Muffin's Axle Overhaul - Part 1:

Whilst waiting for a reply from the DVLA in respect of what I can and cannot do to the chassis I have been renovating other parts.

The overhaul of the rear axle is going to be quite a long article so to relieve the boredom it will be in multiple parts. This first part will describe the various axle options and what I'm going to do; the next part will describe the process.

The original axle on Muffin is pretty grim (first photo) and quite badly corroded around the spring pad mountings** plus the springs are heavily corroded and the lower shock absorber mountings almost completely corroded away. Luckily I had a second axle and a decent pair of parabolic springs from the abandoned kit I bought off Mark Sadler.

Note.
*** The axle is reusable, but not by me, as I'm a stickler for aesthetics on a new or refurbished build.*

There are two types of axle fitted to an MGB:

1. A 'Banjo' axle, in this type the differential unit can be removed as an assembly and repaired/adjusted remote from the axle itself. This axle was fitted to early MGB's.

2. A 'Tube' axle (commonly referred to as a 'Salisbury' axle). This axle was fitted to the later cars. The differential is built up inside the axle casing and overhaul/refurbishment is often looked upon as a black art.

Note.
The Salisbury (tube), axle is in my opinion better and stronger than the 'Banjo' type, unfortunately it is not really covered in the Haynes Manual and the text refers you to a Main Dealer. In the long and distant past I have worked on Salisbury type axles and as long as you are methodical there is no need to get your knickers in a twist.

The tube axle comes in two different widths (tracks) and the wire wheel and steel wheel hubs are interchangeable; either hub will fit either width axle.

The tube axle on steel wheeled cars is wider than the tube axle fitted to wire wheeled cars. On MGB's you cannot normally fit the wide axle with wire wheel hubs to chrome bumper cars as the increased track causes the outside of the tyre to foul the wheel arch. You can sometimes fit the wide axle with wire wheel hubs on rubber bumper MGB models as there is a bit more leeway.

Muffin's original axle is the narrow tube type fitted with wire wheels, the bare axle is approximately 45-1/4" wide (difficult to measure exactly as the diff gets in the way. The spare axle (from Mark), at 47-1/2" wide is the wider one for a steel wheeled car. We don't have the mudguard clearance problems on an NG so I decided to use the wide axle (with good spring pad mountings), and use the wire wheel hubs from Muffin's original axle. This does mean I will have a slightly wider track on the rear but that doesn't concern me.

Exterior wise the replacement axle (second photo) was generally in good condition apart from the bottom shock absorber mountings which were corroded. These are welded on to the rear of the spring pads and spares are readily available so I decided to buy a pair of new fixings at a cost of £6.95 each, postage is an extra £3.95

Being familiar with this axle I decided to renew all the seals and fit an ‘Anti-Clonk’ Kit from ‘Danbury Hydraulics’ at £21.75 for everything you need, including instructions. The following parts are included in the kit:

- 2 hub lip seals (GHS 179).
- 1 differential pinion lip seal (BTB 1326).
- 1 differential gasket (BTB 674).
- 1 locking roll pin (BTB 715).
- 2 bronze thrust washers (1G 7445).
- 2 fibre thrust washers (ATB 7072).

Note.
Many people assume that a clonking in the back axle is caused by excessive clearance between the crown wheel and pinion gears; but with Salisbury axles the cause is often found to be the differential wheel and pinion shims being badly worn.

Tip - To undo the differential nose nut you need a 1-1/8” AF socket. To undo the rear hub nuts you need a 1-5/16” AF socket (1-1/4” AF for front hub nuts).

Tip - Occasionally you will come across a brake drum that resists all the normal efforts to remove it. The solution is simple, first check the brake adjuster is fully off then tap each wheel stud in around 1/8” this breaks the rust grip between stud and brake drum and the drum can then be easily pulled off by hand. After cleaning everything use an old wheel nut and selection of washers to pull the wheel studs back in; “don’t rely on tightening the wheel back on to correctly locate the studs!”

To be continued.

Muffin’s old axle.

Muffin's 'new' axle.