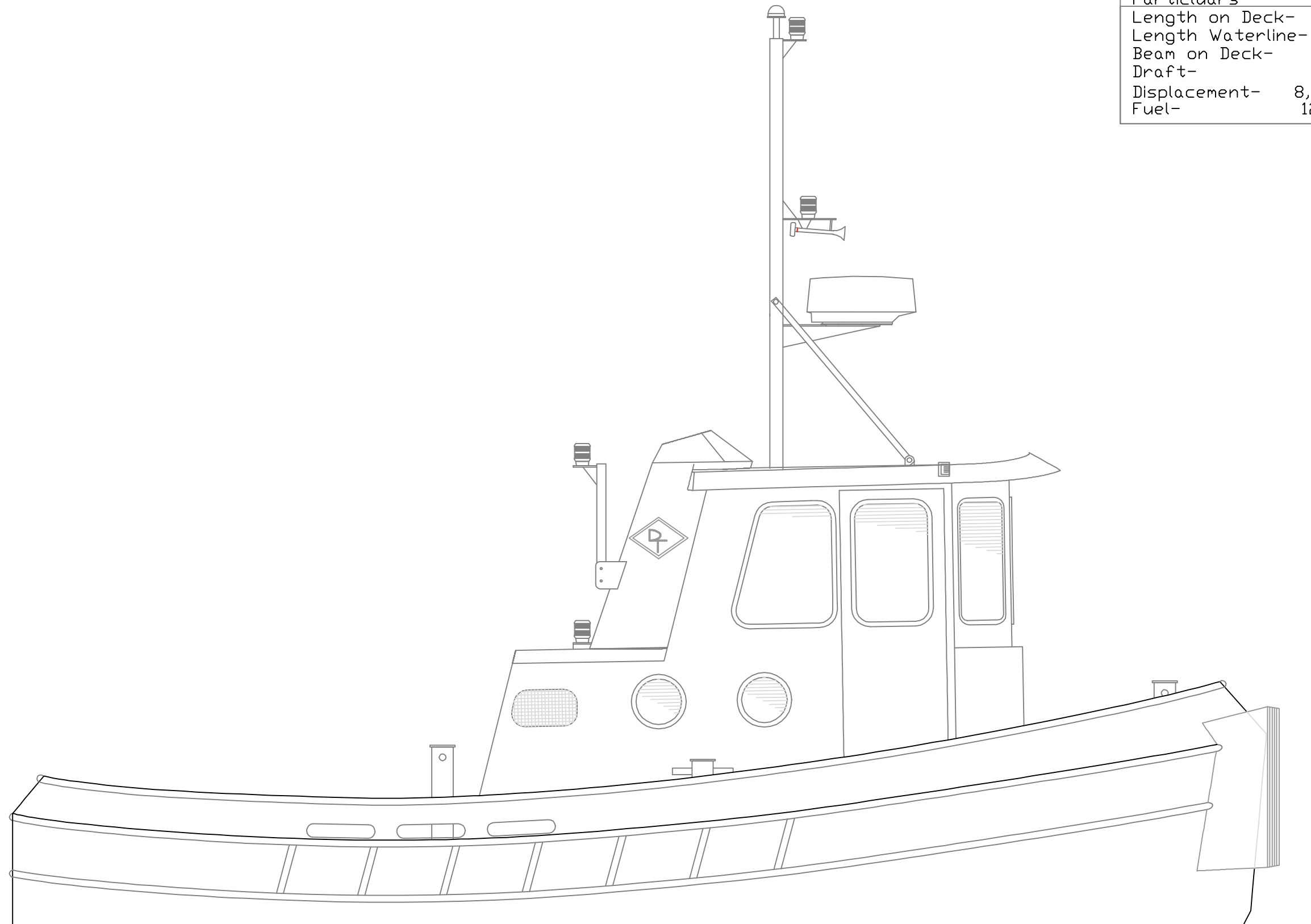


Particulars-	
Length on Deck-	23' 0"
Length Waterline-	22' 7"
Beam on Deck-	8' 10"
Draft-	3' 5"
Displacement-	8,000#, w/ 1/2 Fuel, 750# Load
Fuel-	124 Gal.



PROFILE

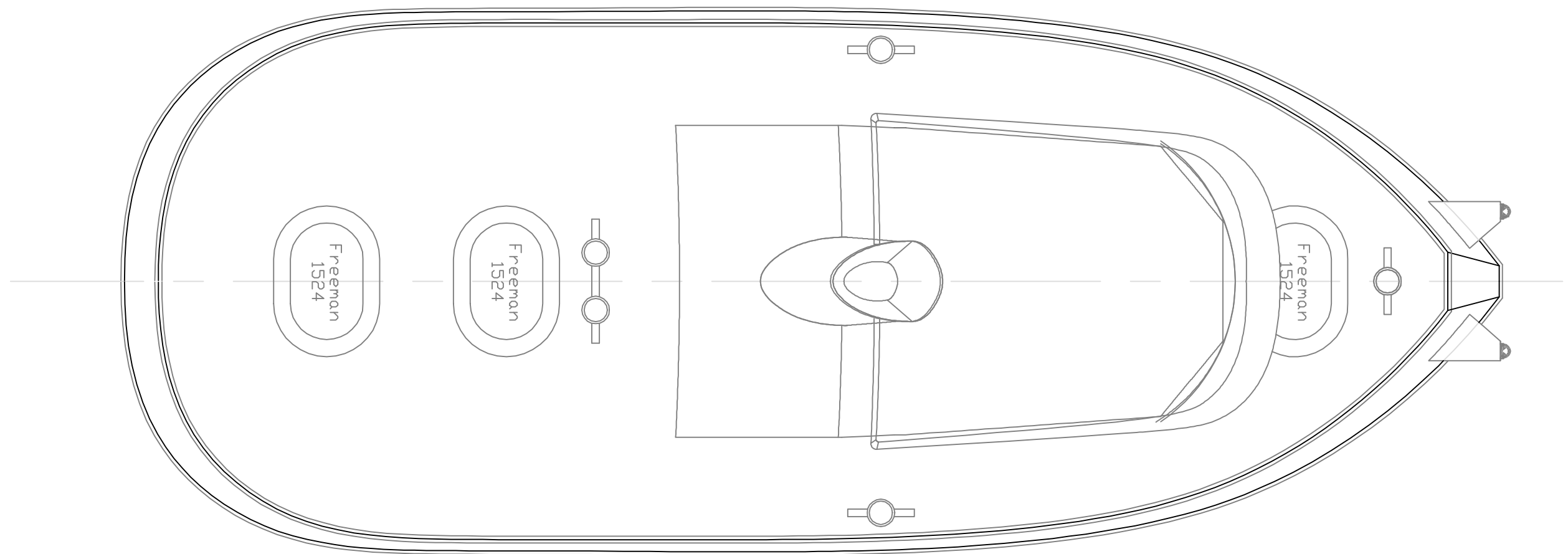
DIROCCO 23' TUG

SCALE 1/2" = 1'	DES/DWN WAL	DATE 12/18/06
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<i>Response Marine, Inc.</i> Newburyport, MA www.responsemarine.com	SHEET DWG NO. 267-01
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REV. DESCRIPTION

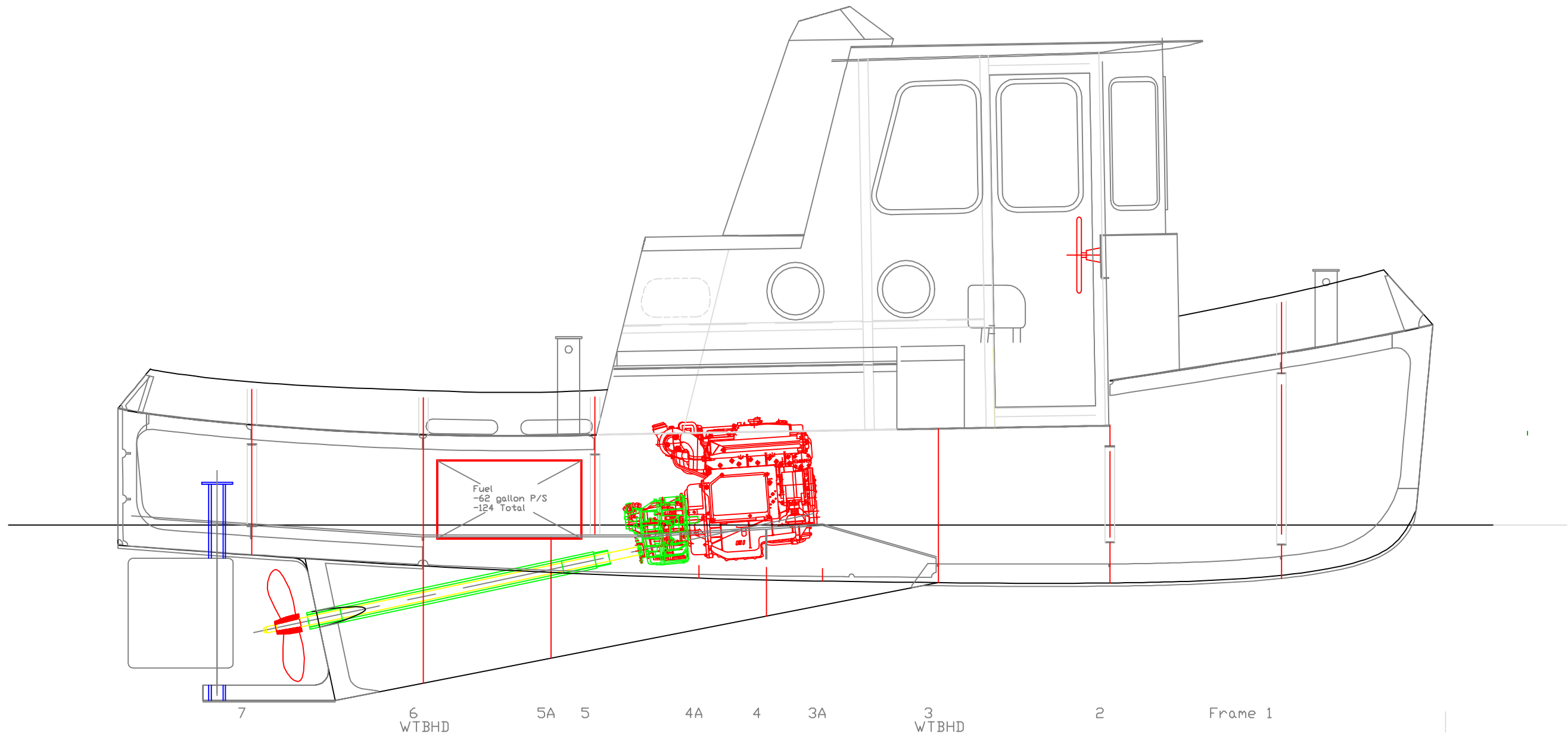
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OUTBOARD PLAN

DIRROCCO 23' TUG		
SCALE 1/2" = 1'	DES/DWN WAL	DATE 12/18/06
<i>Response Marine, Inc.</i> Newburyport, MA www.responsemarine.com		SHEET DWG NO. 267-02

REV.	DESCRIPTION

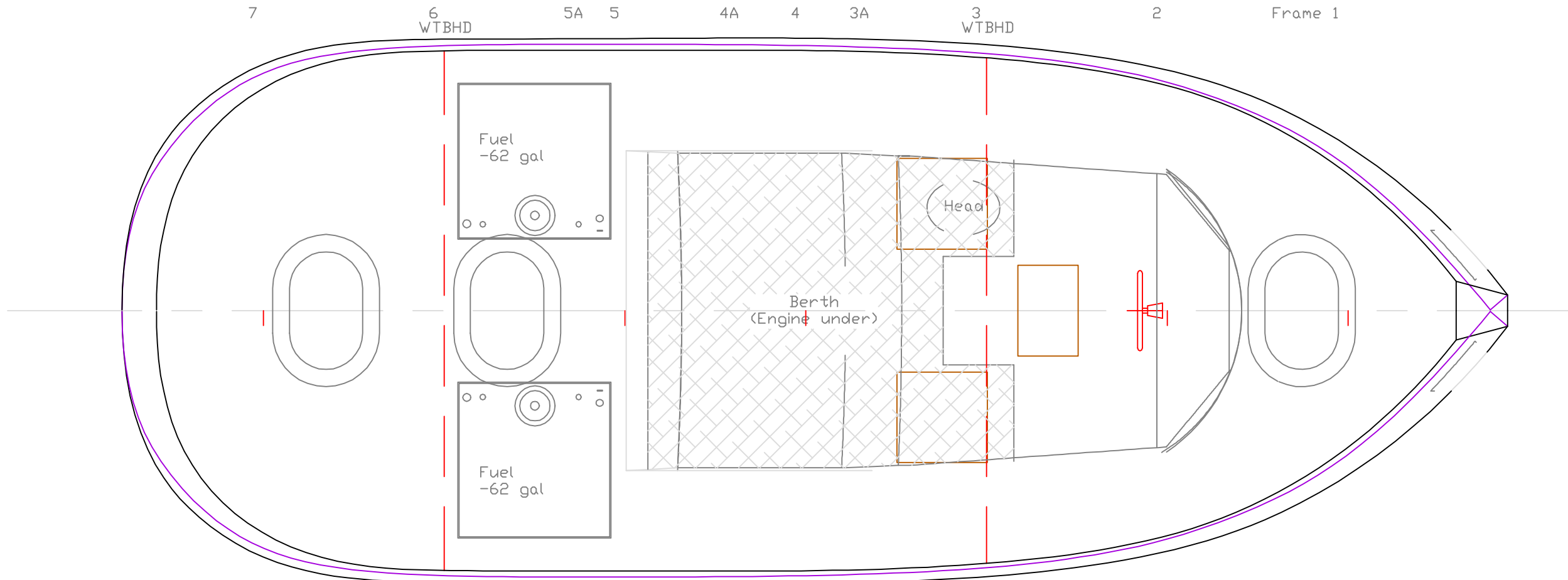


INBOARD PROFILE
DIRROCCO 23' TUG

SCALE 1/2" = 1'	DES/DWN WAL	DATE 12/18/06
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<i>Response Marine, Inc.</i> Newburyport, MA www.responsemarine.com		SHEET DWG NO. 267-03
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REV.	DESCRIPTION



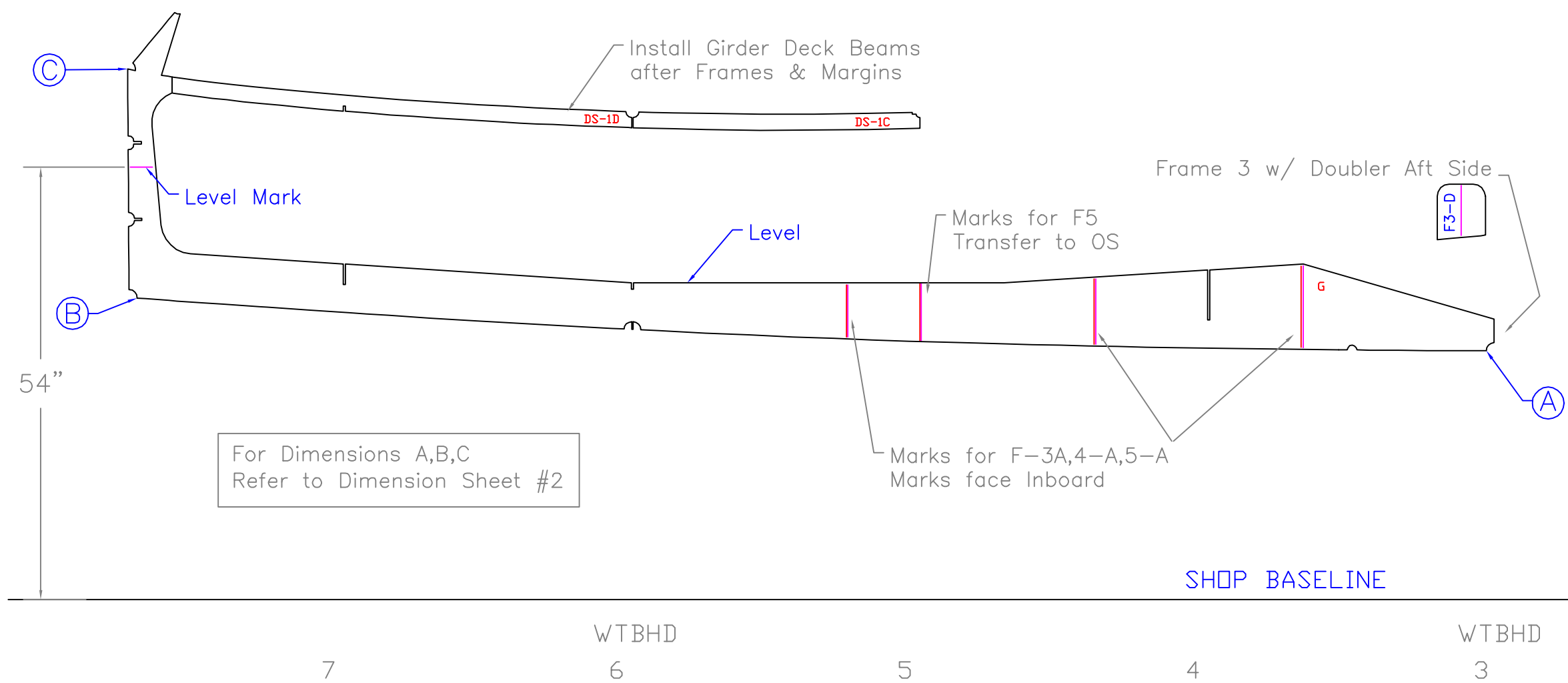
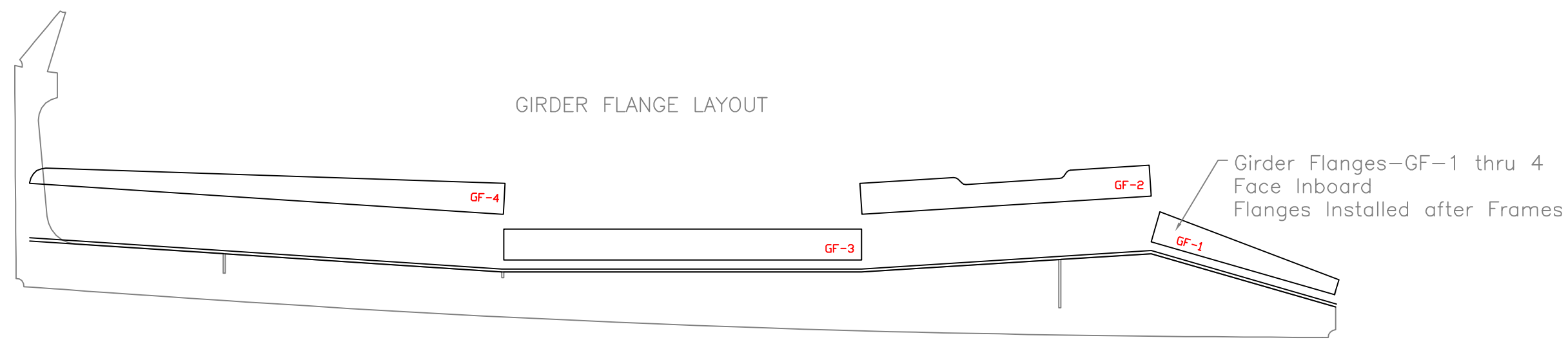
INBOARD PLAN
DIRROCCO 23' TUG

SCALE 1/2" = 1'	DES/DWN WAL	DATE 12/18/06
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<i>Response Marine, Inc.</i> Newburyport, MA www.responsemarine.com		SHEET DWG NO. 267-04
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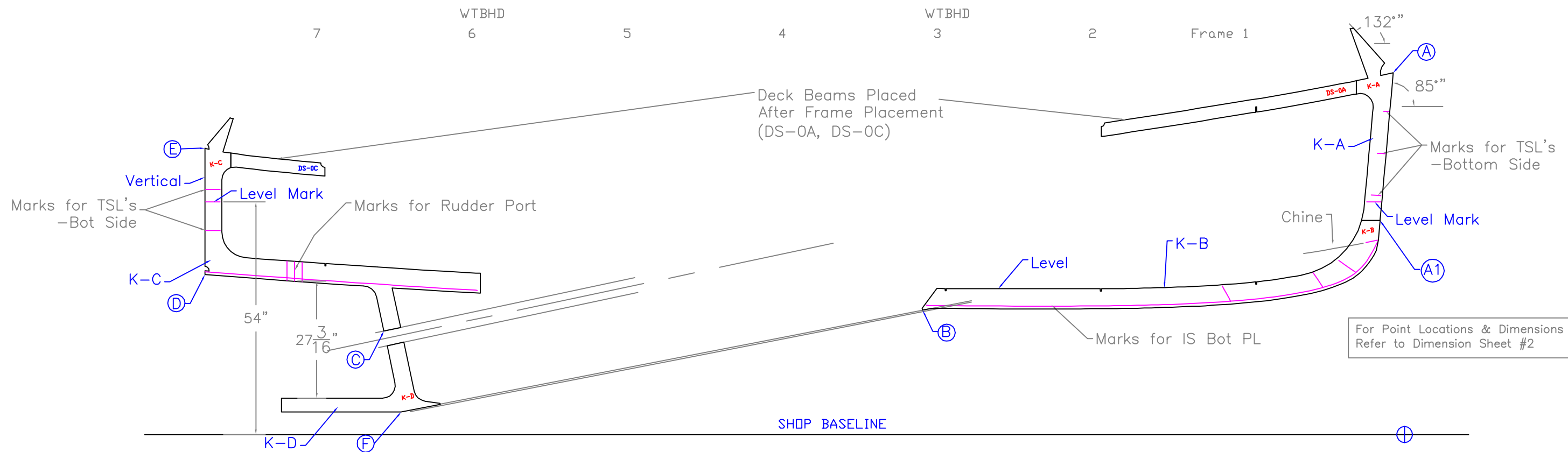
REV.	DESCRIPTION

Notes:
 1.) Girders are Vertical & Constant 13¼" (IS) off CL.
 2.) Girder Flanges are 90° of Girder & Face Inboard.



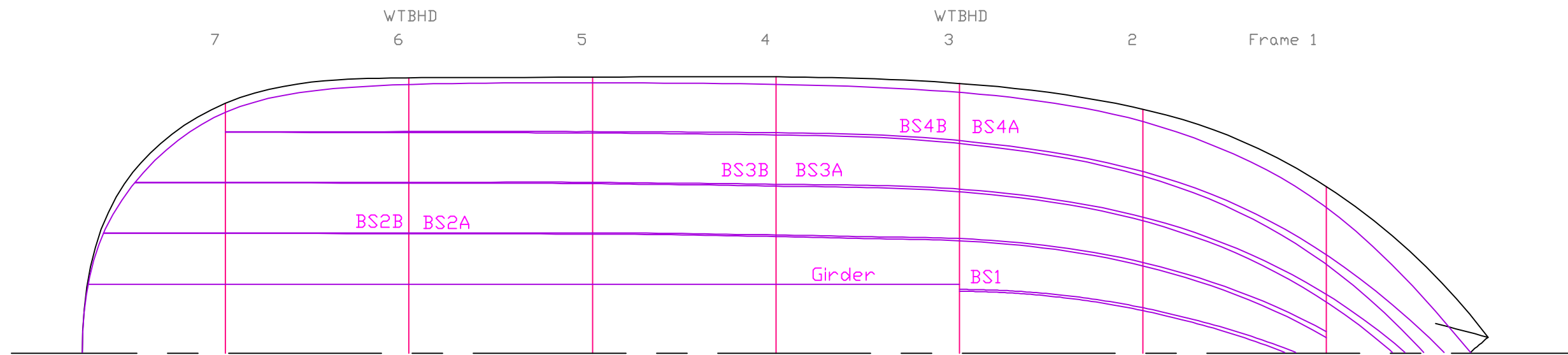
ENGINE/HULL GIRDERS		
DIRROCCO 23' TUG		
SCALE 3/4" = 1'	DES/DWN WAL	DATE 11/29/06
Response Marine, Inc. Newburyport, MA www.responsemarine.com		SHEET DWG NO. 267-2-01

REV.	DESCRIPTION



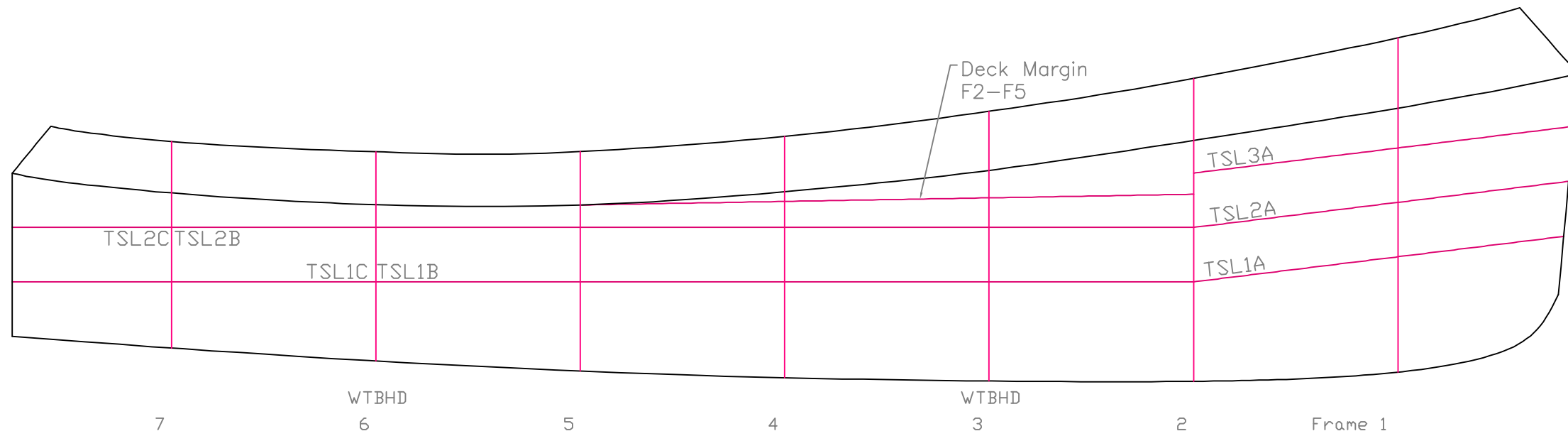
KEELSON & CL DECK BEAMS		
DIRROCCO 23' TUG		
SCALE 1/2" = 1'	DES/DWN WAL	DATE 11/29/06
<i>Response Marine, Inc.</i> Newburyport, MA, www.responsemarine.com		SHEET DWG NO. 267-2-02

REV.	DESCRIPTION



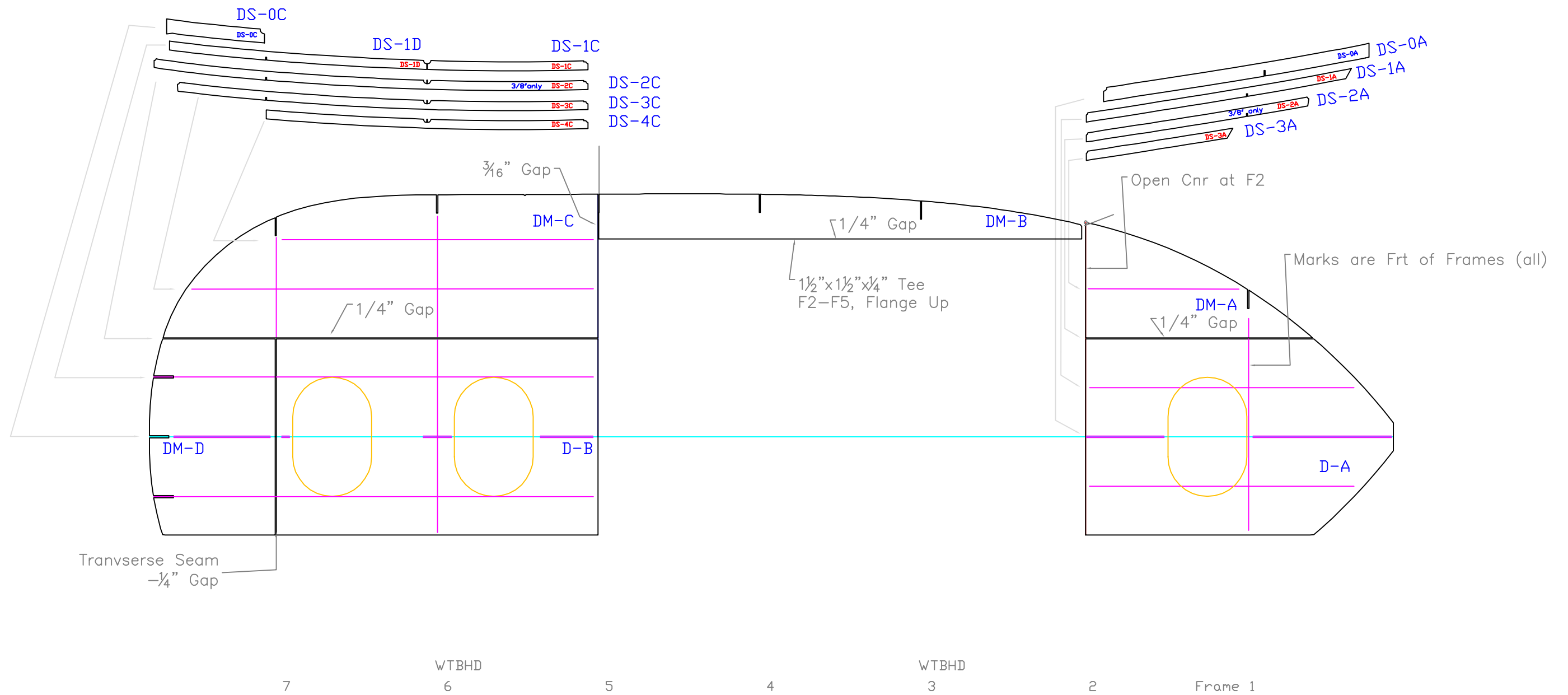
BOTTOM STRINGERS		
DIRROCCO 23' TUG		
SCALE 1/2" = 1'	DES/DWN WAL	DATE 11/29/06
<i>Response Marine, Inc.</i> Newburyport, MA www.responsemarine.com		SHEET DWG NO. 267-2-03

REV.	DESCRIPTION



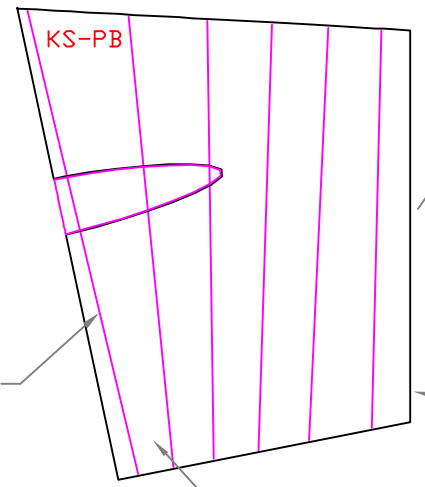
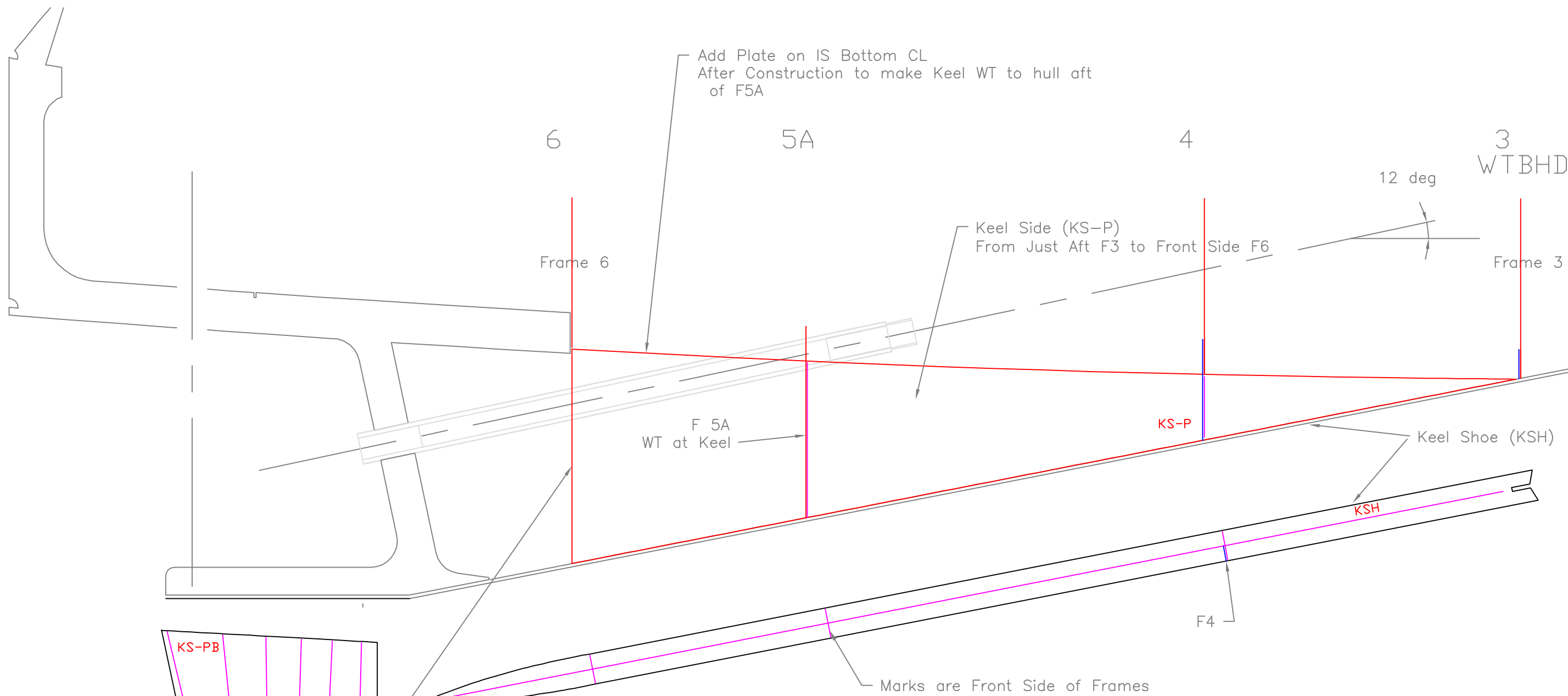
SIDE STRINGERS		
DIRROCCO 23' TUG		
SCALE 1/2" = 1'	DES/DWN WAL	DATE 11/29/06
<i>Response Marine, Inc.</i> Newburyport, MA www.responsemarine.com		SHEET DWG NO. 267-2-04

REV.	DESCRIPTION



DECK PLATES & STIFFENERS		
DIROCCO 23' TUG		
SCALE 1/2" = 1'	DES/DWN WAL	DATE 11/29/06
Response Marine, Inc. Newburyport, MA, www.responsemarine.com		SHEET DWG NO. 267-2-05

REV.	DESCRIPTION



Lines are 2° bend lines

3/8" Gap at KS-P/S
Seam Welds to FL on F6

Hand cut for drain cplg

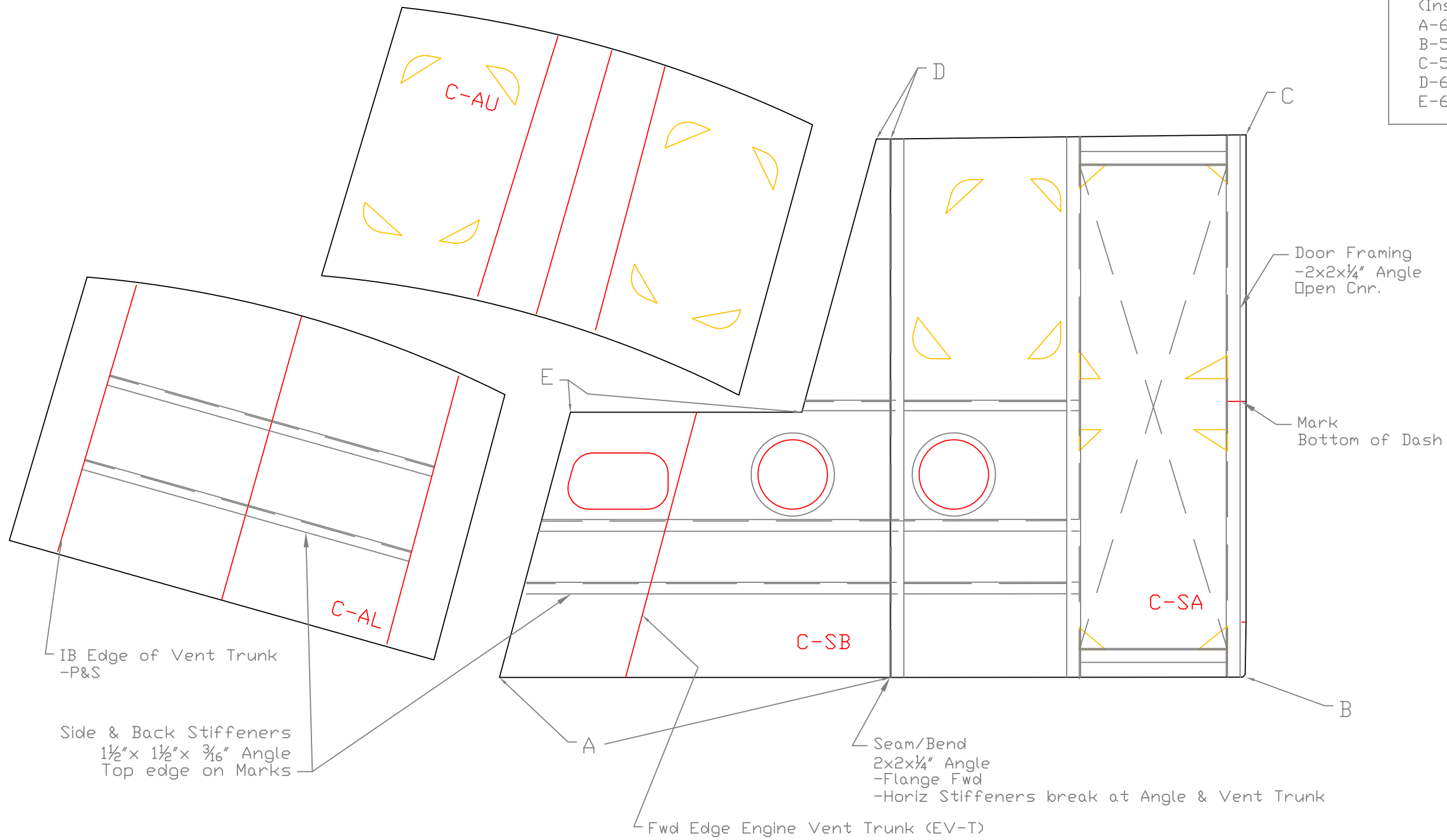
Keel Side, Aft (KS-PB/SB)
Start 3/16" Aft of KS-P/S
Shape to Match KSH at Bottom
Install After Stern Tube

KEEL PLATING		
DIRROCCO 23' TUG		
SCALE 1/2" = 1'	DES/DWN WAL	DATE 12/18/06
Response Marine, Inc. Newburyport, MA, www.responsemarine.com		SHEET DWG NO. 267-2-06

REV. DESCRIPTION

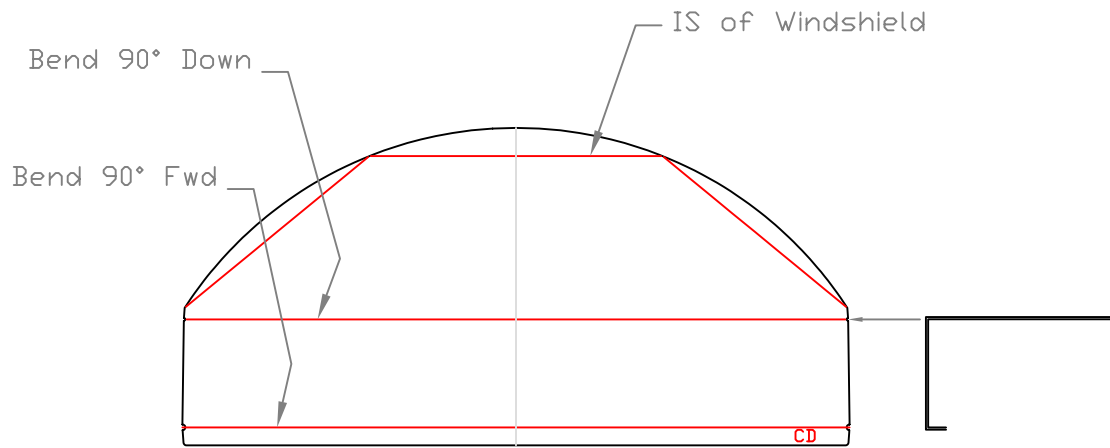
Upper Back
Marks for CL and Stack IS

Pilothouse Widths:
(Inside Skin)
A-63⁵/₈"
B-56¹/₄"
C-54¹/₄"
D-61⁹/₁₆"
E-62⁹/₁₆"

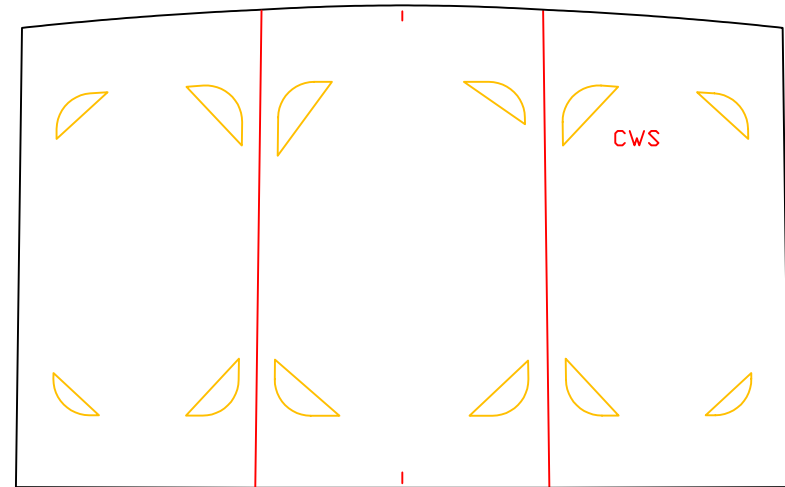


PILOTHOUSE SIDES & BACK		
DIRROCCO 23' TUG		
SCALE 3/4" = 1'	DES/DWN WAL	DATE 12/17/06
Response Marine, Inc. Newburyport, MA, www.responsemarine.com		SHEET DWG NO. 267-4-1

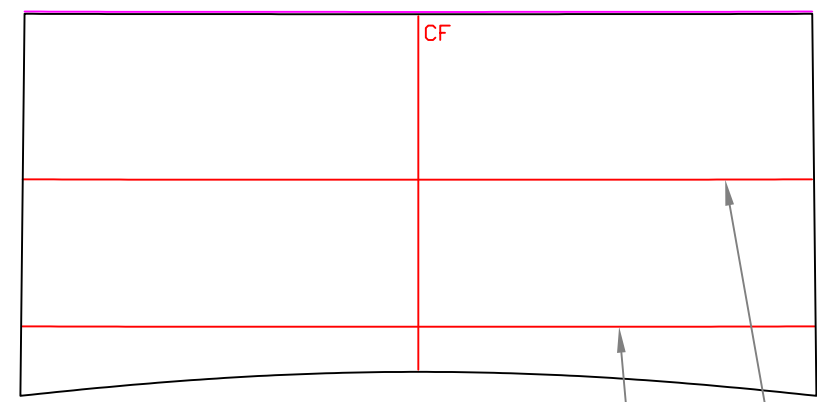
REV.	DESCRIPTION



CD
Dash
Front is Open Cnr with House Front

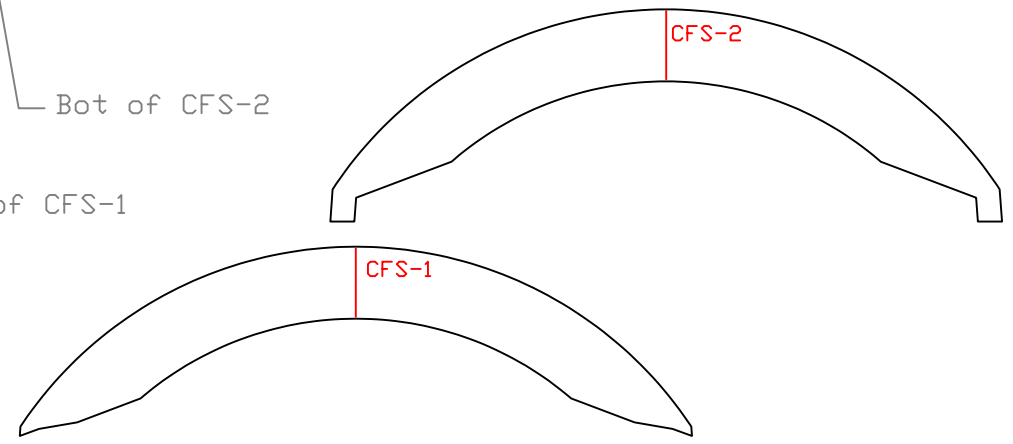


CWS
Windshield Panel
Bend on Marks to Match Marks on Dash
Set on Top of Dash
Sides Mate Open Cnr w/ C-SA/B



CF
House Front
Jig/Stiffen with CFS-1, CFS-2 & CD
CFS-1 to be Removed (Jig only)
Sides Mate Open Cnr w/ C-SA/B

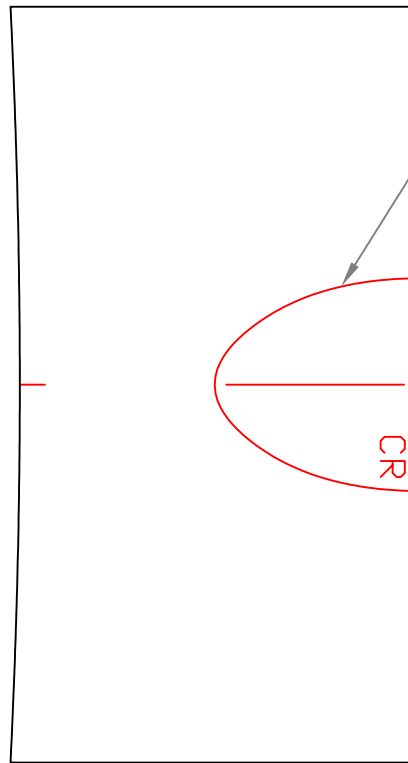
Bot of CFS-2
Bot of CFS-1



PILOTHOUSE FRONT		
DIROCCO 23' TUG		
SCALE 3/4" = 1'	DES/DWN WAL	DATE 12/17/06
Response Marine, Inc. Newburyport, MA, www.responsemarine.com		SHEET DWG NO. 267-4-2

REV.	DESCRIPTION

Coach Roof



Stack Marks, IS

Roof Edge, TOP

V-C

Expected Trim Line for V-C

Roof Edge, Bottom

Aft Bhd, Inside

JV-4, Aft Side

JV-3, Aft Side

JV-2, OB Side

JV-1, OB Side

CL, JV-0

Seam

Stack Marks, IS

JV-1, OB Side

JV-2, OB Side

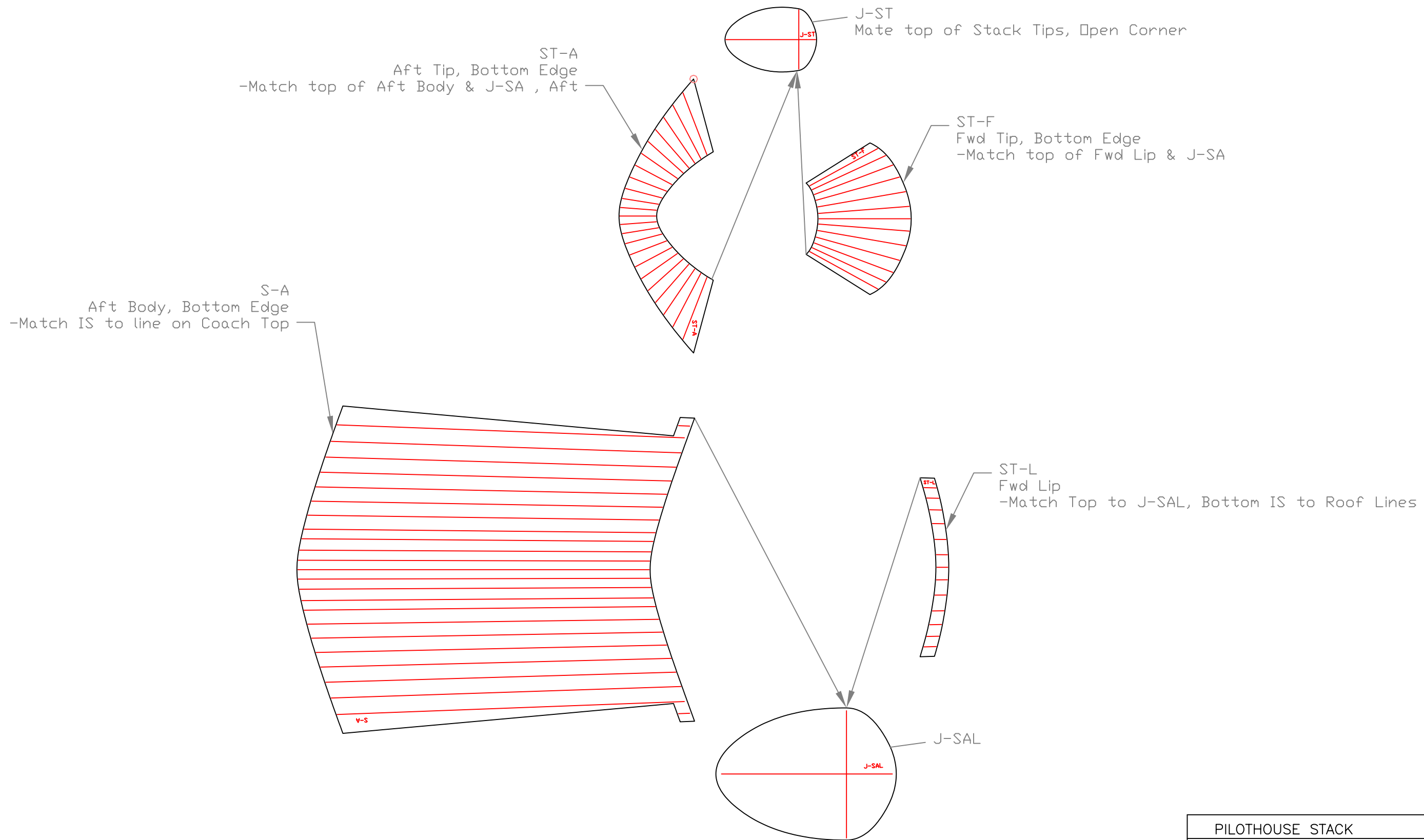
JV-3, Aft Side

JV-4, Aft Side

(Mirrored Visor Parts not Shown)

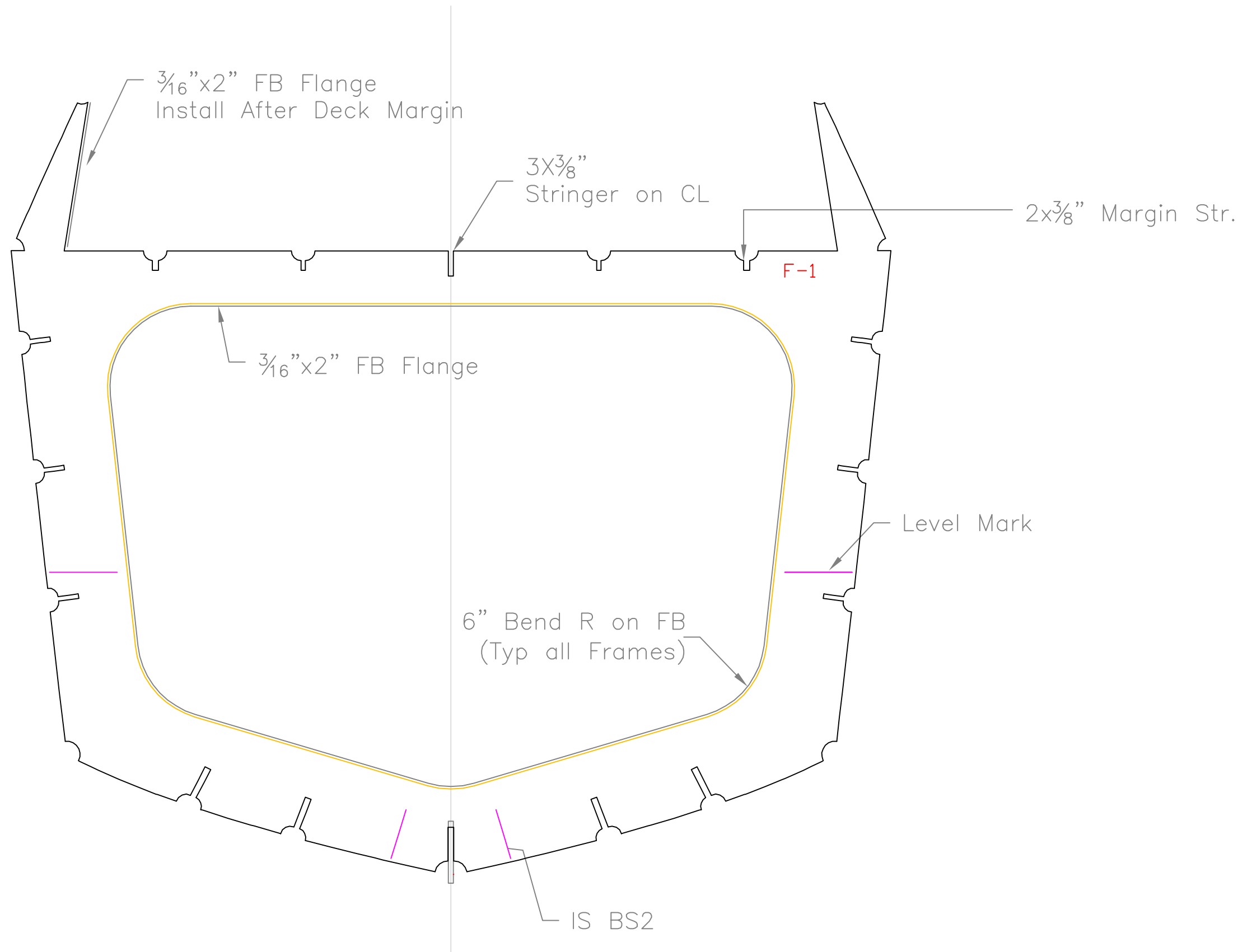
PILOTHOUSE ROOF PARTS		
DIROCCO 23' TUG		
SCALE 3/4" = 1'	DES/DWN WAL	DATE 11/20/06
Response Marine, Inc. Newburyport, MA, www.responsemarine.com		SHEET DWG NO. 267-4-3

REV.	DESCRIPTION



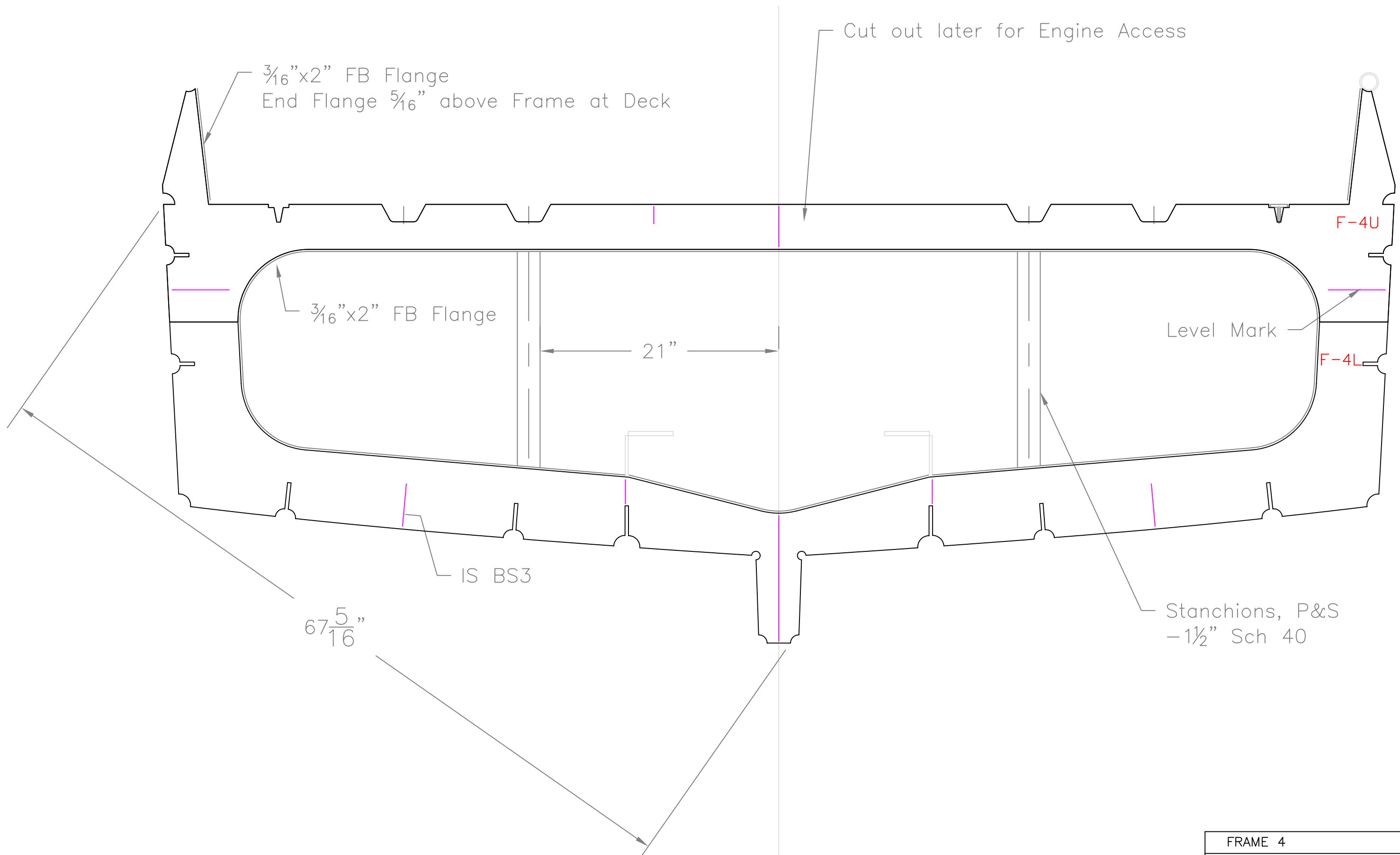
PILOTHOUSE STACK		
DIROCCO 23' TUG		
SCALE 1" = 1'	DES/DWN WAL	DATE 11/20/06
Response Marine, Inc. Newburyport, MA, www.responsemarine.com		SHEET DWG NO. 267-4-5

REV.	DESCRIPTION



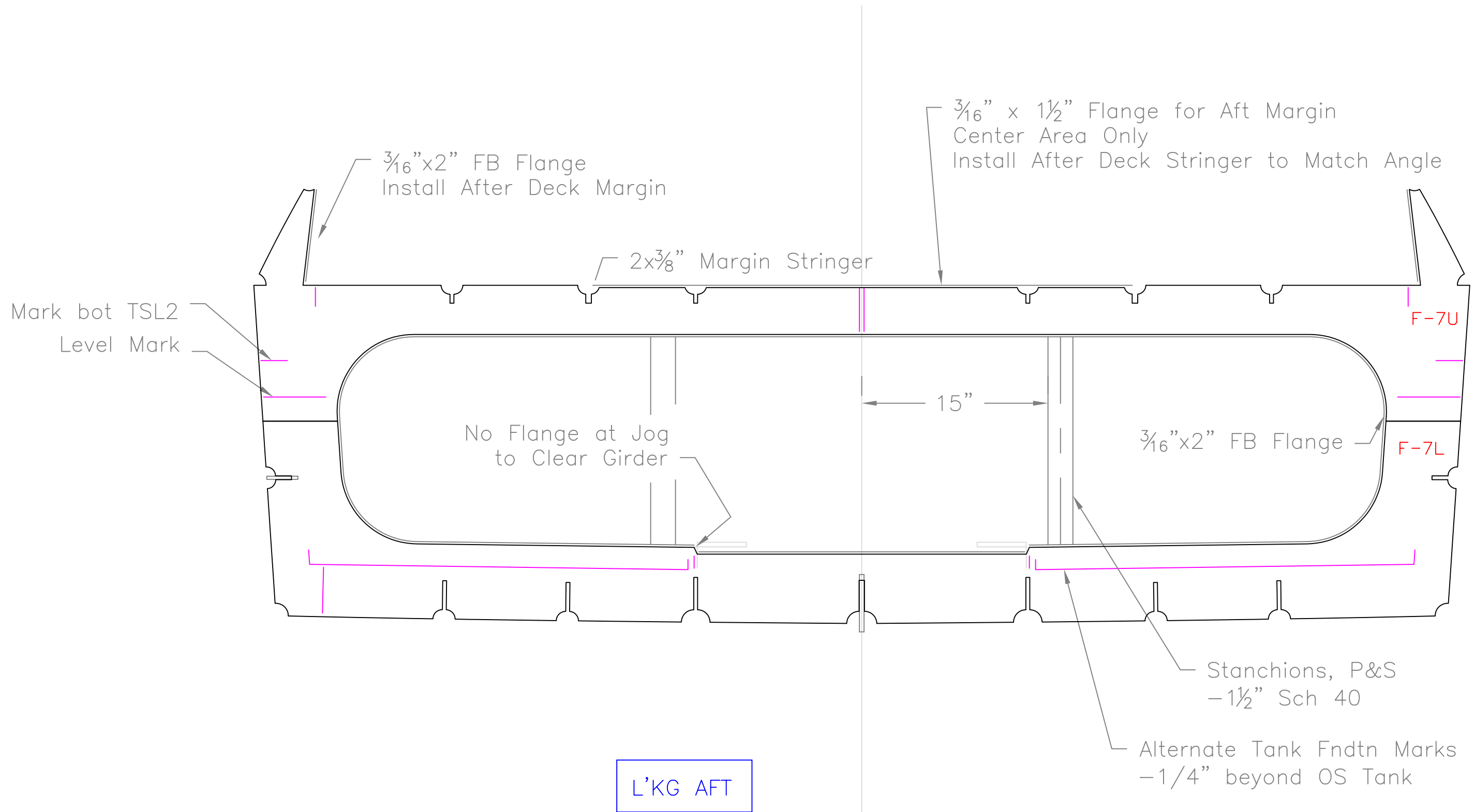
FRAME 1		
DIROCCO 23' TUG		
SCALE 1 1/2" = 1'	DES/DWN WAL	DATE 11/30/06
<i>Response Marine, Inc.</i> Newburyport, MA, www.responsemarine.com		SHEET DWG NO. 267-F-1

REV.	DESCRIPTION



FRAME 4		
DIROCCO 23' TUG		
SCALE 1 1/2" = 1'	DES/DWN WAL	DATE 11/30/06
Response Marine, Inc. Newburyport, MA, www.responsemarine.com		SHEET DWG NO. 267-F-4

REV.	DESCRIPTION



FRAME 7		
DIROCCO 23' TUG		
SCALE 1 1/2" = 1'	DES/DWN WAL	DATE 11/30/06
Response Marine, Inc. Newburyport, MA, www.responsemarine.com		SHEET DWG NO. 267-F-7

REV.	DESCRIPTION

Response Marine, Inc.
 File: RMI\des\DiRocco

Plaz Parts for DiRocco 23' Tug
 revised: 12/18/06

Print Date: 12/22/06

1/8" Parts- 5052

<u>Part #</u>	<u>Pieces</u>	<u>Description</u>	<u>Stock</u>	<u>Bending</u>
CF	1	Cabin Front	2A-1	
J-ST	1	Jig for Stack	2A-1	
SA	1	Stack, Aft	2A-1	Y
ST-A	1	Stack Tip, Aft	2A-1	Y
ST-F	1	Stack Tip, Fwd	2A-1	Y
ST-L	1	Stack Fwd Lip	2A-1	Y
	6	Total 1/8" Parts		

3/16" Parts- 5052

<u>Part #</u>	<u>Pieces</u>	<u>Description</u>	<u>Stock</u>	<u>Bending</u>
C-AL	1	Cabin, Aft/Lower Panel	3A-6	
C-AP	1	Cabin Side, Fwd, Port	3A-2	
C-AS	1	Cabin Side, Fwd, Stbd	3A-1	
C-BP	1	Cabin Side, Aft, Port	3A-2	
C-BS	1	Cabin Side, Aft, Stbd	3A-1	
CD	1	Cabin Dash	3A-7	Y
CFS-1	1	Cabin Front Stiffener, Lower	3A-7	
CFS-2	1	Cabin Front Stiffener, Upper	3A-7	
CR	1	Cabin Aft Roof	3A-8	
CWS	1	Cabin Windshield	3A-6	Y
D-A	1	Deck, CL Fwd	3A-5	
D-B	1	Deck, CL Aft	3A-5	
DM-C	2	Deck Margin, Aft	3A-3, 3A-4	
EV-D	2	Engine Vent Dam	3A-1, 3A-2	
EV-R	2	Engine Vent Ring	3A-1, 3A-2	
EV-T	2	Engine Vent Trunk	3A-3, 3A-4	Y
J-CR	1	Jig, Cabin Aft Roof	3A-8	
J-R	1	Jig Roof	3A-8	
JV-0	1	Visor Jig, CL	3A-4	
JV-1	2	Visor Jig #1	3A-4	
JV-2	2	Visor Jig #2	3A-4	
JV-3	2	Visor Jig #3	3A-4	
JV-4	2	Visor Jig #4	3A-4	
PL-R	4	Port Light Rings	3A-1, 3A-2	
R	2	Roof	3A-7, 3A-8	
V	2	Visor	3A-3, 3A-4	
V-A	2	Visor, Aft	3A-7, 3A-8	
VC	2	Visor Aft Corner	3A-4	
	43	Total 3/16" 5052 Parts		

3/16" Parts- 5083/5086

<u>Part #</u>	<u>Pieces</u>	<u>Description</u>	<u>Stock</u>	<u>Bending</u>
BW-AP	1	Bulwark, fwd, Port	3-2	
BW-AS	1	Bulwark, fwd, Stbd	3-1	
BW-BP	1	Bulwark, aft, Port	3-1	

BW-BS	1	Bulwark, aft, Stbd	3-2
DM-A	2	Deck Margin, fwd	3-2
DM-B	2	Deck Margin, Mid	3-1, 3-2
DM-D	1	Deck Margin, Aft	3-2
F-1	1	Frame 1	3-3
F-2L	1	Frame 2, Lower	3-3
F-2U	1	Frame 2, Upper	3-1
F-3	1	Frame 3	3-1
F-4L	1	Frame 4, Lower	3-3
F-4U	1	Frame 4, Upper	3-2
F-5P	1	Frame 5, Port	3-3
F-5S	1	Frame 5, Stbd	3-2
F-6	1	Frame 6	3-3
F-7L	1	Frame 7, Lower	3-3
F-7U	1	Frame 7, Upper	3-2
	20	Total 3/6" 5083/5086 Parts	

1/4" Parts- 5052

<u>Part #</u>	<u>Pieces</u>	<u>Description</u>	<u>Stock</u>	<u>Bending</u>
T-B	2	Tank Baffle	4A-1, 4A-2	
T-BP	1	Tank Body, Port	4A-1	Y
T-BS	1	Tank Body, Stbd	4A-2	Y
T-C	2	Tank Clean Out Plate	4A-1	
T-D	2	Tank Clean Out Doubler	4A-1	
T-E	4	Tank Ends	4A-1, 4A-2	
T-TP	1	Tank Top, Port	4A-1	
T-TS	1	Tank Top, Stbd	4A-2	
	14	Total 1/4" 5052 Parts		

1/4" Parts- 5083/5086

<u>Part #</u>	<u>Pieces</u>	<u>Description</u>	<u>Stock</u>	<u>Bending</u>
B-AP	1	Bottom Fwd, Port	4-4	
B-AS	1	Bottom Fwd, Stbd	4-3	
B-BP	1	Bottom Aft, Port	4-3	
B-BS	1	Bottom Aft, Stbd	4-4	
BS1	2	Bottom Stringer #1	4-5,4-6	
BS1A	2	Bottom Stringer #1, Fwd	4-1,4-2	
BS2A	2	Bottom Stringer #2, Fwd	4-5,4-6	
BS2B	2	Bottom Stringer #1, Aft	4-3, 4-4	
BS3A	2	Bottom Stringer #3, Fwd	4-5,4-6	
BS3B	2	Bottom Stringer #3, Aft	4-5,4-6	
BS-4A	2	Bottom Stringer #4, Fwd	4-1,4-2	
BS4B	2	Bottom Stringer #4, Aft	4-5,4-6	
DS-1C	2	Deck Stringer #1, Fwd	4-3, 4-4	
DS-1D	2	Deck Stringer #1, Aft	4-1,4-2	
DS-3A	2	Deck Stringer #3, Fwd	4-3, 4-4	
DS-3C	2	Deck Stringer #3, Aft	4-1,4-2	
F-3A	1	Frame 3A	4-5	
F-4A	1	Frame 34A	4-5	
F-5A	1	Frame 5A	4-5	
F-SCA	2	Frame at Scupper, Fwd	4-1	
F-SCB	2	Frame at Scupper, Aft	4-1	

G	2	Girder	4-5,4-6
KS-AP	1	Keel Side Aft, Port	4-2
KS-AS	1	Keel Side Aft, Stbd	4-1
KS-P	1	Keel Side, Port	4-1
KS-S	1	Keel Side, Stbd	4-2
PK-B	2	Pusk Knee, Bottom	4-1
PK-F	2	Pusk Knee, Front	4-3, 4-4
PK-IB	2	Push Knee, Inboard	4-3, 4-4
PK-OB	2	Pusk Knee, Outboard	4-3, 4-4
PK-T	2	Pusk Knee, Top	4-1
SBW	1	Stem at Bulwark	4-5
S-SCA	2	Stringer at Scupper, Fwd	4-1
S-SCB	2	Stringer at Scupper, Aft	4-1,4-2
ST	1	Stem	4-5
TS-AP	1	Topsides, fwd, Port	4-2
TS-AS	1	Topsides, forward, Stbd	4-1
TS-BP	1	Topsides, aft, Port	4-2
TS-BS	1	Topsides, aft Stbd	4-1
TSL-1A	2	Topside Stringer #1, Fwd	4-5,4-6
TSL-1B	2	Topside Stringer #1, Aft	4-3, 4-4
TSL-1C	2	Topside Stringer #1, Aft	4-5,4-6
TSL-2A	2	Topside Stringer #2, Fwd	4-1,4-2
TSL-2B	2	Topside Stringer #2, Mid	4-5,4-6
TSL-2C	2	Topside Stringer #2, Aft	4-5,4-6
TSL-3A	2	Topside Stringer #3, Fwd	4-1,4-2
	75	Total 1/4" 5083/5086 Parts	

3/8" Parts- 5083/5086

<u>Part #</u>	<u>Pieces</u>	<u>Description</u>	<u>Stock</u>	<u>Bending</u>
BD	7	Bollard Doublers	6-1	
BT	7	Bollard Tops	6-1	
DS-0A	1	Deck Stringer, CL, Fwd	6-1	
DS-0C	1	Deck Stringer, CL, Aft	6-1	
DS-2A	2	Deck Stringer #2, Fwd	6-1	
DS-2C	2	Deck Stringer #2, Aft	6-1	
GF-1	2	Girder Flange #1	6-1	
GF-2	2	Girder Flange #2	6-1	
GF-3	2	Girder Flange #3	6-1	
GF-4	2	Girder Flange #4	6-1	
K-A	1	Keel, Stem	6-1	
K-B	1	Keel, Fwd	6-1	
K-C	1	Keel, Aft	6-1	
K-D	1	Keel, Deadwood	6-1	
KSH	1	Keel Shoe	6-1	
	33	Total 3/8" 5083/5086 Parts		
	191	Total Cut Parts		

Response Marine, Inc.
revised: 12/18/06

Stock List for Dirrocco 23' Tug
Print Date: 12/22/06

SHEET/PLATE

FOR NC Cutting:

<u>QTY</u>		<u>Thick</u>	<u>Width</u>	<u>Lngh</u>	<u>lbs/ft^2</u>	<u>lbs</u>
1	1/8" Sheet- 5052 H32	0.125	60	240	1.8	180
2	3/16" Sheet- 5052-H32	0.190	60	144	2.67	320
6	3/16" Sheet- 5052-H32	0.190	48	144	2.67	769
2	1/4" 5052 H32	0.25	60	96	3.6	288
3	3/16" Sheet- 5083 H116, MARINE	0.190	72	240	2.67	961
4	1/4" Plate- 5083 H116, MARINE	0.250	72	240	3.456	1,659
2	1/4" Plate- 5083 H116, MARINE	0.250	48	240	3.456	553
1	3/8" Plate- 5083 H116, MARINE	0.375	60	144	5.184	311
Sub Total						5,041

FOR Blank Stock:

<u>QTY</u>		<u>Thick</u>	<u>Width</u>	<u>Lngh</u>	<u>lbs/ft^2</u>	<u>lbs</u>
2	3/16" Sheet- 5052 H32	0.19	48	120	2.67	214
Sub Total						214

EXTRUSION

<u>QTY</u>	<u>Item</u>	<u>Alloy</u>	<u>Thick</u>	<u>Width</u>	<u>Lgth (ft)</u>	<u>lbs/ft</u>	<u>lbs</u>
2	Channel	6061 T6	0.125	2x1	25	0.563	28
2	Angle	6061 T6	0.19	1.5x1.5	25	0.622	31
3	Angle	6061 T6	0.25	2*2	25	1.11	83
7	Sq. Corner Angle (16' L)	6063	0.25	1x1	16	0.544	61
6	Tee	6061 T6	0.25	1.5x1.5	25	0.76	114
13	Flat Bar	6061 T6	0.19	2	12	0.4425	69
2	1" sch 40 pipe	6063			20	0.581	23
7	1 1/4" sch 40 Pipe	6063			20	0.79	111
1	1 1/2" sch 40 Pipe	6061 T6			20	0.94	19
1	4" sch 80 pipe	6061 T6			20	5.18	104
1	3.5" OD Round Tube, .5" wall	6061 T6			12	5.542	67
Total Extrusion:							709
TOTAL AL							5,964