

# ***CCGS DES GROSEILLIERS***

SPECIFICATIONS rev. 1

March 2015

## **CCGS DES GROSEILLIERS**

### **Items list**

#### Canadian Coast Requirements

- 1.0 Dry –pipe valves - Sprinklers system
- 2.0 Mechanical Assistants' bathroom
- 3.0 Five-year maintenance of lifeboat davit
- 4.0 Five-year maintenance of Miranda davit
- 5.0 AC 4 housing repair
- 6.0 Refrigeration
- 7.0 Fire system inspection
- 8.0 Windlass
- 9.0 Hatch Coaming

### **The following photos and drawings are included in the specifications**

- 1.0 Dry-pipe valves sprinkler system
  - Drawing no 68-2070-1 « Springler System Diagram »
  - Annexe 1 - Photos of sprinkler system
- 2.0 Mechanical Assistants' bathroom
  - Annexe 2 - Photos
- 3.0 Five-year maintenance of lifeboat davit
  - 3.15 Drawing
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- 5.0 AC4 housing repair
  - Annexe 3 - Drawing and photos of the ventilation unit
- 8.0 Windlass
  - Annexe 4 – Drawings, photos and manual
- 9.0 Hatch Coaming
  - 68-HSK-34 Insulation and cover plate protection
  - 68-H-49 Hatch Coamings forward hatch on upper deck Frs 154-165
  - 68-H-114-1 Insulation plan
  - Annexe 6 Item 9

# **CCGS DES GROSEILLIERS**

## **Canadian Coast Guard (CCG) requirements**

### **LIST OF ACRONYMS**

Table 1 - List of Acronyms

CA Contract Authority (PWGSC)  
CBW Canadian Bureau of Welding  
CCG Canadian Coast Guard  
CE Chief Engineer  
CLC Canada Labour Code  
CSM Contractor Supplied Material  
CSA Canadian Standards Association  
DFO Department of Fisheries and Oceans  
FSM Fleet Safety Manual (CCG)  
FSR Field Service Representative  
GSM Government Supplied Materials  
HC Health Canada  
IA Inspection Authority – Technical Inspector CE Chief Engineer  
IEEE Institute of Electrical and Electronic Engineers  
MSDS Material Safety Data Sheet  
PWGSC Public Works and Government Services Canada  
SMS Safety Management System  
TBS Treasury Board of Canada Secretariat  
TCMS Transport Canada Marine Safety  
TA Technical Authority (CCG) Jean-François Thibault  
WCB Work Safe BC  
WHMIS Workplace Hazardous Material Information System

### **PART 1: SCOPE**

#### **1.1 General**

- 1.1.1 This document describes Canadian Coast Guard (CCG) requirements applicable to all accompanying Technical Specifications.

### **PART 2: HEALTH AND SAFETY RELATED REQUIREMENTS**

#### **2.1 General**

- 2.1.1 The Contractor must appoint a Health & Safety Manager or Supervisor responsible for ensuring compliance with the Health and Safety requirements listed herein. This includes monitoring of all work by Contractor employees and Sub-Contractor employees.
- 2.1.2 During the execution of Work, the Contractor must comply with:
- Applicable Provincial Health and Safety Regulations,
  - Canada Labour Code Part II,
  - Marine Occupational Health and Safety Regulations (MOSH),
  - The Gas Hazard Control Standard (TP3177),
  - Applicable CCG region specific Health and Safety requirements
  - DFO/5672 Welding Health and Safety Technical Program,
  - TBS “Smoking in the Workplace” Policy,
  - The following sections of DFO/5737- CCG Fleet Safety and Security Manual
    - o Fall Protection (section 7B2),
    - o Confined Space Entry (section 7B3),
    - o Hot Work (Section 7B4),
    - o Lock-Out - Tag-Out (Section 7B5).

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#### **2.2 Hot Work**

2.2.1 When executing Hot Work, the Contractor must:

- inform the TA & IA prior to commencing work and upon completion of work,
- supply sufficient and suitable fire extinguishers in support of the Hot Work,
- not use the Ship's fire extinguishers except in the case of emergency. Should the ship's extinguishers be used, the Contractor must ensure they are recharged and certified by a certified facility at no cost to Canada,
- maintain a competent and properly equipped Fire Watch while Hot Work is underway and for one hour following the completion of Hot Work. The Fire Watch must be situated such that all sides of the surfaces undergoing work are visible and accessible,
- ensure that all dust, debris, gas and smoke generated is evacuated from the vessel by the most direct method,
- provide suitable fire retardant coverings to protect wire ways, cables, equipment and structure from welding slag, splatter etc,
- comply with the specific Hot Work requirements listed in section 2.1 herein.

2.2.2 When executing Hot Work, the Contractor must define a surrounding zone that is to be kept sealed off from the rest of the vessel during the work period that involves the generation of welding gases, smoke, and grinding dust etc. All unscheduled work arising during the refit period involving Hot Work must have a similar zone isolated from the remainder of the vessel. The zone must be limited to the space(s) where the Hot Work is conducted, boundary areas where Fire Watches are required, and the access routes between the zone and the exterior of the vessel for workers, welding and cutting equipment and ventilation ductwork.

2.2.3 In areas where occupied accommodations and or workplaces cannot be completely isolated a double sealed door (air lock) arrangement must be erected to minimize ingress of contaminants into the occupied areas. A ventilation extraction point must be located as near as practical to the inside door on the worksite side to reduce the egress into the air lock and subsequently the accommodations and/or workspaces.

2.2.4 All doorways within the affected area that are not required for access to the work or for Fire Watch activities must be sealed off to prevent contaminants from entering. Passageway branches that connect to the zone are to be sealed off as well. The Contractor must clean all surfaces and fabrics within the zone and in surrounding areas, which have become contaminated, upon completion of work.

#### **2.3 Confined Space Entry**

2.3.1 In the execution of Confined Space Entry, the Contractor must comply with the requirements listed in section 2.1 herein. The following is a non-exhaustive list of Confined Spaces on CCG Vessels: Bilge Areas; Machinery Compartments; all storage compartments accessed by manhole covers including fuel tanks; water tanks; cofferdams; chain lockers; thruster compartments.

#### **2.4 Monitoring Atmosphere for Confined Space Entry or Hot Work**

2.4.1 Prior to Confined Space Entry and Hot Work within a Confined Space, including machinery compartments, the Contractor must:

- have the space gas freed and tested in accordance with TP3177,
- ensure the Permit states the type of work, the time period for which the Permit is valid and also indicates "Safe for Persons" or "Safe for Hot Work" as required,
- post the Permit in a conspicuous location and provide the TA and IA with the signed and dated Marine Chemist's or Contractor qualified persons Certificate,
- renew the Confined Space Entry or Hot Work Permit as required by Regulations.

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#### **2.5 Work At Heights and Fall Protection**

2.5.1 In the execution of Work at Heights, the Contractor must:

- erect staging as required to safely carry-out work and remove it upon completion,
- ensure walkways, gangways, scaffolding, ladders, guard-rails and similar apparatus are maintained in proper and safe condition. Daily inspections are to be conducted and recorded by the Contractor,
- comply with requirements listed in 2.1 herein when conducting work aloft,
- must do so in accordance with the Contractor's standard operating procedures.

#### **2.6 Lock-Out / Tag-Out**

2.6.1 The Contractor must comply with requirements listed in 2.1 herein for Lock-Out and Tagout.

#### **2.7 Workplace Hazardous Materials Information System (W.H.M.I.S)**

2.7.1 CCG shall provide the Contractor with access to M.S.D.S. for all controlled products located on the vessel. The Contractor must provide M.S.D.S for all Contractor supplied WHMIS controlled products.

#### **2.8 Smoking**

2.8.1 The Contractor must obtain written approval prior to smoking in designated areas.

#### **2.9 Temporary Lighting and Ventillation**

2.9.1 The Contractor must ensure temporary lighting and/or ventilation is supplied, installed and maintained in proper and safe condition and removed upon completion.

2.9.2 The Contractor must ensure temporary lighting incorporates shields/guards to protect against breakage.

#### **2.10 Sign-in / Sign-out**

2.10.1 When the vessel remains in Care and Custody of the Crown, the Contractor must ensure employees and Sub-Contractors sign-in and sign-out of the Vessel Register located at the Quartermasters Station, or in a convenient location to the gangway, whenever they enter or leave the vessel. Alternatively, the Crown may provide an electronic system whereby passes are issued to those requiring access to the vessel. Individuals violating this requirement may be denied access to the vessel for the duration of the work period upon advice from the TA to the CA.

#### **2.11 Lead Based Paints and Paint Approvals**

2.11.1 The Contractor must provide Health Canada product approval for underwater hull surface paints controlled by Health Canada and the Pest Management Regulatory Agency,

2.11.2 The Contractor must identify and take precautionary measures to ensure the application of paints complies with Federal, Provincial and Municipal regulations,

2.11.3 The Contractor must not use lead-based paints.

#### **2.12 Clean and Hazard Free Site**

2.12.1 The Contractor must maintain all spaces, compartments, work areas and areas used by Shipyard personnel as transit routes in a clean and sanitary condition and free from debris,

2.12.2 The Contractor must return the vessel to the CCG at least as clean as when work began. This includes both internal and external areas of work, as well as any affected adjacent spaces outside the principle areas of work,

2.12.3 The Contractor must supply own refuse containers to be emptied daily and removed upon completion of work. All rags, debris, and associated refuse are to be removed to refuse container(s) daily,

2.12.4 When working at CCG facilities, the Contractor must clean-up dock areas used by Contractor personnel and/or equipment. This includes but is not limited to the removal of all dirt, grit,

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debris, staging, containers and equipment as well as the immediate cleanup and proper disposal of leaked oil, solvent or any other hazardous materials,

- 2.12.5 If work will be conducted in the vicinity, the Contractor must supply and install for the duration of the work period a suitable material approved by the TA and IA at all main entries and over surfaces of the main, upper, flight and navigation officers decks to protect alleyways from dirt,
- 2.12.6 The Contractor must ensure safe access to the work area as required by applicable Health and Safety Regulations,
- 2.12.7 The Contractor must prevent rat and vermin harbourage onboard the vessel for the duration of the work period. The Contractor must remove any rats or vermin from the vessel if they do come onboard during the work period.

#### **2.13 Fire Protection**

- 2.13.1 The Contractor must ensure the isolation, removal and installation of fire detection and suppression systems or its components is performed by certified technicians familiar with the systems,
- 2.13.2 The Contractor must notify the TA and IA and obtain written approval from the TA prior to disturbing, removing, isolating, deactivating/disabling or locking-out any part of the fire detection or suppression system including heat and smoke sensors. The Contractor must also notify the TA and the IA once the system has been reactivated,
- 2.13.3 The Contractor must ensure protection against fire at all times including when working on the ship's fire detection or suppression system. This may be accomplished as suggested below and requires the written approval from the TA:
  - disabling only one portion of the system at a time,
  - by maintaining system function using spares while work is in progress,
  - other means acceptable to the TA.
- 2.13.4 The Contractor must note that failure to take necessary precautions while performing work on fire suppression systems may result in malfunction and discharge of CO<sub>2</sub>, Halon or other fire suppression agents. The Contractor must recharge and certify at their cost, containers that are discharged as a result of their work.

#### **2.14 Hydrostatic / Pneumatic Tank Testing**

- 2.14.1 The Contractor must verify that all necessary openings are closed prior to hydrostatic or pneumatic testing of tanks. The Contractor must blank all suction and discharge lines, vents and sounding pipes. The Contractor is responsible for supplying, fitting and the subsequent removal of blanks.
- 2.14.2 The Contractor must drain the tanks upon completion of testing and wipe clean and dry the fuel tanks.
- 2.14.3 The Contractor must hydrostatically test tanks as specified with a 2.44m head of water. Where the Contractor wishes to perform a pneumatic test in lieu of the hydrostatic test, written approval must be obtained by the IA and TA.
- 2.14.4 The Contractor must provide the IA and TA with the Contractor's standard operating procedures for conducting pneumatic tank tests.

#### **2.15 Contractor Supplied Potable Water**

- 2.15.1 The Contractor must provide water quality test results to the IA to demonstrate the potable water supplied meets the current Health Canada Guidelines for Canadian Drinking Water Quality ([http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/guidelines\\_sixth-rec-eng.php](http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/guidelines_sixth-rec-eng.php)).
- 2.15.2 The Contractor must ensure lines are flushed prior to connecting the water supply to the vessel.

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### **PART 3: GENERAL REQUIREMENTS**

#### **3.1 Electrical Work / Electronics**

- 3.1.1 The Contractor must carry-out all electrical and electronic installations, renewals and repairs in accordance with the latest editions of:
  - TP127 - “Ship Safety Electrical Standards”,
  - IEEE Standard 45 – 2002 “Recommended Practice for Electrical Installations on Shipboard 2002”,
  - CGTS-3 - “General Specifications for the Installation of Shipboard Electronic Equipment”.
- 3.1.2 The Contractor must replace, at no charge, the entire length of point to point cable if damaged as a result of installation.
- 3.1.3 The Contractor must not use plastic tie-wraps to secure wiring except in panels and junction boxes.

#### **3.2 Paint Application**

- 3.2.1 The Contractor must ensure new and/or disturbed steel work is painted in accordance with the specification.
- 3.2.2 The Contractor must power clean all new and disturbed steelwork prior to painting.
- 3.2.3 The Contractor must notify the IA to inspect after the surface preparation and the first coat of paint has cured and prior to application of the second coat.
- 3.2.4 N/A
- 3.2.5 The Contractor must ensure new and/or disturbed steelwork receives application of at least two (2) coats of marine primer immediately upon completion of work, unless specified otherwise.

#### **3.3 Changes to Vessel Stability, Carrying Capacity or Structure**

- 3.3.1 The Contractor must discuss with the TA any comments, concerns or observations they may have regarding the effect of work on the vessel’s stability or carrying capacity. Additionally, any work item that, in the opinion of the Contractor may pose a vessel structural integrity problem is to be brought to the attention of the TA.
- 3.3.2 The Contractor must advise the IA and TA of the details of any major changes in the distribution of weights on the vessel while the vessel is in dry-dock.

#### **3.4 CCG Employees and others on the Vessel**

- 3.4.1 Canadian Coast Guard employees and other personnel such as Manufacturer’s Representatives and TCMS Inspectors may carry-out other work, including work items not included in this Statement of Work, on board the vessel during this work period. Every effort will be made by Canada to ensure this work and the associated inspections do not interfere with the Contractor’s work. The Contractor is not responsible for coordinating the related inspections or payment of inspection fees for this work.

#### **3.5 Regulatory Inspections**

- 3.5.1 The Contractor must ensure all work identified as requiring regulatory inspection is inspected by the applicable authority such as TCMS, Health Canada, Environment Canada etc., and that the required documentation is received to prove the inspections were conducted. The Contractor must not substitute inspection by the TA or IA for required regulatory inspections.
- 3.5.2 The Contractor must provide original Certificates issued by inspectors to the TA and a Copy to the IA.
- 3.5.3 The Contractor must coordinate all regulatory related inspections required for this Statement of Work.
- 3.5.4 The Contractor must provide timely advance notification of scheduled regulatory inspections to the TA and IA so they may attend the inspection.

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#### **3.6 Welding**

- 3.6.1 The Contractor must ensure welding is completed in accordance with DFO/5672 – “Welding Health and Safety Technical Program”.
- 3.6.2 The Contractor must obtain written permission of TA prior to commencing welding.
- 3.6.3 The Contractor must not locally ground welding equipment near bearings or electronic equipment.
- 3.6.4 The Contractor must ensure all steel welding is in accordance with 18-080-000-SG-001 Welding of Ferrous Materials and the Canadian Coast Guard Welding Specifications for Ferrous Materials, Revision 4. (TP6151)
- 3.6.5 The Contractor must comply with CCG specification for ALUMINIUM WELDING (TP9415)
- 3.6.6 The Contractor must ensure that when welding of any item requires the application of fusion welding for stainless steel structures, the Contractor or his Sub-Contractors is certified in accordance with the Canadian Welding Bureau, CSA\ACNOR AWS; Division 1.6 certification – latest revision copies of which must be submitted to the IA/TA prior to the start of welding

#### **3.7 Requirements imposed on Contractor when Equipment must be disturbed**

- 3.7.1 The Contractor must coordinate an inspection of the condition of items (i.e.: piping, manholes, parts, equipment etc) to be removed, prior to carrying-out or to gain access to carry-out specified work. The inspection must be conducted jointly by the Contractor, the IA and the TA.
- 3.7.2 The Contractor must repair or replace any item that is damaged in this process. Any piping, manholes, parts, equipment etc. requiring installation after removal, must be refitted using new Contractor supplied materials such as jointing, packing, anti-seize compound, clamps, brackets, fasteners, oils, lubricants, cleaning solvents, preservatives and insulation. Materials must be in accordance with equipment manufacturers’ drawings, manuals or instructions. Where a substitution must be made, the IA and TA must approve in writing the materials used.
- 3.7.3 The Contractor must provide a test plan and test to prove operation of disturbed items after completion of work.

#### **3.8 Test Results**

- 3.8.1 The Contractor must ensure tests and trials are performed to the satisfaction of the IA, TA, and TCMS. All tests, measurements, calibrations and readings must be recorded and provided in a report to the IA, TA and TCMS. The reports must be bound and typewritten, double-spaced on 8 1/2" X 11" and indexed by specification number. The reports must also be provided in Adobe pdf format on 3 USB keys.
- 3.8.2 The Contractor must ensure all dimensions are measured and recorded. All measuring devices must be described in the report and the name of the person taking the readings must be recorded.
- 3.8.3 The Contractor must ensure all testing and measurement equipment (mechanical or electronic) are calibrated and that calibration certificates are provided to the IA prior to final inspection or witnessing of tests.

#### **3.9 Contractor Supplied Materials and Tools**

- 3.9.1 The Contractor must unless otherwise specified, supply all materials.
- 3.9.2 The Contractor must ensure materials are new.
- 3.9.3 The Contractor must ensure material such as jointing, packing, insulation, small hardware, oils, lubricants, cleaning solvents, preservatives, paints, coatings, etc., are in accordance with the equipment manufacturer’s drawings, manuals or instructions. Where no particular item is specified or where substitution must be made, the IA and TA must approve in writing the materials used. The Contractor must provide certificates of grade and quality for various materials, as requested to the TA and IA.
- 3.9.4 The Contractor must obtain CCG ship specific special tools from the TA and return them to the TA upon completion of work.



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#### **3.10 Machinery and Overhaul Installation**

- 3.10.1 The Contractor must overhaul and install machinery and equipment as per the manufacturer's instructions, drawings and specifications.

#### **3.11 Restricted Areas**

- 3.11.1 The Contractor must not enter the following areas except to perform work as required by the specifications: all cabins, offices, workshops, engineer's office, wheelhouse, control room, public washrooms, galley, mess rooms and lounge areas.

#### **3.12 Protecting Equipment/Areas from Damage**

- 3.12.1 The Contractor must protect equipment/areas (example: machinery, equipment, fittings stores or items of outfit) from damage by exposure, weather, movement of materials, sand, grit, or shot blasting, welding, grinding, burning, gouging, painting or airborne particles of paint etc.
- 3.12.2 The Contractor must provide the IA and TA the opportunity to inspect any protection installed prior to the work commencing.

#### **3.13 Verification of Information Provided by CCG**

- 3.13.1 The Contractor must verify, prior to bid submission, all drawings, pictures, dimensions, descriptions, locations, measurements, engineering values, materials, etc. listed or implied. Information such as engineering drawings, pictures, etc may have been provided with the accompanying technical specifications.

#### **3.14 Drawing Revisions**

- 3.14.1 The Contractor must revise drawings as required to a quality at least equal to those being updated. For example, drawings that have been lettered and dimensioned in a professional manner are not to be updated by hand. Updated hard copy drawings must be provided to the IA and TA in an acceptable format and if electronic format drawings have been provided for updating, these must be returned using the same version of software as originally used.

#### **3.15 Service Conditions**

- 3.15.1 The Contractor must provide ice-clearing services if so required for ship movements.
- 3.15.2 The Contractor must provide all enclosures and heating required to carry out work, taking into account the nature of the work, time of year and weather conditions. Examples of work items where heating and enclosures may be required include but are not limited to painting, shaft withdrawal, and tank cleaning.
- 3.15.3 Unless otherwise specified, all components, materials and installations supplied by or carried-out by the Contractor must be adequate to meet the following service conditions:
- In areas that are exposed to the elements:
    - o outside air temperature of minus 40°C to plus +35°C;
    - o wind velocity up to 50 knots;
    - o water temperature of minus 2°C to plus +30°C;
  - shock loading of 2.5g horizontal, 1.5g vertical. All new components, materials and installations within the ship must be adequate to withstand the specified shock loading accelerations.

#### **3.16 Recording of Work in Progress**

- 3.16.1 The IA and TA may record work in progress using various means including but not limited to photography and video, digital or film

#### **3.17 Washrooms and Working Hours**

- 3.17.1 No washroom on board will be made available for the Contractor
- 3.17.2 Hours of work for CCG personnel working on board the vessel are from 0600 hours to 1930 hours, seven (7) days a week, excluding statutory holidays. Permission to work on the vessel outside these hours must be obtained from the TA.

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#### **3.18.1 Normes and regulation applicable**

3.18.1 The following work should be done in accordance with the following construction standards.

- ☐ Marine Machinery Regulations SOR/90-264
- ☐ Ships Electrical Standards (2008) - TP 127 E
- ☐ IAC No. 47 Shipbuilding and Repair Quality Standard;
- ☐ ASTM Standards, Section one Iron and Steel Products, volume 01.07 Ship and Marine Technology;
- ☐ Normes et procédures de mécano-soudage du BCS (ou équivalent);
- ☐ SSPCPA 2 (nov.1982), *Paint Application Specification No.2*;
- ☐ Norme ASTM F708-92, *Standard Practice for Design and Installation of Rigid Pipe Hangers*,1992 (Reapproved 2008).

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### **1.0 Dry-Pipe valves - Sprinklers system**

- 1.1 Supply the material, equipment and labour to replace six (6) dry pipe valves on the vessel's sprinkler system.
- Specifications of existing valves:  
- Manufacturer: Gem Sprinkler Company  
- Model: F302  
- Dimension: 4 inches
- 1.2 The work consists of:
- 1.2.1 Supply six (6) new dry pipe valves approved by a recognized marine classification society and by the MSO/TC; provide a valid copy of the certificate.
- 1.2.2 Remove the six (6) existing dry pipe valves and give them to the Chief Engineer.
- 1.2.3 Supply and install new dry pipe valves with new gaskets, bolts and nuts provided by the Contractor.
- 1.2.4 Supply and install all plumbing, gauges and small valves connected to the dry pipe valves. All plumbing must be made of galvanized steel (*see drawing and photos at annex 1*).
- 1.2.5 Perform an operating test witnessed by the MSO/TC expert and representatives of the Canadian Coast Guard.
- 1.2.6 Return the six (6) sprinkler areas to service.
- 1.3 Existing piping must be modified; the Contractor must include this work in its bid. All plumbing must have been hot dip galvanized before final installation.
- 1.4 The contractor must plan the work so that the sprinkler system is out of service for the shortest time possible for vessel safety. If possible, work on one area at a time.
- 1.5 All work must be approved and to the satisfaction of the MSO/TC expert and representatives of the Canadian Coast Guard.
- 1.6 The selected company must specialize in the field and be able to demonstrate that it holds all necessary certifications.
- 1.7 The Contractor must leave the premises in a state of cleanliness similar to that prior to the work being started.
- 1.8 Work may begin on June 8, 2015 and must be completed no later than June 29<sup>th</sup>, 2015.

### **2.0 Mechanical Assistants' bathroom**

- 2.1 Supply the material, equipment and labour to cover certain walls and the two showers with acrylic panels (**ALTRO WHITEROCK, 40' long by 86" high**) colour white, in the assistant engineers' bathroom. The work consists of:
- 2.1.1 Remove miscellaneous accessories, reinstall after replacing coverings (*see photos at annex 2*).
- 2.1.2 Remove existing coverings and discard.
- 2.1.3 Supply material and install new acrylic covering.
- 2.2 The covering must be installed so as to prevent any infiltration behind it.
- 2.3 The Contractor must leave the premises in a state of cleanliness similar to that prior to the work being started.
- 2.4 Work may begin on June 8, 2015 and must be completed no later than June 29<sup>th</sup>, 2015.

### **3.0 Five-Year Maintenance of Lifeboat Davit**

- 3.1 Davit: Schat-Davit Company Ltd  
Type: SPG(L) 9500/4850 Certificate: 1233 dated 01/06/92  
With type BE8600 electric winch Certificate: 3283 dated 21/05/92
- 3.2 A contractor specialized in ship repair must supply the material and labour to perform the five-year inspection of the vessel's lifeboat davit.
- 3.3 The Contractor must pay special attention when removing and reassembling the two (2) steel cables; locks must be inspected and properly returned to position. Front and rear cables have different lengths and are not interchangeable. Cables must be reversed end for end, the existing eye-splice will be cut and a new thimble with mechanical splice will be installed on the other end, taking care to lose as little cable length as possible.
- 3.4 The 19 sheaves will be disassembled and inspected for any wear or deformation. Axles and grease channels will also be cleaned and checked. All sheave axles, pivots, will be magnetic particle inspected.

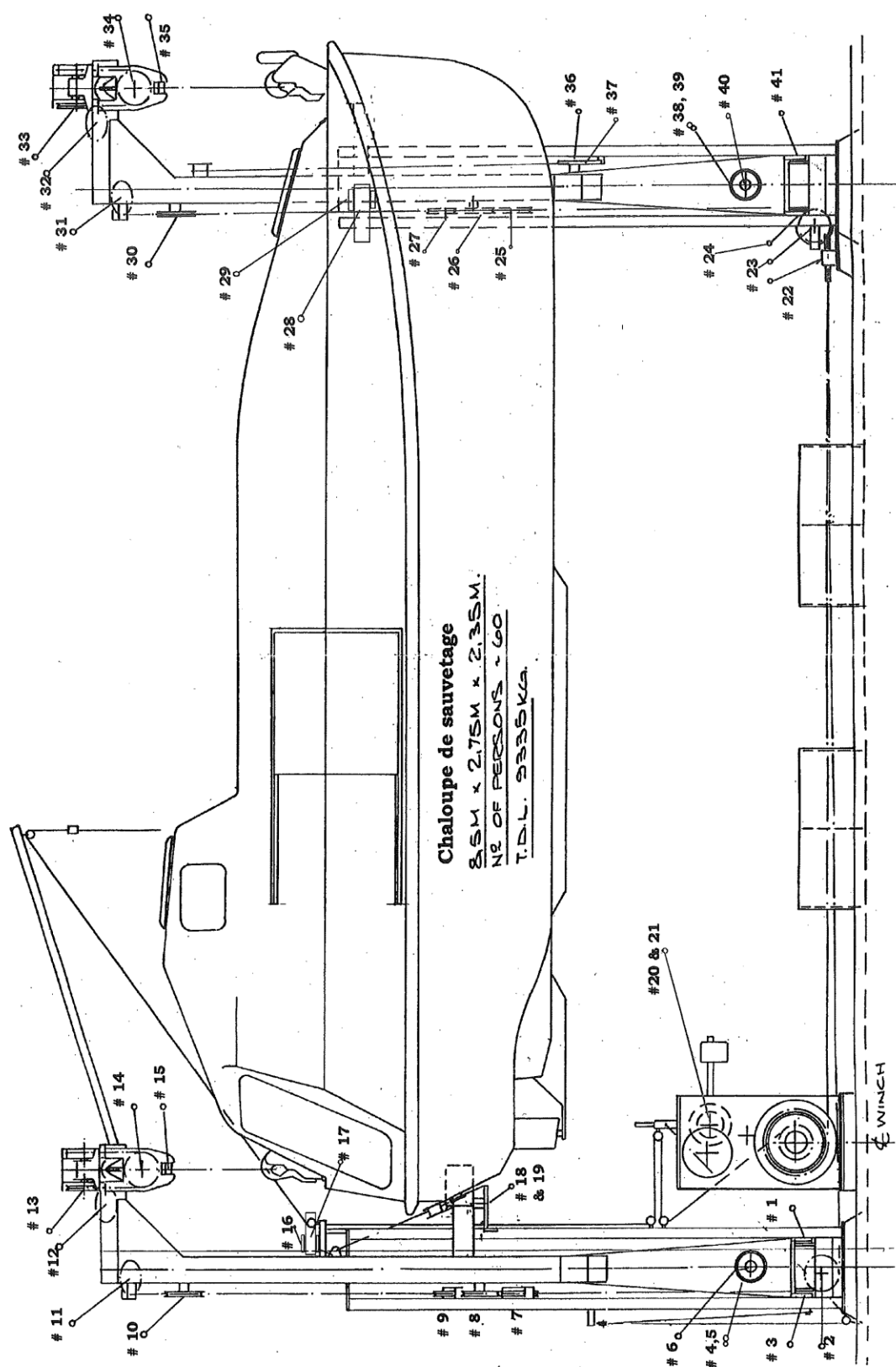
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The four pivot axles will be removed, while the front and rear arms will be supported to enable inspection. All other pivots, e.g. lashing hooks, will be disassembled and checked for any wear or deformation.

- 3.5 All pulleys will be sandblasted (SA1) and magnetic particle tested. Their supports and the adjacent surfaces on the davit arms must be degreased and mechanically brushed to remove peeling paint and rust. Pulleys and their supports must be painted using the attached painting method: two primer coats of white Interprime 235 and two finish coats of white RAL 9003 Interlac 665. Paint will be supplied by the Contractor.
- 3.6 The hooks will also be inspected for any wear or deformation.
- 3.7 The two stop springs (one front and one rear) will be disassembled, checked, lubricated and reassembled.
- 3.8 Actions taken on all axles, pivots and sheaves, with their respective locations, will be noted in a report in three copies (Chief Officer, Chief Engineer, Marine Safety Inspector). A numbered drawing is attached.
- 3.9 The condition of steel cables’ rigging; such as turnbuckles and shackles will be provided in a report in three copies.
- 3.10 Disassemble and inspect brakes, pawl brake and the centrifuge. Blow off dust and rust, clean, inspect and reassemble.
- 3.11 Drain oil (qty about 150 litres) from the gearbox, open and inspect parts. Refill the gearbox with oil supplied by the CG.
- 3.12 The Contractor must grease all disassembled equipment and put items back in place; the work must be to the satisfaction of the Coast Guard representative and the MSO.
- 3.13 Conduct the dynamic load test (SWL + 10%) in accordance with MSO requirements. The Contractor must supply the necessary weights (e.g. bags of sand) for the dynamic test. Provide the MSO with T-8 inspection and test certificate after the work.
- 3.14 LIFEBOAT DAVIT

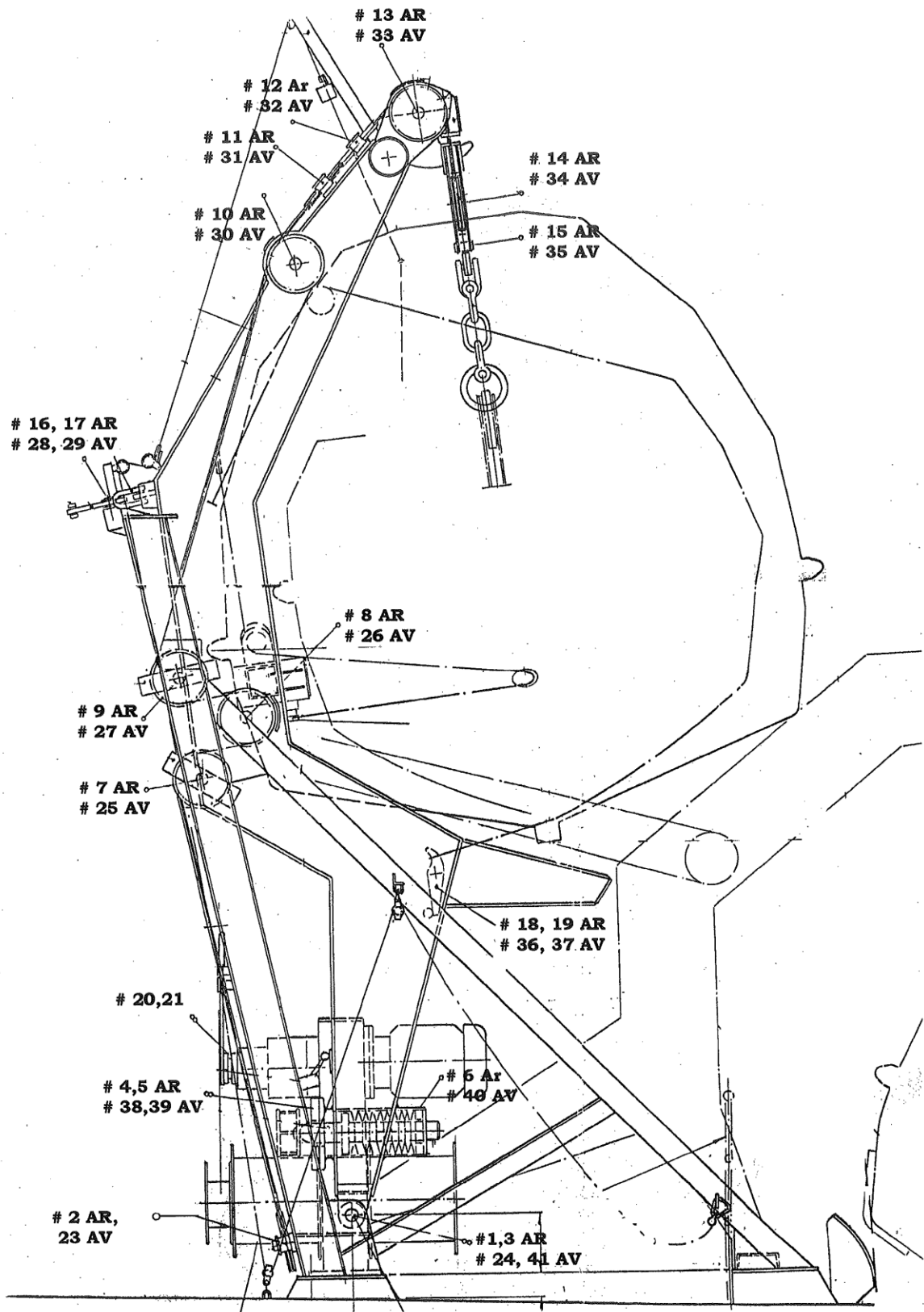
WEIGHT WITH WATER, FUEL AND PROVISIONS.....	4,275 kg
CREW (60 PEOPLE x 75 KG).....	4,500 kg
SUB-TOTAL.....	8,775 kg
10% FACTOR.....	x 1.1
<b>TOTAL (DYNAMIC TEST)</b> .....	<b>9,652 kg</b>
WEIGHT TO BE ADDED TO THE BOAT (9,652-4,275).....	5,377 kg

3.15

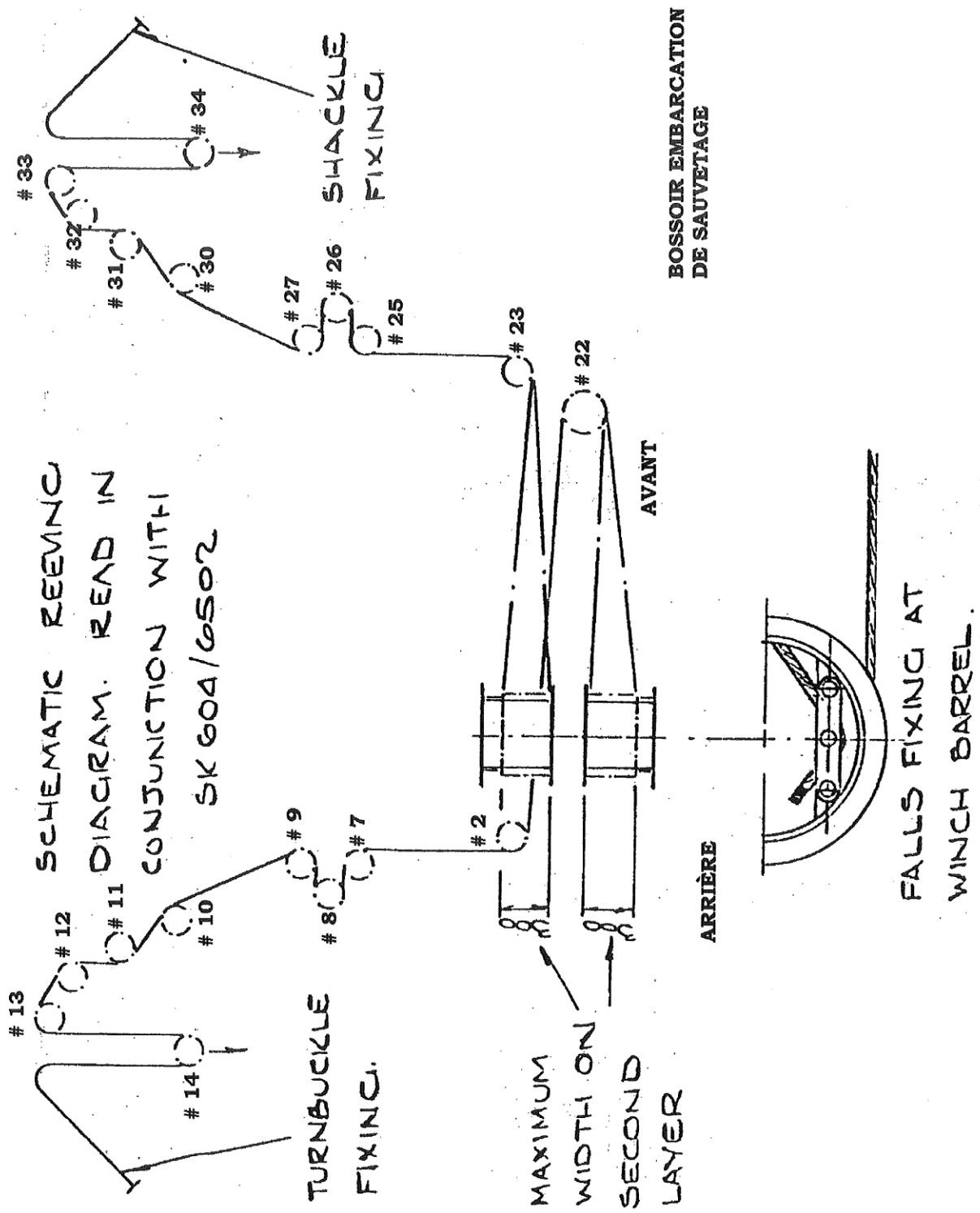


CCGS DES GROSEILLIERS

3.16



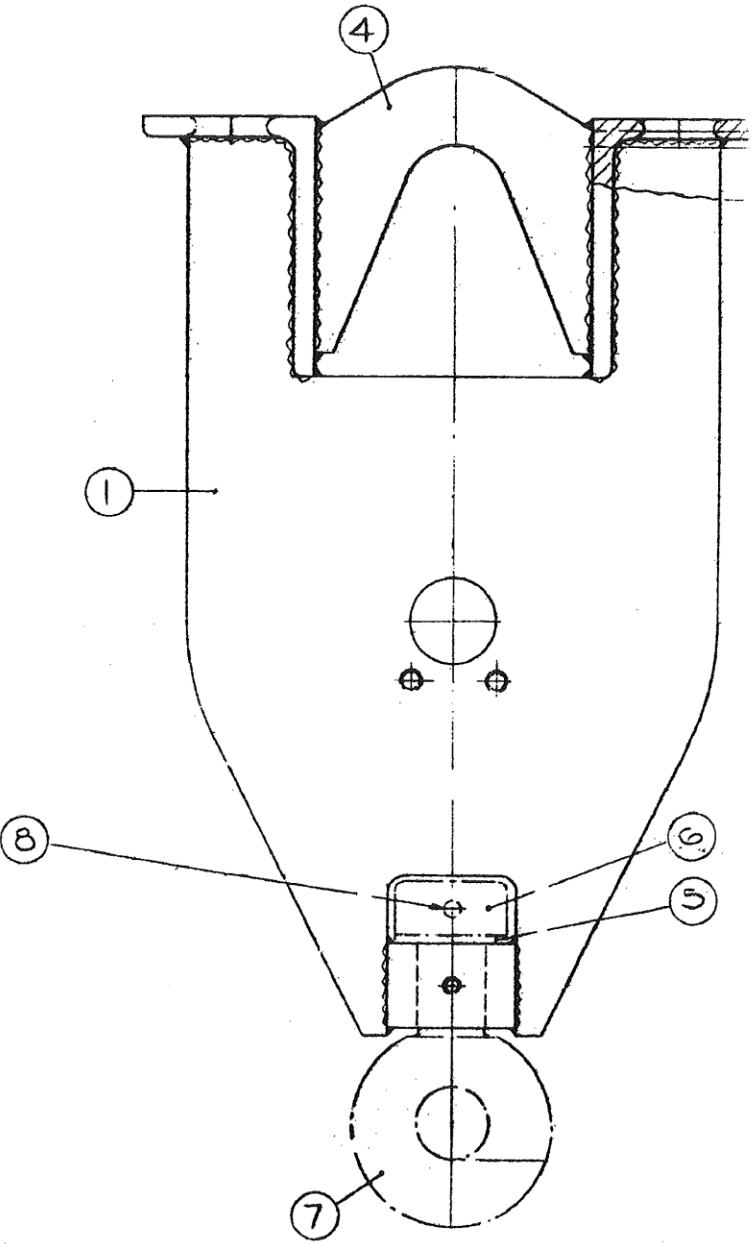
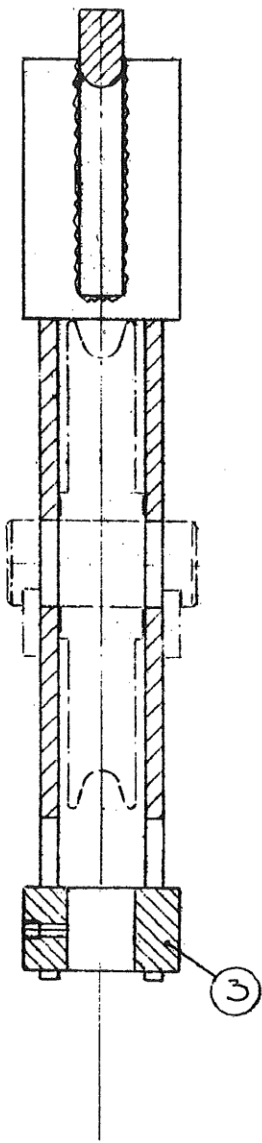
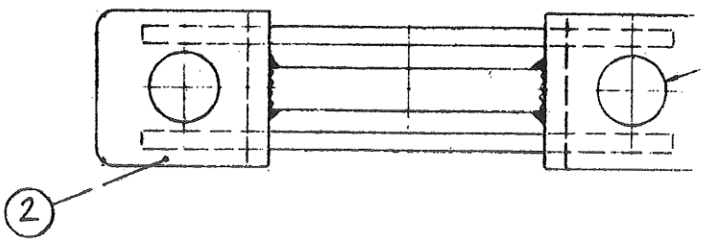
3.17



CCGS DES GROSEILLIERS

3.18

ASSEMBLE WITH FOLLOWING  
SHEAVE - 1-A-130  
PIN - 2-A-200  
LOCK PLATES - 12-A-106  
TYPE 'C'





## CCGS DES GROSEILLIERS

### 4.0 Five-Year Maintenance of Miranda Davit

- 4.1 Davit: Miranda from Harding-Watercraft Ltd. (UK)  
Type: MRT 3900 Certificate: D1503 dated 18-01-96  
Winch: Hydraulic BHY 5300 Certificate: W3488 dated 22-01-96
- 4.2 A contractor specialized in ship repair must supply the material and labour to perform the five-year inspection of the vessel's MIRANDA davit.
- 4.3 The Contractor must pay special attention when removing and reassembling the three steel cables; locks must be inspected and properly returned to position. The length of the cables and their positions must be noted before disassembly and reassembled in the same way.
- 4.4 The 11 sheaves will be disassembled and inspected for any wear or deformation. Axles and grease channels will also be cleaned and checked. All axles of sheaves and others will be magnetic particle inspected. All other pivots, e.g. lashing hooks, will be disassembled and checked for any wear or deformation.
- 4.5 All pulleys will be sandblasted (SA1) and magnetic particle tested. Their supports and the adjacent surfaces on the davit arms must be degreased and mechanically brushed to remove peeling paint and rust. Pulleys and their supports must be painted using the attached painting method: two primer coats of white Interprime 235 and two finish coats of white RAL 9003 Interlac 665. Paint will be supplied by the Contractor.
- 4.6 The pivot pulley with spring (#11) will be completely disassembled, checked, lubricated and reassembled. The radial channel of this pulley will be checked for wear or deformation. Add a grease channel and grease fitting for this sheave, as well as a hose to facilitate access.
- 4.7 The carriage wheels must be disassembled, cleaned and carefully inspected, then reassembled.
- 4.8 Weld a retaining pin for the lashing, on the support already in place on the rear arm. Weld schedule 80 steel pipe, 2" in diameter, 28" long, on both supports, passing through the rear section and resting on the front section. Install a flange on the rear end of the pipe to prevent the lashing from sliding. Be careful not to interfere with the cable passage (*see photo at 4.16*).
- 4.9 Actions taken on all axles, pivots and sheaves, with their respective locations, will be noted in a report in three copies (Chief Officer, Chief Engineer, Marine Safety Inspector). (*See numbered drawing at 4.17 and 4.18*).
- 4.10 Additional rigging of steel cables such as turnbuckles, shackles, sockets and thimbles (including retaining pins for three steel cables (with shackle type socket)) will be checked for wear and deformation as will the three boat-lifting chain slings. Provide a report on their condition.
- 4.11 Remove paint from weld joints, conduct a magnetic particle inspection of the davit base. An inspection report must be provided. Supply and apply two coats of Interbond 501 RAL3011 paint on bare metal surfaces.
- 4.12 Disassemble and inspect brakes, pawl brake and the centrifuge. Blow off dust and rust, clean, inspect and reassemble.
- 4.13 Drain oil (qty about 500 litres) from the hydraulic tank and gearbox, open them and inspect parts. Check the condition of the heating element. Replace the hydraulic filter, refill the hydraulic system and gearbox with oil supplied by the CG.
- 4.14 The Contractor must grease all disassembled equipment and put items back in place; the work must be to the satisfaction of the Coast Guard representative and the MSO.
- 4.15 Conduct the dynamic load test in accordance with MSO requirements. Weights required for the dynamic test will be supplied by the vessel. Provide the MSO with T-8 inspection and test certificate after the work.  
SWL of the carriage:  $3,900\text{kg} + 10\% = 4,290\text{kg}$

## CCGS *DES GROSEILLIERS*

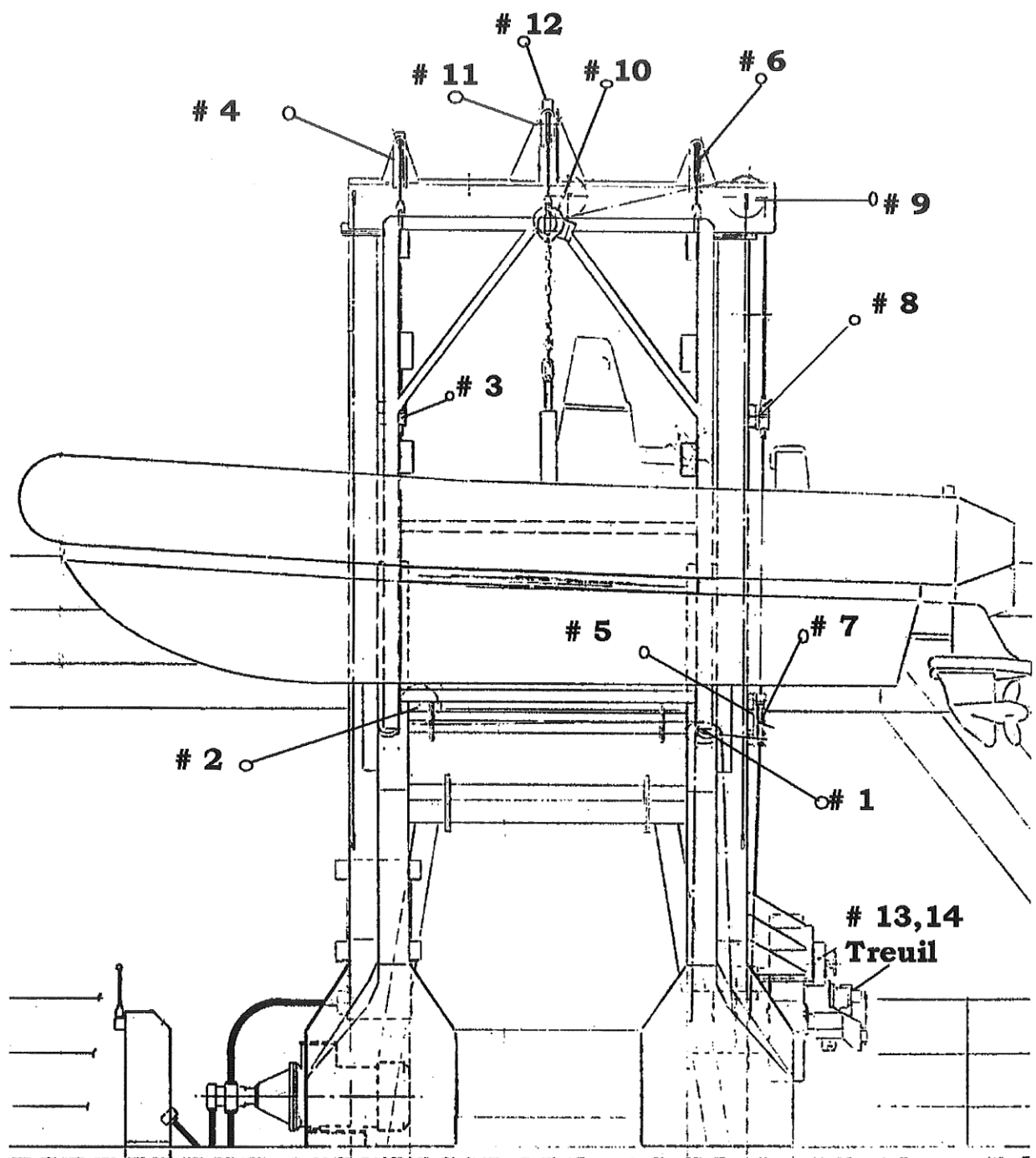
4.16



Lashing retaining pin to be added. (Photo taken on board the George R. Pearkes)

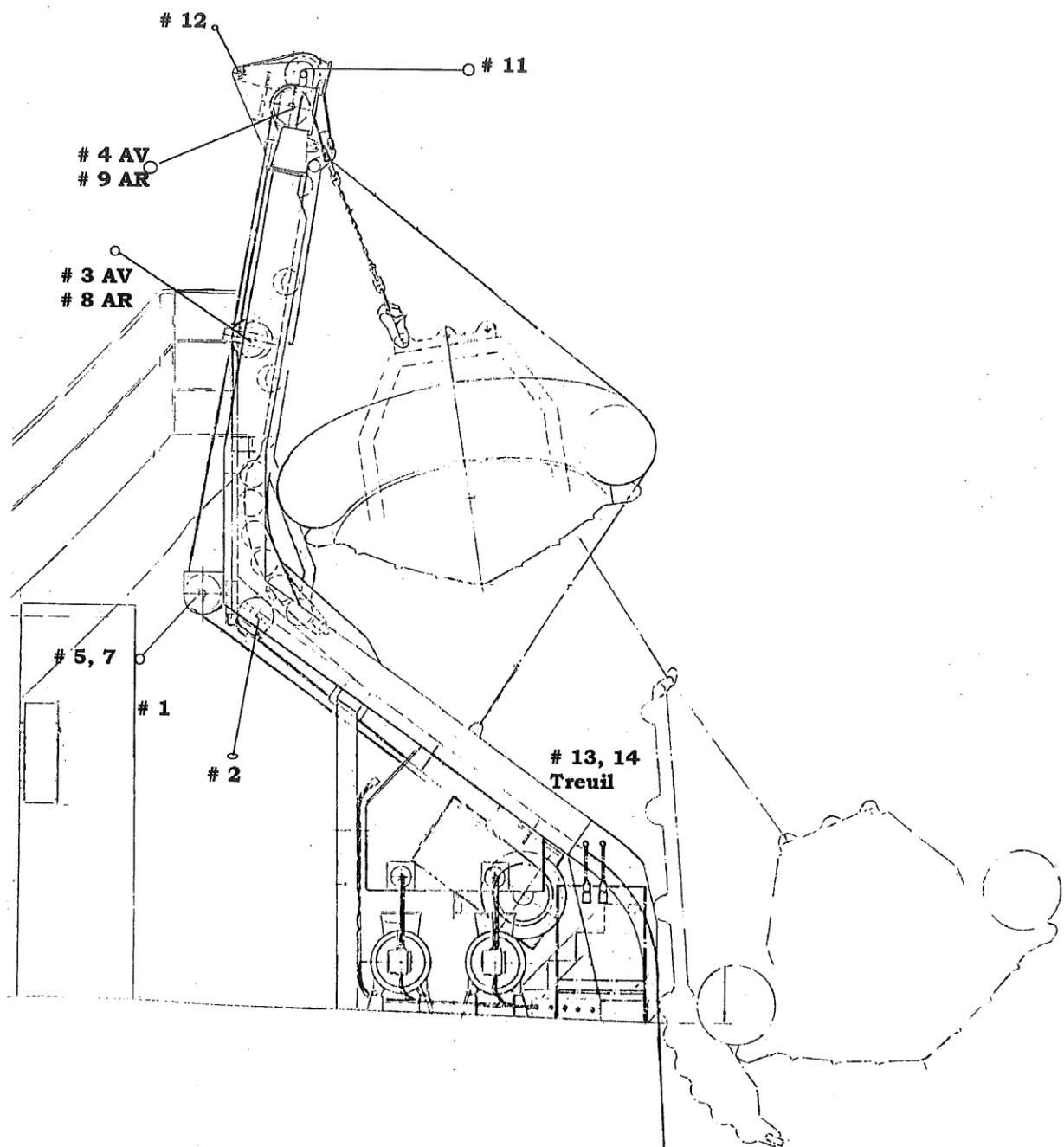
CCGS DES GROSEILLIERS

4.17



**CCGS DES GROSEILLIERS**

4.18



## CCGS DES GROSEILLIERS

### 5.0 AC 4 housing repair

- 5.1 Supply material, tooling and labour to replace the bottom of the housing of ventilation unit A/C #4.
- 5.2 Work may begin on June 8, 2015 and must be completed no later than June 29<sup>th</sup>, 2015.
- 5.3 The work consists of:
- 5.3.1 Electrically isolate the ventilation unit and components which must be removed. Reference 'Annexe 3 item 5 AC#4' attached.
- 5.3.2 Disassemble and remove the steam coil and piping required, reinstall after the steel work has been completed.
- 5.3.3 Disassemble and remove the blower unit, reinstall after the steel work has been completed.
- 5.3.4 Obtain the services of a firm specializing in refrigeration to pump the refrigerant, remove the evaporator and plumbing required, reinstall after the steel work has been completed, return the air conditioning unit to service.
- 5.3.5 Disassemble and remove the gauge panel, AC control units and air filters.
- 5.3.6 Disassemble all the condensation drain plumbing and the humidifier plumbing, reinstall after the steel work has been completed.
- 5.3.7 Cut out and completely remove the bottom of the blower unit housing, taking care to avoid damaging the structures.
- 5.3.8 Supply 1/8" thick sheet metal; cut, form, fabricate and install in place a new bottom for the housing. Install adaptors for the drains which includes an adapter (close nipple) of 1" with a reducer (1" to 3/4") at the end of the end sheet, which joins the drain with a 3/4" conduit (approximate length of 4'). Brush surfaces damaged by the work, completely clean the housing interior, prepare the surfaces for (brush) adhesion of the paint, supply and apply one (1) coat of epoxy paint on bare metal surfaces and one (1) coat on all surfaces. Seal the joints well.
- Dimensions of the unit in inches:
- Width 99  
Depth 50½  
Height 48
- 5.3.9 The exterior must be painted in accordance with the vessel's colour code.
- 5.3.10 First coat: Interprime Red CPA 234 Red  
Second coat: Interprime White CPA 235 White
- 5.3.11 Clean and completely service the fan. Replace all bearings and the coupling. Check the straightness of the shafts. Send everything to a company to have the shaft and rotor balanced.
- 5.3.12 Redo the bearing lubrication piping and replace the anemometers. Demonstrate proper operation of the lubrication. Grease the bearings well with grease supplied by the vessel.
- 5.3.14 Reassemble all components and redo the connections. Install all new seals, bolts, washers, nuts and other hardware. All hardware must be new and of good quality.
- 5.3.15 Align the electric motor with the fan.
- 5.3.16 Start up the ventilation system.
- 5.4 The Contractor must obtain a hot work permit from the vessel authorities prior to starting work. The Contractor must provide the personnel and safety equipment required to safely perform work and prevent fires. The Contractor must provide the required ventilation equipment to route gases and welding smoke outside the vessel.
- 5.5 The Contractor must install the necessary protection to properly protect equipment in the room and deck coverings in the work areas. Remove protective measures after the work has been completed. The Contractor is responsible for disposing of waste.
- 5.6 All work shall be done to the satisfaction of the Canadian Coast Guard representatives.
- 5.7 The Contractor must leave the premises in a state of cleanliness similar to that prior to the work being started.

### 6.0 Refrigeration

- 6.1 Supply the material, equipment and labour to perform the following work on the vessel's refrigeration and air conditioning systems:
- 6.2 Perform the annual inspection of refrigeration and air conditioning systems in accordance with the attached list, make the necessary adjustments and conduct a complete leak test as specified in the Federal Halocarbon Regulations, supply and replace filter-dryers, supply and replace lubrication oil in all compressors, clean the bases, inspect the heaters:
- Domestic refrigeration system (two compressors)
  - Cargo refrigeration system (two compressors)
  - A/C systems # 2-3-4-5 and 13
- 6.3 Perform compressor transfer (rotation) on the following refrigeration systems:

## **CCGS DES GROSEILLIERS**

- Domestic refrigeration system
- Cargo refrigeration system

- 6.4 Start up the following air conditioning systems:  
- A/C systems # 2-3-4-5 and 13.
- 6.5 Supply and replace door seals (Half moon shape) of all the refrigerated rooms of the domestic system (5 doors)
- 6.6 Provide a complete written report of all the work performed on each system.
- 6.7 If additional work is necessary, a list accompanied by a bid must be provided to the Coast Guard representative before beginning work.
- 6.8 The Contractor must obtain a hot work permit from the vessel authorities prior to starting work. The Contractor must provide the personnel and safety equipment required to safely perform work and prevent fires.
- 6.9 Technicians performing work must hold a valid CRHA card and indicate the number on the report; provide a copy of the card to the Coast Guard representative.
- 6.10 Work may begin on June 8, 2015 and must be completed no later than June 29<sup>th</sup>, 2015.


### **7.0 Fire system inspection**

- 7.1 Supply the equipment, parts and labour required for correction of fixed and portable firefighting systems on the vessel and its boats. These systems, described in the appendix, include the vessel's fixed CO2 system and that of barge #3, the fixed kitchen system, the MINUTEMAN II and the FireCombat of the flight deck, and the portable fire extinguishers.
- 7.2 The technician will be accompanied at all times by a deck officer or an engineering officer.
- 7.3 The vessel will be moored at the Port of Québec, section 94.
- 7.4 Work may begin on June 8, 2015 and must be completed no later than June 29<sup>th</sup>, 2015.
- 7.5 Everything must be completed to the satisfaction of a marine safety inspector, the Chief Officer and the Chief Engineer. Following the review and testing of the systems listed in the following pages, the contracting firm must submit to the Chief Officer in three (3) copies:
- 7.5.1 A hydrostatic test certificate of all fixed cylinders and portable fire extinguishers tested.
- 7.5.2 A certificate of inspection of fixed cylinders and portable fire extinguishers.
- 7.5.3 A certificate of inspection of the MINUTEMAN II model 150 system and of the FireCombat system in the helicopter hangar.
- 7.5.4 A certificate of analysis of the MINUTEMAN II foam system, the FireCombat system and spare containers stowed in the compartment adjacent to the lifeboat (three different lots). The inspection must be performed by the manufacturer or by a qualified laboratory.
- 7.6 **FIXED CO2 SYSTEM**
- 7.6.1 Disassemble all fixed cylinders in turn while ensuring operational continuity of the vessel's protection system.
- 7.6.2 Check the quantity of gas in EACH cylinder (see attached list); the liquid levels must be indicated on each cylinder.
- 7.6.3 Label each cylinder certifying their inspection and the date inspected.
- 7.6.4 Check operation of the delayed release system, visual indicators, audible alarms and the ventilation shutdowns related to each sector. The inspection will involve injecting dry air into the distribution piping to demonstrate its continuity and the proper operation of the systems. The dry air can be replaced by an inert gas.
- 7.6.5 Check the operation of local, remote, manual and automatic triggers.
- 7.6.6 Check that the wheelhouse alarm panel gives a correct indication.
- 7.6.7 Check the tightness of cylinder hoses with a pressure test;
- 7.6.8 Hydro test is required on one cylinder (#5198216 Carpenter's shop).
- 7.6.9 Each system will be reassembled to the satisfaction of the Chief Officer, the Chief Engineer and the MSO inspector from Transport Canada.
- 7.7 **CO2 AND DRY CHEMICAL PORTABLE FIRE EXTINGUISHERS**
- 7.7.1 Perform annual inspection, repairs, the hydro test of the vessel's portable fire extinguishers (some with a cartridge) and recharge as necessary.
- 7.7.2 Label EACH fire extinguisher to certify its inspection and the date;
- 7.7.3 According to the attached list: 37 fire extinguishers require a hydrostatic test and two require six-year maintenance.
- 7.8 **KITCHEN HOOD LIQUID CHEMICAL SYSTEM**
- 7.8.1 Check the proper operation of local and remote triggering of the system.

## **CCGS *DES GROSEILLIERS***


- 7.8.2 Check the quantity of liquid in the cylinder.
- 7.8.3 Provide an annual inspection certificate.
  
- 7.9 FIXED CO2 FIRE EXTINGUISHING SYSTEM OF THE STARBOARD BARGE (#3)
  - 7.9.1 Perform the annual inspection, repairs of the barge's two cylinders and recharge as necessary.
  - 7.9.2 Label EACH fire extinguisher to certify its inspection and the date.
  - 7.9.3 The system will be reassembled to the satisfaction of the Chief Officer and the Chief Engineer.
  
- 7.10 Minuteman II Model 150 SYSTEM (HELICOPTER HANGAR)
  - 7.10.1 Check for proper operation of the system;
  - 7.10.2 Complete inspection of tanks and quality of foam concentrate in them;
  - 7.10.3 Check the quality of the AFFF 3% recharge foam concentrate stored in the compartment adjacent to the lifeboat (three different lots).
  
- 7.11 FIRECOMBAT SYSTEM (HELICOPTER HANGAR)
  - 7.11.1 Check for proper operation of the system.
  - 7.11.2 The foam concentrate in the system must be analyzed to ensure its quality.

CCGS DES GROSEILLIERS

	<b>N.G.C.C. DES GROSEILLIERS</b>				
<b>MANUEL D'INFORMATION GÉNÉRALE</b>	<b>SYSTÈME FIXE D'EXTINCTION</b>				<b>Dernière modification</b>
					<b>21-nov-09</b>
<i>Espace Protégé</i>	<i>Emplacement du déclencheur</i>	<i>Emplacement des cylindres</i>	<i>Cylindres</i>		<i>Système de délai de 20 secondes?</i>
			<i>Nombre</i>	<i>Type</i>	
<b>Pont des officiers</b>					
Salle machinerie A/C	À l'extérieur; côté bâbord; à droite de la porte de l'unité A/C salle des cartes	Unité A/C salle des cartes	1 x 50 lbs	CO <sub>2</sub>	Oui
Compartiment de la génératrice d'urgence	À l'extérieur; côté tribord; à la droite en haut de l'échelle menant à la génératrice d'urgence	Compartiment bouteille CO2 dans le tunnel hélicoptère	2 x 100 lbs	CO <sub>2</sub>	Oui
<b>Pont des embarcations</b>					
Salle ventilation unité 2 et 3	À l'extérieur; côté tribord; à gauche de la porte du compartiment de l'unité A/C 2 et 3	Compartiment unité A/C 2 et 3	2 x 100 lbs	CO <sub>2</sub>	Oui
Salle onduleur statique	À l'extérieur, sur la cloison à gauche de la porte.	Compartiment bouteille CO2 dans le tunnel hélicoptère	2 x 100lbs	CO2	Oui
Distributeur de carburant d'aviation	Au pont des embarcations; à l'extérieur; côté tribord; sur la cloison du local des spécialistes de sauvetage	Local des spécialistes de sauvetage	1 x 15 lbs	CO <sub>2</sub>	Non
<b>Pont supérieur</b>					
Compartiment du compresseur (atelier de plongée)	À l'extérieur, côté tribord; à gauche de la porte du compartiment du compresseur	Compartiment du compresseur	1 x 75 lbs	CO <sub>2</sub>	Oui
Salle ventilation A/C # 5	À l'extérieur; en arrière; à droite de la porte du compartiment de l'unité A/C #5	Unité A/C # 5	1 x 100 lbs	CO <sub>2</sub>	Oui
<b>Pont principal</b>					
Magasin des produits inflammables	En avant; à droite de la porte du magasin des produits inflammables	Magasin des produits inflammables	2 x 75 lbs	CO <sub>2</sub>	Oui
Atelier du Charpentier	En avant; à gauche de la porte de l'atelier du charpentier	Atelier du Charpentier	1 x 100 lbs	CO <sub>2</sub>	Oui
Compartiment du propulseur d'étrave	Au cylindre	Compartiment CO <sub>2</sub>	5 x 100 lbs	CO <sub>2</sub>	Oui
Cale avant	Au cylindre	Compartiment CO <sub>2</sub>	5 x 100 lbs	CO <sub>2</sub>	Oui
Unité A/C # 4	En avant; côté tribord près du poste d'incendie # 19	Magasin # 3 du cantinier	1 x 50 lbs	CO <sub>2</sub>	Oui
Compartiment des pompes de gîtes	En avant; côté tribord; dans la coursive; près de la porte du compartiment des pompes de gîtes	Compartiment des pompes de gîtes	3 x 75 lbs	CO <sub>2</sub>	Oui
Compartiment de la machinerie de l'ascenseur	En avant; à droite de la porte du compartiment de la machinerie de l'ascenseur	Compartiment de la machinerie de l'ascenseur	1 x 50 lbs	CO <sub>2</sub>	Oui
Hotte et poêle	Dans la cuisine; à droite de la porte arrière menant à la salle à manger	Cuisine	1 x 11,4 L	Wet Chemical	Non
Magasin Maître d'équipage	Sur l'extérieur droite du surbau de l'entrée tribord	Magasin Maître d'équipage	3 x 100 lbs	CO <sub>2</sub>	Oui



CCGS DES GROSEILLIERS

		N.G.C.C. DES GROSEILLIERS			
MANUEL D'INFORMATION GÉNÉRALE	SYSTÈME FIXE D'EXTINCTION				Dernière modification
					21-11-2009

Espace Protégé	Emplacement du déclencheur	Emplacement des cylindres	Cylindres		Système de délai de 20 secondes?
			Nombre	Type	
Pont principale (suite)					
Chambre cargo réfrigéré	En arrière; à droite de la porte du magasin général	Magasin général	1 x 75 lbs	CO <sub>2</sub>	Oui
Magasin général arrière	Un déclencheur situé dans le compartiment de l'appareil à gouverner; un autre déclencheur situé à gauche de l'entrée de la salle de contrôle	Compartiment de l'appareil à gouverner	8 x 100 lbs	CO <sub>2</sub>	Oui
Compartiment de l'appareil à gouverner	En arrière; à droite de la porte du magasin général	Magasin général	4 x 100 lbs	CO <sub>2</sub>	Oui
Palier supérieur de la salle des machines					
Compartiment de l'incinérateur	Dans la salle des machines; au niveau du pont principale; il faut emprunter les escaliers de la salle des génératrices avant menant vers la cheminée	Compartiment de l'incinérateur	3 x 75 lbs	CO <sub>2</sub>	Oui
Salle des génératrices avant	Pont principale; un déclencheur dans le compartiment CO <sub>2</sub> ; l'autre à l'entrée de la salle des machines	Compartiment CO <sub>2</sub>	27 x 100 lbs	CO <sub>2</sub>	Oui
Salle des génératrices arrière	Pont principale; un déclencheur dans le compartiment CO <sub>2</sub> ; l'autre à l'entrée de la salle des machines	Compartiment CO <sub>2</sub>	27 x 100 lbs	CO <sub>2</sub>	Oui
Salle de propulsion	Pont principale; un déclencheur dans le compartiment CO <sub>2</sub> ; l'autre à l'entrée de la salle des machines	Compartiment CO <sub>2</sub>	27 x 100 lbs	CO <sub>2</sub>	Oui
Génératrices avant	Au cylindre	Salle des génératrices avant, en avant et au centre	2 x 50 lbs	CO <sub>2</sub>	Non
Génératrices arrières	Au cylindre	Salle des génératrices arrières, côté tribord centre	4 x 50 lbs	CO <sub>2</sub>	Non
Salle de contrôle	Un déclencheur situé dans le compartiment de l'appareil à gouverner; un autre déclencheur situé à gauche de l'entrée de la salle de contrôle	Compartiment de l'appareil à gouverner	6 des 8 x 100 lbs	CO <sub>2</sub>	Oui
Moteurs de propulsion	Au cylindre	Salle de propulsion; côté tribord centre	2 x 50 lbs	CO <sub>2</sub>	Non
Cofferdam réservoirs carburant aviation	a gauche porte-étanche # 6	Magasin mécaniciens	3x 100lbs	CO <sub>2</sub>	Oui
Salle des pompes à carburant aviation	a gauche porte-étanche # 6	Magasin mécaniciens	1x 100lbs	CO <sub>2</sub>	Oui

CCGS DES GROSEILLIERS



N.G.C.C. DES GROSEILLIERS

MANUEL  
D'INFORMATION  
GÉNÉRALE

SYSTEMES D'EXTINCTION FIXES

Dernière modification  
  
12 novembre 2009

EMBARCATIONS

EMPLACEMENT	ENDROIT PROTÉGÉ	DÉCLENCHEUR	NO. SÉRIE	POIDS
Barge no 3	Compartiment moteur	Cylindre arrière	1 cylindre 15 lbs CO2	
	Compartiment moteur	Cylindre arrière	1 cylindre 10 lbs CO2	

CUISINE

EMPLACEMENT	ENDROIT PROTÉGÉ	DÉCLENCHEUR	NO. SÉRIE	POIDS
Cuisine derrière la porte tribord arrière	Hotte et poêle	À la gauche de la porte menant à la salle à manger	4BW225	liquide chimique 11,4 L test hydro:11-2013  prochain: 11-2025

NOTES SUR LES CYLINDRES

Les cylindres suivants doivent aussi être inspectés annuellement et subir des tests hydraustatiques à chaque 12 ans  
Les cylindres d'azote du système Ansull (voir section 10 du MIG)

ARRÊT D'URGENCE CARBURANT D'AVIATION

Emplacement des boutons d'arrêt d'urgence des pompes de carburant d'aviation

- Entre le hangar et le distributeur de carburant
- Cloison extérieure arrière de l'atelier des plongeurs
- Près de la porte étanche no. 6

REGLEMENT SUR LE MATERIEL DE DETECTION ET D'EXTINCTION DES INCENDIES

- 11.c.iv Lorsqu'un cylindre est sur le point d'être rechargé et que, d'après la date marquée sur le cylindre, il s'est écoulé au moins cinq ans depuis la dernière épreuve hudraulique, le cylindre sera vidé et soumis à une épreuve hydraulique avant d'être rechargé, et la date de la nouvelle épreuve sera poinçonnée sur le cylindre.
- 12 Tout extincteur à gaz carbonique qui se trouve à bord d'un navire et tout cylindre d'une installation fixe à gaz carbonique pour l'étouffement des incendies, dont sont munis la tranche des machines ou des locaux à marchandises des navires, doivent être soumis à une épreuve hydraulique au moins tout les douze ans.

CCGS DES GROSEILLIERS



N.G.C.C. DES GROSEILLIERS

MANUEL  
D'INFORMATION  
GÉNÉRALE

SYSTEMES D'EXTINCTION FIXES

Dernière modification  
  
6 juin 2008

Liste des cylindres de déclenchement CO2

PONT PRINCIPAL


Compartiment CO2

espace protégé	cylindres	no. série	dernier test hydro.
Salle des moteurs de propulsion	5 lbs CO2	776560C	hyd 05/05
Salle des machines avant	5 lbs CO2	661069C	hyd 05/05
Salle des machines arrières	5 lbs CO2	915155C	hyd 05/05

Coursive tribord près de l'escalier pour la salle de contrôle

espace protégé	cylindres	no. série	dernier test hydro.
Salle des machines avant	5 lbs CO2	841682C	hyd 05/05
Salle des moteurs de propulsion	5 lbs CO2	840061C	hyd 05/05
Salle des machines arrière	5 lbs CO2	842314C	hyd 05/05
Salle de contrôle	5 lbs CO2	842163C	hyd 05/05
Magasin général arrière	5 lbs CO2	841611C	hyd 05/05

CCGS DES GROSEILLIERS

			N.G.C.C. DES GROSEILLIERS			<div></div>			
MANUEL D'INFORMATION GÉNÉRALE			SYSTEME D'EXTINCTION FIXE			Dernière modification  4 décembre 2011			
EMPLACEMENT			N. SÉRIE	POIDS	EMPLACEMENT			N. SÉRIE	POIDS
Salle des machines avant			925916	50 lbs	Salle A/C no. 13 (salle cartes)			926277	50 lbs
			926462	50 lbs					
Salle des machines arrière			925889	50 lbs	Salle de l'ondulateur statique			6604611	100 lbs
			925907	50 lbs				6604606	100 lbs
			926338	50 lbs	Local des SES			75333AA	15 lbs
			926413	50 lbs	Salle A/C nos. 2 et 3			437924	100 lbs
								437965	100 lbs
Salle des moteurs de propulsion			926454	50 lbs	Salle A/C no 5			437912	100 lbs
			926493	50 lbs					
Compartiment des pompes de gîte			146190	75 lbs	Atelier des plongeurs			4201031Y	75 lbs
			215745	75 lbs					
			215802	75 lbs	Magasin du maitre d'équipage			437933	100 lbs
								5199182	100 lbs
Compartiment de CO <sub>2</sub>			437785	100 lbs				5199237	100 lbs
			437888	100 lbs	Magasin produits inflammables			215682	75 lbs
			437889	100 lbs				215990	75 lbs
			437896	100 lbs	Armoire Cantinier no. 3			926519	50 lbs
			437897	100 lbs	Atelier du charpentier			5198216	100 lbs
			OT196103	100 lbs	S. machinerie ascenseur			926459	50 lbs
			437915	100 lbs					
			437918	100 lbs	Salle onduateur statique			437953	100 lbs
			437922	100 lbs				437958	100 lbs
			437923	100 lbs					
			437926	100 lbs	Salle de l'incinérateur			215709	75 lbs
			437931	100 lbs				215719	75 lbs
			437938	100 lbs				215935	75 lbs
			437947	100 lbs	Cuisine			4BW225	11,4L
			437948	100 lbs	Magasin central			146705	75 lbs
			437950	100 lbs				437887	100 lbs
			437962	100 lbs				5199099	100 lbs
			437963	100 lbs				5197391	100 lbs
			437966	100 lbs				5199100	100 lbs
			437969	100 lbs	Compartiment de l'appareil à gouverner			437891	100 lbs
			437970	100 lbs				437893	100 lbs
			437971	100 lbs				437936	100 lbs
			437972	100 lbs				437954	100 lbs
			437979	100 lbs				437975	100 lbs
			437980	100 lbs				438037	100 lbs
			437982	100 lbs				438048	100 lbs
			438118	100 lbs				437901	100 lbs
			5197802	100 lbs	Barge tribord # 3			482	15 lbs
			5199000	100 lbs				W862996	10 lbs
			5199075	100 lbs	TEST HYDRO			05/2014	05/2026
			5199107	100 lbs				05/2003	05/2015
			5199108	100 lbs				06/2004	06/2016
5199127	100 lbs	07/2004	07/2016						
5199138	100 lbs	09/2004	09/2016						
5199142	100 lbs	04/2005	04/2017						
5199162	100 lbs	05/2005	05/2017						
5199195	100 lbs	01/2009	01/2021						
			06/2010	06/2022					
Magasin mécanicien			09/2010	09/2022					
			06/2011	06/2023					
			11/2013	11/2025					
			4042047Y	100 lbs					
			4042007Y	100 lbs					
			4042039Y	100 lbs					
			4042031Y	100 lbs					

CCGS DES GROSEILLIERS



N.G.C.C. DES GROSEILLIERS

MANUEL D'INFORMATION GÉNÉRALE	Système fixe du pont d'envol MINUTEMAN II	Dernière modification  12 novembre 2008
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Système de mousse MINUTEMAN II

Minuteman II model 150

**Capacité du réservoir :** 60 gallons U.S.( 240 litres)  
**Mousse :** AFFF Ansulite 3% formule 1609-72. Réserve de 60 gallons.  
**Rendement :** 60 gallons par minute à 150 psi  
**Installateur :** Simplex Grinnell Date-2007-04-26  
**Pression :** 150 PSI avec pompe de gavage.  
**Boyau :** 2" po. Model- 7322 Super-Flex GS-200PSI  
**Fusil :** C&S supply model-1560 1.5 po. NST  
**Le système peut fonctionner soit avec de l'eau seulement ou avec la mousse AFFF 3% selon le besoin requis**

Entretien du système à mousse AFFF 3%

- 1 L'inspection annuelle est effectuée par une compagnie spécialisée.
- Vérifier l'état général du système.
  - Effectuer un test visuel sur le réservoir de mousse.
  - Effectuer un analyse sur la mousse AFFF.
  - Vérifier l'état de la soupape de soulagement contre le vide (Vacuum relief vent).
  - Faire une entretien approfondi de la buse ajustable.
- 2 L'inspection mensuelle consiste à vérifier les points suivants:
- S'assurer que les leviers de valve sont en mode buse fixe avec mousse. S'assurer que les indications sont lisibles et que l'information est compréhensible.
  - Essayer les divers valves pour s'assurer qu'elles ne sont pas collées (spécifiquement 3)
  - Vérifier s'il y a des fuites et si les boyaux sont endommagés.
  - S'assurer qu'il n'y a pas de parties manquantes, de pièces endommagées ou de la corrosion.
  - S'assurer qu'il n'y a aucune obstruction pouvant limiter l'accès et le déploiement du système.
  - Inspecter le boyau d'extinction d'incendie et la buse ajustable. Vérifier que l'enroulement du boyau est bien verrouillé et laissé la buse en mode fermé.

CCGS DES GROSEILLIERS



N.G.C.C. DES GROSEILLIERS

PAGE: 10.01

MANUEL  
D'INFORMATION  
GÉNÉRALE

Système fixe du pont d'envol  
FIRECOMBAT

Dernière modification  
  
31 octobre 2012

Système à mousse et à poudre Fire Combat

Nouveau système fixe d'extinction à mousse AFFF 3% et à poudre FireCombat installé en juin 2008

FireCombat Twin agent system  
modèle 13028  
450 PKP / 100 AFFF

Spécifications

450 lbs purple K (227 Kg) 100 gallons de mousse AFFF 3% (378 litres)  
150 pi (45.8 m) de boyau double de 1 po de diamètre Buse ajustable mousse-poudre (handgun)  
poudre 8 lbs/sec pour 56 sec. mousse AFFF 95 GPM pour 63 sec.

Entretien du système FireCombat

1 Les cylindres d'azote doivent être inspectés à chaque 10 ans.

CYLINDRE	NO SÉRIE	DERNIER TEST	PROCHAIN TEST
Cylindre # 1	3733178 Y	sept-07	sept-17
Cylindre # 2	3733182 Y	sept-07	sept-17

2 L'inspection annuelle est effectuée par une compagnie pour vérifier l'état général du système et faire un test visuel sur les réservoirs de poudre et de mousse. Ils vont aussi effectuer un test pour vérifier l'état de la mousse.

3 L'inspection mensuelle consiste à vérifier les points suivants:

- S'assurer que les scellés sont en place sur les leviers des valves. S'assurer que les indications sont lisibles et que l'information est compréhensible.
- Vérifié si les valves des cylindres sont complètement fermées et que les gauges sont en bonne état (pas de vitre cassée).
- Noter la pression de chaque cylindre d'azote et la température ambiante. Se référer à la table de correction pour la température et remplacer le cylindre si la pression est inférieure à 1750 PSI à 21°C.
- S'assurer qu'il n'y a pas de corrosion sur toutes les connexions sous pression. Vérifier s'il y a des fuites et s'il y a des boyaux endommagés.
- S'assurer qu'il n'y a pas de parties manquantes, de pièces endommagées ou de la corrosion.
- S'assurer qu'il n'y a aucune obstruction pouvant limiter l'accès et le déploiement du système.
- Inspecter le boyau d'extinction d'incendie et la buse ajustable. Vérifier que l'enroulement du boyau est bien verrouillé et laissé la buse en mode fermé. S'assurer que la buse est retenue en place par sa barrure.

Matériel pour exercice

3 contenants de mousse sont réservés pour les exercices (Pinnacle)

CYLINDRE LINDE	EMPLACEMENT	PROCHAIN TEST HYDRO (10 ans)
1028236	Entrepont bâbord arrière	Fait 10/2006 due 10/2016
336791	Entrepont bâbord arrière	Fait 10/2007 due 10/2017

2 Connexions de cylindre et boyaux (plus long) pour les cylindres d'azote d'exercice sont situés dans le local de sécurité dans l'armoire barrée bâbord.

Inventaire pour recharge de mousse AFFF 3% et de poudre PURPLE K (date:.....)

MOUSSE 19 litres (5 gallons)	EMPLACEMENT	NOMBRE	DATE MANUFACTURE
Ansulite 3%	Pont des embarcations sous la chaloupe	3	févr-07
		6	mars-08
		4	juin-08
Pinnacle (FORMATION)	Pont des embarcations sous la chaloupe	2	juin-08
Total		15	2013-02-09

3 contenants de mousse sont presque vides et ne font pas partie de l'inventaire dont (2) Ansulite 3% et (1) Pinnacle

POUDRE 22.7 Kg (50 lbs)	EMPLACEMENT	NOMBRE	DATE MANUFACTURE
Ansul Purple K	Compartiment du propulseur d'étrave	20	juin-08
Purple K	Pont des embarcations sous la chaloupe	1	
Ambio Film	Pont des embarcations sous la chaloupe	1	
total		22	2013-02-09

**CCGS DES GROSEILLIERS**

REMARQUE	DATE	SIGNATURE
Extincteur #106 : à faire entretenir par une compagnie car la cartouche de CO2 ne visse pas bien. La bague filetée où visse la cartouche est mobile et empêche le vissage complet de la cartouche de CO2.	18/02/2014	Paul Lefebvre
Extincteurs # 95 et # 96: Hydrostatique passé date.	19/02/2014	Paul Lefebvre
Extincteur # 94 (barge bâbord): Rack très rouillé.	19/02/2014	Paul Lefebvre
Extincteur # 103: Dû pour un hydrostatique en mai 2014. Sa maintenance 6 ans était due pour janvier 2014 et son poids est en dessous de son poids minimum ( poids actuel: 8.46lbs ; poids min: 9 lbs)	19/02/2014	Paul Lefebvre
Extincteur # 92: sous son poids minimum ; poids actuel: 2.97 lbs ; poids min: 3.25 lbs	19/02/2014	Paul Lefebvre
Extincteur # 74: Pression sous la normale à surveiller.	19/02/2014	Paul Lefebvre
Extincteur # 91 (zodiac 733): poignée tordue	19/02/2014	Paul Lefebvre
Extincteur # 90 (zodiac 733): L'indicateur de pression est légèrement tordu et peut donc donner une mauvaise lecture de pression et la poignée est tordue.	19/02/2014	Paul Lefebvre
Extincteur # 88: Pression légèrement élevée.	19/02/2014	Paul Lefebvre
Extincteur # 78: lousse dans son support	19/02/2014	Paul Lefebvre
Extincteur # 66: Étiquette arrachée, poids à surveiller.	19/02/2015	Paul Lefebvre
Extincteur # 65: Extrêmement sale et magané.	19/02/2016	Paul Lefebvre
Extincteur # 63: Poids sous son minimum; à surveiller.	19/02/2017	Paul Lefebvre
Extincteur # 54: Pression à surveiller.	19/02/2018	Paul Lefebvre
Extincteur # 53: lousse dans son rack.	19/02/2019	Paul Lefebvre
Extincteur # 39: surveiller le poids de la cartouche.	19/02/2020	Paul Lefebvre
Extincteur # 7: sous son poids minimum.	19/02/2021	Paul Lefebvre
Extincteur #3 Support difficile à ouvrir.	19/02/2021	Paul Lefebvre



CCGS DES GROSEILLIERS

✓	#	EMPLACEMENT	MARQUE & MODÈLE	TYPE & AGENT	POIDS MINIMUM	POIDS ACTUEL	POIDS CARTOUCHE	POIDS ACTUEL	EXTINCTEUR SÉRIE #	CYLINDRE SÉRIE #	ANNÉE DE FABRICATION	DERNIER HYDROSTATIC	DERNIÈRE MAINTENANCE
		<b>TIMONERIE ( 2 )</b>											
	1	TIMONERIE TRIBORD	AMEREX	CO2 10 lbs	25,13 lbs				947236 C	W 118707	1993	2010 juin	
	2	TIMONERIE BÂBORD	AMEREX	CO2 10 lbs	25,13 lbs				947237 C	W 118393	1993	2010 juin	
		<b>PONT DE NAVIGATION ( 7 )</b>											
	3	SALLE SOUTIEN AUX OPERATIONS	AMEREX	CO2 10 lbs	25,13 lbs				947238 C	W 118388		2010 juin	
	4	PORTE D'ENTRÉE SALLE À CARTES NAVIGATION SPÉCIALE	STRIKE FIRST WBDL-ABC 10	POUDRE ABC 10 lbs	17 lbs				AT-104173		2011		
	5	SALLE À CARTES NAVIGATION SPÉCIALE	GENERAL C-SRA	CO2 5 lbs	16,90 lbs				901140 C	B385035		2011 mai	
	6	SALLE DES RADIOS MF/HF QMDSS	FLAG FIRE CO2 10-l	CO2 10 lbs	25,10 lbs				Z 678165	W 333777		2011 juin	
	7	PORTE D'ENTRÉE SALLE ÉQUIPEMENTS ÉLECTRONIQUES	AMEREX	CO2 10 lbs	25,13 lbs	24,9 lbs			947224 C	W 118379		2010 juin	
	8	ÉQUIPEMENTS ÉLECTRONIQUES	GENERAL C-SRA	CO2 5 lbs	15,50 lbs				901136 C	B384808		2011 mai	
	9	ESPACE SÉPARATION (SOUS TIMONERIE)	GENERAL C-SRA	CO2 5 lbs	15,50 lbs				901141 C	B384819		2011 mai	
		<b>PONT DES OFFICIERS ( 4 )</b>											
	10	COURSIVE PROXIMITÉ DE CABINE DU COMMANDANT	STRIKE FIRST WBDL-ABC 10	POUDRE ABC 10 lbs	17 lbs				AT-104175		2011		
	11	LOCAL DES ÉQUIPEMENTS D'URGENCE	FLAG FIRE	POUDRE ABC 10 lbs	21,25 lbs		496 g	513g	D 478445 C		1979	2003 mai	2010 juin
	12	LOCAL DE LA GÉNÉRATRICE D'URGENCE	FLAG FIRE	POUDRE ABC 10 lbs	21,25 lbs		489 g	502g	D 478452 C		1979	2003 juin	2010 juin
	13	LOCAL DE LA GÉNÉRATRICE D'URGENCE	FLAG FIRE CO2 10-l	CO2 10 lbs	24,10 lbs				Z 678199	W 334323		2011 juin	
		<b>PONT DES EMBARCATIIONS ( 7 )</b>											
	14	COURSIVE PROXIMITÉ DE LA CABINE # 10	STRIKE FIRST WBDL-ABC 10	POUDRE ABC 10 lbs	17 lbs				AJ-252512		2011		
	15	LOCAL DE L'ONDULEUR STATIQUE	FLAG FIRE	POUDRE ABC 10 lbs	21,25 lbs		489 g	500g	D 478466 C		1979	2003 mai	2010 juin
	16	LOCAL DE L'ONDULEUR STATIQUE	AMEREX	CO2 10 lbs	25,13 lbs				947232 C	W 118373		2010 juin	
	17	LOCAL DES SPÉCIALISTES EN SAUVETAGE	FLAG FIRE	POUDRE ABC 10 lbs	21,25 lbs		489 g	499g	D 478457 C		1979	2003 mai	2010 juin
	18	ARMOIRE POMPE CARBURANT AVIATION	AMEREX A5H	POUDRE ABC 20 lbs	34,88 lbs				H 100038		2009		
	19	HANGAR D'HELICOPTERE	STRIKE-FIRST	POUDRE ABC 20 lbs	32,01 lbs				AT-408617		2011		
	20	HANGAR D'HELICOPTERE	AMEREX	CO2 20 lbs	44,50 lbs				000062 C	U 223685		2010 juin	
		<b>PONT SUPÉRIEUR ( 9 )</b>											
	21	LOCAL DE CONTRÔLE DE SOUPAPES DE CARBURANT	FLAG FIRE	POUDRE ABC 10 lbs	21,25 lbs		489 g	492g	D 478483 C		1979	2003 mai	2010 juin
	22	PORTE D'ENTRÉE CABINE DE L'ÉLECTRICIEN	STRIKE FIRST WBDL-ABC 10	POUDRE ABC 10 lbs	17 lbs				AJ-252522		2011		
	23	BUREAU DU SECTEUR MÉCANIQUE	AMEREX	CO2 10 lbs	25,13 lbs				947233 C	W 118370		2011 mai	
	24	BUREAU DU NAVIRE	STRIKE FIRST WBS1-5CO2	CO2 10 lbs	13,13 lbs				NAB-516334		2010		
	25	ENTRÉE À PROXIMITÉ CABINE MAÎTRE D'ÉQUIPAGE	STRIKE FIRST WBDL-ABC 10	POUDRE ABC 10 lbs	17 lbs				AJ-252524		2011		
	26	VESTIBULE DU DISPENSAIRE MÉDICAL	STRIKE FIRST WBDL-ABC 10	POUDRE ABC 10 lbs	17,0 lbs				BK457738		2014		
	27	PROXIMITÉ ARMOIRE BIDONS D'ESSENCE	STRIKE FIRST	POUDRE ABC 20 lbs	32,56 lbs				BH-727830		2013		
	28	LOCAL DU COMPRESSEUR D'AIR RESPIRABLE	FLAG FIRE	POUDRE ABC 10 lbs	21,25 lbs		489 g	500g	D 478471 C		1979	2003 mai	2010 juin
	29	LOCAL DU COMPRESSEUR D'AIR RESPIRABLE	PYRENE PSH-5-4	CO2 15 lbs	32,00 lbs				859344 C	V23215	1984	2011 mai	
		<b>PONT PRINCIPAL ( 19 )</b>											
	30	PORTE D'ENTRÉE DE LA BLANDERIE CENTRALE	FLAG FIRE	POUDRE ABC 10 lbs	21,25 lbs		496 g	506g	D 478425 C		1979	2003 mai	2010 juin
	31	LOCAL DES DISJONCTEURS D'ÉQUIPEMENT	PYRENE PSH-5-4	CO2 15 lbs	32,00 lbs				859359 C	V28304	1984	2011 mai	
	32	PORTE D'ENTRÉE DE L'ATELIER DU CHARPENTIER	STRIKE FIRST WBDL-ABC 10	POUDRE ABC 10 lbs	17 lbs				AJ-252526		2011		
	33	FUMIOIR	ANSUL SENTRY A05	POUDRE ABC 5 lbs	9,06 lbs				WK 781456		2004	2004 janv	2010 juin
	34	GYMNASÉ	AMEREX	CO2 10 lbs	25,13 lbs				947226 C	W 118366		2010 juin	
	35	COURSIVE TRANSVERSALE CENTRE CENTRE	STRIKE FIRST WBDL-ABC 10	POUDRE ABC 10 lbs	17 lbs				AJ-252527		2011		
	36	PORTE D'ENTRÉE DE L' ASCENSEUR	STRIKE FIRST WBDL-ABC 10	POUDRE ABC 10 lbs	17 lbs				AJ-252528		2011		
	37	PORTE D'ENTRÉE SALLE DES MACHINES	STRIKE FIRST WBDL-ABC 10	POUDRE ABC 10 lbs	17 lbs				AJ-252531		2011		
	38	COURSIVE BÂBORD À PROXIMITÉ PORTE ÉTANCHE # 10	STRIKE FIRST WBDL-ABC 10	POUDRE ABC 10 lbs	17 lbs				AJ-252532		2011		
	39	PORTE D'ENTRÉE DE L'INCINÉRATEUR (CÔTÉ S / M)	FLAG FIRE	POUDRE ABC 10 lbs	21,25 lbs		489 g	498g	D 478475 C		1979	2003 mai	2010 juin
	40	COMPARTIMENT DE L'INCINÉRATEUR	AMEREX	CO2 10 lbs	25,13 lbs				947235 C	W 118369		2010 juin	
	41	ENTRÉE DU MAGASIN DES PRODUITS NETTOYANT	STRIKE FIRST WBDL-ABC 10	POUDRE ABC 10 lbs	17 lbs				AJ-252535		2011		
	42	ENTRÉE DU MAGASIN DES VÊTEMENTS PROTECTEURS	STRIKE FIRST WBDL-ABC 10	POUDRE ABC 10 lbs	17 lbs				AJ-252626		2011		
	43	CUISINE TRIBORD AVANT	PYRENE PSH-5-4	CO2 15 lbs	32,10 lbs				876106 C	V50731	1986	2011 mai	
	44	CUISINE TRIBORD ARRIÈRE	BADGER WC-100-C	MOUSSE K 10 lbs	23,50 lbs				AB-194044		2006		2011 juin
	45	CUISINE SYSTÈME FIXE LIQUIDE CHIMIQUE	Kitchen Knight II PCL-3000	LIQUIDE CHIMI ITAL	55,7 lbs				4BW225		2001	2013 mai	2025 nov
	46	COURSIVE TRANSVERSALE ARRIÈRE ( STATION # 25 )	STRIKE FIRST WBDL-ABC 10	POUDRE ABC 10 lbs	17 lbs				AJ-252628		2011		
	47	MAGASIN CENTRAL - CLOISON CENTRE AVANT	PYRENE PSH-5-4	CO2 15 lbs	32,10 lbs				893033 C	V 55019	1986	2011 mai	
	48	LOCAL APPAREIL À GOUVERNER BÂBORD	FLAG FIRE	POUDRE ABC 10 lbs	21,25 lbs		489 g	499g	D 478473 C		1979	2003 mai	2010 juin
	49	LOCAL APPAREIL À GOUVERNER TRIBORD	FLAG FIRE	POUDRE ABC 10 lbs	21,25 lbs		489 g	508g	D 478472 C		1979	2003 mai	2010 juin
		<b>MEZZANINE DE LA SALLE DE LA MACHINES ( 19 )</b>											
	50	SALLE DES MACHINES AVANT_Pilier Avant Tribord	KIDDE P340ABC-VB-2	POUDRE ABC 5 lbs	7,56 lbs				WK-237437		2004	2005 juin	2011 mai
	51	SALLE DES MACHINES AVANT_Pilier Avant Bâbord	KIDDE P340ABC-VB-2	POUDRE ABC 5 lbs	7,56 lbs				WK-237438		2004		2010 juin
	52	SALLE DES MACHINES AVANT_Pilier Avant Bâbord	AMEREX	CO2 15 lbs	33,38 lbs				935335 C	V 76722		2010 juin	
	53	SALLE DES MACHINES AVANT_Rambarde Arrière Bâbord	AMEREX	CO2 15 lbs	33,38 lbs				935327 C	V 76869		2010 juin	
	54	SALLE DES MACHINES ARRIÈRE_Cloison Arrière Tribord	AMEREX	POUDRE ABC 5 lbs	7,81 lbs				144774C		1999	2010 nov	2010 nov
	55	SALLE DES MACHINES ARRIÈRE_Cloison Bâbord Arrière	PYRENE	POUDRE ABC 5 lbs	7,56 lbs				WU-525569		2004		2010 juin
	56	SALLE DE CONTRÔLE_Escalier Tribord	AMEREX	CO2 15 lbs	34,00 lbs				935397 C	V 80796		2010 juin	
	57	SALLE DE CONTRÔLE_Cloison Tribord Avant	AMEREX	CO2 15 lbs	34,00 lbs				935400 C	V 80795		2010 juin	
	58	SALLE DE CONTRÔLE_Cloison Bâbord Avant	AMEREX	CO2 15 lbs	34,00 lbs				935399 C	V 80797		2012 juin	
	59	SALLE DE CONTRÔLE_Proximité de l'Abreuvoir	FLAG FIRE	POUDRE ABC 20 lbs	36,50 lbs		1077 g	1077g	D 665247 C		1979	2010 juin	2004 juin
	60	SALLE DE PROPULSION_Cloison Avant Bâbord	STRIKE FIRST WBDL-ABC 30LV	POUDRE ABC 5 lbs	9,03 lbs				AT-351351		2011		
	61	SALLE DE PROPULSION_Rambarde Avant Tribord	AMEREX	CO2 15 lbs	33,38 lbs				935326 C	V 82562		2010 juin	
	62	SALLE DE PROPULSION_Rambarde Avant Bâbord	AMEREX	CO2 15 lbs	33,38 lbs				935333 C	V 76888	1993	2010 juin	
	63	SALLE DE PROPULSION_Membrure Arrière Bâbord	AMEREX	CO2 15 lbs	33,38 lbs				935334 C	V 78008	1993	2010 nov	2010 juin
	64	SALLE DE PROPULSION_Pilier Arrière Tribord	PYRENE ABC SPH-8	POUDRE ABC 5 lbs	8,06 lbs				20101 C		1994	2010 nov	2006 nov
	65	SALLE DE PROPULSION_Pilier <b>ATELIER DE SOUDURE</b>	AMEREX	CO2 10 lbs	25,25 lbs				947234 C	W 118358		2010 juin	
	66	SALLE DE PROPULSION_Assise Réservoir des Gicleurs	FLAG FIRE	POUDRE ABC 20 lbs	36,00 lbs		687,6 g	777g	D 480926 C		1979	2003 mai	2010 juin
	67	SALLE DE PROPULSION_Evier <b>ATELIER DE SOUDURE</b>	AMEREX	CO2 10 lbs	25,50 lbs				947239 C	W 118362		2011 juin	
	68	MAGASIN DES MÉCANICIENS	PYRENE	CO2 15 lbs	32,31 lbs				892974 C	V 55440		2011 mai	
		<b>PARQUET DE LA SALLE DES MACHINES ( 13 )</b>											
	69	SALLE DES MACHINES AVANT_Pilier Avant Tribord	PYRENE	POUDRE ABC 5 lbs	6,75 lbs				H 274507 C		1985	2009 juin	2003 juin
	70	SALLE DES MACHINES AVANT_Pilier Avant Bâbord	PYRENE	POUDRE ABC 5 lbs	6,75 lbs				H 274508 C		1985	2005 mai	2011 juin
	71	SALLE DES MACHINES AVANT_Pilier Arrière Tribord	FLAG FIRE	POUDRE ABC 20 lbs	36,00 lbs		758 g	786g	D 484300 C		1979	2003 mai	2010 juin
	72	SALLE DES MACHINES AVANT_Cloison Arrière Centre	PYRENE	POUDRE ABC 5 lbs	6,75 lbs				H 274141 C		1985	2009 juin	2003 juin
	73	SALLE DES MACHINES ARRIÈRE_Cloison Avant Tribord	Strike first ABC 30LV	POUDRE ABC 5 lbs	8,38 lbs				AT-351349		2011		
	74	SALLE DES MACHINES ARRIÈRE_Cloison Avant Centre	AMEREX A500	POUDRE ABC 5 lbs	7,80 lbs				129307 C		1998	2010 nov	2004 nov
	75	SALLE DES MACHINES ARRIÈRE_Cloison Avant Centre	AMEREX	MOUSSE	18,31 lbs				AD-562140		2013		
	76	SALLE DES MACHINES ARRIÈRE_Cloison Avant Bâbord	AMEREX B468	POUDRE ABC 10 lbs	16,60 lbs				B-687098		2009		2010 nov
	77	SALLE DES MACHINES ARRIÈRE_Pilier Avant Centre	AMEREX A500	POUDRE ABC 5 lbs	7,80 lbs				145175 C		1999	2010 nov	2010 nov
	78	SALLE DES MACHINES ARRIÈRE_Derrière Diesel # 5	AMEREX	CO2 15 lbs	34,00 lbs				935398 C	V 80803		2010 juin	
	79	SALLE DES MACHINES ARRIÈRE_Cloison Arr. Centre	FLAG FIRE	POUDRE ABC 20 lbs	36,00 lbs		797,5 g	758g	D 481295 C		1979	2003 mai	2010 juin
	80	MOTEUR DE PROPULSION_Bâbord Avant	AMEREX B500	POUDRE ABC 5 lbs	8,30 lbs				F-882573		2009		
	81	MOTEUR DE PROPULSION_Centre Avant	AMEREX	MOUSSE	18,31 lbs				AD-562169		2013		
	82	MOTEUR DE PROPULSION_Tribord Avant	AMEREX A500	POUDRE ABC 5 lbs	7,81 lbs				215563 C		2001	2013 mai	2007 mai
	83	MOTEUR DE PROPULSION_Tribord Arrière	AMEREX	CO2 15 lbs	34,50 lbs				935393 C	V 80834	2009	2009 juin	
		<b>COMPARTIMENTS ( 7 )</b>											
	84	MAGASIN DU MAÎTRE D'ÉQUIPAGE_Echelle Tribord	FLAG FIRE	POUDRE ABC 10 lbs	21,25 lbs		489 g	490g	D 478484 C		1979	2003 mai	2010 juin
	85	MAGASIN DU MAÎTRE D'ÉQUIPAGE_Bâbord Arrière	FLAG FIRE	POUDRE ABC 10 lbs	21,25 lbs		489 g	498g	D 478453 C		1979	2004 juin	2010 juin
	86	PROPULSEUR D'ÉTRAVE_Mezzanine_Cloison Avant	STRIKE FIRST WBDL-ABC 30LV	POUDRE ABC 5 lbs	8,94 lbs				AT-351370		2011		
	87	PROPULSEUR D'ÉTRAVE_Palier Centre	STRIKE-FIRST WBDL-ABC 10	POUDRE ABC 10 lbs	16,44 lbs				WH 524844		2004		2010 juin
	88	PROPULSEUR D'ÉTRAVE_Palier Tribord ( long cornet)	STRIKE-FIRST WBSF-5CO2	CO2 15 lbs	35,00 lbs				00275	FR00001190	2004	2013 mai	
	89	CALE AVANT_Pilier Tribord Centre	STRIKE FIRST WBDL-ABC 30LV	POUDRE ABC 5 lbs	8,94 lbs				AT-351385		2011		
	90	POMPE DE GITE_Cloison Arrière Centre	FLAG FIRE	POUDRE ABC 10 lbs	21,25 lbs		489 g	500g	D 478545 C		1979	2003 mai	2010 juin
		<b>EMBARCATIONS ( 11 )</b>											
	91	CHALOUPÉ DE SAUVETAGE_Avant	PYRENE P-5 ABC 2½	POUDRE ABC 2 1/2 lbs	3,25 lbs				L 715955 C		1989	2012 juin	2006 juin
	92	CHALOUPÉ DE SAUVETAGE_Arrière	Garrison SR FE 2½	POUDRE ABC 2 1/2 lbs	4,43 lbs				AW-07722		2012		
	95	ZODIAC HURRICANE 733_Siège Bâbord	PYRENE P-5 ABC 2½	POUDRE ABC 2 1/2 lbs	3,25 lbs				L 715957 C		1989	2012-juin	2008 juin
	94	ZODIAC HURRICANE 733_Siège Bâbord	PYRENE P-5 ABC 2½	POUDRE ABC 2 1/2 lbs	3,25 lbs				L 715954 C		1989	2012 juin	



## **CCGS DES GROSEILLIERS**

### **8.0 Windlass inspection**

- 8.1 Empty the oil from the hydraulic unit (80 gal). Immediately dispose of it in accordance with the environmental regulations in effect. Do not leave waste oil containers on the vessel deck or the CCG wharf.
- 8.2 Completely disassemble each windlass' parts.
- 8.3 Clean the parts.
- 8.4 Verify the condition of all shaft sleeves and bearings, take measurements and record them in the report.
- 8.5 Verify all the lubrication points. Replace all the grease nipples (buses de graissage) with 316 high-pressure stainless steel nipples. All components must be lubricated with grease (Petro-Canada PXL2C30, Precision XL EP2) supplied by the Contractor.
- 8.6 Do a penetrant inspection of all pins and gears to detect any fissures and provide a report of the trial runs.
- 8.7 Verify the straightness of the shafts. Provide a report of this verification.
- 8.8 Show the replacement parts and measurements to the TC inspector and CCG representative. All parts deemed to be damaged following this inspection will be replaced and treated separately via form PWGSC 1379.
- 8.9 Reassemble all the parts as described in the manufacturer's user guide with new, high-quality packing seals (OEM, if available).
- 8.10 CANCELLED.
- 8.11 CANCELLED.
- 8.12 Clean the hydraulic oil tank and transmission case and have it inspected by the vessel's Chief Engineer before closing it. Close the inspection plates with new packing seals.
- 8.13 CANCELLED.
- 8.14 All parts with NPT threads must be reassembled with the Master Metallic Compound (grey) product.
- 8.15 Disassemble it and bring it to the workshop in order to review and verify the performance of the following components on the test stand: main pump, auxiliary pump, hydraulic motor, hydraulic brake, operation control. Replace the packing seals and ball bearings. If other components are found to be damaged when parts are opened, they will be dealt with separately. Before opening any components, it is important to know whether the parts can be delivered within the contract deadlines. The vessel's crane must be operational when it returns to sea. If the parts for the main pump, auxiliary pump or main motor are no longer available, list a price in the annex for replacement by a new replacement part with the specifications from the same manufacturer. Include the modifications necessary to install the new parts. Provide a report on the trial runs and work on each component.
- 8.16 Ship the electric motor of the hydraulic unit to a specialized firm for a complete overhaul, cleaning, balancing and replacement of the ball bearings (high-quality and sealed), and to have it painted with grey epoxy. Provide a report on the trial runs and work on each motor.
- 8.17 CANCELLED.
- 8.18 Clean and check the two (2) hydraulic oil heating elements and supply the ground insulation resistance, the resistance of each element and the amperage of the current in each element. Check that the thermostats are functioning properly and replace them as necessary. Adjust them to the manufacturer's specifications.
- 8.19 Check the functioning of the thermostat that prevents the pump from starting up if oil temperature is below 10°C.
- 8.20 CANCELLED.
- 8.21 Fill the tank and transmission case with new oil provided by the Contractor. The empty barrels and containers must be recovered by the Contractor.
- 8.22 CANCELLED.

## **CCGS DES GROSEILLIERS**

- 8.23 The manual brakes must be overhauled. The brake bands will have to be replaced by OEM (Original Equipment Manufacturer) bands.
- 8.24 The windlass must be cleaned with a degreaser made by International. The rust on the crane and its components must be mechanically cleaned off down to bare metal. Care must be taken to avoid getting any paint on the gypsies. All painting and painting preparation work must be done according to International's latest recommendations. Apply the paint as follows:
- Two (2) layers: INTERPRIME 198 white colour at 3 mils dry per layer on exposed metal,  
Two (2) layers: INTERLAC 665 chamois colour at 2 mils dry per layer on all surfaces.
- 8.25 Apply two layers of Interbond 501 red deck paint on the piping and bare metal components near the deck.
- 8.26 Care must be taken to avoid getting paint on the hoses and other components. The Contractor must supply the paint. If the work is done on board the vessel, it must be done with brushes and rollers. Do not spray paint. Before painting, protect the deck and all the components pointed out by the Chief Engineer. Remove this protection when the work is finished.
- 8.27 Once the paint has dried and to the satisfaction of the Chief Engineer, all the components must be lubricated with grease (Petro-Canada PXL2C30, Precision XL EP2) supplied by the Contractor.
- 8.28 Touch up the paint on the installed bolts and other scratches according to the instructions given in this description.
- 8.29 If applicable, apply a sealer around the footing where the equipment will be bolted before installing the windlass on the deck.
- 8.30 Supply and apply Petro-Tape on all hose connectors.
- 8.31 After each day's work, ensure that the area around the crane is clean and safe.
- 8.32 Perform the crane commissioning and adjustments, and repair all deficiencies.
- 8.33 Perform a complete trial run of the windlass in the presence of all CCG and Transport Canada stakeholders.
- 8.34 Annexe 4 attached for reference.

### **9.0 FORWARD CARGO HATCH COAMING**

- Reference Drawings
- 68-HSK-34 Insulation and cover plate protection FWD Cargo Hatch Coaming
  - 68-H-49 Hatch Coamings forward hatch on upper deck Frs 154-165
  - 68-H-114-1 Insulation plan
- Annexe 6 Item 9
- 9.1 Description of Work
- 9.1.1 Two (2) sections of plating will be rebuilt by means of surface spot welding to replenish pitting. Dimensions are 4' x ½' and 12' x ½'. Surfaces will be buffed flat once replenished. This shall be done in a manner as to avoid the removal of insulation under the deck.
- 9.1.2 The insulation and cover plate protection (with brackets and flat bars) shall be rebuilt according to the provided plans with new materials. Welding to the deck will be done in a manner as to avoid the removal of insulation under the deck.
- 9.1.3 All bare interior surfaces shall be painted with one coat of INTERGARD 143 primer. Once primer has been applied to the bare areas, all interior surfaces are to receive an application of two (2) separate coats of INTERGARD 264 white epoxy paint. Each coat is to achieve a DFT of 0.005". Paint to be supplied by the vessel.
- 9.1.4 On completion of painting the insulation housing will be refitted with Fiberglass insulation type AF 331 or equivalent insulation, as identified in 68-H-114-1. Insulation to be supplied by the vessel.
- 9.1.5 New ¼" grade A plates will be welded into position using specifications available in reference drawings.

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- 9.2 Inspection
- 9.2.1 The following inspections are required to be verified by the CCG Inspection Authority the CCG Technical Authority:
  - Inspection of the coaming after each of the above points.
- 9.3 Testing
- 9.3.1 The following tests are to be performed:
  - Measurement of paint application.
- 9.4. Drawings/Reports
- 9.4.1 The Contractor shall supply the CCG Technical Authority with a PDF copy of the report detailing the work undertaken, defects, repairs made and measurements and readings taken.