

Chapter 6

BURNER, SIMPLEX, TYPE CSH. 88

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1. The burner is of the Simplex swirl type using a fixed exit orifice. The designation CSH.88 is derived from Constant Spray Holder of a type known as 88.

Description

2. The unit comprises a hollow stem which is connected to the burner supply pipe by an adapter and union which is supplied by the engine manufacturer. In the streamlined head is a strainer assembly which is retained in position by a spring at one end and by the atomiser at the other. The atomiser, which is screwed into the stem head comprises a hollow body and plug. The body is drilled longitudinally and tangentially, thus affording fuel passage to the conical swirl chamber immediately behind the exit orifice. A ring of holes in the approximate centre of the shroud nut permits air to flow over the atomiser head and through tangential grooves surrounding the orifice to reduce carbon formation. The shroud nut is locked by a peened copper washer, four slots being pro-

vided on the shroud and three on the stem body. This washer also determines the size of the air gap between the atomiser and the shroud nut.

Operation

3. Fuel at burner line pressure passes through the burner stem via the strainer and fuel passages in the atomiser body to an annulus inside the atomiser. From the annulus it passes through the tangential holes in the swirl chamber to establish a vortex before it is ejected from the orifice as a finely atomised, conical spray.

Installing and servicing

4. Each burner is supported in a gland assembly fitted to the combustion chamber aperture, details of which are given in the relevant engine Air Publication. When any pipes or joints have been disconnected or disturbed, the engine fuel system must be primed. Inhibiting details for the burner are given in A.P.4471A, Vol. 1.

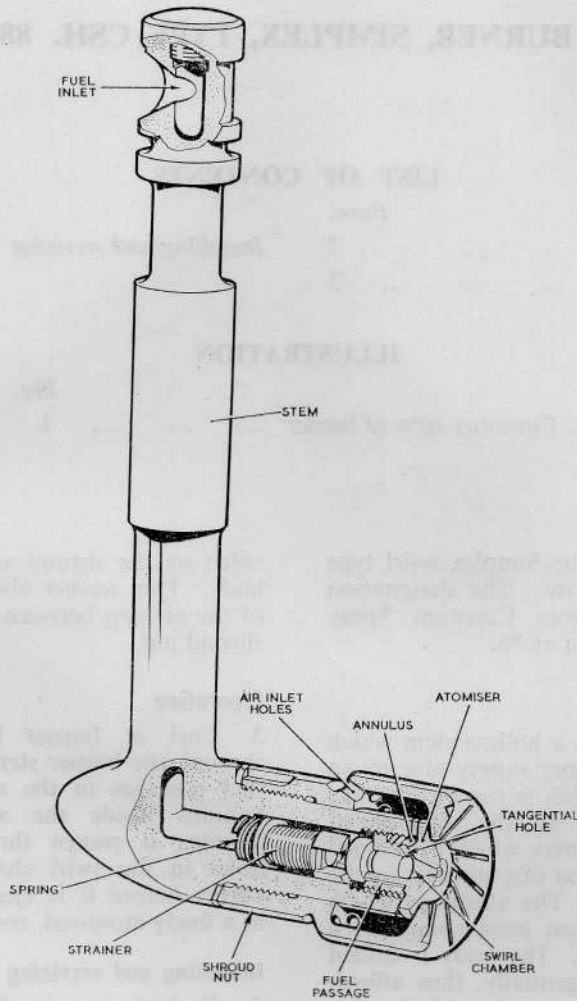


Fig. 1. Cut-away view of burner CSH. 88

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