

Manager.

- As fitted Drawings: Within one month of CAD.
- Documentation arising from refit contract: Within one month of CAD
- Refit readings, calibration certification: At CAD Loose Bound files to be supplied to the nominated Authority's Authorised Representative.
- As fitted photographs: Within one month of CAD.
- Stability information (if required): Within one month of CAD Interim Report to be available prior to vessel tow to mooring.

16 Supply of As Fitted Drawings

16.1 Drawings

16.1.1 General arrangements drawings (obtained from MOD) are to be marked in red to show all new cable routes, and pipe runs. If existing runs are used these are also to be marked up in red and annotated accordingly.

These drawings are also to include positions of all new equipment fitted.

16.1.2 In addition to the as fitted drawings a list of new equipment and its associated manufacturer/supplier is to be provided to enable spares to be ordered at a later date. This is to be provided in an Excel spreadsheet format.

Amended prints shall be marked in red with 'TV TRISTRAM REFIT 2022'

16.1.3 All drawing information produced in accordance with this specification is to be supplied to MOD within one month of the Contract Completion Date.

17 Supply of As Fitted Photographs

17.1 Brief Description

17.1.1 Supply copy of As Fitted digital photographs, indexed as specified and saved to Universal Serial Bus (USB). Allow to supply 100 photographs.

17.2 General Requirement

- Storage medium shall be USB.
- USB shall be marked '**TV TRISTRAM REFIT 2022**', and '**OFFICIAL SENSITIVE**'
- An index of the photographs held on the USB is to be provided in MS Excel format, and saved to the USB under the filename: INDEX.XLS.
- The index shall provide the following information for each and every digital photograph:
 - Filename (Long Filename).
 - Subject (arrangement or equipment shown).
 - Compartment (Location of the Subject).
 - Frame Station (Location of the Subject and Port or Stbd).
 - Date (when the photograph was taken).
 - Orientation (direction photographs taken).

- The Spatial Resolution of any digital photographs taken shall be 800x600 pixels, or better.
- The digital photographs may only be saved/supplied in the following format, which is readable with Microsoft Photo Editor:
 - Joint Photographic Experts Group (*.jpg)
 - Portable Network Graphics (*.png)
 - Graphics Interchange Format (*.gif)
- The importance attached to the clarity of photographs must be emphasised. Photographs are not to include scaffolding, debris or clutter. The task is to be programmed accordingly.
- The vessel repairer must include for cramage/access equipment to enable aerial/overhead photographs to be taken when necessitated by the subject matter, e.g. masthead equipment.
- USB to be supplied to the MOD within one month of the Contract Completion Date.

18 Clean Vessel

18.1 Cleanliness

- 18.1.1 The cleanliness and appearance of the vessel at CAD is of great importance to the owner and will form a major item governing acceptance.
- 18.1.2 The Contractor must apply quality control to this aspect throughout the Refit period and commit sufficient resources to it from the outset.
- 18.1.3 The standard of cleanliness required is absolute and is not limited to the condition as delivered by the owner at Take in Hand (TIH). Neither will it be governed by the contracted vessel repairer's notion of what may be acceptable to other owners.
- 18.1.4 The required standard is high and demands a continuous combined effort from the Contractor and vessel's staff. At the TIH meeting, the Authority's Authorised Representative will call for nominations from the Contractor for a Clean Vessel Representative. At least once every two weeks, the Representative will walk the vessel together with the Authority's Authorised Representative to identify actions needed to maintain standards of cleanliness at an acceptable level. They will produce a written list of these actions and the responsibility for achieving them.
- 18.1.5 The Contractor is responsible for providing staff and suitable equipment for removing all arisings and cleaning to an acceptable standard all those spaces and areas for which they have a contractual liability.
- 18.1.6 Bilges are to be kept clear of liquids and debris throughout the refit as specified in the Refit Specification.
- 18.1.7 Any areas where work is not being carried out during the refit period are to be maintained in a clean condition throughout.
- 18.1.8 All refuse, scrap material and dirt arisings to be removed ashore daily and not allowed to accumulate on board the vessel, in compliance with the local Public Health Authorities regulations.

19 Lifting Equipment

19.1 Testing of Lifting Equipment

- 19.1.1 The following tests apply where lifting equipment is called up for testing in individual specifications included elsewhere in this specification. All tests to be to the satisfaction of the accepting authority.

- 19.1.2 All welds are to be visually inspected by the witnessing authority prior to and after load testing.
- 19.1.3 The eyeplates are to have a static load test of 2 x Safe Working Load (SWL) applied vertically.
- 19.1.4 The lifting beams are to have a static load test of 2 x SWL applied at mid-span between each pair of supports.
- 19.1.5 The general purpose davits are to be static load tested to 2 x SWL, with the load applied using weights suspended from a strop over the head of the appliance. The deflection readings to be recorded and one copy each passed to the nominated MOD Project Manager. On completion the appliance to be fully rigged and the SWL raised and lowered to prove satisfactory operation. Finally, a running load of 1.5 x SWL to be raised and lowered.

19.2 Identification of Lifting Equipment Passing Test

- 19.2.1 Portable lifting appliances, assemblies, and non-fixed items which pass test and inspection to which it is impracticable to attach a test tally plate showing the particulars specified in BR 3027.
- 19.2.2 Where practicable and where damage will not be caused, to have the specified particulars stamped directly on the appliance, assembly or item in a prominent position.
- 19.2.3 Where it is impracticable to stamp the specified particulars directly on the item or where unacceptable damage would be caused, to have a metal tally stamped with the specified particulars securely attached by wire to the appliance, assembly, item or batch of similar items.
- 19.2.4 A Passed Test Certificate, clearly identifying the appliance, assembly, item or batch of similar items, is to be issued to the nominated MOD Project Manager.
- 19.2.5 Test tally plates are to be supplied and fitted on, or immediately adjacent to, all equipment that have passed load test. Plates to be of black gravoply with white lettering 3 mm high, stating the item, the SWL, test loads applied, date of test and witnessing authority.

20 Stability

It has been assessed that the weight changes involved in the refit period will not compromise stability. However should the contractor wish to make any changes to the distribution of weight, including altering tank contents MOD is to be consulted before any changes are undertaken.

On completion of the work the Contractor may be asked to undertake an Inclining Experiment. If requested, this is to be undertaken by a Chartered Naval Architect and the results are to be forwarded to MOD within a week of the inclining experiment being completed and before the vessel is towed to her permanent mooring.

21 Material Supply

21.1 Material Support for Vessels Refitting

- 21.1.1 Material support for any contract resulting from this Invitation to Tender (ITT) will be supplied by the Contractor. Material required for work under the Contract falls into two categories: