

Stern tube gland leak

Vessel on a loaded passage in heavy weather suddenly experienced heavy leakage of stern tube lubricating oil from the forward gland into the engine room bilges.

Before any damage was caused to the stern tube bearings and seals, the engine was quickly stopped and on investigation, it was noticed that the rotating seal gland (colored components in Figure) had moved out by more than 60 mm.

The rotating gland is held in place by a two-piece clamp ring (shaded in blue) that is tightly mounted on the tail shaft and is also connected to the bush (shaded in yellow) by means of bolts (shaded in purple), maintaining the forward seal gland in position. Fortunately, the ship's staff managed to re-position the bush and clamp ring correctly and the vessel resumed the passage without further problems.

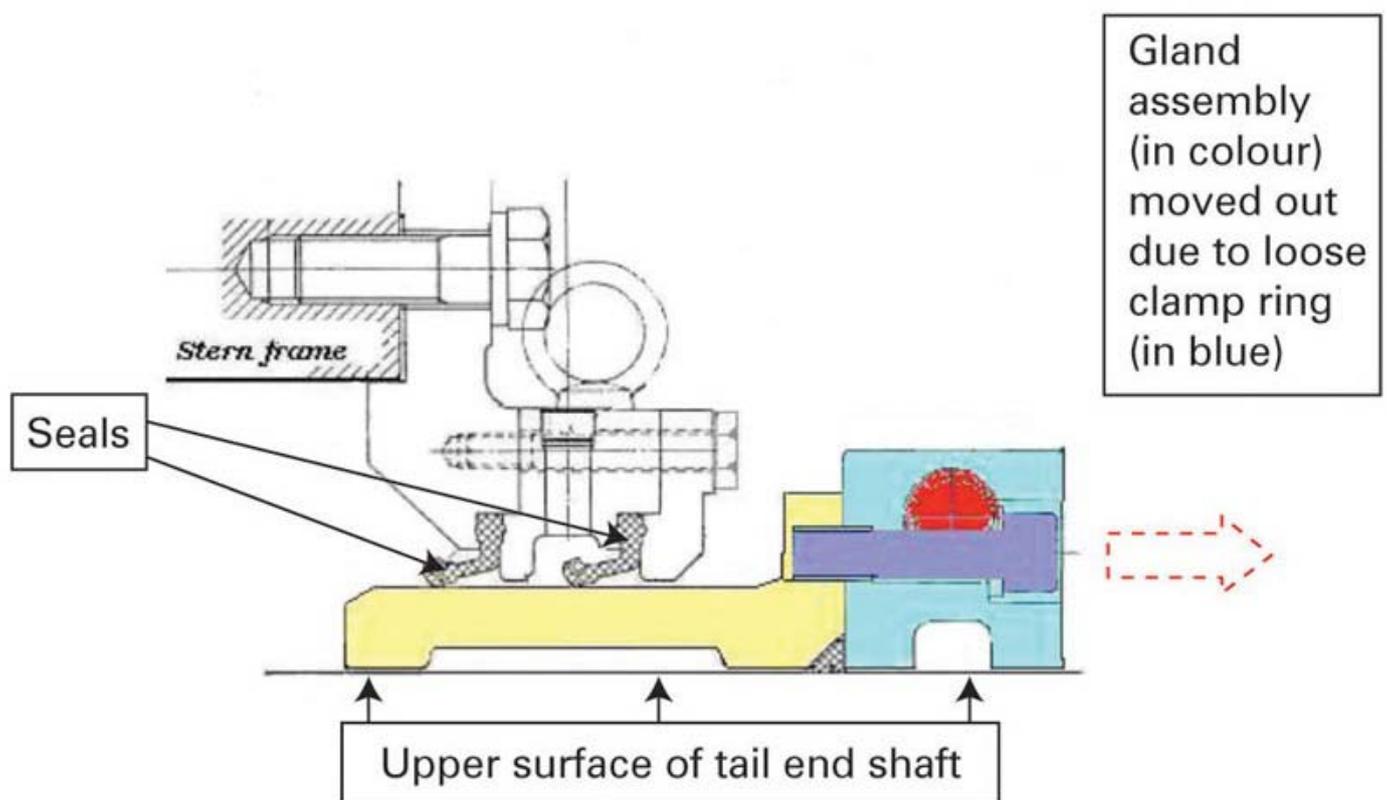


Figure 2: Longitudinal section of upper half of inboard rotating stern tube gland, showing bush (yellow), clamp ring (blue), connecting bolt (purple) and clamp ring bolt (red)

Result of investigation

It was concluded that after the last tail end shaft and docking survey two months ago, the shipyard staff had failed to fully tighten the bolts of the two-piece clamp ring (shaded in red) on the tail shaft, which resulted in the clamp ring along with the gland bush moving out of position over a period of time.

Lessons learnt

1. All engine room watchkeepers must be vigilant during watch;
2. After major surveys/maintenance, it must be ensured that all components are re-assembled and tightened to proper specifications.