

Solving Persistent Shaft Seal Leaks on a 92' Motor Yacht

An AB Yachts owner was facing an ongoing issue with water ingress caused by leaking shaft seals whenever the vessel was underway. Repeated repairs and haul-outs had failed to provide a long-term solution, leading to mounting maintenance costs and unnecessary downtime.

The Challenge

The 92' M/Y Silver Mama was equipped with lip seals that struggled to accommodate severe misalignment between the propeller shaft and stern tube. As the yacht operated, the excessive misalignment placed strain on the seals, resulting in water leakage into the vessel.



AB Yachts - Silver Mama



Powered by water jet propulsion

These leaks created several challenges:

- Frequent haul-outs for inspection and repair
- Increased labor and replacement part costs
- Extended vessel downtime
- Continued risk of water entering the bilge

The owner needed a reliable solution capable of handling the vessel's operating conditions without requiring constant maintenance.



Lip seal installed on M/Y Silver Mama



Closeup of the lip seal and misalignment.



Propeller shaft off-center within the stern tube.

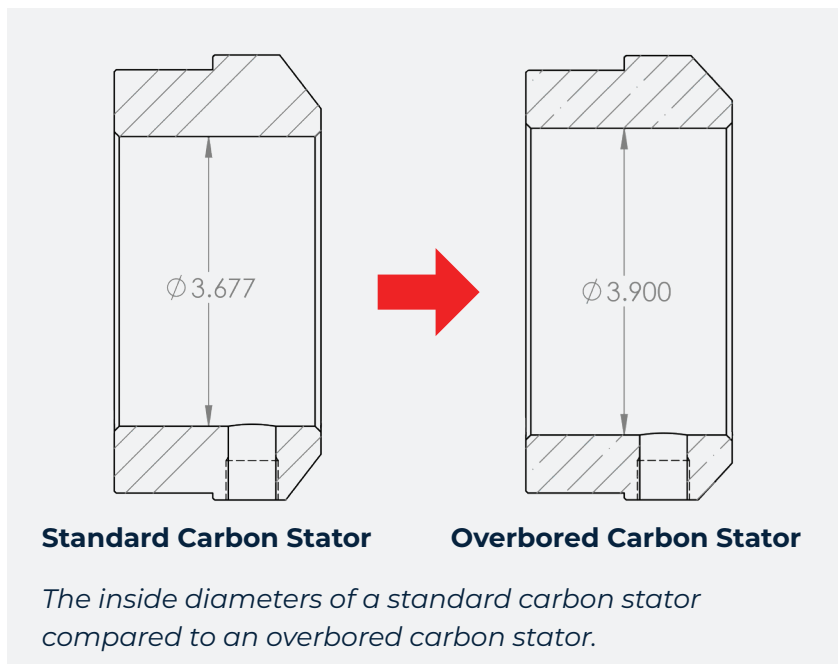
The Solution

To address the issue, a PSS Pro Shaft Seal was installed, incorporating an overbored carbon stator specifically designed to provide greater clearance between the propeller shaft and the carbon stator's inner bore.

This increased tolerance allowed the seal system to better accommodate the alignment conditions present on the vessel while maintaining a watertight seal.

The installation included:

- PSS Pro Shaft Seal
- Overbored carbon stator
- Supporting installation components

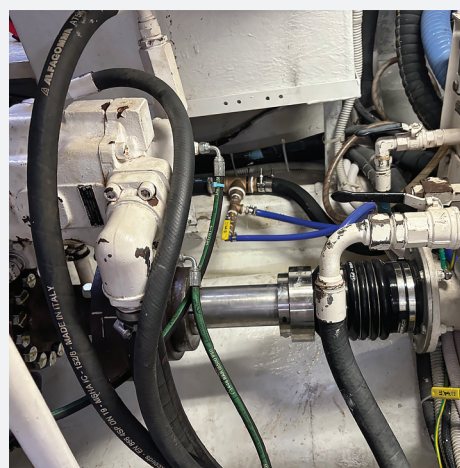
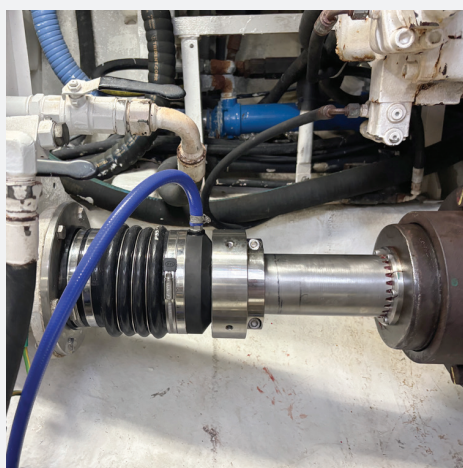


Following installation, sea trials were conducted to evaluate performance under real-world operating conditions.

The Results

The sea trials confirmed that the new sealing system successfully eliminated water ingress both at rest and while underway.

By utilizing the overbored carbon stator configuration, the vessel owner was able to resolve a problem that had previously led to repeated repairs and operational disruptions.



PSS Pro Shaft Seal installed on M/Y Silver Mama

Added Value

One of the key advantages of the solution was the ability to provide the required components immediately from available inventory. This allowed the owner to receive the parts quickly and get the vessel back in service without lengthy delays.

Rather than attempting another temporary repair, the installation addressed the root cause of the problem by utilizing a shaft seal configuration better suited to the vessel's alignment conditions. The result was a practical, cost-effective solution that minimized downtime and helped prevent future maintenance expenses.

Conclusion

When shaft alignment conditions exceed the capabilities of conventional sealing systems, recurring leaks and costly maintenance can become an ongoing challenge. In this case, the combination of a PSS PRO Shaft Seal and an overbored carbon stator provided a proven solution that restored confidence in the vessel's driveline system and eliminated persistent water ingress.

The successful outcome demonstrates how selecting the right shaft seal configuration can help vessel owners improve reliability, reduce maintenance costs, and spend more time on the water and less time in the boatyard.

Industry: Marine

Products:

- 03-85M-500
- 07-334-2GRDB
- 07-FTP-20145

Application: 92' - Silver Mama
Built by AB Yachts

Savings: Reduced maintenance
cost and downtime

