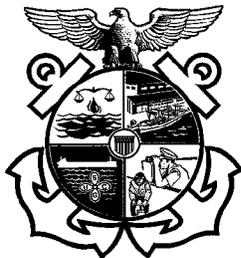


United States Coast Guard



**BARGE
INSPECTION BOOK**

Name of Vessel		
Official Number	Class	
Date Completed	Location	
Route		
Oceans	Limited Coastwise	Lakes / Bays / Sounds
Coastwise	Great Lakes	Rivers
Inspection Type		
Inspection for Certification (COI)	Reinspection	
Drydock Inspection	Underwater Survey in Lieu of Drydock (UWILD)	
Internal Structural Examination (ISE)	Cargo Tank Internal Examination (CTIE)	
Inspectors		
1. _____	2. _____	

Total Time Spent Per Activity:

Regular Personnel (Active Duty)			
ACTIVITY TYPE	ACTIVITY	TRAINING	(PERS) MI

TOTAL ADMIN HOURS	TOTAL TRAVEL HOURS
-------------------	--------------------

Reserve Personnel			
ACTIVITY TYPE	ACTIVITY	TRAINING	(PERS) MI

TOTAL ADMIN HOURS	TOTAL TRAVEL HOURS
-------------------	--------------------

Auxiliary Resources	
TOTAL BOAT HOURS	TOTAL AIRCRAFT HOURS

Use of Barge Inspection Book:

This inspection book is intended to be used as a job aid by Coast Guard marine inspectors during inspections of U.S. flagged barges. 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 inspections of U.S. flagged barges 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
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 <i>Various additional amendments to COLREGS</i>	15 JUL 77
Load Line 1966	21 JUL 68

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	
Last Drydocking Date	Next Drydocking Date
Location of Last Drydocking	
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)
Does vessel meet double-hull requirements? Yes No If not, vessel must meet requirements by _____ (date) in accordance with 33 CFR Part 157 Appendix G.	
Required Crew	
Number of Tankermen Required _____	Number of Lifeboatmen Required _____
Cargo Carried (inspected and approved)	
Type of Cargo _____	Amount of Cargo _____
Date Cargo Tanks Entered	

Vessel Description:

Subchapter D cargoes only
Subchapter I cargoes only
Subchapter D & O cargoes

Hull Type:

Type I
Type II
Type III

Subchapter I & O cargoes

Section 2: Certificates and Documents

Name of Certificate	Issuing Agency	ID #	Port Issued	Issue Date	Exp. Date	Endors. Date
----------------------------	-----------------------	-------------	--------------------	-------------------	------------------	---------------------

Certificate of Documentation No Change	USCG					
Classification Document No Change						
Certificate of Financial Responsibility (COFR) No Change	USCG					
International Load Line (ILL) No Change						
International Oil Pollution Prevention (IOPP) No Change						
Certificate of Fitness (COF) No Change	USCG					
International Tonnage (ITC) No Change						

Certificates and Records:

- COI available
- Waste management plan
(oceangoing manned barges ≥ 40 feet) 33 CFR 151.57
- Annual drug and alcohol program audit
(manned barges only) 46 CFR Part 16
- Annual liferaft servicing certificates 46 CFR 160.151-57(p)
- Cargo Gear Certificate 46 CFR 31.10-16
46 CFR 91.37-75
- Information available to master (as required)
/ person-in-charge 46 CFR 31.10-22
46 CFR 97.12-1
 - Loading manual
 - Trim and stability book
- Equipment test records 33 CFR 156.170
 - Piping hydrostatic test
 - Hose hydrostatic test
 - Relief valves
 - Gauges

Pollution Prevention Records:

- Oil record book MARPOL Ax. I/20
(Required only if barge is equipped to discharge any oil
or oily mixture overboard) 33 CFR 151.25
 - Each operation signed by person-in-charge
 - Book maintained for 3 years
- Shipboard oil pollution emergency plan MARPOL Ax. I/26.1
33 CFR 151.26
 - Approved by Coast Guard / class society
 - Contact numbers correct
 - Immediate Actions List

Notes: _____

- Vessel response plan (vessels carrying oil as primary cargo) 33 CFR 155.1030
 - Manned barges 33 CFR 155.1035
 - Unmanned barges 33 CFR 155.1040
- Vessel response plan (vessels carrying oil as secondary cargo) 33 CFR 155.1045
33 CFR 155.1030
- Transfer procedures 33 CFR 155.720
 - 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
 - VCS information 33 CFR 155.750
 - Amendments authorized
 - Transfer flag and light
- Waiver letters carried 46 CFR 153.10

Notes: _____

Section 3: Inspection Items

Navigation Equipment:

- Navigation lights and signals 72 COLREGS
 - Running lights
 - Anchor lights
 - Distress signals and stowage (manned barges)
 - Anchor ball(s) or shape(s)

General Health and Safety:

- Accommodations 46 CFR 32.40-60
46 CFR 92.20
 - Size
 - Lighting and wiring
 - Heating
 - Ventilation 46 CFR 92.15-15
 - Sanitation
 - Screens
 - Insulation
 - Fire retardant 46 CFR 32.57
- Paint, oil and lamp stowage
 - Closures
 - Fireproof / metal lined 46 CFR 32.85-1
 - Lighting / electrical 46 CFR 92.05-10
 - Fire protection
 - Markings
- Storerooms
 - Stowage
 - Fire hazards
 - Lighting
- Personnel safety hazards throughout vessel
- Warning notices and signals posted 46 CFR 35.30-1

Notes: _____

- Benzene monitoring program
 - Record of personal exposure
 - Medical records
- Combustible gas indicator (manned barges)
- Emergency outfit (for tanks > 15 feet deep)
 - Required equipment
 - Condition
 - Stowage
 - Markings
- Liquefied flammable gas systems for cooking and heating
 - Marking and instructions
 - Controls
 - Piping
 - Cylinders
 - Appliances
 - Safety devices
 - Compartment ventilation
 - Evidence of tests

46 CFR 197.570
NVIC 6-92, Change 1

46 CFR 35.30-15
NVIC 12-86

46 CFR 35.30-20

46 CFR 32.05-5

46 CFR 61.15-10

Structural Integrity:

- Hull structure (list inaccessible compartments or areas)
 - Decks
 - Shell
 - Bulkheads
 - Tank tops
 - Strength members
 - Double bottom
 - Yes
 - No
 - Double sides
 - Yes
 - No

46 CFR 31.10-1
46 CFR 31.10-15
46 CFR 91.15-1
46 CFR 92.01
46 CFR 42.09
46 CFR 42.15
ICLL 66 Reg. 1

Notes: _____

-
- Hull openings and closures**
 - Hatch covers
 - Closing devices, gaskets
 - Light / water test

46 CFR 42.15
 MSM Ch. B1.E.5
 ICLL 66 Regs. 12 - 23

 - Deck openings and closures**
 - Closing devices
 - Gaskets
 - Light / water test

MSM Ch. B1.E.5
 ICLL 66 Regs. 12 - 20

 - Rakes**
 - Opened
 - Yes
 - No
 - Evidence of cargo or water

46 CFR 31.10-21(b)

 - Guards, ladders, rails, and gangways lifelines (including accommodation ladders or pilot ladders)**

46 CFR 32.02-10
 46 CFR 92.25
 46 CFR 42.15-75
 ICLL 66 Reg. 25

 - Cargo gear examined (in absence of Cargo Gear Certificate)**
 - Tested
 - Records
 - Safe Working Load markings

46 CFR 31.10-16
 46 CFR 91.37

 - Gas freeing for repairs**
 - Current Gas Chemist Certificate for areas as required
 - Date _____
 - Chemist No. _____

46 CFR 35.01-1
 MSM Ch. A5.H
 NFPA 306

 - Hull marks**
 - Name
 - Hailing port
 - Official number
 - Net tonnage

46 CFR 67.121
 46 CFR 67.123

 - Draft marks**
 - Legible
 - Properly sized
 - Properly spaced

46 CFR 32.05-1
 46 CFR 97.40-10

Notes: _____

- Load line marks
 - Conform to certificate
 - Legible
- Main deck area
 - Extraneous material
 - Fire hazards

46 CFR 31.25-1
 46 CFR 97.40-15
 ICLL 66 Regs. 4 - 9

Cargo Operations:

- Cargo tanks
 - Trunks and hatches
 - Ullage openings
 - Liquid level gauges
 - Open
 - Restricted
 - Closed
 - Deck penetrations
 - Heating coils
 - Internal examination
 - Explosion-proof electrical fittings
 - Overfill device

46 CFR 91.25-37

 46 CFR 151.15-10
 46 CFR 39.20-3

 46 CFR 32.50-15

 46 CFR 111.105
 33 CFR 155.480

- Cargo tank venting
 - Common header system
 - P/V valves
 - Flame arrestors
 - Flush and drain connections
 - Independent PV valves
 - Flame screen
 - Valve material (dangerous cargoes)
 - Zinc, copper alloys, copper, or aluminum
 - Cast or carbon steel
 - Stainless steel
 - Independent goosenecks
 - Flame screen
 - Closure device

46 CFR 32.20-5
 46 CFR 32.20-10
 46 CFR 151.15-5
 46 CFR 32.55-25
 46 CFR 32.20-10
 46 CFR 151.56

 46 CFR 32.55-25
 46 CFR 32.20-10

Notes: _____

<input type="checkbox"/>	Piping and valves	46 CFR 56.04
	• Expansion joints	
	• Valve controls	46 CFR 32.50-15
	• Supports	
	• Flanges	
	• Containment	33 CFR 155.310
	• Materials	46 CFR 151.56
<input type="checkbox"/>	Hoses	46 CFR 32.50-30
	• External examination	33 CFR 155.800
	• Hydrostatic test	33 CFR 156.170
	• Markings	33 CFR 154.500
<input type="checkbox"/>	Cargo pumps and engines	
	• Controls and shutdowns	46 CFR 32.50-55
	• Relief valves	
	• Gauges	46 CFR 32.50-5
	• Engine fuel system	
	• Spark arrestor	
	• Cover	
<input type="checkbox"/>	Pumprooms	46 CFR 32.60-20
	• Electrical installation	
	• Ventilation	46 CFR 36.20-5
	• Bulkhead penetrations	
	• Gas-tight boundaries	
	• Cofferdams	
	• Fire extinguishing	46 CFR 34.05-5

Notes: _____

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

Tanks for liquefied flammable gas or flammable or combustible liquid having lethal characteristics, or dangerous cargoes 46 CFR 38.01-1

- Markings
- Lagging and fire protection
- Manholes
- Piping
- Fittings
- Gauges
- Valves
- Controls
- Fill and vent
- Foundations and supports

Type of Examination / Test	Date of Examination / Test
Internal Examination	
External Examination (Lagging Removed)	
Safety Valve Test	
Hydrostatic Test	

Notes: _____

Vapor Control Systems:

- Piping 46 CFR 39.20-1
 - Drain lines
 - Electrically bonded to hull
 - Flange stud
 - Vapor connection painted red / yellow / red and labeled vapor in 2-inch black letters
- Closed gauging arrangement 46 CFR 39.20-3
- Liquid overflow protection 46 CFR 39.20-9
 - High-level and tank overflow alarms
 - Alarm with automatic shutdown system
 - Spill valve
 - Rupture disk
 - Intrinsically safe
 - Audible and visual alarms
 - Operational test

Thermal Fluid Heaters:

- Visual inspection 46 CFR 61.30-15
 - Combustion chamber
 - Refractory
 - Exhaust
 - Heat exchanger
 - Pumps
 - Piping
- Test procedures 46 CFR 63.10-1

Notes: _____

- Operational test 46 CFR 61.30-20
 - Pre-purge
 - Ignition sequence
 - Combustion controls
 - Flame safeguards
 - Limit controls 46 CFR 63.25-5
 - Low fluid level cutout
 - Low flow cutout
 - High temperature cutout
 - Post-purge

Ground Tackle:

- Anchors 46 CFR 32.15-15
46 CFR 96.07

- Cable

Material	Size	Length

Lifesaving Equipment:

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

- General alarms 46 CFR 32.25
46 CFR 113.25
 - Controls
 - Batteries and fuses
 - Tested
 - Markings
 - Bell locations audible

Notes: _____

- Liferrafts
 - Launching instructions posted 46 CFR 199.261
 - Stowage MSM Ch. C2.H.3
 - Annual service dates 46 CFR 199.190(g)

 - Hydro release service dates 46 CFR 199.190(h)

 - Weak link
 - Float free
 - Markings 46 CFR 32.05-5
 - Capacities
- Lifefloats and buoyant apparatus 46 CFR 199.640
 - Equipment
 - Stowage
 - Markings
- Sea painter 46 CFR 199.175(b)(21)
 - Secured
 - Weak link
 - Cleat
- Lifebuoys 46 CFR 199.640
 - Lights
 - Lines
 - Smoke signals
 - Stowage
 - Markings
- Lifejackets 46 CFR 199.620
MSM Ch. C2.H.4
 - Retro-reflective tape
 - Lights
 - Whistles
 - Work vests
 - Stamped passed
 - Markings 46 CFR 32.05-5
 - Number of lifejackets rejected by inspector _____

Notes: _____

- Lifejacket stowage
 - Accessibility 46 CFR 199.70(b)
 - Required notices and markings 46 CFR 199.80(c)
 - Stowage lockers 46 CFR 199.70(b)(2)
 - Wearing instructions 46 CFR 199.80(c)
46 CFR 199.217

- Immersion suits 46 CFR 199.610(a)
MSM Ch. C2.H.5
 - Condition
 - Retro-reflective material

Fire Protection Equipment:

- Fire extinguishers
 - Controls, instructions, markings 46 CFR 34.50-15(a)
 - Annually serviced 46 CFR 95.50-10(a)
 - Markings (weight and hydrostatic test date) NVIC 7-70
 - Portable bottles hydrostatically tested (every 5 years) MSM Ch C2.I.3
 - Semiportable bottles hydrostatically tested (every 12 years) MSM Ch C2.I.4
 - Flexible loops tested or replaced (same as bottle) NVIC 13-86
 - Hose and diffuser

Required		On Board	
Number	Class	Number	Class

Notes: _____

- Fixed fire extinguishing systems
 - CO₂
 - Cylinders weighed annually
 - Cylinders hydrostatically tested (every 12 years)
 - Controls, instructions, and markings
 - Alarms, time delays
 - Piping, heads
 - Flex loops tested / replaced (10% per year)
 - Ventilation stops
 - Closures for openings
 - Sprinklers
 - Pumps
 - Pressure tanks
 - Piping, heads
 - Alarms
 - Foam
 - Pumps
 - Tank
 - Piping, heads
 - Foam tested

46 CFR 34.05-5
 46 CFR 95.05-10
 46 CFR 34.15
 46 CFR 95.15
 NVIC 8-73
 NVIC 6-72, Change 1
 46 CFR 34.30
 46 CFR 95.30
 NFPA-13 (1996)
 NVIC 6-72, Change 1
 46 CFR 34.17
 46 CFR 95.17
 NVIC 6-72, Change 1

Boilers:

- Auxiliary boilers
 - Combustion chambers
 - Refractory
 - Casing and insulation
 - Tubes and shells
 - Piping
 - Uptakes
 - Foundations
 - Gauges

MSM Ch. B1.H
 46 CFR 52.01-2
 46 CFR 52.01-35
 46 CFR 52.15-5

Notes: _____

- Periodic test and inspection of boilers in accordance with 46 CFR Table 61.05-10

Boiler ID Number	Date Hydrostatically Tested	Date Mountings Opened	Date Mountings Removed and Studs Examined	Fireside	Waterside	External

- Boiler safety valves 46 CFR 52.01-120(a)
- Fusible plugs 46 CFR 52.01-50
46 CFR Table 61.05-10
MSM Vol. IV Ch. 3.1.3.b
 - Examined
 - Renewed at this inspection
- Fuel systems 46 CFR 56.50-65
 - Remote shutoff valves
 - Reliefs and bypass valves
 - Strainers
 - Piping
 - Fuel tanks
 - Filling and venting
 - Gauges

Auxiliary Machinery:

- Internal combustion engines 46 CFR 58.10-10
ABS Rules
 - Spark arrestor
 - Controls
 - Insulation
 - Exhaust
 - Cooling
 - Fuel system

Notes: _____

Air compressor intakes prohibited in restricted areas 46 CFR 32.35-15

Electrical equipment

- Generators 46 CFR 111.12
- Motors 46 CFR 111.25
- Controllers 46 CFR 111.70
- Switchboard 46 CFR 111.30
- Lighting 46 CFR 111.75
- Batteries and chargers 46 CFR 111.15
- Wiring 46 CFR 111.60
- Overcurrent protection 46 CFR 111.50
- Grounding 46 CFR 111.05
- Markings and instructions

Pressure vessels hydrostatically tested or internally examined 46 CFR 61.10
MSM Ch. B1.O
MSM Vol. IV Ch. 3.I.7

Service	MAWP	Date Tested or Examined Internally	Relief Valve Tested

Relief valves springs set within range 46 CFR 54.15-10(g)

Bilge system 46 CFR 32.52
46 CFR 96.03-1
46 CFR 56.50-55(b)

Notes: _____

Pollution Prevention:

NOTE: Guidance for inspecting pollution prevention items is detailed in MSM Volume II, Chapter 31.

- Pollution placard posted 33 CFR 155.450
- Person-in-charge designation 33 CFR 155.700
33 CFR 155.820
- Fuel oil containment 33 CFR 155.320
 - Portable
 - Fixed
- Fuel tank vents 46 CFR 56.50-85
 - Flame screens
 - Closures
- Deck lighting 33 CFR 155.790
- Oily waste retention 33 CFR 157.17
 - Bilge
 - Tank
- Ballast discharge 33 CFR 155.330
33 CFR 155.350
33 CFR 155.360
33 CFR 155.370
 - Acceptable processing equipment
- Oily bilge discharge 33 CFR 155.430
 - Piping system
 - Stop valve
 - Standard discharge connection
 - Pump stop
- Prohibited oil spaces 33 CFR 155.470
- Emergency shutdown 33 CFR 155.780
46 CFR 32.50-35

Notes: _____

- Discharge removal equipment 33 CFR 155.210
33 CFR 155.215
 - Sorbents
 - Non-sparking tools
 - Containers
 - Emulsifiers
 - Protective clothing
 - Scupper plugs
 - Non-sparking portable pump
- Emergency towing equipment 33 CFR 155.230
(offshore oil)
- Emergency lightering equipment 33 CFR 157.410
(barges > 5000 GT)
- Garbage 33 CFR 151.63
MARPOL Ax. V/3
 - Shipboard garbage properly disposed (oceangoing manned barges only)
- MARPOL Annex I survey 33 CFR 151.09
 - Discharge of cargo residue
 - Approved monitoring and control system
- MARPOL Annex II survey 33 CFR 151.30
 - Discharge of cargo residue
 - Approved monitoring and control system
- Barges that ballast cargo tanks 33 CFR Part 157
 - Pumping, piping, and discharge arrangements 33 CFR 157.11
 - Designated observation area 33 CFR 157.13
 - Slop tank 33 CFR 157.15
 - Cargo and ballast information 33 CFR 157.23
 - Instruction manual 33 CFR 157.49

Notes: _____

Marine Sanitation Devices:

NOTE: Guidance for inspecting marine sanitation devices is detailed in MSM Volume II, Chapter C2.K.

- Marine sanitation device
 - Type I
 - Type II
 - Type III

33 CFR 159.55
MSM Ch. B6.F
- Certified for inspected vessels

MSM Ch. B6.F.4
- Capacity satisfactory

MSM Ch. C2.K.7.d
- Installation
 - Operation
 - Ventilation
 - Wiring and piping
 - Maintenance
 - Placard posted
 - Safety
 - Accessibility to parts requiring routine servicing
 - Manufacturer’s instructions available

33 CFR 159.57
MSM Vol. IV Ch. 3.K.1

33 CFR 159.59

Notes: _____

Section 4: Drydock Inspection Items

NOTE: Barges that undergo an underwater survey in lieu of a drydock examination should be inspected using the guidance and checklist found in the CG-840 DD book.

Certificates and Documents:

- Marine Chemist Certificate 46 CFR 35.01-1
MSM Ch. A5.H
NFPA 306
- Marine Chemist No. _____
 - Certificate No. _____
 - Date issued _____
- Gauging report 46 CFR 31.10-21(a)
ABS Steel Rules 1/3
- Date issued _____
 - Vessel over 30 years

External Structural Examination:

NOTE: Request records of Outstanding Conditions of Class. (Form or format may vary depending on classification society.) Conditions of Class may identify structural defects, wastage, etc.

- Vessel plans available 46 CFR 31.10-22
46 CFR 91.40-5
(barges with load lines)
- External structural members 46 CFR 31.10-21
46 CFR 91.40-3
NVIC 7-68
- Plating
 - Caulking
 - Reinforcing straps
 - Rakes
 - Welds
 - Pitting
 - Rub bars

Overall Steel Wastage:

Poor	Good
------	------

Areas of particular interest: _____

Hull and/or structural members gauged for material thickness 46 CFR 31.10-21(a)
ABS Steel Rules 1/3

Yes (attach gauging report)

- Transverse belt of deck plating
- Transverse belt of bottom and sideshell
- Wind-and-water strakes
- Keel plates
- Bulkhead plating and stiffeners
- Suspect areas
- Other _____

No

Vessel carefully examined for fractures and previous fracture repairs MSM Ch. B3.B.6.d
NVIC 15-91, Change 1

Fastenings MSM Vol. IV Ch. 6.H
NVIC 3-68

- Rivets
- Welding

Cargo hatches MSM Ch. B1.E.5
MSM Vol. IV Ch. 6.I.5

- Dogs or other securing appliances
- Covers
- Gaskets
- Coamings

Rudder(s) / skeg(s) MSM Ch. B3.E
ABS Rules

Draft marks and load lines 46 CFR 32.05
46 CFR 97.40-10
MSM Ch. B1.E.4

- Proper locations
- Legibly inscribed
- Proper spacing and size
- Load line markings verified

Compartment or inner bottom drains
(drydocking plugs secured)

Notes: _____

Internal Structural Examination:

- Internal structural members
 - Bulkheads
 - Decks
 - Tank tops
 - Longitudinals
 - Floors
 - Frames
 - Intercostals
 - Stiffeners
 - Beams
 - Connections

46 CFR 31.10-21
 46 CFR 91.40-3
 MSM Ch. B3.B.6
 NVIC 7-68
 NVIC 15-91, Change 1
 46 CFR 42.09-30

- Vessel carefully examined for fractures and previous fracture repairs

MSM Ch. B3.B.6.d
 NVIC 15-91, Change 1

- Fastenings
 - Rivets
 - Welding

MSM Vol. IV Ch. 6.H
 NVIC 3-68

- Void / ballast tanks entered

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Overall Condition of Coatings:

Poor	Good	N/A

Overall Steel Wastage:

Poor	Good	N/A

Notes: _____

- Forward peak / rake
- Aft peak / rake
- Cargo tanks entered

46 CFR 31.10-21
 46 CFR 91.40-3
 MSM Ch. B3.B.4
 MSM Ch. B3.B.6

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Overall Condition of Coatings:

Poor	Good	N/A
------	------	-----

Overall Steel Wastage:

Poor	Good	N/A
------	------	-----

Valves and Through-Hull Fittings:

NOTE: Guidance on valves and through-hull fittings is detailed in MSM Volume II, Chapter B3.F.

- Sea chests, spool pieces, through-hull fittings 46 CFR 56.50-95
 - Strainers removed
 - Welds
 - Baffles
 - Strainer fastenings
 - Fastenings
 - Branch connections

Notes: _____

- Sea valves** 46 CFR 42.09-25
46 CFR 56.50-95
 - Fitted where required
 - Opened for examination
 - Body
 - Guides
 - Threads
 - Seat
 - Stems
 - Discs
 - Plug cocks
 - Holding down bolts
 - Closure tested (local and/or remote)

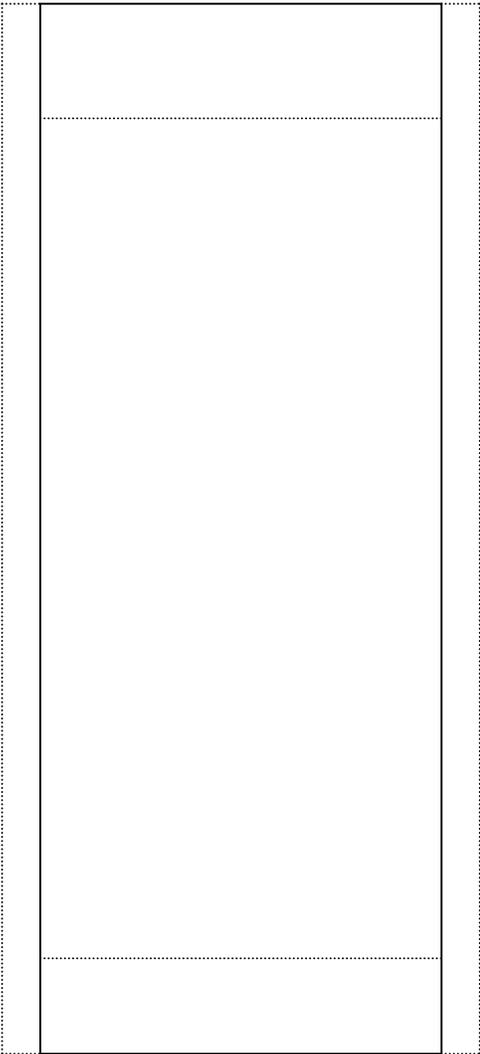
Ground Tackle:

- Proper ground tackle** 46 CFR 32.15-15
46 CFR 96.07-5
ABS Rules
 - Anchor cables ranged
 - Yes
 - No
 - Cable shackles and pins
 - Anchors
 - Hawse pipes and covers
 - Chain pipes and covers
 - Chain lockers

Notes: _____

Section 5: Appendices

Vessel Layout:



- Double hull / bottom / sides
- Ballast tanks
- Chemical tank type: I II III

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" data-bbox="224 1010 930 1665"> <thead> <tr> <th data-bbox="224 1010 581 1058">IF deficiency:</th> <th data-bbox="581 1010 930 1058">THEN issue CG-835:</th> </tr> </thead> <tbody> <tr> <td data-bbox="224 1058 581 1245"> <p>Does NOT immediately impact crew/passenger safety, hull seaworthiness, or the environment, e.g.,</p> <ul style="list-style-type: none"> • Missing placards </td> <td data-bbox="581 1058 930 1245"> <p>That provides a specific time for correcting deficiency, e.g.,</p> <ul style="list-style-type: none"> • “X” number of days </td> </tr> <tr> <td data-bbox="224 1245 581 1411"> <p>Allows vessel operations to be MODIFIED to meet less stringent requirements, e.g.,</p> <ul style="list-style-type: none"> • P/V valves fail to seal properly </td> <td data-bbox="581 1245 930 1411"> <p>That restricts operation of vessel to meet current vessel conditions, e.g.,</p> <ul style="list-style-type: none"> • Reduced cargo grade </td> </tr> <tr> <td data-bbox="224 1411 581 1665"> <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"> • Structural defect or damage </td> <td data-bbox="581 1411 930 1665"> <p>That requires the deficiency to be corrected prior to operating vessel (“NO SAIL” item), e.g.,</p> <ul style="list-style-type: none"> • Prior to carrying cargo </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"> • Missing placards 	<p>That provides a specific time for correcting deficiency, e.g.,</p> <ul style="list-style-type: none"> • “X” number of days 	<p>Allows vessel operations to be MODIFIED to meet less stringent requirements, e.g.,</p> <ul style="list-style-type: none"> • P/V valves fail to seal properly 	<p>That restricts operation of vessel to meet current vessel conditions, e.g.,</p> <ul style="list-style-type: none"> • Reduced cargo grade 	<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"> • Structural defect or damage 	<p>That requires the deficiency to be corrected prior to operating vessel (“NO SAIL” item), e.g.,</p> <ul style="list-style-type: none"> • Prior to carrying cargo
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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:

Distance and Energy					
Kilowatts (kW)	X	1.341	=	Horsepower (hp)	
Feet (ft)	X	3.281	=	Meters (m)	
Long Ton (LT)	X	.98421	=	Metric Ton (t)	
Liquid (NOTE: Values are approximate.)					
Liquid	bbbl/LT	m ³ /t	bbbl/m ³	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	
Weight					
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 ³	1 psi	= .06895 Bar = 2.3106 ft of water		
Temperature: Fahrenheit = Celsius ($^{\circ}\text{F} = 9/5\text{ }^{\circ}\text{C} + 32$ and $^{\circ}\text{C} = 5/9 (\text{ }^{\circ}\text{F} - 32)$)					
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
Pressure: Bars = Pounds per square inch					
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		