

TUGBOAT Z-DRIVE GEAR OIL DEHYDRATION

THE CUSTOMER

Local tugboat owner.

THE PROBLEM

Captain of local tugboat equipped with z-drive propeller was having issues with water in engine gearbox. The boat was equipped with an adsorbent filter but water ingress kept the water loading in the oil around 300 ppm.

THE CMS SOLUTION

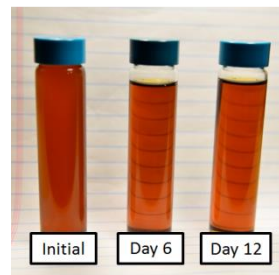
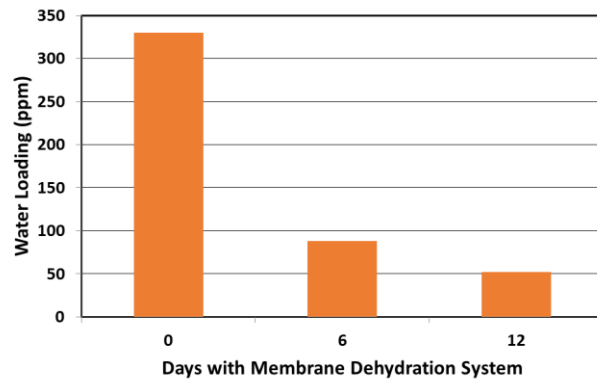
A CMS membrane-based dehydration system was installed in a kidney-loop fashion to the gearbox.

THE OUTCOME

After two weeks the water concentration in the oil was reduced to below 60 ppm. The oil filter in the dehydration system was also able to significantly reduce particulate contamination in the oil.



Dehydration system hooked up to gearbox



Oil samples clearing up with water removal



Effect of particulate reduction on adsorbent filter



From dock to boat

Down the stairs

Wheeling through hull of the boat