



Design Appraisal Document

Lloyd's Register EMEA
Global Technical Support Office
K.P. van der Mandelelaan 41a, 3062MB Rotterdam
P.O. Box 701, 3000 AS Rotterdam
Tel.: +31(0)10 414 50 88
Email: RTSO-Technical-Support@lr.org

Date
23 May 2025

Please quote this reference number on all future communications
TSO-25-035897-VSZ

Machinery General Design Appraisal

Client : CC Jensen A/S, Svendborg, Denmark
Manufacturer : CC Jensen A/S, Svendborg, Denmark
Subject : Type HDU 27 – 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/1108300, 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 27
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

Lloyd's Register EMEA
Is a member of Lloyd's Register group

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Lloyd's Register EMEA
Global Technical Support Office
K.P. van der Mandelelaan 41a, 3062MB Rotterdam
P.O. Box 701, 3000 AS Rotterdam
Tel.: +31(0)10 414 50 88
Email: RTSO-Technical-Support@lr.org

Date
23 May 2025

Please quote this reference number on all future communications
TSO-25-035897-VSZ

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

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

Lloyd's Register EMEA
Is a member of Lloyd's Register group



Lloyd's Register EMEA
Global Technical Support Office
K.P. van der Mandelelaan 41a, 3062MB Rotterdam
P.O. Box 701, 3000 AS Rotterdam
Tel.: +31(0)10 414 50 88
Email: RTSO-Technical-Support@lr.org

Date
23 May 2025

Please quote this reference number on all future communications
TSO-25-035897-VSZ

Appendix

1. The documents listed below have been examined

Document No.	Rev.	Title	Status	Date
4602001 (2 sheets)	R	CJC Fine Filter Type HDU 3x27/- Assembly Drawing + Parts List	SI	23 May 2025
1200110	P	Stagbolt for HDU 27/27 M85	SI	23 May 2025
1200106	A	Stagbolt for HDU 27/54 27/81, 27/108 M82	SI	23 May 2025
4801120	D	Hætte for 27/0.7bar	SI	23 May 2025
4401005	D	Topdaeksel for 27/ .7bar	SI	23 May 2025
1802302	B	Hus f.forvarmer indstik 500mm	SI	23 May 2025
4800803	C	Hus f.forvarmer indstik 1000mm	SI	23 May 2025
2301323	A	Muffe RF for forvarmerrør 2"	SI	23 May 2025
2604849	E	Pakdåse 27	SI	23 May 2025
2900121	B	Svøb udfoldet for 27/27, 54, 81, 108 - hætte og underpart	SI	23 May 2025
1600133	F	Filterfod f. HDU 27/-M03	SI	23 May 2025
1600143	C	Filterfod f. HDU 27/-M03	SI	23 May 2025
1500613	B	Endebund f. HDU 27/- .7bar	SI	23 May 2025
29 01226	A	Studs 1/4"RG L=25MM	SI	23 May 2025
2300116	A	Topmøtrik HDU-PTU NV41	SI	23 May 2025
5802684	C	Forvarmerarrangement 500mm Hus	SI	23 May 2025
1500605	A	Endebrik RF for Forvarmerhus, til ¾" muffe	SI	23 May 2025
2301325	A	Muffe ¾" RG RF afdrejet	SI	23 May 2025
2801702	B	RF rør for varmer L=986	SI	23 May 2025
2300529	C	Mellemstykke for CJC filter med forvarmer	SI	23 May 2025
2801604	B	Rør for forvarmer 500mm L=450 HDU	A	23 May 2025
26 026 13-4	5	Pakring for HDU 27/-, øverst	SI	23 May 2025
7000640	D	Piping Diagram HDU 27 H	A	23 May 2025
7000638	D	Piping Diagram HDU 27	A	23 May 2025
7000645	-	PI Legend	SI	23 May 2025

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

Lloyd's Register EMEA
Is a member of Lloyd's Register group

Lloyd's Register EMEA
Global Technical Support Office
K.P. van der Mandelelaan 41a, 3062MB Rotterdam
P.O. Box 701, 3000 AS Rotterdam
Tel.: +31(0)10 414 50 88
Email: RTSO-Technical-Support@lr.org

Date
23 May 2025

Please quote this reference number on all future communications
TSO-25-035897-VSZ

Appendix

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

Document No.	Rev.	Title
-	-	HDU 27 Marine Diesel Purifier 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

- 3.

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

Lloyd's Register EMEA
Is a member of Lloyd's Register group

