EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00007BJ

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV AS under the authority of the Government of Norway.

This is to certify:

That the A & B Class divisions fire integrity: A class divisions.

with type designation(s)
STAN 60 minute bulkhead

Issued to
Ayres Composite Panels
Bayswater, WA, Australia

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2020/1170,**
item No. MED/3.11a. SOLAS 74 as amended, Regulation II-2/3.2 & II-2/9, IMO 2010 FTP Code, IMO MSC/Circ.1120 and IMO MSC.1/Circ.1434, IMO MSC.1/Circ.1435.

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2026-05-24**.

Issued at **Høvik** on **2021-05-25**

DNV local station:
Australia FIS/CMC

Approval Engineer:
Tessa Biever

Notified Body
No.: **0575**

for **DNV AS**

Sverre Olav Bergli
Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005, and amended by Decision No 1/2019 dated February 22nd, 2019.

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.
This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.
Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description

"STAN 60 minute bulkhead"
Aluminium structural bulkhead with the STAN 60-minute bulkhead system installed with a minimum airgap of 112 mm between the panel system and the aluminium bulkhead. The STAN 60-minute bulkhead system consists of panels of type STAN-PNL-1500 made by forming a 0.45 mm stainless steel sheet rigidized with an embossed pattern. The perimeter edges are folded, and small angle stiffeners and pins are welded inside the back of the folded sheet. Insulation material is placed over the pins and held in place with speed clips. For insulation details see drawing no. STAN-PNL-1500 Rev.1 dated 2020-11-20.

Total thickness of the panel is 40 mm.

The panels are supported by a frame consisting of long and short support channels with dimensions 70 mm x 35 mm x 0.55 mm (W x H x T). The supporting frame is fixed to the bulkhead stiffeners by means of standoff brackets. The standoff brackets are fixed by 38 mm screws to the stiffeners and fixed to the panels by means of rivets. The spacing between the standoff brackets is 1500 mm vertically and 1200 mm horizontally.

A corner bracket assembly is used at the four-way junction of the supporting frame to connect the support channels. The corner bracket is fixed with 13 mm screws. The support channels are insulated. For insulation details see drawing no. STAN-CH-1500A Rev.2 dated 2020-11-20.

A 0.55 thick cover strip support assembly (70 mm x 47 mm (W x H)) is used at 600 mm centres vertically and horizontally at the midspan of the support channels to support the panels. The cover strip support assembly is screwed with 13 mm screws to the support channels.

Finally, the panels are installed on the top of the support frame and secured to the support frame through the cover strip support assembly using 13 mm screws.

A cover strip is used at the intersection of the panel to panel joints both horizontally and vertically and is fixed to the support channel using 60 mm screws through the cover strip support assembly.

A cover plate assembly with an intumescent disc underneath is used at the four-way junction on the exposed side over the cover strip assemblies and is fixed to the support channel by 60 mm screws.

The panel system in combination with the aluminium bulkhead only may be fitted with an inspection hatch. The hatch consists of a frame, door surround and door with clear opening of 795 mm x 795 mm (W x H). The hatch door is composed of a layer of 0.45 mm thick stainless steel on both sides of an insulation core, compressed to 40 mm thickness to fit the door surround. For insulation details see hatch assembly drawing no. STAN-HTC-8-8. Drawing no. STAN-004 shows hatch installation details

For further details, see under Type Examination documentation below.

Application/Limitation

Approved for use as a vertical fire retarding division of class A-60.

Restricted application: Fire hazerd from panel side

Max. panel size: 1188 mm x 1488 mm (W x L).

The insulation materials and adhesives used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity. This requirement may also be applicable for surface materials used, if required by relevant rules and regulations.

Each product is to be supplied with its manual for installation, use and maintenance.

Type Examination documentation

Test Report FRT200167 Rev. 1.2 dated 2020-12-11 from Warrington Fire, Melbourne, Australia.

Drawing nos.:
- STAN-001B Rev.1 dated 2020-11-20 (BULKHEAD PARTS)
- STAN-007 Rev.3 dated 2020-11-20 (BULKHEAD GRID)
- STAN-PNL-1500 Rev.1 dated 2020-11-20 (1500 x 1200 mm PANEL ASSY)
- STAN-CSL Rev.1 dated 2020-11-20 (COVER STRIP LONG)
- STAN-CSS Rev.1 dated 2020-11-20 (COVER STRIP SHORT)
- STAN-CH-1500A Rev.2 dated 2020-11-20 (SUPPORT CHANNEL 1500 mm ASSY)

- STAN-CH-3598 Rev.1 dated 2020-11-20 (SUPPORT CHANNEL 3598)
- STAN-COV Rev.1 dated 2020-11-20 (COVER PLATE ASSY)
- STAN-CPS Rev.1 dated 2020-11-20 (COVER PLATE SUPPORT ASSY)
- STAN-004 Rev.1 dated 2020-11-20 (BULKHEAD WITH HATCH)
- STAN-HTC-8-8 Rev. 1 dated 2020-11-20 (HATCH ASSEMBLY)

Tests carried out

Tested according to IMO 2010 FTP part 3.

Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, fire technical rating, the MED Mark of Conformity and USCG Approval Number if applicable (see first page).