

THERMAL-LUBE

MARINE STERN-TUBE LEAK-SEAL DRESSING

XL0884

November 2025

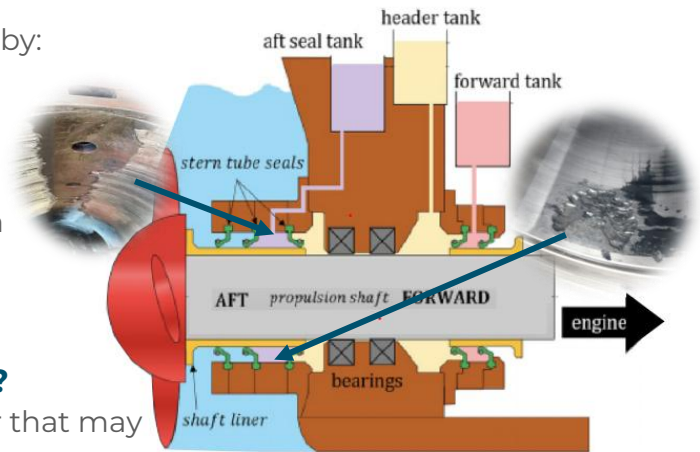
DESCRIPTION:

XL0884 is a heavy-duty premium oil-based compound formulated with PTFE (polytetrafluorethylene) and selected performance additives to effectively reduce the quantity of stern-tube water ingress due to wear-abraded metallic surfaces by impregnating and sealing these surface components in contact with **XL0884** diluted into the circulating oil system.

WHAT CAUSES THIS WEAR? Wear may be caused by:

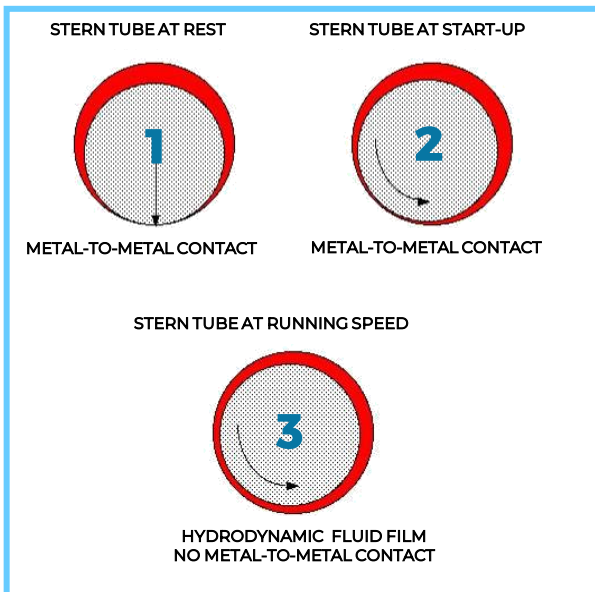


- Metal fatigue
- Abrasion, shock
- Corrosion, erosion
- Sticking, cavitation
- Electrical spikes
- Adhesion, fretting.



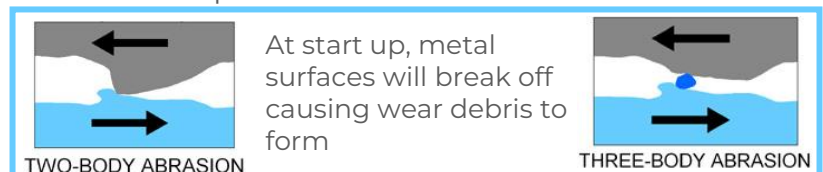
HOW DOES WEAR CAUSE WATER INGRESSION?

- Abrasion is one of the most common causes of wear that may be attributed to stern tube water ingress.
- Abrasion is a type of wear that is the result of two metals of different hardnesses rubbing against each other. It is usually caused during start-up where the metal surfaces are not yet separated by an oil film. When this occurs, the stern tube seals cannot make full contact with the metallic surfaces (see diagram above) therefore allowing water to penetrate the lubricating oil system. This will accelerate the rate of corrosion on the stern tube and contaminate/deteriorate the lubricant.



HOW ABRASION OCCURS:

1. When the system is at rest, all the weight of the propulsion shaft is borne by the support bearings. The lubricant at the contact point is displaced therefore resulting in metal-to-metal contact.
2. During start up, (or misalignment) is when most of the abrasion occurs. The diagram below depicts how abrasion and particulate contamination forms:



3. During normal running, a hydrodynamic fluid film will form between the metal surfaces, thereby protecting the contact surfaces and reducing occurrences of abrasion.



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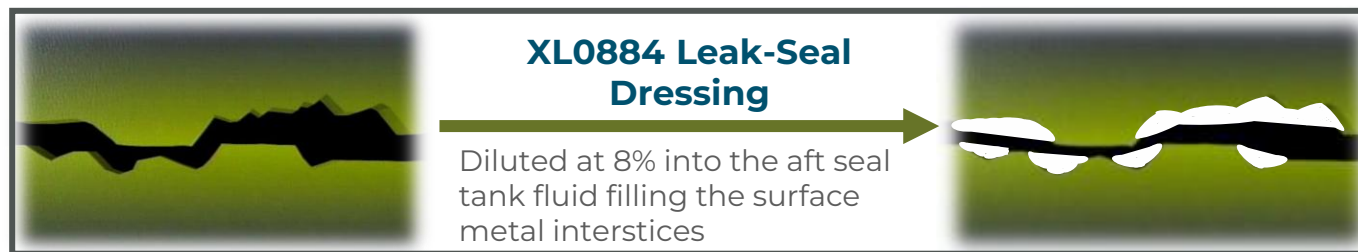
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ATTRIBUTES:

XL0884 has outstanding EP (extreme pressure) properties and contains anti-rust and anti-corrosion additives which will help prevent wear, galling, or seizing caused by start up, misalignment, heavy shock loads, etc., which –in effect- will reduce costly down-time.

XL0884 fills contact damaged micro-pores in metal and seal surface with its PTFE compound forming a layer of protection, thereby reducing friction, wear, and water ingress.



XL0884 forms a tenacious boundary seal and lubricant unaffected by sea nor fresh water.

PRODUCTS:

- **XL0884/375** mineral oil-based compound for leaks less than 20L per day
- **XL0884/575** mineral oil-based compound for leaks greater than 20L per day
- **XL9884/375** biodegradable synthetic ester-based compound for leaks less than 20L per day
- **XL9884/575** biodegradable synthetic ester-based compound for leaks greater than 20L per day

APPLICATION:

- a) If necessary, remove or bypass any oil filters from the lubrication system
 - b) Increase the air pressure in the oil system, or
 - i) lift the entire system above water level but below the header tank
 - c) Drain any residual water
 - d) Empty 5-10% of the oil system into a storage container (empty drum or pail) if the oil reservoir is full to capacity
 - e) Blend **XL0884** or **XL9884** to an overall dilution of 8% into the oil system until the solution is homogenous
- NOTE:** Pre-dilution into a separate container may be necessary depending on accessibility.
- f) Maintain a positive pressure on the seal to reduce water ingress



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