

United States Coast Guard



**SMALL PASSENGER VESSEL (T) INSPECTOR
COMPETENCY CODE (TI)**

Training Aid

Use of Port State Control Examiner Training Aid:

This is a condensed version of the PSC Examiner Performance and Qualification Standard (PQS) workbook. This Training Aid is intended to be used by Coast Guard Port State Control Examiner trainees during examinations of foreign flagged vessels subject to Port State Control. This Training Aid provides a quick reference for all the steps necessary to complete specific examination tasks listed in the PSCE Job Aid.

This PQS workbook cites SOLAS regulations from the 2009 Consolidated Edition (SOLAS 09). In some cases, the regulations in SOLAS 09 may not apply due to the keel laid date of the vessel. PSC personnel must pay close attention to the applicability dates of the SOLAS chapters and regulations when conducting PSC exams.

TIW-HI02 - Inspect wood hull

.01 Inspect condition	46 CFR 176.610(a) NVIC 07-95 4.A-F MSM II/B.1.B.1
.02 Inspect stress areas (garboard plank, stem, chine, etc.)	46 CFR 176.610(a) NVIC 07-95 4.N
.03 Inspect bungs for running rust or blisters	46 CFR 176.610(a) NVIC 07-95 4.K.1
.04 Inspect caulking	NVIC 07-95 4.L
.05 Verify no unauthorized repairs	46 CFR 176.700

TIW-HI03 - Inspect wood hull fasteners (when applicable)

.01 Determine location of fasteners to be pulled	NVIC 07-95 4.K.1
.02 Inspect condition of fastenings	46 CFR 176.610(a) NVIC 07-95 4.K.1 NVIC 07-95 4.K.2
.03 Document type, condition, material, and location of fastenings	NVIC 07-95 4.K.2
.04 Inspect through bolts (keel, chine, clamp, double frame, floor timber bolts, etc.) (when applicable)	NVIC 07-95 4.K.1 NVIC 07-95 4.K.2
.05 Verify no unauthorized fastenings	NVIC 07-95

TIW-HI04 - Conduct internal inspection of wood hull

.01 Inspect condition	46 CFR 176.610(b) NVIC 07-95 4.A-F MSM II/B.1.B.1
.02 Inspect frames and frame heads	NVIC 07-95 4.F.1.A
.03 Inspect (sound) through bolts (keel, chine, clamp, double frame, floor timber bolts, etc.)	NVIC 07-95 4.K.1
.04 Verify no unauthorized repairs	46 CFR 176.700

TIW-HI05 - Evaluate repair(s)

.01 Evaluate extent of decay, defect(s) and damage	46 CFR 176.610 NVIC 07-95
.02 Review repair proposal	46 CFR 2.01-10(a)(2) 46 CFR 176.700 NVIC 07-95 Chapter 5
.03 Verify repair materials	46 CFR 176.700 & 177.300 NVIC 07-95 Chapter 3 Lloyd's Yachts & Small Craft
.04 Inspect repair(s)	46 CFR 176.610 NVIC 07-95 Chapter 5

Table of Contents:

Small Passenger Vessel (T) Inspection

Pre-inspection	1
Dockside Assessment	2
Certificates and Documents	2
Logs and Manuals	4
Bridge/Navigation	4
General Health & Safety	6
Lifesaving Equipment	7
Firefighting Systems	10
Machinery.....	12
Electrical Systems	14
Stability	16
Structural/Watertight Integrity.....	18
Pollution Prevention.....	19
Topside Equipment	19
Emergency Drills	20
Hull Inspection.....	21
Internal Structure.....	24
Non-Destructive Testing	25
Watertight Integrity	26
Follow Up Action.....	27

International Addendum.....28

Sail Addendum.....36

Wood Addendum38

Pre-Inspection (PI)

TI-PI01 - Research vessel details in MISLE (Marine Information for Safety and Law Enforcement) database

.01	Locate vessel	MSM I/12.G.5
.02	Review particulars	MPS-PR-SEC-04
.03	Verify documents are current	MSM I/12.G.2
.04	Review history (narratives, deficiencies & special notes)	MSM I/12.G.2 MSM I/12.G.7
.05	Verify user fees	MSM I/12.G.2
.06	Enter title and point(s) of contact	MSM I/12.G.2.a
.07	Generate new activity	MSM I/12.G.2.a
.08	Determine authority, jurisdiction and applicable regulations	46 USC 3301 46 CFR 175.110 46 CFR 175.112

TI-PI02 - Coordinate inspection with vessel's representative

.01	Verify vessel's representative	MPS-PR-SEC-01
.02	Determine location and time of inspection	MPS-PR-SEC-01
.03	Discuss inspection expectations	46 CFR 176.800 MSM II/B.3.A
.04	Verify vessel's owner/operator information	MPS-PR-SEC-04
.05	Verify vessel's Classification Society information (when applicable)	MPS-PR-SEC-04
.06	Discuss outstanding conditions and/or CG-835s	MPS-PR-SEC-04
.07	Review planned repairs and alterations (when applicable)	46 CFR 176.700

TI-PI03 - Mitigate potential hazards encountered during an inspection

.01	Recognize potential hazards encountered during inspection	NFPA 306 29 CFR 1915.4
.02	Determine confined spaces	MSM I/10 App.A
.03	Determine if exam scope will require a Marine Chemist certification for space entry	29 CFR 1915, Part B MSM II/A.5.H
.04	Verify Marine Chemist has been scheduled for exam (when applicable)	MSM I/10 App. A
.05	Prepare necessary personal protective equipment for exam	MSM I/10 App. A Quattro Operator's Manual
.06	Review CG policy for when to leave a space due to hazardous condition	MSM I/10 App. A

Emergency Drill (ED)

TIS-ED01 - Witness man overboard drill under sail

.01	Verify crew's ability to perform duties	46 CFR 185.420 46 CFR 185.510
.02	Witness drill	46 CFR 185.512 46 CFR 185.520

Internal Structural Examination (IS)

TIS-IS01 - Inspect hull/mast internal support structure

.01	Inspect mast partner	46 CFR 176.802(a)(3)
.02	Inspect mast step structure	46 CFR 176.802(a)(3)
.03	Inspect chain plate backing / reinforcement to hull (when applicable)	46 CFR 176.802(a)(3)

Stability (ST)

TIS-ST01 - Witness Simplified Stability Test (when applicable)

.01	Verify tumblehome/beam percentage	46 CFR 178.325(b)
.02	Verify wind heeling moment calculations	CG-4006
.03	Verify location of immersion mark of flush deck type vessels (when applicable)	CG-4006

TIS-ST02 - Conduct operational stability and handling sail tests (when applicable)

.01	Review written test procedures	46 CFR 178.325(c)
.02	Witness test	46 CFR 178.325(c)
.03	Draft stability letter	46 CFR 178.210 46 CFR 178.230

Wood Vessels

Lifesaving Equipment Inspection (LS)

TIW-LS01 - Verify survival craft

.01	Verify quantity	46 CFR 180.200(c)
-----	-----------------	-------------------

Machinery Equipment Inspection (MI)

TIW-MI01 - Inspect bilge and high water alarms

.01	Verify location	46 CFR 182.530(b)
-----	-----------------	-------------------

Hull Inspection (HI)

TIW-HI01 - Verify subdivision and damage stability requirements

.01	Verify presence of collision bulkhead (when applicable)	46 CFR 179.210(b)(4)
.02	Verify subdivision (when applicable)	46 CFR 179.212(a)

TIS-TE02 - Inspect standing rigging components (stays and shrouds)

- .01 Inspect material condition of shrouds/stays 46 CFR 176.802(a)(3)
- .02 Inspect shroud/stay terminal end fittings (swaged/swageless) 46 CFR 176.802(a)(3)
- .03 Inspect fittings associated with rig tune (turnbuckles, cotter & clevis pins) 46 CFR 176.802(a)(3)
- .04 Inspect fittings associated with rig alignment (tang, toggles, point loads) 46 CFR 176.802(a)(3)
- .05 Inspect shroud/stay attachment to hull (chainplates, stem fittings) 46 CFR 176.802(a)(3)
- .06 Inspect furler fittings (when applicable) 46 CFR 176.802(a)(3)
- .07 Inspect spreaders (when applicable) 46 CFR 176.802(a)(3)

TIS-TE03 - Inspect rail configuration (when applicable)

- .01 Verify approval for rail height and location 46 CFR 177.900(f)
- .02 Inspect configuration IAW with OCMI approval 46 CFR 177.900(f)

TIS-TE04 - Inspect running rigging components (used to handle sails and movable spars)

- .01 Inspect sheets (lines, blocks, shackles, cleats) 46 CFR 176.802(a)(3)
- .02 Inspect halyards (lines, blocks, shackles, cleats) 46 CFR 176.802(a)(3)
- .03 Inspect topping lift (when applicable) 46 CFR 176.802(a)(3)
- .04 Inspect sail control system (lazyjack, dutchman) (when applicable) 46 CFR 176.802(a)(3)
- .05 Inspect furler control sheets/cleats (when applicable) 46 CFR 176.802(a)(3)
- .06 Inspect cars, tracks, winches, vang and travelers 46 CFR 176.802(a)(3)

TIS-TE05 - Inspect rigging/hull components under sail

- .01 Inspect condition of sails (sitching/grommets/reinforcements) 46 CFR 176.802(a)(3)
- .02 Witness crew's ability to set/strike sails 46 CFR 176.802(c)
- .03 Evaluate crew safety aloft (when applicable) 46 CFR 176.404(a)
- .04 Evaluate crew safety aloft (when applicable) 46 CFR 176.802(a)(5)
- .04 Evaluate passenger safety 46 CFR 177.500(d)(3)(v)
- .05 Inspect wire tension and fittings on standing rigging 46 CFR 176.802(a)(3)
- .05 Inspect wire tension and fittings on standing rigging 46 CFR 176.802(c)
- .06 Inspect operation of running rigging components 46 CFR 176.802(a)(3)
- .06 Inspect operation of running rigging components 46 CFR 176.802(c)
- .07 Inspect hull/mast internal structure 46 CFR 176.802(a)(3)
- .07 Inspect hull/mast internal structure 46 CFR 176.802(c)

TIS-TE06 - Inspection of catamaran forestay load path and hull attachments

- .01 Inspect bow tube or beam arrangement 46 CFR 176.802(a)(3)
- .02 Inspect gull stay/dolphin striker 46 CFR 176.802(a)(3)
- .03 Inspect bridle stays 46 CFR 176.802(a)(3)

Dockside Assessment (DA)**TI-DA01 - Conduct initial vessel visual examination**

- .01 Verify presence of anchor(s) (when visible) 46 CFR 184.300
- .02 Verify draught (draft) marks 46 CFR 185.602
- .03 Verify name and hailing port 46 CFR 185.602
- .04 Evaluate hull for signs of pollution/illegal discharge 46 CFR 67.123
- .04 Evaluate hull for signs of pollution/illegal discharge 33 CFR 151.10
- .04 Evaluate hull for signs of pollution/illegal discharge 33 CFR 155.330
- .04 Evaluate hull for signs of pollution/illegal discharge 33 CFR 155.350
- .05 Evaluate hull condition 46 CFR 176.802
- .06 Examine means of embarkation (gangway/ladders) 29 CFR 1915.74(a)(6)
- .07 Verify condition of mooring lines 46 CFR 184.300

Certificates and Documents (CD)**TI-CD01 - Review Certificate of Inspection (COI)**

- .01 Verify presence of original 46 CFR 176.302
- .02 Verify amendments (when applicable) 46 CFR 176.120
- .03 Verify manning MSM III/B.2.C 46 CFR 15.501
- .03 Verify manning 46 CFR 185.304
- .04 Verify certificate is endorsed 46 CFR 176.500(b)(1)(ii)

TI-CD02 - Verify vessel's stability letter

- .01 Verify presence of stability documents 46 CFR 178.210
- .01 Verify presence of stability documents 46 CFR 178.220
- .01 Verify presence of stability documents 46 CFR 176.306
- .02 Verify contents 46 CFR 178.230

TI-CD03 - Review Merchant Mariner Credentials (MMCs)

- .01 Ensure MMCs meet COI manning requirements 46 CFR 15.515
- .01 Ensure MMCs meet COI manning requirements 46 CFR 10.205(g)
- .01 Ensure MMCs meet COI manning requirements 46 CFR 15.805(a)(4) & .810(b)(1)
- .02 Verify presence of original MMCs 46 CFR 185.402
- .03 Verify validity 46 CFR 10.205(a)
- .03 Verify validity 46 CFR 10.205(b)

TI-CD04 - Verify compliance with drug and alcohol program

- .01** Verify currency of Employee Assistance Program (EAP) 46 CFR 16.401
- .02** Verify presence and currency of drug and alcohol testing equipment (when applicable) 46 CFR 185.212
46 CFR 185.210
46 CFR 4.06-15
- .03** Verify training of designated testing crewmember (when applicable) 46 CFR 4.06-20(a)(3)
46 CFR 4.06-20(b)(2)
- .04** Verify random chemical testing program for dangerous drugs 46 CFR 16.230
- .05** Verify pre-employment testing program for dangerous drugs 46 CFR 16.210
- .06** Verify means of post accident testing chemical testing for dangerous drugs 46 CFR 185.210
46 CFR 185.212
46 CFR 4.06-15

TI-CD05 - Examine maintenance and service records (liferrafts & firefighting)

- .01** Review fire fighting service reports 46 CFR 176.810
- .02** Review liferaft servicing reports (when applicable) 46 CFR 185.730

TI-CD06 - Verify compliance with the Vessel General Permit (VGP) (when applicable)

- .01** Verify Notice of Intent (NOI) has been submitted VGP 1.5.1.1 & 10
VGP Table 1
CG-543 Policy Ltr 11-01
- .02** Verify compliance with ballast water record keeping requirements VGP 4.3
CG-543 Policy Ltr 11-01
- .03** Verify noncompliance & reportable quantity reports have been submitted VGP 4.4.1
VGP 4.4.2
CG-543 Policy Ltr 11-01

TI-CD07 - Examine muster lists and emergency instructions

- .01** Verify muster lists and emergency instructions are available 46 CFR 185.510
46 CFR 185.512
- .02** Verify muster lists and emergency instructions are posted 46 CFR 185.510
- .03** Verify information on muster lists and emergency instructions 46 CFR 185.510
46 CFR 185.512
- .04** Verify station bill (when applicable) 46 CFR 185.514

TI-CD08 - Review Certificate of Documentation (COD)

- .01** Verify presence of original 46 CFR 67.313
- .02** Verify contact information 46 CFR 67.321
- .03** Verify endorsement(s) for current service(s) 46 CFR 67.17
46 CFR 67.19
- .04** Verify validity 46 CFR 67.161
46 CFR 67.163

TI-CD09 - Examine Federal Communications Commission Marine Radio Operator Permit

- .01** Verify presence 47 CFR 80.159(e)

TII-FF03 - Inspect International Shore Connection (when applicable)

- .01** Confirm location with Safety Plan (Fire Control Plan) Fire Control Plan
- .02** Verify gaskets and bolts are with the connection SOLAS 14 II-2/10.2.1.7
FSS Code 2.2
- .03** Verify markings IMO Res A.952(23)
Fire Control Plan

Follow Up Action (FU)

TIA-FU01 - Issue/endorse vessel's certificates (when applicable)

- .01** Issue/endorse certificates, as applicable 46 CFR 175.120
SOLAS 14 I/14(i)(ii)
IMO Res A.1076(28)
- .02** Obtain a copy of all endorsed certificates for the unit's vessel file MSM I/12.E.7

Sail Vessels

Certificates and Documents (CD)

TIS-CD01 - Review Master's Merchant Mariner Credential (MMC)

- .01** Verify auxiliary sail endorsement 46 CFR 15.901(d)

TIS-CD02 - Review Rigging Plan (when applicable)

- .01** Verify vessel information and structure particulars 46 CFR 177.202 (b)(12)
46 CFR 177.202 (c)
- .02** Verify marked "examined" (when applicable) 46 CFR 177.202 (b)(12)

TIS-CD03 - Review Sail Area Plan (Sail Plan)

- .01** Verify Sail Plan arrangement in Rigging Plan (when applicable) 46 CFR 177.202(b)(12)(ii)
- .02** Verify Sail Plan is incorporated into stability letter 46 CFR 178.210
Stability Letter

Topside Equipment Inspection (TE)

TIS-TE01 - Inspect spar(s) & fittings

- .01** Verify rig arrangement and design 46 CFR 176.802(a)(3) & 177.330
Approved Rig Plan
Stability Letter
- .02** Inspect materiel condition of masts, yards, booms and gaffs 46 CFR 176.802(a)(3)
- .03** Inspect mast, yard, boom and gaff fittings 46 CFR 176.802(a)(3)
- .04** Inspect head rig (bow sprit/jib boom) spars and fittings (when applicable) 46 CFR 176.802(a)(3)

TII-BN07 - Inspect Global Maritime Distress and Safety System (GMDSS) equipment

- | | | |
|-----|---|---|
| .01 | Verify Station ID numbers on applicable equipment | 47 CFR 80.1083
SOLAS 14 IV/6.2.5 |
| .02 | Review logs for tests and notations | 47 CFR 80.1075
SOLAS 14 IV/17 |
| .03 | Verify equipment for operation areas | 47 CFR 80.1083-.1095
SOLAS 14 IV/6.1
NVIC 03-99 |
| .04 | Verify operation of VHF Digital Selective Calling (DSC) radio | 47 CFR 80.1085(a)(1)
SOLAS 14 IV/7.1.1 |
| .05 | Verify emergency source of power is provided | 47 CFR 80.1099(b)
SOLAS 14 IV/13.2 |
| .06 | Verify presence of manuals, tools, spare parts and test equipment (when applicable) | 47 CFR 80.1105
SOLAS 14 IV/15
Operations Manual |
| .07 | Verify compliance with maintenance method(s) | 47 CFR 80.1105(c)
SOLAS 14 IV/15.6
NVIC 03-99 |

Lifesaving Equipment Inspection (LS)**TII-LS01 - Inspect immersion suits (when applicable)**

- | | | |
|-----|-----------------------------------|---|
| .01 | Verify type approval | 46 CFR 180.10
46 CFR 199.70(c)
SOLAS 14 III/4 |
| .02 | Verify quantity and size presence | 46 CFR 199.70(c) |
| .03 | Verify stowage | 46 CFR 199.70(c)(2) |
| .04 | Verify markings | 46 CFR 199.70(c)(3) |
| .05 | Verify attachments & fittings | 46 CFR 199.70(c)(4) |
| .06 | Inspect condition and suitability | 46 CFR 160.006-2
NVIC 01-08 |

Firefighting (FF)**TII-FF01 - Inspect emergency outfits and equipment**

- | | | |
|-----|---|-------------------------|
| .01 | Verify number of outfits (as applicable) | SOLAS 14 II-2/10.10.2 |
| .02 | Verify spare charges for breathing apparatus (when applicable) | SOLAS 14 II-2/10.10.2.5 |
| .03 | Verify means for recharging breathing air cylinders (when applicable) | SOLAS 14 II-2/10.10.2.6 |
| .04 | Verify stowage location (when applicable) | SOLAS 14 II-2/10.10.3 |
| .05 | Verify markings | SOLAS 14 II-2/10.10.3.1 |

TII-FF02 - Inspect fire control plan

- | | | |
|-----|-----------------|--------------------|
| .01 | Verify contents | SOLAS 14 II-2/15.3 |
| .02 | Verify location | SOLAS 14 II-2/15.3 |

TI-CD10 - Review Federal Communications Commission Bridge-to-Bridge Certificate (when applicable)

- | | | |
|-----|-----------------|----------------|
| .01 | Verify presence | 47 CFR 80.1001 |
| .02 | Verify validity | 47 CFR 80.1005 |
| .03 | Verify contents | 47 CFR 80.1005 |

TI-CD11 - Review Federal Communications Commission Station License

- | | | |
|-----|---|--------------|
| .01 | Verify presence | 47 CFR 80.13 |
| .02 | Verify that other classes of equipment are authorized for operation | 47 CFR 80.17 |
| .03 | Verify contents | 47 CFR 80.99 |
| .04 | Verify validity | 47 CFR 80.25 |

TI-CD12 - Review Federal Communications Commission Safety Radiotelephony Certificate (when applicable)

- | | | |
|-----|-----------------|---|
| .01 | Verify presence | 47 CFR 80.59 (a)(2)
47 CFR 80.901
47 CFR 80.933 |
| .02 | Verify validity | 47 CFR 80.59 |
| .03 | Verify contents | 47 CFR 80.59 |

Logs and Manuals Inspection (LM)**TI-LM01 - Review vessel's log**

- | | | |
|-----|--|----------------------------------|
| .01 | Verify EPIRB tests (when applicable) | 46 CFR 185.728 |
| .02 | Verify drills | 46 CFR 185.524
46 CFR 185.520 |
| .03 | Verify maintenance of survival craft, rescue boats, and launching appliances (when applicable) | 46 CFR 185.702(d) |

TI-LM02 - Examine Waste/Garbage Management Plan (when applicable)

- | | | |
|-----|-----------------|---|
| .01 | Verify validity | 33 CFR 151.57
MARPOL V/9.2
46 CFR 184.702 |
| .02 | Verify contents | MARPOL V/9.2
IMO Guidelines - Appendix 3 |

Bridge/Navigation Inspection (BN)**TI-BN01 - Verify operations of internal communication and control systems**

- | | | |
|-----|---|----------------|
| .01 | Witness means of communication from operating station to propulsion machinery space (when applicable) | 46 CFR 184.602 |
| .02 | Witness operation of Public Address System (when applicable) | 46 CFR 184.610 |
| .03 | Verify two independent means of controlling each propulsion engine (when applicable) | 46 CFR 184.620 |

TI-BN02 - Inspect radar(s) (when applicable)

- | | | |
|-----|--|------------------------------------|
| .01 | Verify safety precautions are followed | Operation Manual |
| .02 | Verify operation | 46 CFR 184.404
Operation Manual |

TI-BN03 - Inspect magnetic compass (when applicable)

- | | | |
|-----|---------------------------------------|-------------------|
| .01 | Verify illumination (when applicable) | 46 CFR 184.402(c) |
| .02 | Verify mounting location | 46 CFR 184.402(a) |
| .03 | Verify operation | 46 CFR 184.402(a) |

TI-BN04 - Inspect electronic position-fixing device (satellite navigation (GPS) receiver) (when applicable)

- | | | |
|-----|-------------------------|-------------------------------------|
| .01 | Verify operation | 46 CFR 184.410 |
| .02 | Witness functional test | 46 CFR 184.410
Operations Manual |

TI-BN05 - Verify radio telephone equipment (when applicable)

- | | | |
|-----|--|----------------------------------|
| .01 | Verify installation(s) | 46 CFR 184.502
47 CFR 80.1003 |
| .02 | Verify equipment for operational area(s) | 47 CFR 80.1015 |
| .03 | Verify emergency broadcast placard | 46 CFR 184.506
46 CFR 184.510 |
| .04 | Witness operational test | 47 CFR 80.931 |

TI-BN06 - Inspect navigation and signaling lights, and dayshapes

- | | | |
|-----|--|---|
| .01 | Verify operation of navigation and anchor lights | 33 CFR 83.20(b)
COLREG Rule 20
46 CFR 183.420 |
| .02 | Inspect dayshapes (when applicable) | 33 CFR 83.20(d)
COLREG Rule 20
33 CFR 84.11 |
| .03 | Review Certificate of Alternate Compliance (when applicable) | 33 CFR 81.9 |

TI-BN07 - Inspect sound signaling devices

- | | | |
|-----|---|--------------------------------|
| .01 | Verify presence of signaling device | 33 CFR 83.33
COLREG Rule 33 |
| .02 | Witness operation of whistle and bell (when applicable) | 33 CFR 83.33
COLREG Rule 33 |

TII-SD04 - Evaluate crew's knowledge of security plan

- | | | |
|-----|--|---|
| .01 | Identify Company Security Officer (CSO) | 33 CFR 104.200(b)(2)
SOLAS 14 Reg XI-2/4.2
ISPS Code A/11.1 |
| .02 | Identify Vessel Security Officer (VSO) | 33 CFR 104.200(b)(2)
ISPS Code A/12.1 |
| .03 | Evaluate VSO knowledge regarding his/her responsibilities | 33 CFR 104.215(e)
ISPS Code A/12.2
NVIC 04-03 Encl. 3 Section 9 |
| .04 | Evaluate crew's level of knowledge regarding their security responsibilities | 33 CFR 104.220
ISPS Code A/13.3
NVIC 04-03 Encl. 3 Section 10 |
| .05 | Verify compliance with current Maritime Security (MARSEC) level | 33 CFR 104.240
33 CFR 104.215(e)(9)
ISPS Code A/12.2.9 |

Bridge/Navigation Inspection (BN)**TII-BN01 - Inspect voyage data recorder (when applicable)**

- | | | |
|-----|---------------------|---------------|
| .01 | Verify presence | SOLAS 14 V/20 |
| .02 | Verify installation | SOLAS 14 V/20 |

TII-BN02 - Inspect automatic identification system (AIS) (when applicable)

- | | | |
|-----|--------------------|-------------------|
| .01 | Verify presence | 33 CFR 164.205(a) |
| .02 | Verify operational | 33 CFR 164.205(a) |

TII-BN03 - Inspect bridge navigation equipment (when applicable)

- | | | |
|-----|---|---------------------|
| .01 | Verify spare magnetic compass | SOLAS 14 V/19.2.2.1 |
| .02 | Verify pelorus or compass bearing device | SOLAS 14 V/19.2.1.2 |
| .03 | Verify means of correcting heading & bearing to true at all times | SOLAS 14 V/19.2.1.3 |
| .04 | Verify electronic plotting aide | SOLAS 14 V/19.2.3.3 |
| .05 | Verify speed & distance measuring device | SOLAS 14 V/19.2.3.4 |

TII-BN04 - Inspect communication equipment (when applicable)

- | | | |
|-----|--|--|
| .01 | Verify operation of NAVTEX | 47 CFR 80.1101(c)
SOLAS 14 IV/7.1.4 |
| .02 | Verify operation of portable VHF(s) | 47 CFR 80.1095
SOLAS 14 III/6.2.1 |
| .03 | Verify radar transponders | 47 CFR 80.1095
SOLAS 14 III/6.2.2 |
| .04 | Verify GMDSS radio equipment installation is appropriate for the Sea Area in which the vessel operates | 46 CFR Part 80 Subpart W |

TII-BN05 - Inspect long range identification and tracking (LRIT) (when applicable)

- | | | |
|-----|--------------------|------------------------------------|
| .01 | Verify presence | 33 CFR 169.205(a)
SOLAS 14 V/19 |
| .02 | Verify operational | 33 CFR 169.205(a)
SOLAS 14 V/19 |

TII-BN06 - Inspect depth sounding equipment (when applicable)

- | | | |
|-----|--------------------|---------------------|
| .01 | Verify operational | SOLAS 14 V/19.2.3.1 |
|-----|--------------------|---------------------|

TII-LM06 - Examine Oil Record Book (ORB) (when applicable)

.01	Verify edition	33 CFR 151.25(b) IMO Res MEPC.187(59) CG-CVC Letter
.02	Verify required signatures	33 CFR 151.25(h)
.03	Verify required entries	46 CFR 184.702 33 CFR 151.25(h) MARPOL I/Appendix III MARPOL I/7
.04	Compare overboard discharge rate entries with filtering equipment data plate or supplement to IOPP certificate	MARPOL I/Appendix III

Security (Domestic) Inspection (SD)**TII-SD01 - Examine Vessel Security Plan (VSP/ASP)**

.01	Verify presence of approval letter for plan type	33 CFR 104.120(a)(1) SOLAS 14 XI-2/4.2 ISPS Code A/9.1
.02	Verify plan is secured	33 CFR 104.400(c) ISPS Code A/9.7 NVIC 04-03
.03	Examine contents	33 CFR 104.400
.04	Verify amendment(s) (when applicable)	33 CFR 104.415(a)
.05	Verify implementation	33 CFR 104.400(a)

TII-SD02 - Examine security records

.01	Verify record(s) of security training	33 CFR 104.235(b)(1) SOLAS 14 XI-2/4.2 ISPS Code A/10.1.1
.02	Verify presence of Declarations of Security (DoS)(when applicable)	33 CFR 104.235(b)(7) ISPS Code A/5.7 NVIC 04-03 Encl. 3 Section 10
.03	Verify record(s) of security drills	33 CFR 104.235(b)(2) ISPS Code A/10.1.1
.04	Verify annual exercise has been conducted	33 CFR 104.235(b)(2) ISPS Code A/10.1.1
.05	Verify record(s) of annual audit	33 CFR 104.235(b)(8) ISPS Code A/10.1.6

TII-SD03 - Inspect security equipment

.01	Verify equipment matches plan(when applicable)	33 CFR 104.292(b)(ii) SOLAS 14 XI-2/6 ISPS Code A/9.4.17
.02	Verify maintenance records	33 CFR 104.260 33 CFR 104.235(b)(5) NVIC 04-03 Encl. 3 Section 10

TI-BN08 - Verify navigational publications and nautical charts

.01	Verify presence of current and applicable charts	46 CFR 184.420
.02	Verify presence of current and applicable Tide Tables	46 CFR 184.420
.03	Verify presence of current and applicable River Current publication or Current tables (when applicable)	46 CFR 184.420
.04	Verify presence of current and applicable Coast Guard Light List	46 CFR 184.420
.05	Verify presence of current and applicable U.S. Coast Pilot	46 CFR 184.420
.06	Verify presence of COLREGs (when applicable)	COLREG A/1
.07	Verify presence of Inland Navigation Rules (when applicable)	33 CFR 88.05

TI-BN09 - Inspect steering system controls at operating station

.01	Verify operation and control	46 CFR 182.610(a) 46 CFR 182.610(b) & (c) 46 CFR 176.814
.02	Witness operation of rudder angle indicator (when applicable)	46 CFR 182.610(e)(2)
.03	Verify steering gear transfer instructions are posted (when applicable)	46 CFR 182.610(g)(2)
.04	Verify visual means to indicate operation of power unit(s)(when applicable)	46 CFR 182.610(g)(1)

TI-BN10 - Inspect alarms and gauges at operating station

.01	Verify bilge high level alarms	46 CFR 182.530(a) 46 CFR 182.530(b)
.02	Verify automatic bilge pump indicator	46 CFR 182.530(c)
.03	Verify flammable vapor detection system (when applicable)	46 CFR 182.480(a) 46 CFR 182.480(d)
.04	Verify propulsion engine gauges	46 CFR 182.410(b)
.05	Inspect audible or visual alarm for exhaust cooling system (when applicable)	46 CFR 182.425(b)(5)

General Health & Safety Inspection (GH)**TI-GH01 - Inspect accommodations**

.01	Verify location	46 CFR 177.800
.02	Verify number of berths	46 CFR 177.710 46 CFR 177.810
.03	Verify spaces are of appropriate size	46 CFR 177.800 46 CFR 177.810
.04	Verify accessibility to escape routes	46 CFR 177.500 46 CFR 177.810(c)
.05	Verify ventilation	46 CFR 177.600(c)
.06	Verify sanitary condition	46 CFR 176.818
.07	Verify general alarm is adequate (when applicable)	46 CFR 183.550

TI-GH02 - Inspect means of escape from accommodation, machinery and other

<u>spaces</u>		
.01	Verify means of escape	46 CFR 177.500
.02	Verify routes are accessible	46 CFR 177.500
.03	Verify emergency lighting	46 CFR 183.432
.04	Verify markings	46 CFR 185.606

TI-GH03 - Inspect mess deck and galley spaces

.01	Inspect sanitary conditions	46 CFR 176.818
.02	Verify cooking fuel restrictions	46 CFR 184.202
.03	Verify cooking equipment requirements	46 CFR 184.220 ABYC A-3 NFPA 302
.04	Verify LPG and LNG cooking systems	46 CFR 184.240
.05	Verify condition of vents and ducts	46 CFR 177.600(d)
.06	Verify structural fire protection surrounding cooking and heating appliances	46 CFR 177.410(c)(1)

TI-GH04 - Inspect paint locker(s) (when applicable)

.01	Verify fire protection equipment	46 CFR 181.400(a)(7)
.02	Inspect space construction material	46 CFR 177.405(d)
.03	Verify electrical installations (when applicable)	46 CFR 183.530(b) 46 CFR 183.530(c)
.04	Inspect means to secure ventilation	46 CFR 177.600(b)

Lifesaving Equipment Inspection (LS)**TI-LS01 - Inspect Emergency Position Indicating Radio Beacon (EPIRB) (when applicable)**

.01	Verify registration	46 CFR 180.64 47 CFR 80.1061(e) 47 CFR 80.1061(f)
.02	Verify stowage	46 CFR 180.64
.03	Verify hydro-static release expiration date	46 CFR 185.740
.04	Verify battery date	46 CFR 185.728(b)

TI-LS02 - Inspect distress signals (when applicable)

.01	Verify type approval	46 CFR 180.68
.02	Verify quantity in accordance with vessel's route	46 CFR 180.68
.03	Verify expiration date	46 CFR 185.726(c) 46 CFR 160.036-5
.04	Verify stowage and marking	46 CFR 180.68 (e) 46 CFR 185.614

TII-CD13 - Examine Certificate of Documentation (COD) (when applicable)

.01	Verify Registry endorsement	46 CFR 67.17
		46 CFR 67.19

TII-CD14 - Examine Tonnage Certificate

.01	Verify presence	46 CFR 69.69
.02	Verify validity	46 CFR 69.69
.03	Verify correct measurement system	46 CFR 69.11 NVIC 11-93
.04	Verify vessel particulars remain valid	46 CFR 69.55 46 CFR 69.105 ICTM Article 3

Logs and Manuals Inspection (LM)**TII-LM01 - Examine official logbook**

.01	Verify presence	46 CFR 185.280(a)
.02	Verify entries	46 CFR 185.280(b)

TII-LM02 - Examine Maintenance Records

.01	Verify shore based maintenance report for EPIRB	SOLAS 14 IV/15
.02	Verify maintenance and inspections of survival craft	46 CFR 185.722 46 CFR 185.724 & .726 SOLAS 14 III/20.7
.03	Verify annual test reports for VHF-DSC, AIS, LRIT & SSAS	SOLAS 14 IV/17

TII-LM03 - Examine Shipboard Oil Pollution Emergency Plan (SOPEP) (when applicable)

.01	Verify applicability	46 CFR 184.702 33 CFR 151.09 MARPOL I/2
.02	Verify approval	33 CFR 151.27 MARPOL I/37.1
.03	Verify annual review	33 CFR 151.28(a) 33 CFR 151.28(d)
.04	Verify plan organization	33 CFR 151.26(b)(8)

TII-LM04 - Examine oil and hazardous liquid transfer procedures (when applicable)

.01	Verify presence	46 CFR 184.702 33 CFR 155.720
.02	Verify Person in Charge is identified	33 CFR 155.750(a)(4)
.03	Verify contents	33 CFR 155.750

TII-LM05 - Examine vessel's training log

.01	Verify presence	SOLAS 14 III/35
.02	Verify contents	SOLAS 14 III/35

TII-CD09 - Examine International Load Line Certificate (ILLC) (when applicable)

.01	Verify presence	46 CFR 175.122 ICLL Article 16
.02	Verify validity	46 CFR 42.07-45 ICLL Article 15 ICLL Article 19 ICLL Article 18
.03	Verify certificate form	ICLL Article 18
.04	Confirm load line observed on hull (Task TII-DA01) matches certificate	46 CFR 42.07-5 ICLL I/9
.05	Verify logbook entries are completed	46 CFR 42.07-20
.06	Verify Record of Conditions of Assignment (Form LL.11) is present and validates issued Load Line (when applicable)	CG-5212 Policy Notes 5.c

TII-CD10 - Examine copy of Document of Compliance (ISM-DOC) (when applicable)

.01	Verify presence	46 CFR 176.925 33 CFR 96.330 SOLAS 14 IX/4.2
.02	Verify validity	46 CFR 176.925 SOLAS 14 IX/5 ISM Code 13.2-5
.03	Verify document form	ISM Code 16
.04	Verify alternate compliance arrangements	46 CFR 175.540 MSM II/E.3.C.5

TII-CD11 - Examine Safety Management Certificate (ISM-SMC)(when applicable)

.01	Verify presence	46 CFR 176.925 33 CFR 96.340 SOLAS 14 IX/4.3
.02	Verify validity	46 CFR 176.925 SOLAS 14 IX/5 ISM Code 13.5.1
.03	Verify certificate form	ISM Code 16
.04	Verify alternate compliance arrangements	46 CFR 175.540 MSM II/E.3.C.5

TII-CD12 - Examine International Ship Security Certificate (ISSC) & Continuous Synopsis Record (CSR)

.01	Verify vessel particulars	SOLAS 14 XI-1/5.5.2 ISPS Code A/19.2.4
.02	Verify Company name and address match International Safety Management documents	SOLAS 14 XI-1/5.3
.03	Verify ISSC verification type with date	ISPS Code A/19
.04	Verify ISSC endorsement (Intermediate or additional)	ISPS Code A/19.1.1
.05	Verify additional ISSC verifications, extensions, renewals or expiry advancements are completed	ISPS Code A/19.1.1 ISPS Code A/19.3.4
.06	Verify CSR is present and valid	SOLAS 14 XI-1/5.1 SOLAS 14 XI-1/5.3 SOLAS 14 XI-1/5.4.1-5.4.3
.07	Verify CSR information matches ISSC	SOLAS 14 XI-1/5.3

TI-LS03 - Inspect life jackets

.01	Verify type approval	46 CFR 180.71(c) 46 CFR 180.25(a)
.02	Verify quantity	46 CFR 180.71(a) 46 CFR 180.71(b)
.03	Verify stowage	46 CFR 180.78
.04	Verify markings	46 CFR 185.604(b)
.05	Verify lights (when applicable)	46 CFR 180.75
.06	Verify location and information for donning instructions	46 CFR 185.516
.07	Inspect condition and suitability	46 CFR 160.002 46 CFR 160.005 46 CFR 160.055
.08	Verify stowage of Personal Floatation Devices carried in addition to lifejackets (when applicable)	46 CFR 180.72

TI-LS04 - Inspect life buoys

.01	Verify type approval	46 CFR 180.70(b)(1) 46 CFR 160.050
.02	Verify quantity	46 CFR 180.70(a)
.03	Verify stowage	46 CFR 180.70(b)
.04	Verify size	46 CFR 180.70(a)
.05	Inspect lifeline	46 CFR 180.70(c)
.06	Inspect waterlight (when applicable)	46 CFR 180.70(d)
.07	Verify markings	46 CFR 185.604 46 CFR 180.70(b) 46 CFR 160.050-3(b) & .050-6
.08	Inspect condition and suitability	46 CFR 180.70 46 CFR 160.050

TI-LS05 - Inspect inflatable liferaft & inflatable buoyant apparatus installations (when applicable)

.01	Verify type approval	46 CFR 180.200(a)(1)
.02	Verify quantity onboard	46 CFR 180.200(c) Table
.03	Verify stowage	46 CFR 180.130
.04	Verify markings	46 CFR 160.151-33
.05	Verify annual service dates	46 CFR 185.730(a)
.06	Verify emergency instructions are posted	46 CFR 185.518
.07	Inspect embarkation ladder (when applicable)	46 CFR 185.150
.08	Verify servicing/expiration of hydrostatic release	46 CFR 185.740
.09	Verify hydrostatic release installation	46 CFR 185.740

TI-LS06 - Inspect lifefloat installations (when applicable)

.01	Verify type approval	46 CFR 180.200(a)(2)
.02	Verify quantity	46 CFR 180.200(c) Table
.03	Verify stowage	46 CFR 180.137
.04	Verify markings	46 CFR 185.604(a) 46 CFR 160.010-8 46 CFR 180.150
.05	Inspect embarkation ladder (when applicable)	46 CFR 180.150
.06	Verify required equipment	46 CFR 180.175(d) 46 CFR 180.175(f)
.07	Verify emergency instructions are posted	46 CFR 185.512(a)(1)(ix)

TI-LS07 - Inspect rescue boat (when applicable)

.01	Verify type approval	46 CFR 180.210 46 CFR 160.056
.02	Verify stowage	46 CFR 185.700
.03	Verify markings	46 CFR 185.604(i)
.04	Verify equipment	46 CFR 160.056-3(b)
.05	Verify condition	46 CFR 185.700
.06	Inspect embarkation ladder (when applicable)	46 CFR 180.150(b)

TI-LS08 - Inspect launching appliance(s) (when applicable)

.01	Inspect materiel condition	46 CFR 180.130(c) 46 CFR 180.150(c) 46 CFR 185.704
.02	Verify operating instructions are posted	46 CFR 185.512(a)(1)(ix)

TI-LS09 - Inspect buoyant apparatus (when applicable)

.01	Verify type approval	46 CFR 180.15(b) 46 CFR 180.200(a)(4) 46 CFR 160.010
.02	Verify quantity	46 CFR 180.15(b) 46 CFR 180.200(a)(4) 46 CFR 180.200(c) Table
.03	Verify stowage	46 CFR 180.137
.04	Verify markings	46 CFR 185.604(a)
.05	Inspect embarkation ladder (when applicable)	46 CFR 180.150
.06	Verify required equipment	46 CFR 180.175(e) 46 CFR 180.175(f)
.07	Verify emergency instructions are posted	46 CFR 185.512(a)(1)(ix)

TII-CD05 - Review International Energy Efficiency Certificate and Record of Construction (when applicable)

.01	Verify vessel particulars	IMO Res MEPC.203(62) Appendix VIII
.02	Verify Energy Efficiency Design Index requirements (when applicable)	CG-CVC Policy Ltr 13-02 7. IMO Res MEPC.203(62) 20.1
.03	Verify Ship Energy Efficiency Management Plan (SEEMP) is identified	CG-CVC Policy Ltr 13-02 7.b IMO Res MEPC.203(62) 22
.04	Verify Technical File requirements are met (when applicable)	IMO Res MEPC.203(62) 20.1

TII-CD06 - Review International Oil Pollution Prevention Certificate (IOPP) (when applicable)

.01	Verify vessel particulars	MARPOL I/9
.02	Verify vessel type is accurate	MARPOL I/2.1-4 MARPOL I/9
.03	Verify annual, intermediate, extension renewal, or change in anniversary date	33 CFR 151.17-.19 MARPOL I/6
.04	Verify record of construction and equipment	33 CFR 151.19 MARPOL I/9
.05	Verify control requirements for machinery bilge and fuel oil tanks identified	MARPOL I/14 MARPOL I/16
.06	Verify retention and disposal requirements for oily bilge water holding tanks	MARPOL I/12
.07	Verify standard discharge connection requirement	33 CFR 158.250 MARPOL I/13

TII-CD07 - Review Statement of Voluntary Compliance, MARPOL Annex IV (Sewage) (when applicable)

.01	Verify vessel particulars	NVIC 01-09
.02	Verify compliance type	33 CFR 159.53 & .55 NVIC 01-09 IMO Res MEPC.227(64)
.03	Verify discharge rate (draft & speed chart) identified	NVIC 01-09
.04	Verify endorsements (extension or renewal)	NVIC 01-09

TII-CD08 - Verify credentials

.01	Verify STCW endorsements	46 CFR 10.109(d) 46 CFR 11.202 STCW I/2.6
.02	Verify Vessel Security Officer endorsement	46 CFR 15.1113
.03	Verify Transportation Worker Identification Credential (TWIC)	46 CFR 10.203(b) CG-543 Policy Ltr 11-15
.04	Verify GMDSS endorsements	47 CFR 80.159(d) 47 CFR 80.1073 G-MOC Policy Ltr 04-02

TII-CD02 - Review Engine International Air Pollution Prevention (EIAPP) Certificate (when applicable)

- | | | |
|-----|--|--|
| .01 | Verify presence | MARPOL VI/13.1
MARPOL VI/13.8
NOx Code 2.1.1 |
| .02 | Verify engines identified and no changes have been made | MARPOL VI/13.1.1 |
| .03 | Verify Statement of Compliance (issued by Manufacturer) is accompanied by EPA issued EIAPP | CG-543 Policy Ltr 09-01 5.b |

TII-CD03 - Review International Air Pollution Prevention Certificate (IAPP) and Supplement Record of Construction and Equipment (when applicable)

- | | | |
|-----|---|---|
| .01 | Verify vessel particulars on IAPP and Record of Construction and Equipment | MARPOL VI/8 |
| .02 | Verify annual, intermediate, renewal, repair and extension endorsements and/or change in anniversary date | MARPOL VI/8
MARPOL VI/5 |
| .03 | Verify ozone depleting substances identified | MARPOL VI/12 |
| .04 | Verify Nitrogen Oxide emission sources identified | MARPOL VI/13 |
| .05 | Verify Sulphur Oxide (fuel oil) requirements identified | MARPOL VI/14
CG-CVC Policy Ltr 12-04 |
| .06 | Verify incinerator installation identified (when applicable) | MARPOL VI/16 |
| .07 | Verify validity of alternatives or equivalents | MARPOL VI/4
MARPOL VI/14.5 |

TII-CD04 - Review International Anti-Fouling System (IAFS) certificate with Record of Anti-Fouling System (when applicable)

- | | | |
|-----|---|---|
| .01 | Verify vessel particulars | IMO Res MEPC.195(61) 4 |
| .02 | Verify COI has Anti-Fouling endorsement or, if not required, IAFS Certificates | MSM II/B.3.J |
| .03 | Verify identification of applied Anti-Fouling System | AFS Article 3
AFS Annex 2
AFS Annex 3 |
| .04 | Verify vessel particulars on Record of Anti-Fouling Systems | IMO Res MEPC.195(61) 4.1
MSM II/B.3.J |
| .05 | Verify Anti-Fouling Systems details provided | IMO Res MEPC.195(61) 4.2 & 5 |
| .06 | Verify that no change in Anti-Fouling System has occurred since issuance of IAFS Certificates | IMO Res MEPC.195(61) 5.2
MSM II/B.3.J |

Firefighting System Inspection (FF)

TI-FF01 - Inspect fire main and pump (when applicable)

- | | | |
|-----|--|--|
| .01 | Verify capable of providing adequate pressure | 46 CFR 181.300(b) & (c) |
| .02 | Verify self priming arrangement | 46 CFR 181.300(a) |
| .03 | Verify fitted with gauge and relief valve | 46 CFR 181.300
46 CFR 181.310 |
| .04 | Verify location of controls and markings | 46 CFR 181.300 |
| .05 | Verify operation of fire pump from remote control(s) | 46 CFR 181.300(e) |
| .06 | Verify materiel condition of system | 46 CFR 181.300
46 CFR 181.310
46 CFR 182.710 |

TI-FF02 - Inspect fire stations

- | | | |
|-----|--|---|
| .01 | Verify number of hydrants | 46 CFR 181.310(a) |
| .02 | Verify hoses meet required length, size, markings and quantity | 46 CFR 181.310(a)
46 CFR 181.320(b)
46 CFR 181.320(c) |
| .03 | Verify operation of valves at fire stations | 46 CFR 181.310(a) |

TI-FF03 - Inspect portable fire extinguishers

- | | | |
|-----|---|--|
| .01 | Verify location and stowage | 46 CFR 181.500
46 CFR 181.520 |
| .02 | Verify servicing compliance | 46 CFR 176.810
NFPA 10 Chapters 4, 7 & 8 |
| .03 | Examine condition of cylinder(s) and hose(s) | NFPA 10 Chapter 7
46 CFR 176.810
46 CFR 147.65 |
| .04 | Verify presence of required type and quantity | 46 CFR 181.500 |

TI-FF04 - Inspect semi-portable firefighting equipment (when applicable)

- | | | |
|-----|--|--|
| .01 | Verify location and stowage | 46 CFR 181.500
46 CFR 181.520 |
| .02 | Verify servicing compliance | 46 CFR 176.810
NFPA 10 Chapters 4, 7 & 8 |
| .03 | Examine condition of cylinder(s) and hose(s) | NFPA 10 Chapter 7
46 CFR 176.810
46 CFR 147.65 |
| .04 | Verify type and quantity of extinguishers | 46 CFR 181.500(c) |

TI-FF05 - Inspect fire axe(s) (when applicable)

- | | | |
|-----|-----------------|----------------|
| .01 | Verify presence | 46 CFR 181.600 |
| .02 | Verify location | 46 CFR 181.600 |

TI-FF06 - Inspect high pressure CO2 system(s) (when applicable)

.01 Ensure safety precautions are implemented prior to servicing system	MSM II/C.2.I.5
.02 Verify servicing compliance	46 CFR 176.810(b)(2)
.03 Verify odorizing unit (when applicable)	46 CFR 181.410(f)(8)
.04 Inspect stowage of cylinders	46 CFR 181.410(c)
.05 Examine materiel condition of system components	46 CFR 181.410
.06 Verify piping and nozzles are clear	46 CFR 176.810(b)(2)
.07 Witness operational test of time delays, alarms and shutdowns	46 CFR 176.810(b)(2)
.08 Verify markings and warning signs are posted	46 CFR 185.612
.09 Verify operating instructions are posted	46 CFR 185.612

TI-FF07 - Inspect pre-engineered fixed gas fire extinguishing systems (when applicable)

.01 Determine if approved	46 CFR 181.420(a)(1)
.02 Verify presence of manual actuation from outside of the space	46 CFR 181.420(a)(2)
.03 Verify presence of automatic actuator (heat detector)	46 CFR 181.420(a)(2)
.04 Witness system automatically shuts down power ventilation (when applicable)	46 CFR 181.420(a)(3)
.05 Witness system automatically shuts down engines (when applicable)	46 CFR 181.420(a)(3)
.06 Verify system is installed per manufacturer's instructions	46 CFR 181.420(a)(4) Manufacturer's Instructions
.07 Witness operation of indicating light	46 CFR 181.420(b)(1)
.08 Witness audible alarm	46 CFR 181.420(b)(2)
.09 Witness means to reset automatically shut down systems	46 CFR 181.420(b)(3)
.10 Verify servicing compliance	46 CFR 176.810(b)(2)

TI-FF08 - Inspect fire and smoke detection systems (when applicable)

.01 Determine appropriate spaces are equipped	46 CFR 181.400(c),(e) & (f) 46 CFR 181.450 46 CFR 177.410(C)(3)
.02 Witness system test	46 CFR 176.810(a)(7)
.03 Verify operation of control unit's visual and audible alarms (when applicable)	46 CFR 181.400
.04 Verify zoning (when applicable)	46 CFR 181.400(c) 46 CFR 76.27-5
.05 Verify location and spacing of detectors	46 CFR 181.400(c) 46 CFR 76.27-10
.06 Verify independent module smoke detection system(s) (when applicable)	46 CFR 181.400(e) 46 CFR 181.450

TI-FF09 - Inspect fire buckets (when applicable)

.01 Verify size	46 CFR 181.610
.02 Verify quantity	46 CFR 181.610
.03 Verify lanyard	46 CFR 181.610
.04 Verify marking	46 CFR 181.610

TI-FU03 - Complete MISLE Activity

.01 Open existing activity in MISLE	MSM I/12.G.2.a MSM I/12.H.1
.02 Update inspection results	MSM II/A.2.C.2.d MMS Work Instruction
.03 Update activity narrative	MSM I/12.H.1
.04 Update vessel details	MSM I/12.H.1
.05 Amend Certificate of Inspection (when applicable)	MSM I/12.H.1
.06 Print new or amended Certificate of Inspection and Deficiency Letter (when applicable)	MSM II/A.2.C.6.b
.07 Change activity status to "Open - Submitted for Review"	MSM I/12.H.1

TI-FU04 - Verify deficiency corrections

.01 Determine an appropriate verification method for the identified deficiency(s)	MSM II/A.2.C.4
.02 Verify correction(s) meet appropriate regulations	MSM II/A.2.C.4.a
.03 Clear deficiency(s) in MISLE activity	MSM II/A.2.C.2.d MMS Work Instruction

TI-FU05 - Ensure completion of drydock examination

.01 Verify completions of all repairs	MSM II/A.2.C
.02 Issue amended Certificate of Inspection	46 CFR 176.120(a)

International Voyages

Dockside Assessment (DA)**TI-DA01 - Inspect hull for required markings (when applicable)**

.01 Verify IMO hull marking	SOLAS 14 XI-1 1/3
.02 Verify machinery space marking	SOLAS 14 XI-1 1/3
.03 Verify load line is permanently marked	ICLL 5-9
.04 Verify presence of deckline	ICLL 4

Certificates and Documents (CD)**TII-CD01 - Review Passenger Ship Safety Certificate (when applicable)**

.01 Verify presence	46 CFR 176.910(a) SOLAS 14 I/12(a)(i)
.02 Verify validity	46 CFR 176.910(c) SOLAS 14 I/14
.03 Verify contents	46 CFR 176.910(a) 46 CFR 176.910(b) SOLAS 14 I/15

TI-WR03 - Inspect steel fit-up

- .01 Examine material and fitted with approved joint detail 46 CFR 177.300(b)
NVIC 07-68 V
ABS 2-4-1/3
- .02 Verify materials (base, filler, gas) 46 CFR 176.700(b)
ABS 2-1-1/1.1
- .03 Verify welding processes 46 CFR 176.700(b)

TI-WR04 - Inspect welds for defects

- .01 Examine welds for uniformity and reinforcement 46 CFR 177.300(b)
ABS 2-4-1/5.15.1
ABS 30.5.8 (Aluminum)
NVIC 07-68 V(H)
- .02 Examine welds for porosity, overlap and slag inclusion 46 CFR 177.300(b)
ABS 2-4-1/5.15.1
ABS 30.5.8 (Aluminum)
NVIC 07-68 V(H)
- .03 Examine adjacent base metal for injurious arc strikes, spatter and sharp or deep undercut 46 CFR 177.300(b)
ABS 2-4-1/5.15.1
ABS 30.5.10 (Aluminum)

TI-WR05 - Inspect back gouge (when applicable)

- .01 Examine welds for defects (discontinuity) 46 CFR 177.300(b)
NVIC 07-68 V(G)(2)
ABS 2-4-1/5.9
- .02 Verify proper weld sequencing 46 CFR 177.300(b)
NVIC 07-68 V(F)
ABS 2-4-1/5.3
ABS 30.5.5 (Aluminum)
NVIC 07-68 V(E)
- .03 Verify joints are cleaned between interpasses 46 CFR 177.300(b)
ABS 2-4-1/3.5
ABS 30.3.3 (Aluminum)

Follow Up Actions (FU)**TI-FU01 - Issue deficiencies**

- .01 Determine deficiency's reference cite 46 USC 3313(b)
MSM II/A.2.C.4.b
MSM II/A.2.C.2
- .02 Discuss deficiencies and corrective measures/timeframe with vessel's master or representative 46 USC 3313(b)
MSM II/A.2.C.2
- .03 Issue signed CG-835 to vessel's master or representative 46 CFR 2.01-10(a)
MSM II/A.2.C

TI-FU02 - Issue/endorse vessel's certificates (when applicable)

- .01 Endorse certificates, as applicable 46 CFR 176.500(b)(1)(ii)
- .02 Obtain a copy of all endorsed certificates for the unit's vessel file MSM I/12.E.7

TI-FF10 - Verify structural fire protection on fiberglass hull

- .01 Verify fire retardant resin (when applicable) 46 CFR 177.410(b)
- .02 Verify general purpose resin requirements (when applicable) 46 CFR 177.410(c)

Machinery Equipment Inspection (MI)**TI-MI01 - Inspect steering gear**

- .01 Inspect electrical, mechanical, and hydraulic connections and linkages of main and auxiliary (emergency) systems 46 CFR 176.814
46 CFR 182.610
MSM II/C.4.B
- .02 Verify operation of communications between bridge and emergency steering station(s)(when applicable) 46 CFR 184.602(b)
- .03 Witness operational test of systems, in all modes of operation from emergency steering station(s)(when applicable) 46 CFR 182.610(b)
46 CFR 182.610(c)
46 CFR 182.620
- .04 Verify accuracy of rudder angle indicator (when applicable) 46 CFR 182.610(f)(2)
- .05 Verify steering control transfer procedures 46 CFR 182.610(g)(2)
- .06 Witness operational test of auxiliary (emergency) steering arrangement (when applicable) 46 CFR 182.620(a)
46 CFR 182.620(b)

TI-MI02 - Inspect fuel oil service system

- .01 Verify installation, arrangement and condition of piping, manifolds and filters 46 CFR 182.455
- .02 Inspect portable fuel system (when applicable) 46 CFR 182.458
ABYC H-25
- .03 Witness tests of remote shutdown(s) 46 CFR 182.455(b)(4)
- .04 Inspect nonmetallic flexible hoses and fittings 46 CFR 182.720(e)

TI-MI03 - Inspect main propulsion system(s)

- .01 Inspect condition, installation and arrangements of system components 46 CFR 182.310
46 CFR 176.804
MSM II/B.1.F
- .02 Inspect foundations for structural integrity 46 CFR 176.402(c)(1)
- .03 Verify installation of protective covers or guards 46 CFR 177.960
- .04 Inspect system's hull penetrations for structural integrity 46 CFR 182.420
- .05 Witness operational test of main propulsion machinery 46 CFR 176.804(a)

TI-MI04 - Inspect unfired pressure vessels (UPVs) (when applicable)

.01	Verify data plate(s) are legible	46 CFR 54.10-20
.02	Determine if UPV is exempt from inspection	46 CFR 182.330 46 CFR 54.01-15
.03	Verify external exam, internal exam and/or hydrostatic test needs	46 CFR 176.812 46 CFR 61.10-5(b) 46 CFR 61.10-5(d) & (e)
.04	Inspect externally	46 CFR 61.10-5(b)(1)
.05	Inspect internally (when accessible)	46 CFR 61.10-5(b)(2) 46 CFR 54.01-35 MSM II/B.1.O.4.a
.06	Witness hydrostatic test (when applicable)	46 CFR 61.10-5(d) 46 CFR 61.10-5(e)(4) MSM II/B.1.O.4.b
.07	Verify installation and operation of pressure gauges	46 CFR 54.15-5(f)
.08	Verify installation and operation of pressure-relieving devices	46 CFR 54.15-5 46 CFR 61.10-5(i) 46 CFR 54.15-10(a) & (g)

TI-MI05 - Examine potable water system (when applicable)

.01	Verify tank vents are fitted with insect screens	21 CFR 1250.82(c) MSM II/A.C.2.a
.02	Verify operation of water pump(s) and pressurization system	21 CFR 1250.84(a) 46 CFR 54.01-15(a)
.03	Verify pressurization system is fitted with safety relief valve(s)	46 CFR 54.01-15(a)
.04	Verify installation and arrangement of piping and valves	21 CFR 1250.82

TI-MI06 - Inspect bilge system

.01	Verify location and operation of pump(s)	46 CFR 176.804(h) 46 CFR 182.520
.02	Inspect manifolds, valves and piping (when applicable)	46 CFR 182.510
.03	Verify bilge system pumping capabilities	46 CFR 182.520(a)
.04	Verify bilge suction(s) are fitted with strainer(s)	46 CFR 182.510(b)
.05	Verify pollution placard is posted (when applicable)	33 CFR 155.450

TI-MI07 - Inspect (wet & dry) exhaust system(s)

.01	Inspect condition	46 CFR 176.804(c) 46 CFR 182.430
.02	Inspect insulation (when applicable)	46 CFR 177.405(b) 46 CFR 177.970 46 CFR 182.430(a)
.03	Inspect installation	46 CFR 182.425 46 CFR 182.430

TI-NT04 - Verify suspected surface(s) for satisfactory condition by nondestructive testing (NDT) using the ultrasonic method

.01	Verify technician's qualification and certification	46 CFR 176.700(d) NVIC 07-68 9(V)(A) ABS 2-4-1/5.17
.02	Witness technician calibrate equipment	ABS NDT Guide 3/3.5
.03	Witness technician examine/interpret readings	ABS NDT Guide 3/11
.04	Evaluate test results or review technician's report	ABS NDT Guide 3/13

TI-NT05 - Verify nondestructive testing (NDT) using the hydro-static method

.01	Verify test pressure	46 CFR 176.700(b) ABS 3-7-1/5.5
.02	Verify test pressure is attained and maintained	ABS 3-7-1/5.5
.03	Examine joints, connections and high stress areas	ABS 3-7-1/5.5

TI-NT06 - Verify nondestructive testing (NDT) using the pneumatic (air test) method

.01	Verify test pressure	46 CFR 176.700(d) ABS 3-7-1/5.7
.02	Ensure test pressure is attained and maintained	ABS 3-7-1/5.7
.03	Examine joints, connections and high stress areas	ABS 3-7-1/5.7

Welding Repair Inspection (WR)**TI-WR01 - Evaluate steel and aluminum structural repair proposals**

.01	Evaluate extent of damage and/or wastage/corrosion	46 CFR 176.700(d) & 177.300 NVIC 07-68 IV ABS Rules 2-4-1/5.19
.02	Review repair proposal	46 CFR 2.01-15(a)(2) 46 CFR 176.700(d) NVIC 07-68 IV
.03	Verify repair materials	46 CFR 176.700(d) NVIC 07-68 V
.04	Verify welding procedures (when applicable)	46 CFR 176.700(d)
.05	Evaluate alternative repair methods for equivalency	46 CFR 177.340 MSM II/A.5.A
.06	Verify welder's proficiency	46 CFR 176.700(d)

TI-WR02 - Inspect aluminum fit-up

.01	Examine material and fitted with approved joint detail	46 CFR 177.300(b) NVIC 07-68 V & NVIC 11-80 ABS 30.1
.02	Verify materials (base, filler, gas)	ABS 30.1
.03	Verify welding processes	ABS 30.1.3

TI-IS02 - Inspect internal structures

.01 Examine internal structures	46 CFR 176.610(b) 46 CFR 176.802
.02 Examine coamings, closures and other fittings	46 CFR 176.802 MSM II/B.3.B
.03 Verify wastage discovered is within acceptable limits	NVIC 07-68 Section III(C)

Nondestructive Testing Inspection (NT)**TI-NT01 - Verify nondestructive testing (NDT) using the liquid (dye) penetrant method**

.01 Verify individual's knowledge of, and ability to use, penetrant in accordance with the penetrant's instructions.	46 CFR 176.700(d) NVIC 07-68 9(V)(A) ABS 2-4-1/5.17 & NDT Guide 4/1
.02 Witness application	ABS NDT Guide 4/5.1
.03 Witness removal of excess penetrant after dwell time	ABS NDT Guide 4/5.1
.04 Witness application of developer	ABS NDT Guide 4/5.1
.05 Evaluate the test results or technician's report	ABS NDT Guide 4/5.1

TI-NT02 - Verify suspected surface for satisfactory condition by nondestructive testing (NDT) using the magnetic particle method

.01 Verify individual's knowledge of, ability to calibrate and use equipment in accordance with equipment's instructions	46 CFR 176.700(d) NVIC 07-68 9(V)(A) ABS 2-4-1/5.17
.02 Verify magnetic field strength	ABS NDT Guide 5/5.7.2
.03 Witness application of visible magnetic particles	ABS NDT Guide 5/5.3
.04 Witness technician examine/interpret readings	ABS NDT Guide 5/5
.05 Evaluate test results or review technician's report	ABS NDT Guide 5/5

TI-NT03 - Verify suspected surface for satisfactory condition by nondestructive testing (NDT) using the radiography (gamma rays or x-rays) method

.01 Verify individual's knowledge of and ability to use radiography equipment	46 CFR 176.700(d) NVIC 07-68 9(V)(A) ABS 2-4-1/5.17
.02 Verify technique	ABS NDT Guide 2/5
.03 Witness technician examine/interpret readings	ABS NDT Guide 2/5.1
.04 Review technician's report	ABS NDT Guide 2/9

TI-MI08 - Inspect auxiliary boiler(s) (when applicable)

.01 Verify maximum allowable working pressure (MAWP)	46 CFR 54.10-20
.02 Inspect internal (when applicable)	46 CFR 176.812(b) 46 CFR 61.05-10 Table
.03 Inspect mounts	46 CFR 61.05-15(a)-(d) 46 CFR 61.05-10 Table
.04 Inspect columns, gauge glasses and gauge cocks	46 CFR 61.05-15(e)
.05 Inspect steam gauge	46 CFR 61.05-15(f) 46 CFR 61.05-10 Table
.06 Inspect safety valves	46 CFR 176.704 46 CFR 61.05-10 Table & .05-20 46 CFR 54.15-10

Electrical Systems Inspection (ES)**TI-ES01 - Inspect switchboard(s)**

.01 Verify location, condition and installation	46 CFR 183.330(a) - (e) 46 CFR 183.330(i)
.02 Verify non-conductive handrail and matting or grating on deck	46 CFR 183.330(f)
.03 Verify sized correctly	46 CFR 183.330(j) 46 CFR 111.30-19(a)

TI-ES02 - Inspect main service generator(s) and prime mover(s)

.01 Verify power source(s) requirements	46 CFR 183.310
.02 Examine condition of generator(s) and prime mover(s)' components	46 CFR 183.320
.03 Verify installation of protective covers or guards	46 CFR 177.960
.04 Verify generator(s) nameplates are attached	46 CFR 183.320(d)
.05 Verify required gauges (when applicable)	46 CFR 183.320(c)

TI-ES03 - Inspect lighting systems

.01 Verify light fixtures	46 CFR 183.410 UL 1570
.02 Verify presence of portable lights	46 CFR 183.430
.03 Verify emergency lighting	46 CFR 183.432
.04 Verify overcurrent protection	46 CFR 183.380 UL 489
.05 Verify navigation lights	46 CFR 183.420 UL 1104

TI-ES04 - Inspect battery installation

.01 Determine battery category	46 CFR 183.352
.02 Verify ventilation	46 CFR 183.354
	46 CFR 111.15-10
.03 Verify properly installed and secured	46 CFR 183.350(b)
	46 CFR 183.354
.04 Verify space for maintenance and removal	46 CFR 183.350(c)
.05 Verify ammeter connected in the charging circuit (when applicable)	46 CFR 183.350(f)
.06 Verify proper ventilation of charger (when applicable)	46 CFR 183.350(a)
.07 Verify connections	46 CFR 183.350(d)

TI-ES05 - Inspect electrical cable and fixtures

.01 Verify supports for vertical and horizontal installations	46 CFR 183.340(b)(4)
.02 Verify radius of bends	46 CFR 183.340(b)(5)
.03 Verify no hazardous conditions exist	46 CFR 183.200-220
	46 CFR 183.530
	46 CFR 111.105
.04 Verify condition of outlets	46 CFR 183.220(c)
.05 Verify connection types	46 CFR 183.340(g)
.06 Inspect cable size and condition	46 CFR 183.340(d)

TI-ES06 - Inspect distribution panel(s)

.01 Verify location	46 CFR 183.330(a)
	46 CFR 183.330(e)
.02 Verify installation and drip shield	46 CFR 183.330(a)
	46 CFR 183.330(c)
.03 Verify blanks are installed	46 CFR 183.330(i)
.04 Verify sized correctly	46 CFR 183.330(j)
	46 CFR 111.30-19
.05 Verify circuit directory	46 CFR 183.220(d)

TI-ES07 - Inspect components installed in designated hazardous areas (when applicable)

.01 Verify hazardous area(s)	46 CFR 183.530(a)
	46 CFR 183.530(b)
.02 Verify electrical equipment for hazardous area(s)	46 CFR 183.530(b)
	46 CFR 183.530(c)
.03 Verify integrity of equipment	46 CFR 183.530(c)
	46 CFR 111.105

TI-HI09 - Inspect fiberglass external hull

.01 Inspect condition	46 CFR 176.610(a)
	NVIC 08-87 Chapter 5
.02 Examine stress areas	46 CFR 176.610(a)
	NVIC 08-87 Chapter 5
.03 Examine area in way of through hull fittings	46 CFR 176.610(a)
	46 CFR 176.610(b)
	NVIC 08-87 Chapter 5.E
.04 Examine for damage/unfairness/delamination	46 CFR 176.610(a)
	46 CFR 176.610(b)
	NVIC 08-87 Chapter 5.C
.05 Verify no unauthorized repairs	46 CFR 2.01-15(a)(2)
	46 CFR 176.700
	NVIC 08-87 Chapter 6

TI-HI10 - Inspect fiberglass internal hull

.01 Inspect condition	46 CFR 176.610(a)
	NVIC 08-87 Chapter 5
.02 Examine stress areas	46 CFR 176.610(a)
	NVIC 08-87 Chapter 5
.03 Examine area in way of through hull fittings	46 CFR 176.610(a)&(b)
	NVIC 08-87 Chapter 5.E
.04 Examine for damage/unfairness/delamination	46 CFR 176.610(a)&(b)
	NVIC 08-87 Chapter 5.C
.05 Verify no unauthorized repairs	46 CFR 2.01-15(a)(2)
	46 CFR 176.700
	NVIC 08-87 Chapter 6

TI-HI11 - Evaluate fiberglass repair(s)

.01 Evaluate extent of damage, defect(s) and/or delamination	46 CFR 176.610
	NVIC 08-87 Chapter 6
.02 Review repair proposal	46 CFR 2.01-15(a)(2)
	46 CFR 176.700
	NVIC 08-87 Chapter 6
.03 Verify repair materials	46 CFR 176.700
	NVIC 08-87 Chapter 4
.04 Inspect repair(s)	46 CFR 176.610
	NVIC 08-87 Chapter 6

Internal Structural Examination (IS)**TI-IS01 - Verify confined spaces are safe for entry**

.01 Review Marine Chemist certificate	29 CFR 1915.12(f)
	CIM 5100.47A/6.G.9.c
	NFPA 306/4.3
.02 Verify competent person has maintained Marine Chemist Certificate	29 CFR 1915.15
	CIM 5100.47A/6.G.9.c(3)
	NFPA 306/4.6.2
.03 Verify no changes to vessel's condition	29 CFR 1915.15(b)
.04 Verify forced ventilation is provided (when applicable)	29 CFR 1915.13(b)(3)
.05 Verify condition of space access point	29 CFR 1915.76

TI-HI07 - Verify if vessel qualifies to participate in the USCG's underwater survey program (UWILD)

.01 Review application	46 CFR 176.630 NVIC 01-89 MSM II/B.3-22
.02 Inspect condition of hull and protection system	NVIC 01-89 Encl.1/1.a 46 CFR 176.615(a)(3)
.03 Verify reference points	NVIC 01-89 Encl.1/1.b
.04 Verify hinged gratings are installed on sea chest(s)	NVIC 01-89 Encl.1/1.c
.05 Verify means for taking shaft-bearing and rudder-bearing clearances	MSM II/B.3-29
.06 Review hull gauging report	NVIC 01-89 Encl.1/1.a
.07 Review reference video	NVIC 01-89 Encl.1/1.d MSM II/B.3-23
.08 Forward application with OCMI's recommendation	MSM II/B.8.C.18.f

TI-HI08 - Inspect hull during an underwater survey

.01 Confirm vessel's approved application for underwater inspection in lieu of drydocking (UWILD) examination	46 CFR 176.615 NVIC 01-89 Encl.1/2.a
.02 Verify procedures to be followed in carrying out the underwater survey are adequate	46 CFR 176.615 46 CFR 197.202
.03 Verify suitability of location where the underwater survey will be accomplished	46 CFR 176.615 NVIC 01-89 Encl.1/5.c
.04 Review reference plans and video showing the external details of the hull	NVIC 01-89 Encl.1/2.a(12)
.05 Meet with the vessel's representative and diving supervisor to discuss the details of the survey	NVIC 01-89 Encl.1/4
.06 Verify that vessel's representative submitted a signed letter stating the overall condition of the vessel	NVIC 01-89 Encl.1/2.a(7)
.07 Verify qualification of divers, type of diving equipment and their nondestructive testing (NDT) and damage repair capabilities	46 CFR 197.202 NVIC 01-89 Encl.1/5.f
.08 Verify that all areas of the hull have been cleaned to allow for a meaningful examination	NVIC 01-89 Encl.1/5.g
.09 Witness underwater survey from a video monitor	46 CFR 197.202 NVIC 01-89 Encl.1/5.i

Stability (ST)

TI-ST01 - Witness simplified stability proof test

.01 Determine applicability	46 CFR 178.310(c) 46 CFR 178.320 CG-4006
.02 Validate passengers and crew permitted	46 CFR 176.112 46 CFR 176.113
.03 Verify loaded condition; cargo, dive gear, etc.	46 CFR 178.330 CG-4006
.04 Verify test weight(s) and their vertical center of gravity	46 CFR 178.215 46 CFR 178.330
.05 Complete CG-4006 form calculations	46 CFR 178.330 CG-4006
.06 Witness and document simplified stability test	46 CFR 178.330 CG-4006
.07 Draft a stability letter for signature	46 CFR 178.210

TI-ST02 - Witness pontoon simplified stability test

.01 Determine applicability	46 CFR 178.310(c) 46 CFR 178.320 PSST Form
.02 Validate passengers and crew permitted	46 CFR 176.112 46 CFR 176.113
.03 Coordinate test date with Marine Safety Center (MSC) (Small Vessel Branch staff)	46 CFR 178.210(d)
.04 Verify loaded condition (cargo, dive gear, etc.)	46 CFR 178.340 PSST Form
.05 Verify test weight(s) and their vertical center of gravity	46 CFR 178.215 46 CFR 178.340
.06 Complete PSST form calculations	46 CFR 178.340 PSST Form
.07 Witness and document simplified stability test	46 CFR 178.340 PSST Form
.08 Verify MSC issues stability letter	46 CFR 178.210(d)

TI-ST03 - Witness deadweight survey with or without inclining

.01 Determine applicability	46 CFR 178.310(a) 46 CFR 178.310(b) 46 CFR 170.001,. 070 & .075
.02 Verify intended service (Exposed, Paritally Protected, Protected)	46 CFR 175.400
.03 Review approved stability test procedure and MSC approval letter	46 CFR 170.185
.04 Discuss acceptable deviations from requirements of procedure (contact MSC)	46 CFR 170.190
.05 Assess General Condition of the vessel (completeness, configuration refelcts as-built plans, tankage, mooring arrangement, environment, specific gravity with hydrometer)	ASTM F1321 6.1
.06 Verify test weights are certified and current (inclining only)	ASTM F1321 6.5.2.1
.07 Witness precise survey of items to be added, removed and/or relocated	ASTM F1321 6.5 Test Procedures
.08 Witness pendulum reading	ASTM F1321 8.1.3.6
.09 Witness accurate/percise freeboard measurements and resulting calculation/linear plot	ASTM F1321 8.1.2
.10 Witness weight movement and resulting weight moment plot, verify appropriate scale and straight line (inclining only)	ASTM F1321 8.1.3

TI-ST04 - Verify drainage requirements

.01 Determine vessel type	46 CFR 178.410 & .420 46 CFR 178.430 46 CFR 178.440
.02 Verify requirements for cockpit deck vessels (when applicable)	46 CFR 178.420 46 CFR 178.450
.03 Verify requirements for well deck vessels (when applicable)	46 CFR 178.430 46 CFR 178.450
.04 Verify requirements for open boats (when applicable)	46 CFR 178.440
.05 Verify requirements for flush deck vessels (when applicable)	46 CFR 178.410

TI-ST05 - Verify simplified subdivision (when applicable)

.01 Determine applicability	46 CFR 179.212
.02 Verify location and watertight integrity of collision bulkhead	46 CFR 179.210 46 CFR 179.310
.03 Verify location and watertight integrity of watertight bulkheads	46 CFR 179.212 46 CFR 179.320
.04 Complete CG-4005 form calculations	46 CFR 179.210 & .220 MSM IV/6.E.9.b CG-4005
.05 Verify subdivision	46 CFR 179.210 46 CFR 179.220

TI-HI02 - Inspect tailshaft(s), stern bearing(s) and propeller(s)

.01 Determine if tailshaft(s) needs to be drawn	46 CFR 176.670 MSM II/B.3.D.3
.02 Verify bearing clearance and inboard seal assembly	46 CFR 176.670 Manufacturer's manual
.03 Visually examine entire shaft (when applicable)	46 CFR 176.670
.04 Witness satisfactory non-destructive testing (NDT) of the shaft's taper section and keyway (when applicable)	46 CFR 176.670
.05 Witness satisfactory NDT of propeller coupling bolts and flange radius (when applicable)	46 CFR 176.670
.06 Verify condition and wear down of strut bearing(s) (when applicable)	46 CFR 176.670 MSM II/B.3.D.10
.07 Inspect condition of propeller	46 CFR 176.610(a)

TI-HI03 - Inspect the rudder installation

.01 Verify type of assembly installed	46 CFR 176.814 MSM II/B.3.E.2
.02 Examine rudder assembly for deterioration and defects	46 CFR 176.610(a)
.03 Verify rudder bearing clearance(s) are within limits	Manufacturer's manual
.04 Verify condition of pintle(s), gudgeon(s), bushing(s), pintle nut(s) and locking device(s)	MSM II/B.3.E.2
.05 Verify condition of pintle by nondestructive test (NDT) (when applicable)	MSM II/B.3.E.2

TI-HI04 - Inspect hull appendages

.01 Examine condition and structural integrity of bilge keel (when applicable)	46 CFR 176.610(a)
.02 Examine condition of keel coolers (when applicable)	46 CFR 176.610(a) 46 CFR 182.422
.03 Examine condition of transducers and other similar appendages (when applicable)	46 CFR 176.610(a)

TI-HI05 - Inspect anchor chain(s)

.01 Examine length of chain for satisfactory condition	46 CFR 184.300
.02 Examine chain locker for satisfactory condition	46 CFR 184.300

TI-HI06 - Inspect sea valve(s)

.01 Verify quantity and type	46 CFR 176.610 46 CFR 179.350(c) 46 CFR 179.350(d)
.02 Verify that all sea valves are properly identified and are opened for examination	46 CFR 176.610
.03 Examine external and internal components	46 CFR 176.610

TI-ED02 - Evaluate Man Overboard Drill

.01	Verify ability to recover a helpless person	46 CFR 176.808(g) 46 CFR 185.520
.02	Verify crew's ability to organize	46 CFR 185.520
.03	Verify crew's familiarity with their duties	46 CFR 180.210 46 CFR 185.520
.04	Witness launching of rescue boat (when applicable)	46 CFR 185.520
.05	Evaluate crew's proficiency in handling and maneuvering the rescue boat in the water (when applicable)	46 CFR 180.210 46 CFR 185.520
.06	Evaluate crew's proficiency in handling and maneuvering the vessel in the water (when applicable)	46 CFR 180.210 46 CFR 185.520
.07	Verify operational readiness and condition of rescue platform (when applicable)	46 CFR 185.700

TI-ED03 - Evaluate abandon ship drill

.01	Witness drill	46 CFR 176.808(g) 46 CFR 185.520
.02	Verify means or summoning crew and passengers	46 CFR 185.520(b)(1) 46 CFR 185.520(b)(2)
.03	Verify crew's familiarity with assigned duties	46 CFR 185.520(a)
.04	Verify all lifejackets are correctly donned	46 CFR 185.520(b)(3)
.05	Witness means of launching survival craft (when applicable)	46 CFR 185.520(b)(4) 46 CFR 185.520(b)(5)

Hull Inspection (HI)**TI-HI01 - Inspect steel and aluminum hulls**

.01	Examine for wastage, defect(s) and damage	46 CFR 176.802 46 CFR 176.610
.02	Examine critical areas (stringer plate, sheer plate, etc.)	46 CFR 176.802(a)(1) NVIC 07-68 Section IV(B) NVIC 11-80
.03	Examine seachests and overboard discharges for wastage, defect(s) and damage	46 CFR 176.802(a)(2) NVIC 07-68 Section II(A)
.04	Verify condition of drydock (bottom) plugs (when applicable)	46 CFR 176.802(a)(7) NVIC 07-68 Section II(A) MSM II/B.3.B
.05	Verify wastage/corrosion is within limits	NVIC 07-68 Section III(C) ABS 7-A-4/27

Structural/Watertight Integrity Inspection (SW)**TI-SW01 - Inspect hatches and Class-1 watertight doors (when applicable)**

.01	Verify condition of knife edges	46 CFR 179.330(c) 46 CFR 174.210
.02	Verify condition of gasket material	MSM II/B.1.E.5
.03	Verify watertight integrity between gasket and knife edge	46 CFR 174.210 46 CFR 170.270 MSM II/B.1.E.5
.04	Verify condition and operation of hinges and dogging devices	46 CFR 170.270
.05	Verify operation of Class-1 door's quick-acting closing device	46 CFR 179.330(b)
.06	Verify operation of indicator lights at the control station	46 CFR 179.330(b)
.07	Verify markings	46 CFR 185.610

TI-SW02 - Inspect Class 2 & 3 watertight doors (when applicable)

.01	Verify operation of local controls	46 CFR 179.330(c) 46 CFR 170.270(c)(2) ASTM F1197/7.1
.02	Verify operation of remote controls	ASTM F1197/7.1
.03	Verify condition of replaceable interface between door and frame assembly	46 CFR 170.270(c)(1) ASTM F1196/6.3
.04	Verify operation of alarms	ASTM F1197/11.5
.05	Verify closing times are in compliance	ASTM F1197/11.2 ASTM F1197/11.4
.06	Verify markings	46 CFR 185.610 ASTM F1196/11.1 ASTM F1196/S4
.07	Verify watertight integrity	ASTM F1196/S1
.08	Verify operation of doors under reserve power	46 CFR 170.270(c)(3) ASTM F1197/S3

TI-SW03 - Inspect watertight bulkhead penetrations

.01	Verify locations	46 CFR 179.320(c)
.02	Verify watertight	46 CFR 179.320(c) 46 CFR 182.720(d)(1)(ii)(C) MSM II/B.1.B.5

TI-SW04 - Inspect hull structure

.01	Inspect for damage, wastage and fractures	46 CFR 177.300 MSM II/B.1.B.1
.02	Verify no unauthorized repairs	46 CFR 176.700 46 CFR 2.15(a)(2)

Pollution Prevention Inspection (PP)

TI-PP01 - Inspect sewage system

.01	Verify presence of manufacturer's instructions	33 CFR 159.57
.02	Verify operation	33 CFR 159.57 46 CFR 184.704
.03	Verify capacity	33 CFR 159.57(b)(8)
.04	Verify piping and wiring	33 CFR 159.97
.05	Verify Marine Sanitation Device (MSD) approval	33 CFR 159.7 MSM II/B.6.F.4
.06	Verify instructions and warning placard posted	33 CFR 159.59
.07	Verify overboard discharge valve is closed and secure (when applicable)	33 CFR 159.7(b) 33 CFR 159.7(c)

TI-PP02 - Conduct garbage handling (MARPOL Annex V) survey (when applicable)

.01	Review plan compliance	46 CFR 184.702 33 CFR 151.51 & .57 MARPOL V/9.2
.02	Verify handling of plastics	33 CFR 151.55 MARPOL V/9.3(b)
.03	Verify placards posted	33 CFR 151.59 MARPOL V/9.1(a)

TI-PP03 - Conduct Vessel General Permit (VGP) compliance verification (when applicable)

.01	Verify Notice of Intent (NOI) (when applicable)	CG-543 Policy Ltr 11-01 FWPCA Section 402 VGP 1.5.1.1
.02	Review General Permit	CG-543 Policy Ltr 11-01
.03	Verify discharges are in compliance with VGP	VGP 2.2.3.2 VGP 4.3
.04	Verify log entries	VGP 4.1.1.1 VGP 4.2

Topside Equipment Inspection (TE)

TI-TE01 - Examine freeing ports and scuppers (when applicable)

.01	Verify no modifications	46 CFR 176.700
.02	Verify unobstructed	46 CFR 178.410
.03	Verify free operation of any flowback device (when applicable)	46 CFR 178.230 Stability Letter

TI-TE02 - Examine ground tackle, mooring lines and related equipment

.01	Determine size of anchor(s) required	46 CFR 184.300
.02	Verify operation of capstan (when applicable)	46 CFR 184.300
.03	Examine condition of anchoring equipment	46 CFR 184.300
.04	Verify ability to safely anchor	46 CFR 184.300
.05	Verify condition of bits, cleats, fairleads and winches	46 CFR 184.300
.06	Verify mooring lines/wires sizes and condition	46 CFR 184.300

TI-TE03 - Inspect port lights, dead covers and natural vent openings

.01	Verify covers are readily available and operational	46 CFR 182.460(l) 46 CFR 182.465(h)
.02	Inspect closing devices for proper fit and seal	46 CFR 182.460(l) 46 CFR 182.465(h)
.03	Inspect port lights and dead covers for proper fit and seal	46 CFR 179.350(a) 46 CFR 179.350(b)

TI-TE04 - Inspect fuel tank venting

.01	Verify condition and location	46 CFR 182.450(d) 46 CFR 182.450(f) ABYC H-33 & H-24
.02	Verify installation and condition of flame screen(s)	46 CFR 182.450(e)
.03	Verify installation of vent piping	46 CFR 182.450(h)
.04	Verify vent size	46 CFR 182.450(b) 46 CFR 182.450(c)
.05	Verify condition of flexible vent pipe sections	46 CFR 182.450(g)

TI-TE05 - Inspect rails and guards

.01	Verify rail heights and courses	46 CFR 177.900
.02	Verify storm rails	46 CFR 177.920
.03	Verify guards for vehicles (when applicable)	46 CFR 177.940

Emergency Drills (ED)

TI-ED01 - Evaluate Fire Drill

.01	Witness fire drill	46 CFR 185.524 46 CFR 176.810(d) MSM II/B.2.D.3
.02	Verify crew's ability to organize	46 CFR 185.524(b)(2)
.03	Verify crew's familiarity with their duties	46 CFR 185.524(b)(2)
.04	Verify crew's familiarity with use of equipment	46 CFR 185.524(b)(3)
.05	Verify method of summoning passengers to muster or embarkation stations	46 CFR 185.524(b)(2)
.06	Verify effective communication with master	46 CFR 185.524(b)(2)