



MGBGT V8 Overdrive failure

Andy Goves describes the process adopted to diagnose and successfully deal with a complete overdrive failure on his 1973 Factory launch MGBGT V8.

Following the annual health check on my MGBGT V8, with a full service and MoT in July 2017, I looked forward to the hour long drive home across the Somerset Mendips - perfect MG road conditions! Unfortunately, due to road closures and traffic, it was impossible to use the overdrive (which is operational on 3rd and 4th gears on my Factory 1973 car) until I was quite close to home. That is when I found that no overdrive could be selected! I chose to complete the journey, return home and then seek help from Chris Smith, owner of CCS Restorations, at Chilcompton in Somerset as he has worked on my car since 2010, restoring it to an original Factory specification to my instructions.

The irony of the overdrive failing at this juncture really sums up the "Law according to Professor Sod" - it had worked perfectly during Chris' recent custodianship and for all his road tests until I had collected it.

What was the problem with the overdrive?

At this juncture I should explain that I rate myself as an amateur mechanic, whose motoring knowledge from the late 1960s onwards instilled in me a level of confidence in tackling routine tasks pertaining to BL cars of that era, but I also know when to seek help! My first thoughts were it could be a simple loose electrical connection on the switch side as it had, after all, worked perfectly until just an hour before this problem had manifested itself? But no obvious fault could be found there.

Unlike in the 1960s, of course, this time I could contact Chris on a mobile phone, and we talked through a fault finding process as I sent him digital images etc. With his professional help, therefore, I embarked on testing the overdrive switch in the car and, using a multimeter, sought to establish if this had become defective.

A word of warning here (and isn't hindsight wonderful), having located the dirty **white coloured wire** and disconnected it to carry out the switching tests, I then discovered that with the discoloured 1973 wiring loom it was not in fact the requisite shade of white that I had been instructed to locate - more a dirty white/yellow complete with 1973 patina! I know now, as I write this article one year later and having consulted the V8 Register Technical Notes, that both white and yellow wires feature in the wiring diagram for the overdrive switching unit - but I didn't know then!

In fact I had innocently chosen an incorrect wire, confused by the ageing process with discolouration of the wires' insulation and, to add insult to injury, the 1973 bullet connection then self destructed



before my eyes. Judicious use of a soldering iron restored a temporary connection after an hour and allowed me to start the MG so I could return it to CCS Restorations the very next working day.

Having located the correct wire and, under instruction from Chris, I tested the switching arrangements which confirmed that the multi function switch on the steering column was operational - the fault must lay elsewhere.

Although frustrating at the time, I was reminded of a conversation I had in November 2014 with Peter Neal, Archivist at the MG Car Club at Abingdon, with his recollections of the differing quality and specifications of wiring looms supplied for the MGBGT V8 - perhaps I didn't need to go to SpecSavers after all!

Further investigations

Upon return to CCS Restorations, investigations continued. A road test (with me as passenger) confirmed the overdrive was inoperative. Bizarrely, upon jacking up the MG and engaging third and fourth gear with the car on axle stands, the overdrive operated perfectly - perhaps because there was no load on the drivetrain?

A process of elimination thus followed:

1. Electrical switch checked again - all OK.
2. Solenoid on the overdrive unit activated in 3rd and 4th gear with ignition on - OK.
3. There should not have been any discrepancy with the requisite oil level in the gearbox as the car had just been serviced - but never assume! All OK.



4. Dismantling started on the lower overdrive plate to inspect the filter and gauze of the overdrive unit. It immediately became apparent that the **fault lay in the fracture of one circlip** (see

the photos alongside) which should have been holding part of the overdrive oil pump together.

So, we could now confirm that the **overdrive unit was not functioning correctly due to insufficient oil pressure to the unit.**

I am not sure how much this circlip originally cost British Leyland in 1973, since my documented records confirmed the overdrive was original but it was going to cost me a lot more now!



The **diagnosis now meant the engine and gearbox had to be removed** to facilitate fitting the 'new' overdrive unit - but first you need to locate its replacement! Moss Europe had just one reconditioned unit in stock in Bristol - their stock dwindled to zero as I purchased it there and then, with a guaranteed 24 hour delivery slot.

It may be helpful to summarise my rationale towards my MG here - having spent 14 years overseeing its professional restoration to Factory specification as per its launch in August 1973, I rate 'originality' extremely highly. Added to which, I also look for ways of 'engineering out' known weak spots. This means that I was never going to be in the market for an overdrive unit sourced from another car without its provenance being known - and time was also against me.

Engine and gearbox removal

Given the 'fait accompli' of an engine plus gearbox removal with a large bill for doing this essential work, my thoughts focused on turning this into an opportunity. With the engine and gear box removed, **several other actions could be taken** at the same time to deal with a few known problems:

1. **A leaking rear crankshaft oil seal**, situated behind the flywheel and present since purchasing the MG in 2004. This had never been actioned due to requiring engine removal, but would now be replaced.
2. **Inspection of the drain tube** (see V8 Workshop Note 523 where Nic Houslip describes the difficulties in refitting the drain tube) confirmed it was in situ and functional. No action required apart from cleaning! For cleaning see V8 Workshop Note 452.
3. **T-cut and polishing of paintwork within the engine bay.** My MG had been professionally restored over 18 months from 1988-90, but the paintwork within the engine bay was still original. I was presented with a golden opportunity over several hours to personally clean and restore the paintwork, without losing the 1973 patina or originality!

4. **Inspection of the clutch revealed all was in order**, otherwise the opportunity would have been grasped to replace this unit at the same time.



The gearbox with old and 'new' overdrive units

Completed job and pleasant journey home

In the space of just over 72 hours, the replacement overdrive unit, complete with engine and gearbox had been refitted and I was able to collect the MG and drive her home. The reduction in engine revs, plus the reduced ambient noise made for a much more relaxed journey and the MG has taken yet another step towards maintaining its originality criteria!

I just wonder what was the quality control requirement by British Leyland on that circlip in 1973 in terms of strength and longevity? Whatever was specified - it had certainly exceeded its maker's expectations!

See the **V8 wiring diagram** on the V8 Website:
[V8 wiring diagram](#)