

Eddie Loader also submits this article about SU carburettors.

I was recently asked a question reference to SU carburettor chamber pistons and oil dampers, for your interest. My reply centered around the period when SU moved from weighted dampers to unweighted ones with spring assistance.

Some of the early weighted type pistons also had a solid neck , which means there were not facilities for an oil damper, the oil that is added via the top plug just lubricates the piston neck.

Like everything else in motor engineering, it was a case of continuous development and SU carburettors found that when they moved to unweighted pistons they had to include a return spring. But the increased speed of the piston particularly in the downwards direction necessitated a damper piston running in thin oil. Without this facility, there would be a tendency for the main piston to rise too quickly, resulting in a flat spot caused by the excessively rich mixture not atomising efficiently. Also, the oil damper controlled the downwards speed of the main piston, thus preventing again a flat spot because the enforced weak mixture caused by the petrol/air mixture being shut off too quickly.

The correct oil for the damper piston is SAE 20 or 3 in1 oil, take care when replenishing damper oil, only top up to approximately 1/4 inch from the top, if the damper chamber is filled to the top, the excess oil will be ejected via the sealing caps vent, this vent must always be kept clear, any blockage would result in the entire carburettor efficiency being compromised.