

DREW XP SW CONTAMINATION TESTER



DESCRIPTION

The DREW XP SW CONTAMINATION TESTER is an onboard testing and analysis kit that identifies the presence of sea water contamination in fuel or lube oil, and can help pinpoint its source. The self-contained kit consists of test pads, test reagent, test tubes, syringes with sufficient test pads for 25 determinations, and an easy-to-use manual.

Sodium from sea water in fuel or lube oil can form emulsions that contribute to corrosion. Test results confirming the presence of sodium enable operators to implement timely measures to prevent corrosive deposits and damage to engines and exhaust systems.

The DREW XP SW CONTAMINATION TESTER is a companion to any of Drew Marine's water in oil test kits, available separately. Tests for sea water contamination are conducted as a follow-up to initial water testing to identify the nature of water found in fuel or lube oil systems. Because of the potential for widespread damage from these common contaminants, both tests are offered as standard components included in both the DREW XP FUEL & LUBE TEST CABINET and the DREW XP LUBE OIL FIVE-TEST KIT. These integrated, onboard analysis and testing programs are designed to streamline and optimize fuel and lube oil management.

SEA WATER CONTAMINATION OF FUEL OIL

Sea water contamination may be introduced either operationally or because of structural defects in delivery trucks or bunker tankers, heat exchangers, or ballast water systems. Unsecured hatch covers and corroded storage tank tops are likely ingress points for sea water. And corrosion in fuel-sounding pipes that pass through ballast water tanks is a common cause of sea water in fuel.

The presence of sodium from sea water during combustion can lead to high-temperature deposits and corrosion in combustion chambers, exhaust valve seats, turbochargers, and exhaust systems. Onboard tests for sea water contamination are a valuable resource for implementing programs to prevent or minimize damage, including:

Scheduled monitoring. Signs of sea water in routine samples taken from storage tanks or engine oil should trigger more extensive testing to troubleshoot the system.

Pinpointing the source of contamination. Testing of samples taken from various points before and after heat exchangers can be used to locate points of sea water ingress, so repairs can be made where possible.

Fuel treatment. The emulsion-forming properties of sea water make it more difficult to remove through settling and centrifuging. At the same time, the chemical reaction between the sodium found in sea water and the vanadium compound typically found in residual fuel oils is a major concern because of the potential for high-temperature corrosion and engine damage.

Using fuel additives with ash-modifying properties (e.g., Drew Marine's AMERGIZE deposit modifier and combustion improver – PCN 0098401) can help prevent high-temperature deposits and corrosion from forming on exhaust-valve surfaces.

SEA WATER CONTAMINATION OF LUBE OIL

Water contamination in lube oil can quickly destroy the integrity of the thin lube oil film protecting the moving parts of engines. And sodium salts from sea water accelerate the process by causing immediate corrosion problems. Sea water-lube oil emulsions also make it difficult to remove the water from the oil through settling and centrifuging.

Onboard tests showing high sea water content in lube oil should trigger:

- Step-by-step testing procedures are easy to follow
- Results are provided in 5 minutes

BENEFITS AT A GLANCE

- Complements basic water testing by highlighting the presence of sea water in fuel and lube oil.
- Provides a cost-effective tool to monitor and guard against the effects of sea water contamination, including: premature wear, corrosion, and reduced service lifetime of engine components.
- Allows operators to quickly troubleshoot compromised fuel and lube oil systems.

CLEANUP AND HANDLING

The use of harsh chemicals for cleaning test kit instruments and accessories is not advisable. Use only approved cleaning agents (e.g. Drew Marine's TEST KIT CLEANER—PCN 1AB2738) to clean test kit components, and wipe clean using a dry rag. Dispose of the used rag as used oil.

Refer also to the DREW XP SW CONTAMINATION TEST KIT Material Safety Data Sheet, available from your Drew Marine representative, for precautions regarding the reagents included in the test kit.



Contact your Drew Marine representative for more information

TEST PROCEDURES

For step-by-step operating procedures and precautions, refer to the Sea Water Contamination sections of the Operating Manuals for the DREW XP FUEL & LUBE OIL TEST CABINET and/or the DREW XP LUBE OIL FIVE-TEST KIT.

CONTENTS AND ORDERING INFORMATION

This test is standard as part of:

- DREW XP FUEL & LUBE OIL TEST CABINET
- DREW XP LUBE OIL FIVE-TEST KIT

Reorders

- DREW XP SW CONTAMINATION TESTER (PCN 1AB2761)

Spares and Replacements

Description	PCN
DREW XP-SWC Test Pads	1AB2834*
Reagent SW, 250 ML	1AB2802*
Test Syringe, 5ML, 40 CT.	1AB2812

*Discontinued, availability may be limited. In such cases, please reorder PCN 1AB2761 which contains PCNs 1AB2834 and 1AB2802.



Drew Marine

400 Captain Neville Drive
Waterbury CT, 06705 USA
1-973-526-5700
Drew-Marine.com