

DESCRIPTION

The DREW SS MINI SPOT TESTER provides a fast and easy method to determine fuel oil compatibility and stability. As new fuel oil is bunkered, the compatibility of the fuel oil remaining onboard (ROB) with new fuel oil can be quickly determined. The DREW SS MINI SPOT TESTER can also be used to determine a single fuel oil's inherent stability and likelihood to create sludge.

Mixing of fuel oils typically occurs arbitrarily as new bunkers are loaded on top of old fuel oil in empty storage tanks. Onshore fuel testing laboratories may test for compatibility between submitted samples if requested, but this takes time. The DREW SS MINI SPOT TESTER allows this capability conveniently onboard which provides immediate results to eliminate any uncertainty regarding the compatibility of fuels.

Since fuel is loaded from different suppliers and different ports, the possibility of having two incompatible fuels is always present due to inevitable mixing of stocks. When different fuel oil grades (i.e., HSHFO, VLSFO, ULSFO, MGO, biodiesel, etc.) are mixed during fuel switchover, required for entering or leaving an Emission Control Area (ECA), the likelihood for compatibility problems can increase significantly.

Whether a single fuel is inherently unstable or two mixed fuels are incompatible, the result is often the same – sludge formation. Without knowing the likelihood of instability or incompatibility, the first indication of fuel sludge problems is encountered immediately with overloaded centrifuges and blocked fuel filters. More extensive problems may lead to plant shutdown due to the lack of fuel supply to the engine or boiler.



DREW SS MINI SPOT TESTER
(PCN 1AB6196)

APPLICATION

The DREW SS MINI SPOT TESTER uses a dry heating bath to rapidly heat the oil in test vials and to dry the test paper to determine fuel oil compatibility and stability. The heated drying block has three compartments to allow heating up to three samples of oil and subsequent drying of up to three spot test papers.

A sample of each new fuel oil delivery and grade should be tested by itself for stability. These samples should also be mixed with fuel ROB sample for compatibility. Testing the compatibility between HSHFO, VLSFO, ULSFO, biodiesel, and MGO samples is also recommended to determine problems during fuel switchover for ECA or during maneuvering.

Fuel oil in extended storage should be tested for stability after three months as part of good fuel management practice. Testing stability and compatibility onboard using the DREW SS MINI SPOT TESTER allows operators to take appropriate actions to mitigate sludge formation such as isolating or minimizing the mixing of bunker deliveries known to be incompatible or using fuel additives to disperse any potential sludge formation.

FEATURES

- Small aluminum heating block with three compartments allow quick heating of oil samples and subsequent drying of spot test papers
- Rapid heating time of 15 to 20 minutes
- Accelerated test procedure correlated to ASTM test method used by oil testing laboratories
- Quick and easy-to-use onboard test kit
- Included forceps and heating block handle

BENEFITS

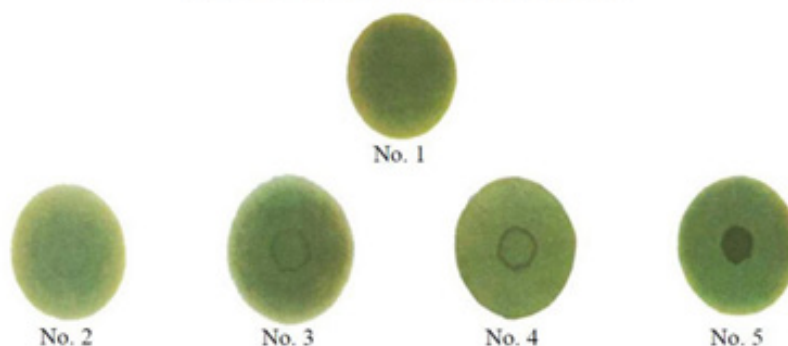
- Allows immediate testing for the stability of single fuels and the compatibility between two or more fuels
- Provides quick indication and degree of sludge formation tendency of all fuels bunkered and mixed
- Enables crew to make informed decisions about isolating or minimizing the mixing of fuels or using fuel additives to mitigate potential fuel sludging
- Reliable spot test results
- Safe handling of equipment and testing of hot oil samples



Contact your Drew Marine representative for more information

The following shows Reference Spot Numbers that are used to interpret the analysis results.

ASTM D4740 REFERENCE SPOT ADJUNCT



REFERENCE SPOT NO.	CHARACTERIZING FEATURES	ANALYSIS RESULTS
1	Homogeneous spot (no inner ring).	Sufficiently stable or compatible fuel.
2	Faint or poorly defined inner ring.	Sufficiently stable or compatible fuel.
3	Well-defined inner ring, only slightly darker than the background.	Sufficiently stable or compatible fuel.
4	Well-defined ring, thicker than the ring in reference spot No. 3 and somewhat darker than the background.	Unstable or incompatible fuel.
5	Very dark solid or nearly solid area in the center. The central area is much darker than the background.	Grossly unstable or incompatible fuel.

If Spot No. results 3 or 4 are obtained, it is prudent to segregate the fuels in question.

If Spot No. results 5 is obtained, use extreme caution in handling. Engine damage may occur.

CLEAN UP AND DISPOSAL

After each test, properly dispose of the sample, vials, and syringes (as petroleum product) and clean the dry heating bath and drying block with cleaning reagent (e.g., Test Kit Cleaner PCN 1AB2738) and a dry cloth.

HEALTH AND SAFETY ADVICE

Do not smoke or use petroleum distillates near an open flame. When using, wear protective equipment e.g., safety goggles and gloves. Avoid contact with skin, inhaling vapors, mists, or fumes during use. Use in a well-ventilated area.

ORDERING INFORMATION

DESCRIPTION	PCN
DREW SS MINI SPOT TESTER	1AB6196

SPARES AND ACCESSORIES

DESCRIPTION	PCN
Test Paper, Chromatography	1AB2807
Test Kit Cleaner (2x500ml)	1AB2738
Gloves, nitrile (set of 100)	1AB2186
Sample beaker, 125ml (set of 40)	1AB2188

SPECIFICATION

Dimensions/Weight:	30 x 25 x 20 cm / 2.6kg
Voltage/Frequency:	Input 110/240V, 50/60Hz
AC/DC Adapter:	Output 12VDC, 4A

IMPORTANT INFORMATION

Drew Marine maintains Safety Data Sheets on all of its products. Safety Data Sheets contain health and safety information for your development of appropriate product handling procedures to protect your employees.

Our Safety Data Sheets should be read and understood by all of your supervisory personnel and employees before using Drew Marine products.

 **Contact your Drew Marine representative for more information**



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