The majority of these tips have appeared in club newsletters over the years. Please note that you use them at your own risk as neither the Bristol Austin 7 Club nor the authors can be responsible for the results of trying to follow the instructions given.

Wiper motor, DW3 - improvements - Sandy Croall

The wiper motor can be made to operate at a reasonable speed by a few fairly obvious actions such as:-

- stripping, cleaning and packing with a judicious amount of Molyslip;
- checking the spindle doesn't rub on the bits it pokes through!
- ensuring good electrical connections, so that it gets a 6V supply
- cleaning and carefully setting the make and break contacts; the setting affects the speed.

However, you may also be frustrated by the narrowness of the sweep that is made by the wiper arm. The article below shows how this can be widened by slightly increasing the radius of the crankpin on the large gearwheel.

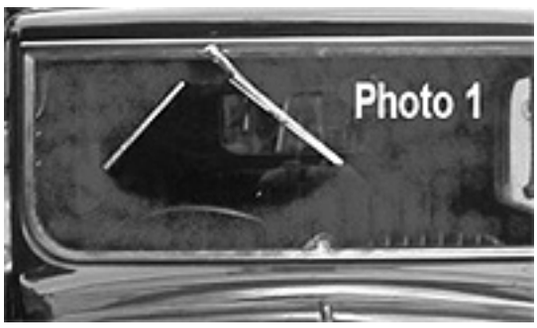
t was written by Sandy Croall and first appeared in the March 2006 issue of Seven Focus. We are indebted to Sandy and the Cornwall Austin Seven Club for permission to reproduce it here. Ron Hayhurst

The journey home last year from the North Devon Holiday was one of continuous rain and my vacuum window wiper refusing to work, in fact I had to operate it by hand for over a 100 miles, and then it started working just in time to cover the last 800 yards home !

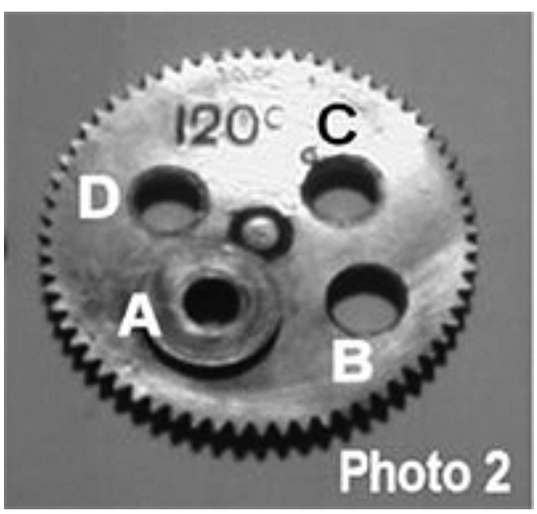
Following that most unpleasant Journey, I decided to modernise and fit an electric motor. The Club's Tat Merchants had one they could not shift at Beaulieu, so we came to an amicable fee and I 'restored' the old motor, a DW3 which is the last type fitted to A7s.

My first venture into the rain was not good, the motor worked, but the swept angle was only 90° - *Photo 1*, and I could not see much to either side of the car, bearing in mind I sit rather high in the car. I did temporarily alter the gear inside

to give a better view on the offside, but found I could then see nothing to the nearside. I thought this was a retrograde step, the vacuum wiper had given a swept angle of at least 130°.



I stripped down the DW3 and reasoned that if I moved the pivot point further from the centre of the 'Gear' wheel I should be able to get more travel to the connecting arm and thus increase the swept angle of the wiper arm. I did experiment with a number of holes - *Photo 2* - in a spare gear wheel and settled on an increase of 1.7mm from the centre of the gear wheel to the new point ('A' is original, 'B' is the final hole, 'C' and 'D' are experimental holes).



However this then meant the gear teeth on the end of the pivot arm hit the tube moulding 'A' - *Photo 3*. I removed this area low enough to clear the teeth. The original position reached by the pivot arm is shown in *Photo 4*, 'B' is the new bearing hole, 'C' is the original. The revised arrangement gave a swept angle of just under 170°, as shown by the positions of the 'R' pin in *Photos 6 and 7*. However once this is transferred to the wiper blade and the mechanical losses are taken up there is about 135° of swept angle on the windscreen – see *Photo 5*.

I can now see where I'm going when it rains, but they say this is going to be one of the driest summers ever, in fact there are already hose pipe bans…… Just as an aside the DW3 gear wheel is marked 120° and indeed it does sweep about 120° in the motor, it's the mechanical losses that end up as 90° on the windscreen.

I understand the ‘Pull and Spin’ electric motors have a swept angle of around 110 degrees.