GEARBOXES

As mentioned elsewhere on this website, the power unit (engine and gearbox) came to Australia CBU (completely built up). These were then 'married' to the appropriate drive shaft and rear axle. With the evolution of these units, they required a distinct combination of components, depending on the gearbox used.

From the outset, the MGB was designed to accommodate a 4-speed gearbox with an optional overdrive (this option was not introduced in Australia until 1967).

MkI-3 synchro/no overdrive (photo MG Spare Parts & Services)

MkI-3 synchro + overdrive (photo MG Spare Parts & Services)

The electric overdrive (on third and fourth gear) allowed for an 8% reduction in engine speed, saving fuel and reducing engine noise. As the position where the gear lever entered the body

was different with either of the two configurations, the hole in the transmission tunnel was elongated to take either option. Due to the differing point of entry of the gear lever, it was necessary to fashion two different levers. The non-overdrive option, which entered the body further forward of the driver, had an obvious 'bend' in the lever, with the overdrive option sporting a 'straight, lever that entered rearward nearer the driver. These levers are not really interchangeable as they differ in shape at the other end (see photos).

Different levers used (photo: Pooch2)

MkI gearshift surround c/f MkII gearshift surround

The gearboxes used on Australian-assembled MGBs went through three distinct variations (this would have been four if the assembly had continued past 1972)

The first combination was the 3 bearing engine, with no synchromesh on 1st gear (1963-64). It was offered with or without overdrive in the UK/USA but only without in Australia . The overdrive option (which was offered in Australia late 1967 and only on the last 200 or so YGHN3 vehicles) used a Laycock de Normanville (Type D) overdrive. This featured an external solenoid, a hole in the bell housing to allow the starter motor to protrude and a 'shield-shaped' access cover. The speedometer calibration for the non-overdrive version was 1 040 TPM (Turns Per Minute) and 1 020 TPM for the overdrive version.

The second combination was circa 1965, when the MGB engine was upgraded to a 5 bearing crankcase, still with no synchromesh on 1st gear. These were not readily changeable with the earlier combination as there were changes to the input shaft, the flywheel, engine backing plate and the spigot bush. The Laycock (Type D) overdrive was still used for the overdrive version.

Note: A lot has been written about the 'narrow' tunnel (transmission tunnel) that was found on the early MGBs and modifications necessary to accommodate the overdrive unit. Whilst the hole was extended to allow for the rearward location of the gearshift lever, it is possible today to purchase fibreglass covers that simplify the modification.

MkII-4 synchro, no overdrive (photo: MG Spare Parts & Service)

MkII-4 synchro + overdrive (photo: MG Spare Parts & Service)

Mid 1967, at car YGHN3/4487, automatic reversing lights were fitted as standard equipment.

The third combination used in Australia was circa 1968, due to the inclusion of synchromesh on all gears. The overdrive unit changed to a Laycock (Type LH). This unit was slightly over-engineered for this gearbox as it was designed for the larger MGC engine. Its features were: 'rectangular'-shaped access cover; oval clutch fork boot; a dipstick for checking oil; label on overdrive solenoid cover, stamped '22/61972'; speedometer calibration of 1 280 TPM (for both non-overdrive and overdrive versions).

Note of Interest: "Wheels" magazine (July 1969), reported that in a demonstration vehicle the speedo of the new automatic MGB recorded a top speed of 126 mph! Upon comparison, it was found to be 20% out – no doubt the wrong combination of components was used.

3-brg/3sync c/f 5-brg/3&4 sync (photos: MG Spare Parts & Service)

All of the above, along with the change that occurred in rear axles ('Banjo' to 'Salisbury') necessitated a change in drive shafts. These are detailed in the 'Driveshaft' section of this website.

The 'Automatic' option, offered with the Mk II upgrade was of the Borg Warner Type 35. This was the reason that BMC had to replace the previous 'narrow' transmission tunnel with a wider, flatter alternative, to accommodate the automatic gearbox. Whilst the narrow tunnel could be modified to include the overdrive option, it was not able to accommodate the automatic transmission.

Borg Warner Type 35 Automatic gearbox and shifter

According to Clausager (p 86) there were 228 CKD kits sent to Australia with the automatic gearbox, between August 1968 to July 1970, making them a fairly rare vehicle. *(NB: much of the above information is attributed with thanks to Tom Sotomayor)*

I have read in various places that a point of conjecture was the reason for the inclusion of the map-reading light on the dashboard of the automatics was to illuminate the gear lever. Stuart Ratcliff of leaves one with no doubt as to the company's intention by pointing out the name of the part:

Parts book, BHA4483 , **Lamp Assembly gear illumination**. G-HN4 , G-HD4-138401 to 258000 (Automatic except N America)

Photo showing automatic shifting lever and Lamp Assembly Gear Illumination

Gearshift knob: