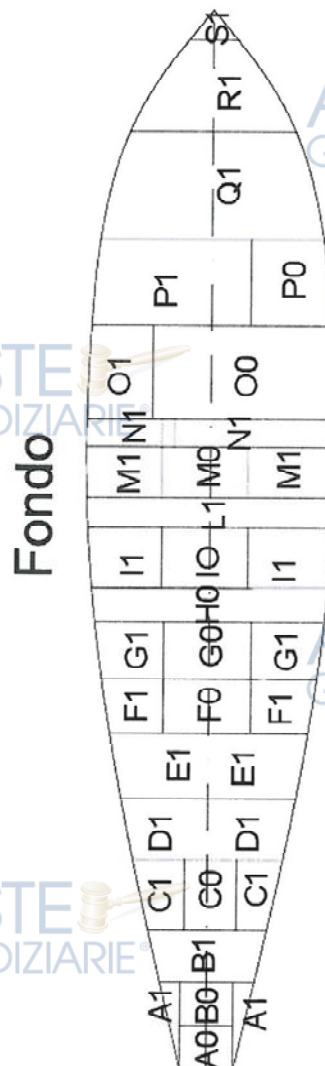


RINA	ASTE GIUDIZIARIE	VIGLIENA	Print-out date: 10/05/2019
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Vigliena FONDO



Operator's signature image

RINA

Andrea De Palma
RINA Services S.p.A.

Surveyor's signature image

RINA	VIGLIENA	Print-out date: 10/05/2019
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Thickness Measurement Report - TM1

THICKNESS MEASUREMENT OF ALL DECK PLATING / ALL BOTTOM SHELL PLATING / ALL SIDE PLATING																						
Ship's name and RINA number				VIGLIENA, RI: 20420												Sheet		1	of	11		
STRAKE POSITION		PONTE DI COPERTA Main Deck - Sx (Deck, Bottom, Side. To be used accordingly before putting strake position)																				
PLATE POSITION	Frames N° or letter Ordinate	Original thicken. [mm]	Rule thicken. [mm]	FORWARD READINGS								AFT READINGS								Mean diminution [mm]		Maximum allowable dimin. [mm]
				Gauged thickness [mm]		Diminution [%]		Gauged thickness [mm]		Diminution [%]		Gauged thickness [mm]		Diminution [%]								
				P	S	P	S	P	S	P	S	P	S	P	S	P	S					
Amidship	H2	8.00	8.00	7.05		0.95	11.88			7.05		0.95	11.87			0.95	0.00	1.60				
1st aft	G2	8.00	8.00	7.80	7.70	0.20	2.50	0.30	3.75	7.80	7.70	0.20	2.50	0.30	3.75	0.20	0.30	1.60				
2nd aft	F2	8.00	8.00	8.20		0.00	0.00			8.10	7.90	0.00	0.00	0.10	1.25	0.00	0.10	1.60				
2nd aft	E2	8.00	8.00	8.00		0.00	0.00			8.05		0.00	0.00			0.00	0.00	1.60				
3rd aft	E1	8.00	8.00	7.60	7.60	0.40	5.00	0.40	5.00	7.70	7.60	0.30	3.75	0.40	5.00	0.35	0.40	1.60				
5th aft	B1	8.00	8.00	7.45		0.55	6.87			7.60		0.40	5.00			0.47	0.00	1.60				
6th aft	A1	8.00	8.00	7.80	8.00	0.20	2.50	0.00	0.00	7.90	8.00	0.10	1.25	0.00	0.00	0.15	0.00	1.60				
1st fwd	I2	8.00	8.00	7.10		0.90	11.25			7.90		0.10	1.25			0.50	0.00	1.60				
2nd fwd	L2	8.00	8.00	6.80		1.20	15.00			7.30		0.70	8.75			0.95	0.00	1.60				
3rd fwd	M2	8.00	8.00	8.30		0.00	0.00			8.40		0.00	0.00			0.00	0.00	1.60				
3rd fwd	M1	8.00	8.00	8.10		0.00	0.00			8.10		0.00	0.00			0.00	0.00	1.60				
Operator		ANDREA PENSERINI										RINA Surveyor		ANDREA DE PALMA								

* 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} .

Operator's signature image

RINA
Andrea De Palma
RINA Service S.p.A.
Andrea De Palma

Surveyor's signature image

RINA	VIGLIENA	Print-out date: 10/05/2019
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Thickness Measurement Report - TM1

THICKNESS MEASUREMENT OF ALL DECK PLATING / ALL BOTTOM SHELL PLATING / ALL SIDE PLATING																				
Ship's name and RINA number										VIGLIENA, RI: 20420		Sheet		2		of		11		
STRAKE POSITION		PONTE DI COPERTA Main Deck - Dx (Deck, Bottom, Side. To be used accordingly before putting strake position)																		
PLATE POSITION	Frames N° or letter Ordinate	Original thckn. [mm]	Rule thckn. [mm]	FORWARD READINGS								AFT READINGS						Mean diminution [mm]		Maximum allowable dimin. [mm]
				Gauged thickness		Diminution		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]	
Amidship	H2	8.00	8.00	7.90		0.10	1.25			7.80		0.20	2.50			0.15	0.00	1.60		
1st aft	G2	8.00	8.00	7.70		0.30	3.75			7.80		0.20	2.50			0.25	0.00	1.60		
2nd aft	F2	8.00	8.00	7.90		0.10	1.25			7.90		0.10	1.25			0.10	0.00	1.60		
2nd aft	E2	8.00	8.00	8.00	8.00	0.00	0.00	0.00	0.00	7.90	8.00	0.10	1.25	0.00	0.00	0.05	0.00	1.60		
3rd aft	E1	8.00	8.00	7.90		0.10	1.25			7.60	7.90	0.40	5.00	0.10	1.25	0.25	0.10	1.60		
5th aft	B1	8.00	8.00	7.30		0.70	8.75			7.80		0.20	2.50			0.45	0.00	1.60		
6th aft	A1	8.00	8.00	8.00	8.20	0.00	0.00	0.00	0.00	8.30	8.10	0.00	0.00	0.00	0.00	0.00	0.00	1.60		
1st fwd	I2	8.00	8.00	7.80		0.20	2.50			7.80				0.20	2.50	0.20	0.20	1.60		
2nd fwd	L2	8.00	8.00	7.30		0.70	8.75			6.90				1.10	13.75	0.70	1.10	1.60		
3rd fwd	M2	8.00	8.00	7.20		0.80	10.00			7.60		0.40	5.00			0.60	0.00	1.60		
3rd fwd	M1	8.00	8.00	7.80		0.20	2.50			7.70		0.30	3.75			0.25	0.00	1.60		
Operator		ANDREA PENSERINI										RINA Surveyor		ANDREA DE PALMA						

* 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} .

ASTE GIUDIZIARIE

Operator's signature image

RINA

Andrea De Palma
RINA Service S.p.A.

Surveyor's signature image

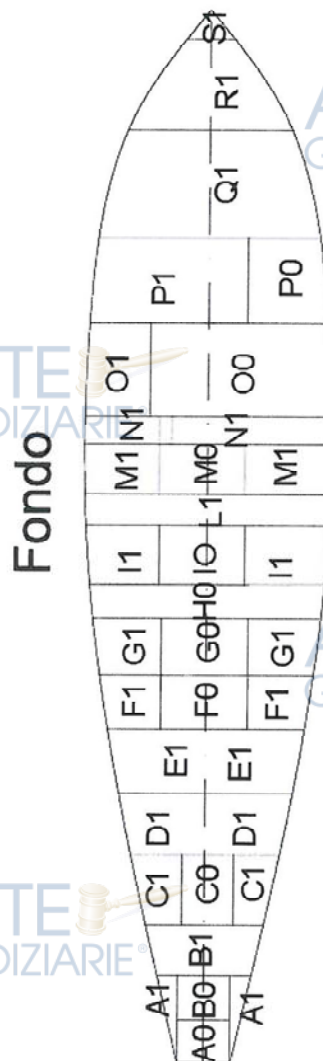
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RINA	ASTE GIUDIZIARIE VIGLIENA	Print-out date: 10/05/2019
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Vigliena FONDO



Operator's signature image

RINA
Assistenza Tecnica
RINA SpA

Surveyor's signature image

RINA	VIGLIENA	Print-out date: 10/05/2019
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Thickness Measurement Report - TM1

THICKNESS MEASUREMENT OF ALL DECK PLATING / ALL BOTTOM SHELL PLATING / ALL SIDE PLATING																					
Ship's name and RINA number										VIGLIENA, RI: 20420		Sheet		3	of		11				
STRAKE POSITION		CHIGLIA - BOTTOM PLATING - Dx (Deck, Bottom, Side. To be used accordingly before putting stake position)																			
PLATE POSITION	Frames N° or letter Ordinate	Original thickn. [mm]	Rule thickn. [mm]	FORWARD READINGS								AFT READINGS						Mean diminution [mm]		Maximum allowable dimin. [mm]	
				Gauged thickness [mm]		Diminution [%]				Gauged thickness [mm]		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]		
Amidship	L1	12.00	12.00	11.70		0.30	2.50			11.80		0.20	1.67			0.25	0.00	2.40			
1st fwd	M1	12.00	12.00	12.40	12.20	0.00	0.00	0.00	0.00	12.30	12.20	0.00	0.00	0.00	0.00	0.00	0.00	2.40			
2nd fwd	N1	12.00	12.00	11.80	12.00	0.20	1.67	0.00	0.00	11.90	12.00	0.10	0.83	0.00	0.00	0.15	0.00	2.40			
3rd fwd	O0	12.00	12.00	11.40	11.40	0.60	5.00	0.60	5.00	11.50	11.60	0.50	4.17	0.40	3.33	0.55	0.50	2.40			
4th fwd	P0	12.00	12.00	11.70	11.80	0.30	2.50	0.20	1.67	11.80	11.70	0.20	1.67	0.30	2.50	0.25	0.25	2.40			
5th fwd	Q1	12.00	12.00	11.60		0.40	3.33			11.70		0.30	2.50			0.35	0.00	2.40			
6th fwd	R1	12.00	12.00	11.80		0.20	1.67			11.80		0.20	1.67			0.20	0.00	2.40			
7th fwd	S1	9.00	9.00	8.60		0.40	4.44			8.80		0.20	2.22			0.30	0.00	1.80			
1st aft	I1	12.00	12.00	12.00		0.00	0.00			12.10		0.00	0.00			0.00	0.00	2.40			
2nd aft	H0	12.00	12.00	12.00	12.10	0.00	0.00	0.00	0.00	12.00	12.10	0.00	0.00	0.00	0.00	0.00	0.00	2.40			
3rd aft	G1	12.00	12.00	12.00	11.90	0.00	0.00	0.10	0.83	11.90	12.00	0.10	0.83	0.00	0.00	0.05	0.05	2.40			
4th aft	F1	12.00	12.00	12.00		0.00	0.00			11.80		0.20	1.67			0.10	0.00	2.40			
5th aft	E1	12.00	12.00													0.00	0.00	2.40			
6th aft	D1	12.00	12.00	12.00		0.00	0.00			12.10		0.00	0.00			0.00	0.00	2.40			
7th aft	C1	12.00	12.00	12.00		0.00	0.00			12.00		0.00	0.00			0.00	0.00	2.40			
8th aft	B1	12.00	12.00	11.80		0.20	1.67			11.90		0.10	0.83			0.15	0.00	2.40			
9th aft	A1	12.00	12.00	11.80		0.20	1.67			11.80		0.20	1.67			0.20	0.00	2.40			
Operator		ANDREA PENSERINI																RINA Surveyor		ANDREA DE PALMA	

* 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} .

Andrea De Palma

Operator's signature image

RINA

Andrea De Palma
RINA Services S.p.A.

Andrea De Palma

Surveyor's signature image

RINA	VIGLIENA	Print-out date: 10/05/2019
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Thickness Measurement Report - TM1

THICKNESS MEASUREMENT OF ALL DECK PLATING / ALL BOTTOM SHELL PLATING / ALL SIDE PLATING																						
Ship's name and RINA number				VIGLIENA, RI: 20420										Sheet		4	of		11			
STRAKE POSITION		CHIGLIA - BOTTOM PLATING - Sx (Deck, Bottom, Side, To be used accordingly before putting strake position)																				
PLATE POSITION	Frames N° or letter Ordinate	Original thickn.	Rule thickn.	FORWARD READINGS								AFT READINGS						Mean diminution		Maximum allowable dimin.		
				Gauged thickness				Diminution				Gauged thickness				Diminution						
				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]
Amidship	L1	12.00	12.00	11.80	11.90	0.20	1.67	0.10	0.83	11.80	11.90	0.20	1.67	0.10	0.83	0.20	0.10	2.40				
1st fwd	M1	12.00	12.00	11.80		0.20	1.67			11.90		0.10	0.83			0.15	0.00	2.40				
2nd fwd	N1	12.00	12.00	11.70		0.30	2.50			11.80		0.20	1.67			0.25	0.00	2.40				
3rd fwd	O0	12.00	12.00	12.00	11.90	0.00	0.00	0.10	0.83	12.00	12.10	0.00	0.00	0.00	0.00	0.00	0.00	2.40				
4th fwd	P0	12.00	12.00	11.70	12.00	0.30	2.50	0.00	0.00	11.80	11.90	0.20	1.67	0.10	0.83	0.25	0.05	2.40				
5th fwd	Q1	12.00	12.00	11.90		0.10	0.83			11.80		0.20	1.67			0.15	0.00	2.40				
6th fwd	R1	12.00	12.00	11.80		0.20	1.67			11.70		0.30	2.50			0.25	0.00	2.40				
7th fwd	S1	9.00	9.00	11.90		0.00	0.00			12.00		0.00	0.00			0.00	0.00	1.80				
1st aft	I1	12.00	12.00	11.80		0.20	1.67			11.70		0.30	2.50			0.25	0.00	2.40				
2nd aft	H0	12.00	12.00	12.00		0.00	0.00			11.80		0.20	1.67			0.10	0.00	2.40				
3rd aft	G1	12.00	12.00	11.80		0.20	1.67			11.90		0.10	0.83			0.15	0.00	2.40				
4th aft	F1	12.00	12.00	11.70		0.30	2.50			11.80		0.20	1.67			0.25	0.00	2.40				
5th aft	E1	12.00	12.00													0.00	0.00	2.40				
6th aft	D1	12.00	12.00	11.80		0.20	1.67			11.90		0.10	0.83			0.15	0.00	2.40				
7th aft	C1	12.00	12.00	11.80		0.20	1.67			11.80		0.20	1.67			0.20	0.00	2.40				
8th aft	B1	12.00	12.00	11.80		0.20	1.67			11.70		0.30	2.50			0.25	0.00	2.40				
9th aft	A1	12.00	12.00	11.60		0.40	3.33			11.70		0.30	2.50			0.35	0.00	2.40				
Operator		ANDREA PENSERINI								RINA Surveyor		ANDREA DE PALMA										

* 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} .

And. Palma
Operator's signature image

RINA
Andrea De Palma
RINA Surveyor S.p.A.
And. Palma
Surveyor's signature image

RINA	VIGLIENA	Print-out date: 10/05/2019
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Thickness Measurement Report - TM1

THICKNESS MEASUREMENT OF ALL DECK PLATING / ALL BOTTOM SHELL PLATING / ALL SIDE PLATING																							
Ship's name and RINA number										VIGLIENA, RI: 20420										Sheet	5	of	11
STRAKE POSITION		CHIGLIA - BOTTOM PLATING (Deck, Bottom, Side. To be used accordingly before putting strake position)																					
PLATE POSITION	Frames N° or letter Ordinate	Original thickn. [mm]	Rule thickn. [mm]	FORWARD READINGS								AFT READINGS								Mean diminution		Maximum allowable dimin. [mm]	
				Gauged thickness		Diminution				Gauged thickness		Diminution				P		S					
				P	S	P	%	P	%	P	S	P	%	P	%	P	S						
				[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]				
2nd fwd	O0	12.00	12.00	11.80	12.00	0.20	1.67	0.00	0.00	12.00	11.70	0.00	0.00	0.30	2.50	0.10	0.15	2.40					
1st fwd	M0	12.00	12.00	11.70	12.00	0.30	2.50	0.00	0.00	11.80	11.90	0.20	1.67	0.10	0.83	0.25	0.05	2.40					
1st aft	I0	12.00	12.00	11.80	11.70	0.20	1.67	0.30	2.50	11.80	11.90	0.20	1.67	0.10	0.83	0.20	0.20	2.40					
2nd aft	G0	12.00	12.00	12.00	11.80	0.00	0.00	0.20	1.67	11.80	11.90	0.20	1.67	0.10	0.83	0.10	0.15	2.40					
3rd aft	F0	12.00	12.00	11.70	12.00	0.30	2.50	0.00	0.00	11.80	12.00	0.20	1.67	0.00	0.00	0.25	0.00	2.40					
4th aft	C0	12.00	12.00	11.70	11.60	0.30	2.50	0.40	3.33	11.80	11.70	0.20	1.67	0.30	2.50	0.25	0.35	2.40					
5th aft	B0	7.00	7.00	6.00		1.00	14.29			6.30		0.70	10.00			0.85	0.00	1.40					
6th aft	A0	7.00	7.00	6.80	7.00	0.20	2.86	0.00	0.00	6.80	6.80	0.20	2.86	0.20	2.86	0.20	0.10	1.40					
Operator		ANDREA PENSERINI										RINA Surveyor				ANDREA DE PALMA							

* 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} .

And. de Palma
Operator's signature image

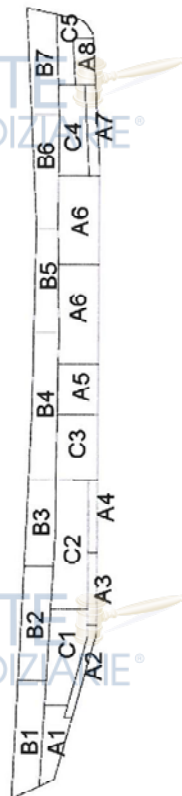
RINA
Andrea De Palma
RINA Service S.p.A.
And. de Palma
Surveyor's signature image

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RINA	ASTE GIUDIZIARIE VIGLIENA	Print-out date: 10/05/2019
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Vigliena Dx

Shell Plating Dx
Fasciame Esterno Dx



Operator's signature image

RINA
Alfredo De Palma
RINA Service S.p.A.

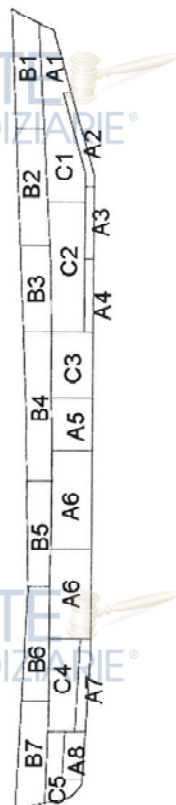
Surveyor's signature image

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RINA	ASTE GIUDIZIARIE VIGLIENNA	Print-out date: 10/05/2019
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Viglienna Sx

Shell Plating Sx
Fasciame Esterno Sx



Operator's signature image

RINA

Andrea De Vito

ing. Paolo Crispino

Surveyor's signature image

RINA	VIGLIENA	Print-out date: 10/05/2019
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Thickness Measurement Report - TM1

THICKNESS MEASUREMENT OF ALL DECK PLATING / ALL BOTTOM SHELL PLATING / ALL SIDE PLATING																					
Ship's name and RINA number										VIGLIENA, RI: 20420				Sheet		6		of		11	
STRAKE POSITION	FASCAME - SHELL PLATING - Plate C D _x (Deck, Bottom, Side, To be used accordingly before putting strake position)																				
PLATE POSITION	Frames N° or letter Ordinate	Original thickn.	Rule thickn.	FORWARD READINGS								AFT READINGS						Mean diminution		Maximum allowable dimin.	
				Gauged thickness		Diminution				Gauged thickness		Diminution									
				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]
1st aft	C3	9.00	9.00	8.80	8.90	0.20	2.22	0.10	1.11	9.10	8.80	0.00	0.00	0.20	2.22	0.05	0.15	1.80			
2nd aft	C2	9.00	9.00	8.95	8.80	0.05	0.56	0.20	2.22	8.70	8.90	0.30	3.33	0.10	1.11	0.18	0.15	1.80			
3rd aft	C1	9.00	9.00	8.70	8.80	0.30	3.33	0.20	2.22	9.00	8.90	0.00	0.00	0.10	1.11	0.15	0.15	1.80			
1st fwd	C4	9.00	9.00	8.65	8.40	0.35	3.89	0.60	6.67	8.00	7.90	1.00	11.11	1.10	12.22	0.68	0.85	1.80			
2nd fwd	C5	9.00	9.00	9.70	9.65	0.00	0.00	0.00	0.00	9.70	9.75	0.00	0.00	0.00	0.00	0.00	0.00	1.80			
Operator		ANDREA PENSERINI										RINA Surveyor				ANDREA DE PALMA					

* 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} .

And. De Palma

Operator's signature image

RINA
Andrea De Palma
RINA Services S.p.A.

Surveyor's signature image

ASTE GIUDIZIARIE

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RINA	VIGLIENA	Print-out date: 10/05/2019
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Thickness Measurement Report - TM1

THICKNESS MEASUREMENT OF ALL DECK PLATING / ALL BOTTOM SHELL PLATING / ALL SIDE PLATING																				
Ship's name and RINA number										VIGLIENA, RI: 20420		Sheet		7	of		11			
STRAKE POSITION	FASCIAME - SHELL PLATING - Plate C Sx (Deck, Bottom, Side, To be used accordingly before putting strake position)																			
PLATE POSITION	Frames N° or letter Ordinate	Original thickn.	Rule thickn.	FORWARD READINGS								AFT READINGS						Mean diminution		Maximum allowable dimin.
				Gauged thickness		Diminution				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]			
				1st aft	C3	9.00	9.00	8.70	8.60	0.30	3.33	0.40	4.44	8.80	8.80	0.20	2.22	0.20	2.22	
2nd aft	C2	9.00	9.00	8.70	8.90	0.30	3.33	0.10	1.11	8.80	8.80	0.20	2.22	0.20	2.22	0.25	0.15	1.80		
3rd aft	C1	9.00	9.00	8.30	8.60	0.70	7.78	0.40	4.44	8.60	8.30	0.40	4.44	0.70	7.78	0.55	0.55	1.80		
1st fwd	C4	9.00	9.00	8.60	8.70	0.40	4.44	0.30	3.33	8.20	7.80	0.80	8.89	1.20	13.33	0.60	0.75	1.80		
2nd fwd	C5	9.00	9.00	8.50	8.60	0.50	5.56	0.40	4.44	7.80	7.80	1.20	13.33	1.20	13.33	0.85	0.80	1.80		
Operator		ANDREA PENSERINI										RINA Surveyor		ANDREA DE PALMA						

* 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} .

And. Palm

Operator's signature image

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Andrea De Palma
RINA Services S.p.A.

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Thickness Measurement Report - TM1

THICKNESS MEASUREMENT OF ALL DECK PLATING / ALL BOTTOM SHELL PLATING / ALL SIDE PLATING																				
Ship's name and RINA number										VIGLIENA, RI: 20420				Sheet		8	of	11		
STRAKE POSITION	FASCIAME - SHELL PLATING - Plate B Dx (Deck, Bottom, Side. To be used accordingly before putting strake position)																			
PLATE POSITION	Frames N° or letter Ordinate	Original thickn. [mm]	Rule thickn. [mm]	FORWARD READINGS								AFT READINGS						Mean diminution		Maximum allowable dimin. [mm]
				Gauged thickness		Diminution				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]	[%]	P	S	
3rd aft	B1	9.00	9.00	9.10	9.40	0.00	0.00	0.00	0.00	8.90	9.00	0.10	1.11	0.00	0.00	0.00	0.00	1.80		
2nd aft	B2	9.00	9.00	8.40	8.80	0.60	6.67	0.20	2.22	8.70	8.60	0.30	3.33	0.40	4.44	0.45	0.30	1.80		
1st aft	B3	9.00	9.00	7.80	8.30	1.20	13.33	0.70	7.78	7.70	7.80	1.30	14.44	1.20	13.33	1.25	0.95	1.80		
Amidship	B4	9.00	9.00	8.80	9.00	0.20	2.22	0.00	0.00	8.70	8.80	0.30	3.33	0.20	2.22	0.25	0.10	1.80		
1st fwd	B5	9.00	9.00	8.40	8.20	0.60	6.67	0.80	8.89	8.10	8.60	0.90	10.00	0.40	4.44	0.75	0.60	1.80		
2nd fwd	B6	9.00	9.00	8.80	7.80	0.20	2.22	1.20	13.33	8.40	7.80	0.60	6.67	1.20	13.33	0.40	1.20	1.80		
3rd fwd	B7	9.00	9.00	8.80	8.60	0.20	2.22	0.40	4.44	8.40	8.50	0.60	6.67	0.50	5.56	0.40	0.45	1.80		
Operator	ANDREA PENSERINI										RINA Surveyor				ANDREA DE PALMA					

* 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} .

And. De Palma

Operator's signature image

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Andrea De Palma
RINA Services S.p.A.

And. De Palma

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RINA	VIGLIENA	Print-out date: 10/05/2019
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Thickness Measurement Report - TM1

THICKNESS MEASUREMENT OF ALL DECK PLATING / ALL BOTTOM SHELL PLATING / ALL SIDE PLATING																						
Ship's name and RINA number										VIGLIENA, RI: 20420				Sheet		9	of		11			
FASCAME - SHELL PLATING - Plate B Sx (Deck, Bottom, Side. To be used accordingly before putting strake position)																						
PLATE POSITION	Frames N° or letter Ordinate	Original thickn. [mm]	Rule thickn. [mm]	FORWARD READINGS								AFT READINGS								Mean diminution [mm]		Maximum allowable dimin. [mm]
				Gauged thickness		Diminution				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]		
3rd aft	B1	9.00	9.00	9.60	9.80	0.00	0.00	0.00	0.00	9.90	9.80	0.00	0.00	0.00	0.00	0.00	0.00	1.80				
2nd aft	B2	9.00	9.00	8.60	8.70	0.40	4.44	0.30	3.33	8.90	8.60	0.10	1.11	0.40	4.44	0.25	0.35	1.80				
1st aft	B3	9.00	9.00	8.80	8.60	0.20	2.22	0.40	4.44	8.40	8.60	0.60	6.67	0.40	4.44	0.40	0.40	1.80				
Amidship	B4	9.00	9.00	7.80	8.00	1.20	13.33	1.00	11.11	8.60	8.00	0.40	4.44	1.00	11.11	0.80	1.00	1.80				
1st fwd	B5	9.00	9.00	8.30	8.50	0.70	7.78	0.50	5.56	8.80	8.60	0.20	2.22	0.40	4.44	0.45	0.45	1.80				
2nd fwd	B6	9.00	9.00	8.00	8.20	1.00	11.11	0.80	8.89	8.20	8.60	0.80	8.89	0.40	4.44	0.90	0.60	1.80				
3rd fwd	B7	9.00	9.00	8.20	8.00	0.80	8.89	1.00	11.11	8.55	8.45	0.45	5.00	0.55	6.11	0.62	0.78	1.80				
Operator	ANDREA PENSERINI										RINA Surveyor				ANDREA DE PALMA							

* 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} .

And. Palma

Operator's signature image

RINA

Andrea De Palma

RINA S.p.A.

Surveyor's signature image

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RINA	VIGLIENA	Print-out date: 10/05/2019
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Thickness Measurement Report - TM1

THICKNESS MEASUREMENT OF ALL DECK PLATING / ALL BOTTOM SHELL PLATING / ALL SIDE PLATING																						
Ship's name and RINA number										VIGLIENA, RI: 20420		Sheet		10	of		11					
STRAKE POSITION		FASCAME - SHELL PLATING - Plate A Dx (Deck, Bottom, Side. To be used accordingly before putting strake position)																				
PLATE POSITION	Frames N° or letter Ordinate	Original thickn. [mm]	Rule thickn. [mm]	FORWARD READINGS								AFT READINGS								Mean diminution		Maximum allowable dimin. [mm]
				Gauged thickness		Diminution				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]		
4th aft	A1	9.00	9.00	8.80	8.70	0.20	2.22	0.30	3.33	8.80	8.80	0.20	2.22	0.20	2.22	0.20	0.25	1.80				
3rd aft	A2	12.00	12.00	12.00	12.00	0.00	0.00	0.00	0.00	12.10	11.90	0.00	0.00	0.10	0.83	0.00	0.05	2.40				
2nd aft	A3	12.00	12.00	11.90	11.40	0.10	0.83	0.60	5.00	12.00	11.90	0.00	0.00	0.10	0.83	0.05	0.35	2.40				
1st aft	A4	12.00	12.00	12.10	12.00	0.00	0.00	0.00	0.00	11.90	12.00	0.10	0.83	0.00	0.00	0.00	0.00	2.40				
Amidship	A5	12.00	12.00	12.10	12.00	0.00	0.00	0.00	0.00	11.90	11.80	0.10	0.83	0.20	1.67	0.00	0.10	2.40				
1st fwd	A6	12.00	12.00	11.70	11.80	0.30	2.50	0.20	1.67	12.00	11.80	0.00	0.00	0.20	1.67	0.15	0.20	2.40				
2nd fwd	A7	12.00	12.00	11.80	11.80	0.20	1.67	0.20	1.67	11.90	11.60	0.10	0.83	0.40	3.33	0.15	0.30	2.40				
3rd fwd	A8	12.00	12.00	11.70	11.80	0.30	2.50	0.20	1.67	11.90	11.70	0.10	0.83	0.30	2.50	0.20	0.25	2.40				
Operator		ANDREA PENSERINI										RINA Surveyor		ANDREA DE PALMA								

* 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} .

Operator's signature image

RINA

Andrea De Palma
RINA Services S.p.A.

Surveyor's signature image

RINA	VIGLIENA	Print-out date: 10/05/2019
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Thickness Measurement Report - TM1

THICKNESS MEASUREMENT OF ALL DECK PLATING / ALL BOTTOM SHELL PLATING / ALL SIDE PLATING																							
Ship's name and RINA number				VIGLIENA, RI: 20420												Sheet		11	of		11		
STRAKE POSITION		FASCIAME - SHELL PLATING - Plate A Sx (Deck, Bottom, Side. To be used accordingly before putting strake position)																					
PLATE POSITION	Frames N° or letter Ordinate	Original thckn. [mm]	Rule thckn. [mm]	FORWARD READINGS								AFT READINGS								Mean diminution		Maximum allowable dimin. [mm]	
				Gauged thickness		Diminution				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]		
4th aft	A1	9.00	9.00	8.80	8.70	0.20	2.22	0.30	3.33	8.60	8.80	0.40	4.44	0.20	2.22	0.30	0.25	1.80					
3rd aft	A2	12.00	12.00	11.70	11.90	0.30	2.50	0.10	0.83	12.00	12.10	0.00	0.00	0.00	0.00	0.15	0.00	2.40					
2nd aft	A3	12.00	12.00	12.10	12.00	0.00	0.00	0.00	0.00	12.20	12.10	0.00	0.00	0.00	0.00	0.00	0.00	2.40					
1st aft	A4	12.00	12.00	11.90	11.80	0.10	0.83	0.20	1.67	12.00	12.10	0.00	0.00	0.00	0.00	0.05	0.05	2.40					
Amidship	A5	12.00	12.00													0.00	0.00	2.40					
1st fwd	A6	12.00	12.00	12.00	12.10	0.00	0.00	0.00	0.00	12.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	2.40					
2nd fwd	A7	12.00	12.00	11.80	11.50	0.20	1.67	0.50	4.17	11.80	11.90	0.20	1.67	0.10	0.83	0.20	0.30	2.40					
3rd fwd	A8	12.00	12.00	11.70	11.80	0.30	2.50	0.20	1.67	12.00	11.90	0.00	0.00	0.10	0.83	0.15	0.15	2.40					
Operator		ANDREA PENSERINI										RINA Surveyor		ANDREA DE PALMA									

* 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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RINA
Andrea De Palma
RINA Service S.p.A.

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RINA	VIGLIENA	Print-out date: 10/05/2019
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Thickness Measurement Report - Worksheet Contents

TM3-G - Longitudinal Members			
Ship's name and RINA number		VIGLIENA, RI: 20420	
LIST OF TABLES IN WORKSHEET			
Table		Description	
TmTable_RnaGeneral_Tm3 4.1			
1 table(s) in worksheet			
Operator		ANDREA PENSERINI	RINA Surveyor
		ANDREA DE PALMA	

Andrea Penseri

Operator's signature image

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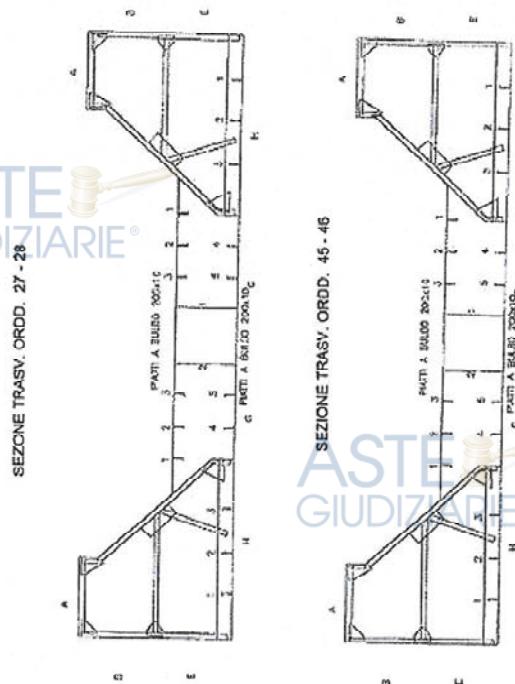
Andrea De Palma
RINA Services S.p.A.

Andrea De Palma

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Thickness Measurement Report - TM3

Ship's name and RINA number		VIGIENA, RI: 20420		THICKNESS MEASUREMENT OF LONGITUDINAL MEMBERS (one, two or three transverse section)																				Sheet		1 of 1							
TRANSVERSE SECTION AT FRAME N°. 27										TRANSVERSE SECTION AT FRAME N°. 45										TRANSVERSE SECTION AT FRAME N°:													
STRUCTURAL MEMBER	N. or letter	Original thckn.	Rule thckn.	Max. alab. dim.	Gauged thickness		Diminution				N. or letter	Original thckn.	Rule thckn.	Max. alab. dim.	Gauged thickness		Diminution				N. or letter	Original thckn.	Rule thckn.	Max. alab. dim.	Gauged thickness		Diminution						
					P	S	P	S	P	S					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]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
Par. lat. Dr.	1	12.00	12.00	2.40	11.50	11.50	0.50	4.17	0.50	4.17	1	12.00	12.00	2.40	11.80	11.80	0.20	1.67	0.20	1.67	0.00	0.00	0.00	0.00	0.00	0.00							
Par. lat. Sn.	2	12.00	12.00	2.40	12.00	12.00	0.00	0.00	0.00	0.00	2	12.00	12.00	2.40	11.80	11.80	0.20	1.67	0.20	1.67	0.00	0.00	0.00	0.00	0.00								
Platto bulbo fondo	1	10.00	10.00	2.00	9.80	9.90	0.20	2.00	0.10	1.00	1	10.00	10.00	2.00	9.90	9.80	0.10	1.00	0.20	2.00	1	0.00	0.00	0.00									
Platto bulbo fondo	2	10.00	10.00	2.00	9.80	9.80	0.20	2.00	0.20	2.00	2	10.00	10.00	2.00	9.90	9.80	0.10	1.00	0.20	2.00	2	0.00	0.00	0.00									
Platto bulbo fondo	3	10.00	10.00	2.00	9.80	9.80	0.20	2.00	0.20	2.00	3	10.00	10.00	2.00	9.90	9.80	0.20	2.00	0.20	2.00	3	0.00	0.00	0.00									
Platto bulbo fondo	4	10.00	10.00	2.00	9.80	9.80	0.20	2.00	0.20	2.00	4	10.00	10.00	2.00	9.90	9.80	0.10	1.00	0.20	2.00	4	0.00	0.00	0.00									
Platto bulbo fondo	5	10.00	10.00	2.00	9.80	9.80	0.20	2.00	0.20	2.00	5	10.00	10.00	2.00	9.90	9.80	0.10	1.00	0.20	2.00	5	0.00	0.00	0.00									
Platto bulbo cielo	1	10.00	10.00	2.00	9.80	9.80	0.20	2.00	0.20	2.00	1	10.00	10.00	2.00	9.80	9.80	0.20	2.00	0.20	2.00	1	0.00	0.00	0.00									
Platto bulbo cielo	2	10.00	10.00	2.00	9.80	9.80	0.20	2.00	0.20	2.00	2	10.00	10.00	2.00	9.90	9.80	0.10	1.00	0.20	2.00	2	0.00	0.00	0.00									
Platto bulbo cielo	3	10.00	10.00	2.00	10.00	9.80	0.00	0.00	0.00	2.00	3	10.00	10.00	2.00	9.90	9.80	0.20	2.00	0.20	2.00	3	0.00	0.00	0.00									
Operator		ANDREA PENSERINI										RINA Surveyor										ANDREA DE PALMA											

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

* If $t_{\text{RULE}} = t_{\text{AP}}$, only fill t_{AP} .

Operator's signature image

RISA
Affidato Da: *Alisa*
per la Servizi: *S.p.A*
Alisa

Surveyor's signature
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Thickness Measurement Report - Worksheet Contents

TM5-G - Transverse Bulkheads			
Ship's name and RINA number		VIGLIENA, RI: 20420	
LIST OF TABLES IN WORKSHEET			
Table		Description	
Paratia Stagna ord. 39			
1 table(s) in worksheet			
Operator		ANDREA PENSERINI	RINA Surveyor ANDREA DE PALMA

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RINA Service S.p.A.

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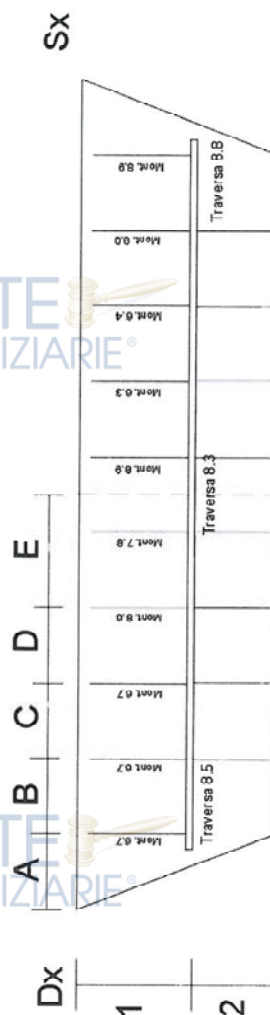
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Paratia di Collisione ord. 59



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Thickness Measurement Report - TM5

THICKNESS MEASUREMENT OF CARGO HOLDS TRANSVERSE BULKHEADS										
Ship's name and RINA number	VIGLIENA, RI: 20420						Sheet	1	of	1
TANK/HOLD DESCRIPTION	Paratia Stagna ord. 39									
LOCATION OF STRUCTURE	Lato Prua									
STRUCTURAL COMPONENT (PLATING/STIFFENER)	ITEM	Original thickn. [mm]	Rule thickn.* [mm]	Max. alwb. dim. [mm]	FRAME N°		Diminution			
					Gauged thickness					
					P	S	P	S	P	S
					[mm]	[mm]	[mm]	[mm]	[%]	[mm]
Par. 59 Sx	Item A1	8.00	8.00	1.60	7.10	7.30	0.90	11.25	0.70	8.75
Par. 59 Sx	Item A2	7.00	7.00	1.40	6.30	6.40	0.70	10.00	0.60	8.57
Par. 59 Sx	Item B1	8.00	8.00	1.60	6.90	6.90	1.10	13.75	1.10	13.75
Par. 59 Sx	Item B2	7.00	7.00	1.40	6.50	6.50	0.50	7.14	0.50	7.14
Par. 59 Sx	Item C1	8.00	8.00	1.60	7.00	6.90	1.00	12.50	1.10	13.75
Par. 59 Sx	Item C2	7.00	7.00	1.40	6.40	6.60	0.60	8.57	0.40	5.71
Par. 59 Sx	Item D1	8.00	8.00	1.60	6.90	7.00	1.10	13.75	1.00	12.50
Par. 59 Sx	Item D2	7.00	7.00	1.40	6.30	6.30	0.70	10.00	0.70	10.00
Par. 59 Sx	Item E1	8.00	8.00	1.60	6.90	7.00	1.10	13.75	1.00	12.50
Par. 59 Sx	Item E2	7.00	7.00	1.40	6.30	6.20	0.70	10.00	0.80	11.43
Par. 59 Dx	Item A1	8.00	8.00	1.60	7.50	7.60	0.50	6.25	0.40	5.00
Par. 59 Dx	Item A2	7.00	7.00	1.40	6.80	6.70	0.20	2.86	0.30	4.29
Par. 59 Dx	Item B1	8.00	8.00	1.60	7.30	7.20	0.70	8.75	0.60	10.00
Par. 59 Dx	Item B2	7.00	7.00	1.40	6.80	6.70	0.20	2.86	0.30	4.29
Par. 59 Dx	Item C1	8.00	8.00	1.60	6.80	7.10	1.20	15.00	0.90	11.25
Par. 59 Dx	Item C2	7.00	7.00	1.40	6.60	6.40	0.40	5.71	0.60	8.57
Par. 59 Dx	Item D1	8.00	8.00	1.60	6.80	6.90	1.20	15.00	1.10	13.75
Par. 59 Dx	Item D2	7.00	7.00	1.40	6.10	6.20	0.90	12.86	0.80	11.43
Par. 59 Dx	Item E1	8.00	8.00	1.60	6.80	6.80	1.20	15.00	1.20	15.00
Par. 59 Dx	Item E2	7.00	7.00	1.40	6.30	6.50	0.70	10.00	0.50	7.14
Operator	ANDREA PENSERINI				RINA Surveyor		ANDREA DE PALMA			

* 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} .

And. De Palma

Operator's signature image

ASTE GIUDIZIARIE®

RINA
Andrea De Palma
RINA S.p.A.

Surveyor's signature image

RI	ASTE GIUDIZIARIE®	VIGLIENA	Print-out date: 10/05/2019
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Allegato 16 – report Verifica Spessori R.I.Na. del 05/08/2024



CGN NDT sas
Via Rivale, 107 / A
S. Maria di Sala (VE)
T. +39 041 2378241
info@cgnndt.it
www.cgnndt.it



RILEVAMENTI SPESSIMETRICI



Certificato n./Certificate n.	101/24
Data/Date	01 AGOSTO 2024
Cliente/Customer	
Commessa/Shop order	VIGLIENA RI. 20420
Oggetto/Objet	RILIEVO SPESSORI CON ULTRASUONI
Emesso da /Issued by	CGN NDT DI GIANNI BARIZZA & C. s.a.s.
Certificazione RINA /Certification RINA	SSU170523VE
Certificazione BUREU VERITAS /Certification BVI	VNZ0/SGL/20230726122109
Esaminatore/Examiner	BARIZZA GIANNI II° Ilv. RINA 21TO00494PN1/RN



Tipo di materiale esaminato/Type of material examined	ACCIAIO FE 430
Condizioni superficiali/ Superficial conditions	VERNICIATO
Apparecchiatura/Instrument	KRAUTKRAMER DM 5E s.n. DM5EG1806208 SONDA: DA501EN s.n. 500495
Specifica di rif./ Specific ref.	RINA/BVI



CGN NDT di Gianni Barizza & C. s.a.s.
Via Rivele 107/s, 30036 Santa Maria di sala (VE)
P.IVA/CF: 04639900275

Mob: +39 3495291954
Mail: g.barizza@cgndt.it
Mail: info@cgndt.it
Web: www.cgndt.it



Albo degli Ingegneri della Provincia di Napoli n° 19196 del 30/03/2010

Albo dei GEFU del Tribunale di Napoli Civile n° 15741 del 23/03/2021

 Reporting and Analysis of Thickness Measurement Data-2.2.0	 VIGLIENA	Print-out date: 05/08/2024
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Thickness Measurement Report

for

VIGLIENA

Revision	
Author	Ulanis
Date	05/08/2024
Notes	Color codes used in this document:  (RED) = Subject to Renewal  (YELLOW) = Suspect  (ORANGE) = Data to be checked - could be incomplete or inconsistent

BAROZZA GIANNI
SECONDO LIVELLO RINA
UT-PT-RT-OT

Operator's signature
(mg)

RINA	VIGLIENA	Print-out date: 05/08/2024
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Thickness Measurement Report - Survey General Data

Field	Symbol	Unit	Value	Remarks
Ship Identification				
Ship Name			VIGLIENA	
Ri Number			20420	
Ship Builder				
IMO Number				
Ship Flag			ITALY	
File Number				
Contract Date			sab gen 1 2000	
Ship Data				
Ship Length	L	[m]	26.850	
Service Notation			Barge	
Material Yield Strength at Deck	R _{H,DECK}	[N/mm ²]	235.000	
Spacing of Longitudinals at Deck		[m]	0.000	
Material Yield Strength at Bottom	R _{H,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			Goggia (VE)	
Thickness Measurements Carried Out From - To			1un lug 8 2024 - gio ago 1 2024	
Operator's Name			Gianni Barizza	
Operator's Company			CGN NDT di Gianni Barizza	
Surveyor's Name			Ing Giovanni Battaglia	
Notes				

BARIZZA GIANNI

SECONDO LIVELLO RINA

VT-PT-MT-UT

Operator's signature image



THICKNESS MEASUREMENT WORKSHEETS



BARIZZA GIANNI
SECONDO LIVELLO RINA
[Signature]
VT-PT-MT-UT

Operator's signature image



RINA	VIGLIENA	Print-out date: 05/08/2024
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Thickness Measurement Report - Worksheet Contents

TM1-Q - All Deck Plating, All Bottom Shell Plating or Side Shell Plating			
Ship's name and RINA number		VIGLIENA, RI: 20420	
LIST OF TABLES IN WORKSHEET			
Table		Description	
CHIGLIA			
FONDO			
FIANCHI			
FIANCHI			
4 table(s) in worksheet			
Operator		Gianni Barizza	RINA Surveyor Ing Giovanni Battaglia

BARIZZA GIANNI

SECONDO LIVELLO RINA

VT-PT-MT-UT

Operator's signature image

RINA	VIGLIENA	Print-out date: 05/08/2024
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Thickness Measurement Report - TM1

THICKNESS MEASUREMENT OF ALL DECK PLATING / ALL BOTTOM SHELL PLATING / ALL SIDE PLATING																						
Ship's name and RINA number										VIGLIENA, RI: 20420				Sheet		1	of	4				
STRAKE POSITION		CHIGLIA (Deck, Bottom, Side. To be used accordingly before putting strake position)																				
PLATE POSITION	Frames N° or letter Ordinate	Original thicdn. [mm]	Rule thicdn. [mm]	FORWARD READINGS								AFT READINGS								Mean diminution [mm]		Maximum allowable dimin. [mm]
				Gauged thickness		Diminution		Gauged thickness		Diminution		Gauged thickness		Diminution								
				P	S	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]		
Not set	A1	7.00	7.00	4.80	5.00	2.20	31.43	2.00	28.57	6.00	6.00	1.00	14.29	1.00	14.29	1.80	1.80	1.40				
Not set	A2	7.00	7.00	8.00	7.90	0.00	0.00	0.00	0.00	7.80	7.80	0.00	0.00	0.00	0.00	0.00	0.00	1.40				
Not set	A3	12.00	12.00	11.70	11.80	0.30	2.50	0.20	1.67	11.90	11.80	0.10	0.83	0.20	1.67	0.20	0.20	2.40				
Not set	A4	12.00	12.00	11.70	11.80	0.30	2.50	0.20	1.67	11.80	11.80	0.20	1.67	0.20	1.67	0.25	0.20	2.40				
Not set	A5	12.00	12.00	11.80	11.90	0.20	1.67	0.10	0.83	11.80	11.80	0.20	1.67	0.20	1.67	0.20	0.15	2.40				
Not set	A6	12.00	12.00	11.90	11.80	0.10	0.83	0.20	1.67	11.90	11.90	0.10	0.83	0.10	0.83	0.10	0.15	2.40				
Not set	A7	12.00	12.00	11.70	11.70	0.30	2.50	0.30	2.50	11.80	11.80	0.20	1.67	0.20	1.67	0.25	0.25	2.40				
Not set	A8	12.00	12.00	11.80	11.80	0.20	1.67	0.20	1.67	11.80	11.80	0.20	1.67	0.20	1.67	0.20	0.20	2.40				
Not set	A9	12.00	12.00	11.80	11.80	0.20	1.67	0.20	1.67	11.80	11.70	0.20	1.67	0.30	2.50	0.20	0.25	2.40				
Not set	A10	12.00	12.00	11.70	11.70	0.30	2.50	0.30	2.50	11.80	11.70	0.20	1.67	0.30	2.50	0.25	0.30	2.40				
Not set	A11	12.00	12.00	11.80	11.80	0.20	1.67	0.20	1.67	11.80	11.80	0.20	1.67	0.20	1.67	0.20	0.20	2.40				
Not set	A12	12.00	12.00	11.80	11.80	0.20	1.67	0.20	1.67	11.80	11.80	0.20	1.67	0.20	1.67	0.20	0.20	2.40				
Not set	A13	12.00	12.00	11.80	11.80	0.20	1.67	0.20	1.67	11.70	11.80	0.30	2.50	0.20	1.67	0.25	0.20	2.40				
Not set	A14	12.00	12.00	11.80	11.80	0.20	1.67	0.20	1.67	11.80	11.80	0.20	1.67	0.20	1.67	0.20	0.20	2.40				
Not set	A15	12.00	12.00	11.80	11.80	0.20	1.67	0.40	3.33	11.80	11.80	0.20	1.67	0.40	3.33	0.20	0.40	2.40				
Not set	A16	12.00	12.00	11.70	11.60	0.30	2.50	0.50	4.17	11.80	11.80	0.20	1.67	0.20	1.67	0.25	0.35	2.40				
Not set	A17	12.00	12.00	11.40	11.60	0.60	5.00	0.50	4.17	11.60	11.30	0.50	4.17	0.70	5.83	0.55	0.60	2.40				
Not set	AR1	8.00	8.00	8.00	8.00	0.00	0.00	0.00	0.00	8.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	1.80				
Not set	A18	9.00	9.00	6.80	6.70	2.20	24.44	2.30	25.56	6.90	6.90	2.10	23.33	2.10	23.33	2.15	2.20	1.80				
Operator		Gianni Barizza										RINA Surveyor		Ing Giovanni Battaglia								

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

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

BARIZZA GIANNI
SECONDO LIVELLO RINA
[Signature]
VT-PT-MT-UT

Operator's signature image

RINA	VIGLIENA	Print-out date: 05/08/2024
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Thickness Measurement Report - TM1

THICKNESS MEASUREMENT OF ALL DECK PLATING / ALL BOTTOM SHELL PLATING / ALL SIDE PLATING																						
Ship's name and RINA number										VIGLIENA, RI: 20420				Sheet		2	of		4			
FONDO (Deck, Bottom, Side. To be used accordingly before putting strake position)																						
PLATE POSITION	Frames N° or letter Ordinate	Original thicdn. [mm]	Rule thicdn. [mm]	FORWARD READINGS								AFT READINGS								Mean diminution [mm]		Maximum allowable dimin. [mm]
				Gauged thickness		Diminution				Gauged thickness		Diminution										
				P	S	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]				
Not set	B1	12.00	12.00	6.00	5.90	6.00	60.00	6.10	60.83	5.80	5.40	6.20	61.67	6.80	55.00	6.10	6.35	2.40				
Not set	B2	12.00	12.00	11.90	11.90	0.10	0.83	0.10	0.83	11.90	11.80	0.10	0.83	0.20	1.67	0.10	0.15	2.40				
Not set	B3	12.00	12.00	11.70	11.80	0.30	2.60	0.20	1.67	11.80	11.80	0.20	1.67	0.20	1.67	0.25	0.20	2.40				
Not set	B4	12.00	12.00	11.90	11.80	0.10	0.83	0.20	1.67	11.80	11.70	0.20	1.67	0.30	2.50	0.15	0.25	2.40				
Not set	B5	12.00	12.00	11.80	11.80	0.20	1.67	0.20	1.67	11.70	11.80	0.30	2.50	0.20	1.67	0.25	0.20	2.40				
Not set	B6	12.00	12.00	11.80	11.80	0.20	1.67	0.20	1.67	11.70	11.80	0.30	2.50	0.20	1.67	0.25	0.20	2.40				
Operator		Gianni Barizza										RINA Surveyor		Ing Giovanni Battaglia								

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

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

BARIZZA GIANNI

SECONDO LIVELLO RINA

VT-PT-MT-UT

Operator's signature image

RINA	VIGLIENA	Print-out date: 05/08/2024
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Thickness Measurement Report - TM1

THICKNESS MEASUREMENT OF ALL DECK PLATING / ALL BOTTOM SHELL PLATING / ALL SIDE PLATING																			
Ship's name and RINA number										VKLIENA, RI: 20420		Sheet		3	of		4		
STRAKE POSITION		FRANCHI (Deck, Bottom, Side. To be used accordingly before putting strake position)																	
PLATE POSITION	Frames N° or letter Ordinate	Original thicdn. [mm]	Rule thicdn. [mm]	FORWARD READINGS						AFT READINGS						Mean diminution		Maximum allowable dimin. [mm]	
				Gauged thickness		Diminution				Gauged thickness		Diminution				Mean 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]
Not set	C1	10.00	10.00	10.00	10.00	0.00	0.00	0.00	0.00	10.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	
Not set	R1	10.00	10.00	10.00	10.00	0.00	0.00	0.00	0.00	10.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	
Not set	C2	12.00	12.00	11.20	11.60	0.80	6.67	0.40	3.33	11.30	11.60	0.70	6.83	0.60	4.17	0.76	0.46	2.40	
Not set	C3	12.00	12.00	11.60	11.60	0.40	3.33	0.40	3.33	11.70	11.60	0.30	2.50	0.40	3.33	0.35	0.40	2.40	
Not set	C4	12.00	12.00	11.80	11.80	0.20	1.67	0.20	1.67	11.80	11.80	0.20	1.67	0.20	1.67	0.20	0.20	2.40	
Not set	C5	12.00	12.00	11.80	11.80	0.20	1.67	0.20	1.67	11.80	11.80	0.20	1.67	0.20	1.67	0.20	0.20	2.40	
Not set	C6	12.00	12.00	11.80	11.80	0.20	1.67	0.20	1.67	11.80	11.80	0.20	1.67	0.20	1.67	0.20	0.20	2.40	
Not set	C7	12.00	12.00	11.80	11.80	0.20	1.67	0.20	1.67	11.80	11.80	0.20	1.67	0.20	1.67	0.20	0.20	2.40	
Operator		Gianni Barizza										RINA Surveyor		Ing Giovanni Battaglia					

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

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

BARIZZA GIANNI
SECONDO LIVELLO RINA
VT-PT-MT-UT

Operator's signature image

RINA	VIGLIENA	Print-out date: 05/08/2024
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Thickness Measurement Report - TM1

THICKNESS MEASUREMENT OF ALL DECK PLATING / ALL BOTTOM SHELL PLATING / ALL SIDE PLATING																									
Ship's name and RINA number										VIGLIENA, RI: 20420										Sheet		4	of		4
STRAKE POSITION		FRANCHI (Deck, Bottom, Side. To be used accordingly before putting strake position)																							
PLATE POSITION	Frames N° or letter Ordinate	Original thichn. [mm]	Rule thichn. [mm]	FORWARD READINGS								AFT READINGS								Mean diminution [mm]		Maximum allowable dimin. [mm]			
				Gauged thickness		Diminution				Gauged thickness		Diminution													
				P	S	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]					
Not ask	D1	9.00	9.00	8.00	7.80	1.00	11.11	1.20	13.33	6.80	6.80	3.40	37.78	3.40	37.78	2.20	2.30	1.80							
Not ask	D2	9.00	9.00	8.50	8.40	0.50	5.56	0.60	6.67	8.40	8.20	0.60	6.67	0.80	8.89	0.55	0.70	1.80							
Not ask	D3	9.00	9.00	8.40	8.00	0.80	8.67	1.00	11.11	8.20	8.00	0.80	8.89	1.00	11.11	0.70	1.00	1.80							
Not ask	D4	9.00	9.00	5.20	6.00	3.80	42.22	3.00	33.33	7.80	8.10	1.20	13.33	0.90	10.00	2.60	1.95	1.80							
Not ask	D5	9.00	9.00	7.80	7.70	1.20	13.33	1.30	14.44	7.70	7.70	1.30	14.44	1.30	14.44	1.25	1.30	1.80							
Operator	Gianni Barizza										RINA Surveyor					Ing Giovanni Battaglia									

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

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

BARIZZA GIANNI

SECONDO LIVELLO RINA

VT-PT-MT-UT

Operator's signature / image

RINA	VIGLIENA	Print-out date: 05/08/2024
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Thickness Measurement Report - Worksheet Contents

TM2-G (1) - Shell and Deck Plating/Strength Deck and Shoverstrike Plating (one, two or three sections)			
Ship's name and RINA number		VIGLIENA, RI: 20420	
LIST OF TABLES IN WORKSHEET			
Table		Description	
9 table(s) in worksheet			
Operator	Gianni Barizza	RINA Surveyor	Ing Giovanni Battaglia

BARIZZA GIANNI

SECONDO LIVELLO RINA

VT-PT-MT-UT

Operator's signature image

RINA	VIGLIENA	Print-out date: 05/08/2024
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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		VIGLIENA, RI: 20420	
LIST OF TABLES IN WORKSHEET			
Table		Description	
9 table(s) in worksheet			
Operator	Gianni Barizza	RINA Surveyor	Ing Giovanni Battaglia

BARIZZA GIANNI

SECONDO LIVELLO RINA

VT-PT-MT-UT

Operator's signature image

	VIGLIENA	Print-out date: 05/08/2024
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Thickness Measurement Report - Worksheet Contents

Ship's name and RINA number		TM3-G - Longitudinal Members VIGLIENA, RI: 20420	
LIST OF TABLES IN WORKSHEET			
Table		Description	
9 table(s) in worksheet			
Operator	Gianni Barizza	RINA Surveyor	Ing Giovanni Battaglia

BARIZZA GIANNI

SECONDO LIVELLO RINA

VT-PT-MT-UT

Operator's signature image

	VIGLIENA	Print-out date: 05/08/2024
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Thickness Measurement Report - Worksheet Contents

TM-0 - Transverse Structural Members in Double Bottom, Hopper Side, Topside and Wing Water Ballast Tank			
Ship's name and RINA number		VIGLIENA, RI: 20420	
LIST OF TABLES IN WORKSHEET			
Table		Description	
# table(s) in worksheet			
Operator	Gianni Barizza	RINA Surveyor	Ing Giovanni Bellaglia

BARIZZA GIANNI

SECONDO LIVELLO RINA

VT-PT-MT-UT

Operator's signature image

	VIGLIENA	Print-out date: 05/08/2024
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Thickness Measurement Report - Worksheet Contents

Ship's name and RINA number		TMS-G - Transverse Bulkheads VIGLIENA, RI: 20420	
LIST OF TABLES IN WORKSHEET			
Table		Description	
# table(s) in worksheet			
Operator	Gianni Barizza	RINA Surveyor	Ing Giovanni Battaglia

BARIZZA GIANNI

SECONDO LIVELLO RINA

VT-PT-MT-UT

Operator's signature image

	VIGLIENA	Print-out date: 05/08/2024
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Thickness Measurement Report - Worksheet Contents

TMR-G - Miscellaneous Structural Members			
Ship's name and RINA number		VIGLIENA, RI: 20420	
LIST OF TABLES IN WORKSHEET			
Table		Description	
# table(s) in worksheet			
Operator	Gianni Barizza	RINA Surveyor	Ing Giovanni Battaglia

BARIZZA GIANNI

SECONDO LIVELLO RINA

VT-PT-MT-UT

Operator's signature image

RINA	VIGLIENA	Print-out date: 05/08/2024
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Thickness Measurement Report - Worksheet Contents

IMO-G 521A - Hatch Covers and Other Members subject to UR 521A			
Ship's name and RINA number		VIGLIENA, RI: 20420	
LIST OF TABLES IN WORKSHEET			
Table		Description	
# table(s) in worksheet			
Operator	Gianni Barizza	RINA Surveyor	Ing Giovanni Battaglia

BARIZZA GIANNI

SECONDO LIVELLO RINA

VT-PT-MT-UT

Operator's signature image

	VIGLIENA	Print-out date: 05/08/2024
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Thickness Measurement Report - Worksheet Contents

Ship's name and RINA number		TM7-G - Cargo Hold Transverse Frames	
		VIGLIENA, RI: 20420	
LIST OF TABLES IN WORKSHEET			
Table		Description	
# table(s) in worksheet			
Operator	Gianni Barizza	RINA Surveyor	Ing Giovanni Battaglia

BARIZZA GIANNI

SECONDO LIVELLO RINA

VT-PT-MT-UT

Operator's signature image

RI ASTE GIUDIZIARIE®	VIGLIENA	Print-out date: 05/08/2024
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TM Sheets	3
TM1-G	4
TM2-G (I)	9
TM2-G (II)	10
TM3-G	11
TM4-G	12
TM5-G	13
TM6-G	14
TM6-G 921A	15
TM7-G	16

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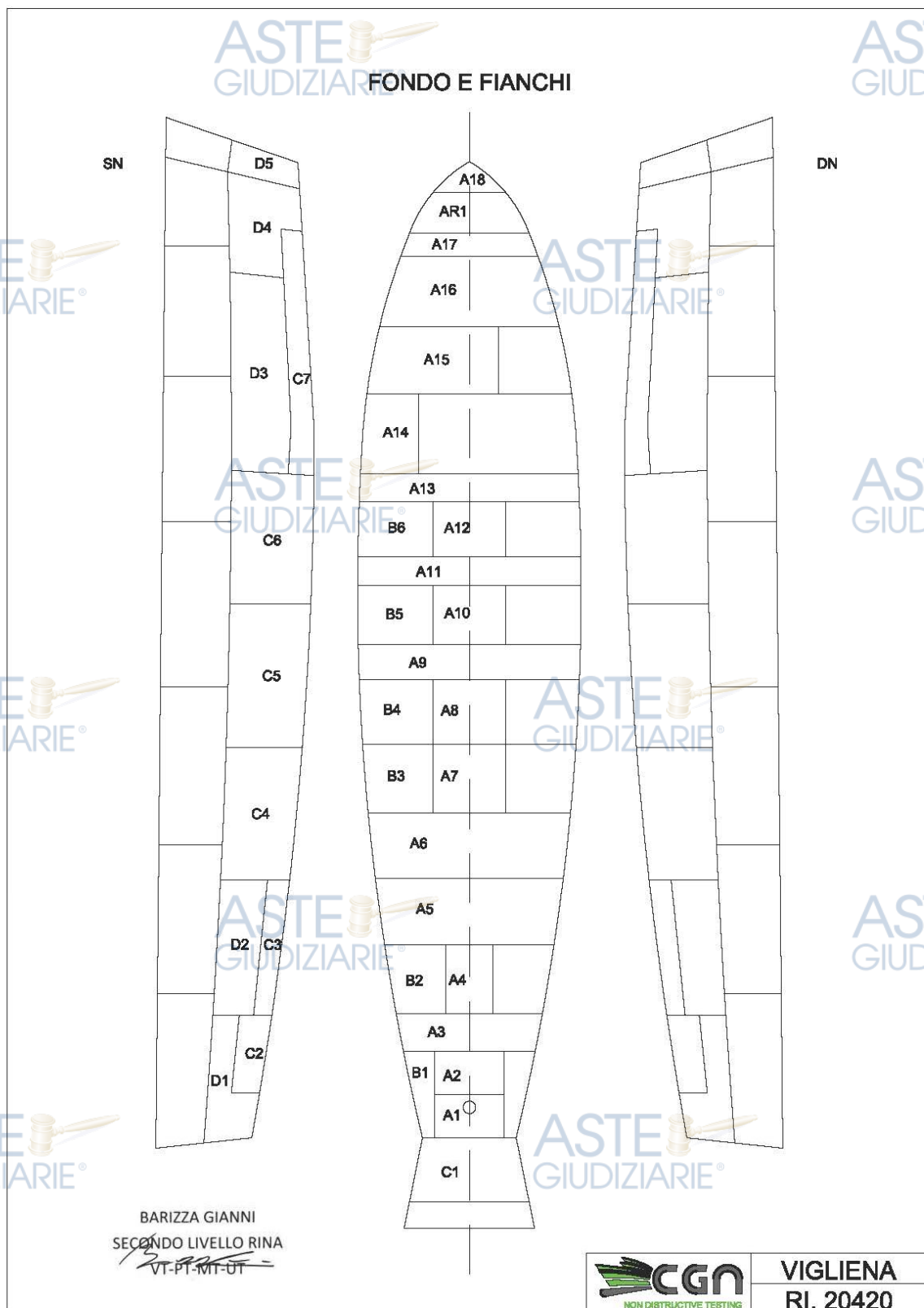
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VERIFICA CON LIQUIDI PENETRANTI

Certificato n./Certificate n.	036/2024
Data/Date	01 AGOSTO 2024
Cliente/Customer	
Commessa/Shop order	VIGLIENA RI. 20420
Oggetto/Objet	CONTROLLO CONI ASSI PORTA ELICA
Emesso da /Issued by	CGN NDT DI GIANNI BARIZZA & C. s.r.l.
Esaminatore/Examiner	BARIZZA GIANNI II° liv. RINA 21T000029PN4

Tipo di materiale esaminato/Type of material examined	ACCIAIO
Condizioni superficiali/ Superficial conditions	PULITA CON STRACCIO
Apparecchiatura/Instrument	LIQUIDI PENETRANTI
Specifiche di rif./ Specific ref.	UNI EN 10228-2-2000
Penetrante	CGM RED WW – Conforme: EN ISO 3452-2, ASME V Art. 6, ASTM E 165, AMS 2644
Tempo di penetrazione	10 min.
Rimozione de penetrante	Mediante straccio
Rivelatore	CGM ROTRIVEL U – Conforme: EN ISO 3452-2, ASME V Art. 6, ASTM E 165, AMS 2644
Tempo di sviluppo	2 minuti

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GIUDIZIARIE®**

**ASSE SN
LATO ELICA**



**ASSE DN
LATO ELICA**



Il controllo delle Cave chiavette e coni degli assi porta elica, ha dato come esito:
CONFORME

OPERATORE CND	ESAMINATORE	ISPETTORE CLIENTE	ENTE COLLAUDATORE	CONTROLLO QUALITA'
BARIZZA GIANNI SECONDO LIVELLO RINA VT-PT-MT-UT	BARIZZA GIANNI SECONDO LIVELLO RINA VT-PT-MT-UT			BARIZZA GIANNI SECONDO LIVELLO RINA VT-PT-MT-UT

CGN NDT di Gianni Barizza & C. s.a.s.
Via Rivaile 107/a, 30036 Santa Maria di sala (VE)
P.IVA/CF: 04639900275

Mob: +39 3495291954
Mail: g.barizza@cgndt.it
Mail: info@cgndt.it
Web: www.cgndt.it

RINA
G. Battaglia
RINA Services

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Albo degli Ingegneri della Provincia di Napoli n° 19196 del 30/03/2010

Albo dei GFLU del Tribunale di Napoli Civile n° 15741 del 23/03/2021

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ripubblicazione o riproduzione a scopo commerciale - Aut. Min. Giustizia PDG 21/07/2009

www.consulenzenautescrispino.it - ing.paolocrispino@gmail.com

Allegato 17 – Consuntivo lavorazioni

LAVORI EFFETTUATI DA

1 Set completo tubi idraulici gru + raccordi innesti rapidi	€ 9.265,16
2 Set completo tubi idraulici n 2 benne (polipo+bivalva)	€ 4.200,00
3 n 2 Pompe complete timoneria	€ 4.708,00
4 Set razzi x visita Navigabilità Capitaneria di Porto	€ 193,00
5 CAIM acquisto manuali + registri per equipaggiamento CP	€ 1.500,00
6 Test isolamento motori elettrici x prescrizione RINA	€ 400,00
7 Manutenzione totale + revisione completa n 2 motori propulsione principali IVECO AIFO 828 (tagliandi + registrazione valvole+ polverizzatori), sostituzione cinghie di trasmissioni	€ 29.000,00
8 Manutenzione + revisione completa motore principale GRU RUSTON RB 400	€ 15.000,00
9 Acquisto cavo battello RECUSE BOAT come da prescrizione CP	€ 680,00
10 Acquisto campana frizione TECNODRIVE motore gruppo elettrogeno principale VM 6105 TE	€ 3.800,00
11 Motorino di avviamento GRU	€ 500,00
12 Ganasce freni + ferodi GRU Ruston RB 400	€ 1.200,00
13 KIT assi di rotazione, pulegge e pignoni GRU (Modena)	€ 7.500,00
14 SIRM Canone annuale apparati radio	€ 600,00
15 verniciatura gru	€ 4.200,00
16 verniciatura sottocoperta, bagni, sale, porte	€ 3.800,00
17 sostituzione guarnizioni porte e passi d'uomo	€ 2.500,00
18 dotazione di emergenza zucchetti	€ 200,00
19 set attrezzature per manutenzione	€ 4.500,00
20 contaore motori	€ 500,00
21 pompe a immersione per acqua	€ 1.400,00
22 spese rina	€ 8.500,00
23 agenzie marittime	€ 9.500,00
24 chimico per saldature a bordo	€ 800,00
25 spessimetria e ispezione subaquea	€ 8.800,00

TOTALE € 123.246,16

Allegato 18 – Lista spese sostenute

ASTE GIUDIZIARIE®
CONSUNTIVO

Nome nave	VIGLIENA
Lunghezza Mt.	41,29
Larghezza Mt.	9,18
Pescaggio Mt.	2,40
Dislocamento Ton.	
Stazza lorda GRT	298,44
IMO Number	PC 1177

A	BACINO	U.M	Importo EUR	Q.tà	Totale EUR
1	Preparazione piano di posa				
	Imbarcazioni a fondo piatto o a corpo cilindrico da 30 Mt fino a 49 Mt	€/cad	1.700,00	1,00	1.700,00
2	Diritti di bacino - Primo e ultimo giorno (Alaggio 20/06 - Varo 31/07)				
	Imbarcazioni a fondo piatto o a corpo cilindrico da 30 Mt fino a 49 Mt	€/cad	3.000,00	1,00	3.000,00
3	Giorni intermedi				
	Per imbarcazioni fino a 49 metri (costo per giorno di sosta escluso la domenica)	€/cad	550,00	32,00	17.600,00
	Abbuono giorni Bacino	€/cad	-550,00	8,00	-4.400,00
4	Diritti di Banchina				
	Per imbarcazioni fino a 49 metri (costo per giorno di sosta escluso la domenica)	€/cad	200,00	0,00	0,00
5	Servizi Generali				
a	Allacciamento Energia elettrica (38 V-50 Hz)	€/cad	200,00	1,00	200,00
b	Energia elettrica fornita costo al Kwh	Kwh	1,17	0,00	0,00
c	Allacciamento Linea acqua dolce/ salata	€/cad	200,00	0,00	0,00
d	Fornitura acqua dolce	€/mc	4,50	0,00	0,00
e	Scalandrone o passerella per accesso a bordo fino a 7 metri	€/cad	250,00	1,00	250,00
f	Sollevamento Nave tramite Martinetti e svasatura	€/Ton	5,00	400,00	2.000,00
g	Pulizia platea del bacino a fine lavorazioni	€/cad	1.500,00	1,00	1.500,00
h	Servizio rimozione immondizie di bordo (devono essere differenziate)	€/gg	80,00	0,00	0,00
i	Safety Plan " predisposizione documenti di sicurezza	€/cad	1.500,00	1,00	1.500,00
6	Mezzi di sollevamento				
a	Servizio Grù con operatore 100 ton (minimo 1 ora)	€/h	130,00	0,00	0,00
b	Servizio Grù con operatore 60 ton (minimo 1 ora)	€/h	85,00	0,00	0,00
c	Servizio Grù a Torre/ Carroponte 10 Ton (minimo 1 ora)	€/h	60,00	0,00	0,00
d	Servizio Carrello elevatore con operatore (minimo 1 ora)	€/h	60,00	0,00	0,00
e	Servizio piattaforma elevatrice con operatore (minimo 1 ora)	€/h	60,00	0,00	0,00
7	Sicurezza				
a	Erezione/Rimontaggio Ponteggi in zone aperte, coperta, ponti	€/mq	19,00	8,00	152,00
b	Erezione/Rimontaggio Ponteggi in zone interdette, Casse, Sala Macchine	€/mq	25,00	0,00	0,00
c	Montaggio parapetti anticaduta	€/ml	26,00	60,00	1.560,00
d	Controllo presenza Gas (no rilascio certificato Gas Free)	€/cad	120,00	0,00	0,00
B	BACINO - Trattamenti (escluso costo prodotti vernicianti)				
1	Lavaggio alta pressione (700 bar e testa rotante) su Opera Viva	€/mq	4,40	450,00	1.980,00
2	Lavaggio alta pressione (700 bar e testa rotante) su Opera Morta con piattaforma	€/mq	6,60	220,00	1.452,00
3	Lavaggio alta pressione (700 bar e testa rotante) su camminamenti e coperta	€/mq	4,40	120,00	528,00
4	Palettatura manuale della carena	€/mq	2,20	400,00	880,00
5	Smontaggio/Montaggio parabordi laterali per sabbatura e pittura	€/cad	850,00	1,00	850,00
6	Sabbatura grado SA 2,5 su inserti + bitte + camicia palo	€/mq	38,00	12,00	456,00
7	Sabbatura grado SA 2,5 coperta	€/mq	34,00	20,00	680,00
8	Sabbatura grado SA 2,5 con Piattaforma elevatrice	€/mq	38,00	135,00	5.130,00
9	Sabbatura grado SA 2,5 a Spot o altri particolari	€/mq	38,00	0,00	0,00
10	Sabbatura grado SA 2,5 in luoghi angusti (casse, sala macchine ecc)	€/mq	45,00	0,00	0,00
11	Discatura manuale delle superfici compresa 1 mano di primer	€/mq	6,60	0,00	0,00
12	Applicazione di mano intera airless su OPERA VIVA (Mq 450 x 2 mani)	€/mq/1 mano	2,20	900,00	1.980,00
13	Applicazione di mano intera di Airless su OPERA MORTA con uso piattaforma elevatrice (Mq 120 x 4 mani)	€/mq/1 mano	3,00	480,00	1.440,00
14	Applicazione di mano intera airless su Impavesate + cabina (Mq 200 x 3 mani)	€/mq/1 mano	3,30	600,00	1.980,00
15	Applicazione di mano intera di airless su Coperta (solo costo pittura 40Lt - manodopera a carico equipaggio)	€/lt	10,00	40,00	400,00
16	Applicazione di mano intera airless su casse e zone anguste	€/mq/1 mano	5,50	0,00	0,00
17	Pitturazione a rullo – costo per mano (20 x 2 mani)	€/mq/1 mano	4,50	40,00	180,00
18	Ritocchi: Applicazione 1 mano di pittura di ritocco	€/mq	4,00	0,00	0,00
19	Pitturazione linea galleggiamento	€/ml	4,90	93,00	455,70
20	Pitturazione scale di immersione e marche di bordo libero	€/cad	280,00	2,00	560,00
21	Pitturazione Nomi Nave e Targhe	€/cad	320,00	5,00	1.600,00
22	Abbasciamento di catena ed ancora, lavaggio, marcatura e stesura rapporto	€/cad	800,00	1,00	800,00
23	Pitturazione griglie e recessi: Rimozione griglia, pulizia, lavaggio e pitturazione	€/cad	290,00	3,00	870,00

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CONSUNTIVO

24	Pitturazione tunnel Bow Thruster	€/cad	170,00	0,00	0,00
25	Pulizia con Sgrassante	€/mq	6,00	0,00	0,00
C BACINO - Anodi					
1	Rimozione anodi esistenti e saldatura nuovi anodi (anodi Fornitura Armatore)	€/cad	34,00	65,00	2.210,00
D BACINO – Valvole di presa dal mare e scarichi fuoribordo					
1	Valvole Kingston: apertura dal fondo, pulizia asta, seggio ed otturatore, verniciatura, ingrassaggio viti (x mm.DIA)	€/mm/DN	2,10	0,00	0,00
2	Valvole di altro tipo: apertura del coperchio a cavallotto, pulizia asta, seggio ed otturatore; Verniciatura, ingrassaggio viti e rimontaggio (x mm. DIA)	€/mm/DN	1,90	0,00	0,00
3	Valvole a clapet per scarico fuoribordo: apertura del coperchio a cavallotto, pulizia asta, seggio ed otturatore, verniciatura, ingrassaggio viti e rimontaggio (x mm. DIA)	€/mm/DN	1,80	0,00	0,00
4	Maggiorazione per smontaggio e rimontaggio valvole da linea	€/mm/DN	1,20	0,00	0,00
5	Valvole: controllo e pressatura per eventuali perdite	€/mm/DN	1,70	0,00	0,00
6	Smontaggio, pulizia e manutenzione keel cooler	€/cad	480,00	0,00	0,00
7	Filtri prese a mare: Smontaggio, pulizia e manutenzione	€/cad	300,00	3,00	900,00
E BACINO – Asse porta-elica e timoni					
1	Rilievo abbassamento asse porta-elica e sondaggio meccanico; rapportino RINA	€/cad	300,00	0,00	0,00
2	Sfilamento dell'asse al completo, incluso smontaggio e rimontaggio accoppiamento, tenute, e boccole				
	Rimontaggio ad esclusione di ogni lavorazione meccanica: Asse 100mm Elica 1200 mm				
	Per asse Diam. 81-110 ed elica tradizionale	€/cad	3.000,00	2,00	6.000,00
3	Smontaggio e rimontaggio elica Per Asse Diam: Diam. da 81-110	€/cad	700,00	2,00	1.400,00
4	Smontaggio e rimontaggio della pala del timone - Per timone semplice	€/cad	600,00	2,00	1.200,00
5	Smontaggio e rimontaggio asse timone e boccole Diam. da 81-110	€/cad	1.750,00	2,00	3.500,00
6	Riparto con saldatura + tornitura assi	€/cad	7.450,00	1,00	7.450,00
7	Tornitura boccola asse elica dx	€/cad	1.950,00	1,00	1.950,00
F BACINO - Casse – DD.FF. – Gavoni - Depositi					
1	Apertura e chiusura passi d'uomo	€/cad	170,00	4,00	680,00
2	Passi Uomo : Cambio guarnizione - ingrassaggio buloni	€/cad	60,00	0,00	0,00
3	Alleggi: apertura e rimontaggio con guarnizioni	€/cad	40,00	0,00	0,00
G LAVORAZIONI RICHIESTE A PREVENTIVO					
1	Rifacimento camicia palo	€/cad	18.000,00	1,00	18.000,00
2	Sostituzione tubo antincendio cassa zavorra + 5 idranti incendio + sostituzione tubo oleodinamico + sostituzione 2 tubi altapressione gru	€/cad	6.200,00	1,00	6.200,00
3	Chiusura boccaportello prua e apertura + costruzione nuovo	€/cad	2.450,00	1,00	2.450,00
4	Ricostruzione mastra in coperta attorno salpancora di prua e poppa + mastra trincarino poppa	€/cad	5.000,00	1,00	5.000,00
5	Sostituzione ferma tavole in legno camminamenti	€/cad	1.350,00	1,00	1.350,00
6	Sostituzione tubo scarico generatore	€/cad	850,00	1,00	850,00
7	Modifica scale accesso cassa zavorra	€/cad	1.500,00	1,00	1.500,00
H LAVORAZIONI ESEGUITE A CONSUNTIVO					
1	Movimentazione per conto armatore con Gru e Muletto	€/cad	750,00	1,00	750,00
2	Riparazione eliche	€/cad	1.375,00	2,00	2.750,00
3	Manutenzione ribattuta osteriggi coperta poppa	€/cad	750,00	1,00	750,00
4	Taglio palo poppa prua + imbarco in stiva	€/cad	7.500,00	1,00	7.500,00
5	Taglio basamento nero poppa + taglio passacavi	€/cad	8.250,00	1,00	8.250,00
6	Raddoppio poppa racket per ancora specchio di poppa	€/cad	8.500,00	1,00	8.500,00
7	Raddoppio fondo prua	€/cad	4.000,00	1,00	4.000,00
8	Ripristino carpenteria ventilatore poppa dx	€/cad	650,00	1,00	650,00
9	Rimozione cemento +ripristino bugia prua	€/cad	550,00	1,00	550,00
10	Ripristino cricche stiva	€/cad	2.500,00	1,00	2.500,00
11	Inseri su mastra camminamento laterale	€/cad	3.800,00	1,00	3.800,00
12	Sostituzione parapetti poppa	€/cad	1.725,00	1,00	1.725,00
13	Costruzione 4 passi d'uomo	€/cad	750,00	4,00	3.000,00
14	manutenzione idraulica vericello	€/cad	2.500,00	1,00	2.500,00
15	Modifica valvola fuoribordo	€/cad	450,00	1,00	450,00
16	Stuccatura cabina	€/cad	2.000,00	1,00	2.000,00
17	Pulizia casse	€/cad	5.550,00	1,00	5.550,00
18	Ispezione con ultrasuoni	€/cad	2.500,00	1,00	2.500,00
I OFFERTA PITTURA					
1	Intergard 263 grey	€/l	9,50	120,00	
2	Interbond 808 grey	€/l	10,00	120,00	
3	Intersheen 579 bianco	€/l	8,00	60,00	
4	Intersheen 579 nero	€/l	8,00	80,00	
5	Antivegetativa interswift 6800 red	€/l	22,00	120,00	
6	Diluente epox 220	€/l	3,50	75,00	
7	Diluente per antivegetativa e smalto	€/l	3,50	50,00	
8	stucco	€/l	12,50	16,00	

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CONSUNTIVO

9	Offerta totale pittura	€/cad	6.737,50	1,00	
10	Offerta scontata (10%)	€/cad	6.737,50	0,90	6.063,75
L	BACINO - Smaltimenti (da verificare a fine Lavori)				
1	Raccolta e smaltimento vasi di pittura vuoti C.E.R. 150110	€/cad	18,00	30,00	540,00
2	Smaltimento residui di sabbia Pulita C.E.R. 120117	€/Ton	600,00	7,00	4.200,00
3	Smaltimento residui di sabbia Sporca C.E.R. 120116	€/Ton	1.180,00	3,00	3.540,00
4	Smaltimento Cozze e vegetazione C.E.R 120116	€/Ton	1.180,00	0,00	0,00
5	Smaltimento rifiuti solidi non differenziati C.E.R 170904	€/Ton	1.180,00	0,07	82,60
6	Smaltimento rifiuti Speciali-Emulsioni C.E.R 130802	€/Ton	900,00	3,20	2.880,00
7	Costo Big Bag	€/cad	15,00	11,00	165,00
TIMBRO E FIRMA PER ACCETTAZIONE		TOTALE: EUR			183.120,05