


TV Tristram

Refit Technical Specification 2022

Issue 1.0



SEL Document Reference	SEL/504/22/2045
Issue	Issue 1.0
Date:	08 Aug 22

	Name	Signature	Date
Author:	■		08 Aug 2022
Approved by:			
Accepted by:			

Amendment Record		
Issue	Date	Amendment Summary
DRAFT 0.1	Apr 22	First draft
DRAFT 0.2	Jun 22	Second draft
ISSUE 1.0	Aug 22	First Issue

Distribution List			
Name	Organisation and Address	Role	Copy
■	Mod DE&S Ships Boats Ash 2a, #3203 MoD Abbey Wood Bristol BS34 8JH	Boats Ops Manager, Defence Equipment and Support (DE&S), Boats Team	1
■	Hamworthy Barracks Hamworthy Pool Dorset BH15 4NQ	MAB6 Range Manager	2
■	Safeguard Engineering Limited (SEL), Suite 401 QC30, 30 Queen Charlotte Street, Bristol, BS1 4HJ	Maritime Overseer	3

Conditions of Release

1. This information is released by the UK Government for Defence purposes only.
2. This information must be afforded the same degree of security protection as that afforded to information of an equivalent security marking originated by the recipient Government or as required by the recipient Government's security regulations.
3. This information may be disclosed only within the Defence Department of the recipient Government, except as otherwise authorized by the Ministry of Defence(Navy).
4. This information may be subject to privately owned rights.

THIS DOCUMENT IS THE PROPERTY OF HER BRITANNIC MAJESTY'S GOVERNMENT, and is issued for the information of such persons only as need to know its contents in the course of their official duties. Any person finding this document should hand it in to a British forces unit or to a police station for its safe return to the MINISTRY OF DEFENCE, (D Def Sy), MAIN BUILDING, WHITEHALL LONDON SW1A 2HB, with particulars of how and where found.

THE UNAUTHORIZED RETENTION OR DESTRUCTION OF THIS DOCUMENT MAY BE AN OFFENCE UNDER THE OFFICIAL SECRETS ACTS OF 1911-89. (When released to persons outside Government service, this document is issued on a personal basis and the recipient to whom it may be entrusted in confidence, within the provisions of the Official Secrets Acts 1911-89, is personally responsible for its safe custody and for seeing that its contents are disclosed only to authorized persons).

Abbreviations

Abbreviation	Meaning
A&A	Alteration and Addition
AFPO	Area Fire Prevention Officer
BR	Book of Reference
CAD	Contract Acceptance Date
COSHH	Control of Substances Hazardous to Health
CPSD	Contract Period Start Date
CSM	Contractor Supplied Materials
FAFF	First Aid Fire Fighter
FI	Final Inspection
HPSW	High Pressure Salt Water
HSE	Health and Safety Executive
IEE	Institution of Electrical Engineers
II	Installation Inspection
IO	Inspecting Officer
ITT	Invitation to Tender
MARPOL	Marine Pollution - International Convention for the Prevention of Pollution from Ships
MCR	Machinery Control Room
MOD	Ministry of Defence
MSM	Ministry Supplied Materials
OEM	Original Equipment Manufacturer
PI	Progress Inspection
PMB	Project Management Branch
PPSD	Preparations Period Start Date
QA	Quality Assurance
RPSD	Refit Period Start Date
STW	Set to Work
SWL	Safe Working Load
TIH	Take in Hand
TVT	Training Vessel Tristram

Contents

General

1.	Introduction	1
1.1	General	1
1.2	Vessel Details	1
2.	Keywords and Definitions	3
3.	Transfer of Vessel	7
3.1	Transfer of Vessel	7
3.2	Berthing Services	7
4.	Security of the Vessel	8
4.1	Contractor Responsibility's for Security of the Vessel	8
5.	Fire Precautions, Fire Fighting and Fire Orders Unmanned	8
6.	Tank Cleaning and Bilges	9
6.1	Tanks and Bilges	9
7.	Material, Procurement, Control and Registration	9
7.1	Contractors' Responsibility for Material Supply	9
7.2	Modification State of Replacement Parts or Equipment	9
7.3	Flexible Hoses	9
7.4	No Toxic or Flammable Materials are to be Used in New Installations	9
8.	Health and Safety Hazards including COSHH	10
8.1	References	10
8.2	Health and Safety Hazards	10
8.3	Control of Substances Hazardous to Health (COSHH)	11
8.4	Welding, Burning and Hotwork Routines	11
8.5	Reporting of Serious Incidents	11
8.6	Environmental Protection	12
9.	Asbestos	12
9.1	Asbestos Regulations	12
9.2	Thermal and Insulating Materials	12
10.	Contract Progress Meetings	13
10.1	Progress Meetings	13
11.	Electrical	13
11.1	Regulatory Authorities	13
11.2	Isolation	13
11.3	Handover of the System	14
11.4	Inspections	14
11.5	Wiring	14
12.	Paint Specification	14
12.1	General Instructions for the Preparation and Application of Paint	14
12.2	External Coatings	15
12.3	Internal Coatings	16
13.	Inspection of Refit and Associated Work	19
13.1	Detailed Requirements	19
14.	Manufacturers' Representatives Attendance	21
14.1	Attendance	21
15.	Contractor Documentation	21
16.	Supply of As-Fitted Drawings	21

16.1	Drawings	21
17.	Supply of As-Fitted Photographs	22
17.1	Brief Description	22
17.2	General Requirement	22
18.	Clean Vessel	22
18.1	Cleanliness	22
19.	Lifting Equipment	23
19.1	Testing of Lifting Equipment	23
19.2	Identification of Lifting Equipment Passing Test	23
20.	Stability	24
21.	Material Supply	24
21.1	Material Support for Vessels Refitting	24
21.2	Contractor Supplied Materials (CSM)	24
21.3	Material Discrepancy Reporting Procedure	24
22.	Fwd Bow Door	24
22.1	Bow Doors and Inner Bow Ramp	24
23.	Vessel Acceptance	25
23.1	Acceptance	25

Refit Work List Items

H1 Hull and Structure – Vessel Movement and Berthing

H1.01	Movement of Vessel to Refit Location	26
H1.02	Stern Platform, Port and Stbd Access Platforms and Ladders	27
H1.03	Return of Vessel to Permanent Mooring	29

H2 Hull and Structure – External Decks and Associated Fittings

H2.01	Redundant Main Deck Fittings	30
H2.02	Redundant Main Deck Tie-Down Points	31
H2.03	Tank Vent Goose Necks	32
H2.04	Deck Drain Opening and Fit New Grill	33
H2.05	Redundant Forecastle Deck Fittings	34
H2.06	Hawse Pipes	35
H2.07	Hawse Pipe Grill	36
H2.08	Foremast Wire Stays	37
H2.09	Redundant Fire Hydrants	38
H2.10	REMOVE Redundant Accommodation Ladder Davit	39
H2.11	02 Deck REPRESENTATION	40
H2.12	Gundeck Aerial Boxes	41
H2.13	Flight Deck Paint Coating	42
H2.14	Flight Deck Monitors	43
H2.15	Port and Stbd Bridge Wing Decks	44
H2.16	Vehicle Deck	45
H2.17	Office and Toilet Block Securing Points	46
H2.18	Crane Deck and Soft Patch	47
H2.19	Redundant Upperdeck Items	48
H2.20	Stern Landing Platform	49

H3 Hull and Structure – Guardrails and Stanchion

H3.01	Vehicle Deck Guardrails	50
-------	-------------------------	----

H3.02	CASEVAC Hatch Guardrails	51
H3.03	Forecastle Guardrail Stanchions	52
H3.04	Guardrail 01 Deck	53
H3.05	Port and Stbd Bridge Wing Guardrails	55
H3.06	Gundeck Guardrails	56
H3.07	Flight Deck Guardrails	57
H3.08	Aft Suspended Walkway Guardrails	58
H4	External Doors, Openings and Hatches	
H4.01	CASEVAC Hatch	59
H4.02	Stbd Shade Deck Hatch	60
H4.03	Upper Deck Doors	61
H4.04	Bridge Wing Access Panels to Light Boom	62
H4.05	Cabin Porthole	63
H4.06	Upper Deck Intakes and Watertight Openings	64
H4.07	Natural Vent Cover	65
H4.08	Transom Access Door and Deck	66
H4.09	Door Locking Arrangements	67
H5	Topsides and Superstructure	
H5.01	Bridge Screen	68
H5.02	Forecastle Gunwale Edges	69
H5.03	Oil Rig Training Aid Fixing Points	70
H5.04	Draught Marks	71
H5.05	Draught Indicators	72
H5.06	Topsides	73
H6	External Ladders	
H6.01	Main Mast Ladder Chains	74
H6.02	Port and Stbd Access Platform Ladders	75
H6.03	Upper Deck Ladders	76
H6.04	Crane Deck Ladder	77
H7	Bilges	
H7.01	Steering Gear Compartment Bilge	78
H7.02	Engine Room and Generator Compartment	79
H7.03	Fwd Pump Room and No.1 Hold Bilge	80
H7.04	Bow Door and Vehicle Ramp Compartment	81
H8	Internal Decks, Compartments, Doors and Ladders	
H8.01	Internal Training Door Frames	82
H8.02	Galley Doors	83
H8.03	Stbd Troop Accommodation Area Access Ladder	84
H8.04	Stbd Troop Accommodation Compartment Deck	85
H8.05	Tank Deck Training Area Ladders	86
H8.06	Engine Room Deckplates	87
H8.07	Machinery Control Room	88
H9	Miscellaneous	
H9.01	Anti Bird Netting	89
H9.02	Toilet Block and Staff Office	90

H9.03	Gundeck Redundant Aerials	92
H9.04	Ballast Tank	93

L1 Electrical

L1.01	Main Deck Floodlights	94
L1.02	Training Area Lighting	95
L1.03	CCTV System	96
L1.04	Quarterdeck Lighting	97
L1.05	Range Store Lighting	98

M1 Mechanical

M1.01	Hydraulically Operated Crane – Vehicle Deck	99
M1.02	Sanitary Supply Tank, Support Frame and Pipework	100
M1.03	HPSW Pump	101

References

List of References	102
--------------------	-----

Annexes

Annex A – Quest Marine TVT GA	103
Annex B – 2016 Refit Paint Specification	105

1 Introduction

1.1 General

This is the specification for the 2022 Refit of TV Tristram.

TV Tristram, formerly RFA Sir Tristram, is a static training vessel and former Landing Ship Logistics (LSL) of the Round Table Class. RFA Sir Tristram ceased service in 2005 and was converted to TV Tristram (TVT), arriving at Portland Harbour in 2007.

1.2 Vessel Details

The following vessel details are provided for information (when in service as Sir Tristram).

1.2.1 Ship : SIR TRISTRAM

- Official No. : 334639
- Lloyds No. : 6704373 (Class Suspended)
- Port of Registry : LONDON
- Ship type : RORO (SPECIAL SERVICE)

1.2.2 Tonnage

- Gross : 6824T
- Net : 2047T
- Dead-weight : 2443T

1.2.3 Classification

- Chain cable grade : U2
- Chain cable diameter : 50mm diameter
- Chain cable length : 495 metres

1.2.4 Hull

- Date of build : 1967
- Main builder : HAWTHORN LESLIE. HEBBURN
- Yard No. : 761
- Length overall : 134.85 (158m BOW AND STERN RAMPS OPEN)
- Breadth extreme : 17.94
- Draught maximum : 3.979
- Length BP : 120.48
- Depth moulded : 7.93

1.2.5 Machinery

Note: All machinery is now redundant on board.

- Engine type : 2 X Mirrlees National ALSSDM10 Oil Engines (direct drive)
- Boilers : 2 X Clayton Coiled Vapour Model E100 W working pressure & function 8 bar domestic
- Diesel generators : 4 X Allen (NEI APE) BCS 121 X Allen BCS 12 DX (400kw each)
- NIL
- Thrusters : 1 X Voith Schneider Thrust Unit Model 16E (SER 2-41-0125)

1.2.6 Rudder & Steering gear