CRUDE AWAKENING!

F Y I by Mike Wiley

Extensive damage to fiberglass, painted surfaces, finishes and equipment can be caused by the effects of crude oil buildup on boat hulls. The oil and the fiberglass polymer are both apolar molecules which could imply a greater tendency for the oil to penetrate the surface. About the only conceivable way permanent staining can occur is with FRESH out of the ground crude and still containing all the light fractions which isn't a realistic scenario in this case.

One of the keys to this whole question has to do with the viscosity or thickness of the oil you or your boat are likely to encounter. It is true that the basic product leaking from the underwater pipes is the approximate consistency of roofing tar, one thick, gooey substance. But that's pretty much where it ends. The clean-up crews have been employing a variety of strategies to contain or disperse this mess, and the results of these techniques are important

knowledge when analyzing the actual impact to recreational or commercial boats.

Damage caused by crude oil in contact with a fiberglass boat includes:

- **Penetrates and degrades gelcoat**
- **Stains and degrades topside paints**
- **Compromises the effectiveness of ablative bottom paints**
- **Clogs intakes and degrades pump impellers**
- **Foul onboard air conditioning systems**
- **Will render anti-foul paint useless**

Motoring thru this crude oil will cause overheating to in/outboards by obstructing the heat transfer process, degrade the rubber parts (if not neoprene) of the motor including the impeller. and on Evinrude motors, degrade the rubber vanes that direct the flow of cooling water.

Preventive measures and quick cleanup may be the best chance to avoid expensive repairs.

Keep It Waxed

Waxing your boat with a non-petroleum based marine wax will help prevent stains for a short time once the crude has made contact with the hull. A quick response will be needed once your waterline has been stained.

Leading marine paint manufacturers Interlux and Awlgrip offer boaters in the impacted areas the following tips to help clean contaminated boats.

Remove Stains

To remove stains, quick response is necessary. Use a degreaser like Cascade liquid dish detergent or Dawn dish soap to cut the oil and wash the affected area. Then buff the area with polish or light buffing compound. Re-apply the solvent to the cleaned area and repeat the process. WD40 is a good oil remover, albeit expensive if you need a lot.

If the surface beads water, you have not completely removed the petroleum or possibly the solvents; repeat this process until the water sheets off the surface.

As for sealing your gel coat, the best product out there is probably BTS Sealant, a polymer based product that will effectively clean and then close the microscopic pores in the gelcoat.

Do not pressure wash oil build up! This may force the material to penetrate the gelcoat or paint making any reapplication of wax or paint impossible.

Cleaning Topsides

Contaminated topcoats should be cleaned as soon as practically possible to minimize the damaging effects of the crude. If the surface of a topcoat is contaminated with crude oil, staining and possible degradation of the topcoat may result from the acidic nature of the contaminant. The recommendations below apply to Awlgrip®, Awlcraft® 2000 and Interlux® Perfection topcoats. If there is any doubt of the type of surface in question always test a small area first.

In the case of heavy contamination, the material may be a thick, sticky tar-like material due to its exposure to the elements. It is recommended that these surfaces first be cleared by wipe down with T0016, T0170 or Mineral Spirits followed by power washing, and then cleaned with Awlwash® at a 4 oz/gallon level (or household liquid detergents such as Cascade liquid or Dawn). The detergent washing step of the cleaning process must be done in manageable areas. Each area should be then be thoroughly rinsed with plenty of clean water before moving on to the next. DO NOT allow detergent solutions to dry on the surface.

Hulls exhibiting 'sheen' contamination may be cleaned with the regular concentration levels of Awlwash, though they too may benefit from a prewash wipe down with T0016, T0170 or Mineral Spirits to loosen the film.

In both cases, it is recommended that the newly cleaned surface be protected from further contamination with application of Awlcare®.

Bottom Paints

The surface of an antifouling paint that has become contaminated with oil can become "blocked" i.e. preventing the biocide from being released, which

subsequently leads to premature fouling. It will also result in a contaminated layer that will make adhesion of new antifouling applications difficult.

For ablative antifouling paints that have been saturated, wipe the area with a liberal amount of mineral spirits and allow it to dry. Strip the old paint using a commercial paint stripper and reapply according to manufactures specifications. For bottoms that only show a light sheen, wash them liberally with a strong detergent using a coarse scrubbing pad to remove the petroleum and re-launch.

For hard polishing and ablative antifouling paints that have been heavily contaminated the best method to use when treating the bottom is to use a paint-stripper such as Interstrip 299e to remove all the pollution and the paint, then scrub the substrate using Fiberglass Surface Prep YMA601 and a coarse Scotch-Brite pad. Rinse with fresh water. Repeat until the surface is clean (when the water cascades off of the surface with no beading or separating). Allow the surface to dry thoroughly prior to re-painting. The same process is recommended on metal boats however to avoid corrosion the metal substrate should be prepared by grinding or blasting after the cleaning process and prior to priming. To aid adhesion apply InterProtect 2000E primer per label instructions.

Sanding or sand blasting a surface that still has oil on it may drive the oil into the surface and cause a loss of adhesion of the subsequent coats.

Out Drives or Lower Units

Out drives and lower units on outboard motors should be thoroughly cleaned of any visible contaminants. If the motor was run in contaminated water, a commercial degreaser can be added to a fresh water flushing system to clear ports and impellers of any residue or solids. Always check the flow rates after flushing the system and replace the impeller if it seems to have been compromised. The impellers may be made of neoprene, if so they are quite resistant to exposure to petroleum based products. Marine grade hoses are also made of oil resistant materials. As for the plastic and metal parts used in these systems, the oil will have no influence on them.

Cascade liquid detergent has also been used effectively to clean and clear a raw water cooling systems.

Dacron Sails

Suppose your sails get splashed with this oil-contaminated water. What are you doing to do? Mild soap and water and a soft scrub brush will clean it. I've used Ivory dishwashing liquid for this purpose many times. Scrub in line with any seams and rinse thoroughly with warm water. Let it dry. Make sure not to use any solvents on sails as it may attack the resins in the Dacron, and could damage Mylar or Kevlar. Soap and water only, please.

Unsealed Teak Decks and Rails

Te-Ka, Star Brite teak cleaner, Oxalic acid, or any other commercially available cleaners used for wood surfaces will get the stains out. Then re-treat to personal taste by either re-oiling or sealing. Again, no permanent damage has been done.

Anchor Rode and Running Rigging

Virtually all of these "ropes" are made of synthetic materials today. I take mine and wash them in the Ivory dishwashing and warm-water solution every year. It'll clean them nicely without any damage. Just be sure to rinse them out well and hang to dry before stuffing them in a sealed space.

Contaminated waste water should be collected per local marina guidelines, local authority regulations and/or Clean Water Act requirements. Collecting the water and the emulsified crude will prevent spreading of contamination. Crude and solvent contaminated wipes must also be disposed of in a responsible manner.

BP Community Information Hotline at 866-448-5816 to make a report.
If your boat comes in contact with the oil, call your insurance company to file a claim. Uninsured boaters can call the BP Hotline at 800-440-0858 to file a claim.

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