

## **UNDER THE BONNET** WITH TIN-TIN AND RAY OR THE CONTINUED SAGA OF STRUGGLES WITH A RADIATOR AND THE CASE OF THE MISSING GREASE.

First I must express my admiration and thanks to all those members who have gone down this road before me.

Since it is now some time since I described the extraction of the radiator it seems high time it was put back together. We left matters with the chrome shell lying face down on a piece of plastic foam and a new radiator about to be fitted. Until the new matrix is fitted into the black painted frame on the chrome shell it is quite fragile and do take care not to twist the thing or it will almost certainly spring a leak.....and you will have to repeat a lot of work !

Carefully place the radiator matrix back into the black frame and lay in one of the spacer bars along its side. Start by inserting the bottom nut and if necessary its spacer washer. Don't tighten it but with a finger lift the top of the spacer bar upwards, line up the fan unit, right way up !, early frames are asymmetric, and get the top nut engaged. Repeat this with the other side and then start the middle two nuts through the fan carrier. The top and middle holes in the frame are slotted for adjustment. Stand the whole shell upright and get another pair of hands to hold it whilst you have a trial fit with the radiator cap. If the cap fouls the chrome shell lean the radiator back (in the slotted holes) until you have a working clearance. Now gently do up the nuts and listen carefully as you do so. If one of them starts to screw into the matrix you will hear it ! If this happens withdraw the bolt and add a spacer washer behind its head. Take your time and get it right.....when satisfied tighten up the bolts.....for torque settings if you like such things, see the workshop manual.

The next job is to get the whole radiator shell back into the car. Place that old kitchen chair with a piece of foam or old cushion back in place between the two front wings.

*Undo those two front bumper bolts yet again and let your darling go all relaxed again !*

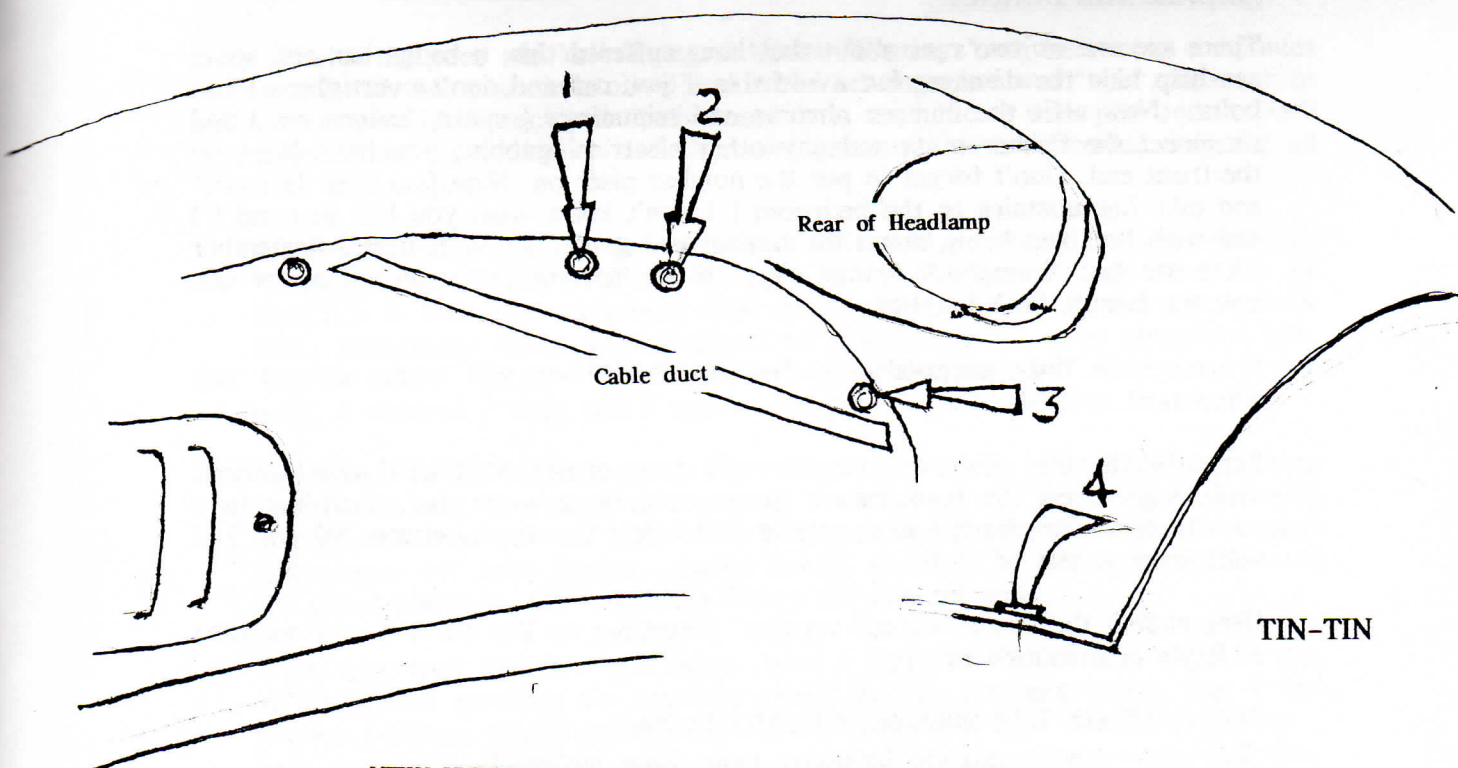
At this point it is best to have two additional pairs of hands, one on each side of the car to ease the front wings gently outwards, whilst you offer the shell gently into place. *Take great care not to press in too hard or the matrix will foul the steering box and you will damage your new radiator.* Let the kitchen chair take the weight and with a taper bar line up one of the bottom holes in the shell and get a nut loosely engaged ( Bolt 4 ) Repeat with the other side. Now ease the top of the shell gently forward and engage the forked ends of the two fore and aft tie bars and push the shell gently back into place.

*Now replace the front bumper bolts yet again.*

Now it should be possible to get the bolts through the forked ends of the tie bars, although you may need to jiggle the chrome shell gently backwards and forwards to get them engaged and through.

Replace the cross tie bar and get all the bolts ( Bolts 1 & 2 on the sketch ) engaged but do not yet tighten them. Replace bolt 3, center side of chrome shell and with someone to help hold the bolt heads with a spanner, get down on your back with that long socket set and put on the nuts and tighten up the bolts under the tie bar forks.





VIEW UNDER FRONT OFFSIDE WING SHOWING THE RELEVANT BOLTS.

Do up bolts 1 & 2 tight and 3 & 4 tight on both sides. Get your assistant to press in the bonnet side panels at the front end and fit and tighten those two vertical bolts holding the radiator frame to the side panel. *If you can get this right, you will avoid having to adjust the bonnet catches later on ! Needs a bit of luck. a good eye and a firm hand !!*

You can now replace your cleaned expansion bottle, connect up the tube to the radiator head, bring up all those loose cables to the tie bar, reconnect the fan wires and when you are happy all is neat and tidy, secure with new cable ties. The temperature control switch atop the radiator will need a new seal (*Never re-use the old one*).....you may have to buy a whole new sensor to do this but they don't cost the earth ..... and note that the spring wire thing that holds it in place is handed.....it has a back and front. At least mine is !

Reconnect top and bottom hoses and if the Jubilee Clips are at all corroded or very stiff replace them. "Concourse types" please note you can obtain stainless steel clips from a yacht chandlers and they don't cost an awfull lot more than the rusting type and they last for ever.

Fill her up with your favourite antifreeze mixture, start up and check for any leaks. Before I did this bit I fitted a new thermostat as well but perhaps this was a bit over the top !

The little apron plate at the foot of the chrome radiator shell can now be bolted back into place. If you havn't fitted those bumper bolts, you will never get it on. Then once again undo the bumper bolts and fit the bumper irons and if you have one the badge bar. Whilst you are down there have a good look behind the wing at the front faces of the chassis. The odds are you will find that the line of the wing does not match the front end of the chassis.....thus if you do up those bumper bolts really tight you are going to distort the wing.....and maybe even crack off the paint.

*Continued overleaf*



### UNDER THE BONNET

There are one or two cars about that have suffered this, a badge bar and spots can help hide the damage, but avoid this if you can and don't overtighten these bolts. Now refit the bumper chrome and trimmings ( spots, badges etc ) and reconnect the flasher units and any other electrical gubbins you have hung on the front end. Don't forget to put the number plate on. Now find "Her Indoors" and take her upstairs to the bedroom ( I don't know what you had in mind ! ) and with her help bring down the bonnet and gently lay it in place. Remember there are two "humpback bridge clips" to fit beneath the ends and screw and bolt the bonnet back in place.

If you have done a good job the bonnet catches will work without any adjustment.

Since fitting this radiator the car will now cruise at 65/70 mph without exceeding 90 on the temperature guage even on a warm day. Crawling in a convoy of traffic the fan now cuts in just below the mark between 90 and 140 with never a hint of steam !

Here endeth the "unauthorised version" according to Tin-Tin and now we turn to Ray's contribution or,

### THE CASE OF THE MISSING GREASE by RAY

My programme of dismantling, cleaning, examining and rebuilding anything I could get my hands on now extended to the front suspension. I pondered which weekend I would fit the shiny new SPAX front shocks into "TTF 441"....THE SPANNERS WERE OUT !

I was generally pulling bits off the front suspension and intending to give everything a couple of coats of smooth Hammerite paint. Cleaning down was quite uneventful, apart from a few handfuls of original black enamel. I quickly whipped off the front brake caliper and tied this up securely and waggled the disc assembly....well it span round free enough, but with a certain amount of play. Just needs a nip-up I thought. I'd better just check the wheel bearings. The front disc/bearing unit was very soon in my hands. Remove just one pin and spin off the large nut.

Now I have usually found wheel bearings to be knackered....being either covered in rusty oily water or (hopefully) plastered in copious amounts of grease. NOT MY NAYLOR !

I am sure Ray Gardner loved this car when he had it, but as mentioned in my previous **TOOLBOX** item he didn't do much preventative maintenance....remember the goo in the back axle ?

The bearings looked spotlessly clean, with only the tiniest film of grease...probably just enough to stop them seizing. The hub cavity between inner and outer bearings are usually well packed with grease...mine were almost spotless ! Where did the grease go ? Was there ever any ?

The old oil seal was removed (to be discarded and replaced) and the second (inner) bearing removed, they were both washed in white spirit and dried....smooth as the proverbial badger's bum ! No damage...great!

Off I trotted to MOTOQUIP for two new oil seals ( to keep the bearing grease in )....."Sorry" he said, "these seals have been deleted...the Ital is too old"! Off I went to a very large Rover dealer.."Sorry"..the same story was received from two other specialist motor factors....None available...HELP !