



NIPPON HAKUYOHIN KENTEI KYOKAI

(The Ship Equipment Inspection Society of Japan)

INSPECTION CERTIFICATE FOR ARTICLES FOR SHIP USE

No. 090S-e-1068

Date 9 February 2009

THIS IS TO CERTIFY that the following articles were tested and inspected by the Society's Surveyor in accordance with the regulations under the Ship Safety Law of Japan and were found to comply with the relevant requirements of the regulations.

Description and Type: Fire Hoses, Elastic PU Lined Synthetic Fabric,
YAMATO FIRE HOSE, 40A × 15m
W.P. 1.3MPa

Quantity: 3 pieces

Applicant: Yamato Protec Corporation
1-10, 2-chome, Fukaekita, Higashinari-ku, Osaka, Japan

Manufacturer: Yamato Protec Corporation
1-10, 2-chome, Fukaekita, Higashinari-ku, Osaka, Japan

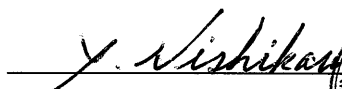
Date of Manufacture: September 2008

Manufacturer's Serial Nos.: 1608001~1608003

Inspection Mark: HK ⓪

Remarks: Also complying with the relevant provisions of SOLAS
1974 or the 1988 Protocol as amended in 2000.

Issued under the authority of the Government of Japan.


Surveyor Y. Nishikawa
NIPPON HAKUYOHIN KENTEI KYOKAI



SPECIFICATIONS AND TEST RECORDS

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|---------------------------------------|--|
| 1. Description and Type | : Fire Hoses , Elastic PU Lined Synthetic Fabric,
YAMATO FIRE HOSE, 40A × 15m |
| 2. Manufacturer | : YAMATO PROTEC CORPORATION |
| 3. Date of Manufacture | : September , 2008 |
| 4. Number of Article , and Serial No. | : 3pcs., 1608001 ~ 1608003 |
| 5. Coupling | : Nakajima Type |
| 6. Test Results | : |

No.	Test Items	Standards	Results
1.	Visual Inspection	To be confirmed with manufacturer's drawing and specification	Good
2.	Dimentional Inspection	Inside dia. : 38~41mm Length : Not less than 15m	Good Good
3.	Weight Confirmation	Hose : Less than 300 g/m	Good
4.	Construction Inspection	To be confirmed with manufacturer's drawing and specification Lining Elastic PU Thickness : More than 0.2 mm	Good
5.	Elongation Ratio Confirmation	Less than 10% at 1.3MPa water pressure	Good
6.	Straightness Confirmation in Pressurized Condition	Twisting : Less than 160 ° /m Distortion : Less than 650 mm	Good Good
7.	Hydraulic Pressure Test a) With straight condition b) With 180 ° bend condition	Following pressure to be applied for 5min 2.5 MPa 1.8 MPa	Good
8.	Bursting Pressure Test	(for Reference)	
9.	Weather Resistant Test	More than 80 % of Bursting Pressure Test Value	Good
10.	Adhesive Strength Test between Lining Elastic PU and Fabcic	More than 45 N with 38mm wide	Good
11.	Tensile Test	Tensile Strength : More than 13 MPa Elongation Ratio : More than 260 %	Good Good
12.	Air Oven Ageing Test	Tensile Strength : More than 7.8 MPa	Good
13.	Low Temperature Bending Test	Pressure of 2.5 MPa to be applied for 5min	Good
14.	Water Vapor Resistant Test	Pressure of 2.5 MPa to be applied for 5min	Good
15.	Heating Loss Test	Less than 2 %	Good
16.	Tacking Test	Non-tackiness	Good

The end