

STEERING GEAR SERVICE NEWS

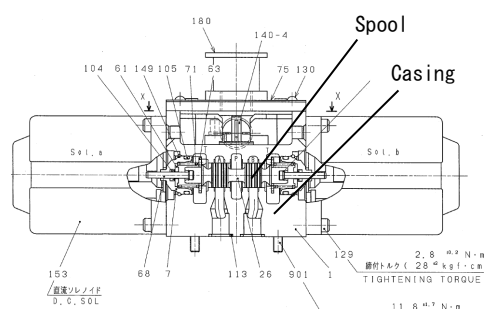
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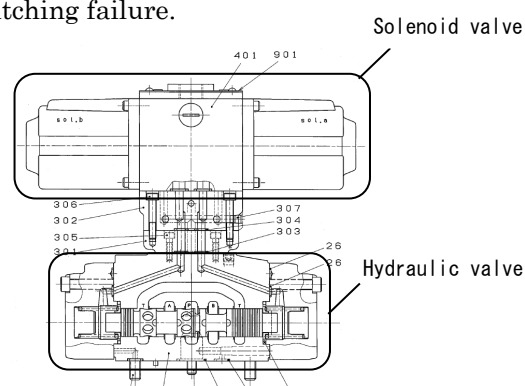
SUBJECT : Maintenance of direction control valve (solenoid valve) for V series steering gear

If the direction control valve (solenoid valve/solenoid hydraulic valve) used in V series steering gear is inoperative, the vessel may fall into steering incompetence. The following factors can lead to malfunctions of the direction control valve.

- Foreign matter or degradation products, etc. in the hydraulic oil get caught between the spool and the casing, as a result the spool will stick.
- If the supply voltage to the direction control valve is low, switching failure may occur.
- About the solenoid hydraulic valve, if the clearance between the spool and the casing increases with aged wear, hydraulic oil may leak, then it may cause switching failure.



Direction control valve (Solenoid valve)



Direction control valve (Solenoid hydraulic)

We recommend to do following maintenance for direction control valve to prevent the steering incompetence due to malfunction of the valve.

- The condition of the hydraulic oil, especially the level of contamination should be checked periodically.
If it exceeds ISO 4406-/20/17, the hydraulic oil should be replaced, and the tank must be cleaned.
- Make sure that the supply voltage to the direction control valve is within the reference voltage value shown in the drawing.
- Before departure, check the solenoid valve is operating properly.
- Due to the seal parts deterioration over time, steering gear may have malfunctions such as oil leakage. Therefore, we recommend to do overhauling steering gear system by KHI engineers every 5 to 7 years, include check the inner condition of the solenoid valve.

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