



NUMBER: S.I. M20-64

DATE: 2-1-83

SUBJECT: ANTI-ICING FUEL SYSTEM ADDITIVES, MOONEY M20 SERIES AIRCRAFT

SERIAL NUMBERS AFFECTED: All Mooney M20 Series Aircraft

TIME OF COMPLIANCE: Not Applicable

INTRODUCTION: Under certain ambient conditions of temperature and humidity, water can be present in the fuel in sufficient quantities to create ice formations within the various segments of the airframe/engine fuel system.

INSTRUCTIONS: To reduce the possibility of this occurring, it is permissible to add isopropyl alcohol to the fuel supply in quantities not to exceed 3 percent of the total fuel by volume for the Model M20K 231 and 1 percent by volume for all other Model M20 Series airplanes. The difference is due to the different engine manufacturer's recommendations. Refer to Teledyne Continental Motors Service Bulletin #M82-8 (for the 231) and AVCO Lycoming Service Instruction #1070K (for all other M20 Series) for these recommendations.

Even though both engine manufacturers allow the use of minute quantities of EGME (ethylene glycol monomethyl ether) in the engine, Mooney Aircraft Corporation cannot recommend its field use in Mooney fuel systems because of EGME's highly sensitive mixing requirements.

EGME is immiscible in fuel and must be thoroughly mixed with the fuel as the tanks are filled to prevent pockets of concentrated EGME which would be detrimental to the engines as well as the fuel system. EGME in unmixed pockets in the fuel would also lead to a sense of false security since it will not perform its intended function.

REFERENCE DATA:

1. Teledyne Continental Motors (TCM) Service Bulletin #82-8.
2. AVCO Lycoming Service Instruction #1070K.

PARTS LIST: Not Applicable

FIGURES/TABLES: Not Applicable