

ITEM: BEARING PADS

FINDING: Bearing pad mating surfaces worn down
Panel - coaming clearance reduced



Bearing pad ensemble



Bearing pad on coaming worn down



Panel to coaming clearance reduced



Panel to coaming clearance zero

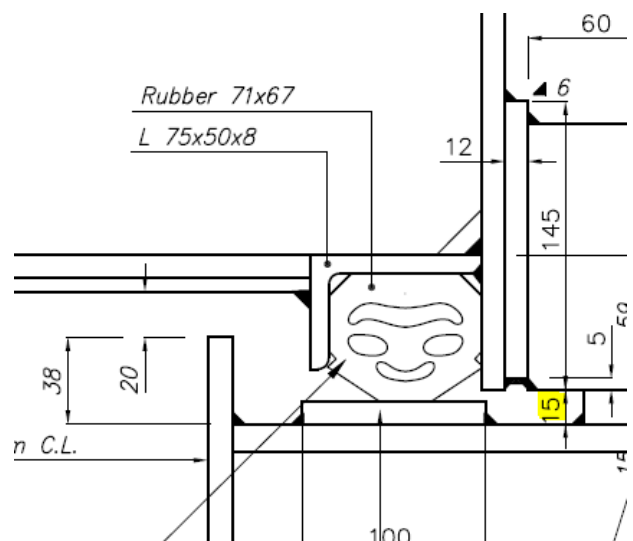
WHY IS THIS A PROBLEM?

TECHNICAL DATA : BEARING PADS

- Also called landing pads, resting pads, support pads
- The purpose of bearing pads is to transfer the weight of the hatch covers onto the ship's structure
- Bearing pads keep the covers in their ideal sealing position, regulating the compression on the packing rubber
- Bearing pads allow for relative movement between panels and vessel

ISSUE WHEN PADS ARE WORN / PANEL TO COAMING DISTANCE IS REDUCED

- The bearing pad surfaces generally wear down about 1 mm per year, which is normal in a salt water environment and with the normal frictions
- When the pads wear down, this causes the panel to sit lower on the coaming table
- In turn, this increases the compression on the packing rubbers
- The rubbers will now age faster, and develop a permanent set or permanent imprint
- This reduces the compensating capacities of the rubbers and increases the risk for water ingress



WHY REFER TO THE PANEL - COAMING CLEARANCE?

- In newbuild vessels, the coaming table is not always completely straight. Therefore, the height of the individual bearing pads is adjusted to allow for a uniform compression of the packing rubbers. Measuring bearing pad height is therefore not always the ideal way to assess wear down.
- In addition, bearing pads can wear down both on the structures of the coaming table and on the structure on the panel. The total wear down is hence difficult to measure.
- The easiest way is thus to measure the clearance between the bottom of the panel and the top of the coaming, and compare it with the values as described in the hatch cover manual.
- The most precise way to line out the panels is however in dry dock, when all rubbers are removed.

WHAT KIND OF FEEDBACK IS EXPECTED?

CORRECTIVE ACTIONS

- Third party work reports on the line-out of your hatch covers
- If not available, your own measurements on how much steel was added on which locations
- Measurements after repairs
- Weathertightness test result after repairs

PREVENTIVE MEASURES

- Explanation of monitoring system implemented to avoid repairs outside of shipyard periods