

DESCRIPTION

FOT fuel oil treatment is a highly effective blend of self-dispersing solvents, surfactants, detergents and emulsifying agents. It has been designed to overcome the numerous difficulties in handling and burning heavy residual fuels for main and auxiliary boilers.

APPLICATION AND USE

As a fuel conditioner, FOT fuel oil treatment helps counteract the burden placed on the fuel transfer system by moisture, heavy hydrocarbons, excessive sludge and solid deposits. By emulsifying moisture and dispersing sludge, FOT treatment reduces maintenance, contributes to better atomization for more complete combustion, and increases the utilization of available heat units for bunkers by liquifying otherwise unburnable sludge masses, which would precipitate out during settling and centrifuging.

As a solvent, FOT treatment will assure quicker, easier and more thorough cleaning of carbonaceous deposits, baked-on sludge, varnish, gummy deposits and waxy residue from all grades of marine residual fuel.

FOT is versatile. Some of FOT treatment's numerous applications include:

- On-stream fuel conditioning
- Fuel tank sludge removal
- Solvent cleaning of:
 - fuel oil heaters and strainers
 - lube oil filters and coolers
 - oil guns and burner tips
 - air register units
 - fuel pumps

FUEL CONDITIONER

As an on-stream treatment, FOT is added to the fuel tanks to combat fuel handling problems from tank bottom to burner tip. Its specially formulated detergents and emulsifiers enable the fuel to become a more stable, homogeneous fluid. Combustion is enhanced by improved atomization and flame stability. This results in safer operations, cleaner firesides and maximum heat output. The homogenizing action of FOT disperses sludge and suspends heavy hydrocarbons. This feature reduces deposition of fuel particles, which means less frequent cleaning of tank bottoms, fuel oil preheaters, strainers and burner tips. Fuel losses associated with these deposits are minimized, meaning higher yields from bunkers.

FEATURES

- Concentrated blend of self-dispersing solvents, detergents and emulsifying agents
- Disperses thoroughly in the fuel
- Non-abrasive
- Stable Formula

BENEFITS

- Helps to maximize bunker yields
- Stabilizes and disperses existing bunker tank sludge
- Reduces tank cleaning costs
- Helps prevent sludge buildup and deposits in heaters, strainers, lines and boiler burner tips
- Powerful solvent for cleaning burner assemblies, fuel oil heaters and strainers, and lube oil coolers
- Easy to dose
- Will not damage close tolerance fuel metering equipment
- No storage problems
- Will not separate/ settle out



Contact your Drew Marine representative for more information

SOLVENT APPLICATIONS

As a solvent, there are two main areas of maintenance where FOT fuel oil treatment is especially beneficial:

1. Cleaning of burner assemblies, fuel oil heaters and strainers, and lube oil coolers.
2. Removing heavy sludge deposits in double bottom and deep tanks.

1. **Cleaning Burner Assemblies:**

Removing carbon deposits maintains fuel handling and burner equipment in proper condition to deliver maximum performance. Use of FOT by soaking or circulating method reduces cleaning time and eliminates damage from scraping. FOT is convenient since oil guns and air register units do not have to be disassembled for cleaning. FOT treatment will also clear oil passages of deposits in the burner barrel. They are normally inaccessible for manual cleaning. As a result burner tips from plugging since barrel deposits may break away during operation.

The following procedures are recommended when cleaning fully assembled units:

- The size of the container should be such that the unit is at least three quarters submerged in FOT treatment with the lower end 7-10 cm above the bottom of the container to allow for accumulation of carbon sludge.
- Oil guns that have just been removed from operation should be hung up for a few minutes to drain off excess oil.
- Vertically submerge equipment in FOT treatment for a minimum of two (2) hours. Since FOT treatment has no harmful effect on metal, soak for as long as desired or until equipment is needed.
- When the equipment is required for use, remove assembly from container, allowing FOT treatment to drain off for a few seconds.

In the engine room, FOT fuel treatment may be used again and again. When its effectiveness as a solvent has been exhausted, the oil material may be placed in settlers or in reclaimed oil tank to keep tanks clean and free of sludge.

2. **As a Sludge Remover:**

Diluting FOT treatment with a commercial solvent such as kerosene (3 parts kerosene: 1 part FOT treatment) yields a

powerful and inexpensive solution that performs effectively in removing heavy sludge deposits from double bottoms and deep tanks. Dilution helps carry FOT treatment's active ingredients over a greater area, bringing about more complete contact with the sludge. Cleaning procedures for quickly eliminating deposits caused by ballasting of fuel tanks include the combination of heat, motion, and FOT treatment:

- If fuel tanks are carrying ballast, it is always wise to heat about half the ballast water before completely stripping the tank.
- Any remaining sludge can be uniformly suspended throughout the fuel by introducing the FOT treatment solution into the tanks prior to bunkering. The agitation during bunkering will bring about more thorough distribution of the treatment.
- Should excessive heavy deposits of sludge exist in the fuel tanks, pump fuel down to the sludge level, and add FOT treatment solution to the tank at a rate of 1 liter per 35 liters of sludge. Adding heat, circulate the treated sludge back and forth between the sludge tanks and another slack tank, which also is being heated. Continue recirculating until the sludge becomes a uniform fluid. Add FOT treatment to new fuel taken onboard at the recommended dosage rate prior to bunkering. Agitation during bunkering will assist in providing thorough distribution of the broken-up sludge particles and FOT treatment. Continue recirculating between tanks until the sludge is completely dispersed into the body of the fuel. The petroleum detergent contained in FOT treatment will break down the sludge resistance to mix with fresh fuel by reducing the fuel oil surface tension.

TYPICAL PHYSICAL PROPERTIES

Appearance:	Clear red solution
Specific Gravity @25° C:	1.08 g/cm ³
Flash Point (PMCC):	78°C min

NOTE: Always wear the appropriate personal protective equipment when using this product.

PACKAGING

FOT fuel oil treatment is available in 25-liter containers (PCN 0036401).



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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.



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Drew Marine®

**100 South Jefferson Road
Whippany, NJ 07981 USA
1-973-526-5700
Drew-Marine.com**

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