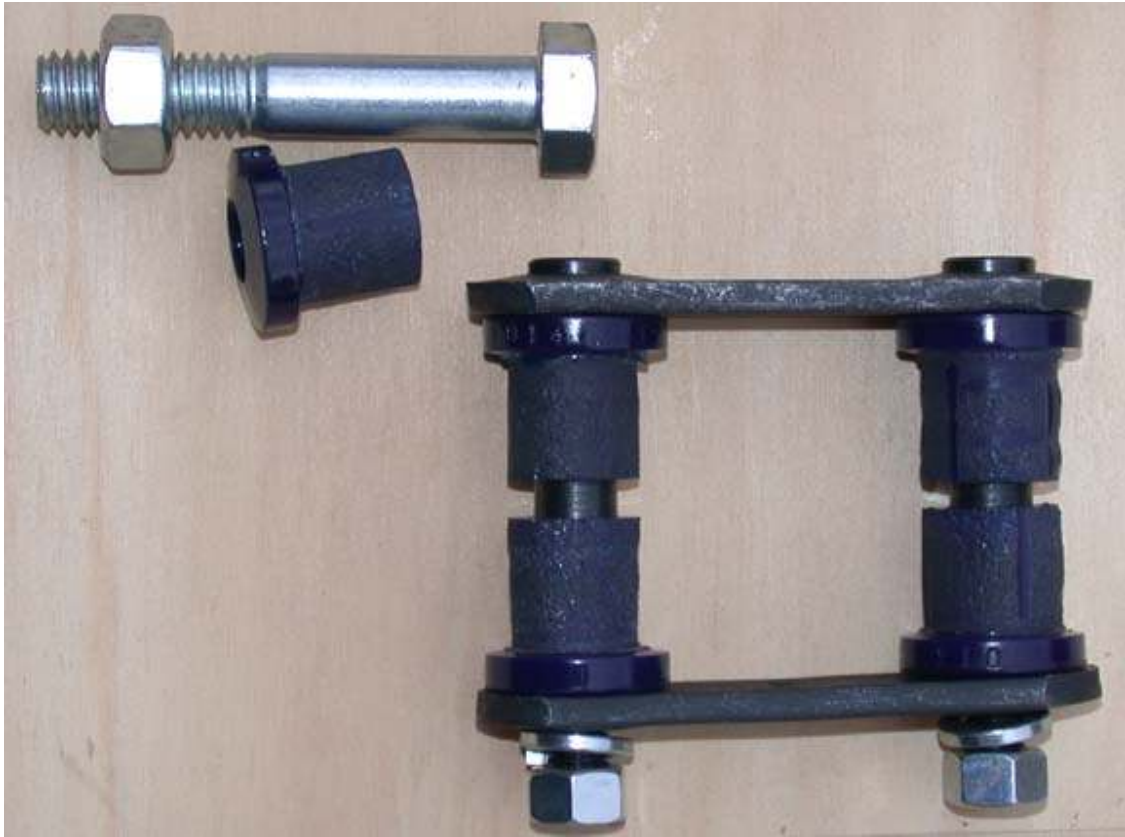


Shackle Bush Choice – MG Magnette ZA/ZB



Pic1. MG B shackle with modified synthetic MG B Bushes [OD only modified]

ZA/ZB Magnette original shackle bushes were not easy to procure in Australia and drew a blank in the short term with my UK contacts. Two local alternatives came to light and are covered here, along with a third option. **First two options use synthetic rubber.*

**Option 1 Use MGB Shackles and modify the MGB bushes to fit the body and springs*

**Option 2 Use Z type shackles and modify Ford bushes to fit bush locations*

Option 3 Use original Z type rubber bushes with MGB shackles. Read summary

First-MG B shackle bushes to fit MG ZA/ZB Magnette's bush locations {Picture 1}

Local MG supplier provided bushes as above but the internal and external diameters of the bushes were too big, on questioning this I was told the bushes were MGB and MGB shackles would be needed, although:

- Internal diameter of bush is perfect with MG B shackle, the OD was wrong.
- External diameter would now need to be reduced to {20.5mm} work.

Modifying MG B bush's outside diameter to fit MG Magnette's bush locations

To turn the MG B bushes on the lathe they need to be mounted on a shaft to retain their natural dimensions, firm up the shape to accept the lathes cut and have tension applied longitudinally to resistance slipping.

As a means of achieving the above requirements the bolt shown in 'Pic1' is held in the chuck at its hexagon end and pivoted at the other end with a drilled turning center. Two MGB bushes can now be pushed onto the bolt's shaft and adequately tensioned into place with two nuts 'locking nuts'.

Second – Ford shackle bushes to fit the MG Magnette’s bush locations {Picture 2}

Local suspension supplier looked at a recovered original rubber sample and offered synthetic bushes [see picture 2] as fitted to Ford Models of Cortina 1962 to 1971 and Escort 1970 to 1978. OD and ID seemed satisfactory to me. Modifications required:

- Head or flange end needed to be reduced in width. The MG B bush’s flange was copied to achieve the new thin dimensions and shape.
- Length needed to be reduced; the MG B bush’s length was used as the reference.



Pic2. Original MG ZA/ZB shackle [rusty]. Replacement ‘Ford – EP8024’ bush with modified head, but not yet cut to length, is compared to used rubber original

Modifying the Ford bush’s head and length to fit the MG Magnette’s bush locations

The Ford bush needs to be kept firm while being modified. Again a suitable bolt inserted into the ID of the bush will allow its shape to resist distortion and provide a means of clamping. Once firmly clamped the bush can now be reduced in head thickness and length using a lathe, suitable knife or suitable hacksaw. Final shaping of the head may require the use of an appropriate belt sander or suitable coarse wheel of a bench grinder.



Pic3. Original MG Magnette shackle polished in preparation for installation

The shackle needs to be inspected for damage, wear and pitting. Once satisfied the shafts and end indentations need to be burnished [Pic3] so it is clean and smooth.

Fitting the Ford bushes

The bushes can be partially [pic4] pushed into place in the body and spring eye. To complete the placement a bolt can be put into the ID of the bushes and a nut threaded, while washers can be used between ends of bolt and bushes. Tightening the nut will now press the bushes into their locations [washers spread load].

Bolt is now removed in preparation for next steps.



Pic4. Initial installation of new 'Ford' bushes



Pic5. Jacking: Two body safety stands, one axle safety stand, one body jack and one axle jack



Pic6. New 'Ford' bushes in place – Rear view



Pic7. New bushes – Angled view

Summary. The Modified MG B Nolathane [synthetic] bushes and the MG B shackles of picture 1 have not been installed at this stage as the standard MG Z Type shackles were still in good order. Note MG B shackle will lower the rear of the MG Z type sedan. Synthetic bushes come with a grease to lubricate shackle shafts and outer bush end for correct operation – *follow the supplied instructions and don't use on rubber bushes.* Option 3 was not tried by me but one person indicated he used original MG Z type Magnette rubber bushes with MG B shackles. [Dry lube aided installation]

The modified, red, Ford [synthetic] bushes of picture 2 seem satisfactory with original MG Z type shackles. Importantly always lower the car back on its wheels before fully tightening the clamping nuts [the shackle must be fully tightened to the shoulder of the shackle shaft].

Naturally having to modify any item or use a non standard part, such as the two types of bushes featured and the MG B shackle, has its limitations in preserving 'fit for purpose'. **There for this article is for information only, seek professional services, as there is insufficient detail provided to be a suitable reference and no responsibility can be taken.**

The shackle bushes are only part of the rear suspension system and time should be taken to check its total condition including shock absorbers. [See Appendix]

NB. Safety cannot be over emphasized and must be thought through. Using picture 5 as a guide, check these questions: Have the wheels been chocked? Are the jacks backed up with suitably placed stands? Can anything let go or spring apart?

Appendix –Alternative to the original shock absorbers

Both these options seem to work well although availability is now a factor as the cars they were manufactured for are beginning to reach the end of their useful life.

[1] Brand = KONI as fitted to Loz Scott's ZB [Geelong MG Club]

ZA/ZB Magnette Front

KONI Stock No.80-2412 as used on 4WD Rodeo. Left on minimum damping setting

The lower mounting takes a bush size of 11mm by 32mm

Note this is a different shocker to that of John Russell's below, on advice that this shocker was more readily available and is a straight bolt on. I.E. Fitted as supplied

ZA/ZB Magnette Rear

KONI Stock No.80-1905 as used on soft road version of Toyota Land cruiser USA model and some jeep models with softened suspension. Left on minimum damping setting

Fitted as supplied

Below information as supplied by John Russell

[2] Brand = KONI 'D' type adjustable gas filled struts as fitted to John Russell's ZA [Melbourne MG Club]

ZA/ZB Magnette Front

KONI Stock No.8040-1015 as used on 84/87 corvette. Left on minimum damping setting

With lower bush size of 11mm by 32mm

These front shocks require a modification to lower mounting to suit Z Type Magnette

ZA/ZB Magnette Rear

KONI Stock No.80-1905 as used on soft road version of Toyota Land cruiser USA model and some jeep models with softened suspension. Left on minimum damping setting

Fitted as supplied

END