

Rebuilding an MGBGT V8 – Damask 0450 (Part 15 of a series of reports)

The V8 gearbox is basically a normal MGB gearbox. It was originally designed to take the power and torque of an 1800cc B series engine, and no internal strengthening was provided when the casing was modified to fit the V8. Although the V8 only has 35% more power, it has roughly twice the torque, and this can cause problems.

I have taken a photo of the main casing which clearly shows a weak point. Looking through the side access plate you can see the support pillar for the reverse gear shaft. Notice how it attaches to the bottom of the casing. During my training as an engineer, I was taught that there should always be a radius at such joints. The larger the radius, the less likelihood there is that the joint will fracture. So far as I can see, there is no radius at all, so the local forces would be extreme.

I have seen several V8 gearcases with hairline fractures on the outside, corresponding to the location of the support pillar on the inside, and my local MG specialist assures me that he has seen a few where the entire pillar has ripped out, complete with part of the casing. I intend to get a local specialist to provide fillets of alloy weld around the base of the pillar to provide additional strengthening.



Main casing which clearly shows a weak point. Looking through the side access plate you can see the support pillar for the reverse gear shaft. Notice how it attaches to the bottom of the casing.

I have started to strip the engine from Damask 450. First, I removed one of the rocker covers and took out the rocker shaft, complete with

rockers. Everything was covered in a thick black deposit, so I can only assume that this engine has not enjoyed regular oil changes.

After cleaning the rockers, I took the following photo, which clearly shows a date mark. There is a circle with the number 72 inside it, and around the edge there are 12 segments, like a dartboard. Ten of these segments have a dot inside, which tells me that these rockers were made in October 1972. This gives me an indication of when the engine was built, just about right for a car made in the Spring of 1973.



Rocker with circular date mark.

The following photo shows the rocker shaft. You can clearly see where the rockers have worn a deep groove into the base of the shaft. Obviously, the shafts will have to be replaced.

