U.S. Department of Transportation
Federal Aviation Administration

Advisory Circular

Subject: MARKING AIRCRAFT FUEL FILLER OPENINGS WITH COLOR CODED DECALS
Date: 9/17/82
Initiated by: AWS-130
AC No: 20-116
Change:

1. PURPOSE. This Advisory Circular (AC) discusses the conditions under which color coded decals may be used to comply with the requirements in Parts 23, 25, 27, and 29 of the Federal Aviation Regulations for marking fuel filler openings

2. Related FAR Sections and Reading Material. Federal Aviation Regulations (FAR's) §§ 23.1557, 25.1557, 27.1557, 29.1557, and AC 20-43C, Aircraft Fuel Control, dated October 20, 1976.

3. BACKGROUND.

a. Aviation accident statistics compiled by the National Transportation Safety Board (NTSB) and the FAA indicate that a number of accidents have been caused by the use of improper fuel. Most of these accidents occur in general aviation operations and have been related to misfueling with a fuel not intended for use with that airplane. Misfueling a reciprocating engine powered aircraft with turbine fuel has had catastrophic results with engine failure occurring during the critical takeoff phase of flight. Several major fatal accidents occurred when transport airplanes were fueled with the wrong kind of fuel and crashed immediately after takeoff.

b. The General Aviation Manufacturers Association (GAMA) has proposed a method to minimize the misfueling of general aviation aircraft. A specification for a color coded decal has been developed (GAMA Specification No. 3 issued on July 1, 1982) to provide a standard for decals to be affixed adjacent to aircraft fuel filler ports to alert servicing personnel of the proper fuel to be used. This is part of an overall scheme of color matching decals at aircraft fuel filler ports and fuel filler nozzles.

4. DISCUSSION. Color coded decals meeting the material requirements, test conditions, and application and removal requirements for decals in GAMA Specification No. 3 are acceptable for use on small airplanes, transport airplanes and helicopters under the following conditions:

a. The color coded decal may be affixed to any certificated airplane or helicopter as an additional fuel filler marking as long as the required fuel filler markings approved for that airplane or helicopter are retained and the information on the color coded decal does not conflict with the information provided under the certification basis.

b. The color coded decal may be used to show compliance with the fuel filler marking requirements of FAR's §§ 23.1557, 25.1557, 27.1557, and 29.1557 in the certification of reciprocating engine powered airplanes and helicopters provided that the decal contains all of the information required by the regulations applied during the airplane or helicopter certification. Additional information such as "useable fuel capacity" may be required under the airplane or helicopter certification basis. Any information that is required to supplement the information on the color coded decal must be marked in an acceptable manner at or near the filler cover. The term "Avgas" on the decal is considered to be equivalent to the word "Fuel" specified in the requlations.

c. The color coded decal may be used tc supplement the markings provided to show compliance with the fuel filler marking requirements of FAR's §§ 23.1557, 25.1557, 27.1557, and 29.1557 in the certification of turbine engine powered airplanes and helicopters. Such information as fuel designation, fuel additives, and maximum permissable fueling and defueling pressures which may be required by the applicable regulations, must be marked in an acceptable manner at or near the filler cover.

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