

## Check your brakes! By Frank Sibly

Being new to pre-war cars, I assumed braking on Austin 7s was meant to be leisurely, as I had nothing to compare it to. The last club shed-night had the topic of what safety checks to do on our cars. My New or Mk 2 Ruby (ARR) immediately failed, as it was found that the brake levers were working in the incorrect arc, that is, the resting position was vertical, or even slightly pointing in the direction of the brake cable. When the brake pedal was fully depressed, the lever was coming to near horizontal, facing towards the brake cable. This reduces the maximum force that can be applied to the brakeshoes, the maximum being when the brake levers are in the vertical position. In other words, the correct working arc is for the resting position to be away from the incoming brake cable, and to be brought to the vertical when the pedal is fully depressed. I doubt that this fault would be picked up on a voluntary MOT test.



*The front brake lever (offside) prior to rebuild, in resting mode, pointing towards the brake cable. Compare to next picture following rebuild.*



*Following rebuild, brake cable (nearside) now pointing forwards (away from brake cable)*

It was surmised that the brake cams had been inadvertently swapped over in a previous rebuild, or that the wrong cams had been used. An example of a pair of cams is given below, but apparently many different angles of cam were used on the various models.



*Note different alignment of the cams for each side. The upper indentations are for the cotter pin which attaches them to the brake lever, and the lower ones are the cams that push the pistons that in turn push on the brake shoes.*



*Cam (red arrow) cannot be removed without removing hub first. Photo after rebuild, showing front nearside hub, with lever now resting in forward facing position.*

When we reattaching the brake lever with a cotter pin, we found that increased angulation of the lever could be achieved, depending on which way the cotter pin went through the lever.

After we swopped the cams over, the brakes are so powerful that the wheels lock up under full braking. A word of warning, changing the cams over took about 30 hours.