Reporting and Analysis of Thickness Measurement Data-2.2.0	Alva	Print-out date: 6/27/2022

Thickness Measurement Report

for

Alva

Revision	
Author	TOMRA
Date	6/27/2022
Notes	Color codes used in this document: • (RED) = Subject to Renewal • (YELLOW) = Suspect • (ORANGE) = Data to be checked - could be incomplete or inconsistent

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - Survey General Data

Field	Symbol	Unit	Value	Remarks
Ship Identification				
Ship Name			Alva	
RI Number			90377	
Ship Builder			J.J SIETAS GmbH and Co. Hamburg	
IMO Number			6808090	
Ship Flag			St. Vincent and the Grenadies	
File Number			2017/XP/01/407	
Contract Date			Mon Jan 1 1968	
Ship Data				
Ship Length	L	[m]	68.000	
Service Notation			Dry Cargo/General Cargo Ship	
Material Yield Strength at Deck	$R_{eH,DECK}$	[N/mm^2]	235.000	
Spacing of Longitudinals at Deck		[m]	0.000	
Material Yield Strength at Bottom	$R_{eH,BOTTOM}$	[N/mm^2]	235.000	
Spacing of Longitudinals at Bottom		[m]	0.000	
Reserve Thickness	$t_{RESERVE}$	[mm]	0.500	
Survey Info				
Survey Location			Szczecin, Poland	
Thickness Measurements Carried Out From - To			Mon Feb 20 2017 - Thu Jul 20 2017	
Operator's Name			P. Wincior / T. Lampka	
Operator's Company			KONSTAL Sp. z o.o.	
Surveyor's Name			A. Miler	
Notes				

THICKNESS MEASUREMENT WORKSHEETS

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - Worksheet Contents

TM1-G - All Deck Plating, All Bottom Shell Plating or Side Shell Plating			
Ship's name and RINA number	Alva, RI: 90377		
LIST OF TABLES IN WORKSHEET			
Table	Description		
0 table(s) in worksheet			
Operator	P. Wincior / T. Lampka	RINA Surveyor	A. Miler

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - Worksheet Contents

TM2-G (I) - Shell and Deck Plating/Strength Deck and Sheerstrake Plating (one, two or three sections)			
Ship's name and RINA number	Alva, RI: 90377		
LIST OF TABLES IN WORKSHEET			
Table	Description		
0 table(s) in worksheet			
Operator	P. Wincior / T. Lampka	RINA Surveyor	A. Miler

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - Worksheet Contents

TM2-G (II) - Shell and Deck Plating/Shell Plating (one, two or three sections)			
Ship's name and RINA number	Alva, RI: 90377		
LIST OF TABLES IN WORKSHEET			
Table	Description		
0 table(s) in worksheet			
Operator	P. Wincior / T. Lampka	RINA Surveyor	A. Miler

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - Worksheet Contents

TM3-G - Longitudinal Members			
Ship's name and RINA number	Alva, RI: 90377		
LIST OF TABLES IN WORKSHEET			
Table	Description		
Afterpeak tk. - Long. members i.w.o. frame 3 & 4 (Sketch 13)			
DB WBT No.4 - Long.members i.w.o. frame 23, 27 & 35 (Sketch 18)			
DB WBT No.4 - Long.members i.w.o. frame 31 (Sketch 18)			
DB WBT No.3 -Long.members i.w.o. frame 41 (Sketch 19)			
DB WBT No.3 - Long.members i.w.o. frame 42, 43 & 47 (Sketch 20)			
DB WBT No.3 - Long. members i.w.o. frame 51(Sketch 19)			
DB WBT No.2 - Long. members i.w.o. frame 59 (Sketch 21)			
DB WBT No.2 - Long.members i.w.o. frame 63, 67 & 71 (Sketch 22)			
DB WBT No.1 - Long.members i.w.o. frame 78, 81 & 84 (Sketch 23)			
DB WBT No.1 - Long. members i.w.o. frame 87 (Sketch 24)			
10 table(s) in worksheet			
Operator	P. Wincior / T. Lampka	RINA Surveyor	A. Miler

RINA	Alva	Print-out date: 6/27/2022

Thickness Measurement Report - TM3

THICKNESS MEASUREMENT OF LONGITUDINAL MEMBERS (one, two or three transverse section)

Ship's name and RINA number	Alva, RI: 90377	Sheet	1	of	10

STRUCTURAL MEMBER	TRANSVERSE SECTION AT FRAME N°.: 3										TRANSVERSE SECTION AT FRAME N°.: 4										TRANSVERSE SECTION AT FRAME N°.:									
	N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S						P	S	P		S						P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Bottom Plating	S1	10.50	10.50	2.10	9.70	9.10	0.80	7.62	1.40	13.33	S1	10.50	10.50	2.10	10.10	9.10	0.40	3.81	1.40	13.33	S1	0.00	0.00	0.00						
Bottom Plating	S2	10.50	10.50	2.10	9.50	9.60	1.00	9.52	0.90	8.57	S2	10.50	10.50	2.10	9.70	9.40	0.80	7.62	1.10	10.48	S2	0.00	0.00	0.00						
Bottom Plating	S3	10.50	10.50	2.10	9.50	9.50	1.00	9.52	1.00	9.52	S3	10.50	10.50	2.10	9.70	9.20	0.80	7.62	1.30	12.38	S3	0.00	0.00	0.00						
Bottom Plating	IB1	7.50	7.50	1.50	5.60	5.90	1.90	25.33	1.60	21.33	IB1	7.50	7.50	1.50	5.50	6.00	2.00	26.67	1.50	20.00	IB1	0.00	0.00	0.00						
Bottom Plating	IB2	7.50	7.50	1.50	5.40	6.20	2.10	28.00	1.30	17.33	IB2	7.50	7.50	1.50	5.60	6.40	1.90	25.33	1.10	14.67	IB2	0.00	0.00	0.00						
Bottom Plating	IB3	7.50	7.50	1.50	5.70	6.10	1.80	24.00	1.40	18.67	IB3	7.50	7.50	1.50	5.60	6.00	1.90	25.33	1.50	20.00	IB3	0.00	0.00	0.00						
Longitudinal Girder	LB0	7.50	7.50	1.50	4.65		2.85	38.00			LB0	0.00	0.00	0.00							LB0	0.00	0.00	0.00						
Operator		P. Wincior / T. Lampka													RINA Surveyor						A. Miler									

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.

* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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Thickness Measurement Report - TM3

THICKNESS MEASUREMENT OF LONGITUDINAL MEMBERS (one, two or three transverse section)

Ship's name and RINA number	Alva, RI: 90377	Sheet	2	of	10

STRUCTURAL MEMBER	TRANSVERSE SECTION AT FRAME N°.: 35										TRANSVERSE SECTION AT FRAME N°.: 23										TRANSVERSE SECTION AT FRAME N°.: 27									
	N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S						P	S	P		S							P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Bottom Girder	BG1	7.50	7.50	1.50	7.65	7.60	0.00	0.00	0.00	0.00	BG1	7.50	7.50	1.50		7.80			0.00	0.00	BG1	7.50	7.50	1.50	7.75	7.65	0.00	0.00	0.00	0.00
Bottom Plating	A	9.50	9.50	1.90	9.20	9.10	0.30	3.16	0.40	4.21	A	9.50	9.50	1.90	9.50	9.00	0.00	0.00	0.50	5.26	A	9.50	9.50	1.90	9.60	8.10	0.00	0.00	1.40	14.74
Bottom Plating	B	9.50	9.50	1.90	9.40	8.90	0.10	1.05	0.60	6.32	B	9.50	9.50	1.90	9.50	9.40	0.00	0.00	0.10	1.05	B	9.50	9.50	1.90	9.50	9.70	0.00	0.00	0.00	0.00
Bottom Plating	C	9.50	9.50	1.90	9.30	9.20	0.20	2.11	0.30	3.16	C	9.50	9.50	1.90	9.40	9.40	0.10	1.05	0.10	1.05	C	9.50	9.50	1.90	9.70	8.80	0.00	0.00	0.70	7.37
Inner Bottom	IB1	7.00	7.00	1.40	6.75	6.75	0.25	3.57	0.25	3.57	IB1	7.00	7.00	1.40	7.00	7.20	0.00	0.00	0.00	0.00	IB1	7.00	7.00	1.40	6.90	7.00	0.10	1.43	0.00	0.00
Inner Bottom	IB2	7.00	7.00	1.40							IB2	7.00	7.00	1.40	6.90	6.80	0.10	1.43	0.20	2.86	IB2	7.00	7.00	1.40	7.00	7.00	0.00	0.00	0.00	0.00
Operator		P. Wincior / T. Lampka														RINA Surveyor						A. Miler								

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* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF LONGITUDINAL MEMBERS (one, two or three transverse section)

Ship's name and RINA number	Alva, RI: 90377	Sheet	3	of	10

STRUCTURAL MEMBER	TRANSVERSE SECTION AT FRAME N°.: 31										TRANSVERSE SECTION AT FRAME N°.:										TRANSVERSE SECTION AT FRAME N°.:									
	N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S						P	S	P		S						P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Bottom Girder	BG1	7.50	7.50	1.50	7.80	7.80	0.00	0.00	0.00	0.00	BG1	0.00	0.00	0.00							BG1	0.00	0.00	0.00						
Bottom Plating	A	9.50	9.50	1.90	9.30	9.50	0.20	2.11	0.00	0.00	A	0.00	0.00	0.00							A	0.00	0.00	0.00						
Bottom Plating	B	9.50	9.50	1.90	9.50	9.40	0.00	0.00	0.10	1.05	B	0.00	0.00	0.00							B	0.00	0.00	0.00						
Bottom Plating	C	9.50	9.50	1.90	9.40	9.40	0.10	1.05	0.10	1.05	C	0.00	0.00	0.00							C	0.00	0.00	0.00						
Inner Bottom	IB1	7.00	7.00	1.40	6.90	7.00	0.10	1.43	0.00	0.00	IB1	0.00	0.00	0.00							IB1	0.00	0.00	0.00						
Inner Bottom	IB2	7.00	7.00	1.40	7.00	6.80	0.00	0.00	0.20	2.86	IB2	0.00	0.00	0.00							IB2	0.00	0.00	0.00						
Operator		P. Wincior / T. Lampka											RINA Surveyor								A. Miler									

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THICKNESS MEASUREMENT OF LONGITUDINAL MEMBERS (one, two or three transverse section)																													
Ship's name and RINA number		Alva, RI: 90377																			Sheet		4	of	10				
STRUCTURAL MEMBER	TRANSVERSE SECTION AT FRAME N°.: 41										TRANSVERSE SECTION AT FRAME N°.:										TRANSVERSE SECTION AT FRAME N°.:									
	N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S						P	S	P		S						P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Bottom Plating	A	9.50	9.50	1.90	9.50	6.67	0.00	0.00	2.83	29.82	A	0.00	0.00	0.00							A	0.00	0.00	0.00						
Bottom Plating	B	9.50	9.50	1.90	9.30	9.50	0.20	2.11	0.00	0.00	B	0.00	0.00	0.00							B	0.00	0.00	0.00						
Bottom Plating	C	9.50	9.50	1.90	7.30	9.00	2.20	23.16	0.50	5.26	C	0.00	0.00	0.00							C	0.00	0.00	0.00						
Operator		P. Wincior / T. Lampka														RINA Surveyor					A. Miler								

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
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THICKNESS MEASUREMENT OF LONGITUDINAL MEMBERS (one, two or three transverse section)																																	
Ship's name and RINA number		Alva, RI: 90377																				Sheet		5	of	10							
STRUCTURAL MEMBER	TRANSVERSE SECTION AT FRAME N°.: 42										TRANSVERSE SECTION AT FRAME N°.: 43										TRANSVERSE SECTION AT FRAME N°.: 47											
	N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution					
					P	S	P		S						P	S	P		S						P	S	P		S			
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Bottom Plating	A	9.50	9.50	1.90	9.50		0.00	0.00			A	9.50	9.50	1.90	9.50	9.50	0.00	0.00	0.00	0.00	A	9.50	9.50	1.90	9.95	9.90	0.00	0.00	0.00	0.00		
Bottom Plating	B	9.50	9.50	1.90	9.50	10.00	0.00	0.00	0.00	0.00	B	9.50	9.50	1.90	9.70	10.00	0.00	0.00	0.00	0.00	B	9.50	9.50	1.90	9.90	9.90	0.00	0.00	0.00	0.00		
Bottom Plating	C	9.50	9.50	1.90	8.50	9.00	1.00	10.53	0.50	5.26	C	9.50	9.50	1.90	8.20	8.63	1.30	13.68	0.87	9.12	C	9.50	9.50	1.90	7.85	8.20	1.65	17.37	1.30	13.68		
Operator		P. Wincior / T. Lampka														RINA Surveyor					A. Miler											

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
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THICKNESS MEASUREMENT OF LONGITUDINAL MEMBERS (one, two or three transverse section)

Ship's name and RINA number	Alva, RI: 90377	Sheet	6	of	10

STRUCTURAL MEMBER	TRANSVERSE SECTION AT FRAME N°.: 51										TRANSVERSE SECTION AT FRAME N°.:										TRANSVERSE SECTION AT FRAME N°.:									
	N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S						P	S	P		S						P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Bottom Plating	A	9.50	9.50	1.90	9.70	9.80	0.00	0.00	0.00	0.00	A	0.00	0.00	0.00							A	0.00	0.00	0.00						
Bottom Plating	B	9.50	9.50	1.90	9.50	9.70	0.00	0.00	0.00	0.00	B	0.00	0.00	0.00							B	0.00	0.00	0.00						
Bottom Plating	C	9.50	9.50	1.90	8.45	8.07	1.05	11.05	1.43	15.09	C	0.00	0.00	0.00							C	0.00	0.00	0.00						
Operator		P. Wincior / T. Lampka														RINA Surveyor					A. Miler									

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
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THICKNESS MEASUREMENT OF LONGITUDINAL MEMBERS (one, two or three transverse section)																															
Ship's name and RINA number		Alva, RI: 90377																				Sheet		7	of	10					
STRUCTURAL MEMBER	TRANSVERSE SECTION AT FRAME N°.: 59										TRANSVERSE SECTION AT FRAME N°.:										TRANSVERSE SECTION AT FRAME N°.:									
	N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S						P	S	P		S						P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Bottom Plating	A	9.50	9.50	1.90	9.80	9.90	0.00	0.00	0.00	0.00	A	0.00	0.00	0.00							A	0.00	0.00	0.00						
Bottom Plating	B	9.50	9.50	1.90	8.80	9.70	0.70	7.37	0.00	0.00	B	0.00	0.00	0.00							B	0.00	0.00	0.00						
Bottom Plating	C	9.50	9.50	1.90	8.50	9.03	1.00	10.53	0.47	4.91	C	0.00	0.00	0.00							C	0.00	0.00	0.00						
Operator		P. Wincior / T. Lampka														RINA Surveyor					A. Miler									

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THICKNESS MEASUREMENT OF LONGITUDINAL MEMBERS (one, two or three transverse section)																															
Ship's name and RINA number		Alva, RI: 90377																				Sheet		8	of	10					
STRUCTURAL MEMBER	TRANSVERSE SECTION AT FRAME N°.: 63										TRANSVERSE SECTION AT FRAME N°.: 67										TRANSVERSE SECTION AT FRAME N°.: 71									
	N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S						P	S	P		S						P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Bottom Plating	FK	12.50	12.50	2.50	13.80	13.60	0.00	0.00	0.00	0.00	FK	12.50	12.50	2.50	13.50		0.00	0.00			FK	12.50	12.50	2.50	13.60		0.00	0.00		
Bottom Plating	A	11.50	11.50	2.30	9.90	11.80	1.60	13.91	0.00	0.00	A	11.50	11.50	2.30	9.85	11.70	1.65	14.35	0.00	0.00	A	11.50	11.50	2.30	9.80	12.00	1.70	14.78	0.00	0.00
Bottom Plating	B	9.50	9.50	1.90	9.90	9.90	0.00	0.00	0.00	0.00	B	11.50	11.50	2.30	9.90	10.00	1.60	13.91	1.50	13.04	B	11.50	11.50	2.30	10.20	11.40	1.30	11.30	0.10	0.87
Bottom Plating	C	9.50	9.50	1.90	7.85	8.03	1.65	17.37	1.47	15.53	C	12.00	12.00	2.40	9.90	10.20	2.10	17.50	1.80	15.00	C	12.00	12.00	2.40	10.20	9.90	1.80	15.00	2.10	17.50
Operator		P. Wincior / T. Lampka														RINA Surveyor						A. Miler								

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	Alva	Print-out date: 6/27/2022

Thickness Measurement Report - TM3

THICKNESS MEASUREMENT OF LONGITUDINAL MEMBERS (one, two or three transverse section)

Ship's name and RINA number	Alva, RI: 90377	Sheet	9	of	10

STRUCTURAL MEMBER	TRANSVERSE SECTION AT FRAME N°.: 78										TRANSVERSE SECTION AT FRAME N°.: 81										TRANSVERSE SECTION AT FRAME N°.: 84									
	N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S						P	S	P		S						P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Bottom Plating	FK	12.50	12.50	2.50	12.40	11.80	0.10	0.80	0.70	5.60	FK	13.50	13.50	2.70	13.00		0.50	3.70			FK	13.50	13.50	2.70	13.20		0.30	2.22		
Bottom Plating	A	11.50	11.50	2.30	12.00	11.90	0.00	0.00	0.00	0.00	A	12.00	12.00	2.40	11.50	11.80	0.50	4.17	0.20	1.67	A	12.00	12.00	2.40	11.20	11.40	0.80	6.67	0.60	5.00
Bottom Plating	B	11.50	11.50	2.30	11.40	11.00	0.10	0.87	0.50	4.35	B	13.50	13.50	2.70	12.00	12.40	1.50	11.11	1.10	8.15	B	13.50	13.50	2.70	10.90	10.80	2.60	19.26	2.70	20.00
Bottom Plating	C	12.00	12.00	2.40	10.20	11.05	1.80	15.00	0.95	7.92	C	13.50	13.50	2.70	13.10	13.00	0.40	2.96	0.50	3.70	C	13.50	13.50	2.70	12.35	12.60	1.15	8.52	0.90	6.67
Bottom Longitudinal	BL1	7.00	7.00	1.40	6.60	8.00	0.40	5.71	0.00	0.00	BL1	7.00	7.00	1.40	6.50	8.50	0.50	7.14	0.00	0.00	BL1	6.60	8.80	1.76						
Bottom Longitudinal	BL2	7.00	7.00	1.40	6.10	7.80	0.90	12.86	0.00	0.00	BL2	7.00	7.00	1.40	6.10	8.20	0.90	12.86	0.00	0.00	BL2	6.10	6.40	1.28						
Bottom Longitudinal	BL3	7.00	7.00	1.40	7.00	6.60	0.00	0.00	0.40	5.71	BL3	7.00	7.00	1.40	7.20	7.20	0.00	0.00	0.00	0.00	BL3	7.30	7.60	1.52						
Bottom Longitudinal	BL4	7.00	7.00	1.40	6.80	6.30	0.20	2.86	0.70	10.00	BL4	0.00	0.00	0.00							BL4	0.00	0.00	0.00						
Operator		P. Wincior / T. Lampka													RINA Surveyor						A. Miler									

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.

* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	Alva	Print-out date: 6/27/2022

Thickness Measurement Report - TM3

THICKNESS MEASUREMENT OF LONGITUDINAL MEMBERS (one, two or three transverse section)

Ship's name and RINA number	Alva, RI: 90377	Sheet	10	of	10

STRUCTURAL MEMBER	TRANSVERSE SECTION AT FRAME N°.: 87										TRANSVERSE SECTION AT FRAME N°.:										TRANSVERSE SECTION AT FRAME N°.:									
	N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				N. or letter	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S						P	S	P		S						P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Bottom Plating	FK	13.50	13.50	2.70	13.10		0.40	2.96			FK	0.00	0.00	0.00							FK	0.00	0.00	0.00						
Bottom Plating	A	12.00	12.00	2.40	11.05	11.15	0.95	7.92	0.85	7.08	A	0.00	0.00	0.00							A	0.00	0.00	0.00						
Bottom Plating	B	13.00	13.00	2.60	12.90	13.10	0.10	0.77	0.00	0.00	B	0.00	0.00	0.00							B	0.00	0.00	0.00						
Bottom Longitudinal	BL1	7.00	7.00	1.40	6.50	8.90	0.50	7.14	0.00	0.00	BL1	0.00	0.00	0.00							BL1	0.00	0.00	0.00						
Bottom Longitudinal	BL2	7.00	7.00	1.40	7.60	7.70	0.00	0.00	0.00	0.00	BL2	0.00	0.00	0.00							BL2	0.00	0.00	0.00						

Operator	P. Wincior / T. Lampka	RINA Surveyor	A. Miler

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - Worksheet Contents

TM4-G - Transverse Structural Members in Double Bottom, Hopper Side, Topside and Wing Water Ballast Tank			
Ship's name and RINA number	Alva, RI: 90377		
LIST OF TABLES IN WORKSHEET			
Table	Description		
DB WBT No.4 (Sketch 18)			
DB WBT No.4 (Sketch 18)			
DB WBT No.4 (Sketch 18)			
DB WBT No.4 (Sketch 18)			
DB WBT No.3 (Sketch 19)			
DB WBT No.3 (Sketch 20)			
DB WBT No.3 (Sketch 20)			
DB WBT No.3 (Sketch 20)			
DB WBT No.3 (Sketch 19)			
DB WBT No.2 (Sketch 21)			
DB WBT No.2 (Sketch 22)			
DB WBT No.2 (Sketch 22)			
DB WBT No.2 (Sketch 22)			
DB WBT No.2 (Sketch 22)			
DB WBT No.1 (Sketch 23)			
DB WBT No.1 (Sketch 23)			
DB WBT No.1 (Sketch 23)			
DB WBT No.1 (Sketch 24)			
18 table(s) in worksheet			
Operator	P. Wincior / T. Lampka	RINA Surveyor	A. Miler

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM4

THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN BALLAST TANKS AND CARGO COMPARTMENTS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	1	of	18
TANK DESCRIPTION	DB WBT No.4 (Sketch 18)									
LOCATION OF STRUCTURE	DB WBT No.4									
STRUCTURAL MEMBER	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Floor Plating FR. 23	**Item item**	8.00	8.00	2.00	7.53	7.50	0.47	5.83	0.50	6.25
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM4

THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN BALLAST TANKS AND CARGO COMPARTMENTS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	2	of	18
TANK DESCRIPTION	DB WBT No.4 (Sketch 18)									
LOCATION OF STRUCTURE	DB WBT No. 4									
STRUCTURAL MEMBER	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Floor Plating FR. 27	**Item item**	8.00	8.00	2.00	7.53	7.57	0.47	5.83	0.43	5.42
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM4

THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN BALLAST TANKS AND CARGO COMPARTMENTS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	3	of	18
TANK DESCRIPTION	DB WBT No.4 (Sketch 18)									
LOCATION OF STRUCTURE	DB WBT No.4									
STRUCTURAL MEMBER	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Floor Plating FR. 31	**Item item**	8.00	8.00	2.00	7.53	7.50	0.47	5.83	0.50	6.25
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM4

THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN BALLAST TANKS AND CARGO COMPARTMENTS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	4	of	18
TANK DESCRIPTION	DB WBT No.4 (Sketch 18)									
LOCATION OF STRUCTURE	DB WBT No.4									
STRUCTURAL MEMBER	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Floor Plating FR. 35	**Item item**	8.00	8.00	2.00	7.67	7.85	0.33	4.06	0.15	1.88
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM4

THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN BALLAST TANKS AND CARGO COMPARTMENTS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	5	of	18
TANK DESCRIPTION	DB WBT No.3 (Sketch 19)									
LOCATION OF STRUCTURE	DB WBT No.3									
STRUCTURAL MEMBER	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Floor Plating FR. 41	**Item item**	8.00	8.00	2.00	6.74	6.76	1.26	15.71	1.24	15.54
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM4

THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN BALLAST TANKS AND CARGO COMPARTMENTS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	6	of	18
TANK DESCRIPTION	DB WBT No.3 (Sketch 20)									
LOCATION OF STRUCTURE	DB WBT No.3									
STRUCTURAL MEMBER	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Floor Plating FR. 42	**Item item**	8.00	8.00	2.00	7.01	7.18	0.99	12.36	0.82	10.28
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	Alva	Print-out date: 6/27/2022

Thickness Measurement Report - TM4

THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN BALLAST TANKS AND CARGO COMPARTMENTS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	7	of	18
TANK DESCRIPTION	DB WBT No.3 (Sketch 20)									
LOCATION OF STRUCTURE	DB WBT No.3									
STRUCTURAL MEMBER	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Floor Plating FR. 43	**Item item**	8.00	8.00	2.00	6.92	7.03	1.08	13.47	0.97	12.13
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM4

THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN BALLAST TANKS AND CARGO COMPARTMENTS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	8	of	18
TANK DESCRIPTION	DB WBT No.3 (Sketch 20)									
LOCATION OF STRUCTURE	DB WBT No.3									
STRUCTURAL MEMBER	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Floor Plating FR. 47	**Item item**	8.00	8.00	2.00	7.13	7.41	0.87	10.88	0.59	7.34
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM4

THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN BALLAST TANKS AND CARGO COMPARTMENTS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	9	of	18
TANK DESCRIPTION	DB WBT No.3 (Sketch 19)									
LOCATION OF STRUCTURE	DB WBT No.3									
STRUCTURAL MEMBER	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Floor Plating FR. 51	**Item item**	8.00	8.00	2.00	7.04	7.01	0.96	11.96	0.99	12.32
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM4

THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN BALLAST TANKS AND CARGO COMPARTMENTS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	10	of	18
TANK DESCRIPTION	DB WBT No.2 (Sketch 21)									
LOCATION OF STRUCTURE	DB WBT No.2									
STRUCTURAL MEMBER	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Floor Plating FR. 59	**Item item**	8.00	8.00	2.00	6.91	7.12	1.09	13.63	0.88	11.00
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM4

THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN BALLAST TANKS AND CARGO COMPARTMENTS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	11	of	18
TANK DESCRIPTION	DB WBT No.2 (Sketch 22)									
LOCATION OF STRUCTURE	DB WBT No.2									
STRUCTURAL MEMBER	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Floor Plating FR. 63	**Item item**	8.00	8.00	2.00	7.21	7.14	0.79	9.83	0.86	10.75
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM4

THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN BALLAST TANKS AND CARGO COMPARTMENTS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	12	of	18
TANK DESCRIPTION	DB WBT No.2 (Sketch 22)									
LOCATION OF STRUCTURE	DB WBT No.2									
STRUCTURAL MEMBER	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Floor Plating FR.67	**Item item**	8.00	8.00	2.00	6.80	7.03	1.20	15.00	0.97	12.08
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	Alva	Print-out date: 6/27/2022

Thickness Measurement Report - TM4

THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN BALLAST TANKS AND CARGO COMPARTMENTS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	13	of	18
TANK DESCRIPTION	DB WBT No.2 (Sketch 22)									
LOCATION OF STRUCTURE	DB WBT No.2									
STRUCTURAL MEMBER	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Floor Plating FR.67	**Item item**	8.00	8.00	2.00	0.00	6.34	0.00	0.00	1.66	20.75
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM4

THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN BALLAST TANKS AND CARGO COMPARTMENTS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	14	of	18
TANK DESCRIPTION	DB WBT No.2 (Sketch 22)									
LOCATION OF STRUCTURE	DB WBT No.2									
STRUCTURAL MEMBER	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Floor Plating FR. 71	**Item item**	8.00	8.00	2.00	6.85	6.95	1.15	14.37	1.05	13.08
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM4

THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN BALLAST TANKS AND CARGO COMPARTMENTS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	15	of	18
TANK DESCRIPTION	DB WBT No.1 (Sketch 23)									
LOCATION OF STRUCTURE	DB WBT No.1									
STRUCTURAL MEMBER	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Floor Plating FR. 78	**Item item**	8.00	8.00	2.00	7.47	7.80	0.53	6.67	0.20	2.50
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM4

THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN BALLAST TANKS AND CARGO COMPARTMENTS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	16	of	18
TANK DESCRIPTION	DB WBT No.1 (Sketch 23)									
LOCATION OF STRUCTURE	DB WBT No.1									
STRUCTURAL MEMBER	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Floor Plating FR. 81	**Item item**	8.00	8.00	2.00	7.73	7.62	0.27	3.39	0.38	4.79
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM4

THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN BALLAST TANKS AND CARGO COMPARTMENTS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	17	of	18
TANK DESCRIPTION	DB WBT No.1 (Sketch 23)									
LOCATION OF STRUCTURE	DB WBT No.1									
STRUCTURAL MEMBER	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Floor Plating FR. 84	**Item item**	8.00	8.00	2.00	7.45	7.47	0.55	6.88	0.53	6.67
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM4

THICKNESS MEASUREMENT OF TRANSVERSE STRUCTURAL MEMBERS IN BALLAST TANKS AND CARGO COMPARTMENTS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	18	of	18
TANK DESCRIPTION	DB WBT No.1 (Sketch 24)									
LOCATION OF STRUCTURE	DB WBT No.1									
STRUCTURAL MEMBER	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Floor Plating FR. 87	**Item item**	8.00	8.00	2.00	7.47	7.67	0.53	6.61	0.33	4.17
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - Worksheet Contents

TM5-G - Transverse Bulkheads			
Ship's name and RINA number	Alva, RI: 90377		
LIST OF TABLES IN WORKSHEET			
Table	Description		
Transverse Bulkhead Frame 3 (Sketch 13)			
Transverse Bulkhead Frame 4 (Sketch 13)			
Transverse Bulkhead Frame 20 (Sketch 10)			
Transverse Bulkhead Frame 92 (Sketch 10)			
Transverse Bulkhead Frame 92 (Sketch 10)			
Transverse Bulkhead Frame 19 (Sketch 15)			
Transverse Bulkhead Frame 39 (Sketch 15)			
Transverse Bulkhead Frame 50 (Sketch 14)			
Transverse Bulkhead Frame 51 (Sketch 14)			
Fore Bulkhead at Frame 55 (Sketch 16)			
Fore Bulkhead at Frame 55 (Sketch 16)			
Transverse Bulkhead Frame 59 (Sketch 14)			
Fore Bulkhead at Frame 75 (Sketch 16)			
Fore Bulkhead at Frame 75 (Sketch 16)			
Transverse Bulkhead Frame 96 (Sketch 17)			
Transverse Bulkhead Frame 96 (Sketch 17)			
16 table(s) in worksheet			
Operator	P. Wincior / T. Lampka	RINA Surveyor	A. Miler

RINA	Alva	Print-out date: 6/27/2022

Thickness Measurement Report - TM5

THICKNESS MEASUREMENT OF CARGO HOLDS TRANSVERSE BULKHEADS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	1	of	16
TANK/HOLD DESCRIPTION	Transverse Bulkhead Frame 3 (Sketch 13)									
LOCATION OF STRUCTURE	Afterpeak Tank					FRAME N°	3			
STRUCTURAL COMPONENT (PLATING/STIFFENER)	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Plating	**Item x1 - x19**	7.50	7.50	1.88	5.41	5.43	2.09	27.86	2.07	27.61
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	Alva	Print-out date: 6/27/2022

Thickness Measurement Report - TM5

THICKNESS MEASUREMENT OF CARGO HOLDS TRANSVERSE BULKHEADS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	2	of	16
TANK/HOLD DESCRIPTION	Transverse Bulkhead Frame 4 (Sketch 13)									
LOCATION OF STRUCTURE	Afterpeak					FRAME N°	4			
STRUCTURAL COMPONENT (PLATING/STIFFENER)	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Plating	**Item x1 - x12**	7.50	7.50	1.88	5.42	5.54	2.08	27.73	1.96	26.11
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM5

THICKNESS MEASUREMENT OF CARGO HOLDS TRANSVERSE BULKHEADS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	3	of	16
TANK/HOLD DESCRIPTION	Transverse Bulkhead Frame 20 (Sketch 10)									
LOCATION OF STRUCTURE	Cargo Hold					FRAME N°	20			
STRUCTURAL COMPONENT (PLATING/STIFFENER)	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Plating	**Item x1 - x16**	7.50	7.50	1.88	6.88	6.65	0.62	8.33	0.85	11.38
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM5

THICKNESS MEASUREMENT OF CARGO HOLDS TRANSVERSE BULKHEADS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	4	of	16
TANK/HOLD DESCRIPTION	Transverse Bulkhead Frame 92 (Sketch 10)									
LOCATION OF STRUCTURE	Cargo Hold					FRAME N°	92			
STRUCTURAL COMPONENT (PLATING/STIFFENER)	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Plating	**Item x1 - x15**	7.50	7.50	1.88	7.39	7.69	0.11	1.42	0.00	0.00
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM5

THICKNESS MEASUREMENT OF CARGO HOLDS TRANSVERSE BULKHEADS											
Ship's name and RINA number	Alva, RI: 90377						Sheet	5	of	16	
TANK/HOLD DESCRIPTION	Transverse Bulkhead Frame 92 (Sketch 10)										
LOCATION OF STRUCTURE	Cargo Hold					FRAME N°	92				
STRUCTURAL COMPONENT (PLATING/STIFFENER)	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				
					P	S	P		S		
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	
Plating	**Item x16 - x21**	7.50	7.50	1.88	5.87	5.25	1.63	21.78	2.25	30.00	
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler				

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM5

THICKNESS MEASUREMENT OF CARGO HOLDS TRANSVERSE BULKHEADS											
Ship's name and RINA number	Alva, RI: 90377						Sheet	6	of	16	
TANK/HOLD DESCRIPTION	Transverse Bulkhead Frame 19 (Sketch 15)										
LOCATION OF STRUCTURE	DB WBT No.4					FRAME N°	19				
STRUCTURAL COMPONENT (PLATING/STIFFENER)	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				
					P	S	P		S		
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	
Watertight floor FR. 19	**Item x1 - x2**	9.50	9.50	2.38	8.50	8.50	1.00	10.53	1.00	10.53	
Stiffeners	**Item vs1,vs2**	8.00	8.00	2.00	7.75	7.80	0.25	3.12	0.20	2.50	
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler				

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM5

THICKNESS MEASUREMENT OF CARGO HOLDS TRANSVERSE BULKHEADS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	7	of	16
TANK/HOLD DESCRIPTION	Transverse Bulkhead Frame 39 (Sketch 15)									
LOCATION OF STRUCTURE	DB WBT No.3					FRAME N°	39			
STRUCTURAL COMPONENT (PLATING/STIFFENER)	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Floor Plating FR. 39	**Item x1 - x9**	9.50	9.50	2.38	8.93	8.97	0.57	5.96	0.53	5.61
Stiffener 1	**Item vs1**	8.00	8.00	2.00	7.20	7.10	0.80	10.00	0.90	11.25
Stiffener 2	**Item vs2**	8.00	8.00	2.00	6.90	7.10	1.10	13.75	0.90	11.25
Stiffener 3	**Item vs3**	8.00	8.00	2.00	7.40	7.50	0.60	7.50	0.50	6.25
Stiffener 4	**Item vs4**	8.00	8.00	2.00	7.50	7.90	0.50	6.25	0.10	1.25
Stiffener 5	**Item vs5**	8.00	8.00	2.00	7.60	7.60	0.40	5.00	0.40	5.00
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM5

THICKNESS MEASUREMENT OF CARGO HOLDS TRANSVERSE BULKHEADS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	8	of	16
TANK/HOLD DESCRIPTION	Transverse Bulkhead Frame 50 (Sketch 14)									
LOCATION OF STRUCTURE	DB WBT No.3					FRAME N°	50			
STRUCTURAL COMPONENT (PLATING/STIFFENER)	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Plating	**Item x1 - x10**	9.50	9.50	2.38	7.99	7.98	1.51	15.89	1.52	16.02
Stiffener 0	**Item 0**	8.00	8.00	2.00	7.65	0.00	0.35	4.37	0.00	0.00
Stiffener 1	**Item ST1**	8.00	8.00	2.00	6.00	6.10	2.00	25.00	1.90	23.75
Stiffener 2	**Item ST2**	8.00	8.00	2.00	6.05	5.90	1.95	24.38	2.10	26.25
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM5

THICKNESS MEASUREMENT OF CARGO HOLDS TRANSVERSE BULKHEADS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	9	of	16
TANK/HOLD DESCRIPTION	Transverse Bulkhead Frame 51 (Sketch 14)									
LOCATION OF STRUCTURE	DB WBT No.3					FRAME N°	51			
STRUCTURAL COMPONENT (PLATING/STIFFENER)	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Plating	**Item x1 - x9**	9.50	9.50	2.38	8.40	8.28	1.10	11.58	1.22	12.89
Stiffener 1	**Item ST1**	8.00	8.00	2.00	5.35	5.70	2.65	33.13	2.30	28.75
Stiffener 2	**Item ST2**	8.00	8.00	2.00	5.20	5.70	2.80	35.00	2.30	28.75
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM5

THICKNESS MEASUREMENT OF CARGO HOLDS TRANSVERSE BULKHEADS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	10	of	16
TANK/HOLD DESCRIPTION	Fore Bulkhead at Frame 55 (Sketch 16)									
LOCATION OF STRUCTURE	DB WBT No.2					FRAME N°	55			
STRUCTURAL COMPONENT (PLATING/STIFFENER)	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Plating	**Item x1 - x15**	9.50	9.50	2.38	7.92	7.09	1.58	16.67	2.41	25.33
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM5

THICKNESS MEASUREMENT OF CARGO HOLDS TRANSVERSE BULKHEADS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	11	of	16
TANK/HOLD DESCRIPTION	Fore Bulkhead at Frame 55 (Sketch 16)									
LOCATION OF STRUCTURE	DB WBT No.2					FRAME N°	55			
STRUCTURAL COMPONENT (PLATING/STIFFENER)	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Plating	**Item x16 - x19**	9.50	9.50	2.38	0.00	6.58	0.00	0.00	2.92	30.79
Stiffener	**Item VS1 - VS4**	8.00	8.00	2.00	5.92	6.08	2.08	25.94	1.92	24.06
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM5

THICKNESS MEASUREMENT OF CARGO HOLDS TRANSVERSE BULKHEADS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	12	of	16
TANK/HOLD DESCRIPTION	Transverse Bulkhead Frame 59 (Sketch 14)									
LOCATION OF STRUCTURE	DB WBT No.2					FRAME N°	59			
STRUCTURAL COMPONENT (PLATING/STIFFENER)	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Plating	**Item x1 - x5**	9.50	9.50	2.38	8.14	8.07	1.36	14.32	1.43	15.00
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM5

THICKNESS MEASUREMENT OF CARGO HOLDS TRANSVERSE BULKHEADS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	13	of	16
TANK/HOLD DESCRIPTION	Fore Bulkhead at Frame 75 (Sketch 16)									
LOCATION OF STRUCTURE	DB WBT No.1					FRAME N°	75			
STRUCTURAL COMPONENT (PLATING/STIFFENER)	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Plating	**Item x1 - x15**	9.50	9.50	2.38	6.89	6.65	2.61	27.51	2.85	29.96
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM5

THICKNESS MEASUREMENT OF CARGO HOLDS TRANSVERSE BULKHEADS											
Ship's name and RINA number	Alva, RI: 90377						Sheet	14	of	16	
TANK/HOLD DESCRIPTION	Fore Bulkhead at Frame 75 (Sketch 16)										
LOCATION OF STRUCTURE	DB WBT No.1					FRAME N°	75				
STRUCTURAL COMPONENT (PLATING/STIFFENER)	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				
					P	S	P		S		
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	
Stiffener	**Item VS1 - VS2**	8.00	8.00	2.00	6.65	6.05	1.35	16.87	1.95	24.37	
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler				

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM5

THICKNESS MEASUREMENT OF CARGO HOLDS TRANSVERSE BULKHEADS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	15	of	16
TANK/HOLD DESCRIPTION	Transverse Bulkhead Frame 96 (Sketch 17)									
LOCATION OF STRUCTURE	Forepeak Tank					FRAME N°	96			
STRUCTURAL COMPONENT (PLATING/STIFFENER)	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Plating	**Item x1 - x15**	7.50	7.50	1.88	7.23	6.57	0.27	3.64	0.93	12.44
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM5

THICKNESS MEASUREMENT OF CARGO HOLDS TRANSVERSE BULKHEADS										
Ship's name and RINA number	Alva, RI: 90377						Sheet	16	of	16
TANK/HOLD DESCRIPTION	Transverse Bulkhead Frame 96 (Sketch 17)									
LOCATION OF STRUCTURE	Forepeak Tank					FRAME N°	96			
STRUCTURAL COMPONENT (PLATING/STIFFENER)	ITEM	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution			
					P	S	P		S	
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
Plating	**Item x16 - x19**	7.50	7.50	1.88	0.00	7.00	0.00	0.00	0.50	6.67
vertical stiffener	**Item VS1**	8.00	8.00	2.00	7.60	7.10	0.40	5.00	0.90	11.25
vertical stiffener	**Item VS2**	8.00	8.00	2.00	8.70	6.85	0.00	0.00	1.15	14.38
vertical stiffener	**Item VS3**	8.00	8.00	2.00	6.95	6.90	1.05	13.13	1.10	13.75
Operator	P. Wincior / T. Lampka				RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - Worksheet Contents

TM5-G S18/S19 - Transverse Bulkheads subject to UR S18/S19			
Ship's name and RINA number	Alva, RI: 90377		
LIST OF TABLES IN WORKSHEET			
Table	Description		
0 table(s) in worksheet			
Operator	P. Wincior / T. Lampka	RINA Surveyor	A. Miler

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - Worksheet Contents

TM6-G - Miscellaneous Structural Members			
Ship's name and RINA number	Alva, RI: 90377		
LIST OF TABLES IN WORKSHEET			
Table	Description		
87 table(s) in worksheet	(detailed list omitted)		
Operator	P. Wincior / T. Lampka	RINA Surveyor	A. Miler

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM6

THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	1	of	87	
TANK/HOLD DESCRIPTION		Forepeak Tank (Sketch 32)										
LOCATION OF STRUCTURE		Tank Top plating										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x1 - x16	7.50	7.50	1.50	20.00	5.31	5.39	2.19	29.17	2.11	28.08		Tank Top Plating 96-104
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	2	of	87	
TANK/HOLD DESCRIPTION		Forepeak Tank (Sketch 32)										
LOCATION OF STRUCTURE		Tank Top Plating										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x17 - x32	7.50	7.50	1.50	20.00	5.19	5.44	2.31	30.83	2.06	27.42		Tank Top Plating 96-104
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	Alva	Print-out date: 6/27/2022

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	3	of	87	
TANK/HOLD DESCRIPTION	Forepeak Tank (Sketch 32)											
LOCATION OF STRUCTURE	Tank Top Plating											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x33 - x51	7.50	7.50	1.50	20.00	5.29	7.65	2.21	29.47	0.00	0.00		Tank Top Plating 96-104
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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Thickness Measurement Report - TM6

THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	4	of	87	
TANK/HOLD DESCRIPTION		Stringer in Forepeak Tank (Sketch 33)										
LOCATION OF STRUCTURE		Forepeak Tank										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x1 - x11	7.50	7.50	1.50	20.00	5.12	5.54	2.38	31.76	1.96	26.17		Stringer in Forepeak Tank 96-102
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377						Sheet	5	of	87		
TANK/HOLD DESCRIPTION	Swash Longitudinal Bulkhead in CL (Sketch 34)											
LOCATION OF STRUCTURE	Deep Tank											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x1 - x11	6.50	6.50	1.30	20.00	5.89	0.00	0.61	9.37	0.00	0.00		Swash Longitudinal Bulkhead in CL 92-96
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM6

THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	6	of	87	
TANK/HOLD DESCRIPTION		Swash Longitudinal Bulkhead in CL(Sketch 35)										
LOCATION OF STRUCTURE		Forepeak Tank										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x1 - x14	7.50	7.50	1.50	20.00	8.36	0.00	0.00	0.00	0.00	0.00		Swash Longitudinal Bulkhead in CL 97-104
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM6

THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	7	of	87	
TANK/HOLD DESCRIPTION		Swash Longitudinal Bulkhead in CL (Sketch 35)										
LOCATION OF STRUCTURE		Forepeak Tank										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x15 - x29	7.50	7.50	1.50	20.00	8.81	0.00	0.00	0.00	0.00	0.00		Swash Longitudinal Bulkhead in CL 97-104
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	8	of	87	
TANK/HOLD DESCRIPTION	Fire Pipe (Sketch 36)											
LOCATION OF STRUCTURE	Main Deck											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item A	4.60	4.60	1.15	25.00	3.60	0.00	1.00	21.74	0.00	0.00		Fire Pipe
Item B	4.60	4.60	1.15	25.00	7.03	0.00	0.00	0.00	0.00	0.00		Fire Pipe
Item C	4.60	4.60	1.15	25.00	4.40	0.00	0.20	4.35	0.00	0.00		Fire Pipe
Item D	4.60	4.60	1.15	25.00	7.83	0.00	0.00	0.00	0.00	0.00		Fire Pipe
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	9	of	87	
TANK/HOLD DESCRIPTION		Fire Pipe (Sketch 36)										
LOCATION OF STRUCTURE		Main Deck										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item E	4.60	4.60	1.15	25.00	6.80	0.00	0.00	0.00	0.00	0.00		Fire Pipe
Item F	4.60	4.60	1.15	25.00	6.67	0.00	0.00	0.00	0.00	0.00		Fire Pipe
Item G	4.60	4.60	1.15	25.00	5.10	0.00	0.00	0.00	0.00	0.00		Fire Pipe
Item H	4.60	4.60	1.15	25.00	5.47	0.00	0.00	0.00	0.00	0.00		Fire Pipe
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	10	of	87	
TANK/HOLD DESCRIPTION		Fire Pipe (Sketch 36)										
LOCATION OF STRUCTURE		Main Deck										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item I	4.60	4.60	1.15	25.00	4.63	0.00	0.00	0.00	0.00	0.00		Fire Pipe
Item J	4.60	4.60	1.15	25.00	4.83	0.00	0.00	0.00	0.00	0.00		Fire Pipe
Item K	4.60	4.60	1.15	25.00	3.57	0.00	1.03	22.46	0.00	0.00		Fire Pipe
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	11	of	87	
TANK/HOLD DESCRIPTION		Cargo hold (Sketch 12)										
LOCATION OF STRUCTURE		Inner bottom plating										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x1 - x16	7.00	7.00	1.40	20.00	12.25	12.88	0.00	0.00	0.00	0.00		Top Tank 19-75
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	12	of	87	
TANK/HOLD DESCRIPTION	Cargo Hold (Sketch 12)											
LOCATION OF STRUCTURE	Inner bottom plating											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x17 - x32	7.00	7.00	1.40	20.00	12.34	10.03	0.00	0.00	0.00	0.00		Tank Top 18-75
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	13	of	87	
TANK/HOLD DESCRIPTION	Cargo Hold (Sketch 12)											
LOCATION OF STRUCTURE	Inner bottom plating											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x33 - x48	7.00	7.00	1.40	20.00	10.10	10.56	0.00	0.00	0.00	0.00		Top Tank 18-75
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	14	of	87	
TANK/HOLD DESCRIPTION		Cargo Hold (Sketch 12)										
LOCATION OF STRUCTURE		Inner bottom plating										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x49 - x64	7.00	7.00	1.40	20.00	9.31	9.53	0.00	0.00	0.00	0.00		Top Tank 19-75
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	15	of	87	
TANK/HOLD DESCRIPTION		Cargo Hold (Sketch 12)										
LOCATION OF STRUCTURE		Inner bottom plating										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x65 - x81	7.00	7.00	1.40	20.00	10.61	11.00	0.00	0.00	0.00	0.00		Top Tank 19-75
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	16	of	87	
TANK/HOLD DESCRIPTION		Cargo Hold (Sketch 12)										
LOCATION OF STRUCTURE		Inner bottom plating										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x82 - x98	7.00	7.00	1.40	20.00	9.22	10.75	0.00	0.00	0.00	0.00		Top Tank 19-75
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377						Sheet	17	of	87		
TANK/HOLD DESCRIPTION	Cargo Hold (Sketch 12)											
LOCATION OF STRUCTURE	Inner bottom plating											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x99 - x103	7.00	7.00	1.40	20.00	5.46	0.00	1.54	22.00	0.00	0.00		Top Tank 19-75
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	18	of	87	
TANK/HOLD DESCRIPTION		Longitudinal Bulkhead 2000 off CL (Sketch 37 and 38)										
LOCATION OF STRUCTURE		DB WBT No.1										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x1 - x14	7.50	7.50	1.50	20.00	7.63	7.59	0.00	0.00	0.00	0.00		WBT No. 1
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	19	of	87	
TANK/HOLD DESCRIPTION		Longitudinal Bulkhead 2000 off CL (Sketch 37 and 38)										
LOCATION OF STRUCTURE		DB WBT No. 2										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x1 - x21	7.50	7.50	1.50	20.00	6.94	6.90	0.56	7.51	0.60	8.06		WBT No. 2
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM6

THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	20	of	87	
TANK/HOLD DESCRIPTION		Longitudinal Bulkhead 2000 off CL (Sketch 37 and 38)										
LOCATION OF STRUCTURE		DB WBT No. 3										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x1 - x16	7.50	7.50	1.50	20.00	6.93	6.56	0.57	7.58	0.94	12.58		WBT No. 3
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	21	of	87	
TANK/HOLD DESCRIPTION		Longitudinal Bulkhead 2000 off CL (Sketch 37 and 38)										
LOCATION OF STRUCTURE		DB WBT No. 3										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x17 - x25	7.50	7.50	1.50	20.00	6.64	6.48	0.86	11.41	1.02	13.56		WBT No. 3
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	22	of	87	
TANK/HOLD DESCRIPTION		Side Hatch Coaming (Plate) (Sketch 2)										
LOCATION OF STRUCTURE		Frames 25 - 41										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x1 - x16	11.00	11.00	2.75	25.00	11.46	11.74	0.00	0.00	0.00	0.00		x1 - x16 Hatch Coaming Plate
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	Alva	Print-out date: 6/27/2022

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	23	of	87	
TANK/HOLD DESCRIPTION		Side Hatch Coaming (Plate) (Sketch 2)										
LOCATION OF STRUCTURE		Frames 41 - 54										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x17 - x32	11.00	11.00	2.75	25.00	11.13	11.07	0.00	0.00	0.00	0.00		x17 - x32 Hatch Coaming Plate
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	24	of	87	
TANK/HOLD DESCRIPTION		Side Hatch Coaming (Plate) (Sketch 2)										
LOCATION OF STRUCTURE		Frames 54 - 80										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x33 - x48	11.00	11.00	2.75	25.00	11.82	11.73	0.00	0.00	0.00	0.00		x33 - x48 Hatch Coaming Plate
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	25	of	87	
TANK/HOLD DESCRIPTION		Side Hatch Coaming (Plate) (Sketch 2)										
LOCATION OF STRUCTURE		Frames 80 -91										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x49 - x60	11.00	11.00	2.75	25.00	11.20	11.12	0.00	0.00	0.00	0.00		x49 - x60 Hatch Coaming Plate
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377						Sheet	26	of	87		
TANK/HOLD DESCRIPTION	Side Hatch Coaming (Top Rail) (Sketch 2)											
LOCATION OF STRUCTURE	Frames 24 - 58											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item T1 - T16	11.00	11.00	2.75	25.00	6.74	7.47	4.26	38.69	3.53	32.10		T1 - T16 Hatch Coaming Top Rail
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377					Sheet	27	of	87		
TANK/HOLD DESCRIPTION		Side Hatch Coaming (Top Rail) (Sketch 2)										
LOCATION OF STRUCTURE		Frames 58 - 61										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item T17 - T28	11.00	11.00	2.75	25.00	8.79	8.61	2.21	20.08	2.39	21.74		T17 - T28 Hatch Coaming Top Rail
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	28	of	87	
TANK/HOLD DESCRIPTION	Side Hatch Coaming (bracket web & flange) (Sketch 2)											
LOCATION OF STRUCTURE	Frames 25 - 39											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item bracket web FR. 25-39	8.00	8.00	2.00	25.00	7.10	7.21	0.90	11.25	0.79	9.84		Side Hatch Coaming bracket Web & Flange
Item bracket flange FR. 25-39	8.00	8.00	2.00	25.00	6.84	7.24	1.16	14.53	0.76	9.53		Side Hatch Coaming bracket Web & Flange
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	29	of	87	
TANK/HOLD DESCRIPTION		Side Hatch Coaming (bracket web & flange) (Sketch 2)										
LOCATION OF STRUCTURE		Frames 41 - 52										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item bracket web FR. 41-52	8.00	8.00	2.00	25.00	8.38	8.20	0.00	0.00	0.00	0.00		Side Hatch Coaming bracket Web & Flange
Item bracket flange FR. 41-52	8.00	8.00	2.00	25.00	10.47	10.59	0.00	0.00	0.00	0.00		Side Hatch Coaming bracket Web & Flange
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	30	of	87	
TANK/HOLD DESCRIPTION	Side Hatch Coaming (bracket web & flange) (Sketch 2)											
LOCATION OF STRUCTURE	Frames 54 - 76											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item bracket web FR. 54-76	8.00	8.00	2.00	25.00	8.21	8.11	0.00	0.00	0.00	0.00		Side Hatch Coaming bracket Web & Flange
Item bracket flange FR. 54-76	8.00	8.00	2.00	25.00	8.00	8.29	0.00	0.00	0.00	0.00		Side Hatch Coaming bracket Web & Flange
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	31	of	87	
TANK/HOLD DESCRIPTION		Side Hatch Coaming (bracket web & flange) (Sketch 2)										
LOCATION OF STRUCTURE		Frames 78-91										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item bracket web FR. 78-91	8.00	8.00	2.00	25.00	7.69	7.70	0.31	3.91	0.30	3.75		Side Hatch Coaming bracket Web & Flange
Item bracket flange FR. 78-91	8.00	8.00	2.00	25.00	7.69	7.80	0.31	3.91	0.20	2.50		Side Hatch Coaming bracket Web & Flange
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	32	of	87	
TANK/HOLD DESCRIPTION	Aft End Hatch Coamings Frame 20 (Sketch 3)											
LOCATION OF STRUCTURE	Frame 20											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Coamings Plate	11.00	11.00	2.75	25.00	11.27	11.30	0.00	0.00	0.00	0.00		Aft End 20 Hatch Coaming
Item Top Rail	11.00	11.00	2.75	25.00	10.40	10.20	0.60	5.45	0.80	7.27		Aft End 20 Hatch Coaming
Item Bracket Web	8.00	8.00	2.00	25.00	7.20	7.20	0.80	10.00	0.80	10.00		Aft End 20 Hatch Coaming
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	33	of	87	
TANK/HOLD DESCRIPTION	Fore End Hatch Coamings Frame 60 (Sketch 3											
LOCATION OF STRUCTURE	Frame 60											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Coamings Plate	11.00	11.00	2.75	25.00	10.80	11.20	0.20	1.82	0.00	0.00		Fore End 92 Hatch Coaming
Item Top Rail	11.00	11.00	2.75	25.00	10.05	9.90	0.95	8.64	1.10	10.00		Fore End 92 Hatch Coaming
Item Bracket Web	8.00	8.00	2.00	25.00	7.30	7.35	0.70	8.75	0.65	8.13		Fore End 92 Hatch Coaming
Item Bracket Flange	8.00	8.00	2.00	25.00	7.35	7.25	0.65	8.13	0.75	9.38		Fore End 92 Hatch Coaming
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	34	of	87	
TANK/HOLD DESCRIPTION	Aft End Hatch Coamings Frame 70 (Sketch 3)											
LOCATION OF STRUCTURE	Frame 70											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Coamings Plate	11.00	11.00	2.75	25.00	11.30	11.40	0.00	0.00	0.00	0.00		Aft End 70 Hatch Coaming
Item Top Rail	11.00	11.00	2.75	25.00	10.70	10.85	0.30	2.73	0.15	1.36		Aft End 70 Hatch Coaming
Item Bracket Web	8.00	8.00	2.00	25.00	7.45	7.25	0.55	6.87	0.75	9.38		Aft End 70 Hatch Coaming
Item Bracket Flange	8.00	8.00	2.00	25.00	7.20	7.35	0.80	10.00	0.65	8.13		Aft End 70 Hatch Coaming
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	35	of	87	
TANK/HOLD DESCRIPTION	Fore End Hatch Coamings Frame 92 (Sketch 3)											
LOCATION OF STRUCTURE	Frame 92											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Coamings Plate	11.00	11.00	2.75	25.00	11.10	11.20	0.00	0.00	0.00	0.00		Fore End 92 Hatch Coaming
Item Top Rail	11.00	11.00	2.75	25.00	10.83	10.73	0.17	1.52	0.27	2.42		Fore End 92 Hatch Coaming
Item Bracket Web	8.00	8.00	2.00	25.00	7.90	7.40	0.10	1.25	0.60	7.50		Fore End 92 Hatch Coaming
Item Bracket Flange	8.00	8.00	2.00	25.00	7.90	7.40	0.10	1.25	0.60	7.50		Fore End 92 Hatch Coaming
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	36	of	87	
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 4)										
LOCATION OF STRUCTURE		Part 1										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Top Plate	8.00	8.00	2.00	25.00	6.25	6.40	1.75	21.88	1.60	20.00		
Item Skirt Plate	10.00	10.00	2.50	25.00	10.15	10.10	0.00	0.00	0.00	0.00		
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	37	of	87	
TANK/HOLD DESCRIPTION	Hatch Cover (Sketch 4)											
LOCATION OF STRUCTURE	Part 1											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Stiffener web	8.00	8.00	2.00	25.00	7.20	7.03	0.80	10.00	0.97	12.19		S1
Item Stiffener flange	15.00	15.00	3.75	25.00	8.50	10.20	6.50	43.33	4.80	32.00		S1
Item Stiffener web	8.00	8.00	2.00	25.00	7.22	7.00	0.78	9.69	1.00	12.50		S2
Item Stiffener flange	15.00	15.00	3.75	25.00	10.62	10.85	4.38	29.17	4.15	27.67		S2
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	38	of	87	
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 4)										
LOCATION OF STRUCTURE		Part 2										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Top Plate	8.00	8.00	2.00	25.00	7.55	7.50	0.45	5.62	0.50	6.25		
Item Skirt Plate	10.00	10.00	2.50	25.00	10.15	10.10	0.00	0.00	0.00	0.00		
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	39	of	87	
TANK/HOLD DESCRIPTION	Hatch Cover (Sketch 4)											
LOCATION OF STRUCTURE	Part 2											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Stiffener web	8.00	8.00	2.00	25.00	3.95	5.20	4.05	50.62	2.80	35.00		S1
Item Stiffener flange	15.00	15.00	3.75	25.00	6.05	6.40	8.95	59.67	8.60	57.33		S1
Item Stiffener web	8.00	8.00	2.00	25.00	3.45	5.40	4.55	56.88	2.60	32.50		S2
Item Stiffener flange	15.00	15.00	3.75	25.00	4.10	7.45	10.90	72.67	7.55	50.33		S2
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	40	of	87	
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 4)										
LOCATION OF STRUCTURE		Part 3										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Top Plate	8.00	8.00	2.00	25.00	7.16	7.30	0.84	10.47	0.70	8.75		
Item Skirt Plate	10.00	10.00	2.50	25.00	10.15	10.15	0.00	0.00	0.00	0.00		
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS													
Ship's name and Rina number		Alva, RI: 90377						Sheet	41	of	87		
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 4)											
LOCATION OF STRUCTURE		Part 3											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Stiffener web	8.00	8.00	2.00	25.00	3.50	3.40	4.50	56.25	4.60	57.50		S1
Item Stiffener flange	15.00	15.00	3.75	25.00	6.00	6.45	9.00	60.00	8.55	57.00		S1
Item Stiffener web	8.00	8.00	2.00	25.00	3.90	5.60	4.10	51.25	2.40	30.00		S2
Item Stiffener flange	15.00	15.00	3.75	25.00	6.80	6.15	8.20	54.67	8.85	59.00		S2
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	42	of	87	
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 5)										
LOCATION OF STRUCTURE		Part 4										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Top Plate	8.00	8.00	2.00	25.00	6.66	6.97	1.34	16.75	1.03	12.92		
Item Skirt Plate	10.00	10.00	2.50	25.00	10.10	10.05	0.00	0.00	0.00	0.00		
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM6

THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377						Sheet	43	of	87		
TANK/HOLD DESCRIPTION	Hatch Cover (Sketch 5)											
LOCATION OF STRUCTURE	Part 4											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Stiffener web	8.00	8.00	2.00	25.00	6.33	6.37	1.67	20.83	1.63	20.42		S1
Item Stiffener flange	15.00	15.00	3.75	25.00	6.97	7.70	8.03	53.56	7.30	48.67		S1
Item Stiffener web	8.00	8.00	2.00	25.00	6.77	7.13	1.23	15.42	0.87	10.83		S2
Item Stiffener flange	15.00	15.00	3.75	25.00	8.67	8.17	6.33	42.22	6.83	45.56		S2
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM6

THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	44	of	87	
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 5)										
LOCATION OF STRUCTURE		Part 5										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Top Plate	8.00	8.00	2.00	25.00	8.18	8.02	0.00	0.00	0.00	0.00		
Item Skirt Plate	10.00	10.00	2.50	25.00	10.15	10.10	0.00	0.00	0.00	0.00		
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377						Sheet	45	of	87		
TANK/HOLD DESCRIPTION	Hatch Cover (Sketch 5)											
LOCATION OF STRUCTURE	Part 5											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Stiffener web	8.00	8.00	2.00	25.00	4.03	5.90	3.97	49.69	2.10	26.25		S1
Item Stiffener flange	12.00	12.00	3.00	25.00	5.53	6.67	6.47	53.89	5.33	44.44		S1
Item Stiffener web	8.00	8.00	2.00	25.00	3.77	4.23	4.23	52.92	3.77	47.08		S2
Item Stiffener flange	12.00	12.00	3.00	25.00	9.13	9.37	2.87	23.89	2.63	21.94		S2
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	46	of	87	
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 5)										
LOCATION OF STRUCTURE		Part 6										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Top Plate	8.00	8.00	2.00	25.00	7.28	7.53	0.72	9.06	0.47	5.83		
Item Skirt Plate	10.00	10.00	2.50	25.00	10.15	10.10	0.00	0.00	0.00	0.00		
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377						Sheet	47	of	87		
TANK/HOLD DESCRIPTION	Hatch Cover (Sketch 5)											
LOCATION OF STRUCTURE	Part 6											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Stiffener web	8.00	8.00	2.00	25.00	6.20	4.27	1.80	22.50	3.73	46.67		S1
Item Stiffener flange	12.00	12.00	3.00	25.00	5.63	5.90	6.37	53.06	6.10	50.83		S1
Item Stiffener web	8.00	8.00	2.00	25.00	5.57	5.00	2.43	30.42	3.00	37.50		S2
Item Stiffener flange	12.00	12.00	3.00	25.00	6.87	7.07	5.13	42.78	4.93	41.11		S2
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	48	of	87	
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 6)										
LOCATION OF STRUCTURE		Part 7										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Top Plate	8.00	8.00	2.00	25.00	8.07	8.07	0.00	0.00	0.00	0.00		
Item Skirt Plate	10.00	10.00	2.50	25.00	10.15	10.15	0.00	0.00	0.00	0.00		
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	49	of	87	
TANK/HOLD DESCRIPTION	Hatch Cover (Sketch 6)											
LOCATION OF STRUCTURE	Part 7											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Stiffener web	8.00	8.00	2.00	25.00	4.65	5.70	3.35	41.87	2.30	28.75		S1
Item Stiffener flange	15.00	15.00	3.75	25.00	10.40	7.00	4.60	30.67	8.00	53.33		S1
Item Stiffener web	8.00	8.00	2.00	25.00	5.20	5.65	2.80	35.00	2.35	29.37		S2
Item Stiffener flange	15.00	15.00	3.75	25.00	13.25	10.80	1.75	11.67	4.20	28.00		S2
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	50	of	87	
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 6)										
LOCATION OF STRUCTURE		Part 8										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Top Plate	8.00	8.00	2.00	25.00	8.27	8.18	0.00	0.00	0.00	0.00		
Item Skirt Plate	10.00	10.00	2.50	25.00	10.05	10.10	0.00	0.00	0.00	0.00		
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	51	of	87	
TANK/HOLD DESCRIPTION	Hatch Cover (Sketch 6)											
LOCATION OF STRUCTURE	Part 8											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Stiffener web	8.00	8.00	2.00	25.00	3.33	4.63	4.67	58.33	3.37	42.08		S1
Item Stiffener flange	15.00	15.00	3.75	25.00	11.63	12.73	3.37	22.44	2.27	15.11		S1
Item Stiffener web	8.00	8.00	2.00	25.00	4.10	4.53	3.90	48.75	3.47	43.33		S2
Item Stiffener flange	15.00	15.00	3.75	25.00	11.27	11.77	3.73	24.89	3.23	21.56		S2
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	52	of	87	
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 6)										
LOCATION OF STRUCTURE		Part 9										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Top Plate	8.00	8.00	2.00	25.00	7.47	7.53	0.53	6.56	0.47	5.94		
Item Skirt Plate	10.00	10.00	2.50	25.00	10.10	10.10	0.00	0.00	0.00	0.00		
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	53	of	87	
TANK/HOLD DESCRIPTION	Hatch Cover (Sketch 6)											
LOCATION OF STRUCTURE	Part 9											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Stiffener web	8.00	8.00	2.00	25.00	4.65	6.50	3.35	41.87	1.50	18.75		S1
Item Stiffener flange	12.00	12.00	3.00	25.00	9.05	9.93	2.95	24.58	2.07	17.22		S1
Item Stiffener web	8.00	8.00	2.00	25.00	6.53	6.13	1.47	18.44	1.87	23.33		S2
Item Stiffener flange	12.00	12.00	3.00	25.00	9.97	8.17	2.03	16.88	3.83	31.94		S2
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	54	of	87	
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 7)										
LOCATION OF STRUCTURE		Part 10										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Top Plate	8.00	8.00	2.00	25.00	7.30	7.33	0.70	8.75	0.67	8.44		
Item Skirt Plate	10.00	10.00	2.50	25.00	10.00	10.15	0.00	0.00	0.00	0.00		
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	55	of	87	
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 7)										
LOCATION OF STRUCTURE		Part 10										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Stiffener web	8.00	8.00	2.00	25.00	3.77	3.77	4.22	52.81	4.23	52.92		S1
Item Stiffener flange	15.00	15.00	3.75	25.00	12.68	13.23	2.32	15.50	1.77	11.78		S1
Item Stiffener web	8.00	8.00	2.00	25.00	4.45	4.47	3.55	44.38	3.53	44.17		S2
Item Stiffener flange	15.00	15.00	3.75	25.00	12.75	13.03	2.25	15.00	1.97	13.11		S2
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	56	of	87	
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 7)										
LOCATION OF STRUCTURE		Part 11										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Top Plate	8.00	8.00	2.00	25.00	7.27	7.40	0.73	9.06	0.60	7.50		
Item Skirt Plate	10.00	10.00	2.50	25.00	10.05	10.10	0.00	0.00	0.00	0.00		
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	57	of	87	
TANK/HOLD DESCRIPTION	Hatch Cover (Sketch 7)											
LOCATION OF STRUCTURE	Part 11											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Stiffener web	8.00	8.00	2.00	25.00	7.70	6.87	0.30	3.75	1.13	14.06		S1
Item Stiffener flange	15.00	15.00	3.75	25.00	13.78	13.73	1.22	8.17	1.27	8.50		S1
Item Stiffener web	8.00	8.00	2.00	25.00	7.70	7.53	0.30	3.75	0.47	5.94		S2
Item Stiffener flange	15.00	15.00	3.75	25.00	12.73	12.88	2.27	15.11	2.12	14.17		S2
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	58	of	87	
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 7)										
LOCATION OF STRUCTURE		Part 12										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Top Plate	8.00	8.00	2.00	25.00	7.12	7.15	0.88	10.94	0.85	10.62		
Item Skirt Plate	10.00	10.00	2.50	25.00	10.05	10.20	0.00	0.00	0.00	0.00		
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	59	of	87	
TANK/HOLD DESCRIPTION	Hatch Cover (Sketch 7)											
LOCATION OF STRUCTURE	Part 12											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Stiffener web	8.00	8.00	2.00	25.00	7.17	7.60	0.83	10.42	0.40	5.00		S1
Item Stiffener flange	12.00	12.00	3.00	25.00	8.80	10.07	3.20	26.67	1.93	16.11		S1
Item Stiffener web	8.00	8.00	2.00	25.00	7.37	7.23	0.63	7.92	0.77	9.58		S2
Item Stiffener flange	12.00	12.00	3.00	25.00	9.43	10.47	2.57	21.39	1.53	12.78		S2
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	60	of	87	
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 8)										
LOCATION OF STRUCTURE		Part 13										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Top Plate	8.00	8.00	2.00	25.00	7.80	7.90	0.20	2.50	0.10	1.25		
Item Skirt Plate	10.00	10.00	2.50	25.00	10.15	10.20	0.00	0.00	0.00	0.00		
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	61	of	87	
TANK/HOLD DESCRIPTION	Hatch Cover (Sketch 8)											
LOCATION OF STRUCTURE	Part 13											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Stiffener web	8.00	8.00	2.00	25.00	6.77	6.43	1.23	15.42	1.57	19.58		S1
Item Stiffener flange	15.00	15.00	3.75	25.00	12.27	11.47	2.73	18.22	3.53	23.56		S1
Item Stiffener web	8.00	8.00	2.00	25.00	6.35	7.65	1.65	20.63	0.35	4.37		S2
Item Stiffener flange	15.00	15.00	3.75	25.00	10.20	11.75	4.80	32.00	3.25	21.67		S2
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	62	of	87	
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 8)										
LOCATION OF STRUCTURE		Part 14										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Top Plate	8.00	8.00	2.00	25.00	6.78	6.73	1.22	15.31	1.27	15.94		
Item Skirt Plate	10.00	10.00	2.50	25.00	10.15	10.20	0.00	0.00	0.00	0.00		
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	63	of	87	
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 8)										
LOCATION OF STRUCTURE		Part 14										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Stiffener web	8.00	8.00	2.00	25.00	7.90	7.03	0.10	1.25	0.97	12.08		S1
Item Stiffener flange	12.00	12.00	3.00	25.00	9.90	8.03	2.10	17.50	3.97	33.06		S1
Item Stiffener web	8.00	8.00	2.00	25.00	7.53	7.67	0.47	5.83	0.33	4.17		S2
Item Stiffener flange	12.00	12.00	3.00	25.00	9.13	8.03	2.87	23.89	3.97	33.06		S2
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	64	of	87	
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 8)										
LOCATION OF STRUCTURE		Part 15										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Top Plate	8.00	8.00	2.00	25.00	7.17	7.12	0.83	10.31	0.88	10.94		
Item Skirt Plate	10.00	10.00	2.50	25.00	10.05	10.10	0.00	0.00	0.00	0.00		
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	65	of	87	
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 8)										
LOCATION OF STRUCTURE		Part 15										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Stiffener web	8.00	8.00	2.00	25.00	7.90	6.95	0.10	1.25	1.05	13.13		S1
Item Stiffener flange	15.00	15.00	3.75	25.00	9.50	10.70	5.50	36.67	4.30	28.67		S1
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	66	of	87	
TANK/HOLD DESCRIPTION		Hatch Cover (Sketch 9)										
LOCATION OF STRUCTURE		Part 16										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Top Plate	8.00	8.00	2.00	25.00	8.23	8.10	0.00	0.00	0.00	0.00		
Item Skirt Plate	10.00	10.00	2.50	25.00	9.95	9.70	0.05	0.50	0.30	3.00		
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	67	of	87	
TANK/HOLD DESCRIPTION	Hatch Cover (Sketch 9)											
LOCATION OF STRUCTURE	Part 16											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item Stiffener web	8.00	8.00	2.00	25.00	5.85	6.35	2.15	26.88	1.65	20.63		S1
Item Stiffener flange	15.00	15.00	3.75	25.00	7.35	6.65	7.65	51.00	8.35	55.67		S1
Item Stiffener web	8.00	8.00	2.00	25.00	7.55	5.10	0.45	5.63	2.90	36.25		S2
Item Stiffener flange	15.00	15.00	3.75	25.00	11.55	10.65	3.45	23.00	4.35	29.00		S2
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	68	of	87	
TANK/HOLD DESCRIPTION	Main Deck (Sketch 1)											
LOCATION OF STRUCTURE	Deck plating											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item A1	7.00	7.00	1.40	20.00	7.50	7.40	0.00	0.00	0.00	0.00		18-93
Item A2	16.00	16.00	3.20	20.00	16.47	16.60	0.00	0.00	0.00	0.00		18-93
Item A3	9.00	9.00	1.80	20.00	8.28	8.43	0.72	8.00	0.57	6.39		18-93
Item A4	16.00	16.00	3.20	20.00	15.80	15.90	0.20	1.25	0.10	0.62		18-93
Item A5	9.00	9.00	1.80	20.00	8.12	9.08	0.88	9.72	0.00	0.00		18-93
Item A6	16.00	16.00	3.20	20.00	15.90	15.90	0.10	0.62	0.10	0.62		18-93
Item A7	9.00	9.00	1.80	20.00	8.85	8.85	0.15	1.67	0.15	1.67		18-93
Item A8	16.00	16.00	3.20	20.00	15.65	16.20	0.35	2.19	0.00	0.00		18-93
Item A9	9.00	9.00	1.80	20.00	9.38	9.02	0.00	0.00	0.00	0.00		18-93
Item A10	12.00	12.00	2.40	20.00	12.15	12.25	0.00	0.00	0.00	0.00		18-93
Item A11	16.00	16.00	3.20	20.00	18.30	18.35	0.00	0.00	0.00	0.00		18-93
Item B1	7.00	7.00	1.40	20.00	7.00	7.05	0.00	0.00	0.00	0.00		18-93
Item B2	7.00	7.00	1.40	20.00	6.85	7.05	0.15	2.14	0.00	0.00		18-93
Item CL1	10.00	10.00	2.00	20.00	10.20	10.20	0.00	0.00	0.00	0.00		18-93
Item CL2	10.00	10.00	2.00	20.00	10.00	10.00	0.00	0.00	0.00	0.00		18-93
Item CL3	7.00	7.00	1.40	20.00	7.05	7.15	0.00	0.00	0.00	0.00		18-93
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	69	of	87	
TANK/HOLD DESCRIPTION	Poop Deck (Sketch 25)											
LOCATION OF STRUCTURE	Deck plating											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item CL	7.00	7.00	1.40	20.00	6.90	6.95	0.10	1.43	0.05	0.71		(-4)-10
Item A1	7.00	7.00	1.40	20.00	7.07	6.92	0.00	0.00	0.08	1.07		(-4)-10
Item A2	7.00	7.00	1.40	20.00	6.95	7.05	0.05	0.71	0.00	0.00		(-4)-10
Item A3	7.00	7.00	1.40	20.00	8.45	8.35	0.00	0.00	0.00	0.00		(-4)-10
Item B1	7.00	7.00	1.40	20.00	6.75	6.80	0.25	3.57	0.20	2.86		(-4)-10
Item B2	7.00	7.00	1.40	20.00	6.90	7.05	0.10	1.43	0.00	0.00		(-4)-10
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	70	of	87	
TANK/HOLD DESCRIPTION	Boat Deck (Sketch 26)											
LOCATION OF STRUCTURE	Deck plating											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item CL	6.00	6.00	1.20	20.00	6.03	5.95	0.00	0.00	0.05	0.83		(-4)-12
Item CL1	6.00	6.00	1.20	20.00	5.80	0.00	0.20	3.33	0.00	0.00		(-4)-12
Item A1	6.00	6.00	1.20	20.00	6.04	5.98	0.00	0.00	0.02	0.33		(-4)-12
Item A2	6.00	6.00	1.20	20.00	6.05	5.95	0.00	0.00	0.05	0.83		(-4)-12
Item B1	6.00	6.00	1.20	20.00	6.10	6.05	0.00	0.00	0.00	0.00		(-4)-12
Item B2	6.00	6.00	1.20	20.00	6.15	5.95	0.00	0.00	0.05	0.83		(-4)-12
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	71	of	87	
TANK/HOLD DESCRIPTION		Bridge Deck (Sketch 27)										
LOCATION OF STRUCTURE		Deck plating										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item A1	6.00	6.00	1.20	20.00	8.35	6.05	0.00	0.00	0.00	0.00		10-18
Item A2	6.00	6.00	1.20	20.00	6.30	0.00	0.00	0.00	0.00	0.00		10-18
Item B	6.00	6.00	1.20	20.00	6.28	6.08	0.00	0.00	0.00	0.00		10-18
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	72	of	87	
TANK/HOLD DESCRIPTION	Navigation Deck (Sketch 28)											
LOCATION OF STRUCTURE	Deck plating											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item CL	5.50	5.50	1.10	20.00	5.45	5.35	0.05	0.91	0.15	2.73		10-18
Item A	5.50	5.50	1.10	20.00	5.40	5.43	0.10	1.82	0.07	1.36		10-18
Item B	5.50	5.50	1.10	20.00	5.50	5.40	0.00	0.00	0.10	1.82		10-18
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	73	of	87	
TANK/HOLD DESCRIPTION		Steering Room Deck (Sketch 29)										
LOCATION OF STRUCTURE		Deck plating										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item CL	8.00	8.00	1.60	20.00	7.75	7.62	0.25	3.12	0.38	4.69		
Item A	8.00	8.00	1.60	20.00	10.16	10.08	0.00	0.00	0.00	0.00		
Item A1	8.00	8.00	1.60	20.00	7.75	6.97	0.25	3.12	1.03	12.81		
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	74	of	87	
TANK/HOLD DESCRIPTION		Deck Plating / Cabin floor (Sketch 30)										
LOCATION OF STRUCTURE		Deck plating										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item A	7.50	7.50	1.50	20.00	5.33	0.00	2.17	28.98	0.00	0.00		6-15
Item B	7.50	7.50	1.50	20.00	5.01	0.00	2.49	33.25	0.00	0.00		6-15
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	75	of	87	
TANK/HOLD DESCRIPTION	Forecastle deck (Sketch 31)											
LOCATION OF STRUCTURE	Deck plating											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item CL1	7.50	7.50	1.50	20.00	10.10	10.00	0.00	0.00	0.00	0.00		93-107
Item CL2	7.50	7.50	1.50	20.00	7.20	7.25	0.30	4.00	0.25	3.33		93-107
Item CL2a	7.50	7.50	1.50	20.00	7.50	8.00	0.00	0.00	0.00	0.00		93-107
Item CL2b	7.50	7.50	1.50	20.00	8.00	7.80	0.00	0.00	0.00	0.00		93-107
Item CL2c	7.50	7.50	1.50	20.00	0.00	8.00	0.00	0.00	0.00	0.00		93-107
Item A1	7.50	7.50	1.50	20.00	7.36	7.40	0.14	1.87	0.10	1.33		93-107
Item A1a	7.50	7.50	1.50	20.00	0.00	8.00	0.00	0.00	0.00	0.00		93-107
Item B1	7.50	7.50	1.50	20.00	7.15	6.57	0.35	4.67	0.93	12.44		93-107
Item B1a	7.50	7.50	1.50	20.00	7.90	0.00	0.00	0.00	0.00	0.00		93-107
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM6

THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number		Alva, RI: 90377						Sheet	76	of	87	
TANK/HOLD DESCRIPTION		Internal structure (Sketch 41)										
LOCATION OF STRUCTURE		Deep Tank										
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x1 - x8	7.50	7.50	1.88	25.00	7.11	7.13	0.39	5.17	0.37	5.00		Transverse web frame 95
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM6

THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377						Sheet	77	of	87		
TANK/HOLD DESCRIPTION	Internal structure (Sketch 41)											
LOCATION OF STRUCTURE	Deep Tank											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item TT1	7.50	7.50	1.50	20.00	6.20	6.30	1.30	17.33	1.20	16.00		Tank Top 95
Item TT2	7.50	7.50	1.50	20.00	6.40	6.10	1.10	14.67	1.40	18.67		Tank Top 95
Item TT3	7.50	7.50	1.50	20.00	6.10	6.50	1.40	18.67	1.00	13.33		Tank Top 95
Item A	15.00	15.00	3.00	20.00	13.60	13.70	1.40	9.33	1.30	8.67		Side shell plate 95
Item B	13.50	13.50	2.70	20.00	12.70	12.80	0.80	5.93	0.70	5.19		Side shell plate 95
Item C	13.50	13.50	2.70	20.00	13.00	13.00	0.50	3.70	0.50	3.70		Side shell plate 95
Item D	13.50	13.50	2.70	20.00	13.00	13.10	0.50	3.70	0.40	2.96		Side shell plate 95
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	Alva	Print-out date: 6/27/2022

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	78	of	87	
TANK/HOLD DESCRIPTION	Internal structure (Sketch 39)											
LOCATION OF STRUCTURE	Forepeak Tank											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x1	8.00	8.00	2.00	25.00	7.00	7.80	1.00	12.50	0.20	2.50		Deck beam 97
Item x2 - x3	7.00	7.00	1.75	25.00	5.85	4.15	1.15	16.43	2.85	40.71		Side shell frame 97
Item x4 - x11	7.50	7.50	1.88	25.00	7.77	7.81	0.00	0.00	0.00	0.00		Web frame 97
Item bk1	8.00	8.00	2.00	25.00	7.90	7.90	0.10	1.25	0.10	1.25		Bracket 97
Item bk2	8.00	8.00	2.00	25.00	7.10	7.20	0.90	11.25	0.80	10.00		Bracket 97
Item STR1	8.00	8.00	1.60	20.00	10.00	10.20	0.00	0.00	0.00	0.00		Stringer, web 97
Item STR1	8.00	8.00	1.60	20.00	11.50	11.30	0.00	0.00	0.00	0.00		Stringer, flange 97
Item STR2	8.00	8.00	1.60	20.00	6.30	6.20	1.70	21.25	1.80	22.50		Stringer 97
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377						Sheet	79	of	87		
TANK/HOLD DESCRIPTION	Internal structure (Sketch 39)											
LOCATION OF STRUCTURE	Forepeak Tank											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item TT1	7.50	7.50	1.50	20.00	5.90	6.00	1.60	21.33	1.50	20.00		Tank Top 97
Item TT2	7.50	7.50	1.50	20.00	6.40	6.20	1.10	14.67	1.30	17.33		Tank Top 97
Item A	13.50	13.50	2.70	20.00	13.20	13.40	0.30	2.22	0.10	0.74		Side shell plate 97
Item B	13.50	13.50	2.70	20.00	13.00	11.90	0.50	3.70	1.60	11.85		Side shell plate 97
Item C	13.50	13.50	2.70	20.00	12.40	10.50	1.10	8.15	3.00	22.22		Side shell plate 97
Item D	9.00	9.00	1.80	20.00	9.70	6.40	0.00	0.00	2.60	28.89		Side shell plate 97
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	80	of	87	
TANK/HOLD DESCRIPTION	Internal structure (Sketch 40)											
LOCATION OF STRUCTURE	Forepeak Tank											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x1	8.00	8.00	2.00	25.00	8.10	5.20	0.00	0.00	2.80	35.00		Deck beam 98
Item x2 - x3	7.00	7.00	1.75	25.00	6.75	6.10	0.25	3.57	0.90	12.86		Side shell frame 98
Item x4 - x5	7.50	7.50	1.88	25.00	7.00	6.50	0.50	6.67	1.00	13.33		Web frame 98
Item x6	7.00	7.00	1.75	25.00	6.00	6.10	1.00	14.29	0.90	12.86		Vertical stiffener 98
Item bk1	8.00	8.00	2.00	25.00	9.40	9.85	0.00	0.00	0.00	0.00		Bracket 98
Item bk2	8.00	8.00	2.00	25.00	0.00	0.00	0.00	0.00	0.00	0.00		Bracket 98
Item LB1 - LB2	7.50	7.50	1.50	20.00	8.00	0.00	0.00	0.00	0.00	0.00		Long. bhd 98
Item STR1	8.00	8.00	1.60	20.00	10.10	10.20	0.00	0.00	0.00	0.00		Stringer, web 98
Item STR1	8.00	8.00	1.60	20.00	11.30	11.10	0.00	0.00	0.00	0.00		Stringer, flange 98
Item STR2	8.00	8.00	1.60	20.00	6.40	6.20	1.60	20.00	1.80	22.50		Stringer 98
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM6

THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377						Sheet	81	of	87		
TANK/HOLD DESCRIPTION	Internal structure (Sketch 40)											
LOCATION OF STRUCTURE	Forepeak Tank											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item TT1	7.50	7.50	1.50	20.00	5.50	5.70	2.00	26.67	1.80	24.00		Tank Top 98
Item TT2	7.50	7.50	1.50	20.00	6.10	6.10	1.40	18.67	1.40	18.67		Tank Top 98
Item A	13.50	13.50	2.70	20.00	13.10	12.90	0.40	2.96	0.60	4.44		Side shell plate 98
Item B	13.50	13.50	2.70	20.00	12.80	13.00	0.70	5.19	0.50	3.70		Side shell plate 98
Item C	13.50	13.50	2.70	20.00	12.70	10.60	0.80	5.93	2.90	21.48		Side shell plate 98
Item D	9.00	9.00	1.80	20.00	9.00	10.00	0.00	0.00	0.00	0.00		Side shell plate 98
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377						Sheet	82	of	87		
TANK/HOLD DESCRIPTION	Internal structure (Sketch 40)											
LOCATION OF STRUCTURE	Forepeak Tank											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x1	8.00	8.00	2.00	25.00	11.20	11.00	0.00	0.00	0.00	0.00		Deck beam 99
Item x2 - x3	7.00	7.00	1.75	25.00	5.95	8.05	1.05	15.00	0.00	0.00		Side shell frame 99
Item x4 - x5	7.50	7.50	1.88	25.00	6.95	6.30	0.55	7.33	1.20	16.00		Web frame 99
Item x6	7.00	7.00	1.75	25.00	0.00	0.00	0.00	0.00	0.00	0.00		Vertical stiffener 99
Item bk1	8.00	8.00	2.00	25.00	10.30	10.10	0.00	0.00	0.00	0.00		Bracket 99
Item bk2	8.00	8.00	2.00	25.00	10.00	10.00	0.00	0.00	0.00	0.00		Bracket 99
Item LB1 - LB2	7.50	7.50	1.50	20.00	7.90	0.00	0.00	0.00	0.00	0.00		Long. bhd 99
Item STR1	8.00	8.00	1.60	20.00	10.20	9.90	0.00	0.00	0.00	0.00		Stringer, web 99
Item STR1	8.00	8.00	1.60	20.00	11.00	11.00	0.00	0.00	0.00	0.00		Stringer, flange 99
Item STR2	8.00	8.00	1.60	20.00	6.30	6.10	1.70	21.25	1.90	23.75		Stringer 99
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM6

THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377						Sheet	83	of	87		
TANK/HOLD DESCRIPTION	Internal structure (Sketch 40)											
LOCATION OF STRUCTURE	Forepeak Tank											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item TT1	7.50	7.50	1.50	20.00	6.00	5.20	1.50	20.00	2.30	30.67		Tank Top 99
Item TT2	7.50	7.50	1.50	20.00	5.80	6.30	1.70	22.67	1.20	16.00		Tank Top 99
Item A	13.50	13.50	2.70	20.00	13.20	13.40	0.30	2.22	0.10	0.74		Side shell plate 99
Item B	13.50	13.50	2.70	20.00	12.70	12.80	0.80	5.93	0.70	5.19		Side shell plate 99
Item C	13.50	13.50	2.70	20.00	12.30	12.00	1.20	8.89	1.50	11.11		Side shell plate 99
Item D	9.00	9.00	1.80	20.00	7.90	8.00	1.10	12.22	1.00	11.11		Side shell plate 99
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377						Sheet	84	of	87		
TANK/HOLD DESCRIPTION	Internal structure (Sketch 40)											
LOCATION OF STRUCTURE	Forepeak Tank											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x1	8.00	8.00	2.00	25.00	5.70	6.40	2.30	28.75	1.60	20.00		Deck beam 100
Item x2 - x3	7.00	7.00	1.75	25.00	6.55	5.60	0.45	6.43	1.40	20.00		Side shell frame 100
Item x4	7.00	7.00	1.75	25.00	6.20	0.00	0.80	11.43	0.00	0.00		Vertical stiffener 100
Item bk1	8.00	8.00	2.00	25.00	7.90	8.40	0.10	1.25	0.00	0.00		Bracket 100
Item bk2	8.00	8.00	2.00	25.00	7.90	7.50	0.10	1.25	0.50	6.25		Bracket 100
Item LB1 - LB2	7.50	7.50	1.50	20.00	8.20	0.00	0.00	0.00	0.00	0.00		Long. bhd 100
Item STR1	8.00	8.00	1.60	20.00	10.20	10.10	0.00	0.00	0.00	0.00		Stringer, web 100
Item STR1	8.00	8.00	1.60	20.00	15.20	14.90	0.00	0.00	0.00	0.00		Stringer, flange 100
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM6

THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	85	of	87	
TANK/HOLD DESCRIPTION	Internal structure (Sketch 40)											
LOCATION OF STRUCTURE	Forepeak Tank											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item TT1	7.50	7.50	1.50	20.00	6.70	6.60	0.80	10.67	0.90	12.00		Tank Top 100
Item TT2	7.50	7.50	1.50	20.00	6.00	6.50	1.50	20.00	1.00	13.33		Tank Top 100
Item B	13.50	13.50	2.70	20.00	12.40	10.90	1.10	8.15	2.60	19.26		Side shell plate 100
Item C	13.50	13.50	2.70	20.00	12.30	12.30	1.20	8.89	1.20	8.89		Side shell plate 100
Item D	9.00	9.00	1.80	20.00	8.00	7.00	1.00	11.11	2.00	22.22		Side shell plate 100
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	Alva	Print-out date: 6/27/2022

Thickness Measurement Report - TM6

THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	86	of	87	
TANK/HOLD DESCRIPTION	Internal structure (Sketch 40)											
LOCATION OF STRUCTURE	Forepeak Tank											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item x1	8.00	8.00	2.00	25.00	6.40	6.40	1.60	20.00	1.60	20.00		Deck beam 101
Item x2 - x3	7.00	7.00	1.75	25.00	6.65	6.90	0.35	5.00	0.10	1.43		Side shell frame 101
Item x4	7.00	7.00	1.75	25.00	6.00	0.00	1.00	14.29	0.00	0.00		Vertical stiffener 101
Item bk1	8.00	8.00	2.00	25.00	8.30	8.60	0.00	0.00	0.00	0.00		Bracket 101
Item bk2	8.00	8.00	2.00	25.00	7.50	7.50	0.50	6.25	0.50	6.25		Bracket 101
Item LB1 - LB2	7.50	7.50	1.50	20.00	8.20	9.20	0.00	0.00	0.00	0.00		Long. bhd 101
Item STR1	8.00	8.00	1.60	20.00	10.10	10.00	0.00	0.00	0.00	0.00		Stringer, web 101
Item STR1	8.00	8.00	1.60	20.00	15.10	15.20	0.00	0.00	0.00	0.00		Stringer, flange 101
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM6

THICKNESS MEASUREMENT OF MISCELLANEOUS STRUCTURAL ELEMENTS												
Ship's name and Rina number	Alva, RI: 90377							Sheet	87	of	87	
TANK/HOLD DESCRIPTION	Internal structure (Sketch 40)											
LOCATION OF STRUCTURE	Forepeak Tank											
STRUCTURAL MEMBER	Original thickness	Rule thickness*	Max. allow. diminution		Gauged thickness		Diminution				SKETCH	Location
					P	S	P		S			
	[mm]	[mm]	[mm]	[%]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
Item TT1	7.50	7.50	1.50	20.00	7.50	6.80	0.00	0.00	0.70	9.33		Tank Top 101
Item TT2	7.50	7.50	1.50	20.00	6.10	6.50	1.40	18.67	1.00	13.33		Tank Top 101
Item B	13.50	13.50	2.70	20.00	12.10	11.90	1.40	10.37	1.60	11.85		Side shell plate 101
Item C	13.50	13.50	2.70	20.00	12.50	12.20	1.00	7.41	1.30	9.63		Side shell plate 101
Item D	16.00	16.00	3.20	20.00	14.60	14.70	1.40	8.75	1.30	8.13		Side shell plate 101
Operator		P. Wincior / T. Lampka					RINA Surveyor		A. Miler			

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - Worksheet Contents

TM6-G S21A - Hatch Covers and Other Members subject to UR S21A			
Ship's name and RINA number	Alva, RI: 90377		
LIST OF TABLES IN WORKSHEET			
Table	Description		
0 table(s) in worksheet			
Operator	P. Wincior / T. Lampka	RINA Surveyor	A. Miler

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - Worksheet Contents

TM7-G - Cargo Hold Transverse Frames			
Ship's name and RINA number	Alva, RI: 90377		
LIST OF TABLES IN WORKSHEET			
Table	Description		
Side Shell Frame 25, 26 & 27 (Sketch 11)			
Side Shell Frame 28, 29 & 37 (Sketch 11)			
Side Shell Frame 38, 39 & 40 (Sketch 11)			
Side Shell Frame 41, 42 & 43 (Sketch 11)			
Side Shell Frame 44, 45 & 46 (Sketch 11)			
Side Shell Frame 47, 48 & 49 (Sketch 11)			
Side Shell Frame 50, 51 & 52 (Sketch 11)			
Side Shell Frame 53, 54 & 55 (Sketch 11)			
Side Shell Frame 56, 57 & 58 (Sketch 11)			
Side Shell Frame 59, 60 & 61 (Sketch 11)			
Side Shell Frame 62, 63 & 64 (Sketch 11)			
Side Shell Frame 65, 66 & 67 (Sketch 11)			
Side Shell Frame 68, 69 & 70 (Sketch 11)			
Side Shell Frame 71, 72 & 73 (Sketch 11)			
Side Shell Frame 74 & 75 (Sketch 11)			
15 table(s) in worksheet			
Operator	P. Wincior / T. Lampka	RINA Surveyor	A. Miler

RINA	Alva	Print-out date: 6/27/2022

Thickness Measurement Report - TM7

THICKNESS MEASUREMENT OF CARGO HOLD TRANSVERSE FRAMES																														
Ship's name and RINA number			Alva, RI: 90377																			Sheet		1	of	15				
CARGO HOLD N°.			Side Shell Frame 25, 26 & 27 (Sketch 11)																											
FRAME NUMBER / Item	UPPERT PART									MID PART										LOWER PART									
	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				
				P	S	P		S					P	S	P		S						P	S	P		S	
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
(Fr.25) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	6.60		0.00	0.00		
(Fr.25) 2 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	9.20		0.00	0.00		
(Fr.25) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.60		0.00	0.00		
(Fr.26) x1-x4 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.25		0.00	0.00		
(Fr.26) 5 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.60		0.40	5.00		
(Fr.26) 6,7 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.75		0.00	0.00		
(Fr.27) x1, x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	6.10	5.90	0.40	6.15	0.60	9.23
(Fr.27) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.75	10.40	0.00	0.00	0.10	0.95
Operator		P. Wincior / T. Lampka													RINA Surveyor						A. Miler						

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.

* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	Alva	Print-out date: 6/27/2022

Thickness Measurement Report - TM7

THICKNESS MEASUREMENT OF CARGO HOLD TRANSVERSE FRAMES																														
Ship's name and RINA number				Alva, RI: 90377																		Sheet		2	of	15					
CARGO HOLD N°.				Side Shell Frame 28, 29 & 37 (Sketch 11)																										
FRAME NUMBER / Item	UPPERT PART									MID PART									LOWER PART											
	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution					
				P	S	P		S					P	S	P		S						P	S	P		S			
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
(Fr.28) x1-x4 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62		7.05			0.00	0.00		
(Fr.28) 5 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00		7.50			0.50	6.25		
(Fr.28) 6,7 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10		10.45			0.05	0.48		
(Fr.29) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62		6.80			0.00	0.00		
(Fr.29) 2 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00		6.90			1.10	13.75		
(Fr.29) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10		10.50			0.00	0.00		
(Fr.37) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62		8.05			0.00	0.00		
(Fr.37) 2 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00		8.00			0.00	0.00		
(Fr.37) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10		10.75			0.00	0.00		
Operator		P. Wincior / T. Lampka													RINA Surveyor						A. Miler								

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	Alva	Print-out date: 6/27/2022

Thickness Measurement Report - TM7

THICKNESS MEASUREMENT OF CARGO HOLD TRANSVERSE FRAMES																														
Ship's name and RINA number				Alva, RI: 90377																Sheet		3	of	15						
CARGO HOLD N°.				Side Shell Frame 38, 39 & 40 (Sketch 11)																										
FRAME NUMBER / Item	UPPERT PART									MID PART									LOWER PART											
	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				
				P	S	P		S					P	S	P		S						P	S	P		S	
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
(Fr.38) x1-x4 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.08	7.43	0.00	0.00	0.00	0.00
(Fr.38) 5 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.80	7.50	0.20	2.50	0.50	6.25
(Fr.38) 6,7 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.65	10.75	0.00	0.00	0.00	0.00
(Fr.39) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	6.35	8.20	0.15	2.31	0.00	0.00
(Fr.39) 2 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.20	7.70	0.80	10.00	0.30	3.75
(Fr.39) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.75	11.00	0.00	0.00	0.00	0.00
(Fr.40) x1-x4 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.35	7.55	0.00	0.00	0.00	0.00
(Fr.40) 5 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	8.00	7.70	0.00	0.00	0.30	3.75
(Fr.40) 6,7 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.60	10.55	0.00	0.00	0.00	0.00
Operator		P. Wincior / T. Lampka													RINA Surveyor						A. Miler						

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	Alva	Print-out date: 6/27/2022

Thickness Measurement Report - TM7

THICKNESS MEASUREMENT OF CARGO HOLD TRANSVERSE FRAMES																														
Ship's name and RINA number			Alva, RI: 90377																			Sheet		4	of	15				
CARGO HOLD N°.			Side Shell Frame 41, 42 & 43 (Sketch 11)																											
FRAME NUMBER / Item	UPPERT PART									MID PART									LOWER PART											
	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				
				P	S	P		S					P	S	P		S						P	S	P		S		
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
(Fr.41) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	9.85	9.95	0.00	0.00	0.00	0.00
(Fr.41) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.45	10.40	0.05	0.48	0.10	0.95
(Fr.42) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	9.50	10.05	0.00	0.00	0.00	0.00
(Fr.42) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.50	10.50	0.00	0.00	0.00	0.00
(Fr.43) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	9.65	9.85	0.00	0.00	0.00	0.00
(Fr.43) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.45	10.60	0.05	0.48	0.00	0.00
Operator		P. Wincior / T. Lampka													RINA Surveyor						A. Miler						

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
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RINA	Alva	Print-out date: 6/27/2022

Thickness Measurement Report - TM7

THICKNESS MEASUREMENT OF CARGO HOLD TRANSVERSE FRAMES																														
Ship's name and RINA number				Alva, RI: 90377																			Sheet		5	of	15			
CARGO HOLD N°.				Side Shell Frame 44, 45 & 46 (Sketch 11)																										
FRAME NUMBER / Item	UPPERT PART									MID PART									LOWER PART											
	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				
				P	S	P		S					P	S	P		S						P	S	P		S			
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
(Fr.44) x1-x4 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.28	7.18	0.00	0.00	0.00	0.00		
(Fr.44) 5 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	8.10	7.50	0.00	0.00	0.50	6.25		
(Fr.44) 6,7 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.45	10.45	0.05	0.48	0.05	0.48		
(Fr.45) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	6.55	6.90	0.00	0.00	0.00	0.00		
(Fr.45) 2 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.50	7.80	0.50	6.25	0.20	2.50		
(Fr.45) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.45	10.60	0.05	0.48	0.00	0.00		
(Fr.46) x1-x4 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.78	7.62	0.00	0.00	0.00	0.00		
(Fr.46) 5 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.60	7.90	0.40	5.00	0.10	1.25		
(Fr.46) 6,7 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.45	10.65	0.05	0.48	0.00	0.00		
Operator		P. Wincior / T. Lampka													RINA Surveyor						A. Miler								

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
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RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM7

THICKNESS MEASUREMENT OF CARGO HOLD TRANSVERSE FRAMES																														
Ship's name and RINA number				Alva, RI: 90377																		Sheet		6	of	15					
CARGO HOLD N°.				Side Shell Frame 47, 48 & 49 (Sketch 11)																										
FRAME NUMBER / Item	UPPERT PART									MID PART									LOWER PART											
	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution					
				P	S	P		S					P	S	P		S						P	S	P		S			
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
(Fr.47) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	6.55	6.90	0.00	0.00	0.00	0.00		
(Fr.47) 2 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	9.80	7.50	0.00	0.00	0.50	6.25		
(Fr.47) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.40	10.60	0.10	0.95	0.00	0.00		
(Fr.48) x1-x4 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.55	7.52	0.00	0.00	0.00	0.00		
(Fr.48) 5 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.90	7.60	0.10	1.25	0.40	5.00		
(Fr.48) 6,7 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.55	10.65	0.00	0.00	0.00	0.00		
(Fr.49) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62								
(Fr.49) 2 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00								
(Fr.49) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10								
Operator		P. Wincior / T. Lampka													RINA Surveyor						A. Miler								

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
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RINA	Alva	Print-out date: 6/27/2022

Thickness Measurement Report - TM7

THICKNESS MEASUREMENT OF CARGO HOLD TRANSVERSE FRAMES																														
Ship's name and RINA number				Alva, RI: 90377																		Sheet		7	of	15				
CARGO HOLD N°.				Side Shell Frame 50, 51 & 52 (Sketch 11)																										
FRAME NUMBER / Item	UPPERT PART									MID PART									LOWER PART											
	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				
				P	S	P		S					P	S	P		S						P	S	P		S		
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]
(Fr.50) x1-x4 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.40	7.38	0.00	0.00	0.00	0.00
(Fr.50) 5 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.80	7.80	0.20	2.50	0.20	2.50
(Fr.50) 6,7 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.55	10.45	0.00	0.00	0.05	0.48
(Fr.51) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.10	7.15	0.00	0.00	0.00	0.00
(Fr.51) 2 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.80	7.80	0.20	2.50	0.20	2.50
(Fr.51) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.65	10.50	0.00	0.00	0.00	0.00
(Fr.52) x1-x4 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.40	7.57	0.00	0.00	0.00	0.00
(Fr.52) 5 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.70	7.90	0.30	3.75	0.10	1.25
(Fr.52) 6,7 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.35	10.55	0.15	1.43	0.00	0.00
Operator		P. Wincior / T. Lampka													RINA Surveyor						A. Miler								

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM7

THICKNESS MEASUREMENT OF CARGO HOLD TRANSVERSE FRAMES																														
Ship's name and RINA number				Alva, RI: 90377																		Sheet		8	of	15					
CARGO HOLD N°.				Side Shell Frame 53, 54 & 55 (Sketch 11)																										
FRAME NUMBER / Item	UPPERT PART									MID PART									LOWER PART											
	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution					
				P	S	P		S					P	S	P		S						P	S	P		S			
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
(Fr.53) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.85	7.35	0.00	0.00	0.00	0.00		
(Fr.53) 2 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.90	7.70	0.10	1.25	0.30	3.75		
(Fr.53) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.35	10.60	0.15	1.43	0.00	0.00		
(Fr.54) x1-x4 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.82	7.70	0.00	0.00	0.00	0.00		
(Fr.54) 5 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.80	7.80	0.20	2.50	0.20	2.50		
(Fr.54) 6,7 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.40	10.55	0.10	0.95	0.00	0.00		
(Fr.55) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.55	6.85	0.00	0.00	0.00	0.00		
(Fr.55) 2 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	8.10	7.40	0.00	0.00	0.60	7.50		
(Fr.55) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.35	10.55	0.15	1.43	0.00	0.00		
Operator		P. Wincior / T. Lampka													RINA Surveyor						A. Miler								

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	Alva	Print-out date: 6/27/2022

Thickness Measurement Report - TM7

THICKNESS MEASUREMENT OF CARGO HOLD TRANSVERSE FRAMES																														
Ship's name and RINA number				Alva, RI: 90377																Sheet		9	of	15						
CARGO HOLD N°.				Side Shell Frame 56, 57 & 58 (Sketch 11)																										
FRAME NUMBER / Item	UPPERT PART									MID PART									LOWER PART											
	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution					
				P	S	P		S					P	S	P		S						P	S	P		S			
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
(Fr.56) x1-x4 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.35	7.30	0.00	0.00	0.00	0.00		
(Fr.56) 5 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.80	7.80	0.20	2.50	0.20	2.50		
(Fr.56) 6,7 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.65	10.70	0.00	0.00	0.00	0.00		
(Fr.57) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.10	7.25	0.00	0.00	0.00	0.00		
(Fr.57) 2 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.50	8.30	0.50	6.25	0.00	0.00		
(Fr.57) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							10.50	10.50	2.10	10.70	10.65	0.00	0.00	0.00	0.00		
(Fr.58) x1-x4 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.55	7.42	0.00	0.00	0.00	0.00		
(Fr.58) 5 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.30	8.10	0.70	8.75	0.00	0.00		
(Fr.58) 6,7 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							12.00	12.00	2.40	11.50	11.75	0.50	4.17	0.25	2.08		
Operator		P. Wincior / T. Lampka													RINA Surveyor						A. Miler								

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM7

THICKNESS MEASUREMENT OF CARGO HOLD TRANSVERSE FRAMES																														
Ship's name and RINA number				Alva, RI: 90377																		Sheet		10	of	15					
CARGO HOLD N°.				Side Shell Frame 59, 60 & 61 (Sketch 11)																										
FRAME NUMBER / Item	UPPERT PART									MID PART									LOWER PART											
	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution					
				P	S	P		S					P	S	P		S						P	S	P		S			
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
(Fr.59) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	6.80	7.05	0.00	0.00	0.00	0.00		
(Fr.59) 2 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.30	8.90	0.70	8.75	0.00	0.00		
(Fr.59) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							12.00	12.00	2.40	10.70	11.60	1.30	10.83	0.40	3.33		
(Fr.60) x1-x4 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.45	7.60	0.00	0.00	0.00	0.00		
(Fr.60) 5 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.90	7.90	0.10	1.25	0.10	1.25		
(Fr.60) 6,7 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							12.00	12.00	2.40	11.50	11.70	0.50	4.17	0.30	2.50		
(Fr.61) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	6.95	6.85	0.00	0.00	0.00	0.00		
(Fr.61) 2 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	8.10	8.00	0.00	0.00	0.00	0.00		
(Fr.61) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							12.00	12.00	2.40	11.55	11.50	0.45	3.75	0.50	4.17		
Operator		P. Wincior / T. Lampka													RINA Surveyor						A. Miler								

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	Alva	Print-out date: 6/27/2022

Thickness Measurement Report - TM7

THICKNESS MEASUREMENT OF CARGO HOLD TRANSVERSE FRAMES																														
Ship's name and RINA number				Alva, RI: 90377																			Sheet		11	of	15				
CARGO HOLD N°.				Side Shell Frame 62, 63 & 64 (Sketch 11)																										
FRAME NUMBER / Item	UPPERT PART									MID PART									LOWER PART											
	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution					
				P	S	P		S					P	S	P		S						P	S	P		S			
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
(Fr.62) x1-x4 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.45	7.17	0.00	0.00	0.00	0.00		
(Fr.62) 5 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.80	8.20	0.20	2.50	0.00	0.00		
(Fr.62) 6,7 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							12.00	12.00	2.40	11.25	11.75	0.75	6.25	0.25	2.08		
(Fr.63) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	6.65	7.05	0.00	0.00	0.00	0.00		
(Fr.63 2 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.10	7.50	0.90	11.25	0.50	6.25		
(Fr.63) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							12.00	12.00	2.40	11.25	11.45	0.75	6.25	0.55	4.58		
(Fr.64) x1-x4 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.45	7.38	0.00	0.00	0.00	0.00		
(Fr.64) 5 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.70	8.00	0.30	3.75	0.00	0.00		
(Fr.64) 6,7 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							12.00	12.00	2.40	11.45	11.75	0.55	4.58	0.25	2.08		
Operator		P. Wincior / T. Lampka													RINA Surveyor						A. Miler								

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM7

THICKNESS MEASUREMENT OF CARGO HOLD TRANSVERSE FRAMES																														
Ship's name and RINA number				Alva, RI: 90377																		Sheet		12	of	15					
CARGO HOLD N°.				Side Shell Frame 65, 66 & 67 (Sketch 11)																										
FRAME NUMBER / Item	UPPERT PART									MID PART									LOWER PART											
	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution					
				P	S	P		S					P	S	P		S						P	S	P		S			
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
(Fr.65) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	8.35		0.00	0.00				
(Fr.65) 2 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	6.40		1.60	20.00				
(Fr.65) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							12.00	12.00	2.40	11.15		0.85	7.08				
(Fr.66) x1-x4 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.60	7.35	0.00	0.00	0.00	0.00		
(Fr.66) 5 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.50	7.50	0.50	6.25	0.50	6.25		
(Fr.66) 6,7 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							12.00	12.00	2.40	12.65	11.70	0.00	0.00	0.30	2.50		
(Fr.67) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	6.50	6.55	0.00	0.00	0.00	0.00		
(Fr.67) 2 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.60	8.00	0.40	5.00	0.00	0.00		
(Fr.67) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							12.00	12.00	2.40	12.45	12.40	0.00	0.00	0.00	0.00		
Operator		P. Wincior / T. Lampka													RINA Surveyor						A. Miler								

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RINA	Alva	Print-out date: 6/27/2022

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THICKNESS MEASUREMENT OF CARGO HOLD TRANSVERSE FRAMES																														
Ship's name and RINA number				Alva, RI: 90377																		Sheet		13	of	15					
CARGO HOLD N°.				Side Shell Frame 68, 69 & 70 (Sketch 11)																										
FRAME NUMBER / Item	UPPERT PART									MID PART									LOWER PART											
	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution					
				P	S	P		S					P	S	P		S						P	S	P		S			
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
(Fr.68) x1-x4 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.47	7.35	0.00	0.00	0.00	0.00		
(Fr.68) 5 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	8.10	7.60	0.00	0.00	0.40	5.00		
(Fr.68) 6,7 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							12.00	12.00	2.40	12.60	12.55	0.00	0.00	0.00	0.00		
(Fr.69) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.20	6.80	0.00	0.00	0.00	0.00		
(Fr.69) 2 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.90	7.80	0.10	1.25	0.20	2.50		
(Fr.69) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							12.00	12.00	2.40	12.50	12.65	0.00	0.00	0.00	0.00		
(Fr.70) x1-x4 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.45	7.52	0.00	0.00	0.00	0.00		
(Fr.70) 5 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.50	7.80	0.50	6.25	0.20	2.50		
(Fr.70) 6,7 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							13.50	13.50	2.70	12.70	12.70	0.80	5.93	0.80	5.93		
Operator		P. Wincior / T. Lampka													RINA Surveyor						A. Miler								

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
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RINA	**Alva**	Print-out date: **6/27/2022**

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THICKNESS MEASUREMENT OF CARGO HOLD TRANSVERSE FRAMES																														
Ship's name and RINA number				Alva, RI: 90377																			Sheet		14	of	15			
CARGO HOLD N°.				Side Shell Frame 71, 72 & 73 (Sketch 11)																										
FRAME NUMBER / Item	UPPERT PART										MID PART										LOWER PART									
	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution					Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution					Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				
				P	S	P		S						P	S	P		S							P	S	P		S	
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	
(Fr.71) x1,x3 Side shell frame, web	0.00	0.00	0.00								0.00	0.00	0.00								6.50	6.50	1.62	7.20	7.15	0.00	0.00	0.00	0.00	
(Fr.71) 2 Side shell frame, flange	0.00	0.00	0.00								0.00	0.00	0.00								8.00	8.00	2.00	8.00	6.80	0.00	0.00	1.20	15.00	
(Fr.71) 4,5 Side shell plating	0.00	0.00	0.00								0.00	0.00	0.00								13.50	13.50	2.70	12.60	12.80	0.90	6.67	0.70	5.19	
(Fr.72) x1-x4 Side shell frame, web	0.00	0.00	0.00								0.00	0.00	0.00								6.50	6.50	1.62	7.30	7.07	0.00	0.00	0.00	0.00	
(Fr.72) 5 Side shell frame, flange	0.00	0.00	0.00								0.00	0.00	0.00								8.00	8.00	2.00	7.30	7.50	0.70	8.75	0.50	6.25	
(Fr.72) 6,7 Side shell plating	0.00	0.00	0.00								0.00	0.00	0.00								13.50	13.50	2.70	12.95	13.05	0.55	4.07	0.45	3.33	
(Fr.73) x1,x3 Side shell frame, web	0.00	0.00	0.00								0.00	0.00	0.00								6.50	6.50	1.62	7.05	7.25	0.00	0.00	0.00	0.00	
(Fr.73) 2 Side shell frame, flange	0.00	0.00	0.00								0.00	0.00	0.00								8.00	8.00	2.00	7.80	7.00	0.20	2.50	1.00	12.50	
(Fr.73) 4,5 Side shell plating	0.00	0.00	0.00								0.00	0.00	0.00								13.50	13.50	2.70	12.65	12.80	0.85	6.30	0.70	5.19	
Operator		P. Wincior / T. Lampka														RINA Surveyor							A. Miler							

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
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RINA	**Alva**	Print-out date: **6/27/2022**

Thickness Measurement Report - TM7

THICKNESS MEASUREMENT OF CARGO HOLD TRANSVERSE FRAMES																														
Ship's name and RINA number				Alva, RI: 90377																			Sheet		15	of	15			
CARGO HOLD N°.				Side Shell Frame 74 & 75 (Sketch 11)																										
FRAME NUMBER / Item	UPPERT PART									MID PART									LOWER PART											
	Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution				Original thickn.	Rule thickn.*	Max. alwb. dim.	Gauged thickness		Diminution					
				P	S	P		S					P	S	P		S						P	S	P		S			
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[%]	[mm]	[%]		
(Fr.74) x1-x4 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.35	7.70	0.00	0.00	0.00	0.00		
(Fr.74) 5 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.50	7.70	0.50	6.25	0.30	3.75		
(Fr.74) 6,7 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							13.50	13.50	2.70	13.10	13.30	0.40	2.96	0.20	1.48		
(Fr.75) x1,x3 Side shell frame, web	0.00	0.00	0.00							0.00	0.00	0.00							6.50	6.50	1.62	7.20	6.70	0.00	0.00	0.00	0.00		
(Fr.75) 2 Side shell frame, flange	0.00	0.00	0.00							0.00	0.00	0.00							8.00	8.00	2.00	7.30	8.20	0.70	8.75	0.00	0.00		
(Fr.75) 4,5 Side shell plating	0.00	0.00	0.00							0.00	0.00	0.00							13.50	13.50	2.70	13.35	13.15	0.15	1.11	0.35	2.59		
Operator		P. Wincior / T. Lampka													RINA Surveyor						A. Miler								

* Rule thickness t_{RULE} is used for calculations. If not available, it is assumed equal to original thickness t_{AB}.
* If $t_{RULE} = t_{AB}$, only fill t_{AB}.

RINA	**Alva**	Print-out date: **6/27/2022**

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