

THE WARNER AIRCRAFT CORPORATION
20263 HOOVER AVENUE
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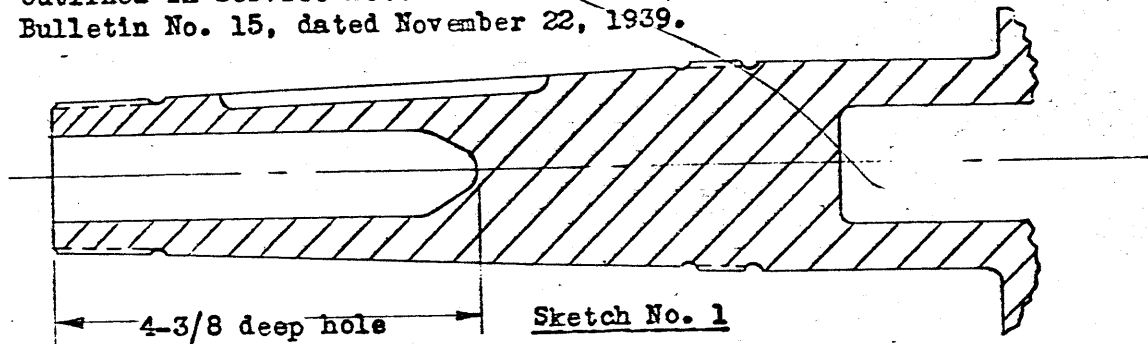
April 22, 1946

SERVICE LETTER A-18

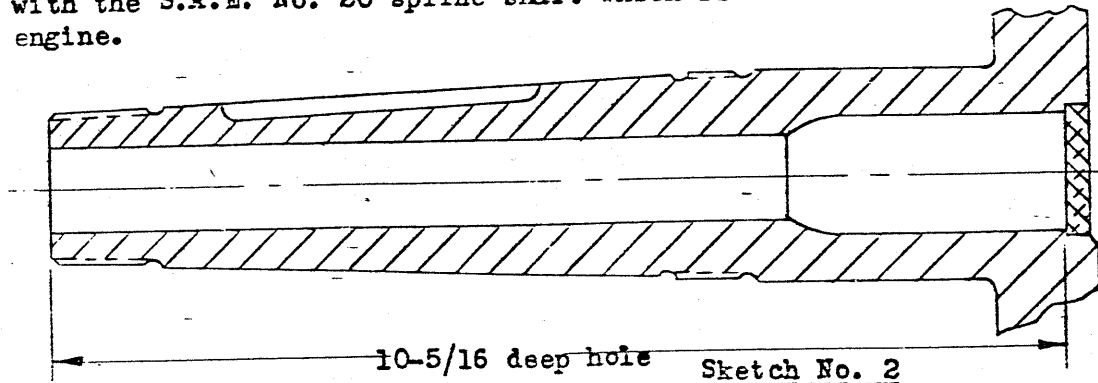
To all owners of Warner Super-Scarab, Series 40, 50 and 50A, 145 h.p. engines.

SUBJECT: I - Recognition of reinforced taper crankshafts
II - Availability of new heavier stem exhaust valve

1. (a) The following sketch No. 1 gives the outline of dimensions by which the latest type reinforced tapered crankshaft can be easily recognized. Crankshafts of this type are not subject to the periodic inspection outlined in Service Letter A-7 and C.A.A. Airworthiness Maintenance Bulletin No. 15, dated November 22, 1939.



- (b) Crankshafts of the type shown below in Sketch No. 2 are the Non-reinforced crankshaft and the periodic inspection referred to in Paragraph 1.(a) must be complied with. It is strongly recommended that crankshafts of this type be replaced, either with the reinforced shaft shown in Sketch No. 1, or with the S.A.E. No. 20 spline shaft which is standard on the Series 50A engine.



2. (a) An improved exhaust valve, Part No. 11549, which incorporates a 1/2 inch diameter stem, is now available as a replacement for the present Part No. 7610, exhaust valve. The installation of this new valve is not mandatory, but is especially recommended for installation in engines which are subjected to unusually severe usage, such as seaplane operation, or where exhaust valve failures have been encountered.

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- (b) Valve guide Part No. 11882 must be installed in place of valve guide, Part No. 7483, when changing from Part No. 7610 valve to Part No. 11549 valve. Guide, Part No. 11882, is also available in plus .003 and plus .010 oversizes, for service replacement.
- (c) When installing exhaust valve, Part No. 11549, it is necessary to be certain that exhaust valve springs Part No. 7965 and Part No. 7966 are installed, as outlined in Service Letter No. A-10. The use of the heavier valve in conjunction with the nearly light exhaust valve springs may lead to difficulties due to surging and flutter of the light valve springs.
- (d) Engines in which the Part No. 11549 valves are installed are designated by the suffix "M", following the serial number, thus engine serial number SS-999MA will indicate the installation of Part No. 11549 valves and 3/8" diameter cylinder base studs.

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E. E. Compeau
Service Manager

REC/mr/rvk