



Design Appraisal Document

Lloyd's Register EMEA
Global Technical Support Office
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Date
27 May 2025

Please quote this reference number on all future communications
TSO-25-035899-VSZ

Machinery General Design Appraisal

Client : CC Jensen A/S, Svendborg, Denmark
Manufacturer : CC Jensen A/S, Svendborg, Denmark
Subject : Type HDU 427 – Hydraulic/Lube Oil Purifier

This Machinery General Design Appraisal is valid for a period of 5 years from the date of issue or until a change of the Rules, whichever comes first.

This Design Appraisal Document supersedes the previous Document No. CTS-M/1108302, Issue No. 1 dated 14 May 2020.

1. The Documents listed in paragraph 1 of the appendix have been examined for compliance with **LR Rules and Regulations for the Classification of Ships July 2024 incorporating Notice No. 1, 2, 3 and 4, Part 5, Chapters 11, 12, 13 and 14** as applicable and have been assigned an appraisal status as indicated subject to the following:

2. **Product Description**

Makers Designation : CJC HDU 427
Class : II (piping)
Design Pressure : ≤ 0.7 MPa
Design Temperature : ≤ 120 °C
Function : Lube and Hydraulic Oil Purification

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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3. Comments

- 3.1. Lloyd's Register must be advised of any design or material modifications. Failure to do so will render this general approval invalid.
- 3.2. Please observe that the requirements of the European Directive "The Marine Equipment Directive" will be applicable for installations on board all EU Flag vessels.
- 3.3. The items referred to in this document are approved for installation on a ship which is classed by Lloyd's Register.
- 3.4. The filter dome is considered as a Class 3 pressure vessel according to Part 5 Chapter 11 1.5.3, although it is not subject to plan approval according to 1.6.1.
- 3.5. It is assumed that piping joints, valves, flanges and other fittings are suitable for the application. For details please refer to Part 5, Ch. 12, as they will be subject to inspection by the attending surveyor
- 3.6. With reference to Part 5, Ch. 12, 4.2 concerning the material of the filter base, it has been noted that substantial positive functional experience has been recorded by the client and therefore the use of grey cast iron, GG20, has been accepted. Part 5, Ch. 12, 4.2.3 is to be considered for pipes, valves and fittings only.
- 3.7. Although the piping system is designated as Class II, Manufacturers material certificates will be accepted in lieu of LR materials certificates, providing that maximum conditions are in accordance with Part 5 Ch. 12, Table 12.1.2.
- 3.8. It has been noted that part of the piping system has open ended piping, attention is therefore drawn to Part 5, Ch. 12, 1.5.3 concerning the use of Class III piping.

Vishal Shenoy
Lead Specialist- Piping Systems
Global Technical Support Office

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Appendix

1. The documents listed below have been examined

Document No.	Rev.	Title	Status	Date
4604004	B	CJC Fine Filter, type HDU 427/- M03 Assembly Drawing	SI	27 May 2025
1600139	H	Filterfod HDU 427 M03	SI	27 May 2025
48 001 41-4	2	Haette for HDU 427/-, Til bade stobt og svejst fod. Skemategning	SI	27 May 2025
1200121	C	Stagbolt for HDU 427/108 og HDU 727/108	SI	27 May 2025
7000644	A	HDU 427/ - Certificate VII	A	27 May 2025
7000645	-	PI Legend	SI	27 May 2025
1200111	B	Stagbolt HDU 427/54 740mm	SI	27 May 2025
1200122	B	Stagbolt HDU 427/81 1020mm	SI	27 May 2025

2. The documents listed below have been considered together with the submitted documents in the appraisal

Document No.	Rev.	Title
-	-	PTU1 27/54-108 CJC Product Sheet
-	-	Design Specifications: E-mail 23/03/2015
-	1.1	CJC Filter Units – Piping Dimensions and Specification

Appraisal Status Key

A	Approved - provided the arrangements are to the surveyor's satisfaction
SI	Retained as supporting documentation for information only
C	Cancelled

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