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An American National Standard

Standard Specification for Aviation Turbine Fuels[1]

This standard is issued under the fixed designation D 1655; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope

1.1 This specification covers the use of purchasing agencies in formulating specifications for purchases of aviation turbine fuel under contract.

1.2 This specification defines specific types of aviation turbine fuel for civil use. It does not include all fuels satisfactory for aviation turbine engines. Certain equipment or conditions of use may permit a wider, or require a narrower, range of characteristics than is shown by this specification.

1.3 Aviation turbine fuels defined by this specification may be used in other than turbine engines that are specifically designed and certified for this fuel.

2. Referenced Documents

2.1 *ASTM Standards:*

D 56 Test Method for Flash Point by Tag Closed Tester[2]

D 86 Test Method for Distillation of Petroleum Products[2]

D 93 Test Methods for Flash Point by Pensky-Martens Closed Cup Tester[2]

D 129 Test Method for Sulfur in Petroleum Products (General Bomb Method)[2]

D 130 Test Method for Detection of Copper Corrosion from Petroleum Products by the Copper Strip Tarnish Test[2]

D 156 Test Method for Saybolt Color of Petroleum Products (Saybolt Chromometer Method)[2]

D 240 Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter[2]

D 323 Test Method for Vapor Pressure of Petroleum Products (Reid Method)[2]

D 381 Test Method for Existent Gum in Fuels by Jet Evaporation[2]

D 445 Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (the Calculation of Dynamic Viscosity)[2]

D 1094 Test Method for Water Reaction of Aviation Fuels[2]

D 1266 Test Method for Sulfur in Petroleum Products (Lamp Method)[2]

D 1298 Test Method for Density, Relative Density (Specific Gravity), or API Gravity of Crude Petroleum and Liquid Petroleum Products by Hydrometer Method[2]

D 1319 Test Method for Hydrocarbon Types in Liquid Petroleum Products by Fluorescent Indicator Adsorption[2]

D 1322 Test Method for Smoke Point of Aviation Turbine Fuels[2]

D 1405 Test Method for Estimation of Net Heat of Combustion of Aviation Fuels[2]

D 1552 Test Method for Sulfur in Petroleum Products (High-Temperature Method)[2]

D 1660 Test Method for Thermal Stability of Aviation Turbine Fuels[3]

D 1740 Test Method for Luminometer Numbers of Aviation Turbine Fuels[2]

D 1840 Test Method for Naphthalene Hydrocarbons in Aviation Turbine Fuels by Ultraviolet Spectrophotometry[2]

D 2276 Test Method for Particulate Contaminant in Aviation Fuel by Line Sampling[2]

D 2386 Test Method for Freezing Point of Aviation Fuels[2]

D 2622 Test Method for Sulfur in Petroleum Products by X-Ray Spectrometry[4]

D 2624 Test Methods for Electrical Conductivity of Aviation and Distillate Fuels[4]

D 2887 Test Method for Boiling Range Distribution of Petroleum Fractions by Gas Chromatography[4]

D 3120 Test Method for Trace Quantities of Sulfur in Light Liquid Petroleum Hydrocarbons by Oxidative Microcoulometry[4]

D 3227 Test Method for Mercaptan Sulfur in Gasoline, Kerosine, Aviation Turbine, and Distillate Fuels (Potentiometric Method)[4]

D 3240 Test Method for Undissolved Water in Aviation Turbine Fuels[4]

D 3241 Test Method for Thermal Oxidation Stability of Aviation Turbine Fuels (JFTOT Procedure)[4]

D 3242 Test Method for Acidity in Aviation Turbine Fuel[4]

D 3338 Test Method for Estimation of Heat of Combustion of Aviation Fuels[4]

D 3343 Test Method for Estimation of Hydrogen Content of Aviation Fuels[4]

[1] This specification is under the jurisdiction of ASTM Committee D02 on Petroleum Products and Lubricants and is the direct responsibility of Subcommittee D02.J on Aviation Fuels.

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[2] *Annual Book of ASTM Standards,* Vol 05.01.

[3] Discontinued—Replaced by D 3241—See *1993 Annual Book of ASTM Standards,* Vol 05.02.

[4] *Annual Book of ASTM Standards,* Vol 05.02.

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