

Propeller Shaft Survey of Azimuth Thrusters

Amended Guidance

Guidance for the Survey and Construction of Steel Ships Part D

Reason for Amendment

1. Azimuth thrusters are composed of a driving shaft, bevel gear, propeller shaft, and bearings, except where electric motors are installed in the casing. In the current guidance, the propeller shaft survey applies to the propeller shaft only, and the postponement of the survey is acceptable. However, where the Continuous Machinery Survey (hereinafter, referred to as CMS) is implemented, the postponement of the survey of the other equipment is not acceptable. Whenever the azimuth thruster is opened, the parts applicable to the CMS usually are subject to be opened as well. However, because there is a difference in the timing of the propeller shaft survey and the survey of the items in the CMS, it would in practice be difficult to postpone the propeller shaft survey.

It is anticipated that the number of ships that have azimuth thrusters installed will increase. The relevant guidance has been amended so as to accommodate the surveys of the driving shaft, bevel gear, and bearings by carrying them out at the same time as the propeller survey.

2. Temperature monitoring systems of stern tube bearings are to be required on ships which have a propeller shaft kind *IC* and adopt the Propeller Shaft Condition Monitoring System (abbreviated to PSCM). However, temperature monitoring for the bearings of the driving shaft, intermediate shaft, and propeller shaft is not practicable, considering the construction of azimuth thrusters.

The relevant guidance has been amended so as to accept a vibration measurement or a Fe-density measurement in lubricating oil as an alternative means of monitoring.

Outline of Amendment

1. Surveys for shafts, bevel gear and bearings which compose an azimuth thruster may be carried out at the same time of the propeller survey.
2. Instead of those temperature monitoring systems required for ships that have a propeller shaft kind *IC* and adopt PSCM, alternative means have been stipulated.