

ATTACHMENT D

Fuel MUST be tested and treated to the minimum standards of the latest edition of ASTM D975 – Standard Specification for Diesel Fuel Oils.

ASTM D975 — Diesel Fuel Specifications

(Following excerpts from ASTM D975 provided for reference only :)

Test Parameters : Implications and Uses	Specifications
Flash Point: (D93) in degrees F. The minimum temperature at which fuel vapors will ignite under a low flame. Important for safe handling and storage.	125°F -= Minimum for #2 Diesel Fuel
Appearance: @ 75° F is a visual examination of the fuel. Dark and/or cloudy fuel suggests a need for remediation.	"Clear and Bright"
Water and Sediment: shows the level of contamination by water and sediments (D1796, D1744 and D2709).	0.05 maximum, % volume
Carbon Residue: (D524) a measure of the carbon depositing tendencies of a fuel when heated in a bulb under prescribed conditions.	0.20 maximum
API Gravity: @ 60°F is the density of the fuel. Deviation from the normal range will alter the classification of the fuel for its intended use.	Range: 30.0 — 39.0
Distillation: (D86) process by which the fuel is distilled and recovered at specified levels. Defines its evaporation characteristics; is important for complete combustion.	540°F = minimum 640°F = maximum @ 90% recovered
Viscosity: (D445) the measure of resistance to flow of a liquid; important for consistency, injector flow, and good atomization.	Range: 1.90 — 4.10
Sulfur: (D5453) a measure of sulfur content. Important to minimize engine wear and to meet legislation.	1.0 maximum
Corrosion: (D130) rates the tendency for fuel to attack metal surfaces in the distribution and storage network, and in the engine fuel system.	#3 = maximum
Residue at End Point: in per cent suggests contamination of the fuel by higher boiling compounds.	3.0% = maximum
Particulate Contamination: in Mg/L is the level of solid particulate matter recovered from the fuel which can lead to blockage of the fuel flow, starvation of and damage to the fuel pump, and damage to the diesel engine.	10 Mg/L = maximum
Cetane Index: (D976) shows the ability of the fuel to ignite properly. Specified as a limitation on the amount of high aromatic components.	40 = minimum
Accelerated Storage Stability: (D5304) a procedure for assessing the potential long-term storage stability. Using oxygen over pressure at a specified temperature for a set period of time to simulate the degradation of the fuel on standing.	3.0 Mg/L= maximum For grades : #1 Diesel fuel #2 Diesel fuel
Microbial Contamination: (D6469) the level of a variety of algae growth in the fuel which blocks the flow of fuel by filter blanking and degrades the quality of the fuel.	None Allowed