

NOTES:

1. HULL CATHODIC PROTECTION REQUIREMENT ASSUMES HIGH QUALITY MARINE PAINT SYSTEM ON HULL.
2. USE CLASS GRADE-A MILD STEEL PLATING FOR DOUBLER PLATES.
3. USE WELDING PROCEDURE, MATERIALS, AND WORKMANSHIP IN ACCORDANCE WITH CLASSIFICATION SOCIETY RULES & REGULATIONS.
4. QUANTITIES ARE FOR HULL PROTECTION ONLY. ADDITIONAL ANODES WILL BE REQUIRED FOR NOZZLES, RUDDERS, ETC. AS PER SPECIFICATIONS AND VENDOR REQUIREMENTS.

CALCULATIONS:

1. CALCULATION QUANTITY FOR HULL ONLY, DOES NOT INCLUDE ANODES FOR BALLAST TANKS OR SEA CHESTS.

CATHODIC PROTECTION - APPROXIMATE QUANTITY SACRIFICIAL ANODES

Vessel Particulars:

Length	25 Metres
Displacement	305 tonnes
Underwater surface area	284 sq. metres

Current Density:

Newly painted ships	5-10 mA/sq.m
Typical for in service	20 mA/sq.m
General RAL design value for new ships	60 mA/sq.m

Select	40 mA/sq.m
Current Required:	11.4 Amps

Consumption Rate:

Zinc alloy US Mil.-A-18001K, Ref. 1	12 kg/Amp. year
Select	12 kg/Amp. year
Yearly consumption:	136 kg/yr
Required Years of Protection:	1 years
Total required mass of anodes	136 kg

Selected Anodes:

Type	Weight lbs	Weight kg	Quantity	Length	Width	Depth
Z22	23	10.4	14	14"	6 1/2"	1 1/2"

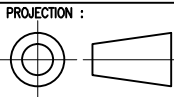
Notes:


1. Dimensions are typical only - As they can vary between manufacturers, check if size critical.

Ref.: Recommended practice for the protection and painting of ships.
The British ship research Association
Chamber of shipping of the United Kingdom, 1973.

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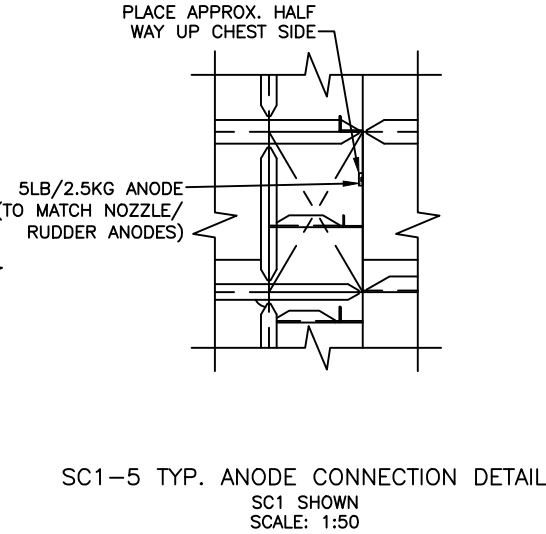
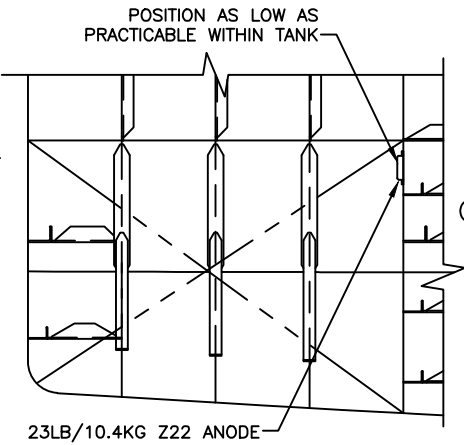
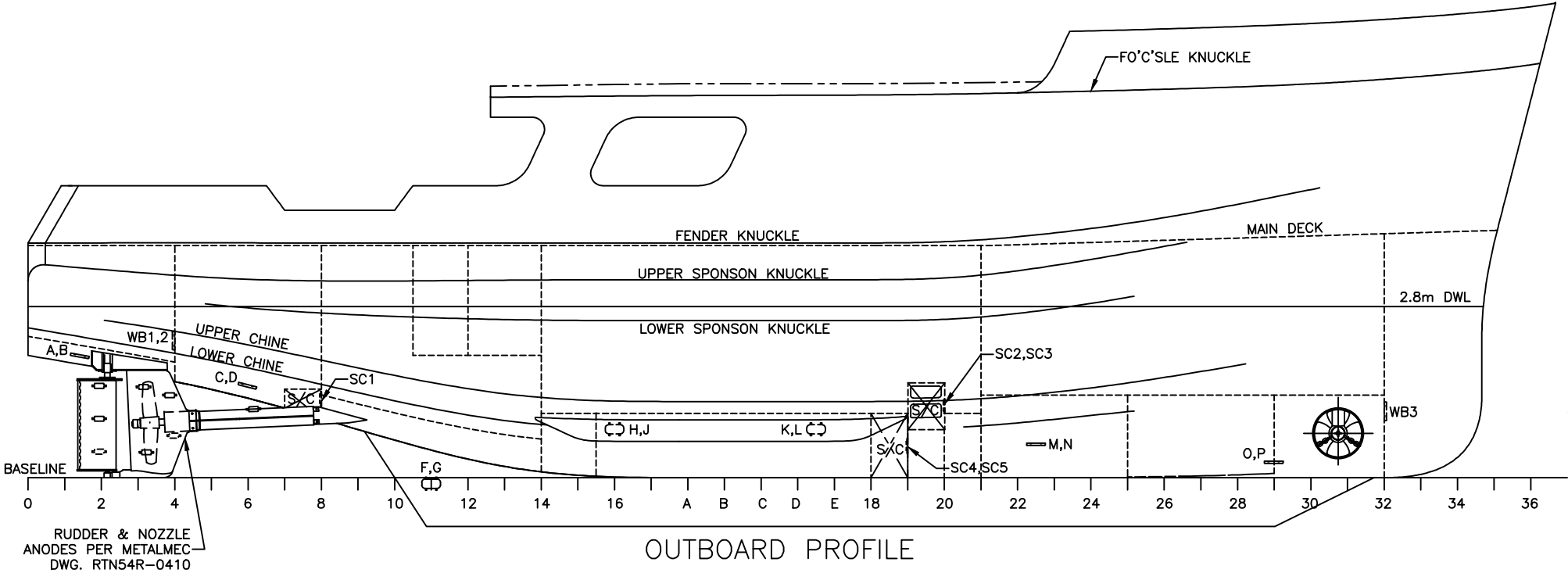
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3	AS CONSTRUCTED	MM	MAY 2012
2	CATHODIC PROTECTION ON ROPE GUARD	MM	MARCH 2012
REV.	REVISIONS	BY	DATE
	Garde côtière canadienne Canadian Coast Guard		
NAVIRE 25M VESSEL COQUE # / HULL # 008	PROJECT TITLE : Navire semi-hauturier de recherche halieutique Near Shore Fisheries Research Vessels		
PROJECT # : MRO9-1113	DRAWING FILE : ISV25-38400RMM3.DWG	DATE : 31/01/2012	
DRAWN BY :	DRAWING # : 38400	REV : 3	SHEET : 1 OF 2

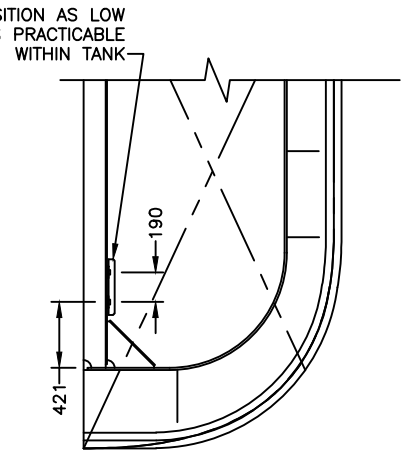
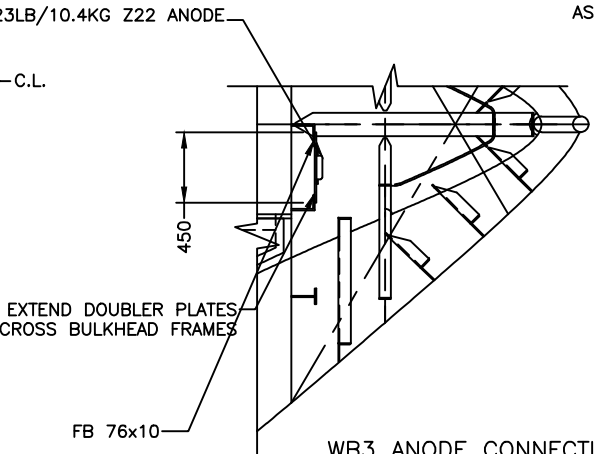
HULL PROTECTION

ANODE	ANODE LOCATION	DIST. TO CL (mm)
A,B	FR.1 1/2	1900
C,D	FR.6	2150
F,G	FR.11 SKEG	CENTRE ON SKEG
H,J	FR.16 BILGE KEEL	CENTRE ON BILGE KEEL
K,L	BTWN FR. D,E BILGE KEEL	CENTRE ON BILGE KEEL
M,N	SKEG/FR.22	2000
O,P	SKEG/FR.22	750
SC1	SEA CHEST	SEE DETAIL
SC2,SC3	SEA CHEST	SEE DETAIL
SC4,SC5	SEA CHEST	SEE DETAIL
WB1,WB2	BALLAST TANK 12P, 12S	SEE DETAIL
WB3	BALLAST TANK 1 (CENTRE)	SEE DETAIL

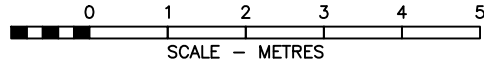
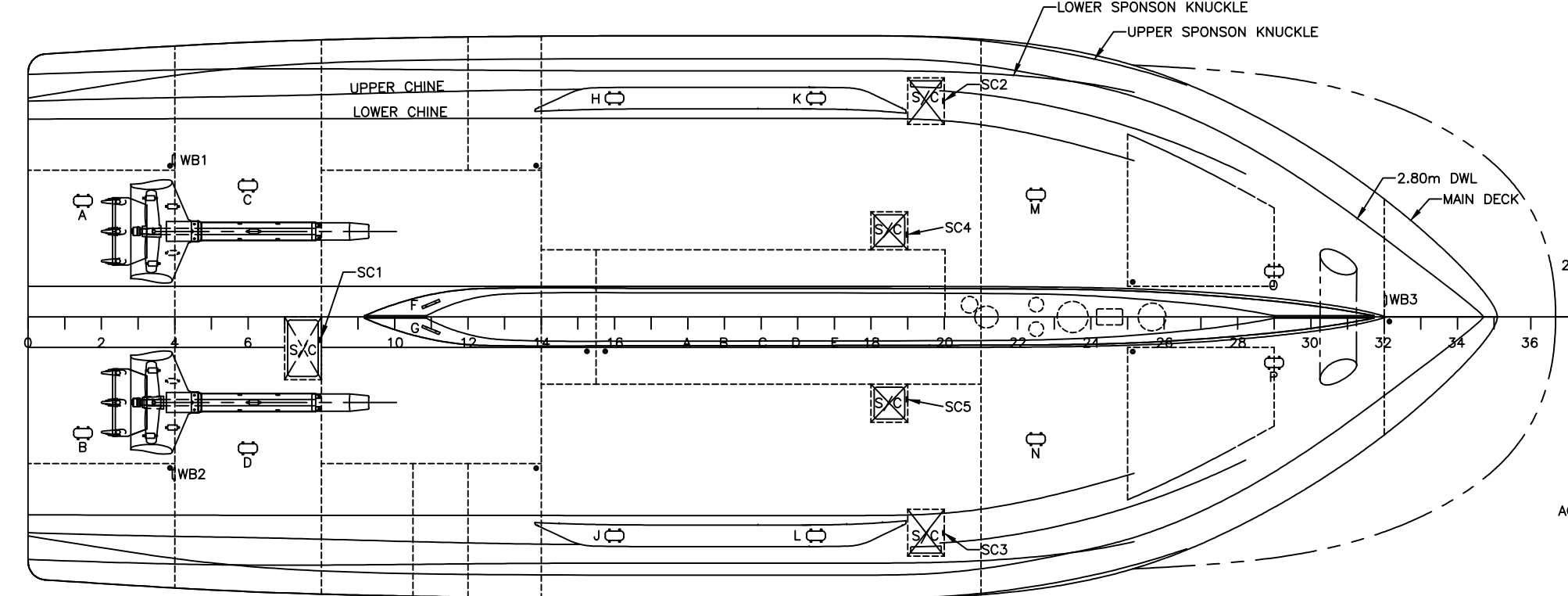



WB1,2 ANODE CONNECTION DETAIL
WB2 SHOWN
SCALE: 1:50

SC1-5 TYP. ANODE CONNECTION DETAIL
SC1 SHOWN
SCALE: 1:50



WB3 ANODE CONNECTION DETAIL
SCALE: 1:50





Garde côtière canadienne

Canadian Coast Guard

PROJECT TITLE :

Navire semi-hauturier de recherche halieutique
Near Shore Fisheries Research Vessels

PROJECT # :

MRO9-1113

DRAWING FILE :

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DATE :

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DRAWN BY :

DRAWING # :

38400

REV :

3

SHEET :

2 OF 2

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