



A.R.S. Co.

Ship Design – Marine Software Development – Ultrasonics

**ULTRASONIC SURVEY
REPORT**

P/S “AQUA SPIRIT”

OWNER’S REPORT

SEPTEMBER 2017

SALAMINA, GREECE

REPORT No: 17092089

P/S “AQUA SPIRIT”

CONTENTS

<u>ITEMS:</u>	<u>PAGE:</u>
1. AFTER PEAK TANK	1
2. FORE PEAK TANK	4
3. WATER BALLAST TANKS	8
4. DOUBLE BOTTOM TANKS	25
5. VOID SPACES	34
6. BOTTOM	43

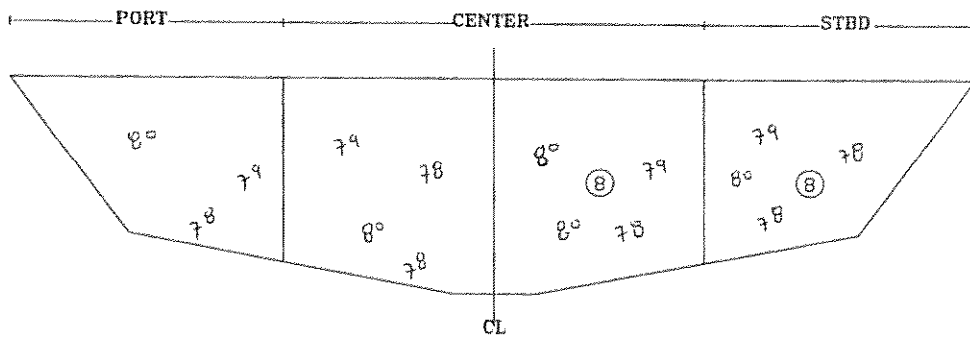
NOTE:

DURING INSPECTION OF D.B.T. No3, 4 & 5,
WE WITNESSED REPAIRS AT LOWER PARTS OF THE MAJORITY OF TRANSVERSE
FLOORS AND BULKHEADS.

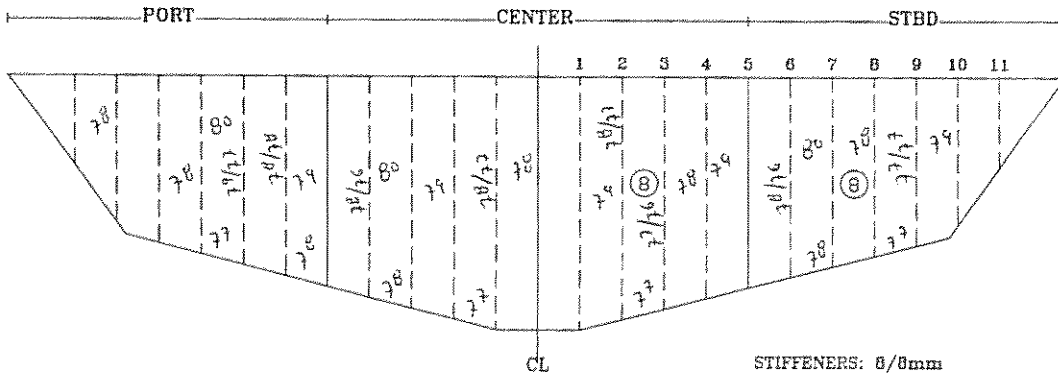
AFTER PEAK TANK

P/S "AQUA SPIRIT"
AFTER PEAK TANK

AFT BHD FR. 10

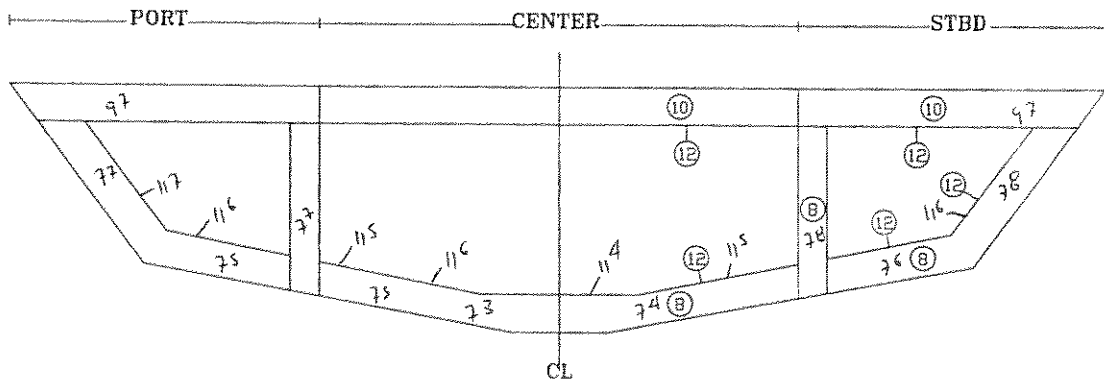


FWD BHD FR. 20



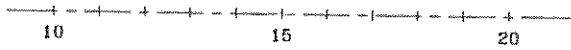
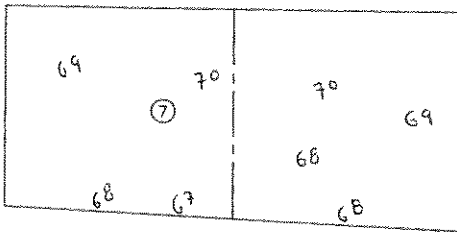
P/S "AQUA SPIRIT"
AFTER PEAK TANK

FR. 5

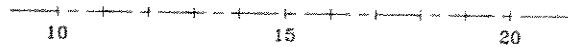
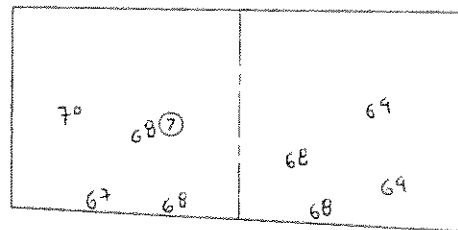


P/S "AQUA SPIRIT"
 AFTER PEAK TANK
 LONG'L BHD BTN SIDE & CENTER A.P.T.

PORT

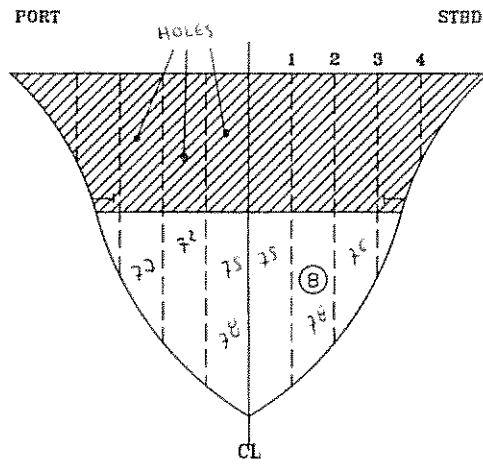


STBD



FORE PEAK TANK

P/S "AQUA SPIRIT"
FORE PEAK TANK
COLLISION BHD FR. 115

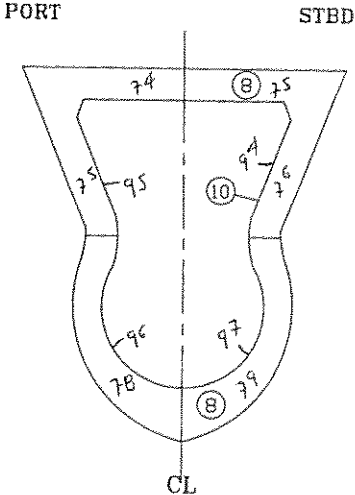


▨ PLATE TO BE RENEWED

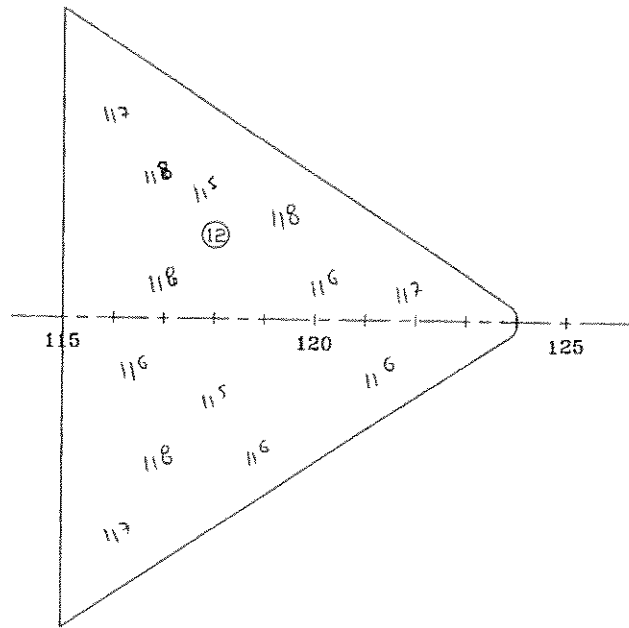
STIFFENERS: 10/10mm

P/S "AQUA SPIRIT"
FORE PEAK TANK

FR. 120

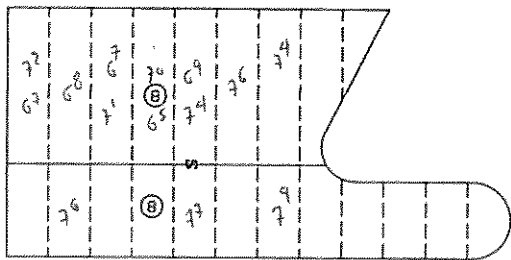


P/S "AQUA SPIRIT"
FORE PEAK TANK
TANK TOP



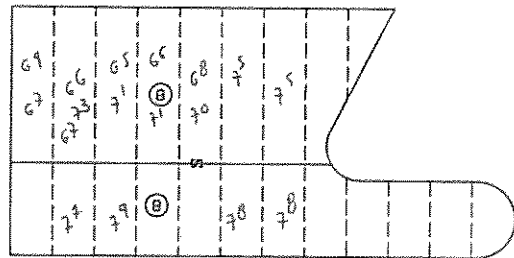
P/S "AQUA SPIRIT"
 FORE PEAK TANK
 SIDE SHELL PLATE

PORT



115 120 125

STBD

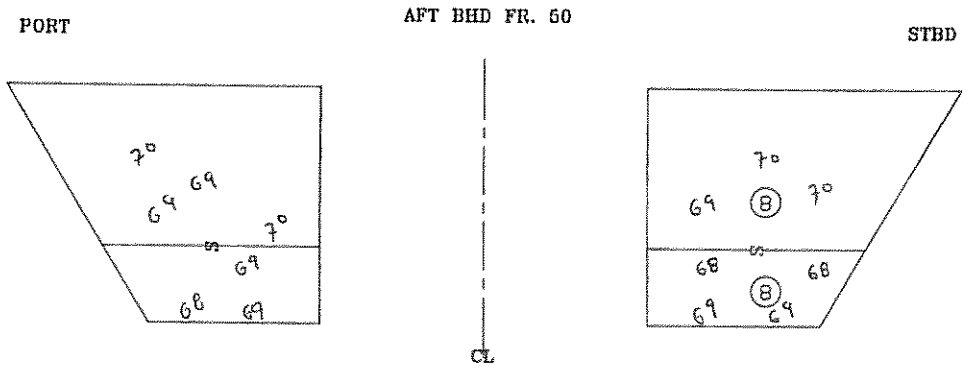


115 120 125

SIDE FRAMES: 10/10mm

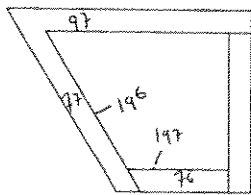
WATER BALLAST TANKS

P/S "AQUA SPIRIT"
No4 W.B.T.



P/S "AQUA SPIRIT"
No4 W.B.T.

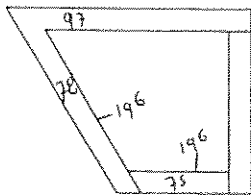
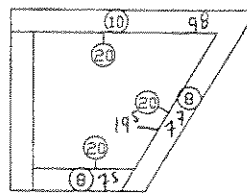
PORT



FR. 55

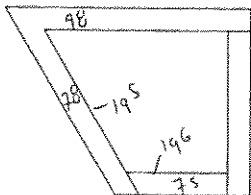
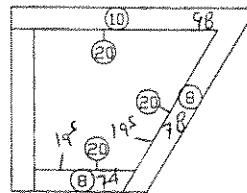
CL

STBD



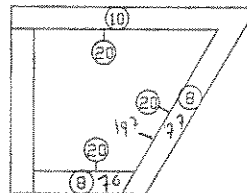
FR. 60

CL



FR. 65

CL

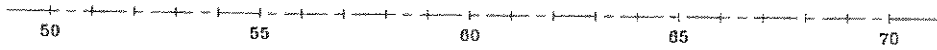


P/S "AQUA SPIRIT"
 No4 W.B.T.
 INNER BOTTOM

PORT

3		97/96		
2	75	⑨	97/95 75	76
1	77 98/96	76 75	98/97 77	77 98/97

L.BHD



1		98/95	74	98/95
2	78	75	98/97	75
3	98/95 74	97/97 ⑨ 75	76 78	97/96 76

L.BHD

STBD

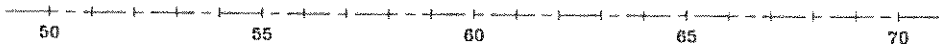
LONG'LS: 10/10mm

P/S "AQUA SPIRIT"
 No4 W.B.T.
 SIDE SHELL

PORT

4	80	99/48		
3	98/48	79	98/48 79	80 99/47
2	78	⊗	78	79
1	78 98/47	79	98/45	
		77	77	78

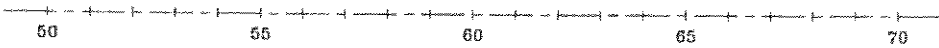
INNER BTM



STBD

4		79	99/47	
3	80		79	98/46 79
2	79 78	97/47 80 ⊗	80	98/48
1	98/47	98/46	98/46	78
	78	77 78	78 76	78

INNER BTM



LONG'LS: 10/10mm

P/S "AQUA SPIRIT"
 No4 W.B.T.
 LONG'L BHD

PORT

4				
3	28/22	68	29/28	70
2	69	28/26 (7)	68	27/28 70
1	27/25	27/26	28/26	28/25
	68	67 (7)	68 67	67 68

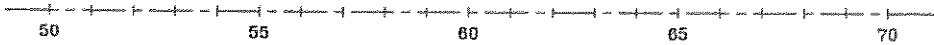
INNER BTM



STBD

4				
3	70	68	69 29/28	28/28 69
2		69	70 (7) 69	28/27 68 68 69
1	27/27		28/25	
	68 68	67 (7) 67	68	67

INNER BTM



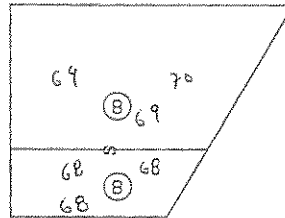
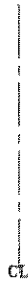
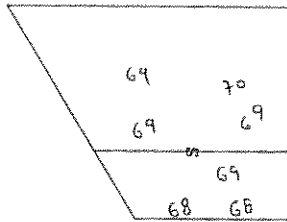
LONG'LS: 8/8mm

P/S "AQUA SPIRIT"
No3 W.B.T.

PORT

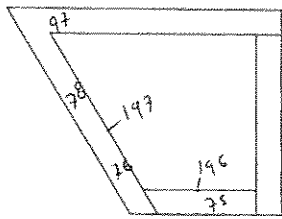
AFT BHD FR. 70

STBD

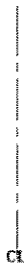


P/S "AQUA SPIRIT"
No3 W.B.T.

PORT

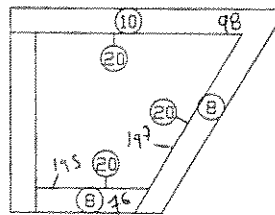


FR. 75

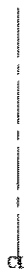


CL

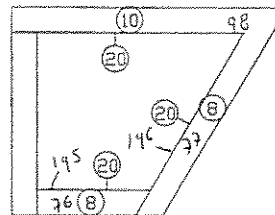
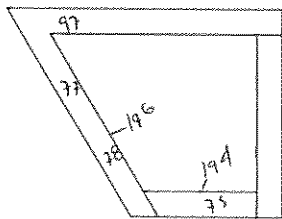
STBD



FR. 80



CL

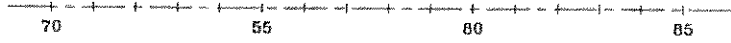


P/S "AQUA SPIRIT"
 No3 W.B.T.
 INNER BOTTOM

PORT

3	93/96		
2	76	97/95 ② 77	93/95 77
1	97/95 73	74 76	98/96 75 74
		75	

L.BHD



1	98/97	97/97	74
2	76 74	74 75	75 97/95
3	76	97/97 ②	98/96
		77	76

L.BHD

STBD

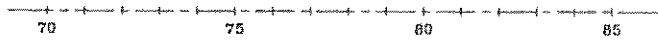
LONG'LS: 10/10mm

P/S "AQUA SPIRIT"
 No3 W.B.T.
 SIDE SHELL

PORT

4			
3	79	80/48	97/97
2	27	80 ⊕ 78	79
1	97/92	79 97/46	98/46
	77	76 76	77 77

INNER BTM



STBD

4			
3	98/42 79	92/42 80	79
2	79 97/42	78 ⊕	79 80
1	78 98/46	96/45	92/46
	77 77	76 77	76 76

INNER BTM



LONG'S: 10/10mm

P/S "AQUA SPIRIT"
 No3 W.B.T.
 LONG'L BHD

PORT

4			
3	1° 27/27	69 28/27	29/28 7°
2	69	68 (7)	68 69
1	27/26	28/26	28/27
	67 67	68 (7)	68 67

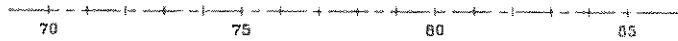
INNER BTM



STBD

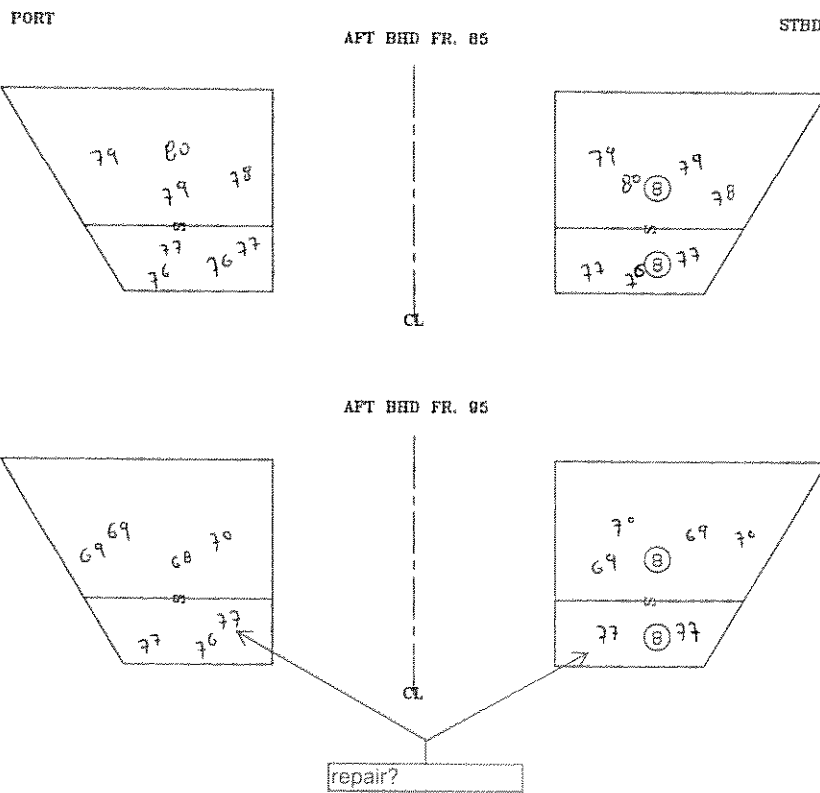
4			
3	69	28/28 69	29/28 7°
2	28/27 68	7° (7)	69 69
1	27/26	28/26	27/27
	68	67 (7) 68	67 68

INNER BTM



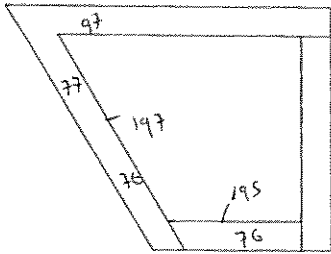
LONG'LS: 8/8mm

P/S "AQUA SPIRIT"
No2 W.B.T.

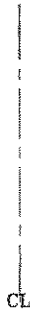


P/S "AQUA SPIRIT"
No2 W.B.T.

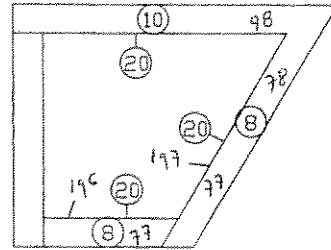
PORT



FR. 90

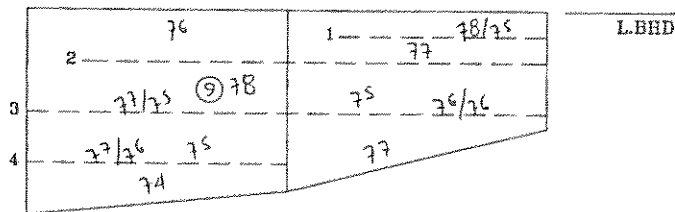
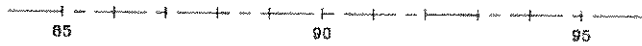
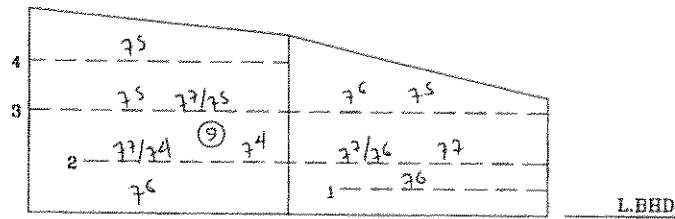


STBD



P/S "AQUA SPIRIT"
 No2 W.B.T.
 INNER BOTTOM

PORT



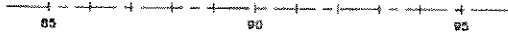
LONG'S: 10/10mm

P/S "AQUA SPIRIT"
 No2 W.B.T.
 SIDE SHELL

PORT

5				
4				
3	97/96 80	79	98/97 78	
2		77 97/97	⊕ 79	79
1	96/96		98/97	
	77	76	76	77

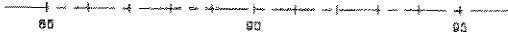
INNER BTM



STBD

5				
4	78		78	
3	98/97 80		97/98 79 80	
2	79	97/97	⊕ 79	97/97
1	98/96		78	
	76	76	78	77

INNER BTM



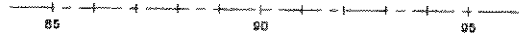
LONG'S: 10/10mm

P/S "AQUA SPIRIT"
 No2 W.B.T.
 LONG'L BHD

PORT

4				
3	69	69	7 ⁸ /2 ⁸	7 ⁰
2	7 ⁸ /2 ⁷	68	⑦	7 ⁸ /7 ⁶ 69
1		7 ⁸ /2 ⁶		7 ⁷ /2 ⁵
	68	69	⑦	6 ⁷ 68

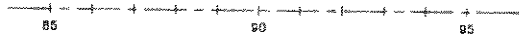
INNER BTM



STBD

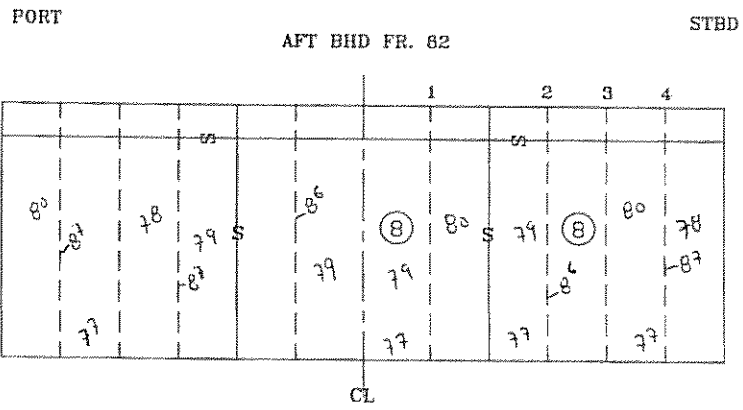
4				
3	69	7 ⁷ /2 ⁷	7 ⁰	7 ⁸ /2 ⁷ 68
2	68	7 ⁸ /2 ⁷	⑦	7 ⁰ 69
1		7 ⁷ /2 ⁵		7 ⁸ /2 ⁷
	68	67	⑦	6 ⁷ 68

INNER BTM



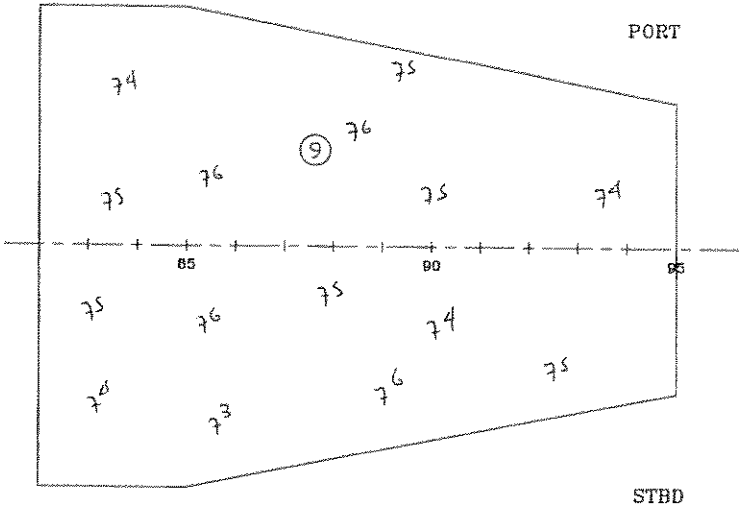
LONG'LS: 8/8mm

P/S "AQUA SPIRIT"
 No2 W.B.T. (C)



STIFFENERS: 9mm

P/S "AQUA SPIRIT"
No2 W.B.T. (C)
INNER BOTTOM

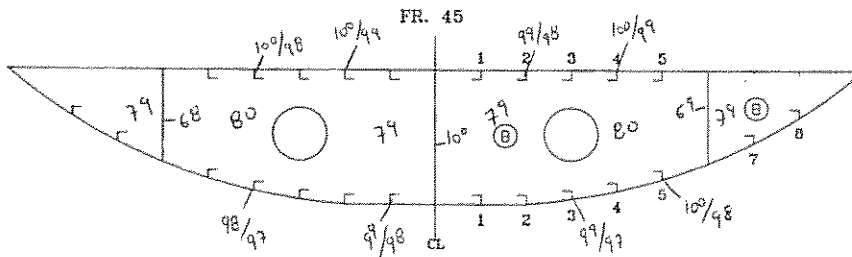
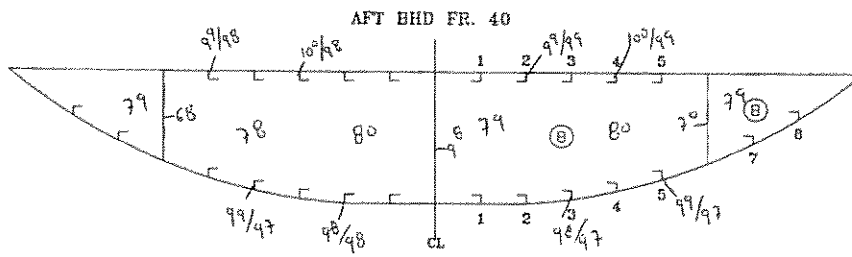


DOUBLE BOTTOM TANKS

P/S "AQUA SPIRIT"
No6 D.B.T.

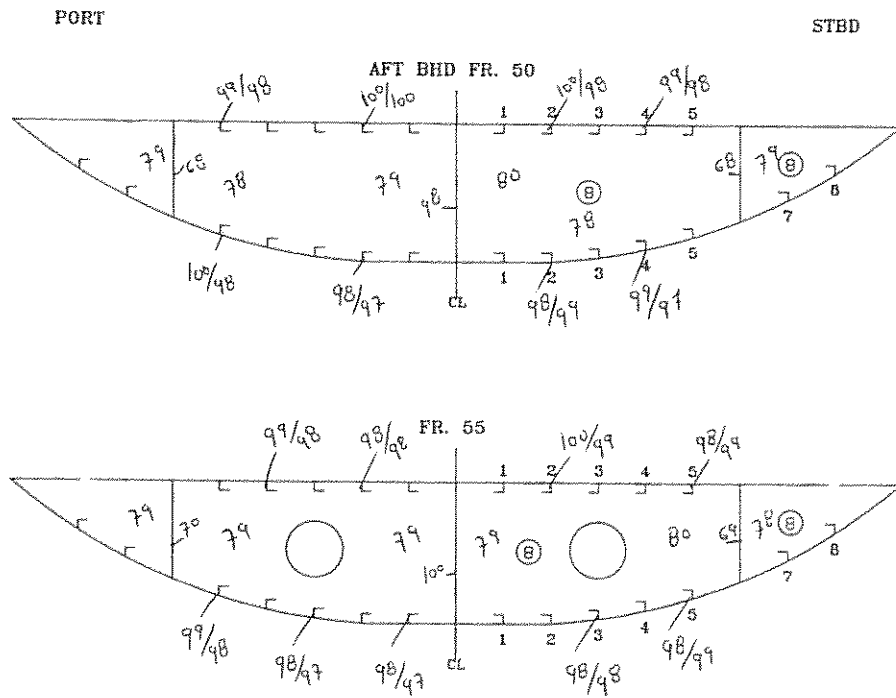
PORT

STBD



INNER BOTTOM LONG'S: 10/10mm
 BOTTOM LONG'S: 10/10mm
 GIRDERS CL: 10mm
 S: 7mm

P/S "AQUA SPIRIT"
No5 D.B.T.

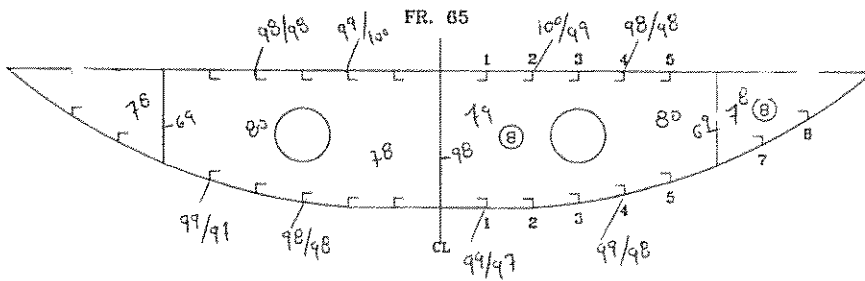
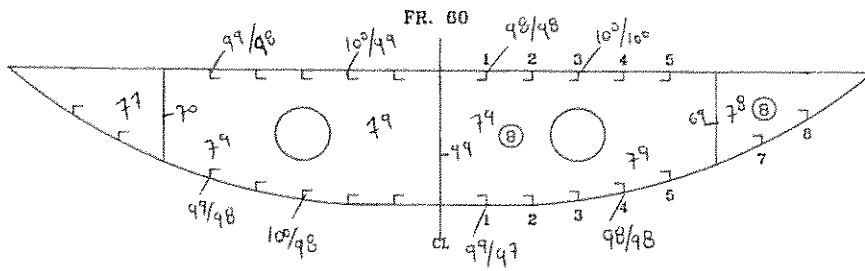


INNER BOTTOM LONG'S: 10/10mm
 BOTTOM LONG'S: 10/10mm
 GIRDERS CL: 10mm
 6: 7mm

P/S "AQUA SPIRIT"
No5 D.B.T.

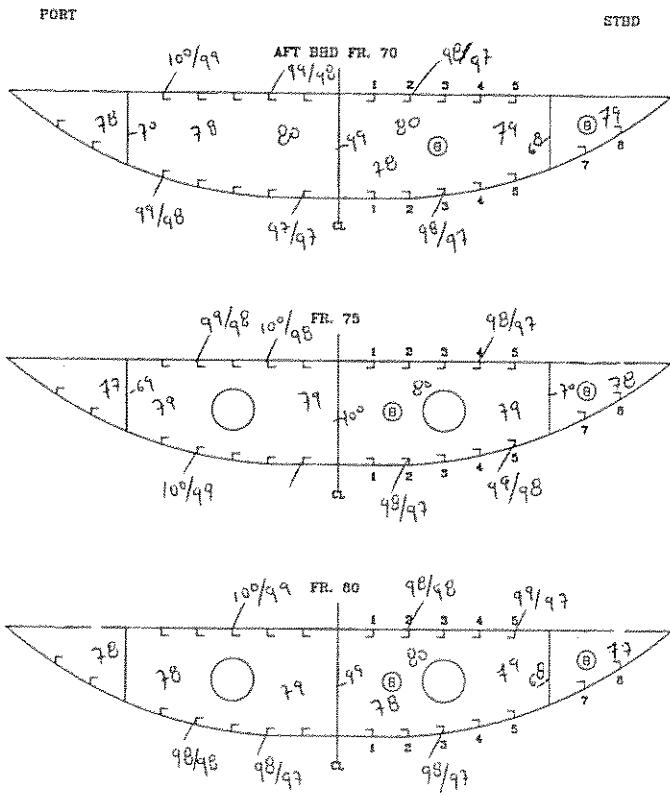
PORT

STBD



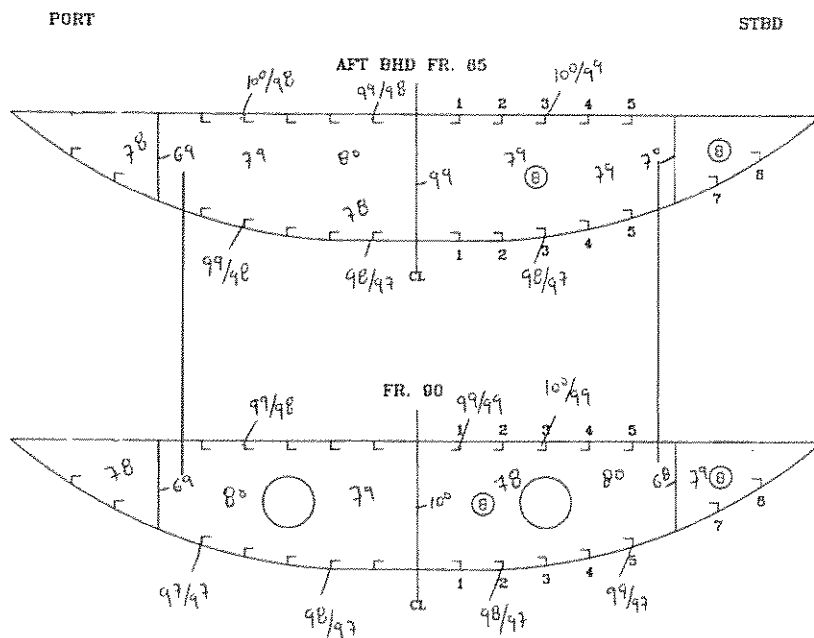
INNER BOTTOM LONG'S: 10/10mm
 BOTTOM LONG'S: 10/10mm
 GIRDERS CL: 10mm
 8: 7mm

P/S "AQUA SPIRIT"
No4 D.B.T.



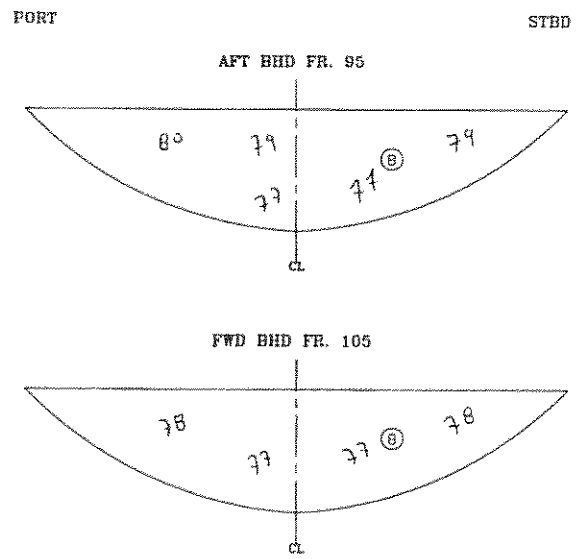
INNER BOTTOM LONG'S: 10/10mm
 BOTTOM LONG'S: 10/10mm
 GIRDERS CL: 10mm
 8: 7mm

P/S "AQUA SPIRIT"
No3 D.B.T.



INNER BOTTOM LONG'LS: 10/10mm
 BOTTOM LONG'LS: 10/10mm
 GIRDERS CL: 10mm
 G: 7mm

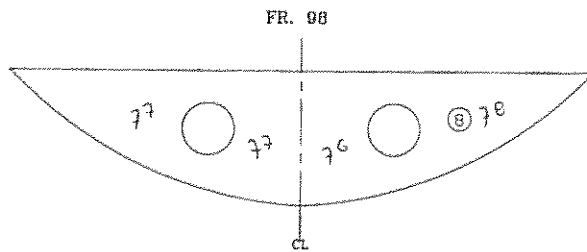
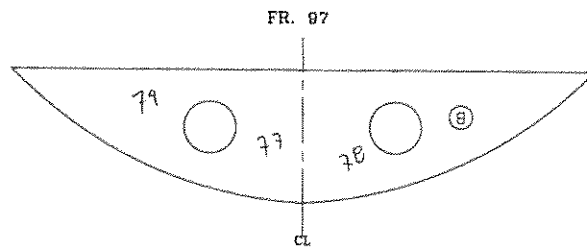
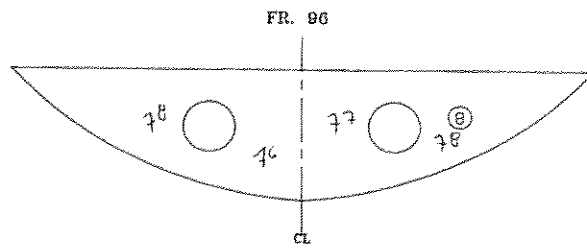
P/S "AQUA SPIRIT"
No2 D.B.T.



P/S "AQUA SPIRIT"
No2 D.B.T.

PORT

STBD

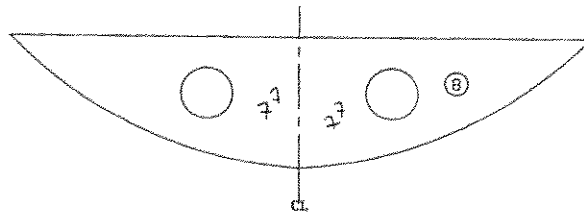


P/S "AQUA SPIRIT"
No2 D.B.T.

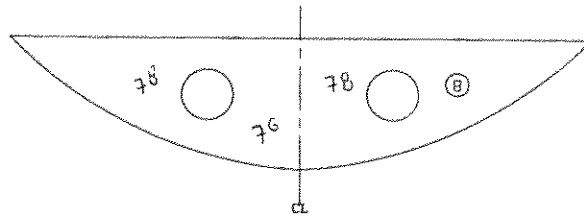
PORT

STBD

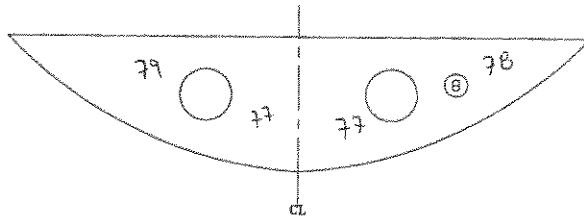
FR. 99



FR. 100



FR. 101

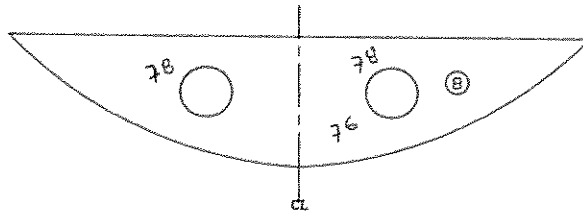


P/S "AQUA SPIRIT"
No2 D.B.T.

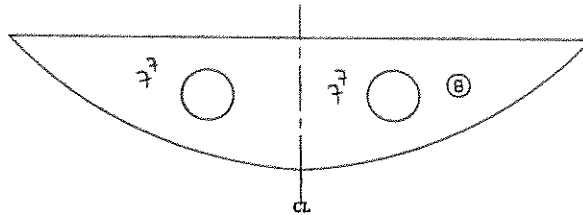
PORT

STBD

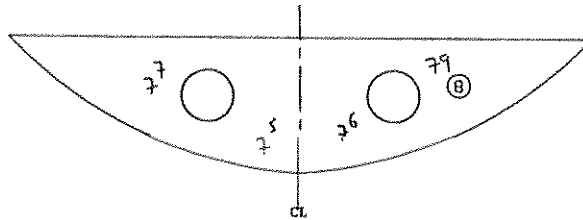
FR. 102



FR. 103



FR. 104



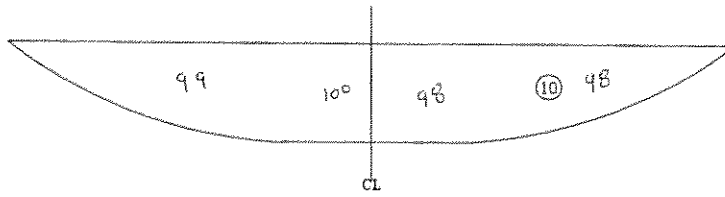
VOID SPACES

P/S "AQUA SPIRIT"
No7 D.B. VOID SPACE (C)

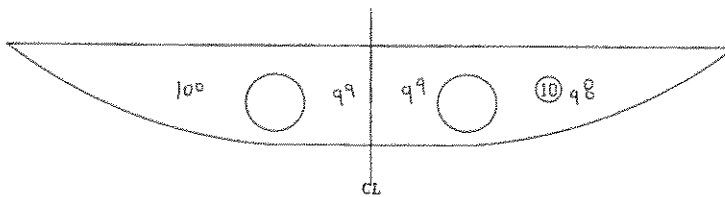
PORT

STBD

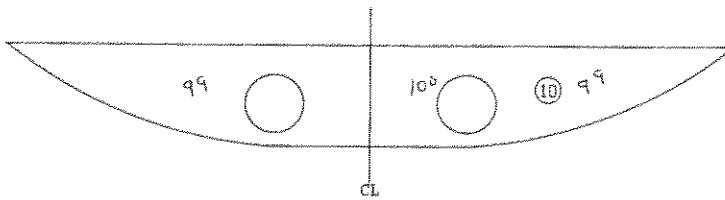
AFT BHD FR. 20



FR. 23



FR. 26

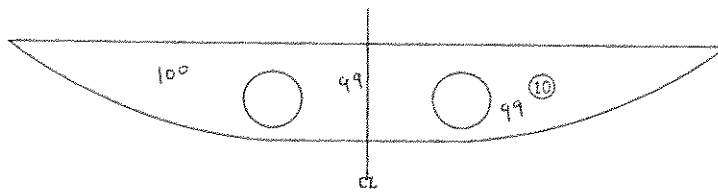


P/S "AQUA SPIRIT"
No7 D.B. VOID SPACE (C)

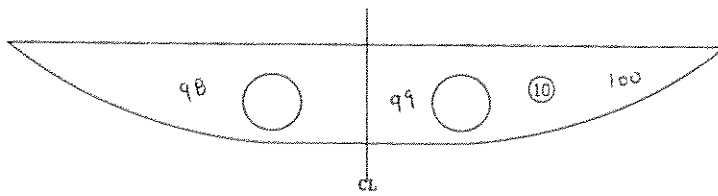
PORT

STBD

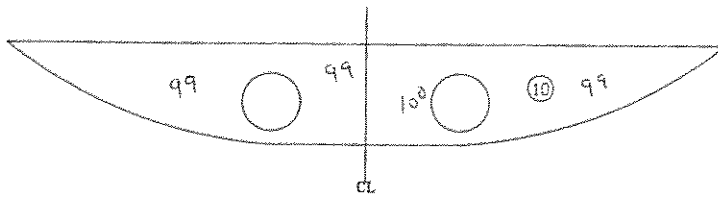
FR. 29



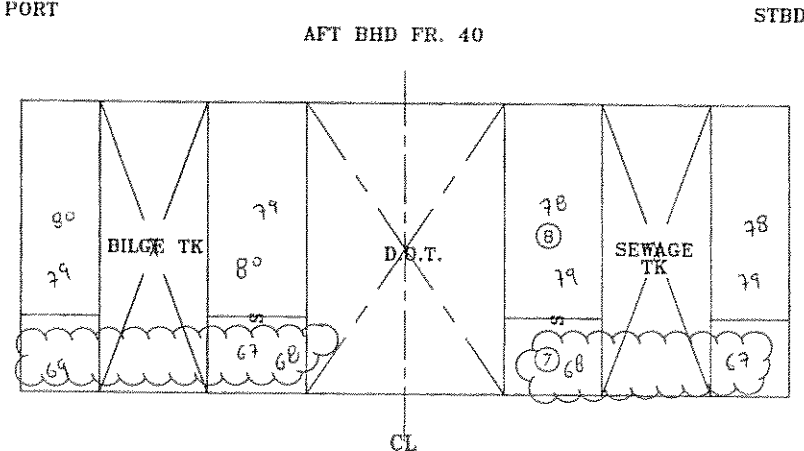
FR. 32



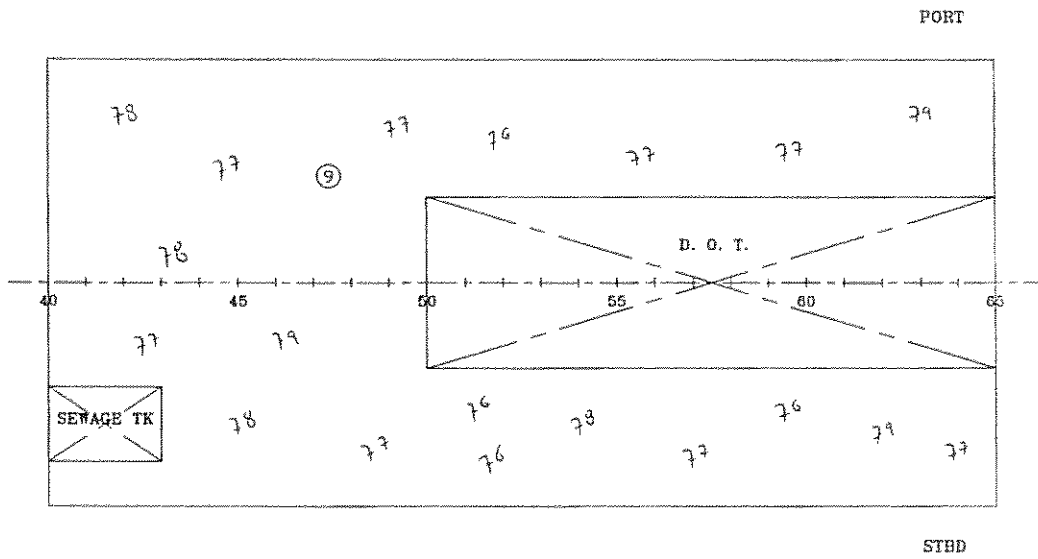
FR. 35



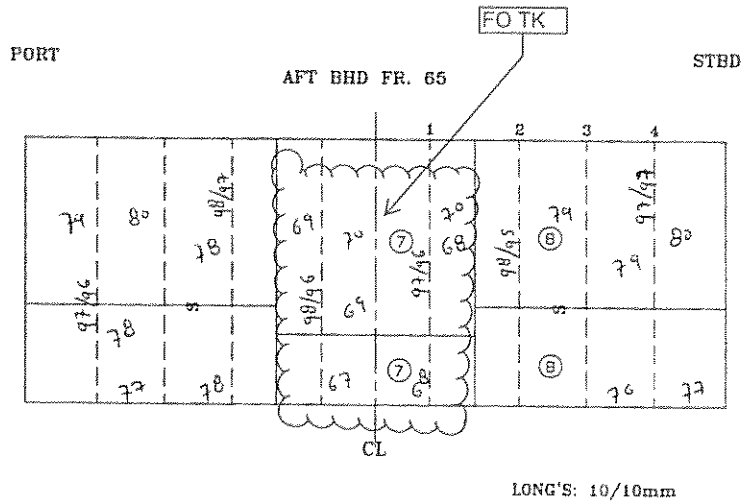
P/S "AQUA SPIRIT"
No4 VOID SPACE (C)



P/S "AQUA SPIRIT"
No4 VOID SPACE (C)
INNER BOTTOM

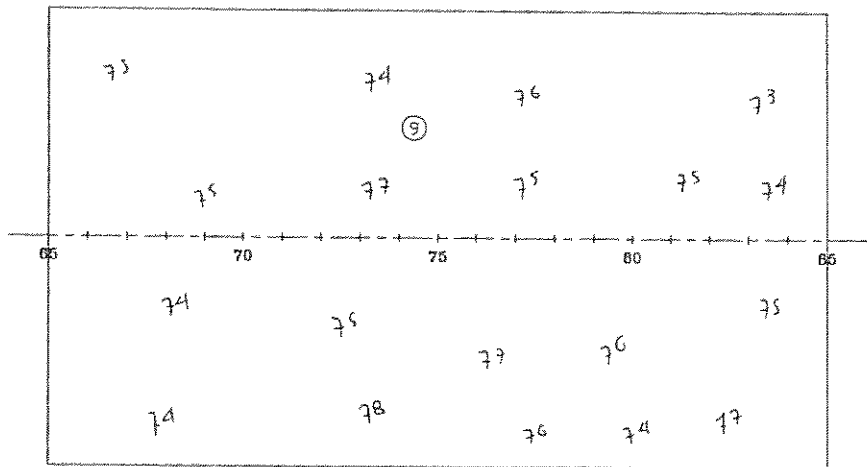


P/S "AQUA SPIRIT"
 No3 VOID SPACE (C)



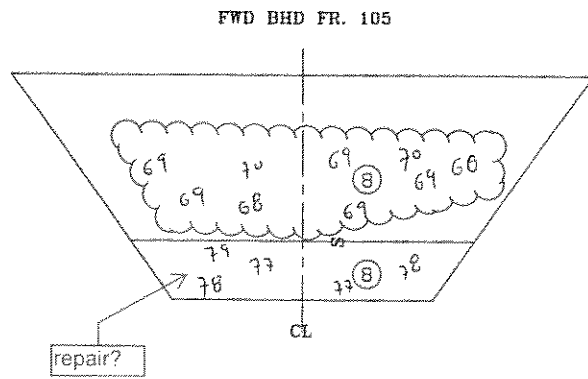
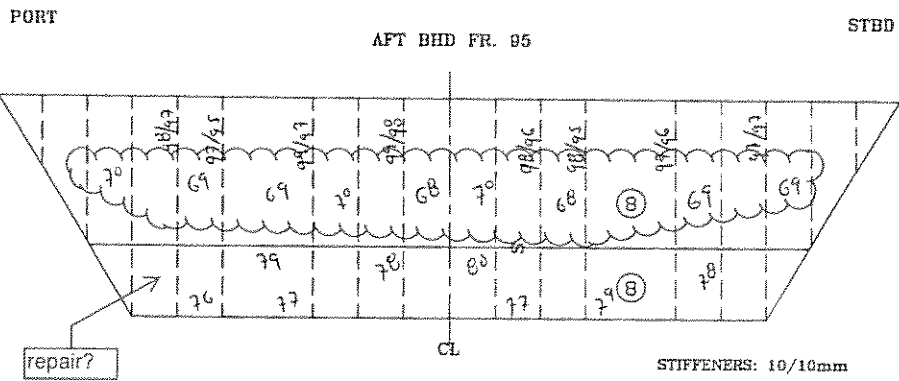
P/S "AQUA SPIRIT"
No3 VOID SPACE (C)
INNER BOTTOM

PORT

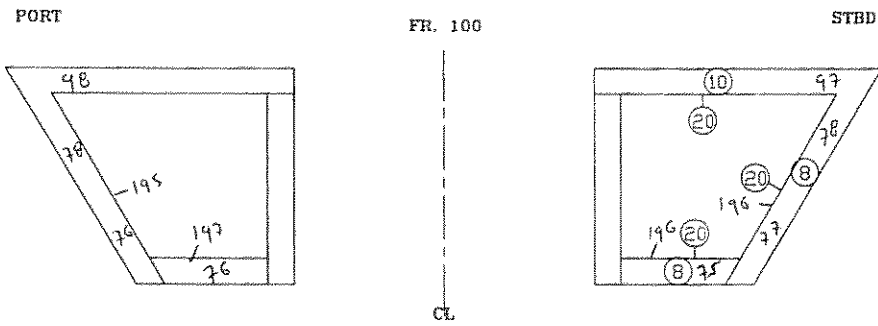


STBD

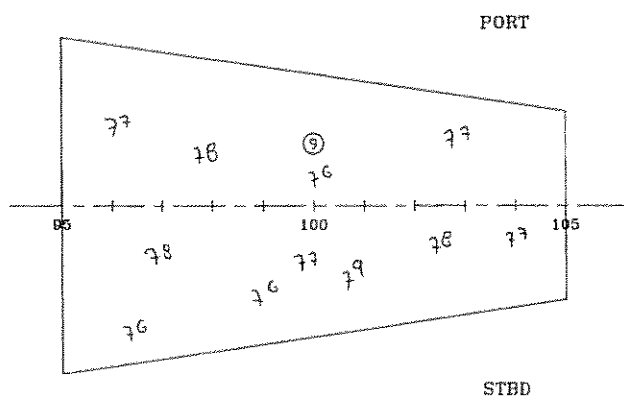
P/S "AQUA SPIRIT"
 No1 VOID SPACE (C)



P/S "AQUA SPIRIT"
No1 VOID SPACE (C)

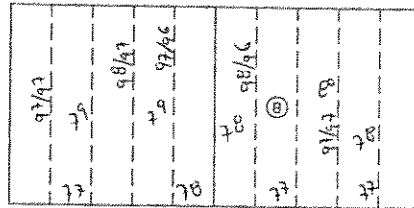


P/S "AQUA SPIRIT"
No1 VOID SPACE (C)
INNER BOTTOM

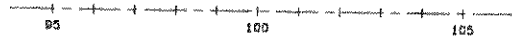


P/S "AQUA SPIRIT"
 No1 VOID SPACE (C)
 SIDE SHELL

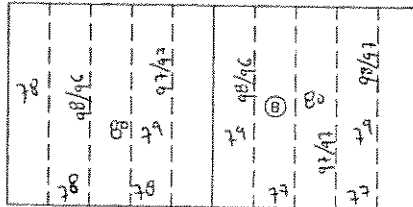
PORT



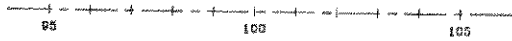
INNER BTM



STBD



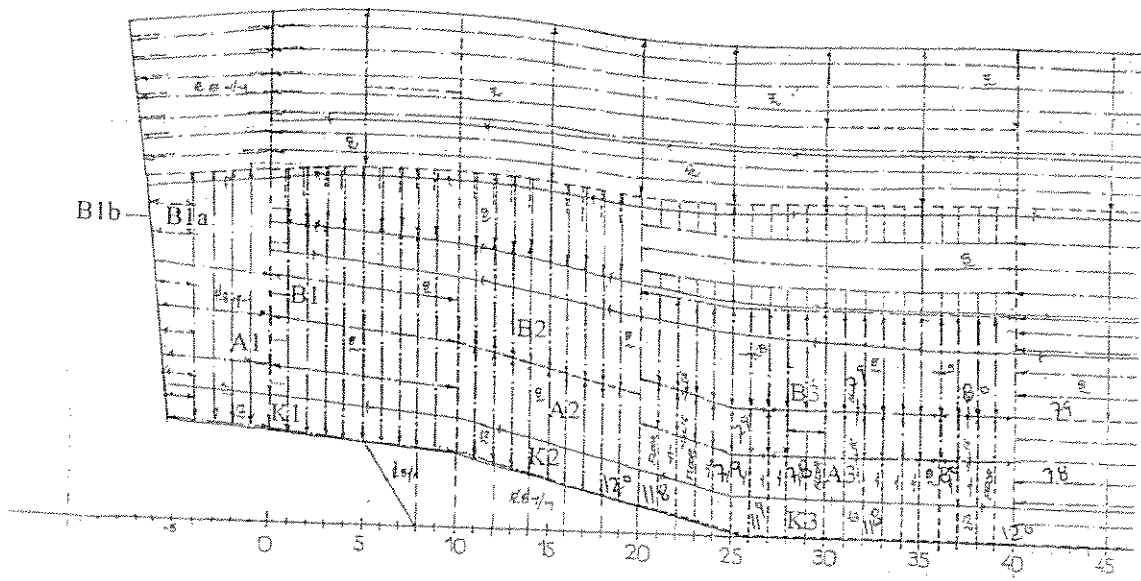
INNER BTM



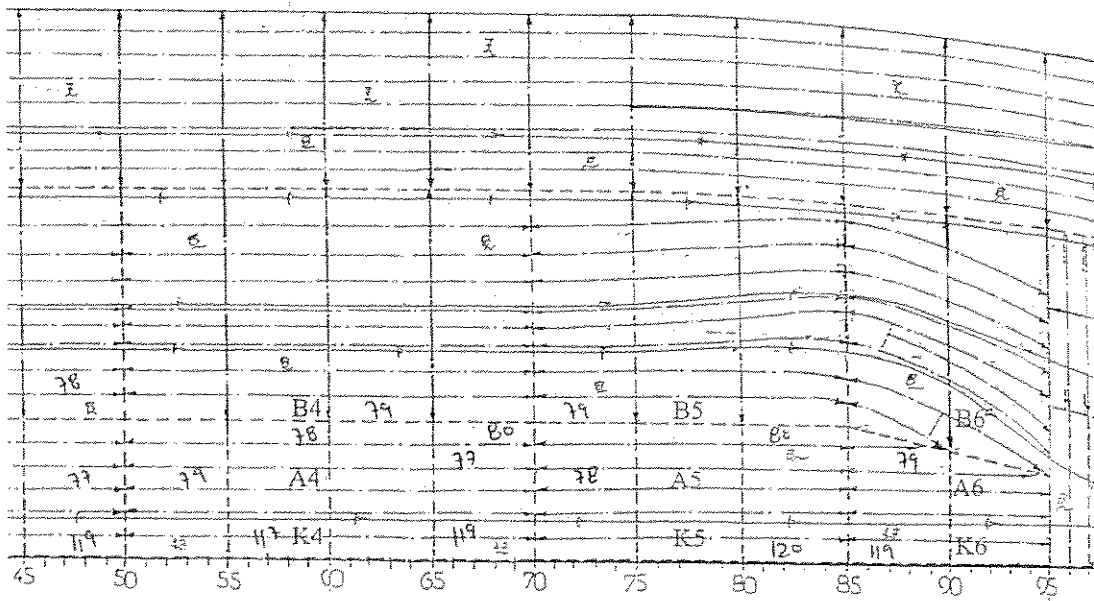
FRAMES: 10/10mm

BOTTOM

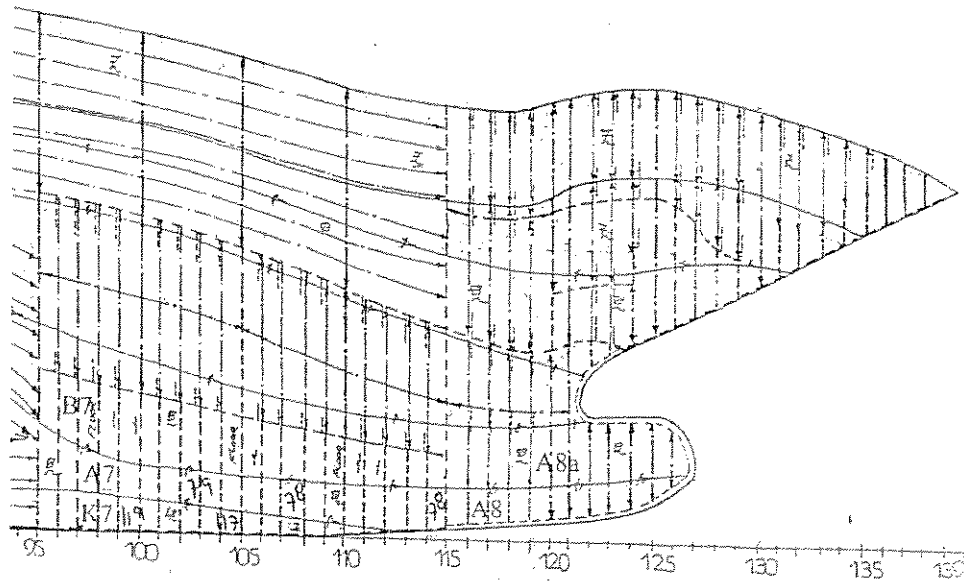
M/V AQUA SPIRIT
SHELL EXPANSION - AFT PART
PORT



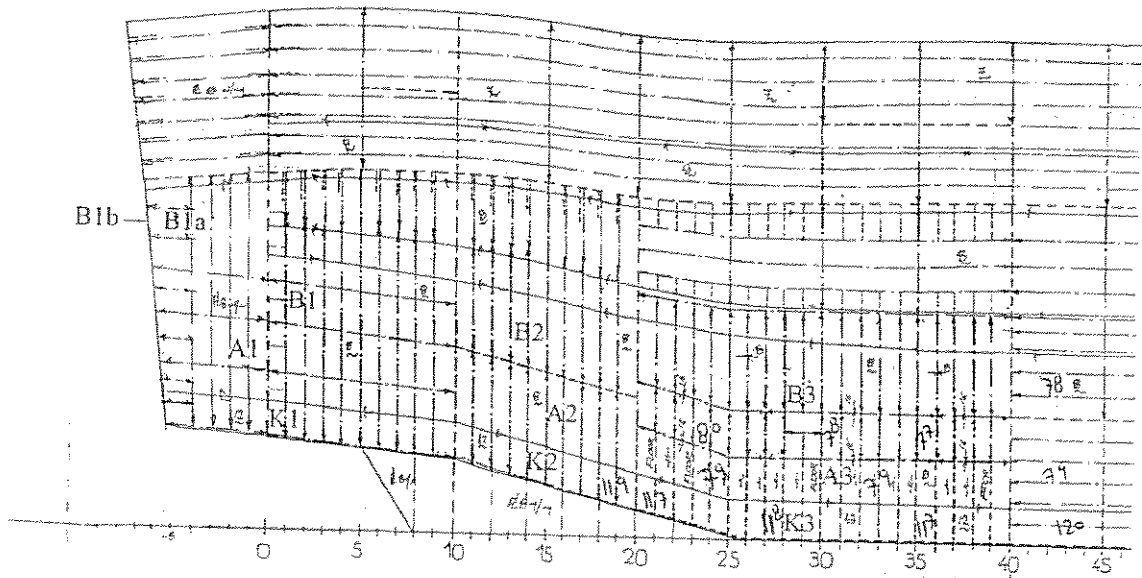
M/V AQUA SPIRIT
 SHELL EXPANSION - MID PART
 Port



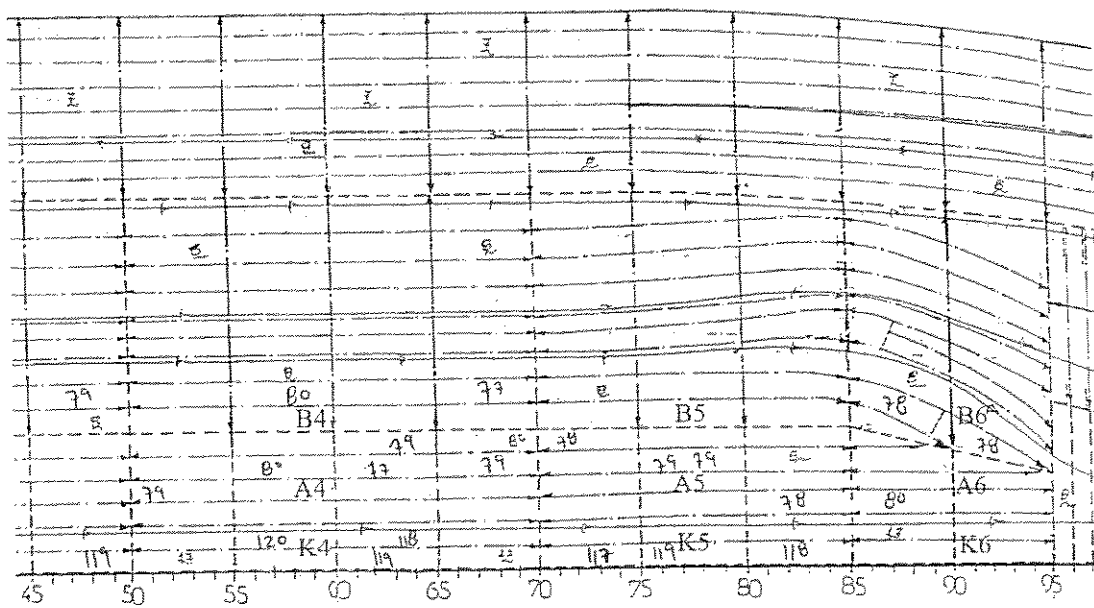
M/V AQUA SPIRIT
SHELL EXPANSION - FORE PART
PORT



M/V AQUA SPIRIT
SHELL EXPANSION - AFT PART
ST&D



M/V AQUA SPIRIT
 SHELL EXPANSION - MID PART
 578D



M/V AQUA SPIRIT
SHELL EXPANSION - FORE PART
5187

