

GENERAL NOTES:

1. THE VESSEL SHALL BE CLASSIFIED UNDER ABS MALTESE CROSS A1, CIRCLE E, UNRESTRICTED SERVICE AND ICE CLASS CO.
2. ALL MATERIAL SHALL BE ORDINARY STRENGTH STEEL, ABS GRADE A, UNLESS OTHERWISE NOTED.
3. WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE NOAA "STATEMENT OF REQUIREMENTS" AND ACCEPTABLE COMMERCIAL MARINE QUALITY.
4. ALL WELDING SHALL BE IN ACCORDANCE WITH REFERENCE NO 1.
5. COPEES, SNIPES AND DRAINS SHALL BE IN ACCORDANCE WITH HMI STANDARDS.
6. PLATES AND SHAPES ARE IN IMPERIAL UNITS. DIMENSIONS ARE IN MILLIMETERS.
7. FRAME SPACING = 600

AS-BUILT

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**FUNCTIONAL DESIGN DRAWING
NOT FOR CONSTRUCTION**

REVISIONS					REVISIONS				
REV	ZONE	DESCRIPTION	DATE	APPROVED	REV	ZONE	DESCRIPTION	DATE	APPROVED
4		1. SH 1: THIS REVISION REFLECTS AS-BUILT CONDITIONS FOR HULL 1953. 2. SH 2, ELEVATION 14-A & PLAN 10-A; RELOCATED SPARE TRANSDUCER AND SCIENTIFIC SONAR, ITEM #5C TO MATCH AS-BUILT CONDITIONS. 3. SH 2, DETAIL 11-C & SECTION 12-A; REVISED TO SUIT NEW LOCATIONS OF SPARE TRANSDUCER AND SCIENTIFIC SONAR, ITEM #5C. ITEMS 1 THRU 3 PER ENGINEERING DEVELOPMENT	7/2/07 MDP	7/3/07 FH	1		1. EXTENDED HULL APPLICABILITY TO INCLUDE HULL 1956. ITEM 1 PER ENGINEERING DEVELOPMENT.	5/1/05 AGE	5/1/05 FH
5		1. SH 2, PLAN 10-A; ADDED M284 APPLICABILITY CALLOUT TO SPARE TRANSDUCER PORT. 2. SH 2, DETAIL 12-C; ADDED DETAILS OF 70 KHZ TRANSDUCER MOUNTING/CLAMPING RINGS. ITEMS 1 & 2 PER ECP 112 THIS REVISION APPLICABLE TO M283/M284 ONLY	3/24/08 JWP		2		1. SH 2, PLAN 10-A: REVISED LAYOUT OF TRANSDUCERS TO SUIT ADDITION OF ANOTHER SCIENTIFIC SONAR TRANSDUCER BY RELOCATING THE SPARE TRANSDUCER OPENING FORWARD AND RELOCATING THE EXISTING SCIENTIFIC SONAR TRANSDUCER AFT; DELETED ACOUSTIC DOPPLER CURRENT PROFILER (ADCP) TRANSDUCER AND ITS WATERTIGHT COMPARTMENT; AND REDUCED THE SIZE OF THE SPARE TRANSDUCER OPENING TO 310. 2. SH 2, SECTION 12-A: ADDED DETAILS FOR THE NEW TRANSDUCER INSTALLATION. 3. SH 2, ELEVATION 14-A: REVISED LAYOUT OF TRANSDUCERS TO SUIT ADDITION OF ANOTHER SCIENTIFIC SONAR TRANSDUCER BY RELOCATING THE SPARE TRANSDUCER OPENING FORWARD AND RELOCATING THE EXISTING SCIENTIFIC SONAR TRANSDUCER AFT; DELETED ACOUSTIC DOPPLER CURRENT PROFILER (ADCP) TRANSDUCER AND ITS WATERTIGHT COMPARTMENT; AND REDUCED THE SIZE OF THE SPARE TRANSDUCER OPENING TO 310. 4. SH 2, SECTION 10-C: ADDED NEW DETAILS TO MODIFY FORMER WT BOUNDARY OF ADCP TRANSDUCER COMPARTMENT. 5. SH 2, DETAIL 11-C: ADDED DETAILS FOR COVER PLATE FOR THE SMALLER SPARE TRANSDUCER OPENING. 6. SH 2, PLAN 10-D: DELETED COVER PLATE OVER FORMER ADCP COMPARTMENT; AND ENLARGED OPENING IN TOP PLATE TO 530. ITEMS 1 THRU 6 PER ECP 0065	6/16/05 AGE	6/28/05 FH
					3		1. SH 1: EXTENDED HULL APPLICABILITY TO INCLUDE HULL 1957. 2. SH 1: THIS REVISION REFLECTS AS-BUILT CONDITIONS FOR HULL 1953. ITEMS 1 & 2 PER ENGINEERING DEVELOPMENT.	8/15/06 MDP	8/31/07 SM

CONT'D IN ZONE 4-D

DOCUMENT DISTRIBUTION RECORD											
DATE IN ROOM	9/18/03	9/17/03	5/1/05	5/1/05	6/24/05	6/24/05	8/15/06	8/15/06	7/3/07		
ISSUE DATE											
REV#	0	1	2	3	4	5					
PROJECT ENG	1	1	1								
PROJECT MGR	1	1	1								
ABS											
USPH											
USCG											
HMP PC	12	12	12	1	1	1					
PROD DESIGN GROUP	1(3)										
HULL MGR											
HULL LEAD	(1)	(1)	(1)	1	1	1					
HVAC											
JOINER											
HPG PC	3	3	3	1	1	1					
NOISE CONT											
CHAND LLC	1										
ISSUED BY	AE	AE	AE	SM	SM	FH					

2	CENTERBOARD BOTTOM PLANS & ELEVATIONS
1	TITLE SHEET
SH	DESCRIPTION
DRAWING INDEX	

RESERVATIONS

5	TRANSDUCER INSTALLATION DETAILS	M282-169-FH50
4	INCLINED AND VERTICAL LADDER KEY PLAN & DETAILS	M282-623-FA11
3	STRL, DOORS, HATCHES MANHOLES & SCUTTLES	M282-802-FH62
2	CENTERBOARD WELDING & MACHINING (VENDOR DWG)	1571549
1	WELDING BOOKLET	M282-100-FH90
NO.	TITLE	DRAWING NUMBER
REFERENCES		

HULL APPLICABILITY

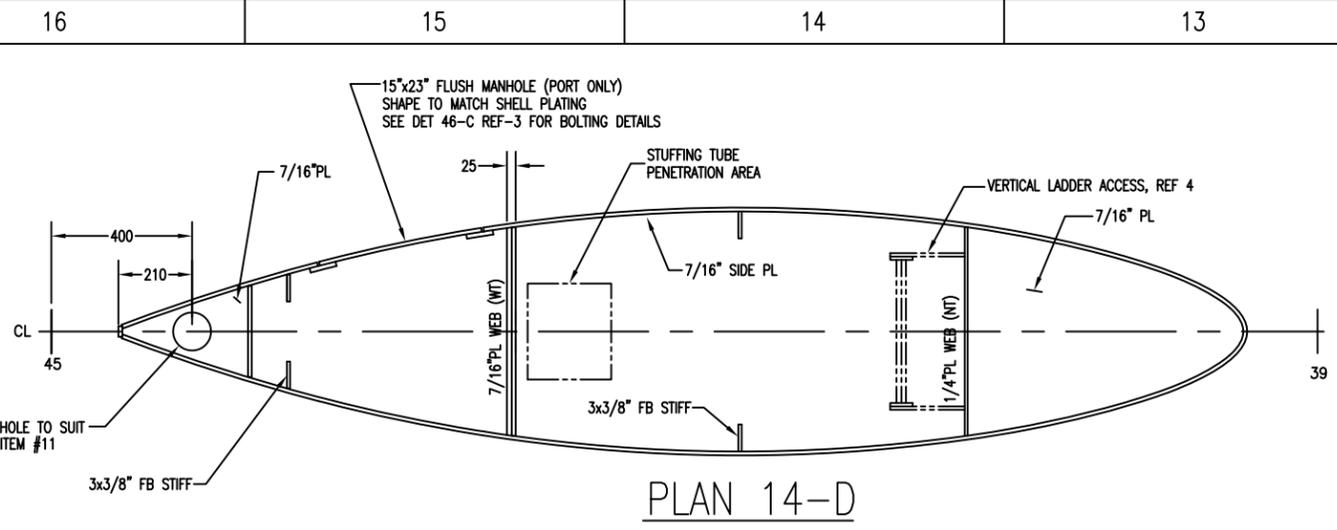
△ ¹	M282 HULL 1953										
△ ¹	M283 HULL 1956										
△ ¹	M284 HULL 1957										
NO.	REVISION STATUS										
10	9	8	7	6	5	4	3	2	1	REV	SHT

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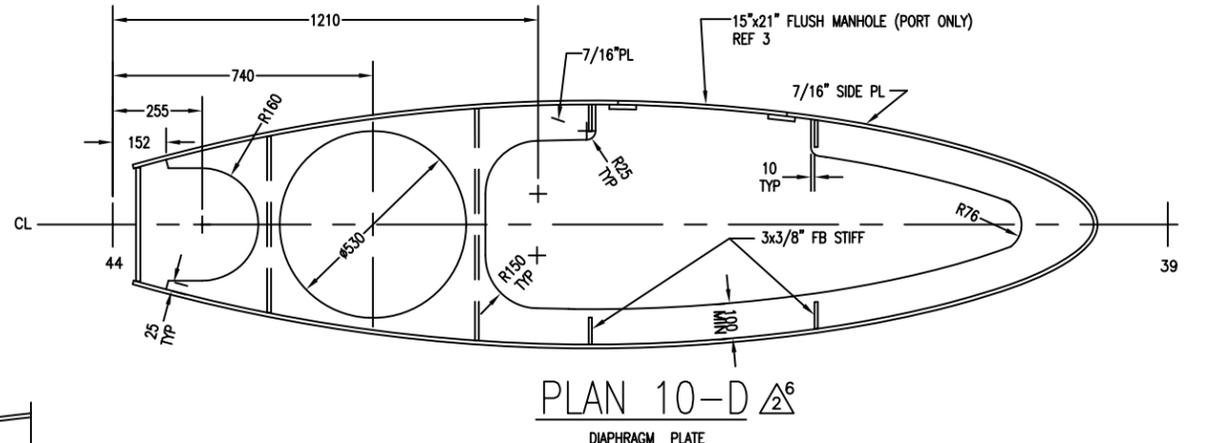
VT Halter Marine, Inc.		Vision Technologies Systems	
DRAWN BY	RW 9/11/03	ABS APPV	
CHECKED BY	AE 9/16/03	USCG APPV	
APPROVED BY	RG 9/16/03	OWNER APPV	
HULL NO	APPLICABILITY	CAGE CODE	3B213
ESTIMATE NO	00-104	SCALE	NONE
SIZE	D		

VESSEL		FRV40 CLASS 63m FISHERIES RESEARCH VESSEL	
TITLE		CENTERBOARD BOTTOM VOID SCANTLINGS	
JOB NO.	M282	ITEM	160
DELIVERABLE	FH19	SHEET	001
REV	05	SHEET	1
FILE R/M282/FUNCTIONALDESIGN/INWORK/HULLDWGS		SHEET	1
		OF	2

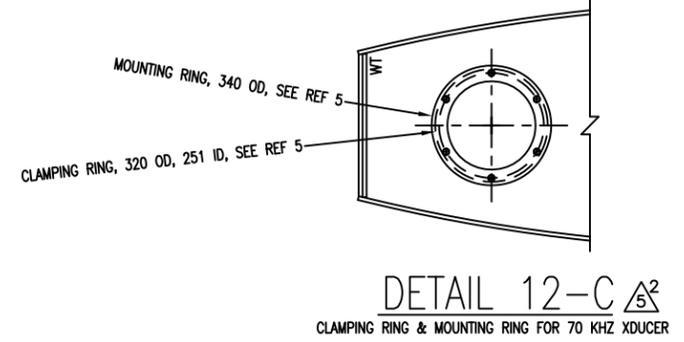
DWG NO. M282-160-FH19 SH 1



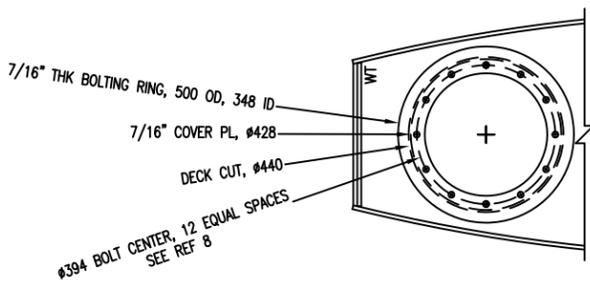
PLAN 14-D



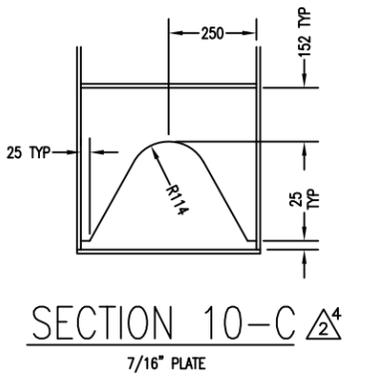
PLAN 10-D Δ^6
DIAPHRAGM PLATE



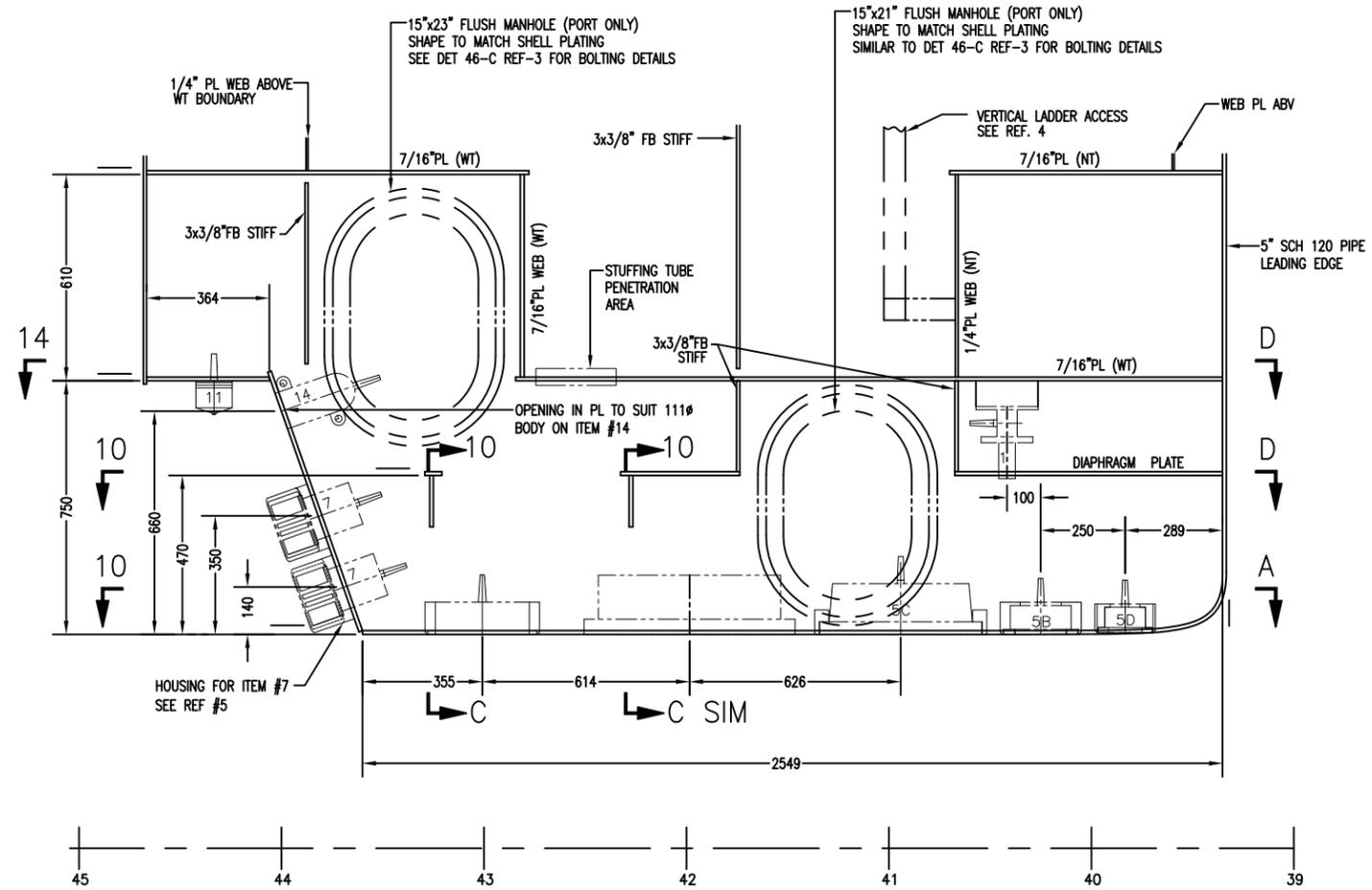
DETAIL 12-C Δ^5
CLAMPING RING & MOUNTING RING FOR 70 KHZ XDCUER



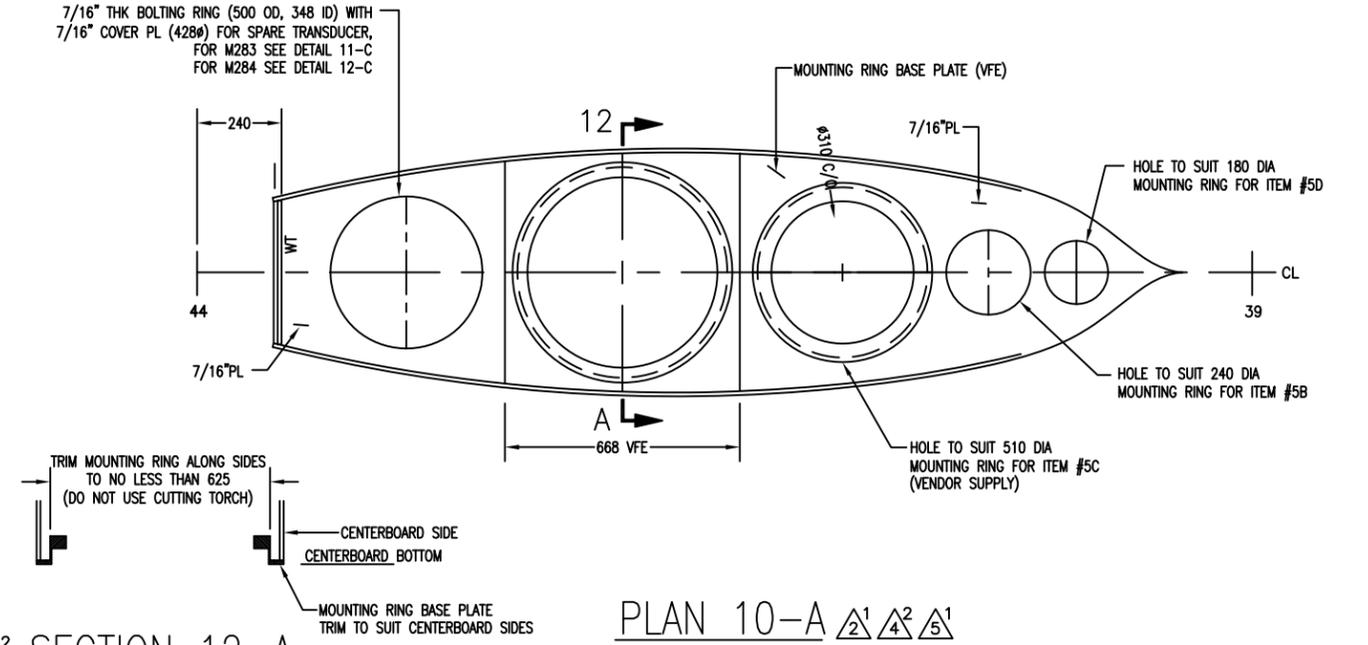
DETAIL 11-C Δ^5 Δ^3
COVER PLATE (NT) DETAILS
1/8" THK GASKET BTW COVER PL AND BOLT RING



SECTION 10-C Δ^4
7/16" PLATE



ELEVATION 14-A Δ^3 Δ^2
AT CENTERLINE LOOKING TO PORT



PLAN 10-A Δ^1 Δ^2 Δ^5
BOTTOM PLATE

SECTION 12-A Δ^3 Δ^2

HULL NO 1953	CAGE CODE 2B213	SIZE D	JOB NO. M282	ITEM 160	DELIVERABLE FH19	SHEET 002	REV 05
ESTIMATE NO 00-104	SCALE 1:10	FILE R:\M282\FUNCTIONALDESIGN\INWORK\HULLDWS			SHEET 2 OF 2		

DWG NO. M282-160-FH19 SH2