



FURTHER THOUGHTS ON WIPER DELAY

In last issue's article on the wiper delay unit I wrongly stated that if the wiper did a half sweep, then the small Allen screw should be adjusted. This is not so. The Allen screw is there to take up tolerances in the nylon slider block and the mounting brackets, as it is possible for the slider to hold the outer set of contacts slightly open. In this instance, the motor will not start when the delay position is selected. Adjustment of the screw will correct this.

The inner contact is required to keep a supply to the motor until the internal parking switch takes over. For the half sweep (actually quarter sweep is more correct) the inner contacts are not making, and this can be proved by removing both the centre common wires (Gr/Br double) and the inner (Gr/Br) and with a short piece of wire join them together long enough for the wiper blades to complete their sweep. To rectify, the unit will have to be dismantled again and the contacts cleaned and or bent slightly. This is why I said in the original article that it is a good idea to check the contacts whilst it is stripped.

Happy Wiping – Tom

HANDBRAKE BLUES

With MOT approaching it was time to sort out why lifting the handbrake lever 9 or even 10 clicks would not hold my 2200 on a 1 in 1000 slope! Last year it passed with good read-outs for brake effort and balance on both rear callipers; perhaps one of them had seized on the pivot bearing? After a few moments underneath with the inspection lamp, shock-horror, the inner pad of the offside calliper was worn down almost to the back plate. The outer pad was half worn although they were only renewed 1000 miles ago. The operating shaft for the handbrake tappet was seized in the calliper in the fully applied position so I had been driving with the brake on - that probably explains 18 mpg as well.

Strictly, this should be a calliper-off stripdown job but I found 5 minutes soaking the end of the shaft in WD 40 and working the lever to and fro soon had it functioning normally. With the cable reconnected it will now hold the car on my steeply sloping drive at 5 or 6 clicks. A previous correspondent asked why the 'Manual' indicates that the handbrake cable adjustment should be fixed at mid-thread - why have an adjustment if there is only one setting? I think this must be because if both callipers are fully functional it will be found that the clevis pins connecting the handbrake linkage to the calliper levers can be engaged freely at this setting without biasing the brakes 'on'. A few turns of cable adjustment would be permissible just to achieve perfect alignment but any more would indicate a fault within the calliper such as I have found above.

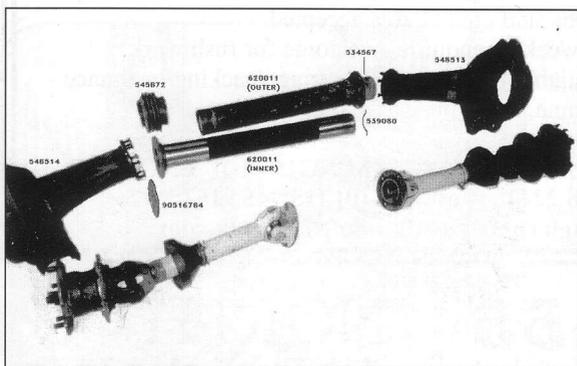
P6 De-DION TUBE

During last winter lay-up I took the opportunity to strip and examine the De-Dion 'rear axle' on my 1974 2200. I wanted to check the condition of the safety-critical elbows, to de-rust and repaint the assembly, to replace the flexible gaiter which was looking tired and cracked, to check the internal grease lubrication and wearing surfaces and also to replace the o/s upper suspension link which was bent (the boot-side mounting had been welded with a stiffener at some previous time so possibly the link had been damaged but not replaced when this failed!). Just in case there are any other 'saddo' members out there like me who feel a compelling need to see what the inside of

a De-Dion tube looks like I took some photos for reference. The illustration in the Workshop Manual and the Spare Parts Manual does not clearly show the internal arrangement.

The assembly comprises two tubes, one inside the other, arranged so that slight telescoping and relative rotation is possible. The inner tube is attached to the o/s elbow and the outer tube to the n/s elbow. The inner tube slides almost fully into the outer tube supported by grease retaining bearing sleeves at each end - (oil lubricated on earlier models). Hence, as the suspension flexes, each side can rotate relative to the other to accommodate independent wheel movements and the assembly can slightly expand or contract lengthwise to accommodate changes in rear wheel track due to the swing arc of the half-shafts. To protect against water and dirt ingress there is a gaiter over the sliding joint. Also, the inner tube is closed by a plain blanking disc and gasket at the o/s end and the outer tube by a 'top hat' cap and gasket at the n/s end extending into the elbow, which allows internal clearance for lengthwise movement of the inner

tube. The De-Dion elbows, to which the wheel hubs are bolted, always maintain the wheels parallel to each other - nil camber - and essentially perpendicular to the road surface. There is a 'C' shape spring clip fitted across the n/s end of the inner tube which prevents disengagement from the outer tube but has no function once the assembly is fully installed and the half-shafts are connected.



The condition of my '155,000 mile' De-Dion assembly was quite good. No corrosion around the eyes for the suspension links nor the curved body of the elbows but one small rust perforation in the o/s hub flange mid-way between two of the six holes for the hub bolts. The inner tube bearing surfaces were shiny and unmarked with plenty of grease still present and no detectable wear.

As usual very few of the nuts and bolts released easily during dismantling so it took of hours of drilling, grinding, hack-sawing, chiselling and punching to remove them and many had to be renewed. When disconnecting the half-shafts it is often found that the four 7/16 UNF bolts connecting the half-shaft to diff.flange, which were quite long enough when first removed, are too short when you try to refit them ! The road spring has forced the lower link outwards slightly and expanded the De-Dion tube. If a timber batten is placed between the floor and the outer edge of the lower link at about 45 degrees then jacked-up slightly (see photo) the flanges are easily restored to contact while the bolts are refitted. The main weight of the car must be supported independently of this jacking arrangement.

