



中国船级社
CHINA CLASSIFICATION SOCIETY

产品图纸/文件批准通知书
Approval Notice for Drawings/Technical Documents of Marine Products

图纸/文件批准号: NP12A01188
Drawings/Documents Approval No.: NP12A01188

主送: Optimarin AS
Attn to: Optimarin AS
抄送: CCS 哥德堡办事处
Copy to: CCS Gothenburg Office

日期: 2012年06月05日
Date: Jun.5,2012
页次: 1 / 3
Page: 1 / 3

序号 No.	产品名称 Name of product:	产品型号 Type:	图号 Drawing.No.:
1	Ballast Water Management System - Optimarin Ballast System	OBS	See attached list

审查: 虞小平
Examined by: Yu Xiaoping

核准: 万晓雷
Approved by: Wan Xiaolei

签发单位: 中国船级社产品审图中心
Issued by: China Classification Society Product Plan Approval Center

签发日期: 2012年06月05日
Date of issue: Jun.5,2012

**CHINA CLASSIFICATION SOCIETY
PLAN APPROVAL CENTER**

Approval Notice for Drawings/Technical Documents of Marine Products

Drawings/Documents Approval No.: NP12A01188



1. Product particulars:

Name of product: Ballast Water Management System – Optimarin Ballast System (OBS).

Treatment Rated Capacity: 167m³/h (one UV-chamber)

The OBS consists of following main components:

Equipment	Type/Subsystem	Limitation
UV reactor	167 (Micro-Kill UV reactor)	20-167 m ³ /h
UV intensity meter		100 - 2500 W/m ²
UV Master	MicroKill U-VauTec 35K	380/400/440V, 50/60 Hz Other voltage on request
Microkill BSF filter	BSF 04	20-90 m ³ /h
	BSF 10	75-230 m ³ /h
	BSF 16	100-380 m ³ /h
	All BSF filters	Minimum 1.7 bar back pressure
Microkill Bollfilter	Bollfilter 30	14-30 m ³ /h
	Bollfilter 85	21-85 m ³ /h
	Bollfilter 170	24-170 m ³ /h
	Bollfilter 220	50-220 m ³ /h
	Bollfilter 400	80-400 m ³ /h
	Bollfilter 600	100-600 m ³ /h
	Bollfilter 800	150-800 m ³ /h
	Bollfilter 1200	180-1200 m ³ /h
	Bollfilter 1600	210-1600 m ³ /h
	Bollfilter 2500	280-2500 m ³ /h
	Bollfilter 3300	450-3300 m ³ /h
	Bollfilter 4300	560-4300 m ³ /h
	Bollfilter 5400	580-5400 m ³ /h
All Bollfilter	Minimum 1 bar back pressure	
Control equipment	Control panel MicroKill U-Vau Tec CP	Transformer 440 / 230VAC 230VAC / 24VDC power supply
	Sensor board MicroKill U-Vau Tec SB	Transformer 440 / 230VAC 230VAC / 24VDC power supply

**CHINA CLASSIFICATION SOCIETY
PLAN APPROVAL CENTER**

Approval Notice for Drawings/Technical Documents of Marine Products

Drawings/Documents Approval No.: NP12A01188

Page: 3/3



2. Examined according to:

- 2.1. IMO International Convention for the Control and Management of Ships Ballast Water and Sediments, 2004
- 2.2. IMO Resolution MEPC.174(58) - Guidelines For Approval Of Ballast Water Management Systems (G8)
- 2.3. CCS "Rules for The Classification of Sea-going Steel Ships" (2009 & its amendments) Part 3, Ch.1, Ch.2, Ch.6 and Part 4, Ch.1, Ch.2, Ch3.

3. Comments:

- 3.1. The ballast water management system shall be type approved as per IMO Resolution MEPC.174(58) and CCS "Rules for The Classification of Sea-going Steel Ships" (2009 & its amendments). The test program shall be reviewed and approved by CCS office in charge of the type approval.
- 3.2. Preset value of limitation of UV intensity for treatment of ballast water shall be fixed and approved by CCS office in charge of the type approval.
- 3.3. Software and specification is subject approval in conjunction with type approval program.
- 3.4. The system is not approved for use in hazardous areas.

4. Remarks:

- 4.1. The following documents shall be submitted for approval in each case after type approval.
The control system, power supply arrangement, list of controlled and monitored points, description of interface towards ships existing systems, piping and instrumentation diagram of the ballast system including its installation.

5. Intended for:

- 5.1. Ballast Water Management System on board ship.

The drawings and documents listed in the attached "Return List" have been examined and are found to be in compliance with the relevant requirements mentioned in No.2 above. The approval is hereby given with the above comments, if any, and the approval No. is: NP12A01188. The drawings and documents bearing the Society's stamp of "Approved" or "Noted" and "Comment" (if applicable) are hereby returned. Please check for acceptance according to the return list.

The following are attached herewith:

1. Return list of drawings/documents of marine products.
2. One set of returned drawings/documents.

**CHINA CLASSIFICATION SOCIETY
PLAN APPROVAL CENTER**

RETURN LIST OF DRAWINGS/DOCUMENTS OF MARINE PRODUCTS

Approval /reference No. of drawings and documents: NP12A01188

Name and type: Ballast Water Management System

Date of approval: June 5, 2012

Designer/Manufacturer: Optimarin AS

Page: 1 (total 1 Page)

Serial No.	Title	Drawings/ Documents No.	Approved	Noted	Comment
1	Manual for Optimarin Ballast System	Rev.B, Sep.29 th 2009	×		×
Remark:					

Note: Mark of “×” in the column of “approved” or “Noted” indicates relevant CCS stamps to be put on the drawing or document, “Comment” indicates that there is comment on the drawing or document.

