

WHITE PAPER – UL 1105 Standard for Safety - Marine use Filters, Strainers and Separators. What to look for when surveying a craft.

WHO – The purpose of this white paper is to highlight the sections of UL1105 that can be seen during a typical marine survey. Surveyors should have read and be familiar with the complete standard. UL 1105 is a standard for safety for marine filters, strainers and separators. It includes tests and specifications for the manufacturing and installation of marine filters and strainers.

WHAT – A fuel filter separator provides a space in the bottom of the separators dirty side for collection of water. Separating water from fuel can prevent or at least reduce any damage water could cause to fuel injectors should water bypass the filter media. Water in the engine fuel system can cause injection system damage, hard starting, loss of power, misfiring, surging or stalling.

WHERE – Fuel filter water separators are found between the fuel tank and the engine in diesel fuel and gasoline powered craft.

1.1 These requirements cover marine filters, strainers, and separators intended to separate impurities and/or water from the fuel in gasoline or diesel oil fuel systems on boats.

5.2.7 Clean-out and drain openings shall be closed by a standard pipe plug or a threaded shouldered plug. The plugs shall not create a galvanic cell with the housing that will accelerate corrosion.

5.2.11 The filter, strainer, or separator shall be capable of withstanding a 2-1/2 minute exposure to a fire without leakage.

The flammable or combustible liquid used to produce the fire shall be the same as the fuel for which the unit is designed. See Fire and Thermal Shock Test, Section 16.

Make sure any sensor attached to bottom of the filter could meet this standard.

Test the sensor system. If the filter separator has a WIF sensor attached, the alert should be tested.

WHY – Water can get carried into fuel tanks from other storage tanks and can also form in fuel from condensation, alcohol in fuel, high humidity, contaminated fuel, old fuel, periods of no activity.

