

EAL Requirements for TT Thrusters



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Requirements

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- **Internal cleaning of the thruster to remove any residue of mineral oil.**
- **Seals and propeller shaft seal approved for use of biodegradable oil.**
- **Flushing of oil through hub for CP units needs to be established and verified for removing of any water content, and reducing risk of bacterial growth.**
- **Internal oil circulation to propeller shaft seal, for monitoring the oil quality and removing water content. Seal tank to be installed in thruster room, with connection to internal piping in thruster.**
- **Water separator(s) to be installed in existing hydraulic system, to reduce the risk of the degradable process of the oil if water ingress.**
- **Cathodic protection to be changed from Zinc to Aluminum.**
- **Lubrication oil changed to EAL oil approved by Rolls-Royce Marine AS Ulsteinvik, Norway.**

EAL upgrade of Ulsteinvik Tunnel Thruster TT

RR approved biodegradable oil to be used
Cathodic protection to be of aluminium.

RR approved water separator to be implemented for continuously operation.

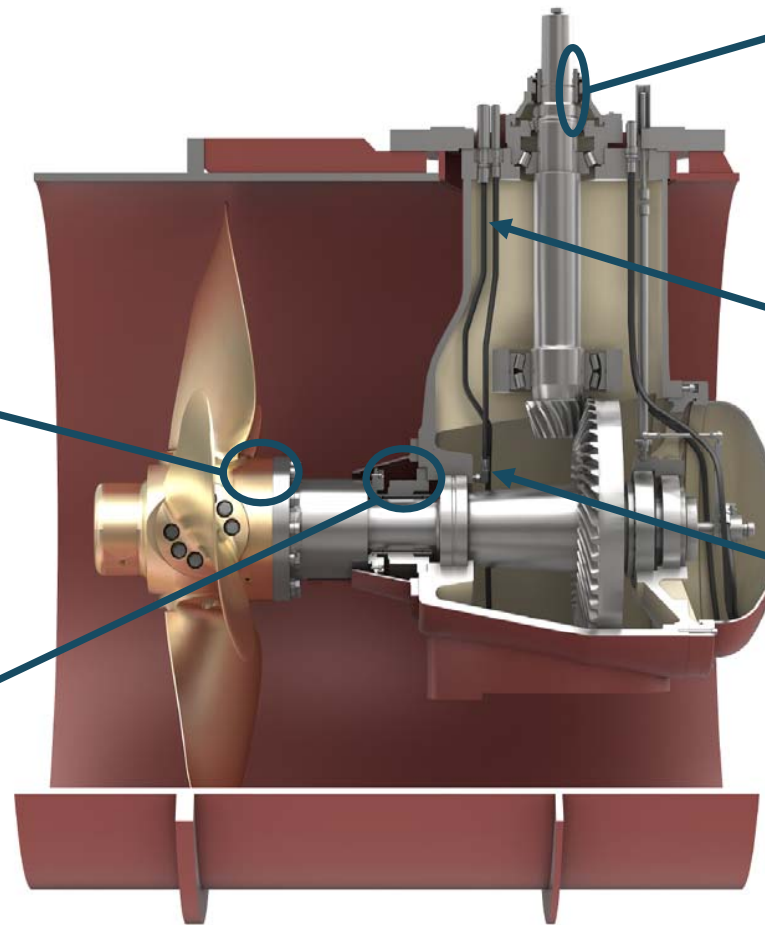
Flushing from propeller hub to gear housing to be verified.

EAL approved propeller shaft seal for regular manual flushing.

EAL approved Input shaft seal

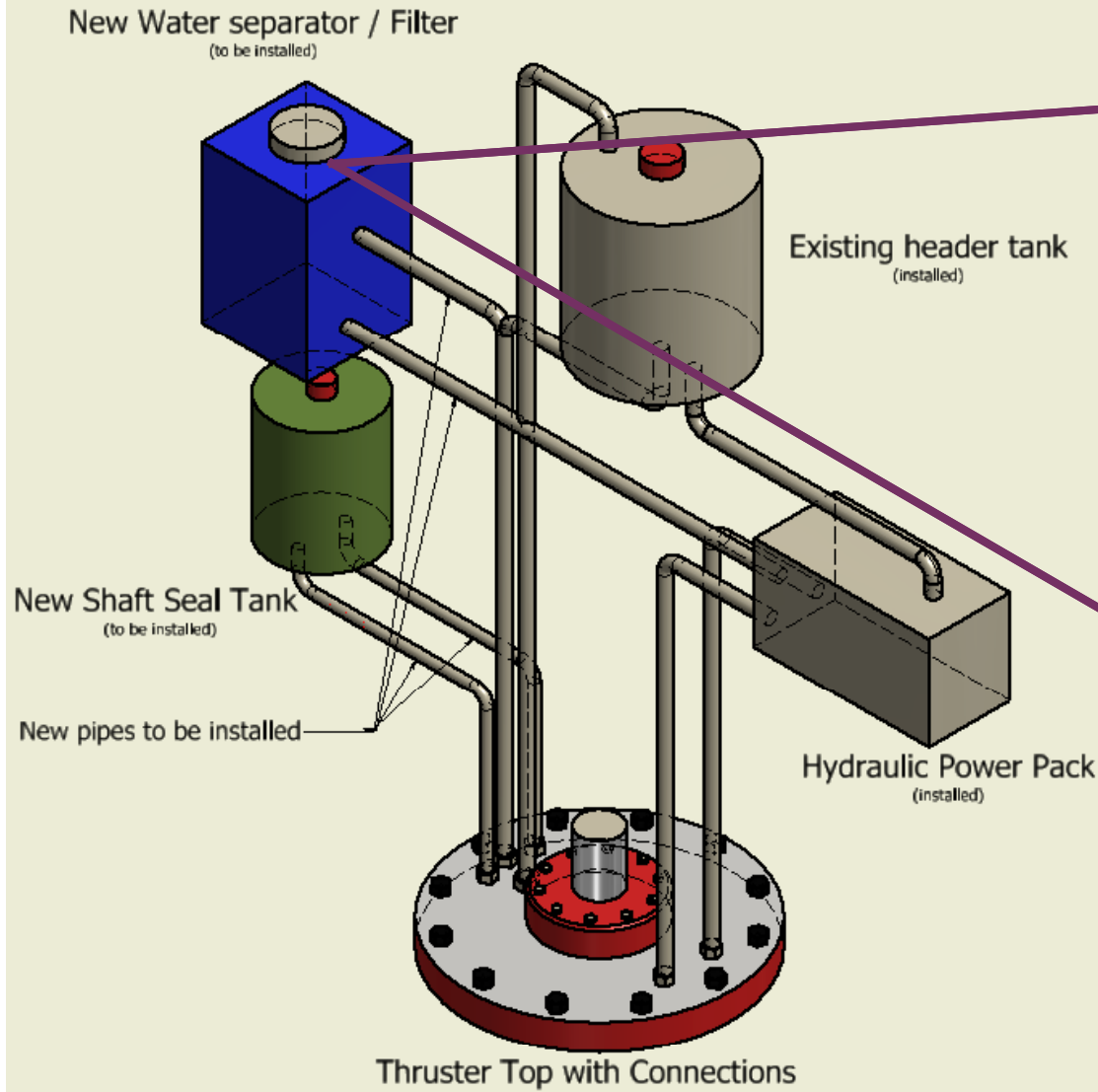
Seal tank to be installed in thruster room, and internal piping for flushing of shaft seal to be installed in thruster.

Circulation of gear house through existing suction pipe.

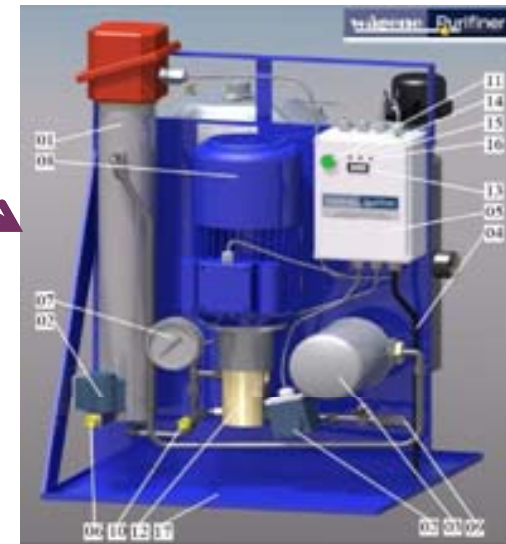


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Principal Sketch (Only for info)



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