away in the rear cover as they are.

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Original felt cover (left) and Scroll type cover (right)



Felt seal cover undrilled (left) although some early ones might be. The scroll type cover drilled (right).

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You can see how the oil gets to the speedo drive spindle in the undrilled felt seal and scroll type covers in this photo.

Don't use a fibre washer under spindle bush BH103 (top) the lubrication hole would be restricted as you can see in the photo it only just clears the casing without one, both covers do not have fibre washers called up in the parts lists. If you are a mixer and matcher like me take extra care when selecting gearbox cases and front/rear covers.

A scenario you need to avoid is having a modified BH109 spindle bush fitted into an unmodified cover 1A3068 you would have no oil hole in the bottom of the spindle and no oil hole in the cover.

The modified spindle bush was first fitted to the 1A 3068 felt seal cover around June 28 so some gearboxes and rear felt seal covers will be found to be drilled with the oil hole, while other earlier ones may not be.

I looked at the possibility of modifying an undrilled gearbox case, but the stiffening webs inside are in a different place to the ones that are drilled.

All of the scroll type covers will be found to be drilled. If you use one of these with a gearbox that's not drilled you will need to use a BH103 spindle bush.

I can see someone now wondering and worrying *what did I put in my box last time?* * If the box is in the car, remove the speedo cable end unscrew the spindle

bush, and pull out the speedo drive spindle BH102 to identify which spindle bush you have. Looking down the spindle hole just below the threads, if no hole is seen facing the end of the gearbox you should use spindle bush BH103. If you can see a hole get a piece of welding rod or similar, bend 90 degrees $\frac{1}{2}$ " from the end and poke the rod into the hole. It should go in the whole length of the bend. If it does, your spindle bush should be BH109 as the oil feed hole is drilled right through. If the rod only goes in $\frac{1}{4}$ " or less the cover is drilled but the gearbox isn't so the spindle bush should be a BH103.

* 20 or so years ago on a freezing below zero day I went out to tighten the handbrake ratchet pivot on my Chummy gearbox, tightening up the steel pivot cracked the mounting clean off the side of the gearbox. I had to take the engine out and change the gearbox case for another using all the parts of the original.....I wonder did that replacement gearbox case have a hole drilled for the spindle bush oil way? Just checked the broken case and it was drilled, I am wondering what spindle bush is in it??? I will have to take my own advice and check!