

United States Coast Guard



**HULL  
INSPECTION BOOK**

<b>Name of Vessel</b>		
<b>Official Number</b>	<b>Class</b>	
<b>Date Completed</b>	<b>Location</b>	
<b>Vessel Built in Compliance with SOLAS: 60 74 74/78 N/A</b>		
<b>Route</b>		
Oceans	Limited Coastwise	Lakes / Bays / Sounds
Coastwise	Great Lakes	Rivers
<b>Inspection Type</b>		
Inspection for Certification (COI)	Reinspection	
	<input type="radio"/> Mid-Period <input type="radio"/> Other <input type="radio"/> First <input type="radio"/> Second <input type="radio"/> Third	
	<input type="checkbox"/> Passenger vessels only	
<b>Inspectors</b>		
1. _____	3. _____	
2. _____	4. _____	

**Total Time Spent Per Activity:**

<b>Regular Personnel (Active Duty)</b>			
ACTIVITY TYPE	ACTIVITY	TRAINING	(PERS) MI

TOTAL ADMIN HOURS	TOTAL TRAVEL HOURS
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<b>Reserve Personnel</b>			
ACTIVITY TYPE	ACTIVITY	TRAINING	(PERS) MI

TOTAL ADMIN HOURS	TOTAL TRAVEL HOURS
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<b>Auxiliary Resources</b>	
TOTAL BOAT HOURS	TOTAL AIRCRAFT HOURS

## **Use of Hull Inspection Book:**

This inspection book is intended to be used as a job aid by Coast Guard marine inspectors during hull inspections of U.S. flagged vessels. The lists contained within this book are not intended to limit the inspection. Each marine inspector should determine the depth of inspection necessary. A checked box should be a running record of what has been inspected. It does not imply that the entire system has been inspected or that all or any items are in full compliance. This job aid does not constitute part of the official inspection record.

This document does not establish or change Federal laws or regulations. References given are only general guides. Refer to IMO publications, CFR's, NVIC's or any locally produced cite guides for specific regulatory references. Not all items in this book are applicable to all vessels.

**NOTE:** *Guidance on how to conduct hull inspections of U.S. flagged vessels can be found in the Marine Safety Manual (MSM) Volume II, Chapter B1: Inspection of Vessels for Certification. All MSM cites listed in this book refer to MSM Volume II unless otherwise indicated.*

### **Pre-inspection Items:**

- Review MSIS records.
  - MIPIP
  - MICOI
- Obtain copies of forms to be issued.

### **Post-inspection Items:**

- Issue letters/certificates to vessel.
- Complete MSIS entries.
  - MIAR
  - MSDS
  - MIDR
  - VFLD
  - VFID
- Initiate Report of Violation (ROV) if necessary

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## Section 1: Administrative Items

### IMO Applicability Dates:

Reference	Date
SOLAS 1960	26 MAY 65
SOLAS 1974	25 MAY 80
1978 Protocol to SOLAS 1974	01 MAY 81
1981 Amendments (II-1 & II-2)	01 SEP 84
1983 Amendments (III)	01 JUL 86
<i>Various additional amendments to SOLAS</i>	
MARPOL 73/78 Annex I	02 OCT 83
MARPOL 73/78 Annex II	06 APR 87
MARPOL 73/78 Annex III	01 JUL 92
MARPOL 73/78 Annex V	31 DEC 88
IBC Code	After 01 JUL 86
BCH Code	Prior to 01 JUL 86
COLREGS 1972	15 JUL 77
<i>Various additional amendments to COLREGS</i>	
Load Line 1966	21 JUL 68
STCW 1978	28 APR 84
1991 Amendments	01 DEC 92
1994 Amendments	01 JAN 96
1995 Amendments	01 FEB 97

**Involved Parties & General Information:**

Vessel's Representatives  _____  _____
Phone Numbers

Owner—Listed on DOC (if applicable), or COFR
No Change

Operator
No Change

**Vessel Information:**

Classification Society	
ISM Issuer: Same as above?	
Yes	No If not the same, which Recognized Organization? _____
<p><b>NOTE:</b> The period of validity for ISM documents should correspond to the following list. If they do NOT, ISM documents should be further investigated.</p> <p><input type="checkbox"/> 5 years = Full term (SMS and DOC)      <input type="checkbox"/> 12 months = Interim (DOC)</p> <p><input type="checkbox"/> 6 months = Interim (SMC)                      <input type="checkbox"/> 5 months = Short term (SMC)</p>	
Gross Tons	No Change (VFMD)
Net Tons	No Change (VFMD)
Built Date (use delivery date)	No Change (VFCD)
Overall Length (in feet)	No Change (VFMD)

**Vessel Description:**

Container Vessel  
 Vehicle Carrier  
 Bulk Carrier

Passenger Vessel  
 Research Vessel  
 School Ship  
 Other

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## Section 2: Certificates and Documents

Name of Certificate	Issuing Agency	ID #	Port Issued	Issue Date	Exp. Date	Endors. Date
<b>Certificate of Documentation</b> No Change	USCG					
<b>Classification Document</b> No Change						
<b>Certificate of Financial Responsibility (COFR)</b> No Change	USCG					
<b>Safety Construction (SLC)</b> No Change						
<b>Safety Equipment (SLE)</b> No Change	USCG					
<b>Safety Radio (SLT)</b> No Change						

<b>Name of Certificates</b>	<b>Issuing Agency</b>	<b>ID #</b>	<b>Port Issued</b>	<b>Issue Date</b>	<b>Exp. Date</b>	<b>Endors. Date</b>
<b>Passenger Ship Safety (PSS)</b> No Change						
<b>International Load Line (ILL)</b> No Change						
<b>International Oil Pollution Prevention (IOPP)</b> No Change						
<b>International Tonnage (ITC)</b> No Change						
<b>Safety Management (SMC)</b> No Change						
<b>Document of Compliance (DOC)</b> No Change						

**Certificates:**

- ISM Code SOLAS 74/78 IX/3
  - Safety Management System
  - Shipboard Operations Plan
- Stability letter posted in pilothouse 46 CFR 78.12-1  
46 CFR 97.11-1  
ICLL Reg. 10(2)
- Annual drug and alcohol program audit 46 CFR Part 16
- Officers' licenses current
- GMDSS endorsement 47 CFR Part 80
  - FCC Station License
  - Safety Radio Certificate
- GMDSS maintenance personnel 47 CFR 80.1074
  - 1st Class Radiotelegraph Operator's Certificate
  - 2nd Class Radiotelegraph Operator's Certificate
  - 3rd Class Radiotelegraph Operator's Certificate
- Required international safety convention certificates posted and valid
- Liferaft servicing certificates 46 CFR 160.151-57(p)  
SOLAS 74/78 III/19.8
  - Annual service
- Cargo Gear Certificate 46 CFR 91.37-75

Notes: \_\_\_\_\_  
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**Logs and Manuals:**

- Lifesaving equipment maintenance record      46 CFR 199.190(e)  
SOLAS 74/78 III/19
  - Periodic checks as required
  - Visual inspection of survival craft / rescue boat and launching appliances
  - Operation of lifeboat / rescue boat engines
  - Lifesaving appliances, including lifeboat equipment examined
  
- Emergency training and drills      SOLAS 74/78 III/18
  - Onboard training in use of lifesaving equipment (all crew members)
  - SOLAS training manual
  - Logbook records      46 CFR 199.180
  - Fire and lifeboat drills      SOLAS 74/78 III/18.5
  - General alarm tested      SOLAS 74/78 III/25
  
- Bridge log      SOLAS 74/78 V/19
  - Pre-arrival tests conducted      STCW 95 I/14
  - Casualties (navigation equipment and steering gear failures reported)      33 CFR 164.25
  - Steering gear drills      33 CFR 164.53
  - Emergency steering drills      46 CFR 97.35
  
- Stability information      46 CFR 78.17-20  
46 CFR 97.15-5  
SOLAS 74/78 II-1/22.1
  
- Information available to master (as required)      46 CFR 78.17-22  
46 CFR 97.12-1
  - Loading manual
  - Trim and stability book

**Pollution Prevention Records:**

- Oil record book (Part 1)      MARPOL Ax. I/20  
33 CFR 151.25
  - Each operation signed by person-in-charge
  - Each complete page signed by master
  - Book maintained for 3 years

Notes: \_\_\_\_\_  
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- Shipboard oil pollution emergency plan
  - Approved by Coast Guard / class society
  - Contact numbers correct
  - Immediate Actions List
  
- Vessel response plan  
 (vessels carrying oil as secondary cargo)
  - Approved by Coast Guard
  - Annual review by owner / operator
  
- Oil transfer procedures
  - Posted
  - List of products carried by vessel
  - Description of transfer system including a line diagram of piping
  - Number of persons required on duty
  - Duties by title of each person
  - Means of communication
  - Procedures to top off tanks
  - Procedures to report oil discharges

MARPOL Ax. I/26.1  
33 CFR 151.26

33 CFR 155.1030  
33 CFR 155.1045

33 CFR 155.1065  
33 CFR 155.1070

33 CFR 155.720

Notes: \_\_\_\_\_  
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### Section 3: Inspection Items

#### Navigation Equipment:

- Navigation publications (as applicable) 33 CFR 164.33  
SOLAS 74/78 V/20
  - Current and corrected charts
  - U.S. Coast Pilot
  - Great Lakes Pilot
  - Sailing directions
  - Coast Guard Light List
  - Notice to mariners
  - Tide tables
  - Tidal current tables
  - International Rules of the Road
  - Inland Rules of the Road
  
- Operationally test radar(s) and ARPA 33 CFR 164.35  
33 CFR 164.37  
33 CFR 164.38  
SOLAS 74/78 V/12
  - 2 required if over 10,000 GT
  - Operate independently
  - ARPA acquires targets
  
- Compasses 33 CFR 164.35  
SOLAS 74/78 V/12
  - Illuminated gyrocompass with repeater at stand
  - Illuminated magnetic compass
  - Current deviation table
  
- Test electronic depth sounding device and recorder 33 CFR 164.35  
SOLAS 74/78 V/12
  - Accurate readout
  - Test all transducers
  - Continuous recorder (chart)
  
- Speed and distance indicator 33 CFR 164.40  
SOLAS 74/78 V/12
  
- Propulsion shaft tachometer SOLAS 74/78 V/12

Notes: \_\_\_\_\_  
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- Radio equipment
  - Radios, RDF, Loran
  - Electronic position fixing device tested
  - GMDSS meets requirements for vessel operating area
  
- Internal communications and control system
  - EOT failure alarms
  - Telephones
  - Voice tubes
  - Emergency loudspeaker system
  - Public address system
  - Bell pulls
  - Pilothouse controls
  
- Navigation lights and signals
  - Control panels
  - Running lights
  - Anchor lights
  - Special day and night signals
  - Distress signals and stowage
  - Flag signals, international code
  - Whistle, light, bells, gongs
  - Day and night signal devices
  - Certificate of Alternate Compliance
  
- Steering gear
  - Main gear tested (all stations)
  - Auxiliary gear tested (all stations)
  - Instructions and markings
  - Rudder angle indicator
  - Illumination
  - Alarms
  - Block diagram
  
- Maneuvering facts sheet with warning statements

33 CFR 26.03  
 SOLAS 74/78 V/7  
 SOLAS 74/78 V/12  
 33 CFR 164.41  
 NVIC 9-93

46 CFR 113.30  
 46 CFR 113.35  
 46 CFR 113.50

72 COLREGS  
 46 CFR 199.60  
 33 CFR 81.9

33 CFR 164.35  
 MSM Ch. C4.F  
 46 CFR 113.43  
 33 CFR 164.35

Notes: \_\_\_\_\_  
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- EPIRB (406 MHz) SOLAS 74/78 IV/7.1.6  
46 CFR 199.510
  - Float-free arrangement
  - Battery date current
  - Hydrostatic release
- GMDSS lifeboat radios (VHF) SOLAS 74/78 III/6.2
  - 3 if over 500 GT
  - Operable condition
- 9 GHz radar transponder (SART) SOLAS 74/78 III/6.2  
NVIC 9-93
  - Freight vessels > 300 GT and < 500 require 1
  - Freight vessels > 500 GT and passenger vessels require 2
  - Stowed so to be rapidly placed in survival craft or stowed in survival craft
- NAVTEX SOLAS 74/78 IV/7.1.4

**General Health and Safety:**

- Hospital and first aid equipment 46 CFR 72.20-35  
46 CFR 92.20-35
- Operating room explosion-proof 46 CFR 111.105-37
- Emergency lighting 46 CFR 112.43
- Protection of spaces specially suited for vehicles 46 CFR 70.10-44  
46 CFR 90.10-38
  - Gas detection systems
  - Electrical hazardous locations
- Crew and passenger accommodations 46 CFR 72.20  
46 CFR 72.25  
46 CFR 92.20
  - Size
  - Lighting and wiring
  - Heating
  - Ventilation 46 CFR 92.15-15
  - Sanitation
  - Screens
  - Insulation
  - Fire retardant

Notes: \_\_\_\_\_

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- Galley MSM Ch. B1.N.8
  - Equipment
  - Sanitation
  - Ventilation 46 CFR 72.05-50
  
- Means of escape from accommodation, machinery, and other spaces 46 CFR 72.10  
46 CFR 92.10  
SOLAS 74/78 II-2/45
  - Two required (some exceptions)
  - Dead end corridors
  - Absence of locks
  
- Gas freeing for repairs MSM Ch. A5.H
  - Current Gas Chemist Certificate for areas as required
  - Date \_\_\_\_\_
  - Chemist No. \_\_\_\_\_

**Structural Integrity:**

- Hull structure (list inaccessible compartments or areas) 46 CFR 72.01  
46 CFR 92.01  
ICLL 66 Reg. 1
  - Decks
  - Shell
  - Bulkheads
  - Tank tops
  - Strength members
  
- Hull openings and closures 46 CFR 42.15  
MSM Ch. B1.E.5  
ICLL 66 Regs. 12 - 23
  - Side ports
  - Air ports and dead covers
  - Refuse chutes
  - Hatch covers
  - Closing devices, gaskets
  - Light / water test
  
- Deck openings and closures MSM Ch. B1.E.5  
ICLL 66 Regs. 12 - 20
  - Closing devices
  - Gaskets
  - Light / water test

Notes: \_\_\_\_\_

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- Guards, ladders, rails, and gangways (including accommodation ladders or pilot ladders) 46 CFR 72.40  
46 CFR 92.25  
ICLL 66 Reg. 25
- Elevators and escalators 46 CFR 72.05-20  
46 CFR 111.91
- Watertight doors in subdivision bulkhead tested by: 46 CFR 170.270
  - Local control by hand
  - Local control by power
  - Remote control by hand
    - Indicators
  - Remote control by power
    - Indicators
- Cargo gear examined (in absence of Cargo Gear Certificate) 46 CFR 91.37
  - Records
  - Safe Working Load markings
- Exercise valves and controls 46 CFR 78.17-5
  - Bilge valves
  - Overboard discharge valves
  - Equalizing valves
  - Emergency shutoff valves
  - Scupper valves
  - Remote control
  - Reach rods
- Bilge wells, cofferdams, and suctions 46 CFR 56.50-50
- Bulkhead penetrations MSM Ch. B1.E.6
- Piping protection MSM Vol. IV, Ch. 3.G.2.b
  - Removable guards (where required)
  - Cargo hold
  - Baggage spaces

Notes: \_\_\_\_\_

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- Hull marks 46 CFR 67.120
  - Name
  - Hailing port
  - Official number
  - Net tonnage
  
- Draft marks 46 CFR 78.50-10  
46 CFR 97.40-10
  - Legible
  - Properly sized
  - Properly spaced
  
- Load line marks 46 CFR 78.50-15  
46 CFR 97.40-15  
ICLL 66 Reg. 4-9
  - Conform to certificate
  - Legible

**Integral Cargo Tanks:**

- Warning notices and signals posted 46 CFR 70.05-30  
46 CFR 90.05-35
  
- Pumps 46 CFR 70.05-30  
46 CFR 90.05-35
  - Pumps and controls
  - Relief valves
  - Piping-valves 46 CFR 111.105
  - Lighting and wiring
  - Cofferdams
  
- Cargo spaces 46 CFR 91.15-1  
46 CFR 91.25-37
  - Trunks and hatches
  - Ullage openings
  - Liquid level gauges
  - Deck penetrations
  - Heating coils
  - Internal examination

Notes: \_\_\_\_\_

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- Cargo piping 46 CFR 56.30
  - Expansion joints 46 CFR 56.35
  - Controls
  - Supports
  - Hoses-drip pans
  - Valves 46 CFR 56.20
  
- Cargo tank venting 46 CFR 70.05-30
  - Independent PV valves 46 CFR 90.05-35
  - Independent goosenecks
    - Flame screen
    - Closure device
  
- Explosion-proof fixtures 46 CFR 111.105
  
- Independent tanks, fixed, portable, or marine portable 46 CFR 98.30
  - External examination
  - Date of internal examination \_\_\_\_\_
  - Date of hydrostatic test \_\_\_\_\_
  - Metal information plate
  - Marking and labeling
  - Saddles; foundation and stowage
  - Piping and valves
  - Relief valves
  - Lifting fittings
  - Securing devices
  - Pump and controls
  - Cargo hose
  - Electrical grounding
  - Firefighting requirements
  - Authorized cargo

Notes: \_\_\_\_\_

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**Ground Tackle:**

- Anchors 46 CFR 77.07  
46 CFR 96.07
  - Tested
  - Windlass
  - Capstans
    - Automatic tensioning device
  
- Mooring, standing and running gear (other than gear covered by Cargo Gear Certificate) 46 CFR 91.37-70

**Lifesaving Equipment:**

*NOTE: Exemptions and alternatives for vessels not subject to SOLAS can be found in 46 CFR 199.600.*

- General alarms 46 CFR 113.25  
SOLAS 74/78 III/6.4
  - Controls
  - Batteries and fuses
  - Tested
  - Markings
  - Bell locations audible
  
- Type of lifeboat
  - Davit launched
  - Free fall
  
- Lifeboats stripped, cleaned and inspected 46 CFR 199.190(f)
  - Date of annual servicing \_\_\_\_\_
  
- Lifeboats and work boats 46 CFR 199.201  
46 CFR 199.202  
46 CFR 199.261  
46 CFR 199.262  
SOLAS 74/78 III/19.2  
SOLAS 74/78 III/26  
MSM Ch. C2.H.2  
46 CFR 199.176
  - Hull and fittings
  - Tanks and fittings
  - Cradles
  - Gripes
  - Compressed air cylinders
  - Markings

Notes: \_\_\_\_\_  
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Lifeboat equipment and stowage  
(use table below to determine required equipment)

46 CFR 199.175  
SOLAS 74/78 III/41

Item Number	Item	International Voyage		Short International Voyage	
		Lifeboat	Rescue Boat	Lifeboat	Rescue Boat
1	Bailer <sup>1</sup>	1	1	1	1
2	Bilge pump <sup>2</sup>	1		1	
3	Boathook	2	1	2	1
4	Bucket <sup>3</sup>	2	1	2	1
5	Can opener	3		3	
6	Compass	1	1	1	1
7	Dipper	1		1	
8	Drinking cup	1		1	
9	Fire extinguisher	1	1	1	1
10	First aid kit	1	1	1	1
11	Fishing kit	1			
12	Flashlight	1	1	1	1
13	Hatchet	2		2	
14	Heaving line	2	2	2	2
15	Jackknife	1		1	
16	Knife <sup>1,4</sup>		1		1
17	Ladder	1	1	1	1
18	Mirror, signalling	1		1	
19	Oars, units <sup>5,6</sup>	1	1	1	1
20	Painter	2	1	2	1
21	Provisions (units/persons)	1			
22	Pump <sup>7</sup>		1		1
23	Radar reflector	1	1	1	1
24	Rainwater collection device	1		1	
25	Repair kit <sup>7</sup>		1		1
26	Sea anchor	1	1	1	1
27	Searchlight	1	1	1	1
28	Seasickness kit (units/person)	1		1	

Item Number	Item	International Voyage		Short International Voyage	
		Lifeboat	Rescue Boat	Lifeboat	Rescue Boat
29	Signal, smoke	2		2	
30	Signal, hand flare	6		6	
31	Signal, parachute flare	4		4	
32	Skates and fenders <sup>8</sup>	1	1	1	1
33	Sponge <sup>7</sup>		2		2
34	Survival instructions	1		1	
35	Table of lifesaving signals	1		1	
36	Thermal protective aids <sup>9</sup>	10%	10%	10%	10%
37	Tool kit	1		1	
38	Tow line <sup>10</sup>	1	1	1	1
39	Water (liters/person)	3		3	
40	Whistle	1	1	1	1

**Footnotes:**

- 1 Each rigid liferaft equipped for 13 persons or more must carry two of these items.
- 2 Not required for boats of self-bailing design.
- 3 Not required for inflated or rigid-inflated rescue boats.
- 4 A hatchet counts towards this requirement in rigid rescue boats.
- 5 Oars are not required on a free-fall lifeboat; a unit of oars means the number of oars specified by the boat manufacturer.
- 6 Rescue boats may substitute buoyant paddles for oars, as specified by the manufacturer.
- 7 Not required for a rigid rescue boat.
- 8 Required if specified by the boat manufacturer.
- 9 Sufficient thermal protective aids are required for at least 10% of the persons the survival craft is equipped to carry, but not less than two.
- 10 Required only if the lifeboat is also the rescue boat.

Notes: \_\_\_\_\_

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|--------------------------|---|--|
| <input type="checkbox"/> | Disengaging apparatus examined or tested and marked as required*  | 46 CFR 199.45(b)<br>SOLAS 74/78 III/41<br>MSM Ch. C2.H.2.b |
|                          | <ul style="list-style-type: none"> <li>• Universal joints</li> <li>• Safety latches</li> <li>• Hooks</li> <li>• Locking knuckles</li> <li>• Frame</li> </ul>  |  |
| <input type="checkbox"/> | Motor lifeboats*  | 46 CFR 199.45(b)<br>SOLAS 74/78 III/41<br>MSM Ch. C2.H.9   |
|                          | <ul style="list-style-type: none"> <li>• Engine operating test</li> <li>• Cooling water pump</li> <li>• Ahead and astern test</li> <li>• Fuel tanks</li> <li>• Searchlight test (passenger vessels)</li> <li>• Annual fuel changed</li> <li>• Extinguishers serviced</li> </ul> |  |
| <input type="checkbox"/> | Hand-propelled lifeboats*   | 46 CFR 199.45(b)   |
|                          | <ul style="list-style-type: none"> <li>• Flemming gear</li> <li>• Transmission oil</li> </ul>   |  |
| <input type="checkbox"/> | Radio installation for lifeboats complies with FCC and/or international convention (where required)*  | 46 CFR 199.60<br>SOLAS 74/78 III/6                         |
|                          | <ul style="list-style-type: none"> <li>• Portable</li> <li>• Fixed</li> </ul>   |  |
| <input type="checkbox"/> | Lifeboat operational test*  | 46 CFR 199.45(b)<br>SOLAS 74/78 III/19<br>MSM Ch. C2.H.2.b |
| <input type="checkbox"/> | Davits  | 46 CFR 160.032<br>SOLAS 74/78 III/48<br>MSM Ch. C2.H.6     |
|                          | <ul style="list-style-type: none"> <li>• Foundations</li> <li>• Moving parts</li> <li>• Fittings</li> <li>• Fairleads, cleats, or cruciform bits</li> </ul>   |  |
| <input type="checkbox"/> | Falls (date last renewed or end-for-ended)  | 46 CFR 199.190(j)<br>SOLAS 74/78 III/48<br>MSM Ch. C2.H.8  |

\* Items tested in conjunction with Abandon Ship Drill.

Notes: \_\_\_\_\_  
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- Lifeboat winches
  - Brakes
  - Controls
  - Cranks
  - Covers
  - Limit switches and electrical controls

46 CFR 199.199(i)  
SOLAS 74/78 III/19  
MSM Ch. C2.H.6

- Embarkation aids
  - Ladders
  - Access
  - Spans and lifelines
  - Illumination
  - Frapping and tricing lines

46 CFR 199.190(f)  
SOLAS 74/78 III/11

- Lifeboat weight test
  - Light load
  - Full load: date \_\_\_\_\_

46 CFR 199.45(b)  
SOLAS 74/78 III/19  
MSM Ch. B1.P

- Liferafts
  - Launching instructions posted
  - Equipment and stowage
  - Annual service dates

46 CFR 199.190  
SOLAS 74/78 III/19  
SOLAS 74/78 III/26  
MSM Ch. C2.H.3

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46 CFR 199.190(g)

- Hydro release service dates
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_

46 CFR 199.190(h)  
MSM Ch. C2.H.3

- Weak link
- Float free
- Illumination
- Markings
- Capacities
- Launching devices tested

MSM Ch. C2.H.3

Notes: \_\_\_\_\_

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- Lifefloats and buoyant apparatus 46 CFR 199.640
  - Equipment
  - Stowage
  - Markings
- Line-throwing apparatus 46 CFR 199.170  
SOLAS 74/78 III/17.49
  - Equipment
  - Required drills held
  - Magazine
  - Type \_\_\_\_\_
- Lifebuoys 46 CFR 199.70(a)  
SOLAS 74/78 III/7  
SOLAS 74/78 III/21  
SOLAS 74/78 III/27
  - Lights
  - Lines
  - Smoke signals
  - Stowage
  - Markings
- Lifejackets 46 CFR 199.70(b)  
SOLAS 74/78 III/7.2.2  
MSM Ch. C2.H.4
 

Adult \_\_\_\_\_ Children \_\_\_\_\_

  - Retro-reflective tape
  - Lights
  - Whistles
  - Work vests
  - Stamped passed
  - Number of lifejackets rejected by inspector \_\_\_\_\_
- Lifejacket stowage 46 CFR 199.70(b)  
SOLAS 74/78 III/7.2  
46 CFR 199.80(c)  
46 CFR 199.70(b)(2)  
46 CFR 199.80(c)  
46 CFR 199.217
  - Required notices and markings
  - Stowage lockers
  - Wearing instructions
  - Location instructions (passenger vessels)
- Stateroom notices posted 46 CFR 199.80(c)
- Immersion suits 46 CFR 199.273  
SOLAS 74/78 III/21.4  
SOLAS 74/78 III/27.3  
SOLAS 74/78 III/30.2.7  
MSM Ch. C2.H.5
  - Condition
  - Retro-reflective material

Notes: \_\_\_\_\_

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- Placard of lifesaving signals 46 CFR 97.43  
SOLAS 74/78 V/16
- Pilot ladder and hoists in good condition SOLAS 74/78 V/17
- Station bill posted 46 CFR 199.80  
SOLAS 74/78 III/8.3

**Fire Protection Equipment:**

- Fire control plan 46 CFR 78.45-1  
46 CFR 97.36-1  
SOLAS 74/78 II-2/20
  - Permanently posted
  - Copy permanently stored in weathertight container outside deckhouse
- Patrol system 46 CFR 78.30-10  
46 CFR 78.30-15  
46 CFR 95.05-1
  - Stations properly numbered and sealed
  - Key clock charts
- Fire detection systems 46 CFR 76.05-1  
46 CFR 95.05-1  
SOLAS 74/78 II-2/13  
SOLAS 74/78 II-2/11.8  
SOLAS 74/78 II-2/53  
NVIC 7-80
  - Smoke / fire alarms
  - Remote pull stations
  - Smoke / flame / heat detectors and sensors
- Portable extinguishers 46 CFR 76.50  
46 CFR 95.50  
SOLAS 74/78 II-2/6  
SOLAS 74/78 II-2/21  
MSM Ch. C2.1.3  
NVIC 7-70  
NVIC 13-86
  - Serviced annually
  - Bottles hydrostatically tested (every 5 years)
  - Markings (weight and hydrostatic test date)
  - Spare charges, spare extinguishers
- Semiportable extinguishers 46 CFR 76.50  
46 CFR 95.50  
SOLAS 74/78 II-2/6  
SOLAS 74/78 II-2/21  
MSM Ch. C2.1.4
  - Serviced annually
  - Bottles hydrostatically tested (every 12 years)
  - Controls, instructions, markings
  - Hose and diffuser
  - Flexible loops tested or replaced (same as bottle)

Notes: \_\_\_\_\_  
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- Fixed fire extinguishing systems**
  - Controls, instructions, marking 46 CFR 71.25-20(a)(2)
  - Alarms tested 46 CFR 71.25-20(a)(3)
  - Piping 46 CFR 76.15
  - Heads, distribution 46 CFR 76.17
  - Bottles weighed annually 46 CFR 76.23
  - Bottles hydrostatically tested (every 12 years) 46 CFR 76.25
  - Flexible loops tested or replaced (10% per year) 46 CFR 91.25-20(a)(2)
  - Foam tanks (refilled or tested) 46 CFR 91.25-20(a)(3)
  - Sea suction, strainers 46 CFR 95.15
  - Fixed system tested 46 CFR 95.17
  - Storage space / door SOLAS 74/78 II-2/21
  - Sprinkler head tank MSM Ch. C2.I.9

<b>Type of system:</b> (circle appropriate type)				
Low Pressure CO <sub>2</sub>	High Pressure CO <sub>2</sub>	Halon	Foam	Sprinkler

- Fire main system**
  - Pumps 46 CFR 76.10
  - Piping 46 CFR 95.10
  - Cut-off valves NVIC 6-72, Change 1
  - Drains SOLAS 74/78 II-2/4

- Fire stations**
  - Hydrants (2 effective streams) 46 CFR 76.10-10
  - Nozzles and spanners 46 CFR 95.10-10
  - Fog applicators (<6 feet in length, in engineroom) NVIC 6-72, Change 1
  - Hose SOLAS 74/78 II-2/4
    - UL approved
    - Correct length
  - Markings SOLAS 74/78 II-2/21
  - Equipment compatible

- Total length of all hose tested \_\_\_\_\_**
  - Hydrostatically tested to at least 100 psi 46 CFR 76.10-10
  - Proper threads 46 CFR 95.10-10
  - Approved hose MSM Ch. C2.I.6

Notes: \_\_\_\_\_

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- Passenger vessels: structural fire protection 46 CFR 72.05  
SOLAS 74/78 II-2/23
  - Draft stops
  - Fire dampers
  - Bulkheads
  - Insulation
  - Ventilation
  - Penetrations
  
- Cargo and miscellaneous vessels: structural fire protection 46 CFR 92.07  
SOLAS 74/78 II-2/42
  - Bulkheads
  - Insulation
  
- Fire doors and controls tested 46 CFR 72.05-25  
46 CFR 92.07-10  
SOLAS 74/78 II-2/46  
SOLAS 74/78 II-2/47
  - Machinery space and stair towers
  - Not tied or blocked open
  - Installed closure devices working
  
- Remote controls to power ventilation marked and tested 46 CFR 111.103-1
  
- Closures for spaces protected by fixed smothering systems 46 CFR 76.15-35  
46 CFR 95.15-35
  
- International shore connection 46 CFR 76.10-10(c)  
46 CFR 95.10-10(c)  
SOLAS 74/78 II-2/19

**Pollution Prevention:**

- Pollution placard posted 33 CFR 155.450
- MARPOL V placard posted 33 CFR 151.59
- Person-in-charge designation 33 CFR 155.700

Notes: \_\_\_\_\_

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- Cargo oil containment 33 CFR 155.310
  - Size
  - Drains
  - Scupper closures
- Fuel oil containment 33 CFR 155.320
  - Portable
  - Fixed
- Prohibited oil spaces 33 CFR 155.470
- Emergency shutdown 33 CFR 155.780
- Deck lighting 33 CFR 155.790
- Oil transfer hose 33 CFR 155.800
  - Condition
  - Markings
  - Hose assembly requirements
  - Tests and inspections
- Fuel tank vents 33 CFR 155.320
  - Flame screens
  - Closures
  - Pollution containment
- Garbage 33 CFR 151.63  
MARPOL Ax. V/3
  - Shipboard garbage properly disposed

Notes: \_\_\_\_\_

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## Section 5: Appendices

### Recommended US Vessel Deficiency Procedures:

Step	Action								
1	Identify deficiency.								
2	Inform vessel representative.								
3	Record on the <i>Deficiency Summary Worksheet</i> (next page).								
4	If deficiency is corrected prior to end of inspection, go to Step 7.								
5	<p>If deficiency is unable to be corrected prior to end of inspection, issue CG-835 in accordance with table below.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">IF deficiency:</th> <th style="text-align: center;">THEN issue CG-835:</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;"> <p>Does NOT immediately impact crew/passenger safety, hull seaworthiness, or the environment, e.g.,</p> <ul style="list-style-type: none"> <li>• Missing placards</li> <li>• Non-metallic expansion joints more than 10 years in service</li> </ul> </td> <td style="padding: 5px;"> <p>That provides a specific time for correcting deficiency, e.g.,</p> <ul style="list-style-type: none"> <li>• "X" number of days</li> <li>• At next drydock</li> </ul> </td> </tr> <tr> <td style="padding: 5px;"> <p>Allows vessel operations to be MODIFIED to meet less stringent requirements, e.g.,</p> <ul style="list-style-type: none"> <li>• Expired international certificates</li> <li>• Automation defect</li> <li>• Insufficient lifesaving equipment</li> </ul> </td> <td style="padding: 5px;"> <p>That restricts operation of vessel to meet current vessel conditions, e.g.,</p> <ul style="list-style-type: none"> <li>• Reduced route</li> <li>• Increased crew</li> <li>• Fewer passengers</li> </ul> </td> </tr> <tr> <td style="padding: 5px;"> <p>DOES immediately impact crew/passenger safety, hull seaworthiness, or the environment, and cannot be modified to meet less stringent requirements, e.g.,</p> <ul style="list-style-type: none"> <li>• Missing or defective firefighting equipment</li> <li>• Structural defect or damage</li> </ul> </td> <td style="padding: 5px;"> <p>That requires the deficiency to be corrected prior to operating vessel ("NO SAIL" item), e.g.,</p> <ul style="list-style-type: none"> <li>• Prior to carrying passengers</li> <li>• Prior to carrying cargo</li> </ul> </td> </tr> </tbody> </table>	IF deficiency:	THEN issue CG-835:	<p>Does NOT immediately impact crew/passenger safety, hull seaworthiness, or the environment, e.g.,</p> <ul style="list-style-type: none"> <li>• Missing placards</li> <li>• Non-metallic expansion joints more than 10 years in service</li> </ul>	<p>That provides a specific time for correcting deficiency, e.g.,</p> <ul style="list-style-type: none"> <li>• "X" number of days</li> <li>• At next drydock</li> </ul>	<p>Allows vessel operations to be MODIFIED to meet less stringent requirements, e.g.,</p> <ul style="list-style-type: none"> <li>• Expired international certificates</li> <li>• Automation defect</li> <li>• Insufficient lifesaving equipment</li> </ul>	<p>That restricts operation of vessel to meet current vessel conditions, e.g.,</p> <ul style="list-style-type: none"> <li>• Reduced route</li> <li>• Increased crew</li> <li>• Fewer passengers</li> </ul>	<p>DOES immediately impact crew/passenger safety, hull seaworthiness, or the environment, and cannot be modified to meet less stringent requirements, e.g.,</p> <ul style="list-style-type: none"> <li>• Missing or defective firefighting equipment</li> <li>• Structural defect or damage</li> </ul>	<p>That requires the deficiency to be corrected prior to operating vessel ("NO SAIL" item), e.g.,</p> <ul style="list-style-type: none"> <li>• Prior to carrying passengers</li> <li>• Prior to carrying cargo</li> </ul>
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6	Enter CG-835 data in MIDR.								
7	Enter deficiency data in MSDS.								
8	Initiate Report of Violation (ROV) if necessary.								











## Conversions:

<b>Distance and Energy</b>				
Kilowatts (kW)	X	1.341	=	Horsepower (hp)
Feet (ft)	X	3.281	=	Meters (m)
Long Ton (LT)	X	.98421	=	Metric Ton (t)
<b>Liquid</b> (NOTE: Values are approximate.)				
Liquid	bbbl/LT	m <sup>3</sup> /t	bbbl/m <sup>3</sup>	bbbl/t
Freshwater	6.40	1.00	6.29	6.29
Saltwater	6.24	.975	6.13	5.98
Heavy Oil	6.77	1.06	6.66	7.06
DFM	6.60	1.19	7.48	8.91
Lube Oil	7.66	1.20	7.54	9.05
<b>Weight</b>				
1 Long Ton	= 2240 lbs	1 Metric Ton	= 2204 lbs	
1 Short Ton	= 2000 lbs	1 Cubic Foot	= 7.48 gal	
1 Barrel (oil)	= 5.61 ft = 42 gal = 6.29 m <sup>3</sup>	1 psi	= .06895 Bar = 2.3106 ft of water	
<b>Temperature: Fahrenheit = Celsius</b> ( $^{\circ}\text{F} = 9/5\ ^{\circ}\text{C} + 32$ and $^{\circ}\text{C} = 5/9 (^{\circ}\text{F} - 32)$ )				
0	= -17.8	80	= 26.7	200 = 93.3
32	= 0	90	= 32.2	250 = 121.1
40	= 4.4	100	= 37.8	300 = 148.9
50	= 10.0	110	= 43.3	400 = 204.4
60	= 15.6	120	= 48.9	500 = 260
70	= 21.1	150	= 65.6	1000 = 537.8
<b>Pressure: Bars = Pounds per square inch</b>				
1 Bar	= 14.5 psi	5 Bars	= 72.5 psi	9 Bars = 130.5 psi
2 bars	= 29.0 psi	6 Bars	= 87.0 psi	10 Bars = 145.0 psi
3 Bars	= 43.5 psi	7 Bars	= 101.5 psi	
4 Bars	= 58.0 psi	8 Bars	= 116.0 psi	