NS RIF: *Naples on*

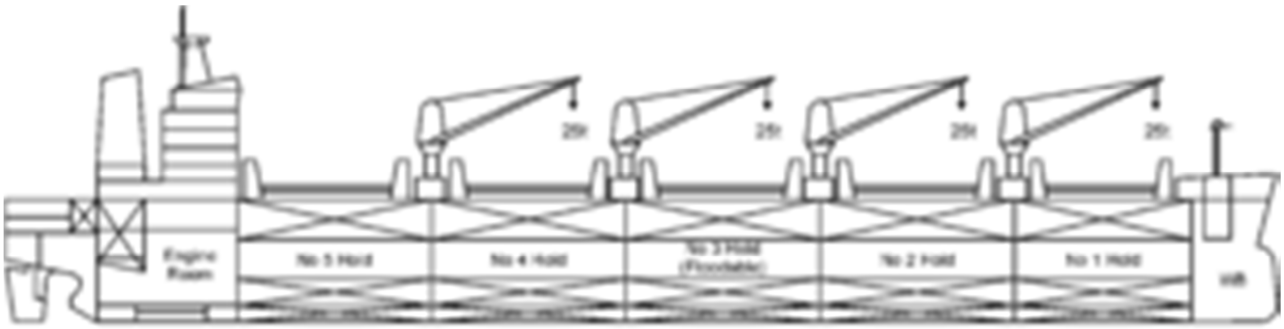
SURVEY REPORT

VESSEL: "XXXX"

Survey *: Hatch Cover Test Report*

Date of Survey *: from XXX to XXXX*

Place of Survey *: XXXXX*



	NAME	CERT No.	Signature
Operator :	Antonio Pugliese	SDT15121246	
	NAME	CERT No.	Signature & Stamp.
Prepared & verified by :	Gennaro Scotto di Galletta	SDT15121247-1	

80142 – NAPOLI - Via A. Vespucci, 9 (Palazzo della Fontana) – scala P – 6° piano
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INDEX

INTRODUCTION

Instruction

This survey was carried out in accordance with the instruction given by Costumers.

Date and Place of Survey

The survey was conducted on board the vessel from 12/05/2016 to 15/05/2016, whilst she was berthed in XXXX Port XXX, by Mr. Antonio PUGLIESE with assistance being given by ship's personnel present on board. The survey was carried out in presence of the ship superintendent.

THE SURVEY

Purpose

The purpose of the survey was to ascertain the general condition of the vessel's hatch coamings and covers through visual inspection and Ultrasonic Tight Test and to give support at crew during the necessaries repairs.

The Survey and Reporting

This survey and report provides a description of our activity on board about the UT test and consultancy for the repairs.

RINA
Via Corsica, 12 - 16128 Genova
Tel. +39 010 53851
Fax +39 010 5351000

RINA

CERTIFICATE OF APPROVAL
OF SERVICE SUPPLIER

CERTIFICATE NO. 2016/NA/01/1003

This is to certify that

S.I.S. S.R.L.
VIA VESPUCCI 9
NAPOLI - NA ITALY

Has been approved in compliance with the
RINA "RULES FOR THE CERTIFICATION OF SERVICE SUPPLIERS"
for the supply of the following services to ships and other units classed by RINA;

B - Tightness testing of closing appliances such as hatches, doors, etc. with ultrasonic equipment

Issued in Napoli on 16/05/2016

This Certificate is valid from the date of the initial audit until 16/05/2019

This certificate consists of this sheet plus an attachment

[redacted]

RINA

Biagio Pugliese

RINA
Via Corsica, 12 - 16128 Genova
Tel. +39 010 53851
Fax +39 010 5351000

RINA

ATTACHMENT TO CERTIFICATE NO. 2016/NA/01/1003

INITIAL AND UNSCHEDULED AUDITS			
Due date	**Carried out on (dd/mm/yyyy)**	**Surveyor's signature**	**Surveyor's stamp**
	16/05/2016		RINA Ing. F. Citarella
Unscheduled			
Unscheduled			
Unscheduled			

General conditions for the approval

a) The initial conditions verified by RINA at the time of the approval are to be maintained
b) Any changes to the initial conditions are to be promptly communicated to RINA, which reserves the right to repeat the relevant assessments
c) RINA personnel are to be allowed to witness during the performance of activities, upon their request
d) The activities are to be carried out in compliance with the RINA Rules and or other applicable rules
e) RINA may revoke the approval at any moment in the case of modifications to requirements or conditions for the approval

[redacted]

Biagio Pugliese

CERTIFICATE OF QUALIFICATION

No. SDT15121246

This is to certify that:

INSPECTOR	COMPANY
ANTONIO PUGLIESE CHIEF ENGINEER	S.I.S.S.R.L. VIA A. VESPUCCI 9 80142 NAPLES (ITALY)

has, in accordance with Classification Societies Requirements, i.e.

- DNV – Approval Programme N° 403, Standards for Certification N° 2.9 – May 2001
- IACS U.R. Z.17 Procedural Requirements for Service Suppliers Req. 1997/Rev. September 2012

attended the following theoretical and practical modules of the SDT-IMCS training course, accredited by the Nautical Institute.

This training was given at Hilton Antwerp, Groenplaats, 2000 Antwerp from 9 till 11 December 2015.

MODULE	COMPLETED
TRAINING ON DIFFERENT HATCH DESIGNS, THEIR FUNCTIONING AND SEALING FEATURES	✓
TRAINING ON OPERATION AND MAINTENANCE OF DIFFERENT HATCH DESIGNS	✓
THEORETICAL TRAINING ON ULTRASOUNDS	✓
THEORETICAL AND PRACTICAL TRAINING IN USING THE SHERLOG SDT 270 AND SDT 200 FOR TIGHTNESS TESTING OF HATCHES (SURVEY DATA LOGGING AND TRANSFER TO PC)	✓

On completion of the training course, Antonio Pugliese has successfully passed the theoretical and practical examination and has therefore been certified as:

QUALIFIED OPERATOR FOR ULTRASONIC TIGHTNESS TESTING OF HATCHES
WITH THE CLASS TYPE APPROVED SHERLOG SDT270 & SDT200

This certificate was issued at Brussels on 21 December 2015.
It is valid for a period of 3 years and expires on 21 December 2018.

For SDT International,
André Degraeve
Managing Director

Training instructor,
Walter Vervloesem

Ultrasound Solutions

CALIBRATION CERTIFICATE
CERTIFICAT DE CALIBRAGE
CALIBRATIECERTIFICAAT

No. 37949

Delivered by: SDT International
Délivré par: Boulevard de l'Humanité 415
Geleverd door: 1190 Brussels
Belgium
Tel.: +32(0)2.332.32.25
E-mail: info@sdt.be

Concerned Equipment Equipement concerné Uitrusting	Serial No. N° série Serienummer	Calibration procedure Procédure de calibrage Calibratieprocedure
SDT270 RECEIVER	270140311	IT.R270.PC.001

The company SDT International certifies that the above-mentioned equipment has been calibrated following the SDT indicated procedure.
La société SDT International certifie que l'équipement mentionné ci-dessus a été calibré selon la procédure SDT indiquée.
De firma SDT International garandeert dat de hierboven vermelde uitrusting volgens de beschreven SDT-procedure werd gecalibreerd.

The accuracy and calibration of this instrument are traceable through reference standards that are compared, at planned intervals, to national or international standards.
La traçabilité du calibrage de cet équipement est assurée par des appareils de référence qui sont comparés, à intervalles programmés, à des étalons nationaux ou internationaux.
De calibratieopvolging van deze uitrusting wordt verzekerd door referentieapparaten die op vastgestelde intervallen worden vergeleken met nationale of internationale ijkwaarden.

SDT International is a ISO9001-2008 certified company by Lloyd's Register (certificate no. ANT11139).
La société SDT International est certifiée ISO9001-2008 par Lloyd's Register (certificat n° ANT11139).
De firma SDT International is ISO9001-2008 gecertifieerd door Lloyd's Register (certificaatnr. ANT11139).

Operator: Jan Verstappen **Date issued:** 2015-07-30

CALIBRATION REPORT

No. 37949

Device: SDT270 RECEIVER No. 270140311

Calibration result:

Procedure ref: IT.R270.PC.001

Generator dBµV	Ampli SDT270 dBµV	Reading values SDT270 dBµV *		Limit values dBµV	
		Before intervention	After intervention	Min.	Max.
20	80	0.0	**20.0**	19.5	20.5
30	70	0.0	**29.9**	29.5	30.5
40	60	0.0	**39.9**	39.5	40.5
50	50	0.0	**50.0**	49.5	50.5
60	40	0.0	**60.0**	59.5	60.5
70	30	0.0	**70.0**	69.5	70.5
80	20	0.0	**80.0**	79.5	80.5
90	10	0.0	**90.0**	89.5	90.5

* measurement uncertainty +/- 1 dB

Functional test result:

Tested item	Result	Tested item *	Result
Black Lemo connector	**OK**	Power supply plug	ok
Red Lemo connector	**OK**	Headset plug	ok
USB Connection	**OK**	Backlight	ok
		Keyboard	ok
		Internal sensor	ok
		Temperature measurement	N/A
		RPM measurement	N/A

* manually tested byoperator

Conclusion:

Corresponding to the maximum allowed deviations: **YES**

Generated on: 2015-07-30 **by:** Jan Verstappen

Checking and calibration reference instruments:

Multimeter Keithley Type 2000 No. 1268134

Calibrated on 2015-03-05. Due date 2016-03-05

GENERAL PARTICULARS

Name	**XXXXX**
Number	**XXXXX**
IMO number	**XXXXX**
Former names	**XXXXX**
Category/Service	**MN - Bulk Carrier ESP - CSR - BC-A - allowed combination of specified empty holds**
Owner	**XXXXX**
Flag	**XXXXX**
Call sign	**XXXXX**
Dec. Office	**XXXXX**
Port and No. of registry	**XXXXX**
Class Symbols	**C** 
Navigation	**Unrestricted Navigation**
Gross tonnage	**32884**
Net Tonnage	**18782**
Deadweight	**57227**
Overall length	**190.00**
Tonnage length	**184.28**
Tonnage width	**32.26**
Tonnage height	**18.50**
Moulded length	**183.30**
Moulded width	**32.26**

REPORT

Phases of survey:

Day 12/05/2016:

- performed visual inspection of all cargo hold hatch coamings and covers.
  After inspection on **C.H. No.5** found two mechanical damages on top rail port and aft side iwo quick acting cleats see pictures 1, 2, 3 & 4.

Picture No.1 - C.H. No.5 Port side 2nd panel

Picture No.2 - Quick acting cleat

Picture No.3 - C.H. No.5 aft side 4nd panel

Picture No.4 - Quick acting cleat

Cargo Hold No.2, found a mechanical damage on top rail starboard iwo quick acting cleat see pictures 5 & 6 .

Picture No.5 - C.H. No.2 Stbd side 3rd panel

Picture No.6 - Quick acting cleat

- **Cargo Hold No.1,** performed first ultrasonic tight test see results on **Tab 1.**
  Improper repairs found iwo linear rubber gasket on terminal part port and stbd before corners of 2nd panel, see picture from 7 to 11.

Picture No.7 - C.H. No.1 Port side 2nd panel

Picture No.8 – rubber corner worn

Picture No.9 - C.H. No.1 Stbd side 2nd panel

Picture No.10 – 2nd panel rubber corner worn

Picture No.11 - 2nd panel missing rubber gasket

Day 13/05/2016:

- **Cargo Hold No.1,** the crew has done all the necessaries repairs for solve the problems found during the first inspection.

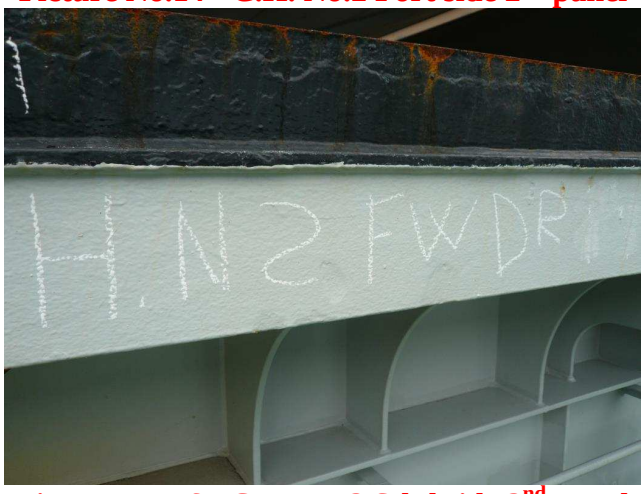
- **Cargo Hold No.2,** performed first ultrasonic tight test, see results on **Tab 3.**
  Improper repairs found iwo linear rubber gasket on terminal part before corners. Angular rubber corners found worn and damaged, see pictures from 12 to 19.

Picture No.12 - C.H. No.2 Port side 2nd panel

Pict. No.13 – rubber corner damaged & worn

Picture No.14 - C.H. No.2 Port side 2nd panel

Pict. No.15 –2nd panel, missing rubber gasket



Picture No.16 - C.H. No.2 Stbd side 2nd panel

Picture. No.16 – improper repair

Pict. No.17 - rubber corner damaged & worn

Pict. No.18 - rubber corner damaged & worn

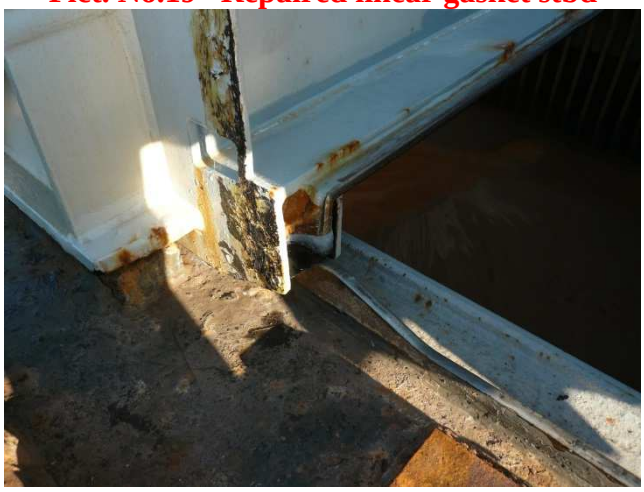
Day 14/05/2016:

- **Cargo Hold No.1,** performed second UT test, see results on **Tab 2**, all problems solved.

- **Cargo Hold No.2,** performed second UT test with negative results see **Tab 4.** After repairs, due to unavailability of spare parts (rubber corners port and starboard side), the crew have just reduced the linear leaks at spot leaks with temporary repairs on damaged rubber corners, see pictures from 19 to 23. During the UT test new linear leak was found in way of main closing.

Pict. No.19 –Repaired linear gasket stbd

Picture No.20 – Temporary repairs on corner



Picture No.21 – Temporary repairs on corner

Pict. No.22 – new linear gasket for the repair on 2nd panel port side

Pict. No.23 –2nd panel port side surface preparationof rubber channel.

- **Cargo Hold No.3,** performed first ultrasonic tight test see results on **Tab 6.**
  Found two spot leak iwo closing corners port and stbd. The rubbers surface found worn & damaged see pictures from 24 to 27.

Picture No.24 - C.H. No.3 Port side 2nd panel

Pict. No.25 – rubber corner damaged & worn

Picture No.26 - C.H. No.3 Stbd side 2nd panel

Pict. No.27 – rubber corner damaged & worn

Day 15/05/2016:

- **Cargo Hold No.2** performed third UT test; after repairs the result was the same of previous, two spot leaks in way of he closing corners, while linear leak found on the second test was been solved; see results on **Tab 5.**

- **Cargo Hold No.3** performed third UT test, after temporary repairs done by crew with using of silicon the result was the same of previous, two spot leaks iwo of closing corners, (angular corners must be replaced); see pictures from 28 to 32 and results on **Tab 7.**

Picture No.28 - C.H. No.3 Port side 2nd panel

Pict. No.29 – Temporary repairs on corner

Picture No.30 - C.H. No.3 Port side 2nd panel

Pict. No.31 – Temporary repairs on corner

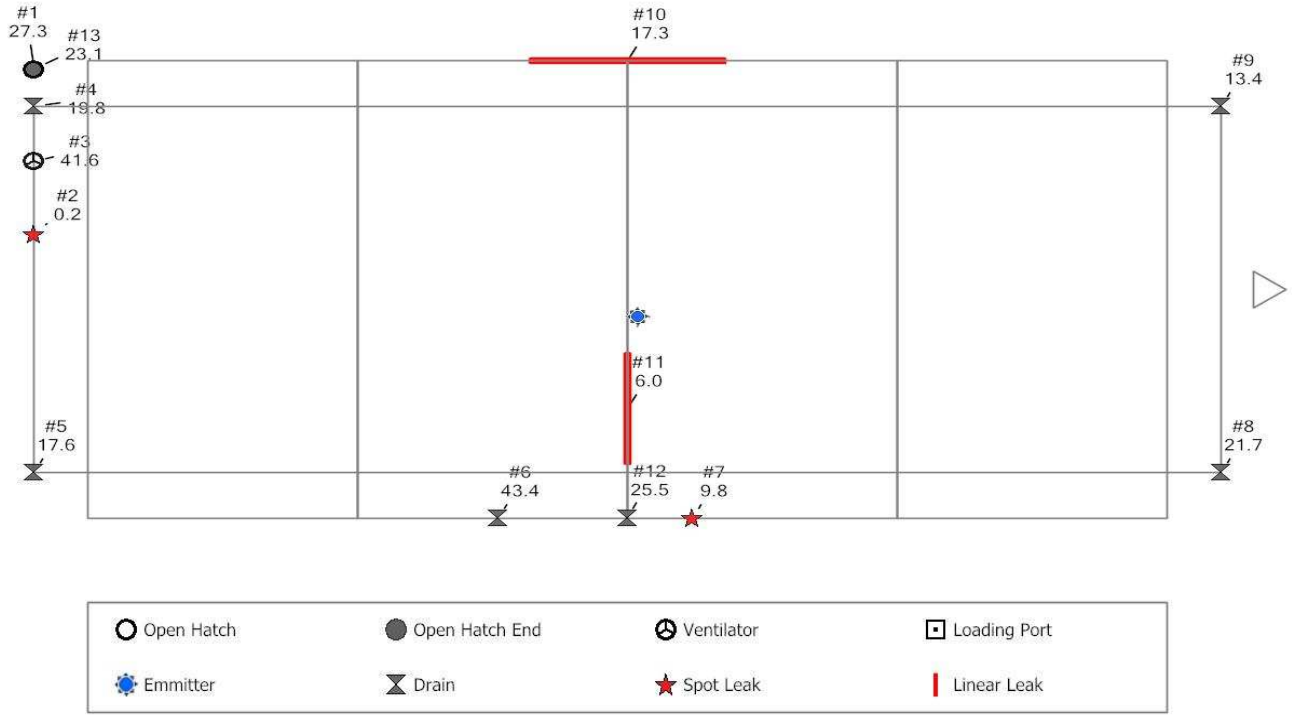
Pict. No.32 - Light of abt 1 mm present between the two corners.

1st Hatch Cover Test Report C.H. No.1 – Tab 1

Vessel Name	XXXX	**Operator name**	ANTONIO PUGLIESE
IMO n°	XXXX	**Operator certificate n°**	SDT15121246
Port	XXXX	**Sherlog serial n°**	270140311
Start Date	2016-05-12 19:38	**Calibration date**	2015-07-29
End Date	2016-05-12 20:36	**Hatch Type**	**Folding type**

Functional test transmitter (dbµV)							
1	2	3	4	5	6	7	8
104.0	113.9	98.6	94.1	114.6	114.0	106.8	107.1

Hold n°	1
Hatch n°	1 - 0



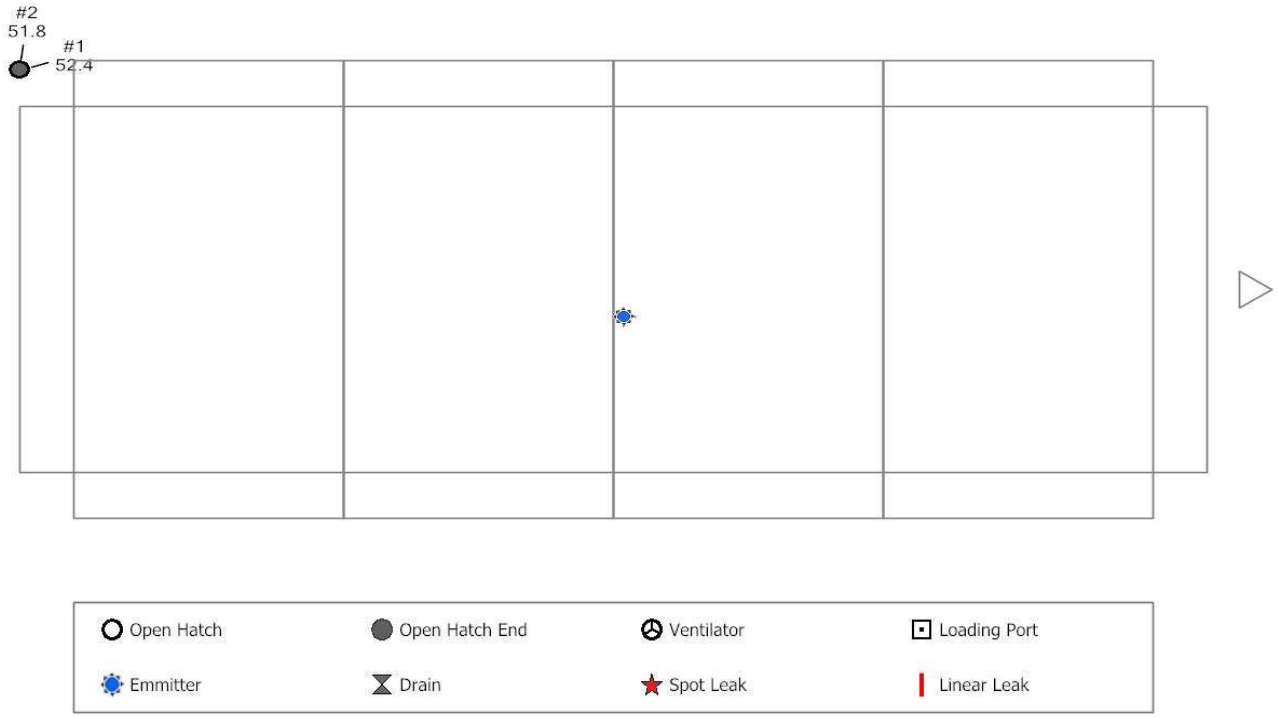
#	Leak type	dBµV	A	Sensor #	Date/Time measure (LT)	Comment
1	Open Hatch	27.3	70	1151104	2016-05-12 20:03	
2	Spot Leak	0.29	80	1151104	2016-05-12 20:07	TEST NOT PASSED
3	Ventilator	41.6	70	1151104	2016-05-12 20:09	TEST NOT PASSED
4	Drain	19.8	70	1151104	2016-05-12 20:10	TEST PASSED
5	Drain	17.6	70	1151104	2016-05-12 20:11	TEST PASSED
6	Drain	43.4	50	1151104	2016-05-12 20:13	TEST PASSED
7	Spot Leak	9.8	80	1151104	2016-05-12 20:14	TEST NOT PASSED
8	Drain	21.7	80	1151104	2016-05-12 20:16	TEST PASSED
9	Drain	13.4	90	1151104	2016-05-12 20:18	TEST PASSED
10	Linear Leak	17.3	80	1151104	2016-05-12 20:22	TEST NOT PASSED
11	Linear Leak	6.0	90	1151104	2016-05-12 20:27	TEST NOT PASSED
12	Drain	25.5	70	1151104	2016-05-12 20:32	TEST PASSED
13	Open Hatch End	23.1	70	1151104	2016-05-12 20:35	

2nd Hatch Cover Test Report C.H. No.1 after the repairs - Tab 2

Vessel Name	XXXX	**Operator name**	ANTONIO PUGLIESE
IMO n°	XXXX	**Operator certificate n°**	SDT15121246
Port	XXXX	**Sherlog serial n°**	270140311
Start Date	2016-05-14 11:40	**Calibration date**	2015-07-29
End Date	2016-05-14 12:07	**Hatch Type**	**Folding type**

Functional test transmitter (dbµV)							
1	2	3	4	5	6	7	8
74.2	78.5	76.6	77.4	76.9	78.3	78.7	77.8

Hold n°	1
Hatch n°	1 - 0



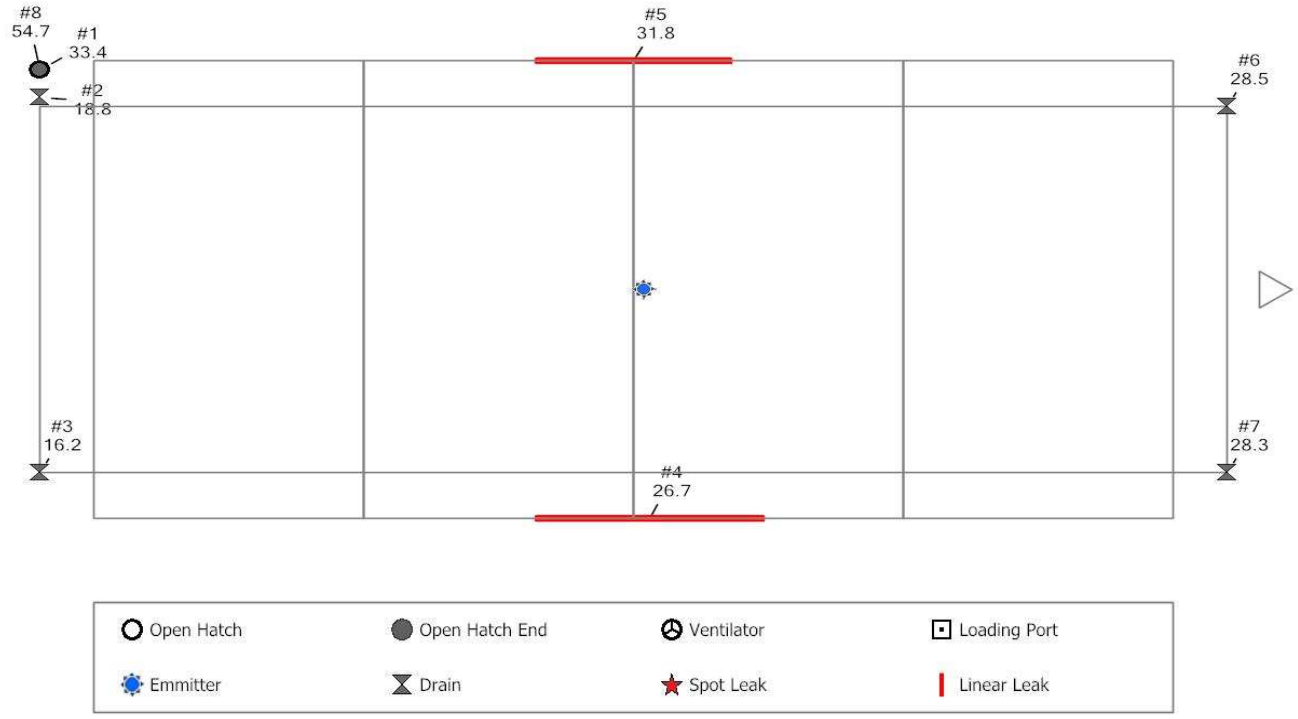
#	Leak type	dBµV	A	Sensor #	Date/Time measure (LT)	Comment
1	Open Hatch	52.4	40	0	2016-05-14 11:43	
2	Open Hatch End	51.8	60	0	2016-05-14 12:07	

1st Hatch Cover Initially Test Report C.H. No. 2 - Tab 3

Vessel Name	XXXX	**Operator name**	ANTONIO PUGLIESE
IMO n°	XXXX	**Operator certificate n°**	SDT15121246
Port	XXXX	**Sherlog serial n°**	270140311
Start Date	2016-05-13 14:49	**Calibration date**	2015-07-29
End Date	2016-05-13 15:20	**Hatch Type**	**Folding type**

Functional test transmitter (dbµV)							
1	2	3	4	5	6	7	8
97.1	113.3	114.4	106.5	114.1	110.4	91.1	120.2

Hold n°	2
Hatch n°	2 - 0



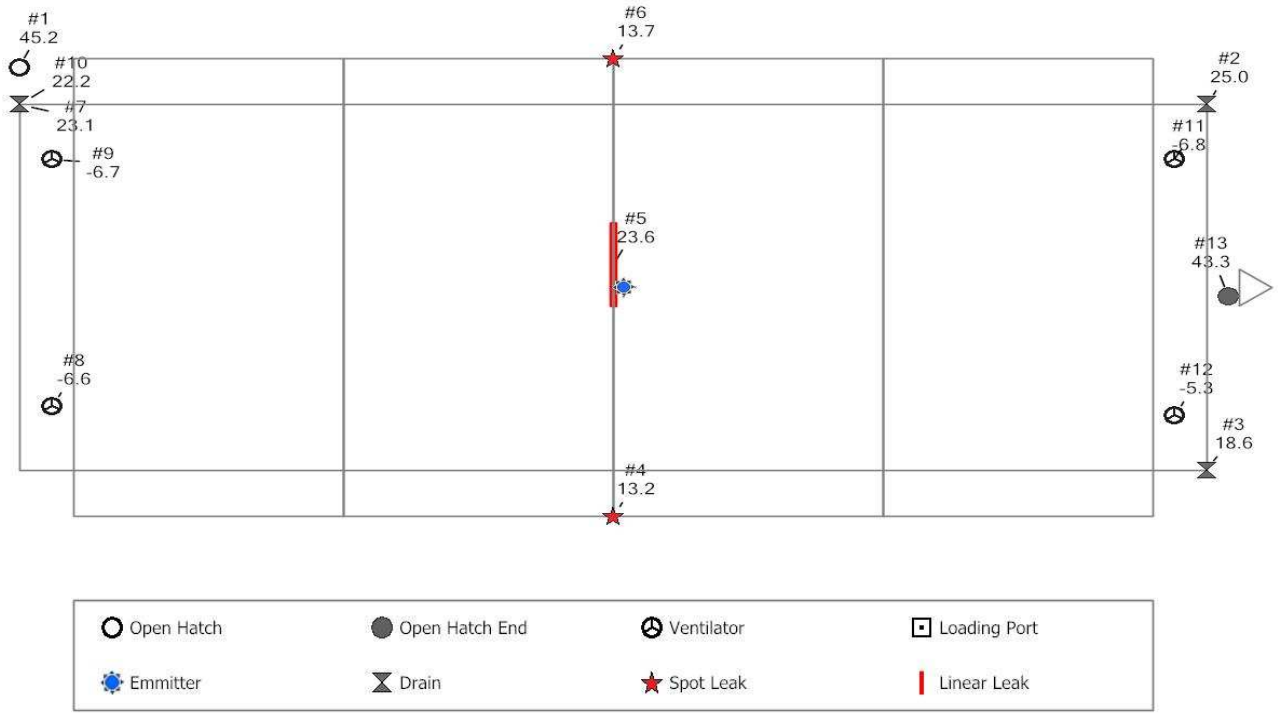
#	Leak type	dBµV	A	Sensor #	Date/Time measure (LT)	Comment
1	Open Hatch	33.4	80	1151104	2016-05-13 14:55	
2	Drain	18.8	80	1151104	2016-05-13 14:59	TEST PASSED
3	Drain	16.2	80	1151104	2016-05-13 15:00	TEST PASSED
4	Linear Leak	26.7	70	1151104	2016-05-13 15:04	TEST NOT PASSED
5	Linear Leak	31.8	70	1151104	2016-05-13 15:07	TEST NOT PASSED
6	Drain	28.5	70	1151104	2016-05-13 15:12	TEST PASSED
7	Drain	28.3	70	1151104	2016-05-13 15:16	TEST PASSED
8	Open Hatch End	54.7	40	1151104	2016-05-13 15:19	

2nd Hatch Cover Test Report C.H. No.2 - after the partially repairs - Tab 4

Vessel Name	XXXX	**Operator name**	ANTONIO PUGLIESE
IMO n°	XXXX	**Operator certificate n°**	SDT15121246
Port	XXXX	**Sherlog serial n°**	270140311
Start Date	2016-05-14 17:08	**Calibration date**	2015-07-29
End Date	2016-05-14 18:39	**Hatch Type**	**Folding type**

Functional test transmitter (dbµV)							
1	2	3	4	5	6	7	8
94.0	117.4	104.0	101.2	113.0	90.7	109.1	113.7

Hold n°	2
Hatch n°	2 - 0



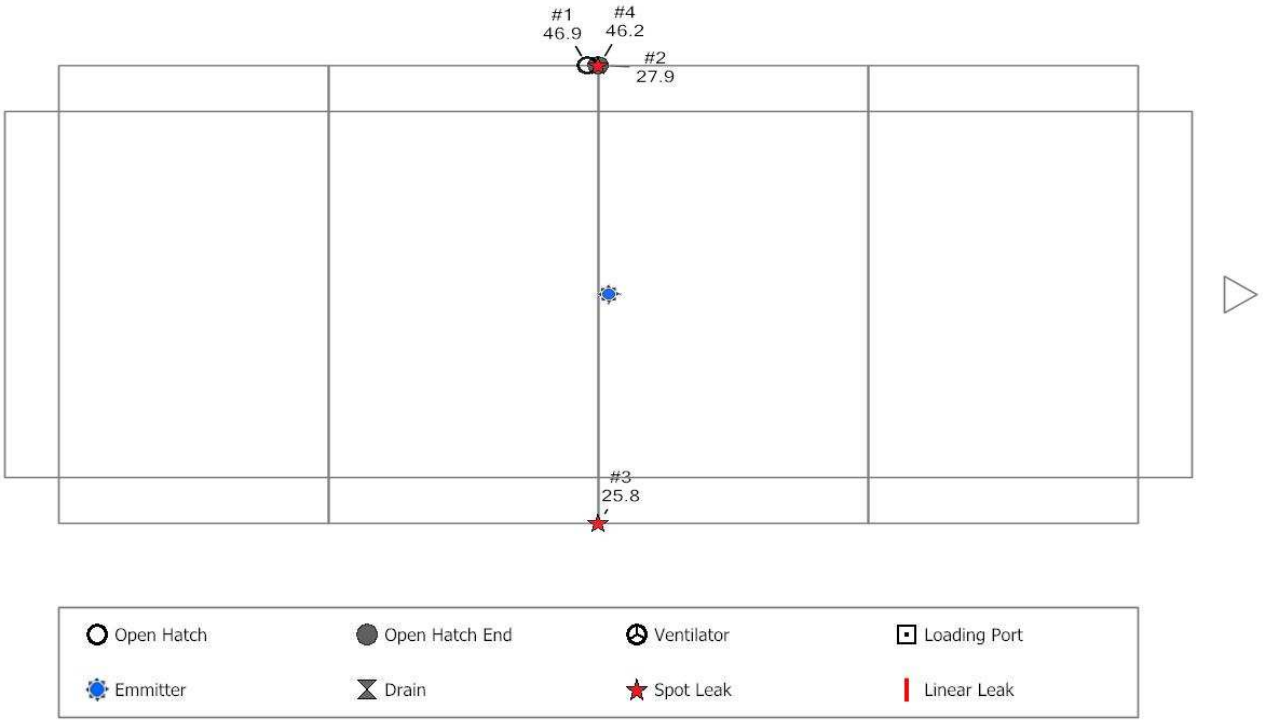
#	Leak type	dBµV	A	Sensor #	Date/Time measure (LT)	Comment
1	Open Hatch	45.2	50	1151104	2016-05-14 17:14	
2	Drain	25.0	70	1151104	2016-05-14 17:16	TEST PASSED
3	Drain	18.6	70	1151104	2016-05-14 17:18	TEST PASSED
4	Spot Leak	13.2	80	1151104	2016-05-14 17:20	LEAK REDUCED from linear to spot
5	Linear Leak	23.6	60	1151104	2016-05-14 17:23	TEST NOT PASSED
6	Spot Leak	13.7	80	1151104	2016-05-14 17:25	LEAK REDUCED from linear to spot
7	Drain	23.1	80	1151104	2016-05-14 17:33	TEST PASSED
8	Ventilator	0.6	80	1151104	2016-05-14 17:33	TEST PASSED
9	Ventilator	0.7	90	1151104	2016-05-14 17:34	TEST PASSED
10	Drain	22.2	80	1151104	2016-05-14 17:34	TEST PASSED
11	Ventilator	0.8	90	1151104	2016-05-14 17:36	TEST PASSED
12	Ventilator	0.3	90	1151104	2016-05-14 17:36	TEST PASSED
13	Open Hatch End	43.3	70	1151104	2016-05-14 17:37	

3rd Hatch Cover Test Report C.H. No.2 - after the final repairs - Tab 5

Vessel Name	XXXX	**Operator name**	ANTONIO PUGLIESE
IMO n°	XXXX	**Operator certificate n°**	SDT15121246
Port	XXXX	**Sherlog serial n°**	270140311
Start Date	2016-05-15 10:08	**Calibration date**	2015-07-29
End Date	2016-05-15 10:47	**Hatch Type**	**Folding type**

Functional test transmitter (dbµV)							
1	2	3	4	5	6	7	8
101.7	104.9	111.0	98.7	90.1	97.3	108.7	103.3

Hold n°	2
Hatch n°	2 - 0



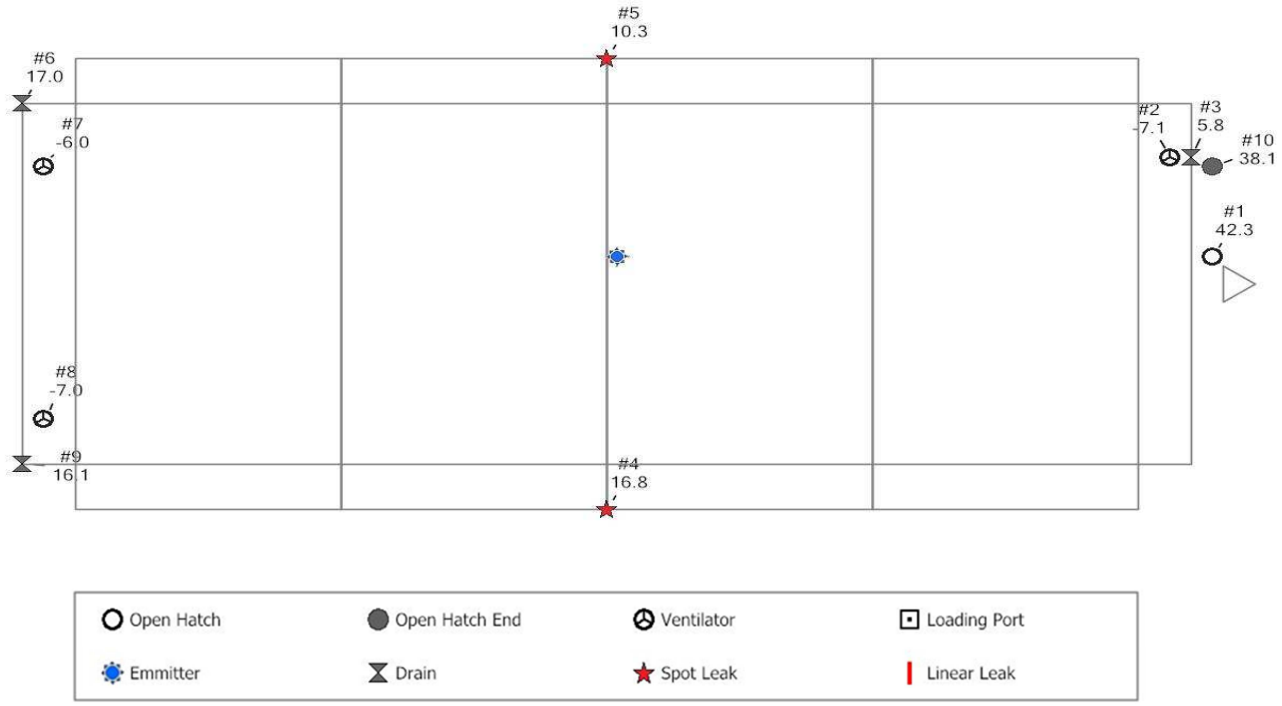
#	Leak type	dBµV	A	Sensor #	Date/Time measure (LT)	Comment
1	Open Hatch	46.9	50	1151104	2016-05-15 10:22	
2	Spot Leak	27.9	60	1151104	2016-05-15 10:24	LEAK REDUCED from linear to spot
3	Spot Leak	25.8	60	1151104	2016-05-15 10:25	LEAK REDUCED from linear to spot
4	Open Hatch End	46.2	60	1151104	2016-05-15 10:28	

1st Sherlog Hatch Cover Test Report C.H. No.3 - Tab 6

Vessel Name	XXXX	**Operator name**	ANTONIO PUGLIESE
IMO n°	XXXX	**Operator certificate n°**	SDT15121246
Port	XXXX	**Sherlog serial n°**	270140311
Start Date	2016-05-14 18:22	**Calibration date**	2015-07-29
End Date	2016-05-14 18:39	**Hatch Type**	**Folding type**

Functional test transmitter (dbµV)							
1	2	3	4	5	6	7	8
94.0	117.4	104.0	101.2	113.0	90.7	109.1	113.7

Hold n°	3
Hatch n°	3 - 0



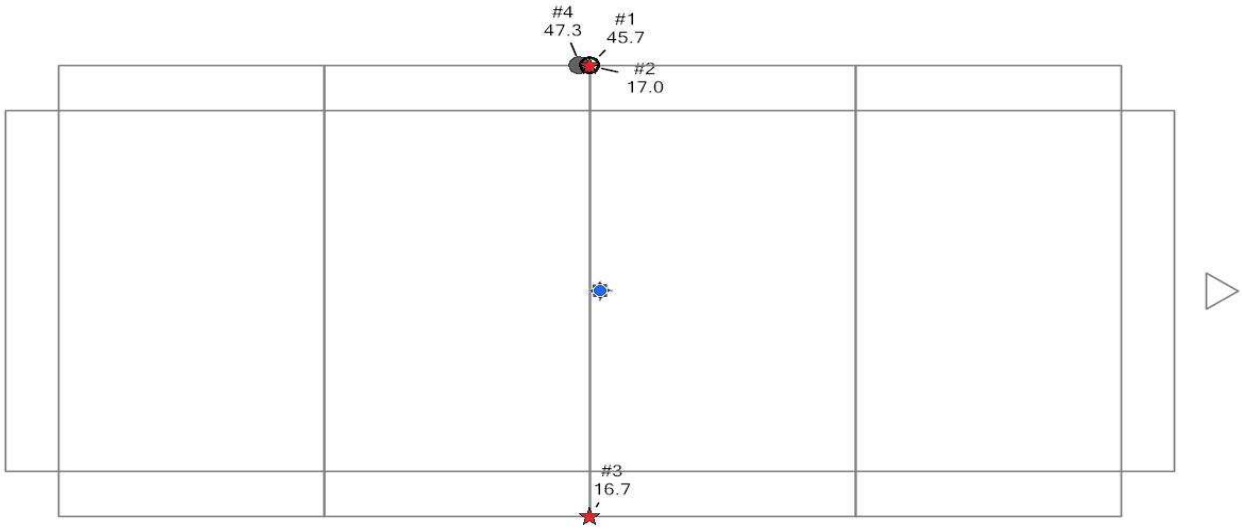
#	Leak type	dBµV	A	Sensor #	Date/Time measure (LT)	Comment
1	Open Hatch	42.3	50	1151104	2016-05-14 18:22	
2	Ventilator	0.1	90	1151104	2016-05-14 18:24	TEST PASSED
3	Drain	5.8	90	1151104	2016-05-14 18:24	TEST PASSED
4	Spot Leak	16.8	80	1151104	2016-05-14 18:27	TEST NOT PASSED
5	Spot Leak	10.3	90	1151104	2016-05-14 18:28	TEST NOT PASSED
6	Drain	17.0	80	1151104	2016-05-14 18:32	TEST PASSED
7	Ventilator	0.0	80	1151104	2016-05-14 18:32	TEST PASSED
8	Ventilator	0.0	90	1151104	2016-05-14 18:33	TEST PASSED
9	Drain	16.1	90	1151104	2016-05-14 18:34	TEST PASSED
10	Open Hatch End	38.1	60	1151104	2016-05-14 18:36	

2nd Hatch Cover Test Report C.H. No.3 – after reapairs Tab 7

Vessel Name	XXXX	**Operator name**	ANTONIO PUGLIESE
IMO n°	XXXX	**Operator certificate n°**	SDT15121246
Port	XXXX	**Sherlog serial n°**	270140311
Start Date	2016-05-15 10:08	**Calibration date**	2015-07-29
End Date	2016-05-15 10:47	**Hatch Type**	**Folding type**

Functional test transmitter (dbµV)							
1	2	3	4	5	6	7	8
101.7	104.9	111.0	98.7	90.1	97.3	108.7	103.3

Hold n°	3
Hatch n°	3 - 0



#	Leak type	dBµV	A	Sensor #	Date/Time measure (LT)	Comment
1	Open Hatch	45.7	50	1151104	2016-05-15 10:42	
2	Spot Leak	17.0	70	1151104	2016-05-15 10:44	TEST NOT PASSED
3	Spot Leak	16.7	80	1151104	2016-05-15 10:45	TEST NOT PASSED
4	Open Hatch End	47.3	70	1151104	2016-05-15 10:46	

Comment
Cargo Hold No.1 after repairs can be considered weathertight.
Cargo Holds No.2 - 3 at present time with temporary repairs can be considered partially weathertight, therefore new spare parts are necessaries in order to reach the full weathertight condition.
Inspection done without prejudice and in good faith.

The surveyor
Antonio Pugliese