

Fitting Standard MG Z Type Gearbox to 5 Bearing B Series Motor

Introduction.

It seemed a good idea to fit an 1800cc B Series engine into my ZB Magnette . A choice from three variations can be had:

- Three Bearing MGB 1800cc
- Five Bearing MGB 1800cc
- Five Bearing Austin[Sedan in Australia] 1800cc.[Morris Marina in England]

The five bearing Austin 1800 engine was selected due to price and availability. Original Z Type backplate and gearbox to be used.

Important. Modifications manual, see reference section below, covers the typical considerations in choosing this combination



Picture one- Standard Backplate for Z Type with MGB/Austin1800 Fly Wheel & MGB Clutch Pressure Plate

Which Clutch Pressure Plate to Fit?

The Austin 1800 flywheel made this an easy choice as the three locating dowels catered for the MGB clutch pressure plate. But not having read the modifications manual it dawned on me too late that the MGB pressure plate was narrower than the original, rendering the standard clutch throw useless. What to do?

Only answer was to ask two wiser heads than me that had tackled the problem successfully but differently. – ***See Reference and Idea Source at rear.***



Picture two –Shows Solution No.1

Solution 1- Flywheel [5 Bearing] with MGB Pressure plate. To overcome the excessive travel of the thrust bearing to the pressure plate, the thrust bearing is extended closer to the pressure plate by:

- Trial setups. Before modifying, trial to determine actual clutch throw required. Record measurements.
- Fitting a cut down clutch fork in front of the existing unmodified fork. Front fork will now hold thrust bearing. Rear fork retains pivot function. Note forks are solidly connected together as shown in *Picture two* [welded in my case – brazed in the case of the originator of this solution].
- Adjusting the clutch slave cylinder push rod in length where fine-tuning the operating range of the clutch throw is necessary. Refer to your original measurements above.
- Suggest. If possible the modified fork should be sourced as a non Magnette part [Morris Major/MGA] as our forks are unique and subsequently rare.

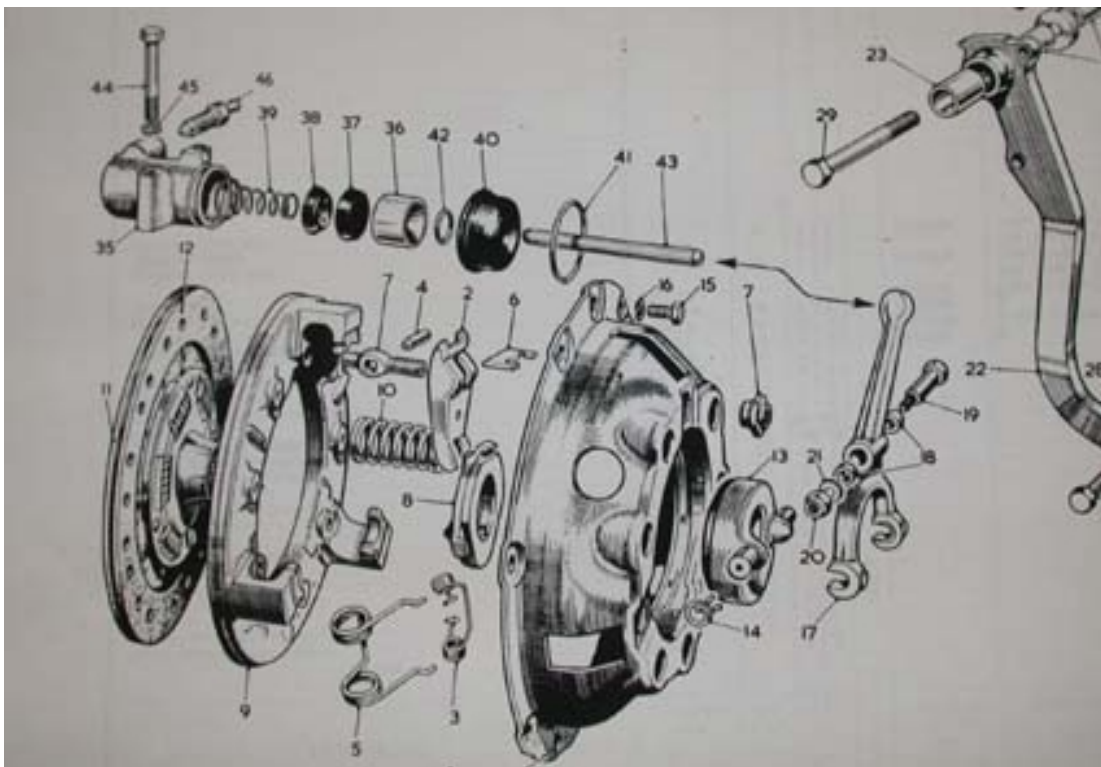


Diagram one – Solution No. 2 Standard clutch components

Solution 2 - Flywheel [5 Bearing] with Standard Z Type Pressure plate.

This option has no problem with clutch travel as the standard pressure plate is fitted but the flywheel presents a problem:

- Only real option is to have new location dowels fitted to the flywheel, by an engineering firm, so the standard Z Type pressure plate can be fitted
- Have specialist upgrade springs in standard pressure plate to handle torque of larger engine. Refer to *Diagram one*

Conclusion.

[a] Option 1 was the most cost effective for me and has worked without any difficulties.

[b] Option 2 has good potential. No further detail can be added, as this option was not pursued

[c] Lastly the above is my understanding, interpretation and application of verbal information supplied in good faith and I cannot be responsible for other people's endeavors based/influenced on this technical tip.

References/Idea Source:

Modifications Manual – Z Type Magnette and Farina Register [England]

Idea [Solution1] – Twin clutch forks – Came to me from Anthony Pearson South Australian MG Car Club.

Idea [Solution2] – Retaining original clutch pressure plate – Came to me from Barry Arthur; Geelong MG Car Club.

MG Magnette ZA/ZB Parts Manual – Clutch Parts Diagram

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