

Enhancing Expedition Reliability with the PSS Shaft Seal

PSS Shaft Seal Supports North Pacific Research Expeditions.

Vessel Overview

The Iron Lady, a 65-ft steel motorsailer, originally built in 1989, has been extensively customized for marine biology charters and long-range expeditions. Operating in remote and often harsh environments, the vessel is designed for self-sufficiency. It carries 1,800 gallons of diesel and 500 gallons of fresh water and is equipped with a watermaker, heater, refrigeration, and extensive onboard accommodations for up to 12 people.



With a robust sailing rig consisting of a genoa, staysail, and mainsail, the vessel is optimized for efficiency and reliability in demanding conditions.



Mission & Operations

This vessel is primarily engaged in marine biology research projects across the North Pacific, from Japan to the Bering Strait, with an active season from April to November. The research teams onboard work under strict schedules, completing tasks such as:

- Steller sea lion surveys in the Western Pacific.
- Support vessel to catch seals and temporarily instrument them with satellite transmitters to study migrations.
- Collect whale photo IDs and biopsy samples for population studies.

Given the unpredictable nature of the North Pacific, the vessel routinely operates in challenging weather conditions, requiring equipment that can perform consistently in high-stress environments.

Reliable Solution

When the current owner acquired the vessel, it was already equipped with a PSS Shaft Seal, a system they had not encountered before. Over the past five years of rigorous use, the PSS system has proven to be reliable, easy to maintain, and simple to troubleshoot—critical factors for a vessel that must remain operational far from port.



Key Benefits

- **Reliability in Extreme Conditions:** With no room for mechanical failures in remote waters, the PSS Shaft Seal has consistently performed in rough seas and long voyages.
- **Minimal Maintenance & Easy Troubleshooting:** The simple and straightforward maintenance procedures ensure the vessel remains in top condition, even without frequent access to shore-based facilities.
- **Practicality for Expedition Operations:** Expedition vessels must prioritize efficient and dependable equipment, and the PSS Shaft Seal delivers exactly that.

Conclusion

In a world where expedition reliability is paramount, the PSS Shaft Seal has proven essential to this research vessel's success. As the vessel continues its mission in the challenging waters of the North Pacific, the crew can confidently depend on the PSS system to support their marine research efforts.

“Living in a world of expedition charters you must prioritize reliability and practicality, the PSS system does exactly that!”

- Yura B.

Industry: Marine

Products: PSS PRO Shaft Seal
Part #03-212-314

Application: Research Vessel

Benefits: Reliability and reduced maintenance cost

