



RETURN BIDS TO:

RETOURNER LES SOUMISSIONS À:

Réception des soumissions - TPSGC / Bid

Receiving - PWGSC

1550, Avenue d'Estimauville

1550, D'Estimauville Avenue

Québec

Québec

G1J 0C7

INVITATION TO TENDER

APPEL D'OFFRES

**Tender To: Public Works and Government Services
Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

Soumission aux: Travaux Publics et Services Gouvernementaux Canada

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici et sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments - Commentaires

Vendor/Firm Name and Address

Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution

TPSGC/PWGSC

601-1550, Avenue d'Estimauville

Québec

Québec

G1J 0C7

Title - Sujet Radoub Prierre Radisson Spring_2016	
Solicitation No. - N° de l'invitation F3019-15N344/A	Date 2016-03-16
Client Reference No. - N° de référence du client F3019-15N344	GETS Ref. No. - N° de réf. de SEAG PW-\$QCL-036-16713
File No. - N° de dossier QCL-5-38323 (036)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2016-04-19	
Time Zone Fuseau horaire Heure Avancée de l'Est HAE	
F.O.B. - F.A.B. Specified Herein - Précisé dans les présentes Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input checked="" type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Gagnon, Mathieu	Buyer Id - Id de l'acheteur qcl036
Telephone No. - N° de téléphone (418) 649-2883 ()	FAX No. - N° de FAX (418) 648-2209
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: NGCC PIERRE RADISSON PÊCHES ET OCÉANS CANADA - GARDE CÔTIÈRE 101 BOUL.CHAMPLAIN QUEBEC Québec G1K7Y7 Canada	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée VOIR DOC	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

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PART 1 - GENERAL INFORMATION

1.1 Introduction

The bid solicitation and resulting contract document is divided into seven parts plus annexes as follows:

- | | |
|---------------|---|
| Part 1 | General Information: provides a general description of the requirement; |
| Part 2 | Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation and states that the Bidder agrees to be bound by the clauses and conditions contained in all parts of the bid solicitation; |
| Part 3 | Bid Preparation Instructions: provides bidders with instructions on how to prepare their bid; |
| Part 4 | Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, if applicable, and the basis of selection; |
| Part 5 | Certifications: includes the certifications to be provided; |
| Part 6 | Security, Financial and Other Requirements: includes specific requirements that must be addressed by bidders; and |
| Part 7 | Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract. |

The Annexes include the Requirement, the Basis of Payment and other annexes.

1.2 Summary

- (i) The requirement is:
 - a) To carry out the ship repair work regarding the Canadian Coast Guard Ships (C.C.G.S.) Pierre Radisson, during the spring layout at Queen's Wharf, 101 Champlain Boul., Québec (QC), in accordance with the associated Technical Specifications detailed in the Requirement attached as Annex A.
 - b) To carry out any approved unscheduled work not covered in paragraph a) above.
 - c) The requirement is exempt from the provisions of the World Trade Organization Agreement on Government Procurement (WTO-AGP), Annex 4 and the North American Free Trade Agreement (NAFTA), Chapter 10 Annex 1001.2b Paragraph 1, however, it is subject to the Agreement on Internal Trade (AIT).

1.3 Debriefings

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

PART 2 - BIDDER INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the Standard Acquisition Clauses and Conditions Manual (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2015-07-03) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

2.2 Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than **seven (7)** calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a "proprietary" nature must be clearly marked "proprietary" at each relevant item. Items identified as proprietary will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the questions or may request that the Bidder do so, so that the proprietary nature of the question is eliminated, and the enquiry can be answered with copies to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

2.4 Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in the Province of Quebec.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the bidders.

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2.5 Bidders' Conference (Not mandatory)

A bidders' Conference chaired by the Contracting Authority will be convened on board vessel CCGS Pierre Radisson at 10:00 am, March 10th, 2016. The vessel will be moored at Cacouna's Wharf, Cacouna, Quebec (QC).

An attendance confirmation is required before 11:00 am, March 23rd, 2016.

It is recommended that the Bidder or a representative of the Bidder attend the Bidders' Conference in order to review the Scope of the Work required and to receive additional information and clarifications. Bidders are to communicate with the Contracting Authority prior to the conference to confirm attendance. Bidders that do not attend are not precluded from submitting a bid. Bidders are to provide the Contracting Authority with the names of their representatives no later than two days prior to the conference. The Contracting Authority will have an attendance form which is to be signed by the Bidder's representative(s) in attendance. Bidders are advised that any clarifications or changes resulting from the Bidder's conference and/or the subsequent viewing of the vessel, shall be included as an amendment to the bid solicitation document.

2.6 Viewing - Vessel (Not mandatory)

A site visit will be held immediately after the bidders' conference.

2.7 Proposed Work Period

Work is to commence and be completed as follows:

Start of Work: May 2, 2016 or as per ship's availability. (At the earlier date)
End of Work: June 19, 2016 or maximum 6 weeks after ship's availability.

The Bidder agrees through submission of its response to the bid solicitation that the above time frame provides an adequate period to perform the subject work and absorb a reasonable amount of unscheduled work; and further, that they have sufficient material and human resources allocated or available to complete the subject work and a reasonable amount of unscheduled work within the Work period.

PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

3.1.1 Canada requests that bidders provide their bid in separately bound sections as follows:

- Section I: Management Bid (1 hard copy)
- Section II: Financial Bid (1 hard copy)
- Section III: Certifications Requirements (1 hard copy)

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Canada requests that bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process Policy on Green Procurement (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, bidders are encouraged to:

- (1) use paper containing fibre certified as originating from a sustainably-managed forest and/or containing minimum 30% recycled content; and
- (2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

Section I: Management Bid

The Management Bid should be concise and should include all the certifications and other requirements as noted in Parts 4 and 6.

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Financial Bid Presentation Sheet Annex I and the detailed Pricing Data Sheet, Appendix 1 to Annex I. The total amount of Goods and Services Tax or Harmonized Sales Tax is to be shown separately, if applicable.

Section III: Certification Requirements

Bidders must submit the certifications required under Part 5.

3.1.2 SACC Manual Clause

C0417T (2008-05-12) Unscheduled Work and Evaluation Price

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

(a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical, management and financial evaluation criteria specified below.

(b) An evaluation team composed of representatives of Canada will evaluate the bids.

4.1.1 Financial Bid

Bidders must submit their financial bid in accordance with the Financial Bid Presentation Sheet Annex "I". The total amount of Goods and Services Tax or Harmonized Sales Tax is to be shown separately, if applicable.

4.1.2 Mandatory Criteria

Bids will be assessed in accordance with the entire requirement of the bid solicitation including compliance with the mandatory certifications and table of deliverable requirements as detailed in Parts 2, 4, 5 & 6. Only those bids which are found to meet all the mandatory requirements within the specified time frames will be deemed responsive.

4.1.3 Table of Mandatory Requirements to be met by bid closing

Notwithstanding deliverable requirements specified anywhere else within this solicitation and its associated Technical Specification, the following are the only mandatory deliverables that must be submitted with the Bid at the time of bid closing. The following are mandatory and the Bidder must be compliant on each item to be considered responsive

Item	Description	Completed and Attached
1	Completed Annex "I" Financial Bid presentation Sheet	
2	Completed Appendix 1 to Annex "I" <u>Price Per Item Sheet</u>	
3	Letter or proof of Insurance as per article 6. 13 of Part 6	

4.1.4 Other information upon request only

The following information, which supports the bid, may be requested by the Contracting Authority from the bidder and it must be provided within **two (2)** working days of the written request:

Item	Description	Completed and Attached
1	Proof of welding certification, as per clause 6.7 of Part 6;	Prior to contract award
2	Annex J – Pricing Data Sheet;	Prior to contract award
3	Sub-contract and Sub-contractor List , as per clause 7.15 of Part 7	Prior to contract award

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4.1.5 Deliverables after Contract award

Element	Description	Doit être fourni après l'attribution du Contrat, dans les
1	Insurance Requirements as per article 7.11, Part 7;	5 calendar days
2	Work Schedule and Reports as per article 7.16, Part 7;	5 calendar days
3	Inspections and tests plan as per article 7.28, Part 7	5 calendar days

4.2 Basis of Selection

A bid must comply with the requirements of the bid solicitation and meet all mandatory evaluation criteria to be declared responsive. The responsive bid with the lowest evaluated price will be recommended for award of a contract.

4.3 Public Bid Opening

A public bid opening will be held in Public Works and Government Services Canada, 601-1550, D'Estimauville Ave., Québec, Qc at 02:00 PM (EDST) on the date show at the first page.

Following solicitation closing, bid results may be obtained by calling at No. (418) 649-2888.

PART 5 - CERTIFICATIONS

5.1 Generality

Bidders must provide the required certifications and documentation to be awarded a contract.

The certifications provided by bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default, if any certification made by the Bidder is found to be untrue whether during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply with this request will also render the bid non-responsive or will constitute a default under the Contract.

5.2. Mandatory Certifications Required Precedent to Contract Award

5.2.1 Code of Conduct and Certifications - Related documentation

By submitting a bid, the Bidder certifies that the Bidder and its affiliates are in compliance with the provisions as stated in Section 01 Code of Conduct and Certifications - Bid of Standard Instructions 2003. The related documentation therein required will assist Canada in confirming that the certifications are true.

5.2.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "[FCP Limited Eligibility to Bid](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)" list (http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from [Human Resources and Skills Development Canada \(HRSDC\) - Labour's](#) website.

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](#)" list at the time of contract award.

Canada will also have the right to terminate the Contract for default if a Contractor, or any member of the Contractor if the Contractor is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](#)" list during the period of the Contract.

The Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, before contract award. If the Bidder is a Joint Venture, the Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, for each member of the Joint Venture.

PART 6 - SECURITY, FINANCIAL AND OTHER REQUIREMENTS

- 6.1 **Security Requirement** *(Not used)*
- 6.2 **Financial Requirements** *(Not used)*
- 6.3 **Accommodation** *(Not used)*
- 6.4 **Parking** *(Not used)*
- 6.5 **Material and Supply Support** *(Not used)*
- 6.6 **Workers' Compensation - Letter of Good Standing** *(Not used)*
- 6.7 **Welding Certification**

At bids closing date the Bidder should submit evidence demonstrating its certification to the welding standards in accordance with the following:

Welding must be undertaken by a company Certified by the Canadian Welding Bureau (CWB) to the requirements of the following Canadian Standards Association (CSA) standards:

- (a) CSA W47.1, Certification of Companies for Fusion Welding of Steel, section 2;

In addition, welding must be done in accordance with the requirements of the applicable and related drawings and specifications.

- 6.8 **Valid Labour Agreement** *(Not used)*
- 6.9 **Work Schedule and Reports** *(Not used)*
- 6.10 **Fueling and De-fueling Crown Vessels** *(Not used)*
- 6.11 **ISO 9001:2000 - Quality Management Systems** *(Not used)*
- 6.12 **Environmental Protection** *(Not used)*
- 6.13 **Insurances Requirements**

At bids closing date the Bidder must provide a letter from an insurance broker or an insurance company licensed to operate in Canada stating that the Bidder, if awarded a contract as a result of the bid solicitation, can be insured in accordance with the Insurance Requirements specified in Annex "C".

PART 7 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

1. Requirement

- a) To carry out the ship repair work regarding the Canadian Coast Guard Ships (C.C.G.S.) Pierre Radisson, during the spring layout at Queen's Wharf, 101 Champlain Boul., Quebec (QC), in accordance with the associated Technical Specifications detailed in the Requirement attached as Annex A.
- b) to carry out any approved unscheduled work not covered in paragraph a) Above.

2. Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the *Standard Acquisition Clauses and Conditions* Manual issued by Public Works and Government Services Canada (PWGSC). The Manual is available on the PWGSC Website:
<http://sacc.pwgsc.gc.ca/sacc/index-e.jsp>.

2.1 General Conditions

2030 (2015-09-03), General Conditions - Higher Complexity - Goods, apply to and form part of the Contract (with the exception of Article 26 which is deleted in its entirety and replace with Article 42 here below).

Section 22 of 2030 is amended in Annex E Warranty.

2.2 Supplemental General Conditions

1029 (2010-08-16) Ship Repairs, excluding section 07 & 09 apply to and form part of the Contract.

3. Security Requirement

There is no security requirement associated with this Statement of Work

4. Term of Contract

4.1 Contract period

The contract period is from Contract award date until the end of the warranty period inclusively.

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4.2 Work period

Work is to commence and be completed as follows:

Start of Work: May 2, 2016 or as per ship's availability. (At the earlier date)
End of Work: June 19, 2016 or maximum 6 weeks after ship's availability.

The Contractor agrees that the above time frame provides an adequate period to perform the subject work and absorb a reasonable amount of unscheduled work; and further, that it has sufficient material and human resources allocated or available to complete the subject work and a reasonable amount of unscheduled work within the Work Period.

5. Authorities

5.1 Contracting Authority

The Contracting Authority for the Contract is:

Mathieu Gagnon
Chef aux approvisionnements Marine / Marine Supply Chief
Travaux publics et Services gouvernementaux Canada / Public Works and Government Services Canada
Région du Québec/Québec area
Division marine /marine division
1550, avenue D'Estimauville, Québec, (Québec) G1J 0C4,
Quebec, Canada
mathieu.gagnon@tpsgc-pwgsc.gc.ca
Téléphone/phone: (418) 649-2883
Télécopieur/Fax: (418) 648-2209

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

5.2 Technical Authority

The Technical Authority for the Contract is:

Name will be determined at Contract award

Telephone: _____
Facsimile: _____
E-mail address: _____

The Technical Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority; however, the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

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The Technical Representative for the Contract is:

Name will be determined at Contract award

Telephone: _____

Facsimile: _____

E-mail address: _____

The Technical Representative is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority; however, the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

5.3 Inspection Authority/Inspector

The Inspection Authority for the Contract is:

See section 5.2

The Inspection Authority is the Department of Public Works and Government Services Canada, who for the purposes of this requirement is the inspector responsible for inspection of the work and acceptance of the finished work under this requirement. The Inspection Authority will be represented on-site by a designated inspector and such other Government of Canada inspectors who will from time to time be assigned in support of the designated Inspector.

6. Payment

6.1 Basis of Payment - Firm Price

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid the firm price indicated in Annex B. Goods and Services Tax or Harmonized Sales Tax is extra, if applicable. Payment for unscheduled work will be done in accordance with Basis of Payment outlined at Annex B.

6.2 Payment Terms - Progress Payments

1. Canada will make progress payments in accordance with the payment provisions of the Contract, no more than once a month, for cost incurred in the performance of the Work, up to 90 percent of the amount claimed and approved by Canada if:
 - (a) an accurate and complete claim for payment using form PWGSC-TPSGC 1111, Claim for Progress Payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
 - (b) the amount claimed is in accordance with the basis of payment;
 - (c) the total amount for all progress payments paid by Canada does not exceed 90 percent of the total amount to be paid under the Contract;
 - (d) all certificates appearing on form PWGSC-TPSGC 1111 have been signed by the respective authorized representatives.

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2. The balance of the amount payable will be paid in accordance with the payment provisions of the Contract upon completion and delivery of all work required under the Contract if the Work has been accepted by Canada and a final claim for the payment is submitted.
3. Progress payments are interim payments only. Canada may conduct a government audit and interim time and cost verifications and reserves the rights to make adjustments to the Contract from time to time during the performance of the Work. Any overpayment resulting from progress payments or otherwise must be refunded promptly to Canada.

6.3 SACC Manual Clauses

SACC Manual Clause C6000C (2011-05-16)
SACC Manual Clause H4500C (2010-01-11)

Limitation of Price
Lien - Section 427 of the Bank Act

7. Invoicing Instructions

7.1 Submitting of invoices

The Contractor must submit invoices in accordance with the information required in Section 13 of 2030, (2015-09-03), General Conditions - Higher Complexity - Goods

7.2 Invoice

7.2.1 Transmission of invoices

Invoice to be made to the name of:
DFOinvoicing-MPOfacturation@dfo-mpo.gc.ca

[REDACTED]

Mailing Address :

Pêches et Océans Canada
PO Box 1901, STN A
Fredericton (Nouveau-Brunswick)
E3B 5G4

Electronic copy to be sent for verification to:
mathieu.gagnon@tpsgc-pwgsc.gc.ca

7.3 Warranty Holdback

A warranty holdback of 10% of the total contract price as last amended (applicable taxes excluded) will be applied to the final claim for payment. This holdback will be payable by Canada upon the expiry of the 90 day warranty period(s) applicable to the work. Applicable taxes are to be calculated and paid on the total amount of the claim before the 10% holdback is applied. At the time that the holdback is released, there will be no applicable taxes payable, as it was included in previous payments.

8. Certifications

8.1 Generality

Compliance with the certifications provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the entire contract period. If the Contractor does not comply with any certification or it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

9. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in _____.

10. Priority of Documents

If there is a discrepancy between the wordings of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the Supplemental General Conditions 1029, (2010-08-16), Ship Repairs;
- (c) General Conditions 2030, (2015-09-03) - Higher Complexity - Goods;
- (d) Annex A, Requirement;
- (e) Annex B, Basis of Payment;
- (f) Annex C, Insurance Requirements;
- (g) Annex E, Warranty;
- (h) the Contractor's bid dated _____.

11. Insurance Requirements

The Contractor must comply with the insurance requirements specified in Annex C. The Contractor must maintain the required insurance coverage for the duration of the Contract. Compliance with the insurance requirements will not release the Contractor from or reduce its liability under the Contract.

The Contractor is responsible to decide if additional insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any additional insurance coverage will be at the Contractor's expense, and for its own benefit and protection.

The Contractor must forward to the Contracting Authority within cinq (5) calendar days after the date of award of the Contract a Certificate of Insurance including details of the insurance coverage, exclusions, deductibles and conditions and confirming that the insurance policy complying with the requirements is in force. The Contractor must, if requested by the Contracting Authority, forward to Canada a certified true copy of all applicable insurance policies.

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12. Financial Security *(Not used)*

13. Accommodation *(Not used)*

14. Parking *(Not used)*

15. Sub-contracts and Sub-contractor List

The Contracting Authority is to be notified, in writing, of any changes to the list of subcontractors before commencing the work.

When the Contractor sub-contracts work, a copy of the sub-contract purchase order is to be passed to the Contracting Authority. In addition, the Contractor must monitor progress of sub-contracted work and inform the Inspection Authority on pertinent stages of work to permit inspection when considered necessary the Inspection Authority.

16. Work Schedule and Reports

No later than **five (5) calendar days** after contract award, the preliminary schedule must be revised and expanded as necessary and resubmitted before commencement of the Work.

The Contractor must provide a detailed work schedule showing the commencement and completion dates for the Work in the available work period, including realistic target dates for significant events. During the Work Period the schedule is to be reviewed on an ongoing basis by the Inspection Authority and the Contractor, updated when necessary, and available in the Contractor's office for review by Canada's authorities to determine the progress of the Work.

Production work schedules must be revised and resubmitted before each Progress Meeting. The revised schedules must show the effect of progressed work and approved work arisings. Changes in scheduled completion dates due to unscheduled work will not be accepted except as negotiated under Design Change or Additional Work, Article 26.

17. Insulation Materials - Asbestos Free

All materials used to insulate or re-insulate any surfaces on board the vessel must meet Transport Canada Marine standards, for commercial marine work, and, for all work, be free from asbestos in any form. The Contractor must ensure that all machinery and equipment located below or adjacent to surfaces to be re-insulated are adequately covered and protected before removing existing insulation.

18. Loan of Equipment - Marine *(Not used)*

19. Trade Qualifications

The Contractor must use qualified, certificated (if applicable) and competent tradespeople and supervision to ensure a uniform high level of workmanship. The Inspection Authority may request to view and record details of the certification and/or qualifications held by the Contractor's tradespeople. This request should not be unduly exercised but only to ensure qualified tradespeople are on the job

20. Material and Supply Support (*Not used*)

21. ISO 9001:2000 - Quality Management Systems (*Not used*)

22. Quality Control Plan (*Not used*)

The Contractor must implement and follow the Quality Control Plan (QCP) prepared according to the latest issue (at contract date) of ISO 10005 Quality management - Guidelines for quality plans, approved by the Inspection and Technical Authorities. The QCP shall describe how the Contractor will conform to the specified quality requirements of the Contract and specify how the required quality activities are to be carried out, including quality assurance of subcontractors. The Contractor must include a traceability matrix from the elements of the specified quality requirements to the corresponding paragraphs in the QCP.

The documents referenced in the QCP shall be made available when requested by the Inspection Authority.

The Contractor must make appropriate amendments to the QCP throughout the term of the contract to reflect current and planned quality activities. Amendments to the QCP must be acceptable to the Inspection and Technical Authorities.

Refer to Annex "D" for further details on the Quality Control Plan requirements.

23. Welding Certification

Welding must only be undertaken by a company Certified by the Canadian Welding Bureau (CWB) to the requirements of the following Canadian Standards Association (CSA) standards:

- (a) CSA W47.1, Certification of Companies for Fusion Welding of Steel, section 2.

In addition, welding must be done in accordance with the requirements of the applicable drawings and specifications.

Before the commencement of any fabrication work, and upon request from the Inspection Authority, the Contractor must provide approved welding procedures and/or a list of welding personnel intended to be used in the completion of the work. The list must identify the CWB welding procedure qualifications attained by each of the personnel listed and must be accompanied by a copy of each person's current CWB welding certification.

24. Environmental Protection

The Contractor and its sub-contractors engaged in the Work on a Crown vessel must carry out the Work in compliance with applicable municipal, provincial and federal environmental laws, regulations and industry standards.

The Contractor must have detailed procedures and processes for identifying, removing, tracking, storing, transporting and disposing of all potential pollutants and hazardous material encountered, to ensure compliance as required above.

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All waste disposal certificates are to be provided to the Inspection Authority, with information copies sent to the Contracting Authority. Furthermore, additional evidence of compliance with municipal, provincial and federal environmental laws and regulations is to be furnished by the Contractor to the Contracting Authority when so requested.

The Contractor must have environmental emergency response plans and/or procedures in place. Contractor and subcontractor employees must have received the appropriate training in emergency preparedness and response. Contractor personnel engaging in activities which may cause environmental impacts or potential noncompliance situations, must be competent to do so on the basis of appropriate education, training, or experience.

25. Fueling and De-fueling a Crown Vessel *(Not used)*

26. Procedure for Design Change or Additional Work

SACC Manual Clause B5007C (2010-01-11) Design Change or Additional Work

26.1 Price Breakdown:

The Contractor must, upon request, provide a price breakdown for all unscheduled work, by specific activities with trades, person-hours, material, subcontracts and services.

26.2 Pro-rated Prices:

Hours and prices for unscheduled work will be based on comparable historical data applicable to similar work at the same facility, or will be determined by pro-rating the quoted work costs in the Contract when in similar areas of the vessel.

27. Equipment/Systems: Inspection/Test *(Not used)*

28. Inspection and Test Plan

The Contractor shall, in support of their QCP, implement an approved Inspection & Test Plan (ITP).

The Contractor shall provide at no additional cost to the Crown, all applicable test data, all Contractor technical data, test pieces and samples as may reasonably be required by the Inspection Authority to verify conformance to contract requirements. The Contractor shall forward at his expense such technical data, test data, test pieces and samples to such location as the Inspector may direct.

Refer to Annex "D" for details on Inspection and Test Plan Requirements.

29. Vessel Custody *(Not used)*

30. Vessel manned Refits

SACC Manual Clause A0032C (2011-05-16) Vessel Manned Refits

31. Pre-Refit Meeting

A Pre-Refit meeting will be convened and chaired by the Contracting Authority at the work site, before the commencement of the work period.

32. Meetings

Progress meetings, chaired by the Contracting Authority, will take place at the Contractor's facility as and when required, generally once a month. Interim meetings may also be scheduled. Contractor attendees at these meetings will, as a minimum, be its Contract (Project) Manager, Production Manager (Superintendent) and Quality Assurance Manager. Progress meetings will generally incorporate Technical meetings to be chaired by the Technical Authority.

33. Outstanding Work and Acceptance

The Inspection Authority, in conjunction with the Contractor, will prepare a list of outstanding work items towards the end of the vessel Work Period. This list will form the annexes to the formal acceptance document for the vessel. A Contract Completion Meeting will be convened by the Inspector on the work completion date to review and sign off the Acceptance Document. In addition to any amount held under the Warranty Holdback Clause, a holdback of twice the estimated value of outstanding work will be held until completion of said work.

The PWGSC-TPSGC 1205 Acceptance Document is to be completed and distribution is to be made by the Public Works and Government Services Canada Inspection Authority as follows:

- (a) original to the PWGSC Contracting Authority
- (b) one copy to the Technical Authority
- (c) one copy to contractor

34. Licensing

The Contractor must obtain and maintain all permits, licenses and certificates of approval required for the work to be performed under any applicable federal, provincial or municipal legislation. The Contractor is responsible for any charges imposed by such legislation or regulations. Upon request, the Contractor must provide a copy of any such permit, license or certificate to Canada.

35. Hazardous Waste - Vessels

SACC Manual Clause A0290C (2008-05-12) Hazardous Waste - Vessels

36. Government Site Regulations

SACC Manual Clause A9068C (2010-01-11) Government Site Regulations

37. Scrap and Waste Material

SACC Manual Clause A9055C (2010-08-16) Scrap and Waste Material

38. Stability and Weight Management *(Not used)*

39. Vessel - Access by Canada *(Not used)*

40. Title to Property - Vessel *(Not used)*

41. Defence Contract

SACC Manual Clause A9006C (2012-07-16) Defence Contract

42. Limitation of Contractor's Liability for Damages to Canada

1. This section applies despite any other provision of the Contract and replaces the section of the general conditions entitled "Liability". Any reference in this section to damages caused by the Contractor also includes damages caused by its employees, as well as its subcontractors, agents, and representatives, and any of their employees.
2. Whether the claim is based in contract, tort, or another cause of action, the Contractor's liability for all damages suffered by Canada caused by the Contractor's performance of or failure to perform the Contract is limited to \$10 million per incident or occurrence to an annual aggregate of \$20 million for losses or damage caused in any one year of carrying out the Contract, each year starting on the date of coming into force of the Contract or its anniversary. This limitation of the Contractor's liability does not apply to nor include:
 - (a) Any infringement of intellectual property rights;
 - (b) Any breach of warranty obligations;
 - (c) Any liability of Canada to a third party arising from any act or omission of the Contractor in performing the Contract; or
 - (d) Any loss for which the policies of insurance specified in the Contract or any other policies of insurance held by the Contractor would provide insurance coverage.
3. Each Party agrees that it is fully liable for any damages that it causes to any third party in connection with the Contract, regardless of whether the third party makes its claim against Canada or the Contractor. If Canada is required, as a result of joint and several liability, to pay a third party in respect of damages caused by the Contractor, the Contractor must reimburse Canada for that amount.

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4. The Parties agree that nothing herein is intended to limit any insurable interest of the Contractor nor to limit the amounts otherwise recoverable under any insurance policy. The Parties agree that to the extent that the insurance coverage required to be maintained by the Contractor under this Contract or any additional insurance coverage maintained by the Contractor, whichever is greater, is more than the limitations of liability described in sub article (2), the limitations provided herein are increased accordingly and the Contractor shall be liable for the higher amount to the full extent of the insurance proceeds recovered.
 5. If, at any time, the total cumulative liability of the Contractor for losses or damage suffered by Canada caused by the Contractor's performance of or failure to perform the Contract, excluding liability described under subsection 2(a), (b), (c) and (d) exceeds \$40 million, either Party may terminate the Contract by giving notice in writing to the other Party and neither Party will make any claim against the other for damages, costs, expected profits or any other such loss arising out of the termination. However, no such termination or expiry of the Contract shall reduce or terminate any of the liabilities that have accrued to the effective date of the termination but which liabilities are subject to the limitations as specified in sub-article (1) through (4) above.
 6. The date of termination pursuant to this Article, shall be the date specified by Canada in its notice to terminate, or, if the Contractor exercises the right to terminate, in a notice to the Contractor from Canada in response to the Contractor's notice to terminate. The date of termination shall be in Canada's discretion to a maximum of 12 months after service of the original notice to terminate served by either Party pursuant to sub-article 5, above.
 7. In the event of a termination under this Article, the Contract will automatically remain in force subject to all of the same terms and conditions until the date of termination and the Contractor agrees that it will be paid in accordance with the applicable provisions as set out in the Basis of Payment, Annex B and that the Contractor's liability remains as specified in sub-articles (1) through (4), above.
 8. Nothing shall limit Canada's other remedies, including Canada's right to terminate the Contract for default for breach by the Contractor of any of its obligations under this Contract, notwithstanding that the Contractor may have reached any limitation of its liability hereunder.

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ANNEX A

REQUIREMENT - SPECIFICATION

See electronic Annex.

ANNEX B

BASIS OF PAYMENT FIRM PRICE

Remark to Bidder: Annex B will form the Basis of Payment for the resulting contract and should not be filled in at annex 'I' the bid submission stage.

B1 Contract Firm Price

A)	Known Work For work as stated in Contract Clause 1a), Specified in Annex "A" and detailed in the Price per Item Sheet, Appendix 1 of Annex 1 as well as Pricing Data Sheet, Annex J, for a FIRM PRICE of:	\$ _____
B)	Applicable taxes _____ % :	\$ _____
C)	Total Firm Price :	\$ _____

B2 Unscheduled Work

Payment for Unscheduled Work:

The Contractor will be paid for unscheduled work arising, as authorized by Canada. The authorized unscheduled work will be calculated as follows:

Number of hours (to be negotiated) X \$ _____, being the Contractor's firm hourly charge-out labour rate which includes overhead and profit, plus net laid-down cost of materials to which will be added a mark-up of 10 percent, plus Goods and Services Tax or Harmonized Sales Tax, if applicable, calculated at 5 percent of the total cost of material and labour. The firm hourly charge-out labour rate and the material mark-up will remain firm for the term of the Contract and any subsequent amendments.

B2.1: Notwithstanding definitions or useage elsewhere in this document, or in the Bidder's Cost Management System, when negotiating *Hours* for unscheduled work, PWGSC will consider only those hours of labour directly involved in the production of the subject work package. Elements of *Related Labour Costs* identified in B2.2 below, will not be negotiated, but will be included in the firm hourly Charge-out Labour Rate in accordance with paragraph B2.2

B2.2: Allowance for *Related Labour Costs* such as: Management, Direct Supervision, Purchasing and Material Handling, Quality Assurance and Reporting, First Aid, Gas Free Inspecting and Reporting, and Estimating will be included as *Overhead* within the *firm hourly Charge-out Labour Rate* entered in line B2 above.

B2.3: The 10% mark-up rate for materials will also apply to subcontracted costs. The mark-up rate includes any allowance for material and subcontract management not allowed for in the Chargeout Labour Rate. The Contractor will not be entitled to a separate labour component for the purchase and handling of materials or subcontract administration.

B3 Overtime

No overtime work shall be compensated for under the Contract unless authorized in advance and in writing by the Contracting Authority. Any request for payment must be accompanied by a copy of the overtime authorization and a report containing such details as Canada may require with respect to the overtime work performed. Compensation for authorized overtime will be calculated in the following manner:

- a. For Known Work, the Contractor will be paid the original contract price plus agreed overtime hours paid at the following premium rates; or,
- b. For Unscheduled Work, the Contractor will be paid for agreed overtime hours paid at the firm hourly Charge-out Labour Rate above plus the following premium rates:

Premium for Time and one half: \$ _____ per hour; or,

Premium for Double time: \$ _____ per hour

The above premiums rates shall be calculated as follows:

Premium for time and one half:

½ (that portion of the firm Hourly Charge-out Labour Rate in B2 that is directly attributable to salary cost plus related certified fringe benefits) times 7.5% (representing profit)

Premium for double time:

The portion of the Unscheduled Work firm Charge-out Labour Rate in B2 that is directly attributable to salary cost plus related certified fringe benefits times 7.5% (representing profit)

These premiums will remain firm for the duration of the Contract, including all amendments and are subject to audit by Canada, and to retroactive adjustment if Canada discovers that the premiums have not been calculated in accordance with the formulae, above.

B4 Daily Services Fee

Not used

B5 Cost of all Services is Included in Contract Price

All charges, fees expenses and disbursements incidental to the carrying out of the Work, are included in the Contract Price for the Work, including, without limitation:

1. **Services:** Not used
2. **Docking and Undocking:** Not used
3. **Field Service Representatives/Supervisory Services:** include all costs for field service representatives/supervisory services including manufacturers' representatives, engineers, etc.

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4. **Removals:** include all costs for removals necessary to carry out the Work and will be the responsibility of the Contractor whether or not they are identified in the specifications, except those removals not apparent when viewing the vessel or examining the drawings. The Contractor will also be responsible for safe storage of removed items and reinstalling them on completion of the Work. The Contractor will be responsible for renewal of components damaged during removal.
5. **Sheltering, Staging, Cranage and Transportation:** include the cost of all sheltering, staging including handrails, cranage and transportation to carry out the Work as specified.

The Contractor will be responsible for the cost of any necessary modification of these facilities to meet applicable safety regulations.

ANNEX C

INSURANCE REQUIREMENTS

C.1 Ship Repairers' Liability Insurance

1. The Contractor must obtain Ship Repairer's Liability Insurance and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than \$10,000,000 per accident or occurrence and in the annual aggregate
2. The Ship Repairer's Liability insurance must include the following:
 - (a) Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada as additional insured should read as follows: Canada, represented by Public Works and Government Services Canada.
 - (b) waiver of subrogation rights: Contractor's insurer to waive all rights of subrogation against Canada as represented by the Department of Public Works and Government Services Canada and the Canadian Coast Guard for any and all loss of or damage to the vessel, however caused.
 - (c) Notice of Cancellation: The Insurer will endeavor to provide the Contracting Authority thirty (30) days written notice of cancellation.
 - (d) Contractual Liability: The policy must, on a blanket basis or by specific reference to the contract, extend to assumed liabilities with respect to contractual provisions.
 - (e) Cross Liability/Separation of Insureds: Without increasing the limit of liability, the policy must protect all insured parties to the full extent of coverage provided. Further, the policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.

C.2 Commercial General Liability Insurance

1. The Contractor must obtain Commercial General Liability Insurance, and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than \$10,000,000 per accident or occurrence and in the annual aggregate
2. The Commercial General Liability Insurance policy must include the following:
 - (a) Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada should read as follows: Canada, as represented by Public Works and Government Services Canada.
 - (b) Bodily Injury and Property Damage to third parties arising out of the operations of the Contractor.

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- (c) Personal Injury: While not limited to, the coverage must include Violation of Privacy, Libel and Slander, False Arrest, Detention or Imprisonment and Defamation of Character.
 - (d) Cross Liability/Separation of Insureds: Without increasing the limit of liability, the policy must protect all insured parties to the full extent of coverage provided. Further, the policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.
 - (e) Blanket Contractual Liability: The policy must, on a blanket basis or by specific reference to the Contract, extend to assumed liabilities with respect to contractual provisions.
 - (f) Employees and, if applicable, Volunteers must be included as Additional Insured.
 - (g) Employers' Liability: to protect the Contractor for liabilities arising in the management and administration of statutory and contractual entitlements of its employees.
 - (h) Notice of Cancellation: The Insurer agrees to provide the Contracting Authority thirty (30) days written notice of policy cancellation.
 - (i) If the policy is written on a claims-made basis, coverage must be in place for a period of at least 12 months after the completion or termination of the Contract.
 - (j) Owners' or Contractors' Protective Liability: Covers the damages that the Contractor becomes legally obligated to pay arising out of the operations of a subcontractor.
 - (k) Sudden and accidental Pollution Liability (minimum 72 hours): To protect the Contractor for liabilities arising from damages caused by accidental pollution incidents.

ANNEX D

INSPECTION/QUALITY ASSURANCE/QUALITY CONTROL

D.1 Inspection and Test Plan (ITP):

1. The Contractor must prepare an Inspection and Test Plan (ITP) comprising individual inspection and test plans for each specification item of this project, in accordance with the Quality Standard and its Quality Control Plan. The ITP must be submitted to the Inspection Authority for review and amended by the Contractor to the satisfaction of the Inspection Authority.
 - (a) Each ITP must contain all inspection points identified in the Technical Specification highlighting any mandatory points that must be witnessed by the Inspection Authority and other "hold" points imposed by the Contractor to ensure the quality of the work.
 - (b) Milestone delivery date for the ITP is given in the Contract, however individual ITPs should be forwarded for review as developed.

2. Coding:

- (a) Each Inspection and Test Plan (ITP) is to be coded for identification clearly demonstrating a systematic approach similar to the following (Contractor's system should be defined in its Quality Control Plan):
 - (i) Prefixes for Inspections, Test and Trials:

Prefix "1" is a Contractor inspection, i.e. 1H-10-01, 1H-10-02;

prefix "2" is a Contractor post repair test, i.e. 2H-10-01; and

prefix "3" is a Contractor post repair trial, i.e. 3H-10-01.
 - (b) Specification items followed by assigned sequence numbers for inspection processes within each Specification Item; and
 - (c) Cross reference to a verification document number

3. Inspection and Test Plan Criteria:

Inspection criteria, procedures and requirements are stated in the specifications, drawings, technical orders and reference standards invoked by the Specifications. Test and trial documentation may also be included or referenced in the Specifications. An individual Inspection and Test Plan (ITP) is required for each Specification item.

- (a) All ITPs must be prepared by the Contractor in accordance with the above criteria, its Quality Plan, and must provide the following reference information:
 - (i) the ship's name;
 - (ii) the Specification item number;

- (iii) equipment/system description and a statement defining the parameter which is being inspected;
- (iv) a list of applicable documents referenced or specified in the inspection procedure;
- (v) the inspection, test or trial requirements specified in the Technical Specification;
- (vi) the tools and equipment required to accomplish the inspection;
- (vii) the environmental conditions under which the inspections are to be conducted and the tolerances on the inspection conditions;
- (viii) a detailed step-by step procedure of how each inspection is to be performed, conformance parameters, accept/reject criteria and recording of results, deficiencies found and description of corrective action(s) required;
- (ix) name and signature of the person who prepared the plan, date prepared and amendment level; and,
- (x) names and signatures of the persons conducting and witnessing the inspection, test or trial.

4. Contractor Imposed Testing:

Tests and trials in addition to those given in the Technical Specification must be approved by the Inspection Authority.

- (a) Amendments: Amendment action for the Inspection and Test Plans must be ongoing throughout the refit and reflect the inspection requirements for unscheduled work. Amendments must be submitted as developed, but not less frequently than once every second week.

D.2 Conduct of Inspection

1. Inspections must be conducted in accordance with the ITP.
2. The Contractor must provide its own staff or subcontracted staff to conduct inspections, tests and trials; excepting that Technical Authority or Inspection Authority personnel may be designated in the specifications, in which case the Contractor must ensure that its own staff are provided in support of such inspection/test/trial.
3. The Contractor must ensure that the required conditions stated in the ITP prevail at the commencement of, and for the duration of, each inspection/test/trial.
4. The Contractor must ensure that personnel required for equipment operation and records taking during the inspection/test/trial are briefed and available at the start and throughout the duration of the inspection/test/trial. Tradesmen or FSRs who may be required to effect minor changes or adjustments in the installation must be available at short notice.
5. The Contractor is to coordinate the activities of all personnel taking part in each inspection/test/trial and ensure that safe conditions prevail throughout the inspection/test/trial.

D.3 Inspection Records and Reports

1. The Contractor on the inspection record, test or trials sheets as applicable must record the results of each inspection. The Contractor must maintain files of completed inspection records consistent with the Quality Standard and its Quality Plan for this project.

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2. The Contractor's QC representative (and the FSR when required) must sign as having witnessed the inspection, test or trial on the inspection record. The Contractor must forward originals of completed inspection records, together with completed test(s) and/or trials sheets to the Inspection Authority as they are completed.
 3. Unsatisfactory inspection/test/trial results, for which corrective action cannot be completed during the normal course of the inspection/test/trial, will require the Contractor to establish and record the cause of the unsatisfactory condition to the satisfaction of the Inspection Authority. Canada representatives may assist in identification where appropriate.
 4. Corrective action to remove cause of unsatisfactory inspections must be submitted to the Inspection Authority in writing by the Contractor, for approval before affecting such repairs and rescheduling of the unsatisfactory inspection/test/trial. Such notices must be included in the final records passed to the Inspection Authority.
 5. The Contractor must undertake rectification of defects and deficiencies in the Contractor's installation or repair as soon as practicable. The Contractor is responsible to schedule such repairs at its own risk.
 6. The Contractor must reschedule unsatisfactory inspections after any required repairs have been completed.
 7. Quality Control, Inspection and Test records that substantiate conformance to the specified requirements, including records of corrective actions, must be retained by the Contractor for three (3) years from the date of completion or termination of the Contract and must be made available to the Inspection Authority upon request.

D.4 Inspection and Trials Process

1. Drawings and Purchase Orders
 - (a) Upon receipt of two (2) copies of each drawing or purchase order, the designated Inspection Authority will review its content against the provisions of the Specifications. Where discrepancies are noted, the Inspection Authority will formally advise all concerned, in writing using a Discrepancy Notice. The resolution of any such discrepancy is a matter for consultation between the Contractor and other Crown Authorities.

The Inspection Authority is NOT responsible for the resolution of discrepancies.

2. Inspection
 - (a) Upon receipt and acceptance of the Contractor's ITP, inspection will consist of a number of Inspection Points supplemented by such other inspections, tests, demonstrations and trials as may be deemed necessary by the Inspection Authority to permit him to certify that the work has been performed in compliance with the provisions of the Specifications. The Contractor must be responsible for notifying the designated Inspection Authority of when the work will be available for inspection, sufficiently in advance to permit the designated Inspection Authority to arrange for the appropriate inspection.

- (b) The Inspection Authority will inspect the materials, equipment and work throughout the project against the provisions of the Technical Specification and, where non-conformances are noted, will issue appropriate **INSPECTION NON-CONFORMANCE REPORTS**.
- (c) The Contract requires the implementation of a Quality Assurance/Quality Control system, so the Inspection authority must require that the Contractor provide a copy of its internal inspection report pertaining to a work item before conducting the requested inspection. If third party inspections are required by the Contract (e.g. inspections by a certified CWB 178.2 welding inspector), the reports of these inspections must be required before the Work is inspected by the Inspection Authority.
- (d) The QA/QC system is a requirement, so if the documentation is presented to the Inspection Authority before an inspection stating that the Work is satisfactory but the Inspection Authority finds that the Work has not been satisfactorily inspected, the Inspection Authority must issue an Inspection Non-conformance Report against the Work and another against the failure of the Contractor's QA/QC system.
- (e) Before carrying out any inspection, the Inspection Authority must review the requirements for the Work and the acceptance and/or rejection standards to be applied. Where more than one standard or requirement is called up and they are potentially conflicting, the Inspection Authority must refer to the order of precedence in the Contract to determine the standard or requirement to be applied.

3. Inspection Non-conformance report

- (a) An Inspection Non-conformance report will be issued for each non-conformance noted by the Inspection Authority. Each report will be uniquely numbered for reference purposes, will be signed and dated by the Inspection Authority, and will describe the non-conformance.
- (b) When the non-conformance has been corrected by the Contractor and has been re-inspected and accepted by the Inspection Authority, the Inspection Authority will complete the Report by adding an applicable signed and dated notation.
- (c) At the end of the project, the content of all Inspection Non-conformance Reports which have not been signed-off by the Inspection Authority will be transferred to the Acceptance Documents before the Inspection Authority's certification of such documents.

4. Tests, Trials, and Demonstrations

- (a) To enable the Inspection Authority to certify that the Work has been performed satisfactorily, in accordance with the Contract and Specifications, the Contractor must schedule, co-ordinate, perform, and record all specified Tests, Trials and Demonstrations required by the Inspection Authority.
- (b) Where the Specifications contain a specific performance requirement for any component, equipment, sub-system or system, the Contractor must test such component, equipment, sub-system or system to the satisfaction of the Inspection Authority, to prove that the specified performance has been achieved and that the component, equipment, sub-system or system performs as required by the specifications.
- (c) Tests, trials and demonstrations must be conducted in accordance with a logical, systematic schedule which must ensure that all associated components and equipment are proven before sub-systems demonstration or testing, and that sub-systems are proven before system demonstration or testing.

-
- (d) Where the Specifications do not contain specific performance requirements for any component, equipment, sub-system or system, the Contractor must demonstrate such component, equipment, sub-system or system to the satisfaction of the Inspection Authority.
 - (e) The contractor must submit its Test and Inspection Plan as indicated in section D.1 above.
 - (f) The Contractor must co-ordinate each test, trial and demonstration with all interested parties, including the Inspection Authority; Contracting and Technical Authorities; regulatory authorities; Classification Society; Sub-contractors; etc. The Contractor must provide the Inspection Authority and other Crown Authorities with a minimum of five working days' notice of each scheduled test, trial, or demonstration.
 - (g) The Contractor must keep written records of all tests, trials, and demonstrations conducted.
 - (h) The Contractor must in all respects be responsible for the conduct of all tests and trials in accordance with the requirements of the Contract.
 - (i) The Inspection Authority and the Technical Authority reserve the right to defer starting or continuing with any sea trials for any reasonable cause including but not limited to adverse weather, visibility, equipment failure or degradation, lack of qualified personnel and inadequate compliance with safety standards.

ANNEX E

WARRANTY

2030 (2014-09-25) General Conditions Higher Complexity Goods are hereby amended, by deleting section 2030 22(2014-09-25), Warranty and replacing it as follows:

E.1 Section 22 Warranty

1. At the discretion of the Minister, the Contractor will replace or make good at its own expense any finished work, excluding Government Issue incorporated therein, which becomes defective or which fails to conform to contract requirements as a result of faulty or inefficient manufacture, material or workmanship.
2. Notwithstanding prior acceptance of the finished work, and without restricting any other term of the Contract or any condition, warranty or provision implied or imposed by law, the Contractor hereby warrants that the following shall be free from all defects and shall conform with the requirements of the contract:

- (a) The painting of the underwater portion of the hull for a period of three hundred and sixty-five (365) days commencing from the date of undocking, except that the Contractor will only be liable to repair and/or replace to a value to be determined as follows:

Original cost to Canada of the underwater painting Work, divided by three hundred and sixty-five (365) days and multiplied by the number of days remaining in the warranty period. The resultant would represent the "Dollar Credit" due to Canada from the Contractor.

- (b) All other painting Work for a period of three hundred and sixty-five (365) days commencing from the date of acceptance of the Work;
 - (c) all parts and material provided by the Contractor for a period of three hundred and sixty-five (365) days commencing from the date of acceptance of such parts or material;
 - (d) All other items of Work for a period of ninety (90) days commencing from the date of acceptance of the Work, except that:
 - (i) the warranty on the Work related to any system or equipment not immediately placed in continuous use or service shall extend for a period of ninety (90) days from the date of acceptance of the vessel;
 - ii) for all outstanding defects, deviations, and Work items listed on the Acceptance Document at Delivery, the Warranty will be ninety (90) days from the subsequent date of acceptance for each item.
3. If more than one warranty period applies, in accordance with the above, to any Work, then the warranty shall be for the longest period.
4. The Contractor agrees to pass to Canada, and exercise on behalf of Canada, all warranties on the Materials supplied or held by the Contractor which exceed the periods indicated Above.

E.2 Warranty Procedures

E2.1 Scope

- (a) The following are the procedures which suit the particular requirements for warranty considerations for a vessel on completion of a refit.

E2.2 Definition

- (a) There are a number of definitions of "warranty" most of which are intended to describe its force and effect in law. One such definition is offered as follows:

"A warranty is an agreement whereby the vendor's or manufacturer's responsibility for performance of its product is extended for a specific period of time beyond the date at which the title to the product passes to the buyer."

E2.3 Warranty Conditions

- (a) General Conditions 2030, Higher Complexity - Goods are augmented by clauses incorporated into the subject Contract.
- (b) The warranty periods may be stated in more than one part.
 - (i) 90 days commencing from the day the PWGSC 1205 Acceptance Document is signed for workmanship provided by the contractor for the refit work specified;
 - (ii) 365 days from the date of undocking the vessel for the specified areas of underwater paint and topside painting;
 - (iii) 365 days commencing from the day the PWGSC 1205 Acceptance Document is signed for parts and material provided by the contractor for the refit work specified;
 - (iv) Any other specific warranty periods that may be required in the contract or offered by the Contractor.
- (c) The foregoing does not cover the disposition of other deficiencies that will be directly related to Technical Authority problem areas of the following nature:
 - (i) items becoming unserviceable that were not included in the refit specification;
 - (ii) refit specifications or other related documentation requiring amendments or corrections to increase viability; and
 - (iii) work performed that is directly related to the Technical Authority.

E2.4 Reporting Failures With Warranty Potential

- (a) The initial purpose of a report of a failure is to facilitate the decision as to whether or not to involve warranty and to generate action to effect repairs. Therefore in addition to identification, location data, etc. the report must contain details of the defect. Warranty decisions as a general rule are to be made locally and the administrative process is to be in accordance with procedures as indicated.
- (b) These procedures are necessary as invoking a warranty does not simply mean that the warrantor will automatically proceed with repairs at his expense. A review of the defect may well result in a disclaimer of responsibility, therefore, it is imperative that during such a review the Department is directly represented by competent technical authority qualified to agree or disagree with the warrantor's assertions.

E2.5 Procedures

- (a) Immediately it becomes known to the Ship's Staff that an equipment/system is performing below accepted standards or has become defective, the procedures for the investigation and reporting are as follows:
 - (i) The vessel advises the Technical Authority when a defect, which is considered to be directly associated the refit work, has occurred.
 - (ii) On review of the Specification and the Acceptance Document, the Technical Authority in consort with Ship's Staff is to complete the Tombstone Data and section 1 of the Warranty Claim Form and forward the original to the Contractor for review with a copy to the PWGSC Contracting Authority. If the PWGSC Contracting or Inspection Authority is unable to support warranty action, the Defect Claim Form will be returned to the originator with a brief justification. (It is to be noted that in the latter instance PWGSC will inform the Contractor of its decision and no further action will be required of the Contractor.

Warranty defect claims may be forwarded in hard copy, by fax or by e-mail whichever format is the most convenient.

- (iii) Assuming the Contractor accepts full responsibility for repair, the Contractor completes Section 2 and 3 of the Warranty Claim Form, returns it to the Inspection Authority who confirms corrective action has been completed, and who then distributes the form to the Technical Authority and the PWGSC Contracting Authority.
- (b) In the event that the Contractor disputes the claim as a warranty defect, or agrees to share, the contractor is to complete Part 2 of the Warranty Claim Form with the appropriate information and forward it to the Contracting Authority who will distribute copies as necessary.
- (c) When a warranty defect claim is disputed by the Contractor, the Technical Authority may arrange to correct the defect by in-house resources or by contracting the work out. All associated costs must be tracked and recorded as a possible charge against the contractor by PWGSC action. Material costs and man-hours expended in correcting the defect are to be recorded and entered in Section 5 of the warranty defect claim by the Technical Authority who will forward the warranty defect claim to the PWGSC Contracting Authority for action. Defective parts of equipment are to be retained pending settlement of claim.
- (d) Defective equipment associated with potential warranty should not normally be dismantled until the contractor's representative has had the opportunity to observe the defect. The necessary work is to be undertaken through normal repair methods and costs must be segregated as a possible charge against a contractor by PWGSC action.

E2.6 Liability

- (a) Agreement between the Contracting Authority, Inspection Authority, Technical Authority and the Contractor will result in one of the following conditions:
 - (i) The contractor accepts full responsibility for costs to repair or overhaul under the warranty provisions of the contract;
 - (ii) The Technical Authority accepts full responsibility for repair and overhaul of item concerned; or
 - (iii) The Contractor and the Technical Authority agree to share responsibility for the costs to repair or overhaul the unserviceable item, in such cases the PWGSC Contracting Authority will negotiate the best possible sharing arrangement.
- (b) In the event of a disagreement as in paragraph 5c, PWGSC will take necessary action with the contractor while the Technical Authority informs its Senior Management including pertinent data and recommendations.
- (c) The total cost of processing warranty claims must include accommodation and travel costs of the contractor's employees as well as equipment/system down time and operational constraints. Accordingly, the cost to remediate the defect, in man-hours and material, will be discussed between the Contracting/Inspection Authorities and the Technical Authority to determine the best course of action.

E2.7 Alongside Period For Warranty Repairs and Checks

- (a) If at all possible, an alongside period for the vessel is to be arranged just before the expiration of the 90 day warranty period. This alongside period is to provide time for warranty repair and check by the contractor.
- (b) In respect to the underwater paint, should it become defective during the associated warranty period the contractor is only liable to repair to a value determined as follows:

"Original cost to Canada for painting and preservation of the underwater section of the hull, divided by three hundred and sixty-five (365) days and multiplied by the number of days remaining in the three hundred and sixty-five (365) days warranty period. The resultant would represent the 'Dollar Credit' due to Canada from the Contractor."

- (c) The Underwater paint system, before expiration of the warranty, should be checked by divers. The Technical Authority, is to arrange the inspection and inform the Contracting Authority of any adverse results.

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Appendix 1 of Annexe E



Public Works and Government
Services Canada

Travaux publics et Services
gouvernementaux Canada

Warranty Claim Réclamation De Garantie

Vessel Name – Nom de navire	File No. – N° de dossier	Contract No. - N ° de contrat
Customer Department – Ministère client		Warranty Claim Serial No. Numéro de série de réclamation de garantie
Contractor – Entrepreneur		<u>Effect on Vessel Operations</u> <u>Effet sur des opérations de navire</u> Critical Degraded Operational Non-operational Critique Dégradé Opérationnel Non-opérationnel

1. Description of Complaint – Description de plainte

Contact Information – l'information de contact

Name – Nom

Tel. No. - N ° Tél

Signature – Signature

Date

2. Contractor's Investigative Report – Le rapport investigateur de l'entrepreneur

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3. Contractor's Corrective Action – La modalité de reprise de l'entrepreneur

Contractor's Name and Signature – Nom et signature de l'entrepreneur

Date of Corrective Action - Date de modalité de reprise

Client Name and Signature - Nom et signature de client

Date

4. PWGSC Review of Warranty Claim Action – Examen d'action de réclamation de garantie par TPSGC

Signature – Signature

Date

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ANNEX F

VESSEL CUSTODY

(NOT USED)

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Annex G

SECURITY REQUIREMENTS CHECK LIST

(NOT USED)

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ANNEX H

PROJECT MANAGEMENT SERVICES

(NOT USED)

ANNEX I

FINANCIAL BID PRESENTATION SHEET

I1 Price for Evaluation

A) Known Work For work as stated in Part 1 Clause 2a, Specified in Annex "A" and detailed in the Price per Item Sheet, Appendix 1 of this Annex, for a FIRM PRICE of:	
	\$
B) Unscheduled Work Contractor <i>Labour Cost</i> : Estimated labour hours at a firm <i>hourly Charge-out Labour Rate</i> , including overhead and profit for evaluation purpose only: 650 person hours X \$_____ per hour for a PRICE of: See Note I2.1 and I2.2 below.	
	\$
C) EVALUATION PRICE GST Excluded, [A + B]: For an EVALUATION PRICE of :	\$

I2 Unscheduled Work

The Contractor will be paid for unscheduled work arising, as authorized by the Minister, calculated in the following manner:

"Number of hours (to be negotiated) X \$_____ your firm *hourly Charge-out Labour Rate* which includes *Overhead* and profit, plus net laid-down cost of materials to which shall be added a 10% mark-up, plus Goods and Services Tax or Harmonized Sales Tax as applicable, of the total cost of material and labour. The firm *hourly Charge-out Labour Rate* and the material mark-up will remain firm for the duration of the Contract and any subsequent amendments thereto."

I2.1: Notwithstanding definitions or useage elsewhere in this document, or in the Bidder's Cost Management System, when negotiating *Hours* for unscheduled work, PWGSC will consider only those hours of labour directly involved in the production of the subject work package.

Elements of Related Labour Costs identified in I2.2 below, will not be negotiated, but will be compensated for in accordance with paragraph I2.2. It is therefore incumbent upon the Bidder to enter values in the above table which will result in fair compensation, regardless of the structure of their Cost Management System.

I2.2: Allowance for *Related Labour Costs* such as: Management, Direct Supervision, Purchasing and Material Handling, Quality Assurance and Reporting, First Aid, Gas Free Inspecting and Reporting, and Estimating will be included as *Overhead* for the purposes of determining the *Charge-out Labour Rate* entered in line I2 above.

I2.3: The 10% mark-up rate for materials will also apply to subcontracted costs. The mark-up rate includes any allowance for material and subcontract management not allowed for in the Chargeout Labour Rate. The Contractor will not be entitled to a separate labour component for the purchase and handling of materials or subcontract administration.

I3 Overtime

No overtime work shall be compensated for under the Contract unless authorized in advance and in writing by the Contracting Authority. Any request for payment must be accompanied by a copy of the overtime authorization and a report containing such details as Canada may require with respect to the overtime work performed. Compensation for authorized overtime will be calculated in the following manner:

- a. For Known Work, the Contractor will be paid the original contract price plus agreed overtime hours paid at the following premium rates; or,
- b. For Unscheduled Work, the Contractor will be paid for agreed overtime hours paid at the firm hourly Charge-out Labour Rate above plus the following premium rates:

Premium for Time and one half: \$ _____ per hour; or,

Premium for Double time: \$ _____ per hour

The above premiums rates shall be calculated as follows:

Premium for time and one half:

½ (that portion of the firm Hourly Charge-out Labour Rate in I2 that is directly attributable to salary cost plus related certified fringe benefits) times 7.5% (representing profit)

Premium for double time:

The portion of the Unscheduled Work firm Charge-out Labour Rate in I2 that is directly attributable to salary cost plus related certified fringe benefits times 7.5% (representing profit)

These premiums will remain firm for the duration of the Contract, including all amendments and are subject to audit by Canada, and to retroactive adjustment if Canada discovers that the premiums have not been calculated in accordance with the formulae, above.

I4 Daily Services Fee

Not used

I5 Cost of all Services is Included in Contract Price

All charges, fees expenses and disbursements incidental to the carrying out of the Work, are included in the Evaluation Price for the Work, including, without limitation:

1. **Services:** Not used
2. **Docking and Undocking:** Not used
3. **Field Service Representatives/Supervisory Services:** include all costs for field service representatives/supervisory services including manufacturers' representatives, engineers, etc.

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4. **Removals:** include all costs for removals necessary to carry out the Work and will be the responsibility of the Contractor whether or not they are identified in the specifications, except those removals not apparent when viewing the vessel or examining the drawings. The successful Bidder will also be responsible for safe storage of removed items and reinstalling them on completion of the Work. The successful Bidder will be responsible for renewal of components damaged during removal.

5. **Sheltering, Staging, Cranage and Transportation:** include the cost of all sheltering, staging including handrails, cranage and transportation to carry out the Work as specified.

The successful Bidder will be responsible for the cost of any necessary modification of these facilities to meet applicable safety regulations.

I6 Vessel Transfer Costs

Not used

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APPENDIX 1 OF ANNEX I

PRICE PER ITEM SHEETS		
Item	Description – A) SCHEDULED WORK	Firm Price
1	General Remarks	\$ _____
2	Services	\$ _____
10	Safety and Security Equipment	\$ _____
11	Hull and Structure	\$ _____
12	Propulsion and Manoeuvring Systems	\$ _____
15	Auxiliary Systems	\$ _____
16	Domestic Systems	\$ _____
17	Deck Equipment / Ship Support Systems	\$ _____
A) SCHEDULED WORK - TOTAL FIRM PRICE		\$ _____

Remark to Bidders:

Canada may reject the bid if any of the prices submitted do not reasonably reflect the cost of performing the part of the work to which that price applies.

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ANNEX J

PRICING DATA SHEETS		
Item	Description – A) SCHEDULED WORK	Firm Price
1	General Remarks (Bidders can enter \$0.00 or indicate 'included' if the fees for this item are distributed in each of the items bellow. In case the fees are not distributed an amount must be indicated in the price box.)	\$ _____
2	Services (Overheads fees related to this item and its sub items must be distributed in each sub items.)	
	Man lift (telescopic) (Final amount to be prorated)	
	Price per week _____ \$ x 3 weeks = _____ \$ Price per month _____ \$ x 1 month = _____ \$ Total for this item : _____ \$	
	Portable toilets (Final amount to be prorated)	
	Price per day/toilet _____ \$ x 10 days x 6 toilets = _____ \$ Total for this item : _____ \$	
	Total for item 2 : _____ \$	
10	Safety and Security Equipment (Overheads fees related to this item and its sub items must be distributed in each sub items.)	
	10.1 Lifboat	
	Mobilisation / Demobilisation = \$ _____ Materials, equipment and consumables = \$ _____ Labour ; \$ _____ /hour X _____ hours = \$ _____ Total for this item : \$ _____	
	Total for item 10.1 : _____ \$	
	10.2 Lifeboat Davit	
	Mobilisation / Demobilisation = \$ _____ Materials, equipment and consumables = \$ _____ Labour ; \$ _____ /hour X _____ hours = \$ _____ Total for this item : \$ _____	
	Total for item 10.2 : _____ \$	

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PRICING DATA SHEETS		
Item	Description – A) SCHEDULED WORK	Firm Price
	10.3 Fire Fighting Systems Fixed CO₂ Smothering Systems Mobilisation / Demobilisation = \$ _____ Materials, equipment and consumables = \$ _____ Labour ; \$ _____ /hour X _____ hours = \$ _____ Total for this item : \$ _____	
	Galley, Fixed Fire Extinguishing Pero-chem PCL 300 Mobilisation / Demobilisation = \$ _____ Materials, equipment and consumables = \$ _____ Labour ; \$ _____ /hour X _____ hours = \$ _____ Total for this item : \$ _____	
	Flight Deck Fire Extinguishing System Mobilisation / Demobilisation = \$ _____ Materials, equipment and consumables = \$ _____ Labour ; \$ _____ /hour X _____ hours = \$ _____ Total for this item : \$ _____	
	Portable Fire Extinguishers Provide a price for known extinguishers (based due dates provided in the list). Mobilisation / Demobilisation = \$ _____ Materials, equipment and consumables = \$ _____ Labour ; \$ _____ /hour X _____ hours = \$ _____ Total for this item : \$ _____	
	Total for item 10.3 : \$ _____	
	Total for item 10 : \$ _____	
11	Hull and Structure (Overheads fees related to this item and its sub items must be distributed in each sub items.)	
	11.1 Rational Oven Mobilisation / Demobilisation = \$ _____ Materials, equipment and consumables = \$ _____ Labour ; \$ _____ /hour X _____ hours = \$ _____ Total for this item : \$ _____	
	Total for item 11.1 : \$ _____	

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PRICING DATA SHEETS		
Item	Description – A) SCHEDULED WORK	Firm Price
	11.2 Dish Washer	
	Mobilisation / Demobilisation = \$ _____	
	Materials, equipment and consumables = \$ _____	
	Labour ; \$ _____ /hour X _____ hours = \$ _____	
	Total for this item : \$ _____	
	Total for item 11.2 : \$ _____	
	11.3 Laundry Equipment	
Mobilisation / Demobilisation = \$ _____		
Materials, equipment and consumables = \$ _____		
Labour ; \$ _____ /hour X _____ hours = \$ _____		
Total for this item : \$ _____		
Total for item 11.3 : \$ _____		
	11.4 Starboard Accommodation Ladder	
	Mobilisation / Demobilisation = \$ _____	
	Materials, equipment and consumables = \$ _____	
	Labour ; \$ _____ /hour X _____ hours = \$ _____	
	Total for this item : \$ _____	
	Total for 11.4 : \$ _____	
	11.5 Beam and lifting Grommets	
Mobilisation / Demobilisation = \$ _____		
Materials, equipment and consumables = \$ _____		
Labour ; \$ _____ /hour X _____ hours = \$ _____		
Total for this item : \$ _____		
Total for 11.5 : \$ _____		
Total for item 11 : \$ _____		
12	Propulsion and manoeuvring Systems (Overheads fees related to this item must be distributed in each sub items.)	
	12.1 Exhaust Flexible Insulation	
	Mobilisation / Demobilisation = \$ _____	
	Materials, equipment and consumables = \$ _____	
Labour ; \$ _____ /hour X _____ hours = \$ _____		
Total for this item : \$ _____		
Total for 12.1 : \$ _____		
Total for item 12 : \$ _____		

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PRICING DATA SHEETS			
Item	Description – A) SCHEDULED WORK	Firm Price	
15	Auxiliary Systems (Overheads fees related to this item must be distributed in each sub items.)		
	15.1 Fuel Transfer Hoses		
	<p>Mobilisation / Demobilisation = \$ _____</p> <p>Materials, equipment and consumables = \$ _____</p> <p>Labour ; \$ _____ /hour X _____ hours = \$ _____</p> <p>Total for the lifeboats : \$ _____</p>		
	Total for 15.1 : \$ _____		
	Total for item 15 : \$ _____		
16	Domestic Systems (Overheads fees related to this item must be distributed in each sub items.)		
	16.1 Refrigeration Systems and Air Conditioning		
	Cargo and Domestic Refrigeration		
	<p>Mobilisation / Demobilisation = \$ _____</p> <p>Materials, equipment and consumables, other than e) below = \$ _____</p> <p>Labour ; \$ _____ /hour X _____ hours = \$ _____</p>		
	<p>e) Price to replace one bottle of refrigerant gas (Final amounts to be prorated)</p> <p>Replacement of gas ; \$ _____ X 1 bottle (13,6 kg) = \$ _____</p> <p>Total for this item : \$ _____</p>		
	Air conditioning Systems 2, 3 and 5		
<p>Mobilisation / Demobilisation = \$ _____</p> <p>Materials, equipment and consumables, other than f) below = \$ _____</p> <p>Labour ; \$ _____ /hour X _____ hours = \$ _____</p>			
<p>f) Price to replace one bottle of refrigerant gas (Final amounts to be prorated)</p> <p>Replacement of gas ; \$ _____ X 1 bottle (13,6 kg) = \$ _____</p> <p>Total for this item : \$ _____</p>			
	Total for 16.1 : \$ _____		
Total for item 16 : \$ _____			

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PRICING DATA SHEETS		
Item	Description – A) SCHEDULED WORK	Firm Price
17	Deck Equipment / Ship Support Systems (Overheads fees related to this item must be distributed in each sub items.)	
	17.1 Elevator and Dum-Waiter	
	<div>Elevator</div> <div> <div>Mobilisation / Demobilisation = \$ _____</div> <div>Materials, equipment and consumables = \$ _____</div> <div>Labour ; \$ _____ /hour X _____ hours = \$ _____</div> <div>Total for this item : \$ _____</div> </div>	
	<div>Dumb-Waiter</div> <div> <div>Mobilisation / Demobilisation = \$ _____</div> <div>Materials, equipment and consumables = \$ _____</div> <div>Labour ; \$ _____ /hour X _____ hours = \$ _____</div> <div>Total for this item : \$ _____</div> </div>	
	Total for 17.1 : \$ _____	
	17.2 Starboard Work barge Davit	
	<div> <div>Mobilisation / Demobilisation = \$ _____</div> <div>Materials, equipment and consumables, other than c) below = \$ _____</div> <div>Labour ; \$ _____ /hour X _____ hours = \$ _____</div> </div>	
	<div>c) Pins, sheaves & bushings found to be defectives (Final amounts to be prorated)</div> <div> <div>Replacement of pins ; \$ _____ /pin X 8 pins = \$ _____</div> <div>Replacement of sheaves ; \$ _____ /sheave X 4 sheaves = \$ _____</div> <div>Replacement of bushings ; \$ _____ /bushing X 8 bushings = \$ _____</div> <div>Total for this item : \$ _____</div> </div>	
	Total for 17.2 : \$ _____	
	Total for 17 : \$ _____	
A) TOTAL FIRM PRICE = \$ _____		

Remark to Bidders:

Canada may reject the bid if any of the prices submitted do not reasonably reflect the cost of performing the part of the work to which that price applies.

CCGS Pierre Radisson Refit

F3019-15IN344

Version 03 (March, 11th, 2016)

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1.0 GENERAL REMARKS

Identification

These general remarks describe the requirements of the Canadian Coast Guard (CCG) applicable to all the attached technical specifications.

Reference documents

a) Applicable documents:

Fleet Safety and Security Manual (FSSM) procedures	Title
7.A.1	Assessing Risk
7. B.1	Diving operation
7. B.2.	Fall protection
7. B.3	Access to confined spaces
7. B.4	Hot work
7. B.5	Locking and labelling
7. B.6	Electrical work on energized circuits
10. A.7	Contractor safety and security

b) Publications:

TP3177E	Standard for the Control of Gas Hazards in Vessels to be Repaired or Altered
TP127E	Transport Canada's Marine Safety Electrical Standards
IEEE 45	Recommended Practice for Electrical Installations on Shipboard
CSA W47.1	Certification of companies for fusion welding of steel, section 2 (Certification)
CSA W47.2	Certification of companies for fusion welding of aluminum
CSA W59	Welded steel construction (metal arc welding)
CSA W59.2	Welded aluminum construction

c) Acts and regulations:

CSA	<i>Canada Shipping Act</i>
CLC	<i>Canada Labour Code</i>
MOSH	Marine Occupational Safety and Health

Occupational Health and Safety

- a) The contractor and all sub-contractors must comply with occupational health and safety (OHS) instructions in accordance with relevant federal and provincial OHS regulations and ensure that the contractor's activities are conducted safely and without compromising the safety of any personnel.
- b) The contractor and its employees, including sub-contractors, must participate in an orientation session on safety on board the vessel prior to commencing work in order to fully understand the risks specific to a vessel and the work protocol permit systems, as well as the procedures for safety, risk prevention, intervention in case of danger and assessment of safety prior to working. The contractor will have access to an uncontrolled copy of the Fleet Safety and Security Manual.
- c) The contractor must comply with the Fleet Safety and Security Manual (DFO/5737) and with the work instructions on board the vessel, in addition to the relevant *Canada Labour Code* regulations, while performing tasks that include the following aspects:
 - Hot work;
 - Work at height;
 - Confined spaces Entry;
 - Gas freeing for entry and hot work;
 - Lock out / Tag out;
 - Pre-Job Safety assessments.
- d) For the purpose of Lock out / Tag out procedures, the contractor must provide locks and locking devices to its employees in addition to those supplied by the vessel's Chief Engineer.
- e) The contractor must provide a copy of the gas free certificate from a certified marine chemist or other qualified person with technical authority when performing work in tanks and bilges, prior to beginning work. The certificates must specify "Safe for persons" or "Safe for hot work", as applicable. The certificates are to be displayed in full view close to the entrance to the compartment. All tanks and pipe tunnels open for inspections and tests must be cleaned and subject to a final inspection by the technical authority (TA) prior to closure.
- f) The contractor and its employees will not have access to crew stations or to the vessel's sanitary facilities. The contractor must provide the necessary amenities for its employees and sub-contractors.

Access to the workplace

The contractor must ensure that the technical authority and CCG staff has unrestricted access at all times to the workplace throughout the duration of the contract.

Workplace Hazard Material Information System (WHMIS).

- a) The contractor must provide the TA with the Material Safety Data Sheets (MSDS) for all the products it supplies that are controlled under WHMIS.
- b) The TA will allow the contractor access to the MSDS for all controlled products on board the vessel for all work items specified.

Tobacco in the workplace

The contractor must ensure compliance with the *Non-smokers' Health Act*. The contractor must ensure that each employer and any person acting on behalf of an employer ensure that they refrain from smoking in workplaces under the employer's control. The contractor must ensure that absolutely no person smokes on board the vessel.

Healthy and safe workplace

- a) Before the contractor begins work on the vessel, the TA and the contractor's quality assurance representative must inspect the areas where the work will take place, including access ways. The contractor's quality assurance representative must take digital photographs of each area in order to demonstrate that it has complied with the requirements of this document. It must then upload such photographs in JPG format to a CD or a DVD. Each photograph must be dated and indicate where on the vessel it was taken. Copies of the CD or DVD must be provided to the TA for reference purposes within 48 hours of the start of the contract period.
- b) During the period of the work, the contractor must ensure the upkeep of the areas of the vessel that its staff use to access the work areas. The areas must be clean and free of debris and waste must be removed every day.
- c) Areas that present a danger due to the work under this specification must be secured and clearly identified by the contractor. Posters must be installed to inform and protect all members of staff in accordance with the applicable requirements of the *Canada Labour Code*.
- d) At the end of this contract, the contractor must ensure that all waste produced by the work under this specification is disposed of and that the vessel is as clean as it was before beginning the contract period.
- e) Once all the known work has been completed and the final cleaning has been performed, the contractor's quality assurance representative must inspect all areas of the vessel where work was performed by the contractor. Any deficiency or damage noted must be recorded and compared to the photographs taken in order to determine if the deficiency or damage stems from the work performed by the contractor. If this is the case, the damage must be repaired by the contractor, at no cost to the CCG.

Fire protection

- a) The contractor must ensure that the isolation, removal and installation of fire detection and extinguishing systems and related components are performed by a qualified technician. When fire detection or extinguishing systems are deactivated or put out of service by the contractor throughout the duration of the contract, a qualified technician must certify that they are fully functional again.
DELIVERABLE: The original signed and dated certificate must be issued to the technical authority (TA) and to technical inspection before the end of the contract.
- b) The contractor must inform the technical inspection and the TA and obtain written approval before disturbing, removing, isolating, deactivating, putting out of service or locking out any element of the fire detection and extinguishing systems, including heat and smoke detectors.

-
- c) The contractor must provide protection against fires at all times and also while work is being performed on the vessel's fire detection and extinguishing systems. This may be performed in the manner proposed below, only after having obtained written approval from the TA:
 - i. put only one part of the system out of service at a time;
 - ii. keep the system functional by using spare parts while the work is underway;
 - iii. employ other methods accepted and approved by the TA.
 - d) The contractor must know that if all the necessary precautions are not taken during work on the vessel's fire extinguishing systems, accidental discharge of extinguishing agent may occur. The contractor must fill and certify, at its expense, the containers or systems that are depleted due to such work.

Damaged paint and retouching

- a) Unless otherwise indicated, the contractor must provide and apply two coats of marine primer paint compatible with the vessel's paint system on all new metal surfaces and surfaces requiring retouching.
- b) Before applying the first coat, the contractor must prepare all new steel structures and those that require retouching in accordance with the paint manufacturer's directions.

CCG and other employees on board the vessel

Employees of the CCG and of DFO, as well as other employees such as manufacturer's representatives, TCMS or classification investigators, could result in further work on board the vessel, including work not mentioned in this specification, during the period of work. The TA will do its utmost so that other work, related inspections and investigations do not interfere with the contractor's work. The contractor should not coordinate the related inspections or pay the inspection costs for such work.

Regulatory inspections and/or classification examination

- a) The contractor must schedule and coordinate all regulatory inspections and classification surveys in collaboration with the authority concerned, e.g., Transport Canada Marine Safety, Health Canada, Environment Canada and others, on the basis of this specification.
- b) All documents produced in the context of the inspections and surveys referred to above and substantiating that they have taken place (e.g., original signed and dated certificates) must be submitted to the TA.
- c) The contractor must not substitute the TA's inspection for regulatory inspections by the TCMS or classification surveys.
- d) The contractor must give prior notice (of at least 24 hours) to the TA before the TCMS regulatory inspections or classification surveys planned so that the TA can be present for the inspection.

Results of tests and data collection

- a) The contractor must develop a testing and trial plan including at least all of the tests and trials mentioned in the specification. This plan must be submitted to the TA for review purposes one week before the start of the work period originally planned.
- b) Any data specific to the trials, measurements, calibration or readings must be recorded, dated, accompanied by the signature of the person who took the measurements, and forwarded to the technical authority and to Marine Safety as a report in hard copy and electronic format.
- c) The data recorded must be accurate to three decimal places (unless otherwise specified) and comply with the measurement system in place on the vessel.
- d) The contractor must provide the TA with valid calibration certificates for all instruments used for the testing and trial plan to prove that the instruments have been calibrated in accordance with the manufacturer's instructions.
- e) Hard copies of reports must be placed in standard three-ring binders, typewritten on letter-size paper and classified by specification number. Electronic copies must be in unprotected Adobe PDF format on CD-ROM. The contractor must provide three paper copies and one electronic copy of all reports.
- f) All documents produced during the contract must be placed in a data collection then submitted to the TA at the end of the contract.
- g) All drawings requested must be produced on ANSI format B (11 in x 17 in) paper or smaller. Three copies must be provided. Drawings must also be forwarded in DWG format (AutoCAD 2000 or more recent version), on CD-ROM, and are not to be password protected. One (1) CD-ROM must be provided.

Material and tools provided by the contractor

- a) The contractor must ensure that all material is new and has never been used.
- b) The contractor must ensure that all replacement products such as sealing components, gaskets, insulation, small hardware items, oils, lubricants, degreasing solvents, preservation agents, paints, coatings, bolts and fastening materials, among others, comply with the drawings, manuals and instructions of the equipment's manufacturer.
- c) When no particular item is specified or when a replacement must be made, the TA must approve the replacement item in writing. The contractor must give the TA details on the material used and the grade and quality certificate of the various materials before use.
- d) The contractor must provide all equipment, devices, tools and machinery, such as welders, cranes, scaffolding and fixtures required to perform the work indicated in this specification.
- e) The contractor must ensure services for removal of waste oil, hydrocarbons and any other hazardous waste or controlled products as part of the work planned under this specification. The contractor must provide certificates of disposal for all waste listed above.
- f) Such certificates of disposal must demonstrate that the disposal has been completed in accordance with federal, provincial and municipal regulations in force.

Material and tools provided by the government

- a) All tools must be provided by the contractor unless otherwise specified in the technical specification.
- b) If the TA provides tools, the contractor must return them in the condition in which they were borrowed. Borrowed tools must be inventoried. The contractor must affix its signature on the inventory statement upon receipt of the tools and when they are returned to the TA.
- c) The contractor must keep all goods supplied by the government in a warehouse or secure storage in a controlled atmosphere, in accordance with the manufacturer's instructions.

Restricted access areas

- a) The contractor must not enter the following areas (except to perform work in accordance with the specification): cabins, offices, workshops, engineer's office, wheelhouse, control room, toilets, kitchen, crew stations, recreation areas or other areas where restricted access is posted.
- b) The contractor must give 24 hours prior notice to the TA when it needs to work in occupied spaces or offices. The CCG will then have sufficient time to move staff and secure the areas.

Contractor inspections and protection of equipment and the workplace

- a) In collaboration with the TA, the contractor must coordinate an inspection of the condition and location of items to be removed before performing the work specified or accessing a location to work on it.
- b) Any damage resulting from the contractor's work and attributable to its performance of the work must be repaired by the contractor at its own expense. Material used for replacements or repairs must comply with the criteria for the material supplied by the contractor, indicated in the section Material and tools provided by the contractor.
- c) The contractor must protect adjacent equipment and areas from damage. Workplaces must be protected against water infiltration, sanding and welding particles, etc. Temporary covers must be installed on workplaces.
- d) The contractor must protect the vessel from infestation by vermin (insects, mammals). If an infestation occurs during the contract period, the contractor must ensure, at its expense, extermination of the vermin prior to the vessel's departure and the end of the contract.

Records of work in progress

The TA may record work in progress by various methods, including photos, digital videos and film.

List of confined spaces

The contractor may request a list of confined spaces in the vessel at the meeting prior to the refit.

Hazardous material

- a) CCG will provide a report of the hazardous material existing onboard the vessel. It is the contractor responsibility to plan the work according to the existing hazardous material.
- b) The contractor must not use any material containing asbestos.
- c) Handling of materials containing asbestos must be performed by personnel trained and certified in the removal of material containing asbestos in accordance with the federal, provincial and municipal regulations in force as well as the Fleet Safety and Security Manual. Such certificates of disposal must demonstrate that the disposal has been performed in accordance with federal, provincial and municipal regulations in force.
- d) The contractor must not use paint containing lead.
- e) In the past, paint containing lead was used to paint CCG vessels. Consequently, some of the contractor's processes, such as grinding, welding and burning, may release the lead content of the paint. The contractor must ensure that analyses are conducted in the work areas to test for the presence of lead in the paint and that the work is performed in accordance with applicable federal and provincial regulations.
- f) The contractor must obtain approval from Health Canada for paint applied to the surface of hulls subject to regulations of Health Canada and the Pest Management Regulatory Agency.

Material and equipment removed

All equipment removed under this specification remains the property of the CCG unless otherwise noted in certain sections of the specification.

Welding certification

- a) For any work requiring fusion welding of steel, the contractor or its sub-contractors must hold certification from the Canadian Welding Bureau in accordance with subsection 2.1 of the most recent version of W47.1-03 standard of the Canadian Standards Association.
- b) For any work requiring fusion welding of steel, the contractor or its sub-contractors must hold certification from the Canadian Welding Bureau in accordance with subsection 16 of the most recent version of CSA\ACNOR AWS standard of the Canadian Standards Association.
- c) For any work requiring fusion welding of steel, the contractor or its sub-contractors must hold certification from the Canadian Welding Bureau in accordance with subsection 2.1 of the most recent version of W47.2 standard of the Canadian Standards Association.
- d) The contractor must provide the technical authority with documents clearly indicating the welding certification for all the employees who will perform all the welding work planned in this specification.

Electrical installations

- a) All electrical installations and repairs must be performed in accordance with the most recent version of Standard TP17E (Transport Canada's Marine Safety Electrical Standards) and Standard 45 of the Institute of Electrical and Electronic Engineers (Recommended Practice for Electrical Installations on Shipboard).
- b) All electronic equipment installations and repairs must be performed in accordance with the Canadian Coast Guard publication on telecommunications and electronics entitled "General Specification for the Installation of Shipboard Electronic Equipment."

Refrigeration and Air Conditioning Systems

- a) Any work on refrigeration and air conditioning systems must be performed in accordance with Sections 2.7 and 2.8 of the *Environmental Code of Practice for Elimination of Fluorocarbon Emissions from Refrigeration and Air Conditioning Systems*.

Tradesmen's competence

- a) The contractor must use qualified tradesmen, certified (where applicable) and competent and supervise them in order to guarantee a high uniform level of performance quality.
- b) The head of inspection may ask to consult and record details of the certification or competence of the contractor's tradesmen. This request must not be exercised unduly, but is only intended to ensure that qualified tradesmen are performing the necessary work.

Shipboard crane

The vessel's crane will be available to perform the necessary handling to load material on board the vessel, but the contractor must submit a request to the Chief Engineer at least 24 hours before the beginning of the handling.

Contractor's crane

It is the contractor's responsibility to verify applicable load restrictions at the dock where the vessel is moored. Slings and lifting gear are to be provided by the contractor.

Electric power and compressed air supply

120 VAC electricity and 120 psi compressed air will be provided by the vessel.

The Canada Shipping Act

All changes and work carried out must be made according to the regulations of the 2001 Act, the Canada Shipping, especially with the regulation on Marine Machinery.

2.0 SERVICES

Lift

- a) The contractor must provide a monthly and weekly price to provide a telescopic lift for crew needs. The lift is to be available for the duration of the work. The lift must have a horizontal reach of at least 135 ft. and a lifting height of at least 80 ft.

Portable toilets

- a) The contractor must provide and transport 6 portable toilets for a 10 days period. The price must include the transportation and the emptying of the toilets. These toilets will be necessary when the engine room staff will be maintaining the vessel's sanitary system.
- b) The toilets are to be set forward of the vessel's gangway.
- c) The toilet must be pumped and cleaned every 2 days.

3.0 LIST OF ACRONYMS

CA	Contracting Authority (PWGSC)
CCG	Canadian Coast Guard
CLC	Canada Labour Code
CSM	Contractor Supplied Material
CSA	Canadian Standards Association
CWB	Canadian Welding Bureau
DFO	Fisheries and Oceans Canada
FSSM	Fleet Safety and Security Manual (CCG)
FSR	Field Service Representative
GSM	Government Supplied Material
GFE	Government Furnished Equipment
HC	Health Canada
IEEE	Institute of Electrical and Electronics Engineers
OL	Overall length
MSDS	Material Safety Data Sheet
OHS	Occupational Health and Safety
PWGSC	Public Works and Government Services Canada
SSMS	Safety and Security Management System
TBS	Treasury Board Secretariat of Canada
TCMS	Transport Canada Marine Safety
TA	Technical Authority – Owner's Representative (CCG)
WHMIS	Workplace Hazardous Materials Information System

4.0 GENERAL INFORMATION ABOUT THE VESSEL

Name: *CCGS Pierre Radisson*

Type: Medium Icebreaker / River

Year of construction: 1978

Shipbuilder: Burrard Dry Dock, Vancouver, BC

Length: 98.33 m

Width: 19.51 m

Draught loaded: 7.16 m

Displacement loaded: 8 090 mt

Power: 11 155 kW

Propulsion: Diesel electric

5.0 PRODUCTION DIAGRAM

Scope

This specification aims to provide the owner's representatives with an accurate schedule of the work and its completion for the needs of the Canadian Coast Guard (CCG).

Technical description

- a) The Contractor must provide three bound copies of a detailed bar chart (Gantt chart type), illustrating the planned schedule of work to refit the vessel. The chart must show each task of the specification with its start date, duration, and planned and actual completion date. An electronic version must also be sent to the Vessel Maintenance Manager and to the contracting authority.
- b) Any critical work path must be indicated, with the critical tasks that risk delaying the refit work if they do not comply with the planned work schedule. These may include problems with manpower or tasks that are unable to be carried out in parallel to other tasks.
- c) In case of work affecting the critical workflow, the Chief Engineer, Vessel Maintenance Manager and PWGSC are to be notified immediately. Every effort must be made to avoid delaying the vessel's refit. Regular quality assurance procedures must be applied.

- d) The bar chart will be updated each week and prior to each production meeting to illustrate actual progress of the refit and changes made to the completion date of each item. The Contractor must include in the updates to the chart any special work requested on PWGSC Form 1379 by indicating the impact this additional work will have on the work schedule.

Proof of performance

All work must be completed to the satisfaction of the Chief Engineer and the Vessel Maintenance Manager.

Deliverables

The Contractor must provide three hard copies of the bar chart to the vessel's Chief Engineer no later than 3 days after contract signature. An electronic copy must also be provided to the contracting authority and the Vessel Maintenance Manager.

6.0 TECHNICAL SPECIFICATION

10. SAFETY AND SECURITY EQUIPMENT

10.1 LIFEBOAT (10-B-01-A)

Scope of work:

Perform annual maintenance and renewal of Gelcoat surfaces.

Reference :

Drawings and photographs

- 9.0 - Radisson_inspect (nov2014)

Technical Description :

Lifeboat particulars :

Make : Watercraft International Ltd

Serial Number : 9213262

Dimensions : 8.5 x 2.75 x 2.35 m

Capacity : 60 persons

Net weight : 4275 kg

Contractor must provide parts and labor to perform the following tasks:

- Check hull for water-tightness, cracks and defects, repair as required.
- Renew gelcoat and restore to the original regulatory orange.
 - Clean surfaces to be repaired with an industrial detergent and T0015 cleaner.
 - Surfaces to be sanded with #320 grit.
 - Air dry and clean with T0015 cleaner.
 - Spray application of primer Awlgrip 545 (2 to 3 coats, 7 @10 mils)
 - If required surfaces may require fairing (epoxy products only)
 - After fairing, coat surfaces with primer Awlgrip 545
 - Note : For small repairs, coat locally only.
 - Surfaces to be sanded with #320 grit and clean afterwards.
 - Apply 3 full coats of awlgrip paint.
- Affix vessel identity markers CGSB and SOLAS reflective tape to entire surface of the hull.
- Hull must be cleaned, coated with UV filter, buffed and waxed.
- Check weather-tightness of all doors, hatches penetrations and accessories. Repair as required.

- f) Check and adjust Shaft seal packing, as required.
- g) Check marine bearing.
- h) Check entire system for oil, fuel, water, coolant and exhaust leaks.
- i) Perform a comprehensive sea trial with members of the ship's crew, to demonstrate the lifeboat is in good working order.
- j) Track humidity levels of the entire lifeboat.
- k) Lifeboat must be delivered to the vessel and launched nearby, in the water and tied-up at a dock, near the ship. After work has been completed, the Lifeboat must be returned to the CCG at the same location. CCG will provide transport cradle.
- l) Contractor must arrange for services of Transport Canada approved firm to inspect and certify Lifeboat and Davit. Supply labour and materials to inspect and certify Lifeboat launching systems. All parts used must be OEM.
 - a. Check protective devices.
 - b. Replace Diaphragm.
 - c. Visual inspection of hooks.
 - d. Functional test of hooks.

Proof of performance

Inspection

All work must be performed to the satisfaction of the Chief Officer.

Certificates

Contractor must submit original certificates to the Chief-Officer for lifting hooks. Electronic version of reports and certificates in PDF format must be given to the Chief-Officer and Vessel Maintenance Manager VMM.

Deliverables

Reports

Contractor must provide a detailed report of work performed, deficiencies noted, corrective actions taken and list of parts replaced.

Contractor must provide a complete inspection report for lifeboat, davit and launching systems.

Contractor must provide original reports and electronic versions in PDF format to the Chief Engineer, and Vessel Maintenance Manager of these reports.

10.2 LIFEBOAT DAVIT (10-B-01-B)

Scope of Work

Inspect and certify Starboard Lifeboat Davit

Référence

- D407928 General arrangement 2 sheets
- S709758 Detail of lower block
- SK604/65203/3 Falls assembly
- S710267 Mounting of limit switch & striker
- D406758 Detail & assembly of winch remote control
- BM902473 General arrangement winch
- BD407932 Sectional arrg't of winch
- D406700 Sectional arrangement of brake unit
- D406761 Sectional arrg't winch
- S709841 Mounting of brake shoes and roller clutch
- S709842 Mounting of brake shoes and roller clutch
- D406757 Detail of davit arm spring assister
- S710340 Dismantling instruction for brake unit

Technical Description

Manufacturer : Schat Davit type SPG(L) 9500/4850 With Electric Winch, type BE8600

Contractor must provide parts and labor to perform the following tasks:

- a) Contractor must supply parts and labour to inspect and certify lifeboat davit.
- b) Precise measurements of all mechanical components must be taken and submitted in the final report. These measurements include those taken on electrical components. This report must also include all certificates and reports from firms specializing in hydraulics, electricity, electric motors, machine shop, paints, coatings, list of parts replaced and a detailed description of work performed. This report, in PDF Format must be given to the Chief Engineer upon completion of the work.
- c) All parts found to be defective or worn beyond tolerances for wear must be replaced by contractor supplied parts (1379 Form).
- d) Contractor must supply scaffolding and crane services. Work can begin as soon as lifeboat has been offloaded by the ship's crew.

- e) Davit will be held in position by the « Harbour Pins » and chains installed by the crew.
- f) Fore and aft wire rope cables will be removed by the Crew before the work is scheduled to begin.
- g) The Davit will be electrically « Locked-out » on the MCC, cmpt#607 . Breaker to be locked out is P437-11. This must be done in presence of the ship's Electrical Officer.
- h) Sheaves and pins must be identified as to their location while dismantling and removing to ensure they will be reinstalled in the same location. Identification must be in accordance with sketch provided. Dismantling and removal of Sheaves and pins must be conducted in such a way, to ensure components are reinstalled in their original location and identified according to the sketch provided.
- i) Welds on the seating must be tested for cracks by magnetic particle, non-destructive testing, NDT, by a specialized firm. Surface preparation must be included in the price. Metal exposed for NDT must receive a minimum of 2 coats of International Interbond 201 low temperature, Red (KDL274/A5GL), minimum dry thickness per coat of 6 mils (8.1 mils wet), in accordance with instructions from the supplier/manufacturer.
- j) Each pulley and sheave must be sanded to enable a visual inspection. All grease channels must be cleaned of old grease and proven free. All sheaves must receive one coat of Interprime 234 (CPA234) erd primer (dry thickness per coat 2 mils (3.4mils wet)), one coat of Interprime 234 ,color (CPA235) white (épaisseur sec par couche de 2 mils (3.4mils wet)) and one coat of Interlac 665 (RAL9003) CCG White (dry thickness per coat of 1.6 mils (3.3 mils wet)) in accordance with instructions from the supplier/manufacturer.
- k) All mechanical components must be tested for cracks using dye penetrant.
- l) All pulleys must be inspected and measured. Special care must be taken to inspect surface in contact with wire cable. Measurements must be taken in the presence of CCG representative.
- m) Bronze bushings, pins and grease passages must be thoroughly cleaned and inspected. Measurements must be taken in the presence of CCG representative. Results from this inspection must determine which parts must be replaced. Parts to be replaced will be dealt with using the PWGS 1379 form.
- n) Gearbox must be removed from vessel and brought to the contractors facilities for complete disassembly. Lubricant must be removed and disposed in accordance with environmental regulations. All parts must be thoroughly cleaned. Gears and worm-wheels must be checked for cracks and wear. Shafts must be inspected for wear and trueness. Bearings and gaskets must be replaced. Measurements must be taken in the presence of CCG representative. Parts to be replaced will be supplied by the contractor and dealt with using the PWGS 1379 form. Gearbox must be fully reassembled and filled with CCG supplied Mobil SHC-629.
- o) Electric motor must be sent to a specialized firm to be cleaned and overhauled. Contractor must provide a detailed list of work performed and parts replaced. All bearings must be replaced with

high quality, sealed, SKF Bearings. Parts to be replaced will be supplied by the contractor and dealt with using the PWGS 1379 form.

Motor manufacturer :	
Frame size :	XVF 160 M04
RPM	1800
Volt/ph/Hz :	440/3/60
Enclosure :	IP 56 Fanless
Bearings :	D.E. 6208/C3 N.D.E. 6206/C3

- p) Brake must be overhauled, parts and linings to be renewed. Parts to be replaced will be supplied by the contractor and dealt with using the PWGS 1379 form. Prior to reassembly all parts must be shown to CCG Representative.
- q) Perform reassembly and electrical connection of components in accordance with the manufacturer's instruction manual.
- r) New cables and wire ropes will be CCG supply and installed by the ship's crew.
- s) All greasing points must be checked and lubricated using, contractor supply grease (Petro-Canada PXL2C30, Precision XL EP2).
- t) A second greasing of all points must be performed in the presence of CCG representative while components are in movement.
- u) All fasteners, bolts, nuts, washers from the seatings must be replaced with new, of same size, Grade 5 minimum.

Proof of performance

Inspection

Contractor must prepare and submit an inspection schedule to the Chief Engineer. All work must be carried out to the satisfaction of the Chief Engineer.

Trials

After reinstallation of all parts and components, contractor must perform necessary adjustments for correct operation of davit. Contractor must demonstrate to the Chief Engineer, davit is operating correctly. Contractor must perform static and dynamic tests at 110% SWL in the presence of Chief Officer. Weights must be provided by the CCG

Certificates

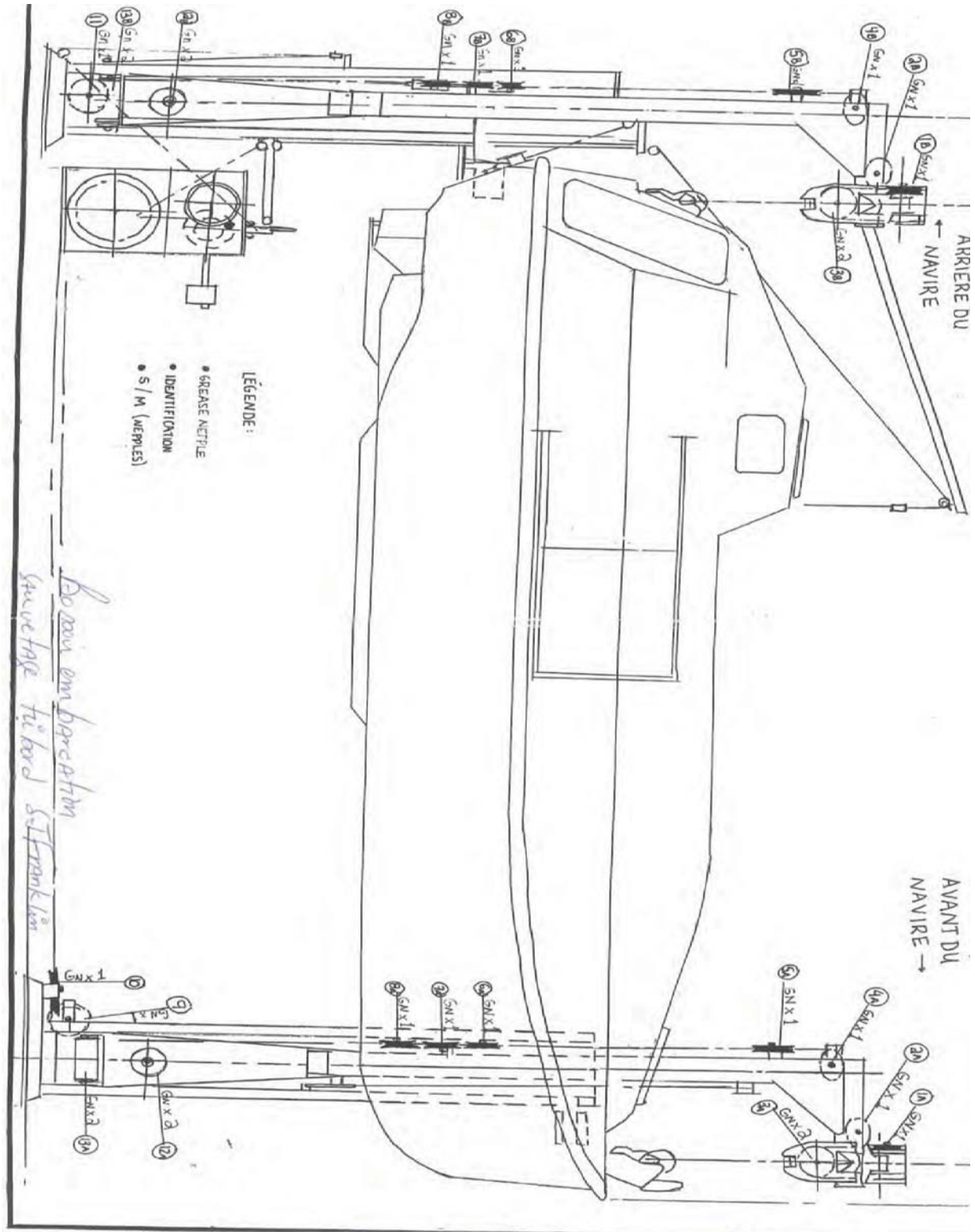
Contractor must provide an inspection certificate (T2) to the Chief Engineer.

Contractor must provide an original copy of the magnetic particle inspection certificate. Contractor must provide electronic copies of certificates for the Vessel Maintenance Manager.

Deliverables

Report

Contractor must provide an inspection certificate to the Chief engineer, in print and in electronic format (.pdf). Report must contain all readings, measurements taken, all work performed, results from non-destructive testing and all parts replaced. Electronic copy of this report must be sent to the Vessel Maintenance Manager.



10.3 FIRE FIGHTING SYSTEM (10-E)

Scope of work

Inspect and perform annual maintenance of shipboard firefighting system in accordance with Transport Canada Regulations.

References

Drawings, service manuals or photographs

- Inspection list
- 06418-20 Fire-fighting plan
- F-3756-06M008.pdf DWG #3 CO₂ Smothering systems (2008)
- F-3756-06M008-001-QCC.pdf CO₂ Fire extinguishing systems

Description technique

Fixed CO₂ Smothering systems (10-E-01)

Contractor must provide parts and labor to perform the following tasks:

- a) Check system for proper operation of timers, visual indications, audible alarms and the ship's ventilation shut-downs. CO₂ cylinders must be disconnected to avoid accidental discharge of CO₂ gas. Piping must be blown-through and proven free, using compressed air, nitrogen or other inert gas.
- b) At the start of each day, contractor must have sufficient reserves of compressed gas to perform all tests and inspections for that day, to avoid delays. Contractor must provide manpower to rearm system and perform trials at the same time. Contractor must coordinate trial and inspection period with Chief Officer.
- c) Contractor must demonstrate that all nozzles and conduits are free from obstruction. This may require dismantling and blanking of certain sections of piping. Each system must be reassembled and restored to its original configuration at the end of each day.
- d) Contractor must inspect all local and remote actuation devices, time delays and temperature rise actuators.
- e) Contractor must ensure all hoses and flexible connections between bottles and distribution network are gas-tight.
- f) All bottles must be checked for liquid level and marked accordingly.
- g) It is understood that firefighting equipment must remain accessible and available in case of emergency. Adequate precautions must be taken when using hot work to perform inspection.
- h) In every case, where a fixed firefighting cylinder is found defective, charged below its nominal capacity or requires hydrostatic testing, contractor is responsible for removal from vessel, perform necessary maintenance, return to its original position and re-connected. Parts to be replaced will be supplied by the contractor and dealt with using the PWGS 1379 form.

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- i) All systems must be identified with tags bearing the contractor's name, date and initials of person performing inspection.
 - j) No fixed CO₂ cylinder must be tested hydrostatically.
 - k) Contractor must provide personnel with valid enclosed space training. This is a requirement to enter the Helicopter Fuel Tank cofferdam. One 2 foot section of pipe in that compartment is not the correct type. It must be replaced with the correct piping, Sch 300 (Extra heavy).
 - l) Hydraulic calculation of the Helicopter Fuel Tank Cofferdam smothering system must be checked. Contractor must provide written report containing calculations.
 - m) All piping between bottles and Helicopter Fuel Cofferdam must be replaced to conform to approved plans. The fuel dispensing cabinet must be proven gas-free/safe for hot work. Through-hull or bulkhead fittings (2) and support brackets must be replaced. New galvanized piping must receive one coat of Galvacon and two coats of signal red paint. New piping must be of correct size and type Sch 300 (Extra-Heavy). Piping must be replaced, blown through and proven free of debris and mill scale. Piping must be tested hydrostatically in accordance with applicable regulations. The contractor is responsible for contacting Transport Canada, Marine Safety, for Installation approval by a Transport Canada Marine Safety Inspector.

Galley, Fixed Fire Extinguishing Pero-chem PCL 300 (10-E-01-B-01#28)

Contractor must provide parts and labor to perform the following tasks:

- a) Contractor must perform annual inspection of Galley Fixed Fire Extinguishing system. Work must be performed between 13h30 and 15h30.
- b) Contractor must check ventilation shut-downs, visual alarms and fusible links for correct operation.
- c) Contractor must check local, remote and automatic triggering devices.
- d) Contractor must check cylinder for level of extinguishing agent and date of most recent hydrostatic test.
- e) If system cylinder needs to be removed for inspection, testing of refilling, it must be replaced with a cylinder compatible with the system in place, until original cylinder can be re-installed. Parts to be replaced will be supplied by the contractor and dealt with using the PWGS 1379 form.
- f) Upon completion, new tags bearing the contractor's name, date and initials of person performing inspection must be affixed to the system.

Flight Deck Fire Extinguishing System (10-E-01-E#01 et #02)

Contractor must provide parts and labor to perform the following tasks:

- a) Contractor must perform annual inspection of Flight Deck fire extinguishing system: FireCombat & Minuteman
- b) Contractor must provide containers and draw a sample of AFFF Foam from the Minuteman system, the FireCombat System and one from each lot of spare foam, as identified by the Chief Officer. Results from the analysis of these samples must be given to the CCG.
- c) Contractor must ensure, powder from the Minuteman system has not been compacted due to the ship's vibrations. If compaction is noticed, contractor must advise Chief Officer.
- d) Technical Information :

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- 1) Fixed System MinuteMan : Foame (container below nozzle)
 - 2) Fixed System FireCombat : Powder (aft container) and foam (forward container)
 - 3) Inventory of spare extinguishing agent :
 - i. 1 container Angus Tridol 3% (AFFF), Helicopter Workshop.
 - ii. 4 containers Ansul-lite 3%, Helicopter Workshop.
 - iii. 2 containers Angus Tridol 3% (AFFF) Motor Propulsion Room.
 - iv. 13 containers Angus Tridol 3% (AFFF) Bosun's Store
 - v. 1 container Ansul-lite 3% (AFFF) Bosun's Store

Portable Fire Extinguishers (10-E-02)

Contractor must provide parts and labor to perform the following tasks:

- a) Contractor must perform annual inspection of all portable fire extinguishers aboard the vessel according to list provided. Inspection must be performed aboard the vessel. Date and time must be coordinated with Chief Officer. Chief Officer must be advised if any extinguishers must leave the vessel.
- b) Each fire extinguisher must be removed from its wall support and inspected for anomalies. Pressure gauge and date of most recent hydrostatic test must be checked.
- c) *All cartridges on powder extinguisher must be verified and weighted.*
- d) All extinguishers must be identified with tags bearing the contractor's name, date and initials of person performing inspection.
- e) Contractor must repair and recharge all extinguishers found defective, below nominal charge and perform hydrostatic testing if required. The contractor must remove the extinguishers from the vessel, transport to his facility and transport back to be ship and install in the original location. Parts to be replaced will be supplied by the contractor and dealt with using the PWGS 1379 form.
- f) Contractor must provide replacement CO2 extinguishers during hydrostatic testing, in absence of the ship's extinguishers.
- g) Firefighting equipment must remain available in case of emergency. Adequate precautionary measures must be taken during hot work to complete inspection.
- h) One Foam Extinguisher, Type K requires hydrostatic testing and refilling.
- i) Sixteen (16) CO₂ extinguishers require hydrostatic testing and refilling.
- j) When inspection is complete, (Date stamp), all extinguishers will have received necessary maintenance, and hydrostatic testing for them to be certified for 1 full year, until the next inspection, the following year.

Proof of performance

Inspection

All work carried out must be to the satisfaction of the Chief Officer. Chief officer, or delegated officer must be present during inspections.

Trials

Equipment must be proven operational to the Chief Officer.

Certificates

Contractor must provide two paper copies along with the original certificate, to the Chief Officer. Electronic copies in PDF format must be sent to the Vessel Maintenance Manager. All deficiencies noted must be resolved before the end of the contract. Corrective actions and parts to be replaced will be supplied by the contractor and dealt with using the PWGS 1379 form.

Deliverables

Report

Contractor must provide a written report describing in detail all work performed the causes of noted deficiencies, corrective actions taken and parts replaced. Contractor must provide the report in electronic format (.pdf), to the Chief Engineer and to the Vessel Maintenance Manager.

11. HULL AND STRUCTURE

11.1 RATIONAL OVEN (11-H-04-D-02#01)

Scope of work

Replace Alto-Shaam oven by Rational oven.

Référence

Alto-Shaam Instruction manual.

Rational Instruction manual.

Technical Description

Contractor must provide parts and labor to perform the following tasks:

- a) Works must be carried out at night, after 18h00. No work will be done during normal galley hours (06h00-18h00). Galley must be left in the level of cleanliness for the galley to remain operational. Contractor to protect the space and to remove that protection daily.
- b) Alto-Shaam Model:10.10 ML must be locked-out electrically by the contractor and by the ship's Electrical-Officer. Electrical connections will be performed by the ship's Electrical Officer.
- c) Alto-Shaam oven must be disconnected and disassembled to remove from the galley.
- d) Contractor must hire a firm, specializing in this type of equipment. Alto-Shaam oven must be disassembled for removal from the ship and reassembled afterwards. Oven must be in good working order and operational after reassembly. Oven is going to PWGS Crown Assets to be sold. Contractor is responsible for transporting the Alto-Shaam oven from galley to aft store-room. CCG will handle further transportation from that point on.
- e) CCG will deliver Rational oven to the Aft Store-room, in its original crate. Contractor is responsible for un-crating the oven and carrying it to the galley for installation. Contractor must dispose of crate and packaging material.
- f) Rational Model SCC-SENSES-062. Will require partial dis-assembly in order to be transported to the galley where it will be installed in the same location as the Alto-Shaam oven. This partial disassembly will be performed by a contractor, recommended by "La Maison Rondeau" which is providing the new device. This recommendation is crucial in order to maintain warranty coverage. The recommended contractor must reassemble in the galley.

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- g) Contractor must install equipment on the counter. Rational oven must be securely fastened to the counter to resist ship's movements and vibrations.
 - h) Contractor must connect Rational oven to ship's plumbing.
 - i) Contractor must connect the oven's exhaust via a flexible conduit and stainless steel duct, to the ship's main range hood. This conduit must be well supported and installed above ceiling tiles. Contractor must preserve ceiling tiles from damage.
 - j) Commissioning of this equipment must be performed by the firm recommended by « La Maison Rondeau ». This firm will also provide basic training in the operation and maintenance of the equipment, to the galley staff.

Proof of performance

Inspection

All work must be to the satisfaction of the Chief Engineer.

11.2 DISH-WASHER (11-H-04-E-01)

Scope of work

Install Hobart model LEXH in galley

Reference

Hobart Dishwasher manual

Technical Description

Contractor must provide parts and labor to perform the following tasks:

- a) Works must be carried out at night, after 18h00. No work will be done during normal galley hours (06h00-18h00). Galley must be left in the level of cleanliness for the galley to remain operational. Contractor to protect the space and to remove that protection daily.
- b) CCG will deliver equipment to the Aft Store-room, in its original crate. Contractor is responsible for un-crating and carrying it the galley for installation. Contractor must dispose of crate and packaging material.
- c) Contractor must install equipment below the counter in the corner by the sinks. Two (2) counter supports must be relocated. Contractor must install equipment on the counter. Rational oven must be securely fastened to the counter to resist ship's movements and vibrations.
- d) Contractor must fabricate and install support brackets for electrical transformer feeding power to the dishwasher. The transformer must be positioned in the same area as the dishwasher, but above the ceiling tiles. Insulation must be removed and reinstalled. Contractor must preserve ceiling tiles from damage.
- e) Contractor must connect dishwasher to the ship's plumbing. Water lines must be fitted with ball valves for isolation.
- f) Electrical connections will be performed by the ship's Electrical Officer.
- g) Commissioning of this equipment must be performed by the firm recommended by supplier. This firm will also provide basic training in the operation and maintenance of the equipment, to the galley staff.

Proof of performance

Inspection

All work must be to the satisfaction of the Chief Engineer.

11.3 LAUNDRY EQUIPMENT (11-H-04-B)

Scope of work

Replace laundry equipment with equipment supplied by CCG.

Reference

Instruction manual for new equipment

Instruction manual for existing equipment.

Technical Description

Contractor must provide parts and labor to perform the following tasks:

Equipment to be removed and offloaded:

- 11-H-04-B-01, Industrial washer, Milnor Model : 73281 **Functional**
- 11-H-04-B-02, Industrial dryer: HUEBSCH model: 30BE Série: TT-C-174431-GM, 230 vac, 3 ph, 21 Kw. Size: 30 X 30. **Functional**

Equipment to be installed:

- Industrial Washer : IPSO model ICN030 capacity 30 lbs, 220 V 1 ph
 - Industrial dryer : IPSO model IT030 capacity 30 lbs with electronic timer 220 V 60 Hz 3 ph
- a) Equipment must be locked-out electrically by the contractor and by the ship's Electrical-Officer. Electrical connections will be performed by the ship's Electrical Officer.
 - b) Equipment to be removed must be disconnected and disassembled for removal from laundry compartment.
 - c) Contractor must install lifting points for the safe handling of the equipment. Any damaged insulation will be replaced by the contractor. Contractor must preserve ceiling tiles from damage.
 - d) Contractor must hire a firm, specializing in this type of equipment. Equipment must be disassembled for removal from the ship and reassembled afterwards. Equipment must be in good working order and in its original state after reassembly. Equipment is going to PWGS Crown Assets to be sold. Contractor is responsible for transporting the equipment to the forward hold. CCG will handle further transportation from that point on.

- e) CCG will deliver equipment to the Forward Hold, in its original crate. Contractor is responsible for un-crating and carrying it the Laundry compartment for installation. Contractor must dispose of crate and packaging material.
- f) New equipment will require partial dis-assembly in order to be transported to the laundry compartment where it will be installed in the same location. This partial disassembly must be performed by a contractor, recommended by the supplier of the new equipment. This recommendation is crucial in order to maintain warranty coverage. The recommended contractor must reassemble the equipment in the laundry compartment.
- g) Seating must be modified to receive new appliances. CCG will require 2 days after modification of the seating to paint them. Contractor must preserve adjacent flooring from damage.
- h) Install appliances on new seating. Equipment must be securely fastened to the seating to resist ship's movements and vibrations.
- i) Make necessary modifications and connect to ship's plumbing.
- j) Dryer Exhaust must be connected using rigid ducting of same type already in service.
- k) Commissioning of this equipment must be performed by an authorized supplier. This firm will also provide basic training in the operation and maintenance of the equipment, to the ship's staff.
- l) Contractor must protect the space from damage and remove that protection upon completion.
- m) Contractor must leave the Laundry compartment at its original the level of cleanliness.

Proof of performance

Inspection

All work must be to the satisfaction of the Chief Engineer.

11.4 STARBOARD ACCOMMODATION LADDER (11-K-03-E)

Scope

Perform Quadrennial inspection of Starboard Accommodation ladder.

Technical Description

Model : Marine Aluminium Type DA10R

Contractor must provide parts and labor to perform the following tasks:

- a) Supply parts and labor to perform repair, inspect and certify ladder.
- b) Precise measurements of all mechanical components must be taken and consigned for the final report. All defective parts, or parts showing excessive wear must be replaced by equivalent, contractor supplied parts. Parts replaced must be noted and listed in the final report. Corrective actions and parts to be replaced will be supplied by the contractor and dealt with using the PWGS 1379 form.
- c) Ladder must be locked out electrically on MCC located in the Scuba Compressor Compartment. The breaker to be isolated is P-436-7. This work must be carried out with the ship's electrical Officer Supervision.
- d) Contractor must provide crange and proceed with the removal of the starboard accommodation ladder.
- e) Dismantle and remove cable. New cable (115' X 3/8'', C/A, Stainless Steel 304, 7 x 19, one end E/M crimp other end free) will be supplied by CCG and installed by the contractor.
- f) All electrical connections and disconnections must be performed by a certified electrician.
- g) Ladder must be transported to contractor's facility for complete inspection by the Inspection Authority. Corrective actions and parts to be replaced will be supplied by the contractor and dealt with using the PWGS 1379 form.
- h) Contractor must identify and dismantle pulleys, sheaves, bushings and pins. All parts will be cleaned and prepared for inspection.
- i) Each pulleys must be sanded to permit visual inspection. All grease passages must be cleaned. Pulleys must be coated according to the vessel's paint scheme: 2coats of Interprime 234, red (CPA 234) dry thickness 2 mils(3,4 mils wet) and one coat of Interlac 665 (RAL3000) Coast Guard Red dry thickness 1.6 mils (3,3 mils wet) in accordance with coating supplier's procedures.
- j) All pins and bushings must be checked for cracks using dye penetrant. All pins, hubs and bushings must be measured.

- k) Check condition, connections and correct operation of limit switches.
- l) Ladder must be reassembled and greased using contractor supplied Petro-Canada PXL2C30, Precision XL EP2
- m) All components disassembled must be reassembled using new fasteners, nuts and washers.
- n) Contractor must provide crange for reinstallation of accomodation ladder. Contractor must demonstrate ladder is in good working order.
- o) Contractor must perform a second lubrication while ensuring parts are in movement during lubrication.

Proof of performance

Inspection

Components must be inspected and trials performed in the presence of Transport Canada Marine Safety Inspector. All work must be to the satisfaction of the Chief Engineer.

Contractor is responsible for coordinating inspections with the different Inspection Authorities of Transport Canada Marine Safety.

Trials

After reinstallation of all components, contractor must make all necessary adjustments. Contractor must prove to the Chief Engineer that ladder is fully operational. Contractor must perform a functional load test at 110% for Transport Canada Marine Safety Inspector. CCG will supply weights for the load test.

Certification

Contractor must supply Transport Canada certificate (T2) for lifting apparatus to the Chief Engineer.

Contractor must send electronic version (.pdf) of the certificate, to the Vessel Maintenance Manager.

Deliverables

Rapport

Contractor must provide a written report describing in detail all work performed the causes of noted deficiencies, corrective actions taken and parts replaced. Precise measurements of all components will be taken and will be recorded in a final report. Contractor must provide the report in electronic format (.pdf), to the Chief Engineer and to the Vessel Maintenance Manager.

11.5 BEAM AND LIFTING GROMMETS (17-J-03-G)

Scope

Upgrading (bring up to standard) of the beam and (2) lifting grommets.

References

- **NT-2604-15-DE500A** Poutre de levage 3T dans la cheminée
- **NT-2604-15-DE501A** Œillets de levage 3 T à l'intérieur du compartiment 420

Regulations

- Canada Shipping Act and Regulations

Standards

- "Code for lifting appliances in a marine environment, January 2003" Chapter 9 of Lloyd's register.

Equipment provided by the contractor

- Unless otherwise stated, the Contractor must provide all materials, all steel, all equipment, all tools, all scaffolding, all lifting equipment, all the insulation, and all the parts needed to the achievement of specified work.
- All steel must be of grade and scantling as specified on the plans. The Contractor must provide certificates of steel used to the chief engineer.

Technical description

General:

Contractor must provide parts and labor to perform the following tasks:

- a) Before starting work, the contractor must install platforms and scaffolding to do the work. This equipment must be removed at the end of the work.
- b) Before starting hot work, the floor and walls of the premises must be protected by the Contractor with protective covers against sparks and molten metal hot work. The Contractor must remove and dispose of the protection after the work.

- c) The Contractor must remove the insulation and the mesh carefully so that it may be reinstalled after acceptance of the work.
- d) The weight for the tests will be provided by the CCG.
- e) After mechanical cleaning, all items affected by the work will be painted with a primer Interprime 234 (CPA234) red (dry layer thickness of 2 mils (wet 3.4mils)), a primer Interprime 234 color (CPA235) white (dry layer thickness of 2 mils (3.4mils wet)) and a coat of paint Interlac 665 (RAL9003) white GCC (dry layer thickness of 1.6 mils (3.3 mils wet)) according to the manufacturer's instructions. The paint finish is not necessary under the insulation. For outdoor decks, the metal exposed, apply at least two coats of paint International Interbond 201 low temperature red (KDL274 / A5GL) of a dry layer thickness of 6 mils (8.1 mils wet) as directed by the provider. The paint finish for premises above the beam is Interlac 665 Grey French CLJ724. All paint work above must be performed by the Contractor and the paint will be provided by the CCG.
- f) The contractor must give in the same state of cleanliness of the premises affected by the work.

3 tons Lifting beam in the Chimney



- a) Contractor must perform the upgrading of the lifting beam located near the entrance to the engine room on the upper deck as instructed by the terms of Navtech company. NT-2604-15-DE500A 3T lifting beam in the Chimney.
- b) Contractor must remove and send to a specialized company, the hoist / trolley 3 tons manufactured by the company Wright, for review, verification and certification, also at Contractor expenses. Any defective parts will be handled by the PWGSC 1379 Form. Provide the audit report and certificate. Bring back and reinstall after completion of work.



- c) Contractor must weld the brackets according to the instructions of the plan.
- d) Contractor must hire a specialized firm to check the ultrasonic welds and provide the audit report.
- e) Contractor must perform load test as specified on the plan.
- f) Contractor must indicate the SWL 3000 kg "Strength Vertical Downlink only" with black paint on the beam as specified by the plan.
- g) Contractor must supply and install as per required on the plan, the permanent mark near the beam at a location specified by the chief engineer.
- h) Contractor must provide and install a retainer of the load as specified on the plan.

3 ton lifting eyes in compartment 420



- a) Contractor must replace two (2) lifting eyes located inside the compartment 420 as instructed by the terms of Navtech company. NT-2604-15-DE501A lifting eyelets T 3 inside the compartment 420.
- b) The room will be pre-empted by the ship's crew.
- c) Contractor must remove old grommets and disposed.
- d) Contractor must build and install new grommets and the structure required by the plan.
- e) Contractor must hire a specialized firm to check the welds ultrasonically and provide the audit report.
- f) Contractor must perform load test as specified on the plan.
- g) Contractor must indicate the SWL 3000 kg "Strength Vertical Downlink only" with black paint on the beam as specified by the plan.
- h) Contractor must provide and install permanent mark required on the plan near the grommets at a location specified by the chief engineer.

Proof of Performance

Inspection

All work must be completed to the satisfaction of the Chief Engineer

Trials

The chief engineer must be present during inspections and testing.

Certification

Provide an inspection certificate to the chief engineer.

Provide original certificates of inspection by magnetic particles.

Provide the report and certificate of inspection and the hoist / trolley test

The contractor must also send an electronic copy of certificates responsible for the maintenance of the ship.

12. PROPULSION AND MANOEUVERING

12.1 EXHAUST FLEXIBLE INSULATION (12-A-03-A-07)

Scope

Fabrication and installation of insulating blankets on propulsion diesel exhaust piping DP (12-A-03 to A-07) and on Boiler exhaust (15-P-02-C-01).

Reference

Photo

Description technique

Contractor must provide parts and labor to perform the following tasks:

- a) Remove insulating blankets on 6 propulsion diesel silencers and on boiler uptakes.
- b) Fabricate new insulating blankets en the following sizes and quantities. Measurements' will be double-checked by the contractor.
 - a. Six (6) sets of blankets for exhaust silencers DP 1, 2, 3, 4, 5, 6. Maxim silencers model MSA-2, diameter, 54" dia. x 161" long with de 22" dia inlet and outlet. Silencers are from the original outfit and date back to 1978 (Located on same deck as Static Inverter cmpt.)
 - b. Two (2) sets of insulating blankets for Sunrod boiler top which include blanket covering access cover for smoke tube, contour of access and exhaust piping from boiler up to section of fixed insulation on boiler uptake (White).
- c) Insulating Blankets ISOTEX-GM3200
 - i. – Inner lining, High temperature fiberglass.
 - ii. – Secondary inner lining, Stainless Steel mesh.
 - iii. – Insulation : 2x1'' High-Density fiberglass (glassmat)
 - iv. – Outer lining : Fiberglass cloth, 32 oz. Impregnated with silicone.
 - v. – Accessories: hooks, grommets, stainless steel wire and fiberglass rope.
- d) Dispose of old blankets in accordance with environmental regulations.
- e) Contractor must provide and install scaffolding, for work aloft. Silencers are tall and access is difficult. Remove scaffolding after completion of work.
- f) Velcro fasteners are not acceptable.

Proof of performance

Inspection

All work must be to the satisfaction of the Chief Engineer.

15. AUXILIARY SYSTEMS

15.1 FUEL TRANSFER HOSES (15-F)

Scope

Perform inspection and certification of fuel transfer hoses.

Technical description

Contractor must provide parts and labor to perform the following tasks:

- a) Provide parts and labor to inspect and perform hydrostatic test on 9 fuel transfer hoses. (Diesel and Jet A-1.
- b) Hoses must be capped. Presence of fuel must be disposed of and dealt with using PWGSC 1379 form.
- c) Hoses for fuel transfers :
 - a. Diameter 1-½ inch.
 - i. G130601 100 feet, 150 lbs/in² R1505-A G130601(Kérosène Jet A-1)
 - b. Diameter 2 inch.
 - i. 1699, 50 feet, 150 lbs/in² (black)
 - ii. 7810-7, 50 feet, 150 lbs/in² (black)
 - c. Diameter 4 inch.
 - i. S-143 SBQ-P331, 50 feet, 150 lbs/in²
 - ii. 7810-5, 50 feet, 150 lbs/in² (Peraflex rede + grounded)
 - iii. Q2331, 50 feet, 150 lbs/in²
 - iv. Q2316, 50 feet, 150 lbs/in²
 - d. Diameter 1 inch.
 - i. Q2270, 100 feet, 150 lbs/in²
 - ii. Q2271, 100 feet, 150 lbs/in²

Proof of performance

Certification

Provide individual certificates for each hose, identifying the firm performing the inspection, certificate number, name and signature of technician.

Deliverables

Report

Contractor must provide a written report describing in detail all work performed the causes of noted deficiencies, corrective actions taken and parts replaced. Contractor must provide the report in electronic format (.pdf), to the Chief Engineer and to the Vessel Maintenance.

16. DOMESTIC SYSTEMS

16.1 REFRIGERATION SYSTEMS (16-K-02) AND AIR CONDITIONING SYSTEMS (16-F-04)

Scope

Perform annual inspection and maintenance of refrigeration and air conditioning systems.

Reference

Drawing, instruction manuals.

- 8.0 - Picture

Regulations

- Canada Shipping act and regulations
- Federal Halocarbon regulations, 2003
- Environmental Code of Practice for Elimination of Fluorocarbon Emissions from Refrigeration and Air Conditioning Systems, Environment Canada

Technical description

CARGO AND DOMESTIC REFRIGERATION (16-K-02)

Domestic refrigeration compressor model, Emerson Copeland scroll ZF41K5E-TFD-260, Cargo refrigeration model Emerson Copeland scroll ZF25K4E-TFD-261. These systems operate with R-507A.

Contractor must provide parts and labor to perform the following tasks:

- a) Perform complete inspection of systems.
- b) Perform refrigerant leak test. All piping must be checked for leaks, including piping in ceiling, on main deck. Check system for gas tightness. Contractor must preserve ceiling tiles from damage, during removal, storage and reinstallation. Systems presently have no known leaks.
- c) Clean and inspect evaporator units and defrosting systems.
- d) Check evaporator drains, heating cables and drains. Ensure drains are free. Repair insulation upon completion.
- e) Refrigerant, if required will be supplied by the contractor and dealt with using PWGS 1379 form. Provide a price for 13,6 kg bottle.
- f) Check all operating parameters.

AIR CONDITIONNING SYSTEMS 2, 3, and 5 (16-F-04-A)

Compressor model Units 2, 3 and 5 Carrier 5H40-60. These systems operate on R-22.

Contractor must provide parts and labor to perform the following tasks :

- a) Perform complete inspection of systems.
- b) Perform oil change, clean and inspect compressor crankcase. Oil type : *Type C*
- c) Replace dryers. RC-4864 (2 per unit)
- d) Replace external oil filter on units 2, 3 and 5. No Filter 05HC660020.
- e) Perform refrigerant leak test. There are no known leaks.
- f) Refrigerant, if required will be supplied by the contractor and dealt with using PWGS 1379 form.
Provide a price for 13,6 kg bottle.
- g) Check all operating parameters.
- h) Perform system startup.
- i) Make necessary adjustments.

Proof of performance

Inspection

All work must be to the satisfaction of the Chief Engineer.

Trials

The Chief Engineer or his delegate must be present to witness trials.

Certification

Provide original, individual certificates for each system, identifying the firm performing the inspection, certificate number, name and signature of technician. Contractor must provide the originals certificate to the Chief Engineer and also electronic format (.pdf), to the Chief Engineer and to the Vessel Maintenance Manager.

Deliverables

Rapport

Contractor must provide a written report describing in detail all work performed the causes of noted deficiencies, corrective actions taken and parts replaced. Contractor must provide the report in electronic format (.pdf), to the Chief Engineer and to the Vessel Maintenance.

17. DECK EQUIPMENT / SHIP SUPPORT SYSTEMS

17.1 ELEVATOR AND DUMB-WAITER (17-C-04)

Scope

Annual inspection and maintenance for recertification and effective life extension of this equipment.

Reference

Instruction manuals or photo

- 7.0 - Picture

Regulations

- Canada Shipping Act and regulations

Standards

- CAN/CSA-B44-M90, section 12

Technical description

Equipment particulars :

, Elevator (17-C-04-B):

Make : Montgomery Elevator Co. Ltd.

Capacity 600 lbs

Speed, 100 ft/min

Dumb-waiter (17-C-04-C):

Make : Montgomery Elevator Co. Ltd.

Capacity 250 lbs

Speed 50 ft/min

Contractor must provide parts and labor to perform the following tasks :

- a) Provide parts and labor to perform inspection and annual maintenance of the ship's elevator and dumb-waiter in accordance with section 12 of CAN/CSA-B44-M90 norms.
- b) Most recent 5-yearl inspection, 2013
- c) Upon completion of tasks, update maintenance register for each equipment.
- d) Tasks to extend elevator life by 15 years :

Provide parts, material, labor, engineering and supervision to perform the following tasks, during normal work hours for the elevator industry:

- Remove mechanical re-opening device and associated equipment, presently in service.
- Supply and install new transmitter-receiver units;
- Install electrical power supply on roof of elevator and connect to transmitter-receiver units.;
- Proceed with all tasks to interface with door operator presently in service ;
- Supply and install new replacement regulating cables for cabin and counter-weight : check for proper operation;
- Replace 12 counter-weight roller guides with new.
- Replace 8 interlock rollers for floor doors..
- Perform inspection and trials to ensure proper operation, and put unit back in service.

e) Tasks to extend dumb-waiter life by 15 years :

- Replace traction câble.

f) Contractor must, within a 3 day period following the inspection, provide an inspection certificate for each unit proving compliance with the norm and include all tasks and inspections listed above.

Proof of performance

Inspection

All work must be to the satisfaction of the Chief Engineer.

Trials

Chief Engineer must witness all inspections and trials.

Certificates

Provide original, individual certificates for each system, identifying the firm performing the inspection, certificate number, name and signature of technician. Contractor must provide the certificate originals to the Chief Engineer and also electronic format (.pdf), to the Chief Engineer and to the Vessel Maintenance Manager.

Deliverables

Report

Upon completion, contractor must provide a written report describing in detail all work performed the causes of noted deficiencies, corrective actions taken and parts replaced. Contractor must provide the report in electronic format (.pdf), to the Chief Engineer and to the Vessel.

17.2 STARBOARD WORK BARGE DAVIT (17-D-01-A)

Scope

Perform inspection and certification of starboard work barge davit.

Reference

- Welin Davit 1 Pour Robert voir photos devis automne 2015
- Welin Davit 2
- 1785-A-01

Technical description

Contractor must provide parts and labor to perform the following tasks:

- a) Provide parts and labor to perform tasks required for inspection and certification.
- b) Precise measurements of all mechanical components must be taken and submitted in the final report. These measurements includes those taken on electrical components. This report must also include all certificates and reports from firms specializing in hydraulics, electricity, electric motors, machine shop, paints, coatings, parts replaced. Detailed description of work performed. This report, in PDF Format must be given to the Chief Engineer upon completion of the work.
- c) All parts found to be defective or worn beyond tolerances for wear must be replaced by contractor supplied parts Contractor must quote a price for replacement of 8 pins, 4 sheaves and 8 bushings.
 - a. Pins : diameter 3 in., length 6 in.
 - b. Sheave : diameter 12 in
 - c. Bushing : Length 2 ¾ in , thickness : ½ in
- d) Contractor must provide crantage and scaffolding.
- e) Work can begin after crew has offloaded work barge.
- f) Fore and Aft cables will be removed by the crew, before work begins.
- g) The Davit will be electrically « Locked-out » on the MCC, scuba cmpt. Breaker to be locked out is P436-14. This must be done in presence of the ship's Elctrical Officer.
- h) Sheaves and pins must be identified as to their location while dismantling and removing to ensure they will be reinstalled in the same location. Identification must be in accordance with sketch provided. Dismantling and removal of Sheaves and pins must be conducted in such a way,

to ensure components are reinstalled in their original location and identified according to the sketch provided.

- i) Welds on the seating must be tested for cracks by magnetic particle, non-destructive testing, NDT, by a specialized firm. Surface preparation and testing must be included in the price. Metal exposed for NDT must receive a minimum of 2 coats of International Interbond 201 low temperature, Red (KDL274/A5GL), minimum dry thickness per coat of 6 mils (8.1 mils wet), in accordance with instructions from the supplier/manufacture.
- j) Lifting hooks must be dismantled, cleaned and inspected using the same procedure as the pins. They will not be tested unless repairs have been done. Repairs will be dealt with using the PWGS 1379 form.
- k) Each pulley and sheave must be sanded to enable a visual inspection. All grease channels must be cleaned of old grease and proven free. All sheaves must receive one coat of Interprime 234 (CPA234) red primer (dry thickness per coat 2 mils (3.4mils wet)), one coat of Interprime 234 ,color (CPA235) white (épaisseur sec par couche de 2 mils (3.4mils wet)) and one coat of Interlac 665 (RAL9003) CCG White (dry thickness per coat of 1.6 mils (3.3 mils wet)) in accordance with instructions from the supplier/manufacture. Pulleys and sheaves on the deck must receive 2 coats of International Interbond 201 low temperature red (KDL274/A5GL) dry thickness per coat 6 mils (8.1 mils wet) in accordance with instructions from the supplier/manufacture.
- l) Mechanical component must be checked for cracks using a dye penetrant.
- m) All pulleys must be inspected and measured. Special care must be taken to inspect surface in contact with wire cable. Measurements must be taken in the presence of CCG representative.
- n) Bronze bushings, pins and grease passages must be thoroughly cleaned. Measurements must be taken in the presence of CCG representative. Results from this inspection must determine which parts must be replaced. Parts to be replaced will be dealt with using the PWGS 1379 form.
- o) Two gearboxes, driving the lugfing screws and all associated equipment must be removed from vessel and brought to the contractor's facilities for complete disassembly. Lubricant must be removed and disposed in accordance with environmental regulations. All parts must be thoroughly cleaned. Gears and worm-wheels must be checked for cracks and wear. Shafts must be inspected for wear and trueness. Bearings and gaskets must be replaced. Measurements must be taken in the presence of CCG representative. Parts to be replaced will be supplied by the contractor and dealt with using the PWGS 1379 form. Gearbox must be fully reassembled and filled with CCG supplied Mobil SHC-629.
- p) Contractor must remove and support main spreader beam to allow removal of shackles for inspection. Beam weight approximately 2 tons.

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- q) Electric motor must be sent to a specialized firm to be cleaned and overhauled. Contractor must provide a detailed list of work performed and parts replaced. All bearings must be replaced with high quality, sealed, SKF Bearings. Parts to be replaced will be supplied by the contractor and dealt with using the PWGS 1379 form.

Make : Laurence Scott & Electromotors Ltd
Sérial No. : 21417A7 and 21417A8
RPM : 1160
Volt : 440/3/60
Insulation : B
Bearings : D.E. 6208/C3
N.D.E. 6206/C3

- r) Worm-screw mechanism must be dismantled, cleaned, inspected and reassembled with new bearings and gaskets. Contractor must supply parts and cost will be dealt with using PWGS 1379 form. CCG representative will witness parts prior to reassembly.
- s) Overhaul brake and ratchet mechanism. Contractor must supply parts and cost will be dealt with using PWGS 1379 form. CCG representative will witness parts prior to reassembly.
- t) Perform reassembly and connections as described in manufacturer's instruction manual.
- u) Ship's crew will install new CCG supplied cables.
- v) All grease points will be checked and greased using contractor supplied, (Petro-Canada PXL2C30, Precision XL EP2).
- w) A second greasing of all points must be performed in the presence of CCG representative while components are in movement.
- x) All fasteners, bolts, nuts, washers from the seatings must be replaced with new, of same size, Grade 5 minimum.
- y) Contractor must perform adjustment of Fall-Tensioning system.

Proof of performance

Inspection

Contractor must prepare an inspection schedule and submit it to the Chief Engineer.
All work must be to the satisfaction of the Chief Engineer.

Trials

After reinstallation of all components, contractor must make all necessary adjustments. Contractor must prove to the Chief Engineer that davit is fully operational. Special consideration will be given to ascertain Fall-Tensioning system is fully operational. Contractor must perform a functional static and dynamic load test at 110% for Transport Canada Marine Safety Inspector. Chief Officer will witness test. CCG will supply weights for the load test.

Contractor must coordinate 10 hours of sea trials with CCG for adjustments to the davit. Time and date of sea trials will be determined at a later date. Contractor must provide manpower to perform adjustments.

Certificates

Contractor must provide an inspection certificate (T2) to the Chief Engineer.

Contractor must provide an original copy of the magnetic particle inspection certificate. Contractor must provide electronic copies of certificates for the Vessel Maintenance Manager.

Deliverables

Report

Contractor must provide an inspection certificate to the Chief engineer, in print and in electronic format (.pdf). Report must contain all readings, measurements taken, all work performed, results from non-destructive testing and all parts replaced. Electronic copy of this report must be sent to the Vessel Maintenance Manager.