



Design Appraisal Document

Lloyd's Register EMEA
Copenhagen Technical Support Office
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Date
14 May 2020

Please quote this reference number on all future communications
M/1122189/2000261/JLJ

Machinery General Design Appraisal

Client : CC Jensen A/S, Svendborg, Denmark
Manufacturer : CC Jensen A/S, Svendborg, Denmark
Subject : Type HDU 38 – Offline Fine Filter

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.

- 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 2019 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:
- Product Description**

Makers Designation	:	CJC HDU 38
Class	:	II (piping)
Design Pressure	:	≤ 0.7 MPa
Design Temperature	:	≤ 120 °C
Function	:	Lube and Hydraulic Filtration
- Comments**
 - Lloyd's Register must be advised of any design or material modifications. Failure to do so will render this general approval invalid.
 - Please observe that the requirements of the European Directive "The Marine Equipment Directive" will be applicable for installations on board all EU Flag vessels.

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

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- 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.



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Appendix

1. The documents listed below have been examined

Document No.	Rev.	Title	Status	Date
4603001 (2 sheets)	A	CJC Fine Filter Type HDU 38/100- Assembly Drawing + Parts List	SI	23 Mar 2015
4615147 (2 sheets)	A	CJC Fine Filter Type HDU 38/60- Assembly Drawing + Parts List	SI	23 Mar 2015
48 001 42-4	1	Haette for W 38/50 100	SI	23 Mar 2015
59 009 14-4	1	Svoeb Mellem Stykke for W 38/100	SI	23 Mar 2015
12 001 20-3	5	Stagbolt for HDU 38	SI	23 Mar 2015
12 001 06-4	3	Stagbolt for HDU 27/54, 27/81, 27/108 M82	SI	23 Mar 2015
1802302	A	Hus f.forvarmer indstik 500mm	SI	23 Mar 2015
4800803	A	Hus el f.forvarmer indstik 1000mm	SI	23 Mar 2015
1600142	B	Filterfod f. HDU 38	SI	23 Mar 2015
7000639	B	Piping Diagram HDU 38	AQ	23 Mar 2015
7000643	B	Piping Diagram HDU 38 H	AQ	23 Mar 2015
7000645	-	PI Legend	SI	23 Mar 2015

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

Document No.	Rev.	Title
-	-	HDU 38/60-100 Offline Fine Filter 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

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