V12 & LG6 handbrake/rear brakes

Written by h14 at Jul 25, 2016 2:10 pm

My LG6 was bought partly because it had benefitted from a "complete professional mechanical rebuild". Unfortunately the "professional" part only seems to refer to the fact that work was charged for, certainly not the quality of the work done.

As commented previously, I found that only one rear brake was effective; this proved to be because the main rear brake equalizer mechanism had been bolted up tight, stupidly locking all the parts that are supposed to slide against each other. I'm not a trained engineer, but I know that if I see Simmonds nuts (an early self locking nut), that there is an intention for the nuts to be tightened only so far as for the components held to be tightly held whilst still allowing free movement. Worth checking this; it is situated on the O/S of an extremely substantial cross shaft going from one side of the chassis to the other, immediately behind the hand brake lever.

Remember that the ONLY adjustment of the rear brakes is the adjustment at (or near, depending on age of car) the handbrake. So if this equalizer cannot move freely, your rear shoes will wear unequally, or not work at all.

Recommissioning the car, I found the OSR shoes very difficult to fit, and binding once fitted, even with the brake linkage disconnected. I discovered that all 4 rear shoes had been bent, where so called professionals had forced them. The shoes are retained to adjustable steady posts by a washer each side, and split pin. The shoes should move freely between those washers. If not, remove the bent shoe, mount it the other way round on its square pivot, and bend it in the required direction. A fair amount of force might be required, so be careful not to overdo things and damage something.

That however proved not to solve my problem. I then realised that one of these clowns had tightened the backplate mounted equalizer bolt so far as to completely squash the 4-pointed large "star" spring flat...locking the equalizer completely. Only taken me 19 years to discover this! The equalizer is quite a clever arrangement. Externally there is a curved lever to which the handbrake cable is hooked. That lever is fixed by pinchbolt and keyway to a bar passing through the backplate, and the other end of that bar has two flats machined, plus a threaded hole for the equalizer nut. An oval plate rides on that machined section, machined so that it can slide perhaps 1/4". The oval section has dowel type pins which retain the long and short levers going to each shoe. The assembly is retained by a circular brass plate, also machined with a cut out to locate on that section of the bar. The 4 pointed star spring is bolted to that via a small bolt, under the head of which is a serrated spring washer, smooth washer, and a collar. Take especial care not to lose that small collar, as it centralises the star spring...note there is an indentation pressed in the brass plate to locate one of its legs. I found that the equalizer bolt needs to be little more than hand tight. Basically, you want it tight enough to allow the oval section to move, with moderate force applied. It needs to be tat tight as otherwise the mechanism could skew slightly against the spring. You should find that the head of that bolt is drilled to accept locking wire; that really needs to be there (passed under one of the spring legs, as, as stated, correctly set, that bolt is little more than hand-tight.

Hope this information is helpful; the LG6 / V12 brakes are superb, but every bit helps!

Laurence
