



Europäisch notifizierte Stelle  
Kennnummer 0736  
European notified body  
Identification number 0736



**DGUV Test**  
Prüf- und Zertifizierungsstelle  
BG Verkehr  
Dienststelle Schiffssicherheit

## EG-Baumusterprüfbescheinigung (Modul B) EC-Type Examination (Module B) Certificate

Zulassungs-Nr.  
Certificate No.

100199-03

U.S. Coast Guard Zulassungs-Nr.  
U.S. Coast Guard Approval No.

164.105/EC0736/100199-03

Hersteller (Antragsteller) Manufacturer (Applicant)	SAINT-GOBAIN ISOVER G+H AG
Adresse Address	Bürgermeister-Grünzweig-Strasse 1 67059 Ludwigshafen (Deutschland / Germany)
Ausrüstung (Nummer & Bezeichnung) Equipment (Number & Item designation)	MED/3.11a Trennflächen vom Typ "A", Feuerbeständigkeit "A" class divisions, fire integrity
Produkttyp Product Type	Stahldeck A-60 Steel-Deck A-60
Produkteinschränkung Product Restriction	n/a n/a
Prüfgrundlage Specified Standard	IMO-Entschließung MSC.307(88)-(FTP-Code 2010)* *) = nicht anwendbar, entsprechend Kapitel 8.3 der IMO Entschließung MSC.307 (88) IMO-Entschließung MSC.61(67)-(FTP-Code), Anlage 1, Teil 3 IMO Resolution MSC.307 (88)-(FTP-Code 2010)* *) = not applicable accordance chapter 8.3 IMO Resolution MSC.307 (88) IMO Resolution MSC.61(67)-(FTP-Code), Annex 1, Part 3

Die auf den folgenden Seiten aufgeführten Bedingungen sind Bestandteil dieses Zertifikats.  
Diese Baumusterprüfbescheinigung gilt, solange sie nicht entzogen oder widerrufen wird und die Gegenstände unverändert, einsatzfähig eingesetzt werden.

*The listed conditions on following pages are part of this certificate.*

*This certificate remains valid unless cancelled or revoked, provided the conditions on following pages are complied with and the equipment remains satisfactory in service.*

*On this certificate the German text shall prevail.*

Hiermit wird bestätigt, dass:

*This is to certify that:*

Die BG Verkehr - Dienststelle Schiffssicherheit die entsprechenden EG-Bauartzulassungsverfahren zur Bewertung angewendet hat und das genannte Baumuster den einschlägigen Brandschutz-Bestimmungen der Richtlinie 2014/90/EU (Schiffsausrüstung) in der jeweils geltenden Fassung, zuletzt geändert durch die Durchführungsverordnung (EU) 2018/773, vorbehaltlich der im Zertifikat genannten Auflagen, entspricht.

*BG Verkehr - Ship Safety Division did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the Fire protection requirements of Marine Equipment Directive (MED) 2014/90/EU, as amended by Commission Implementing Regulation (EU) 2018/773 subject to any conditions in the schedule attached hereto.*

Ausstellungsdatum  
Date of issue  
Ablaufdatum  
Expiry date

08.03.2019

07.03.2024



  
Unterschrift (Freitag)  
Signature

Postanschrift:  
BG Verkehr  
Dienststelle Schiffssicherheit  
Brandstüwe 1  
D-20457 Hamburg

Tel: +49 40/3 61 37 - 0  
Fax: +49 40/3 61 37 2 04  
Internet: www.deutsche-flagge.de

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1629/80177



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### Zulassungsbedingungen / condition of approval:

**Note 1:** Dieses Zertifikat wird ungültig, wenn der Hersteller Änderungen oder Modifikationen jeglicher Art am zugelassenen Produkt durchgeführt hat, die nicht der benannten Stelle gemeldet und mit ihr abgestimmt wurden.

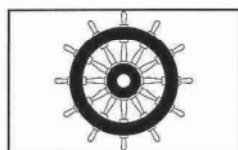
*This certificate becomes invalid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with the notified body named on this certificate.*

**Note 2:** Sollten spezielle Regeln oder Prüf-Standards für die o. g. Ausrüstung während der Gültigkeit des Zertifikates geändert werden, muss das Produkt neu getestet werden, bevor es nach Inkrafttreten der Änderungen an Bord geliefert wird.

*Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply.*

**Note 3:** Das Konformitätskennzeichen darf an o. g. zugelassener Ausrüstung nur angebracht und eine "Declaration of Conformity" vom Hersteller nur ausgestellt werden, wenn die Qualitätssicherungsmodule (D, E oder F) des Anhangs II der Richtlinie voll eingehalten und durch die „benannte Stelle“ im Rahmen eines schriftlichen Vertrages mit dem Hersteller überwacht werden.

*The Mark of Conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the Quality assurance module (D, E or F) of Annex II of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.*



XXXX / YYYY

#### **Note 4: "Steuerrad" Format**

YYYY Die vierstelligen Ziffern des Jahres, in dem das Konformitätskennzeichen angebracht wurde.

XXXX Kennnummer der benannten Stelle, die die Qualitätssicherung beim Hersteller überwacht  
**"Wheelmark" Format**

YYYY *The year in which the mark is affixed.*

XXXX *Notified Body number undertaking surveillance module*

**Note 5:** Die an Bord von Seeschiffen zur Verwendung kommende Ausrüstung muss mit der geprüften Ausrüstung in seiner Zusammensetzung und seinen Eigenschaften übereinstimmen.

*The equipment installed on board ships shall comply in every respect with the Marine equipment which has been tested.*

**Note 6:** Die in den Handel kommende Schiffsausrüstung sind entsprechend Artikel 10 der Richtlinie 2014/90/EU des Rates vom 23. Juli 2014 über Schiffsausrüstung zu kennzeichnen.

*The equipment shall be marked in accordance with Article 10 of the Council Directive 2014/90/EU of 23 July 2014 on Marine Equipment as amended.*

**Note 7:** Diese EG-Baumusterprüfbescheinigung darf nur in vollem Wortlaut veröffentlicht oder Dritten zugänglich gemacht werden.

*This EC-Type Examination Certificate may only be published or transmitted unabridged.*

**Note 8:** Diese EG-Baumusterprüfbescheinigung ersetzt die alte EG-Baumusterprüfbescheinigung Nr. 100.199, ausgestellt am 11.03.2014 mit einer Laufzeit bis zum 10.03.2019.

*This EC-Type Examination Certificate replaces the old EC-Type Examination Certificate No. 100.199, issued on 11.03.2014 with a running time up to 10.03.2019.*





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### **Bestimmungsgemäße Verwendung / intended purpose:**

Trennfläche Klasse "A" für Seeschiffe entsprechend:

SOLAS 74/88 Reg. II-2/3.2 und II-2/9, neueste Fassung, IMO MSC/Rundschreiben 1120, IMO MSC.1/Rundschreiben 1434  
"A" class division for sea going vessels complying with:  
SOLAS 74/88 Reg. II-2/3.2 and II-2/9, as amended, IMO MSC/Circ. 1120, IMO MSC.1/Circ. 1434

### **Mitgeltende Unterlagen / further applicable documents:**

- Prüfbericht Nr. PG 11519 des "Danish Institute of Fire and Security Technology", 2650 Hvidovre (DK), ausgestellt am 03.10.2005
- Assessment of Class A-60 deck des "Danish Institute of Fire and Security Technology" (Herr N. Andersen) mit dem Aktenzeichen Nr. PG 11519 c vom 07.11.2005
- Review of test reports No. PH13281-2 des "Danish Institute of Fire and Security Technology" (Herr D. Bluhme) vom 30.01.2009
- Assessment on location of pins for high stiffeners on A-60 Class steel deck insulated with Ultimate U MPN 66 des "Danish Institute of Fire and Security Technology" (Herr D. Lauridsen) mit dem Aktenzeichen PH 13431 vom 05.11.2009
- Test Report No. PG 11519 issued by "Danish Institute of Fire and Security Technology", 2650 Hvidovre (DK), on 03.10.2005
- Assessment of Class A-60 deck issued by "Danish Institute of Fire and Security Technology" (Mr. N. Andersen) with the File No. PG 11519 c on 07.11.2005
- Review of test reports No. PH13281-2 issued by "Danish Institute of Fire and Security Technology" (Mr. D. Bluhme) on 30.01.2009
- Assessment on location of pins for high stiffeners on A-60 Class steel deck insulated with Ultimate U MPN 66 of the "Danish Institute of Fire and Security Technology" (Herr D. Lauridsen) with the File No. PH 13431 dated 05.11.2009

### **Technische Daten / technical characteristics:**

Zur Isolierung der Trennfläche sind folgende Isoliermaterialien zu verwenden:

Über den Steifen:

ISOVER-Platte ULTIMATE U MPN 66 / ISOVER-Platte ULTIMATE U SeaProtect Slab (30 mm, 66 kg/m<sup>3</sup>)  
EG-Baumusterprüfbescheinigung Nr. 114.477 ausgestellt von der BG Verkehr, Dienststelle Schiffsicherheit,  
Europäisch notifizierte Stelle Kennnummer 0736

Zwischen den Steifen:

ISOVER-Platte ULTIMATE U MPN 36 / ISOVER-Platte ULTIMATE U SeaProtect Slab (60 mm, 36 kg/m<sup>3</sup>)  
EG-Baumusterprüfbescheinigung Nr. 114.477 ausgestellt von der BG Verkehr, Dienststelle Schiffsicherheit,  
Europäisch notifizierte Stelle Kennnummer 0736

*To insulate the division following materials has to be used:*

*Above the stiffeners:*

ISOVER marine slab ULTIMATE U MPN 66 / ISOVER marine slab ULTIMATE U SeaProtect Slab (30 mm, 66 kg/m<sup>3</sup>),  
EC-Type Examination Certificate No. 114.477 issued by BG Verkehr, Ship Safety Division,  
European notified body Identification number 0736

*Between the stiffeners:*

ISOVER marine slab ULTIMATE U MPN 36 / ISOVER marine slab ULTIMATE U SeaProtect Slab (60 mm, 36 kg/m<sup>3</sup>),  
EC-Type Examination Certificate No. 114.477 issued by BG Verkehr, Ship Safety Division,  
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Die Konstruktion darf auch mit den verschiedenen Positionierungen der Pins, entsprechend dem Assessment mit dem Aktenzeichen PH 13431 und den dazugehörigen Zeichnungen Nr. BK 004 und BK 005 (Blatt 1 + 2) eingebaut werden.  
*The construction may be also build with the different location of pins according to the Assessment File No. PH 13431 and corresponding drawings no. BK 004 and BK 005 (side 1 + 2).*

### **Weitere Bedingungen und Auflagen / additional conditions and remarks:**

Diese EG-Baumusterprüfbescheinigung setzt voraus, dass der Aufbau der horizontalen Trennfläche in allen Einzelheiten mit der Konstruktion übereinstimmt, die aus den Ziffern 4 und 5 und den Anlagen zum Prüfbericht Nr. PG 11519 ersichtlich sind.  
*This EC-Type Examination Certificate provides that the assembly of the horizontal division coincides in all items with the construction as described in numbers 4 and 5 and the enclosures to the Test Report No. PG 11519.*



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Alle Abmessungen der zum Einbau kommenden horizontalen A-60 Trennfläche müssen den Zeichnungen Nr. 1.1 und 1.2 (Anlagen zum Prüfbericht Nr. PG 11519) entsprechen.

Sie dürfen nur mit Zustimmung der Prüf- und Zertifizierungsstelle der BG Verkehr, Dienststelle Schiffssicherheit geändert werden.

*All measurements of the horizontal A-60 division must be in accordance with the drawing no. 1.1 and 1.2 (enclosures to the Test Report No. PG 11519).*

*They can only be changed in compliance with the Prüf- und Zertifizierungsstelle of BG Verkehr, Ship Safety Division.*

Für den aufgeführten nichtbrennbaren Isolierstoff darf ein anderer verwendet werden, wenn seine Zusammensetzung und seine physikalischen Eigenschaften (z.B. Wärmeleitfähigkeit, Dichte und Materialdicke) mit denen des geprüften Materials übereinstimmen und der Isolierstoff gemäß Richtlinie 2014/90/EU, neueste Fassung, zugelassen ist.

Dieses ist der BG Verkehr, Dienststelle Schiffssicherheit vorab schriftlich nachzuweisen.

*Non-combustible insulation material may be replaced by a different one, provided that its composition and physical properties (e.g. heat conductivity, density and thickness of the material) correspond with the tested material and an approval as per directive 2014/90/EU, as amended has been obtained.*

*This has to be proved to BG Verkehr, Ship Safety Division before and in written form.*

Zur Verwendung kommende Beschichtungsmaterialien und Kleber müssen schwerentflammbar und von einer Prüf- und Zertifizierungsstelle zugelassen sein.

*Surface materials and adhesives which will be used must be not readily ignitable and approved by a European notified body.*

#### **Hinweis:**

Diesem Produkt wurde eine U.S. Coast Guard Zulassungs-Nr. zugeteilt, um deutlich zu machen, dass diese Typzulassung nach Modul B durch die U.S. Coast Guard entsprechend des "Abkommens zwischen der Europäischen Gemeinschaft und den Vereinigten Staaten von Amerika über die gegenseitige Anerkennung der Konformitätsbescheinigungen für Schiffsausrüstung", unterschrieben am 27. Februar 2004 akzeptiert / anerkannt wird.

#### **Note:**

*This product has been assigned a U.S. Coast Guard approval no. (USCG number) to note type approval to Module B only as it pertains to obtaining U.S. Coast Guard approval as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed February 27th, 2004.*

Die U.S. Coast Guard Zulassungs-Nr. für dieses Produkt lautet:

*The U.S. Coast Guard approval number is:*

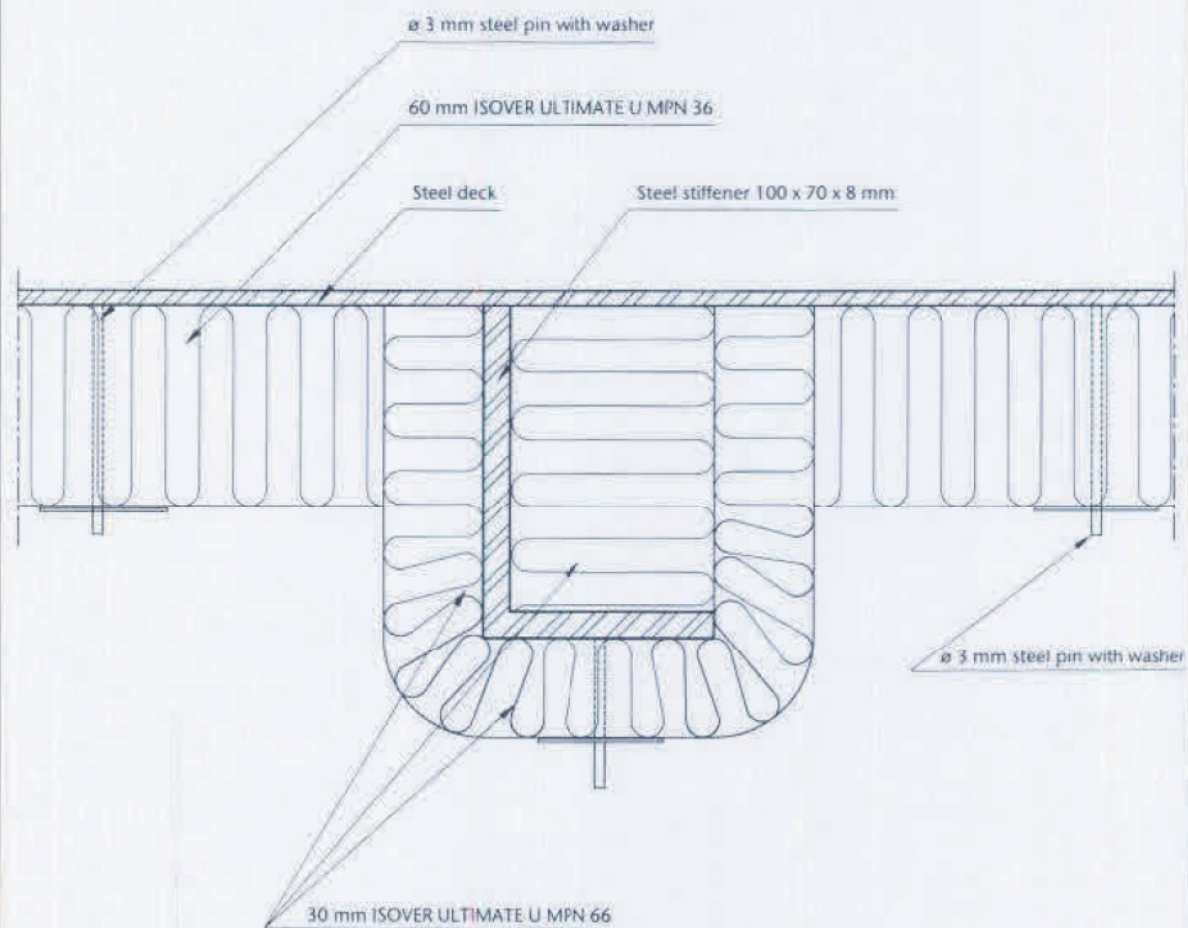
**164.105/EC0736/100199-03**

Der Hersteller der Ausrüstung muss die vorgeschriebene Markierung mit dieser Nummer erweitern.

*The equipment manufacturer has to be mark the equipment with this U.S. Coast Guard approval number.*

----- **ENDE DES DOKUMENTS** -----

----- **END OF DOCUMENT** -----



All dimensions are in mm



Danish Institute of Fire and Security Technology

Subject:

A-Class Deck

JERNHOLMEN 12  
DK-2650 HVIDOVRE  
TEL.: +45 36349000  
FAX: +45 36349005

Appendix to fire no.

PG 11519

Date:

2005-09-14

Ordered by:

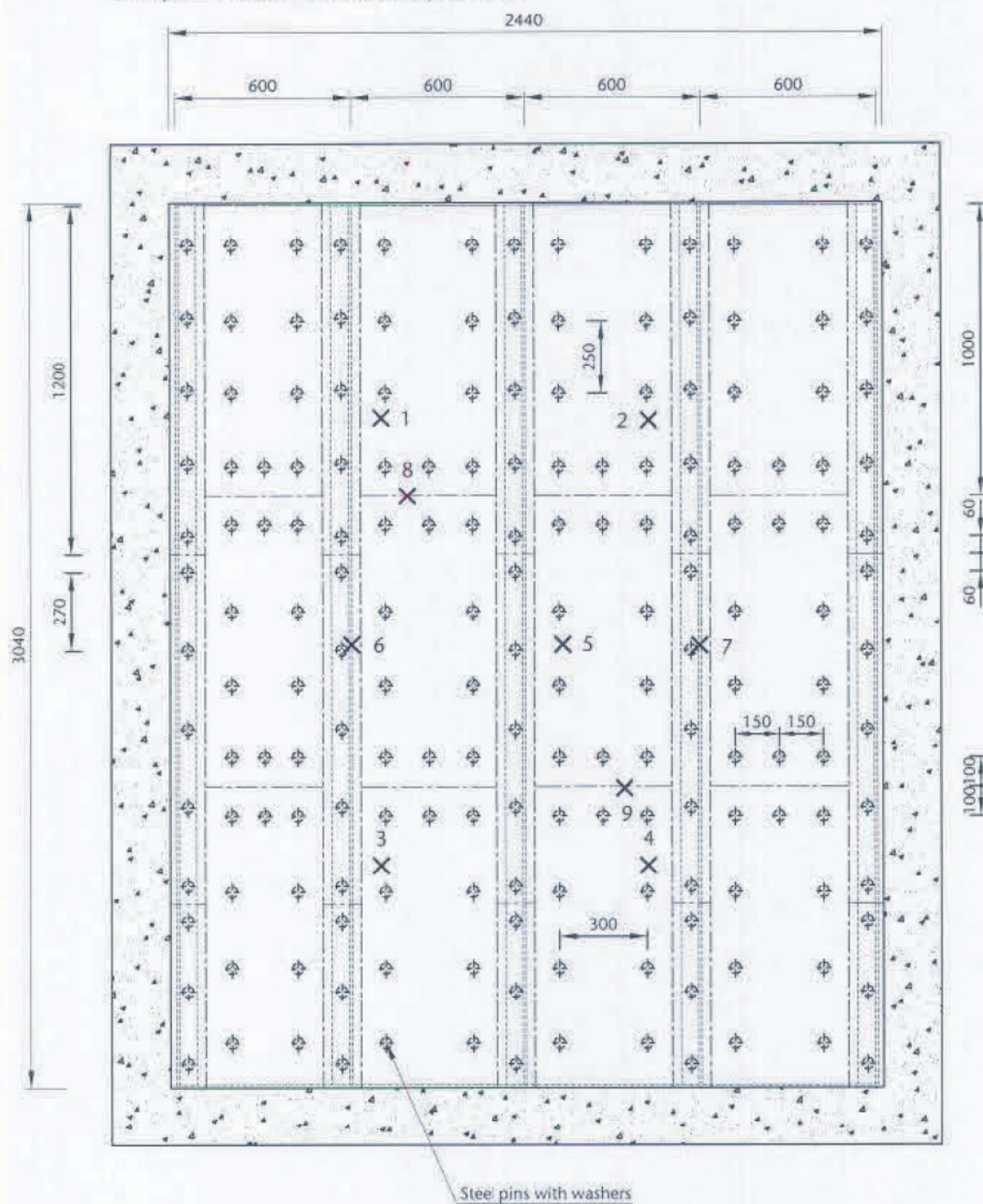
Saint-Gobain Isover G+H AG

Drawing no:

1.2



Test specimen seen from the unexposed side



----- = joints between the mineral wool slabs

X = Position of surface thermocouples

All dimensions are in mm



Danish Institute of Fire and Security Technology

Subject:

A-Class Deck

JERNHOLMEN 12  
DK-2650 HVIDOVRE  
TEL.: +45 36349000  
FAX: +45 36349005

Appendix to file no.:

PG 11519

Date:

2005-09-14

Ordered by:

Saint-Gobain Isover G+H AG

Drawing no.:

1.1



Saint-Gobain Isover G+H AG  
Dr.-Albert-Reimannstrasse 20  
D-68526 Ladenburg  
Germany

Date: 2009-11-05  
File No.: PH13431  
Init.: NA/DHL/ABR

**Re.: Assessment on location of pins for high stiffeners on A-60 Class steel deck insulated with Ultimate U MPN 66**

Saint-Gobain Isover G+H AG has asked DBI - Danish Institute of Fire and Security Technology to make an assessment on:

1. A general lay-out for location of pins on the steel/aluminium plate of the deck and
2. Mounting methods on standard stiffeners according to IMO Resolution A.754(18) as well as non standard stiffeners – all concerning Class A-Decks.

DBI has received the following documentation as basis for the assessment.

**Description of the assessments to be made:**

Drawing BK 004 shows the lay-out of pins on the plate.

Drawing BK 005, sheet 1 and 2 shows various methods for insulation of standard and non-standard stiffeners.

**Fire technical documentation for U MPN 66**

**Test report PG11917, dated 2008-09-22, tested at DBI**

The test report concerns test of an A-30 aluminium deck construction according to IMO Resolution A. 754 (18). The insulation consisted of 40 mm Ultimate Marine Wired matt 66. The test specimen fulfilled the insulation criteria for 44 minutes and showed consistent good stability of the insulation during and after the test.

**Test report PG11692, dated 2008-09-22, tested at DBI**

The test report concerns test of an A-60 aluminium deck construction according to IMO Resolution A. 754 (18). The insulation consisted of 70 mm Ultimate Marine Wired matt 66. The test specimen fulfilled the insulation criteria for 60 minutes and showed consistent good stability of the insulation during and after the test.

**Test report PG11519, dated 2005-10-03, tested at DBI**

The test report concerns test of an A-60 steel deck construction according to IMO Resolution A. 754 (18). The insulation consisted of 60 mm U MPN 36 on the plate and 30 mm U MPN 66 on the stiffeners. The test specimen fulfilled the insulation criteria for 60 minutes and showed consistent good stability of the insulation during and after the test.

**Danish Institute of Fire and Security Technology**

Jernholmen 12, DK-2650 Hvidovre E-mail: dbi@dbi-net.dk  
Tel.: +45 36 34 90 00, Fax: +45 36 34 90 05 www.dbi-net.dk



Test report No 2009CS011684, tested by RINA

The test report concerns test of an A-30 steel deck construction according to IMO Resolution A. 754 (18). The insulation consisted of 50 mm U MPN 24 on the plate and 30 mm U MPN 66 on the stiffeners.

The two last mentioned tests are only relevant for assessing the insulation on the stiffeners, since the insulation on the plate is a different product.

**Rationale for the assessment**

**General**

1. Most of the tests have been performed on aluminium decks, which normally require a higher degree of insulation than steel decks do. So, the results can also be applied to steel decks as well.
2. Some of the tests have been performed with wired matt, but other tests with the lighter product, U MNP 36 (without wire mesh), shows similar stability.

**Pin location on plate**

The only tests where U MPN 66 has been used on the plate, have been performed with wired matt, but other tests with the lighter product, U MPN 36 (without wire mesh), shows similar stability.

The two tests with wire matt had pins per 300 x 300 mm, i.e. 6.66 pins pr m (in the longitudinal direction). The unsupported ends of the insulation were up to 200 mm, but some stitching of the wire mesh was found in places.

The pin pattern in Drawing BK 004 has an additional row of pins displaced by 150 mm, so the total number of pins pr m (in the longitudinal direction) increases to 10. The overhung end is limited to max 100 mm: The third row of pins also means that in increase of distance between stiffeners beyond 650 mm shall one or more additional row of pins.

Considering the above arguments, it is the opinion of DBI, that the pin pattern will be safe for insulation of steel or aluminium deck plate.

**Insulation on stiffeners**

The low stiffeners (< 100 mm) in Drawing BK 005, sheet 1 are identical with, or almost identical with the stiffeners used for the tests PG10518 and PG10519. In these tests, the pin spacing was 250 mm and the maximum unsupported length at the ends was 60 mm.

The same type of L-shaped stiffeners were used for the two aluminium decks. The pin spacing was 300 mm, but the insulation was wire matt.



The same type of stiffener was used for the RINA test. Though the test as such is not valid, the photograph of the exposed surface after the test could give some indication of the performance of the insulation on the stiffeners. Unfortunately the test was stopped after 45 minutes, so this information is of limited value.

Considering this, DBI finds no possibility to change the spacing of the pins from the spacing used in the actual tests.

The low stiffeners ( $< 100$  mm) in Drawing BK 005, sheet 2 (Detail D, E and H) are identical with, or almost identical with the stiffeners used for the tests. The location of the pins on both sides of the stiffener increases the number of pins, even if the spacing is increased to 300 mm.

The high stiffener ( $400 \text{ mm} > h > 100 \text{ mm}$ ) in Drawing BK 005, sheet 2 (Detail G) is a special stiffener, which is not tested as part of a standard fire test according to "IMO FTP Code Annex 1, Part 3". It is the opinion of DBI, that for a stiffener height  $< 400$  mm, the insulation will be securely fixed with two steel pins located as shown and with a spacing up to 300 mm.

The insulation on the stiffeners in Drawing BK 005, sheet 2 with a pin spacing of 300 mm, shall be mounted so, that joints are located  $150 \pm 25$  from the pins.

The assessment also covers the following product with various surface layers:

U MPA 66, U MPG 66-120, U MPG 66-220, U MPG 66-420, U MPV 66

Furthermore the products may be supplied as rolls instead of slabs. In this case the type name includes 'F' instead of 'P'.

#### **Assessment:**

It is the opinion of DBI that a steel deck constructed as described in and PG11519 including the alternatives described in this assessment report may be regarded as a

#### **Class A-60 Deck**

according to IMO Resolution A.754(18), as well as "IMO FTP Code Annex 1, Part 3, if all the materials of the construction (except adhesives) are non-combustible, and if the adhesives have low flame spread characteristics.

#### **Validity:**

This assessment is only valid together with DBI test reports relevant for the material in question

This assessment is issued on the basis of test data and information available at the time of issue. If contradictory evidence becomes available to DBI the assessment will be unconditionally withdrawn and the manufacturer will be notified in writing. Similarly the assessment is invalidated if the assessed construction is subsequently tested because actual test data is deemed to take precedence over an expressed opinion. The assessment is valid until November 2011 at which time it is recommended that it be returned for re-appraisal.




The appraisal is only valid provided that no other modifications are made to the tested constructions other than those described in this report. Especially the arrangement of pins on the steel plate shall remain as tested

Approval of the construction may be obtained only on application to the appropriate marine administration.

Danish Institute of Fire and Security Technology

  
Dan Lauridsen.  
Engineer, M.Sc.

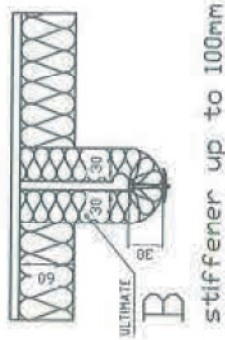
/

  
Axel Brolund  
Engineer, M.Sc.

Enclosed: Drawing BK004  
Drawing BK005 sheet 1  
Drawing BK005 sheet 2







stiffener up to 100mm

### Possible Ultimate

stiffener products in 30mm:

U MPA 66	U MPG 66-120	U MPG 66-220
U MPG 66-420	U MPN 66	U MPV 66
U MPX 66	U Marine Wired Mat 66N	
U Marine Wired Mat 66VI		
U Marine Wired Mat 66Alul		

isover

SAINT-GOBAIN ISOVER

### Insulation of stiffener

Dansk Brand- og  
slukningsteknik Institut  
Søge nr. 741334  
Dan. L.

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Stirn / Side	Grades / Top	Date / Day	Item No. / Class No.	Zeichnung / Drawing No.	Scale
	B. Kerber	22.10.2009		BK 005	1/2 A



