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**Friday, 16th October 2015**  
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## Cooling system

The radiator mounting rubbers finally arrived, and it was all-systems-go for fitting the radiator. But of course, with Jags, there's no such thing as a straight forward operation. Although the new viscous coupling LOOKED right, clearly it was not, because the radiator and the front of the coupling were fouling each other. The OEM coupling is no longer available and the replacement unit was obviously slightly longer/thicker than the original, so I racked my brain to see how to resolve this - which I did temporarily by adapting the top radiator mounts to allow the radiator to slant about 1cm forward, which just gives enough clearance so the coupling will not destroy the radiator vanes. Phew!!

I filled up with water, added some Muckowt, and ran the engine for about 20 minutes, to flush out those parts of the cooling system that I had not properly cleaned previously. This was specifically aimed at the heater radiator, which proceeded to flow steadily from the overflow pipe - so obviously there's a leak there. But we don't need heaters up here in the Far North, so this will be added to my To-Do list for after I get the car registered. (*Or so I thought.....*)

After flushing and draining, the water was not too badly discoloured, so I guess the waterways are fairly clear now. No leaks from the hoses.

However the (!@#%) coupling is still fouling the radiator. A discussion with the technical boys at The Jaguar Driver Magazine (UK) was of little help, so I've had a plate made to mount the fan directly to the water pump so I can run without the viscous coupling. A temporary solution while I nut out a more permanent and acceptable fix. Not totally satisfactory - yet!



*Here's the adaptor plate, manufactured by Trevor Sweeney of Northern Hard Surfacers (in Bayswater Road). They do excellent work, and no job is too small for them to undertake - and they don't charge an arm and a leg - just the arm!*

I could not isolate the leaking heater system - believe it or not the vacuum activated heater valve is normally open, and is closed by vacuum (not the other way round), so leaking through the overflow cannot be shut off by turning the heating off on the dashboard.

I removed the heater box (which requires removal of the cam covers) to find the heater matrix was completely rusted out, so a new matrix was fitted to the heater radiator by Bayswater Radiators. The rusted sections of the heater box were cut out and new sections fitted. It seems that the gaskets, cushions and seals

for the heater unit are not available, so I'll have to make them up as I go along. It may take a while to replace this unit!!



*The rusted-out heater box.....*

*.....and now the rust has been cut away, and a replacement plate manufactured by Trevor, ready for installation of the reconditioned radiator.*



### **Brakes**

The front brake pads were fitted, but needed a slight filing along the top and bottom edges to fit snugly into the calipers - not much more than a coat of paint's worth, but it made all the difference. The new hoses from the reservoirs to the master cylinder were fitted, and the banjo bolts re-connected with new copper washers.

Brakes have been bled - front only, but at least enough to give some braking, so I can turn the car around in the shed to gain access to the independent rear suspension (IRS) unit.

### **Engine**

As mentioned above, the engine has been run. I had previously drained all the old engine oil and replaced it, so I added some engine flush, then re-drained the system, and replaced the old oil filter.

While running the engine, I noticed a blowing from the exhaust manifold where it connects to the exhaust downpipe, so, after the engine had cooled, I removed both of the manifolds - and a good thing too, because the studs connecting to the exhaust flange were in a very bad way. Only 3 per side were there, and the forward manifold flange was missing a stud hole - it had cracked off!

Another panic moment, because manifolds will be as easy to find as hen's teeth, and freight would be prohibitive. But I took them round to Bob Parkes in Anne Street, and they referred me to Trevor Sweeney at Northern Hard Surfacers, who was confident he could fix them both up by weld-filling the broken piece, and repairing the stud threads - and the following day they were ready, for much less than I had expected to pay.

Of course, when you get this far with a job, you have to finish it properly, so I took the repaired manifolds to Tony at Bare Naked Industries, who sand-blasted them back to bare metal, ready for painting up with high-temp matt black paint (POR 15).

I managed to source the new studs from Auto-1, and gaskets and seals from Prestige Jaguar. Everything was fitted back to the car, and looked particularly good, but one stud managed to pull itself through the thread in the manifold, so off it came again to be fixed with a helicoil.



*This weld repair will be invisible when the manifold is painted - with high-temp paint of course!*



*The manifolds, freshly sand-blasted and waiting for a protective coat of paint.*



I mentioned last month that I had noticed a pooling of red oil under the auto gearbox. With the exhaust downpipes free of the manifolds, I could now move them aside to get access to the auto gearbox sump bolts. I drained the sump and removed the sump bolts, coincidentally discovering why I had the oil leak. All 14 bolts were only finger tight, so obviously over the years they had worked themselves loose. I suppose I could have fixed the leak by just tightening the bolts, but the oil was a bit carbonised, and there was a hint of sediment in the bottom of the sump, so after a good clean up, I changed the filter and replaced the sump, this time correctly torqued to the required tightness. No hint of a leak, so at least this job has been carried out in a straightforward manner!

On that happy note, I'll finish up for this month. Next month, I hope to report some significant progress with the upholstery etc.

Cheers for now, and enjoy those Jags!!