PROCEEDINGS OF THE
MERCHANT MARINE COUNCIL
UNITED STATES COAST GUARD

Vol. 4 August 1947 No. 8

Proceedings of the

MERCHANT MARINE COUNCIL

Published monthly at Coast Guard Headquarters, Washington 25, D. C., under the auspices of the Merchant Marine Council, in the interest of safety at sea. There are no restrictions on the republication of material appearing in this issue.

Mention of source will be appreciated.

CONTENTS

COUNCIL ACTIVITIES

The Merchant Marine Council recommended that the approvals which do not meet present Coast Guard requirements for all categories of lifesaving, fire-fighting, and miscellaneous equipment or installations, except cork or balsa wood life preservers (jacket type), fire-extinguishing systems, fire indicating and alarm systems, electric floating water lights, loud-speaker systems, hand red flare distress signals, and floating orange smoke distress signals shall be terminated November 1, 1947. By terminating the approvals for these items, which were promulgated by the Bureau of Marine Inspection and Navigation and its predecessors or the Coast Guard, it is meant that such items of equipment manufactured after November 1, 1947, can no longer be approved for use on vessels subject to the inspection laws and regulations but that such items of equipment made before November 1, 1947, may be continued in service so long as they are in good and serviceable condition. It is not intended that such equipment which was approved when installed shall be removed from the vessel because the approval has been terminated.

The Council also recommended that the approvals of items which are in compliance with present Coast Guard requirements be republished for all categories of lifesaving, fire-fighting, and miscellaneous equipment or installations, except cork or balsa wood life preservers (jacket type), fire-extinguishing systems, fire indicating and alarm systems, electric floating water lights, loud-speaker systems, hand red flare distress signals, and floating orange smoke distress signals, and be modified by assigning them approval numbers and limiting their duration to 5 years from the date of publication in the Federal Register, providing no change or modification is made in the Coast Guard requirements or by the manufacturer in the meantime. These approval limitations are considered desirable in order to maintain a systematic method of keeping approvals current and in order to supply convenient, accurate, and up-to-date information regarding approvals. The navigation and vessel inspection laws and regulations require that various items of lifesaving, fire-fighting, and miscellaneous equipment for installations used aboard merchant vessels or motorboats shall be of types approved by the Commandant, United States Coast Guard. The procedures for promulgating approvals and termination of approvals are set forth in 46 CFR 2.75-1 to 2.75-50, inclusive (11 F. R. 177A-83), and the November 1946 "Proceedings of the Merchant Marine Council," page 205.

The approval and termination of approval of equipment for all lifesaving, fire-fighting, and miscellaneous equipment or installations, except cork or balsa wood life preservers (jacket type), fire-extinguishing systems, fire indicating and alarm systems, electric floating water lights, loud-speaker systems, hand red flare distress signals, and floating orange smoke distress signals were published July 31, 1947, in the Federal Register. All holders of approvals which are to be terminated by the document published in the July 31, 1947, Federal Register who may desire to appeal the

actions taken shall submit to the Commandant (CMC), United States Coast Guard, Washington 25, D. C., on or before September 26, 1947, a letter setting forth the reasons why the approval shall not be terminated together with supporting data showing that the item complies with the applicable requirements now in effect, in accordance with 46 CFR 2.75–50. (See November 1946 "Proceedings of the Merchant Marine Council," p. 205.)

For the information of manufacturers of items which require approval by the Commandant it was decided that certificates of approvals should be issued. This certificate of approval will contain the date, approval number, name of manufacturer, a brief description of the item, and the expiration date of approval.

The new numbering and certificating system for approved equipment will be in effect on and after August 1, 1947. A 3 months' period has been allowed for changing over to this new system, as the termination date of approvals is November 1, 1947, and until this date items of equipment may be made under previous approvals. Briefly the new system for handling approvals of equipment will provide the following:

1. Each item of equipment approved will be issued an approval number.

2. Each item of equipment approved will be identified by a certificate of approval issued to the manufacturer.

3. Each approval will be limited in duration to a 5-year period, but the manufacturer will be notified prior to the termination of such period, and if there have been no changes in Coast Guard requirements, and the manufacturer is still producing the item without modification, he simply requests and will receive an extension for an additional 5-year period.

4. Printed listings of approved equipment will be published from time to time for distribution to marine inspectors and others interested.

When an approval of equipment has been terminated it is not intended that such equipment which was approved when installed should be removed from the vessel. Such approved equipment may be continued in service so long as it is in good and serviceable condition. By terminating the approval means that the item of equipment manufactured after a certain date can no longer be approved for use on vessels subject to the inspection laws and regulations.

Hearing for Proposed Changes in Regulations

The Merchant Marine Council will hold a semiannual meeting at Coast Guard Headquarters, Washington, D. C., commencing with a public hearing at 9:30 a. m. September 23, 1947. At the hearing the Council will receive comments on the proposed changes in the regulations which it will consider.

The amendments to be considered consist of changes of certain sections of the following subchapters of the regulations: Ocean and Coastwise; Great Lakes; Lakes, Bays and Sounds; Rivers; Load Lines; Marine Engineering; Tank Vessels; and Construction or Material Alteration of Passenger Vessels.

In response to requests received from representatives of the industry the Coast Guard regulations will be amended so that each subchapter will contain a definite listing of the vessel plans which are required to be submitted for approval. Amendments have been prepared outlining the procedure for submission of plans and listing the plans required for new construction and conversion. Sections 31.3–3 of the Tank Vessel Regulations, 63.5 of the Ocean and Coastwise Regulations, 79.5 of Great Lakes Regulations, 97.5 of the Lakes, Bays and Sounds Regulations, 116.5 of Rivers Regulations, 52.1–2 of Marine Engineering Regulations, 46.024 of the Load Line Regulations and 144.05 of the Regulations on Construction or Material Alteration of Passenger Vessels, outlining the procedure for submission of plans, provides that plans and specifications covering construction of new or converted vessels shall be submitted in triplicate to the Officer in Charge, Marine Inspection, in the district in which the vessel is to be built, except that when, due to the location of the shipyard and design office, such a procedure would result in unnecessary delay in transmission, the plans may be forwarded direct to the Commandant (MMT).

The plans and specifications required to be submitted, depending upon the nature of the conversion or construction, include hull construction plans, hull calculations, fire-control plans, engineering plans, electrical plans, and lifesaving equipment plans. Listing of the plans required under these headings will appear in sections 31.3–4 of the Tank Vessel Regulations, 63.8 of the Ocean and Coastwise Regulations, 79.8 of the Great Lakes Regulations, 97.8 of Lakes, Bays and Sounds Regulations, and 116.8 of the Rivers Regulations.

In accomplishing the consolidation for submission of vessel plans it is necessary to relocate the section of the regulations requiring that vessels of 50 gross tons and over subject to inspection shall have the draft marks marked upon the stem and sternpost. Accordingly the information now appearing in sections 63.15, 79.21, 97.19 and 116.19, having to do with plans and specifications, will be deleted and the regulations on draft marks, now appearing in sections 63.8, 79.8, 97.8, and 116.8, will be transferred to the first listed sections.

The regulations now requiring that daytime distress signals be carried as equipment in lifeboats and life rafts are being amended to provide the carriage of the hand combination flare and smoke distress signals as a substitute for either or both of the flare and daytime distress signals. In order to accomplish this amendment it is proposed to delete sections 33.3–1 (bb), 59.11 (cc), 59.52 (n), 60.9 (cc), and 60.45 (n) and transfer the requirements of these sections for daytime distress signals to other sections so that all the requirements for distress signals will appear in one section. Accordingly the requirements for distress signals, which may consist of hand red flares, daytime smoke signals or hand combination flare and smoke distress signals, will appear in sections 33.3–1, 33.3–2, 33.3–6 (b) and 33.8–1 of the Tank Vessel Regulations and sections 59.11, 59.52 (a), 60.9 (e), and 60.45 (a) of the Ocean and Coastwise Regulations and sections 76.14, 76.48 (b) and 76.60 of the Great Lakes Regulations.

Changes in the names or characteristics of certain aids to navigation and the discontinuance of other aids to navigation, which aids were used as points of reference in the establishment of boundary lines separating the inland waters from the high seas along the Atlantic and Pacific coasts and the Gulf of Mexico, require changes in the wording of such lines in order that the correct aids to navigation may be used as points of reference. In addition a proposal has been submitted that lines of demarcation separating the inland waters from the high seas in certain harbors of Puerto Rico and the Virgin Islands be established. The regulations, which appear in 33 CFR part 302 and also in the pamphlet, "Rules to Prevent Collisions of Vessels and Pilot Rules for Certain Inland Waters of The Atlantic and Pacific Coasts and of the Coast of the Gulf of Mexico," January 1947, pages 49 to 55, have been amended to redefine the lines in the following localities: (1) All harbors on the coast of Maine, New Hampshire, and Massachusetts between West Quoddy Head, Maine, and Cape Ann Lighthouse, Mass. (2) Mas-

sachusetts Bay. (3) Nantucket Sound, Vineyard Sound, Buzzards Bay, Narragansett Bay, Block Island Sound, and easterly entrance to Long Island Sound. (4) Delaware Bay and tributaries. (5) Charleston Harbor. (6) Savannah Harbor. (7) Florida Reefs and Keys from Miami to Marquesas Keys. (8) San Carlos Bay and tributaries. (9) Tampa Bay and tributaries. (10) Apalachee Bay, Fla. (11) Carrabelle River and Apalachicola River, Fla. (12) Sounds, lakes, and harbors on the coasts of Alabama, Mississippi, and Louisiana from Mobile Bay, Ala., to Barataria Bay, La., including the Delta of the Mississippi River. (13) Mobile and Mississippi Rivers. (14) Sabine Pass, Tex. (15) Galveston Harbor. (16) Brazos River, Texas. (17) San Pedro Bay, Calif. The proposal to establish boundary lines in Puerto Rico and the Virgin Islands include the following: Vieques Sound; San Juan Harbor; Arecibo Harbor; Mayaguez Harbor; Guanica Harbor; Guayanilla Harbor; Ponce Harbor; Jobos Harbor; St. Thomas Harbor, Island of St. Thomas; and Christiansted Harbor, Island of St. Croix.

The War Department, who have authority to prescribe lights and day signals for dredges and vessels working on obstructions on the Great Lakes and Mississippi River and its tributaries, has found it necessary to prescribe lights for stringout barges engaged in channel improvement work in those waters. The Coast Guard has similar authority to prescribe lights and day signals for such vessels on inland waters other than the Great Lakes and Mississippi River. At a conference of representatives of the War Department and the Coast Guard all the regulations on the matter were reviewed with the purpose of having both sets of regulations on the same subject be identical. Accordingly the Coast Guard has reviewed the regulations concerning lights and passing signals for dredges, etc. These regulations appear in 33 CFR 312.18 to 312.31, inclusive, and also in the pamphlet "Rules to Prevent Collisions of Vessels and Pilot Rules for Certain Inland Waters of The Atlantic and Pacific Coasts and of the Coast of the Gulf of Mexico," January 1947, pages 43 to 46. The proposed changes will include the requirement of lights for stringout barges, a new section requiring that floodlights and searchlights be shielded so as not to blind pilots of approaching vessels, and numerous editorial changes.

At an International Conference of Classification Societies, which met in Rome in 1939, an agreement was reached whereby a copy of the original loadline survey for each vessel should be carried on board to be available for the information of inspectors and surveyors when carrying out further load-line surveys. It was considered impracticable to extend this requirement to all existing vessels, therefore, it is proposed to amend sections 43.09, 45.07, and 46.018 to provide that effective January 1, 1948, each new vessel, when receiving its first load-line certificate, shall be furnished a copy of the load-line survey report which shall be retained on board the vessel.

Recommendations have been received for the amendment of sections 144.15 (c), 144.17 (b), and 144.25 (j) of the Regulations on Construction or Material Alteration of Passenger Vessels of 100 Gross Tons and Over in order to give greater leeway on the installations of electrical ventilation systems and wire-inserted glass in doors and windows. In accordance with such recommendations the proposed amendments to those sections

NUMBERED AND UNDOCUMENTED VESSELS

The table below gives the cumulative total of numbered but undocumented vessels in each Coast Guard district by customs ports for the quarter ending June 30, 1947. Generally speaking, undocumented vessels are those of less than 5 net tons engaged in trade and those of less than 16 gross tons used exclusively as pleasure vessels. These vessels are required to be numbered under the provisions of the act of June 7, 1918, as amended (46 U. S. C. 288).

Coast Guard district	Customs port		Total
1 (Boston)	(4) Boston	13,599	
	(1) Portland, Maine	9,968	
	(2) St. Albans	2,703	
	(5) Providence	3,763	
			30,033
2 (St. Louis)	(45) St. Louis	19,827	
	(42) Pittsburgh	4,078	
	(34) Pembina	125	
	(35) Minneapolis	8,262	
	(40) Indianapolis	4,993	
	(42) Louisville	3,918	
	(43) Memphis (part)	8,788	
	(44) Vacant (Des Moines)	107	
	(46) Omaha (part)	578	
			50,676
3 (New York)	(10) New York	43,025	
	(6) Bridgeport	7,896	
			50,921
4 (Philadelphia)	(11) Philadelphia	20,009	
			20,009
5 (Norfolk)	(14) Norfolk	14,506	
	(13) Baltimore	20,696	
	(15) Wilmington, N. C.	7,730	
			42,932
7 (Miami)	(16) Charleston	1,669	
	(17) Savannah	3,906	
	(18) Tampa (part)	19,225	
			24,800
8 (New Orleans)	(20) New Orleans	17,497	
	(18) Tampa (part)	850	
	(19) Mobile	6,777	
	(21) Port Arthur	3,727	
	(22) Galveston	9,283	
	(23) Laredo	1,768	
	(24) El Paso	6	
	(43) Memphis (part)	76	
			39,986
9 (Cleveland)	(41) Cleveland	14,017	
	(7) Ogdensburg	6,513	
	(8) Rochester	8,470	
	(9) Buffalo	8,231	
	(36) Duluth	3,958	
	(37) Milwaukee	12,323	
	(38) Detroit	27,400	
	(39) Chicago	7,604	
			88,516
10 (San Juan)	(49) San Juan	302	
	(51) St. Thomas	65	
			367
11 (Long Beach)	(27) Los Angeles	7,439	
	(25) San Diego	1,466	
	(26) Nogales	68	
			8,973
12 (San Francisco)	(28) San Francisco	19,023	
	(47) Denver		
			19,023
13 (Seattle)	(30) Seattle	30,638	
	(29) Portland, Oreg.	9,471	
	(33) Great Falls	982	
	(46) Omaha (part)		
			41,091
14 (Honolulu)	(32) Honolulu	3,515	
			3,515
17 (Ketchikan)	(31) Juneau	6,171	
			6,171
Grand total			427,013

will be considered by the Merchant Marine Council.

In response to a request the Council will consider a proposed change in the Marine Engineering Regulations to require that water-tube boilers be hydrostatically tested not more than once every 4 years unless in the opinion of the inspector the hydrostatic test during this period is considered desirable in the interest of safety. Accordingly sections 54.18–3 and 54.-18–4 (a) have been reworded for consideration. Section 55.19–3 (n) is proposed to be amended to permit the use of a new type of valve bonnet which has been used for several years by the power industry for high-pressure high-temperature service, and section 55.19–5 (h) is proposed to be amended to permit bilge and ballast piping to be run through deep tanks without being run in a pipe tunnel.

The specifications for hand red flare distress signals and floating smoke distress signals have been revised and specifications for hand combination flare and smoke distress signals have been prepared. These specifications appearing in subparts Nos. 160.021, 160.022, and 160.023, respectively, will be considered.

AMERICAN MERCHANT MARINE CONFERENCE

The American Merchant Marine Conference, sponsored by The Propeller Club of the United States in conjunction with its Twenty-first Annual Convention, will be held in New York October 15, 16, and 17, 1947, at the Waldorf-Astoria.

The conference theme will be "The American Merchant Marine for Trade, Travel, and Defense." Problems of vital importance to the American marine industry growing out of the period of world reconstruction and the rehabilitation of our domestic and foreign trade will be presented and discussed by recognized authorities. The conference will concentrate the experience and wisdom of outstanding leadership upon subjects of utmost importance affecting the future of the American marine industry. Complete details and advance program may be obtained from The Propeller Club of the United States National Headquarters, 17 Battery Place, New York 4, N. Y.

RULES OF THE ROAD

SIGNALS

Western Rivers

WARNING SIGNALS

When any steamer, whether ascending or descending, is nearing a short bend or point where, from any cause, a steamer approaching in an opposite direction cannot be seen at a distance of 600 yards, the pilot of such steamer, when he shall have arrived within 600 yards of that bend or point, shall give a signal of one long sound of his whistle, as a notice to any steamer within hearing that may be approaching on the other side, and within half a mile, of such bend or point; and should there be any such approaching steamer within hearing of such signal, it shall be the duty of the pilot thereof to answer such signal by one long sound of his whistle, when both steamers shall be navigated with the proper precautions, as required by the rules in this part. § 332.6

When a steamer is moved from its dock or berth, and other steamers are liable to approach such steamer from any direction, such steamer and any approaching steamer shall give the same signal as in case of steamers meeting at a bend; but immediately after clearing the dock or berth so as to be fully in sight, they shall be governed by the rules in this part for passing. § 332.7

NOTE.—The long blast signal of 8 to 10 seconds is required to be blown by both vessels.

DANGER SIGNAL

If from any cause the signals for passing are not made at the proper time, as provided in § 332.1, or should the signals be given and not properly understood, from any cause whatever, and either steamer become imperiled thereby, the pilot on either steamer may be the first to sound the alarm or danger signal, which shall consist of four or more short and rapid blasts of the whistle. Whenever the danger signal is given, the engines of both steamers shall be stopped and backed until the headway of the steamers has been fully checked; nor shall the engines of either steamer be again started ahead until the steamers can safely pass each other. * * * § 332.2

CROSS SIGNALS FORBIDDEN

* * * Steamers approaching each other from opposite directions are forbidden to use what has become technically known among pilots as "cross signals"—that is, answering one whistle with two, and answering two whistles with one. In all cases, and under all circumstances, a pilot receiving either of the whistle signals provided in the rules in this part, which for any reason he deems injudicious to comply with, instead of answering it with a cross signal, shall at once observe the provisions of this section. § 332.2

STEAM VESSELS MEETING

When steamers are approaching each other from opposite directions, the signals for passing shall be one short and distinct blast of the whistle to alter course to starboard so as to pass on the port side of the other, and two short and distinct blasts of the whistle to alter course to port so as to pass on the starboard side of the other.

When two vessels are meeting end on, or nearly end on, so as to involve risk of collision, each shall alter her course to starboard, so that each may pass on the port side of the other.

When an ascending steamer is approaching a descending steamer, the pilot of the ascending steamer shall give the first signal for passing which shall be promptly answered by the same signal by the pilot of the descending steamer, if safe to do so, and both shall be governed accordingly; but if the pilot of the descending steamer deems it dangerous to take the side indicated by the ascending steamer, he shall immediately signify that fact by sounding the alarm or danger signal of four or more short and rapid blasts of the whistle, and it shall be the duty of the pilot of the ascending steamer to answer by a signal of four or more short and rapid blasts of the whistle, and the engines of both steamers shall be immediately stopped, and backed if necessary, until the signals for passing are given and answered. After sounding the alarm signal by both steamers, the pilot of the descending steamer shall indicate by his whistle the side on which he desires to pass, and the pilot of the ascending steamer shall govern himself accordingly, the descending steamer being entitled to the right-of-way.

Where possible, the signals for passing must be made, answered, and understood before the steamers have arrived at a distance of half a mile of each other.

Provided, however, That when a steamer on the Mississippi River is about to enter the Ohio River at the same time that a steamer on the Ohio

River is about to enter the Mississippi River, at Cairo Point, the steamer on the Mississippi River shall give the first signal; but in no case shall pilots on steamers attempt to pass each other until there has been a thorough understanding as to the side each steamer shall take.

§ 332.1

NOTE.—This rule gives the right-of-way in a river to the descending steamer, which is in accordance with the demands of good seamanship, because she is the less maneuverable of the two vessels. But it also provides that the ascending steamer shall blow the first whistle, subject to the approval of the descending steamer, thus creating a dangerous situation unless the first whistle is blown when the steamers are a long distance apart, so that there is ample time for a disagreement to be straightened out before dangerous proximity is reached. This fact is especially important because the vessels approach each other in this situation at double their average speed.

MEETING IN NARROW CHANNELS

When two steamers are about to enter a narrow channel at the same time, the ascending steamer shall be stopped below such channel until the descending steamer shall have passed through it; but should two steamers unavoidably meet in such channel, then it shall be the duty of the pilot of the ascending steamer to make the proper signals, and when answered, the ascending steamer shall lie as close as possible to the side of the channel the exchange of signals may have determined, as provided by § 332.1, and either stop the engines or move them so as only to give the boat steerageway, and the pilot of the descending steamer shall cause his steamer to be worked slowly until he has passed the ascending steamer.

§ 332.3

MEETING NEAR BRIDGE SPAN

When two steamers are approaching a bridge span or draw from opposite directions and the passing signals as provided in § 332.1 have been given and understood, should the pilot of the descending steamer deem it dangerous for the steamers to pass each other between the piers of such span or draw, he shall sound the alarm or danger signal, and it shall then be the duty of the pilot of the ascending steamer to answer with a similar alarm signal, and to slow or stop his engines below such span or draw until the descending steamer shall have passed. § 332.4

STEAM VESSEL OVERTAKING ANOTHER

When the steamer is overtaking another steamer, and the overtaking steamer shall desire to pass on the right or starboard side of the steamer ahead, the overtaking steamer shall give one short blast of the whistle, and if the steamer ahead answers with one blast, the overtaking steamer may pass on the starboard side of the steamer ahead; or if the overtaking steamer shall desire to pass on the left or port side of the steamer ahead, she shall give two short blasts of the whistle, and if the steamer ahead answers with two blasts the overtaking steamer may pass on the port side of the steamer ahead; or if the steamer ahead does not think it safe for the overtaking steamer to attempt to pass at that point, she shall immediately signify the same by giving not less than four short and rapid blasts of the whistle, and under no circumstances shall the overtaking steamer attempt to pass the steamer ahead until such time as they have reached a point where it can be safely done, when the steamer ahead shall signify her willingness by blowing one blast of the whistle for the overtaking steamer to pass on the starboard side of the steamer ahead, or two blasts of the whistle for the overtaking steamer to pass on the port side of the steamer ahead.

Every steamer overtaking another shall keep out of the way of the overtaken steamer. Every steamer coming up with another steamer from any direction more than two points abaft her beam shall be deemed to be an overtaking steamer, and no subsequent alteration of the bearing between the two steamers shall make the overtaking steamer a crossing steamer within the meaning of the rules in this part, or relieve her of the duty of keeping clear of the overtaken steamer until she is finally passed and clear. If the overtaking steamer is in doubt as to whether she is forward of or abaft this direction, she shall assume that she is an overtaking steamer and keep out of the way.

The steamer ahead shall in no case attempt to cross the bow or crowd upon the course of the overtaking steamer. § 332.8

CROSSING STEAM VESSELS

When two steamers are approaching each other at right angles or obliquely so as to involve risk of collision, other than when one steamer is overtaking another, the steamer which has the other on her own port side shall hold her course and speed; and the steamer which has the other on her own starboard side shall keep out of the way of the other by directing her course to starboard so as to cross the stern of the other steamer, or, if necessary to do so, slacken her speed or stop or reverse. The steamer having the other on her own port bow shall blow one blast of her whistle as a signal of her intention to cross the bow of the other, holding her course and speed, which signal shall be promptly answered by the other steamer by one short blast of her whistle as a signal of her intention to direct her course to starboard so as to cross the stern of the other steamer or otherwise keep clear.

If from any cause whatever the conditions covered by this situation are such as to prevent immediate compliance with each other's signals, the misunderstanding or objection shall be at once made apparent by blowing the alarm signal, and both steamers shall be stopped, and backed if necessary, until signals for passing with safety are made and understood.

§ 332.9

PASSING SIGNALS TO BE USED WHEN APPROACH IS WITHIN HALF A MILE

The passing signals, by the blowing of the whistle, shall be given and answered by pilots, in compliance with the rules in this part, when approaching each other; and, wherever possible, the signals shall be given and answered before the steamers have arrived at a distance of half a mile of each other. § 332.10

NOTE.—On Western Rivers, as on the Great Lakes, passing whistles are not limited to clear weather, and are to be used in thick weather as well. Great care, however, must be taken to blow the proper signal to a vessel which has not yet come into view.

SPECIAL WHISTLE FOR STEAMER PASSING DREDGE OR PIPE LINE

(a) *General.*—Vessels intending to pass dredges or other types of floating plant working in navigable channels, when within a reasonable distance therefrom and not in any case over a mile, shall indicate such intention by blowing the passing signal prescribed in the local pilot rules for vessels under way, which shall be answered in the usual manner from said plant if the channel is clear and the approaching vessel may pass on the course indicated; otherwise the floating plant shall sound the alarm or danger signal and the approaching vessel shall slow down or stop and await further signal from the plant.

When the pipe line from a dredge crosses the channel in such a way that an approaching vessel, owing to excessive draft or for other reasons, cannot pass around the pipe line or dredge, a signal shall be given from the vessel by sounding 4 blasts of the whistle, which shall be answered by a like signal from the dredge. The pipe line shall then be opened for the passage of the vessel as soon as practicable; when the line is open ready for passage, the dredge shall so indicate by sounding the usual passing signal, and the approaching vessel shall promptly pass the dredge.

(b) *Special passing signals applicable to the Mississippi River and its*

tributaries.—Vessels intending to pass dredges or other types of floating plant working in navigable channels, when within a reasonable distance therefrom and not in any case over a mile, shall indicate such intention by one long blast of the whistle and shall be directed to the proper side for passage by the sounding, by the dredge or other floating plant, of the signal prescribed in the local pilot rules for vessels under way and approaching each other from opposite directions, which shall be answered in the usual manner by the approaching vessel. If the channel is not clear, the floating plant shall sound the alarm or danger signal and the approaching vessel shall slow down or stop and await further signal from the plant.

When the pipe line from a dredge crosses the channel in such a way that an approaching vessel cannot safely pass around the pipe line or dredge, there shall immediately be sounded from the dredge or floating plant the alarm or danger signal and the approaching vessel shall slow down or stop and await further signal from the plant. The pipe line shall then be opened and the channel cleared as soon as practicable; when the channel is clear for passage the dredge or plant shall so indicate by sounding the usual passing signal as before prescribed. The approaching vessel shall answer with a corresponding signal and promptly pass.

War Dept. Regulations No. 8

When any pipe line or swinging dredge shall have given an approaching steam vessel or tow the signal that the channel is clear, the dredge shall straighten out within the cut for the passage of said steam vessel or tow.

THE MEETING SITUATION

For the meaning of whistle signals in this situation, see part 2.

NOTE.—In open waters meeting steam vessels are those approaching each other on opposite course, or on courses within a point or two of opposite. In winding rivers, meeting steamers may first sight each other on courses at right angles, but are nevertheless considered as under the meeting rule if one is bound up the channel and the other down, so that eventually they will meet on substantially opposite courses.

Since 1 hour equals 60 minutes and a nautical mile equals 6,080.27 feet, a vessel's speed in knots is roughly her speed in hundreds of feet per minute. Thus, a speed of 15 knots is practically a speed of 1,500 feet per minute, or 25 feet per second. This is a very handy rule in calculating rates of approach.

It should be remembered that the rate of approach of two steam vessels meeting is always the sum of their two speeds. Time is short, and preventive action must be taken early to avoid disaster.

There are really five meeting situations for steam vessels to consider: (1) Meeting exactly head on; (2) meeting a little port to port, but not enough for safe clearance; (3) meeting with clearance port to port which is ample without a change of course; (4) meeting a little starboard to starboard, but not enough for safe clearance; (5) meeting with clearance starboard to starboard which is ample without a change of course. On the high seas and in inland waters alike the rules require steam vessels to pass port to port in all of these cases except the last. Only in the fifth case, with clearance already sufficient for safety on that side is it permissible to pass starboard to starboard. (See illustrations.)

It is important always to take bearings of an approaching vessel to check eye judgment. Eye judgment alone is not good enough. If you can see the other vessel at all you can see her well enough to take bearings on her. Make up your mind long before the approaching vessel is near enough for danger on which side you will pass, signal accordingly, and make an ample change of course to back up your signal.

In wide open waters it is much better to turn 20° than 2°. Observance of this rule will prevent many head-on collisions. In narrow channels where such action is not possible prompt action should be taken to get as far over to the proper side of the channel as safety permits.

There is no obligation to hold course and speed in a meeting situation. On the other hand there is definite requirement to change course and to *reduce speed whenever safety demands it.* Whether by day, when a vessel ahead is plainly visible, or by night, when her lights are seen or, under black-out conditions, she is first detected as a smudge in the gloom ahead, the safest action the instant doubt arises is to *stop the engines.* This will not make the vessel unmaneuverable. She will still steer. But it will reduce headway, put her in the best shape for emergency full astern and lessen the force of the impact if collision cannot be avoided.

Remember: A 5,000-horsepower vessel at 10 knots can strike a 50,000-horsepower blow.

Nearly all meeting collisions occur because *one of the approaching steam vessels in the first four meeting situations fails to turn to the right.*

International

IMPORTANCE OF TAKING COMPASS BEARINGS

Risk of collision can, when circumstances permit, be ascertained by carefully watching the compass bearing of an approaching vessel. If the bearing does not appreciably change, such risk should be deemed to exist.

Preliminary, Part IV

STEAM VESSELS

When two steam vessels are meeting end on, or nearly end on, so as to involve risk of collision, each shall alter her course to starboard, so that each may pass on the port side of the other.

This article only applies to cases where vessels are meeting end on, or nearly end on, in such a manner as to involve risk of collision, and does not apply to two vessels which must, if both keep on their respective courses, pass clear of each other.

The only cases to which it does apply are when each of the two vessels is end on, or nearly end on to the other; in other words, to cases in which, by day, each vessel sees the masts of the other in a line, or nearly in a line, with her own; and by night, to cases in which each vessel is in such a position as to see both the side lights of the other.

It does not apply by day to cases in which a vessel sees another ahead crossing her own course; or by night, to cases where the red light of one vessel is opposed to the red light of the other, or where the green light of one vessel is opposed to the green light of the other, or where a red light without a green light, or a green light without a red light, is seen ahead, or where both green and red lights are seen anywhere but ahead. Art. 18

WHISTLE SIGNALS

The words "short blast" used in this article shall mean a blast of about one second's duration.

When vessels are in sight of one another, a steam vessel under way, in taking any course authorized or required by these rules, shall indicate that course by the following signals on her whistle or siren, namely:

One short blast to mean, "I am directing my course to starboard."

Two short blasts to mean, "I am directing my course to port."

Three short blasts to mean, "My engines are going at full speed astern."

Art. 28

NARROW CHANNELS

In narrow channels every steam vessel shall, when it is safe and practicable, keep to that side of the fairway or midchannel which lies on the starboard side of such vessel. Art. 25

NOTE.—In narrow channels this article provides an additional reason for meeting port to port.

WARNING SIGNALS

Every vessel may, if necessary, in order to attract attention, in addition to the lights which she is by these rules required to carry, show a flare-up light or use any detonating signal that cannot be mistaken for a distress signal. Art. 12

DEPARTURE FROM RULES TO AVOID IMMEDIATE DANGER ONLY

In obeying and construing these rules due regard shall be had to all dangers of navigation and collision, and to any special circumstances which may render a departure from the above rules necessary in order to avoid immediate danger. Art. 27

GOOD SEAMANSHIP REQUIRED

Nothing in these rules shall exonerate any vessel, or the owner or master or crew thereof, from the consequences of any neglect to carry lights or signals, or of any neglect to keep a proper lookout, or of the neglect of any precaution which may be required by the ordinary practice of seamen, or by the special circumstances of the case. Art. 29

INLAND

IMPORTANCE OF TAKING COMPASS BEARINGS

Risk of collision can, when circumstances permit, be ascertained by carefully watching the compass bearing of an approaching vessel. If the bearing does not appreciably change, such risk should be deemed to exist. Preliminary, Part IV

STEAM VESSELS

When steam vessels are approaching each other "head and head," that is end on, or nearly so, it shall be the duty of each to pass on the port side of the other; and either vessel shall give, as a signal of her intention, one short and distinct blast of her whistle, which the other vessel shall answer promptly by a similar blast of her whistle, and thereupon such vessels shall pass on the port side of each other. But if the courses of such vessels are so far on the starboard of each other as not to be considered as meeting "head and head," either vessel shall immediately give two short and distinct blasts of her whistle, which the other vessel shall answer promptly by two similar blasts of her whistle, and they shall pass on the starboard side of each other.

The foregoing only applies to cases where vessels are meeting end on, or nearly end on, in such a manner as to involve risk of collision; in other words, to cases in which, by day, each vessel sees the masts of the other in a line, or nearly in a line, with her own, and by night to cases in which each vessel is in such a position as to see both the side lights of the other.

It does not apply by day to cases in which a vessel sees another ahead crossing her own course, or by night to cases where the red light of one vessel is opposed to the red light of the other, or where the green light of one vessel is opposed to the green light of the other, or where a red light without a green light or a green light without a red light, is seen ahead, or where both green and red lights are seen anywhere but ahead.
Art. 18, § 312.4 (Former Pilot Rule IV)

LESSONS FROM CASUALTIES

Respect Mooring Lines—They Are Dangerous

A mooring line or tow line in itself appears to be a harmless piece of manila rope or wire. However, this innocent appearing line may become a lethal and maiming weapon. Within the past month three cases of fatal or serious injury coming to the attention of the Coast Guard have been caused by carelessness or inattention while working around mooring or towing lines.

In the first case an officer of a Great Lakes ore boat was directing the shifting of lines and the maneuvering of the vessel alongside a pier in an effort to clear ice which had accumulated between the vessel and the pier. Forward and after cables had been shifted and the vessel was being hove astern. The officer was standing close to the bollard upon which the forward cable was placed. When the forward chock was abreast of the bollard the strain on the cable caused it to slip off the bollard with a whipping effect, striking the officer and decapitating him. The first order given by the chief mate of the vessel upon arriving at the scene was to telephone the coroner.

The officer who lost his life in this unfortunate accident was a man of wide experience in the operation of vessels alongside piers on the Great Lakes, who should have anticipated this contingency and kept well clear of the cable.

In connection with this accident the record indicated that prior to the vessel sailing on its first trip of the season a safety first meeting was held by the officers of the ship wherein they were instructed to be particularly careful when handling cables on the dock.

The second instance of injury caused by a line, occurred on a Mississippi River towing vessel wherein a deck hand had his foot caught in the loop of a manila line, resulting in the loss of his left foot. The record shows that this deck hand was not paying attention to the line which he was handling.

The third injury caused by a line happened on a fishing vessel off the Atlantic coast. It appears that the vessel in question had broken down and was being towed by a tug. The towing line had slipped out of the starboard bow chock of the fishing vessel and the tug slowed down to permit sufficient slack in the line so that it could be replaced in the chock. After the line was replaced in the chock the tug proceeded ahead and took up the slack with the result that the fisherman who had been handling the line on the fishing vessel was struck by the taut line, tossed into the air, and landed on the deck, fracturing his hip.

All of these accidents which occurred on widely scattered waters could have been averted with the use of a little care and attention to the job in hand, and with some appreciation of the inherent dangers involved in handling lines on decks and piers.

Steering Gear Telemotor Trouble

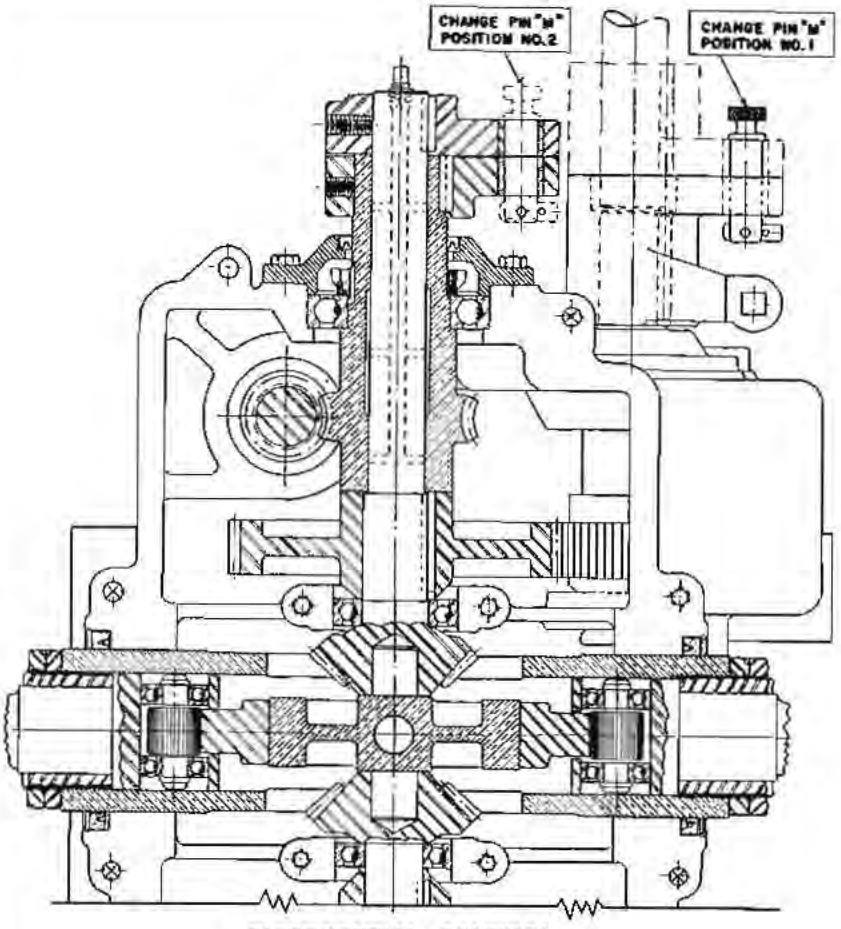
An operator of a tanker fleet has recently brought to the attention of the Coast Guard the story of a "near miss" of one of their tankers because of failure of a very small piece of machinery. The vessel in question, a T2–SE–A1 tanker reported that the telemotor pin had worked loose and dropped out. Fortunately, when the pin was disengaged the vessel missed Cross Ledge Light and failed to hit anything else.

However, the disengaging of this pin might have been the cause of a serious collision with a passing vessel or the striking of a dock or a grounding causing extensive damage and in all probability, loss of life or serious injury to members of the crew on the disabled vessel.

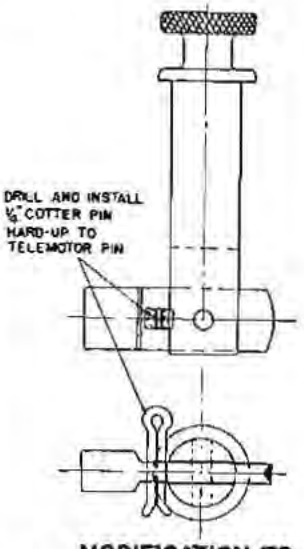
The telemotor pin referred to is the horizontal change pin located in the differential control at the aft steering gear telemotor. When steering from the pilothouse by hydraulic telemotor or electric steering, the change pin is in position No. 1, and is engaged in the telemotor race box lever. When steering by the trick wheel or from the after deck, the pin is removed from position No. 1, and is engaged in the differential control lever, position No. 2, the usual condition of the steering gear after arrival in port and finished with engines. (See sketch for location of pins.)

In the horizontal position these telemotor pins could easily slip out due to the vibration of the vessel. In order to be locked in place, the pins are fitted with a hinged toggle designed to drop freely when the pins are engaged in the bell crank levers, thus preventing the pins from working loose and disengaging.

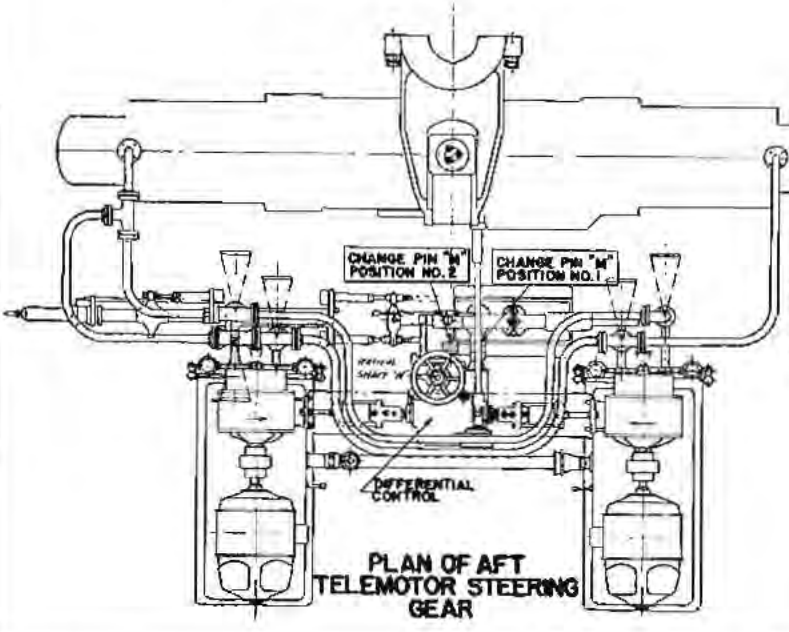
In the case reported above the toggle was found to be frozen stiff and



DIFFERENTIAL CONTROL



MODIFICATION TO TELEMOTOR PIN



PLAN OF AFT TELEMOTOR STEERING GEAR

WHEN STEERING FROM PILOT HOUSE TOP OR PILOT HOUSE ST
BOD TELEMOTOR ENGAGE CHANGE PIN "M" IN TELEMOTOR RACK
BOX LEVER POSITION #1. CLOSE BY-PASS VALVE ON FORWARD
TELEMOTOR.

WHEN STEERING FROM PILOT HOUSE BY SPERRY UNIT ENGAGE CHANGE PIN
"M" IN TELEMOTOR RACK BOX LEVER POSITION #1. OPEN BY-PASS
VALVE OF FORWARD TELEMOTOR. START SPERRY UNIT.

WHEN STEERING BY TRICK WHEEL ENGAGE CHANGE PIN "M" IN
DIFFERENTIAL CONTROL LEVER POSITION #2. DISENGAGE CLUTCH ON
VERTICAL SHAFT "N".

WHEN STEERING FROM AFTER DECK
ENGAGE CHANGE PIN "M" IN DIFFERENTIAL CONTROL LEVER POSITION #2.
ENGAGE CLUTCH ON VERTICAL SHAFT "N."

ELECTRIC HYDRAULIC STEERER T2-SE-A1 TANKERS

required freeing before it would drop freely into the locking position.

As remedial action toward insuring that the toggles would always be in the locking position, the following instructions were issued to all masters of vessels operating in the tanker fleet:

(a) Chief engineers were required to examine and "free up" the telemotor pin toggle as found necessary, to enable it to drop freely.

(b) As an added safety precaution, a ¼ inch split cotter pin was required to be installed at the top center of the toggle as close as possible to the pin, with the toggle at right angles to the pin. The split cotter pin in this location would retain the toggle in a vertical position always normal to the horizontal telemotor pin, so that the locking feature of the toggle would be maintained under adverse service conditions. (For modifications to telemotor pin see sketch.)

The steering gear and telemotor are the most important auxiliary machinery aboard and vital to a vessel's safe operation. It is the duty of all chief engineers to personally supervise the inspection of steering gear in order to maintain this machinery in satisfactory operating condition at all times. Proper examination and tests should be made before the vessel gets under way at the start of each voyage, and also at all times, previous to the vessel getting into restricted waters or entering a loading or discharging port and periodically during the voyage. Inspectors should also pay particular attention to the steering gear during periodic inspections, and, if possible, to examine and try the steering gear in order to ascertain that it is in efficient operating condition.

APPENDIX

Amendments to Regulations

TITLE 33—NAVIGATION AND NAVIGABLE WATERS

Chapter I—Coast Guard, Department of the Treasury

[CGFR 47-36]

PART 1—GENERAL ORGANIZATION AND JURISDICTION

FIELD ORGANIZATION

By virtue of the authority vested in me by the act of Aug. 29, 1916, ch. 417, 39 Stat. 601; 14 U. S. C. 95, the following amendments to the regulations are prescribed, to become effective July 1, 1947:

1. Section 1.10–1 is amended as follows:

Coast Guard district	Comprises	Address of Coast Guard district office
First	Maine, New Hampshire, Vermont, Massachusetts, and Rhode Island; all United States naval reservations on shore in Newfoundland.	1400 Customhouse, Boston 13, Mass.
Second	West Virginia, Kentucky, Tennessee, Oklahoma, Kansas, Nebraska, North Dakota, South Dakota, Iowa, Missouri; Pennsylvania south of latitude 41° N., and west of longitude 79° W.; those parts of Ohio and Indiana south of latitude 41° N.; Illinois, except that part north of latitude 41° N. and east of longitude 90° W.; Wisconsin south of latitude 46°20' N. and west of longitude 90° W.; Minnesota south of latitude 46°20' N.; and those parts of Arkansas, Mississippi and Alabama north of latitude 34° N.	232 Old Customhouse, 8th and Olive Sts., St. Louis 1, Mo.
Third	Connecticut; New York, except that part north of latitude 42° N. and west of longitude 74°39' W.; New Jersey; Pennsylvania east of longitude 79° W.; Delaware, including Fenwick Island.	42 Broadway, New York 4, N. Y.
Fifth	Maryland, Virginia, and North Carolina	Box 540, New Post Office Bldg., Norfolk 1, Va.
Seventh	South Carolina and Georgia; Florida, except that part west of the Apalachicola River.	Dupont Bldg., P. O. Box 2588, Miami 30, Fla.
Eighth	Texas and Louisiana; those parts of Alabama, Mississippi and Arkansas south of latitude 34° N.; and that part of Florida west of the Apalachicola River.	P. O. Box 282, New Orleans 9, La. (Customhouse).
Ninth	Michigan; New York north of latitude 42° N. and west of longitude 74°39' W.; Pennsylvania north of latitude 41° N. and west of longitude 79° W.; those parts of Ohio and Indiana north of latitude 41° N.; Illinois north of latitude 41° N. and east of longitude 90° W.; Wisconsin, except that part south of latitude 46° 20' N. and west of longitude 90° W.; and Minnesota north of latitude 46°20' N.	1700 Keith Bldg., Cleveland 15, Ohio.
Tenth	Panama Canal Zone; all of the island possessions of the United States pertaining to Puerto Rico and Virgin Islands; and all United States naval reservations in the islands of the West Indies and on the north coast of South America.	La Marina, San Juan, P. R.
Eleventh	New Mexico and Arizona; Clark County in Nevada; and the southern part of California comprising the counties of Santa Barbara, Kern and San Bernardino, and all counties south thereof.	706 Times Bldg., Long Beach 2, Calif.
Twelfth	Colorado and Utah; Nevada, except Clark County; and the northern part of California comprising the counties of San Luis Obispo, Kings, Tulare, and Inyo and all counties north thereof.	907 Appraisers Bldg., 630 Sansome St., San Francisco 26, Calif.
Thirteenth	Washington, Oregon, Idaho, Montana, Wyoming, and the Territory of Alaska.	New World Life Bldg., 618 Second Ave., Seattle 4, Wash.
Fourteenth	Territory of Hawaii; and the Pacific Islands belonging to the United States west of longitude 140° W. and south of latitude 42° N.	Federal Bldg., Honolulu, T. H.

Change the number of Coast Guard Districts from "14" to "12".

2. Section 1.10–5 is amended to read as follows:

§ 1.10–5 *Coast Guard districts and offices.* The 12 Coast Guard districts comprise the areas indicated and have offices as specified in the table below:

(39 Stat. 601; 14 U. S. C. 95)
Dated: June 27, 1947.
[SEAL]

E. H. FOLEY, JR.,
Acting Secretary of the Treasury.

Navigation and Vessel Inspection Circular No. 3-47

UNITED STATES COAST GUARD
WASHINGTON 25, D. C.

Elimination of fire hazards on excursion vessels.

JUNE 10, 1947

1. The elimination of fire hazards and the use of proper safety measures for emergencies are considered of utmost importance in the interest of safety of life. The indoctrination of officers and crews of excursion vessels in the essentials of safe operation as well as constant vigilance by such officers and crews are necessary to maintain the excellent record of safety already established.

2. Particular attention is directed to the requirements for fire and boat drills and sanitary inspections of crew and passenger quarters. The fire drills shall be carried out as though an emergency exists and by directing the fire-fighting crews to a different part of the vessel at each drill.

3. To eliminate fire hazards it is recommended that the following precautions be taken:

(a) Maintain a thorough daily inspection of the vessel by master or officers and remove every potential fire hazard.

(b) Keep stocks of inflammable novelties for sale to passengers to a minimum and where possible keep only such quantities on board which can be sold within a day or two.

(c) Dispose of excelsior or other inflammable packing material immediately after the package or container is first opened.

(d) Sweep out daily the storerooms and lockers used for stowage of novelties.

(e) Prohibit smoking in storerooms or lockers used for stowage of novelties.

(f) Keep decks clear under and behind all objects to prevent accumulation of waste paper, rags, packing materials and other fire hazards.

(g) Use trash containers of metal construction with tight sides and bottoms and self-closing covers in toilet rooms, concession stands, passenger spaces, and crew accommodations.

(h) Use metal containers with self-closing covers for all cleaning rags, whether used or unused.

(i) Hang up all mops and swabs, handles down.

(j) Keep all clothing in crew quarters in lockers or properly hung up.

(k) Keep soiled and greasy clothing from accumulating in the bottom of lockers or under and behind bunks.

4. By constantly eliminating potential fire hazards many dangerous fires can be prevented. As past experience has shown, the difference between a small fire and a major disaster may be only a matter of seconds—WHEN THE FIRE STARTS.

(S.) J. F. FARLEY,
Admiral, U. S. Coast Guard,
Commandant.

No. 4-47

UNITED STATES COAST GUARD
WASHINGTON 25, D. C.

JUNE 11, 1947.

Motor-propelled lifeboats on dry cargo and tank vessels

1. With the cancellation of subchapter O, motor lifeboats were no longer required on dry cargo and tank ships. Since this cancellation, instances have ocurred where motors have been found inoperative and numerous requests have been received at headquarters asking permission to remove motors from lifeboats, and retain the boats as part of the required lifesaving equipment as oar-propelled boats.

2. The removal of the motor and its appurtenances from a motor lifeboat voids its approval and, in order for such equipment to be retained as oar-propelled lifeboats, the alterations shall conform to arrangements of lifeboats already approved.

3. The interior alterations shall be such as to bring the boat into conformity with approved drawings and specifications for the same size oar-propelled lifeboat of the original manufacturer, and shall, in general, be as hereafter enumerated:

(a) The motor, motor housing, and all appurtenances in connection therewith, including gas tank or tanks, shall be removed from the lifeboat.

(b) Proper flooring and footings shall be installed in way of the space formerly occupied by the motor and motor housing.

(c) Where thwarts were bracketed to the motor housing, proper stanchions shall be installed to support those thwarts.

(d) The equipment furnished, such as mast, sails, oars, rowlocks, et cetera, shall be the same as for a regular oar-propelled boat.

4. In addition to the above, the following alterations shall be made:

(a) The stern tube bushing shall be removed and the stern tube plugged and welded in accordance with good marine practice.

(b) Where the water suction intake and exhaust outlet pierce the shell plating causing opening to the elements, the opening shall be satisfactorily plugged and plating reinforced.

5. When alterations are completed, an additional manufacturer's plate, showing the date of conversion and new person allowance, shall be furnished and installed by the manufacturer actually performing the work.

(S.) J. F. FARLEY,
Admiral, U. S. Coast Guard,
Commandant.

No. 5-47

JUNE 12, 1947.

Marking fire and emergency equipment and apparatus, fire doors, watertight doors, lifeboat embarkation stations and direction signs, stateroom notices, instructions for changing steering gears, etc.

1. Requests have been received from shipbuilders and others for information concerning the proper marking of fire and emergency equipment, fire doors, watertight doors, lifeboat embarkation stations and direction signs, and the wording of stateroom notices on vessels when not otherwise specifically stated in the General Rules and Regulations. The following recommendations are made for the purpose of effecting uniformity in such markings:

GENERAL ALARM BELL SWITCH

The general alarm bell switch in the pilothouse or fire-control station to be clearly marked with lettering on a brass plate or with a sign in red letters on suitable background.

"GENERAL ALARM"

GENERAL ALARM BELLS

Mark in red paint at least one-half-inch letters "GENERAL ALARM"—"WHEN BELL RINGS GO TO YOUR STATION".

MANUAL ALARM BOXES

If not clearly marked "FIRE ALARM—BREAK GLASS" or "IN CASE OF FIRE BREAK GLASS", to be marked "IN CASE OF FIRE BREAK GLASS" in one-half-inch letters. Each box to be numbered using 1-inch figures and red paint.

MANUAL ALARM BELLS

The manual alarm bells on bridge, in engine room and in fire-control station and crew quarters to be marked "MANUAL FIRE ALARM" in 1-inch letters, red paint.

SPRINKLER ALARM BELLS

On bridge, in engine room and fire-control station, mark "SPRINKLER ALARM ZONE NO. 1", 2 etc.

SPRINKLER ZONE VALVES

Number each zone valve with 3-inch red letters and figures or mark with legible brass plate.

STEAM FIRE-SMOTHERING APPARATUS

Indicate by a sign the location of the "STEAM FIRE APPARATUS". CO_2 fire-extinguishing system to be similarly and appropriately marked "CO_2 FIRE APPARATUS". Use 3-inch red letters. The valves of all branch pipes leading to the several compartments to be distinctly marked to indicate the compartments or parts of the vessel to which they lead.

FIRE HOSE STATION

"FIRE STATION NUMBER ——" at each fire hose valve to be marked in 2-inch red letters.

WATCHMAN DETEX CLOCK KEY STATION

Number each key station in 1-inch figures—red paint.

EMERGENCY SQUAD EQUIPMENT

Lockers containing equipment for use of emergency squad to be marked "EMERGENCY SQUAD EQUIPMENT". Lockers where oxygen breathing apparatus is

stowed to be marked "OXYGEN BREATHING APPARATUS".

FIRE EXTINGUISHERS

Number or tag each fire extinguisher and mark location where stowed in corresponding numbers in 1-inch letters.

EXIT LIGHTS

To be red glass marked "EXIT" and to be so arranged in corridors that they can be seen from a distance.

EMERGENCY LIGHTS

Stencil a letter "E" at each light in 1-inch letter with red paint.

FIRE SCREEN DOORS

Number each fire screen door in 2-inch letters. Color most legible in contrast to background.

Viz: "F. S. D. 1", etc.

FIRE SCREEN DOORS EMERGENCY EXITS

Mark "EMERGENCY EXIT" in 2-inch letters as follows:

(a) On compartment side of fire screen doors;

(b) On corridor side of stair well doors; and

(c) On inside of stair well doors leading to embarkation deck.

Signs to be so located on the door as to insure that passengers and crew may be properly directed to embarkation stations in emergencies under the premise that the doors have been closed. Color should be most legible contrast to background.

WATERTIGHT DOORS

Number each watertight door in at least 2" figures and letters, "W. T. D. 1", 2, 3, etc. Color to be in contrast to color of doors.

Mark location of all watertight door remote operating stations in at least 2-inch figures and letters and indicate the number of the door. Mark direction of operation of lever or wheel provided to close or open the door at all watertight door operating stations. Color of sign to contrast with background.

LIFEBOAT STATIONS

Suspend from overhead at each boat station on embarkation deck a sign marked in 4-inch letters "LIFEBOAT STATION NO. 1", 2, etc. If there is no overhead structure at a boat station, place a similar sign in a position where it will readily be seen.

EMBARKATION DIRECTION SIGNS—TO LIFEBOATS

Locate signs in alleyways, corridors, and stair wells. These signs to be of at least 1-inch letters with arrows indicating the shortest route to follow to reach lifeboats. The arrow to be of appropriate dimensions, viz.,

TO BOATS →

TO BOATS ←

The signs near the exits to the embarkation deck should be marked with the numbers of the boat stations nearest to such exits, viz.,

TO BOAT STATIONS
NOS. 1, 2, 3
(or 2, 4, 6, etc.) →

Any combination of arrows and at least 1-inch lettering which will clearly indicate the direction to be followed will be acceptable. It is recommended that the signs directing the way to the odd-numbered boats be green and those directing the way to the even-numbered boats be red in color.

STATEROOM NOTICES

Framed notices to be conspicuously posted in the stateroom indicating the following:

"EMERGENCY SIGNALS.

"FIRE AND EMERGENCY—CONTINUOUS RAPID RINGING OF THE SHIP'S BELL AND OF THE GENERAL ALARM BELLS FOR A PERIOD OF NOT LESS THAN TEN SECONDS.

"ABANDON SHIP (OR BOAT STATIONS)—MORE THAN SIX SHORT BLASTS AND ONE LONG BLAST OF THE WHISTLE SUPPLEMENTED BY THE SAME SIGNAL ON THE GENERAL ALARM BELLS."

State location of life preservers.

Include instructions and picture showing how to wear life preservers.

"THE OCCUPANTS OF THIS ROOM ARE ASSIGNED TO LIFEBOAT NO. ——. ALL PASSENGERS ARE REQUIRED TO PUT ON A LIFE PRESERVER AND GO TO THEIR LIFEBOAT STATIONS WHENEVER GENERAL ALARM BELL RINGS.

"THE ROOM STEWARD WILL PROVIDE LIFE PRESERVERS FOR CHILDREN."

CHILDREN'S LIFE PRESERVERS

Mark the lockers or boxes in which the children's life preservers are stowed and also the number contained therein. 2-inch figures and letters.

Viz.: 20

CHILDREN'S LIFE PRESERVERS

INSTRUCTIONS FOR CHANGING STEERING GEAR

Instructions in at least 2-inch letters and figures to be posted at each emergency steering station and in the steering engine room, relating in order the different steps to be taken in changing to the emergency steering gear. Each clutch, gear, wheel, lever, or valve which is used during the change-over to be numbered or lettered on a brass plate or painted so that the markings can be recognized at a reasonable distance. Indicate each clutch or pin to be "in" or "out" and each valve which is to be "opened" or "closed" in shifting to any means of steering for which the vessel is equipped. Include instructions to line up all steering wheels and rudder amidship before changing gears.

RUDDER ORDERS

At all steering stations, there shall be installed a suitable notice on the wheel or device or in such other position as to be directly in the helmsman's line of vision, to indicate the direction in which the wheel or device must be turned for "right rudder" and for "left rudder."

MARKING OF EQUIPMENT

All lifeboats, rafts, floats, buoyant apparatus including equipment, also life preservers, ring buoys, fire hose, axes, etc. to be painted or branded with the name of the vessel and numbered as required in accordance with the General Rules and Regulations.

2. Existing signs, markings and posters that are in general conformity with the above may be accepted if they adequately serve their purpose.

(S.) J. F. FARLEY,
Admiral, U. S. Coast Guard,
Commandant.

Equipment Approved by the Commandant

APPROVAL AND TERMINATION OF APPROVAL OF EQUIPMENT

By virtue of the authority vested in me the following approvals and termination of approvals are prescribed:

BUOYANT CUSHIONS FOR MOTORBOATS

Approval No. A-336, Standard kapok buoyant cushion; and Approval No. B-497, 15½" x 26" x 3" rectangular kapok buoyant cushion, 54 oz. kapok, Dwg. No. SK-181-103, dated May 24, 1947; for use on motorboats of Classes A, 1, and 2 not carrying passengers for hire; manufactured by Brooklyn Upholstering Co., (rear) 3525 S. Hanover St., Baltimore 25, Md.

Approval No. A-337, Standard kapok buoyant cushion, for use on motorboats of Classes A, 1, and 2 not carrying passengers for hire, manufactured by DeMore Manufacturing Co., 547 Meeting St., Charleston, S. C.

Approval No. B-496, 15" x 15" x 2" rectangular kapok buoyant cushion, 20 oz. kapok, Dwg. No. 101A, dated June 16, 1947, for use on motorboats of Classes A, 1, and 2 not carrying passengers for hire, manufactured by Nappe-Smith Manufacturing Co., Southard Ave., Farmingdale, N. J.

CONTAINERS FOR EMERGENCY RATIONS

Emergency drinking water container, "Lifetime" brand, Drawing dated June 3, 1947, submitted by The Multiple Breaker Co., 82 Commercial Wharf, Boston 10, Mass.

DAVIT

Spring powered davit, Type S-80, approved for use on diesel yacht HAIDA only for a maximum working load of 8,000 pounds per set, 4,000 pounds per arm, using two-part falls; identified by General Arrangement Dwg. No. 3054-6 dated Dec. 6, 1946, and revised April 25, 1947; manufactured by the Welin Davit and Boat Division of the Robinson Foundation, Inc., Perth Amboy, N. J.

LIFEBOATS

26' x 9' x 3.83' Aluminum hand-propelled lifeboat, 53-person capacity, identified by construction and arrangement Dwg. No. 3159 dated Mar. 9, 1947, and revised May 16, 1947, manufactured by the Welin Davit and Boat Division of the Robinson Foundation, Inc., Perth Amboy, N. J.

22' x 7.5' x 3.15' Steel oar-propelled lifeboat, 31-person capacity, identified by construction and arrangement Dwg. No. OMS-460A dated June 1947, submitted by Tregoning Industries, Inc., Seattle, Wash.

SAFETY VALVES

Boiler safety valves, diameter sizes 1½ to 4 inches, inclusive, Dwg. No. 1983-B-CG dated Sept. 10, 1945, manufactured by Farris Engineering Co., Commercial Ave., Palisades, N. J. for the following types, with pressure ratings and maximum temperatures:

Type	Primary service pressure rating	Maximum temperature, ° F.
2575A	300	650
2575B	300	750
2575C	300	900
2576A	600	650
2576B	600	750
2576C	600	900
2577A	600	650
2577B	600	750
2577C	600	900
2578A	900	650
2578B	900	750
2578C	900	900

WINCHES

Type H40 lifeboat winch for use with mechanical davits; fitted with wire rope not greater than ⅜ inch in diameter and with not more than five wraps of the falls on the drums; maximum working load of 4,000 pounds at the drums, 2,000 pounds per fall; identified by general arrangement Dwg. No. 3054-5 dated April 17, 1946, and revised April 30, 1947; manufactured by the Welin Davit and Boat Division of the Robinson Foundation, Inc., Perth Amboy, N. J.

Type B172 lifeboat winch (formerly Type BWB); maximum working load of 17,200 pounds pull at the drums, 8,600 pounds per fall; identified by general arrangement Dwg. No. 2114, dated Dec. 1, 1941; manufactured by the Welin Davit and Boat Division of the Robinson Foundation, Inc., Perth Amboy, N. J. This replaces the listing of Welin Type BWB lifeboat winch published in the FEDERAL REGISTER of Mar. 4, 1942 (7 F. R. 1700), which approval is hereby terminated.

CONDITIONS OF APPROVALS AND TERMINATION OF APPROVAL

The above approvals shall be effective upon the date of publication of this document in the FEDERAL REGISTER.

The termination of approval made by this document shall be made effective upon the thirty-first day after the date of publication of this document in the FEDERAL REGISTER. Notwithstanding this termination of approval on any item of equipment, such equipment made before the effective date of termination of approval may be used so long as it is in good and serviceable condition.

Dated: July 11, 1947.

[SEAL] J. F. FARLEY,
Admiral, U. S. Coast Guard,
Commandant.

[F. R. Doc. 47-6802: Filed, July 18, 1947; 8:46 a. m.; 12 F. R. 4825, July 19, 1947]

APPROVAL AND TERMINATION OF APPROVAL OF EQUIPMENT

SECTION 1. Various items of lifesaving, fire-fighting, and miscellaneous equipment or installations used aboard merchant vessels and motorboats are required by statute or regulations in 46 CFR, Chapter I, to be of types approved by the Commandant, United States Coast Guard. The procedures promulgating approvals and termination of approvals are set forth in 46 CFR 2.75-1——2.75-50, inclusive (11 F. R. 177A-83).

SEC. 2. In order that approvals of equipment can be kept current and to provide a definite means for identification, approvals generally will be limited to five years and will be assigned approval numbers. For most type approvals notices will be published in the FEDERAL REGISTER as well as certificates of approvals issued to those receiving the approvals, in accordance with 46 CFR 2.75-10.

SEC. 3. By virtue of the authority vested in me by R. S. 4405 and 4491, as amended (46 U. S. C. 375, 489) and section 101 of Reorganization Plan No. 3 of 1946 (11 F. R. 7875), as well as the additional authorities cited with each class in paragraph (e) below, *It is ordered*, That:

(a) All the approvals for lifesaving, fire-fighting, and miscellaneous equipment or installations, except cork or balsa wood life preservers (jacket type), fire-extinguishing systems, fire-indicating and alarm systems, electric floating automatic water lights, loud speaker systems, hand red flare distress signals, and floating orange smoke distress signals, promulgated or declared by the Bureau of Marine Inspection and Navigation and its predecessors or the Coast Guard, which have not been published in the FEDERAL REGISTER, are hereby terminated effective on and after November 1, 1947: *Provided, That notwithstanding this termination of approvals all items made before the effective termination date of such approvals may be continued in use so long as in good and serviceable condition;* and

(b) All the approvals for lifesaving, fire-fighting, and miscellaneous equipment or installations which do not meet present Coast Guard requirements and are not relisted in paragraph (e) below, except cork or balsa wood life preservers (jacket type), fire-extinguishing systems, fire-indicating and alarm systems, electric floating automatic water lights, loud speaker systems, hand red flare distress signals, and floating orange smoke distress signals, promulgated or declared by the Bureau of Marine Inspection and Navigation and its predecessors or the Commandant, United States Coast Guard, which have been previously published in the FEDERAL REGISTER, are hereby terminated, effective on and after November 1, 1947: *Provided, That notwithstanding this termination of approvals all items made before the effective termination date of such approvals may be continued in use so long as in good and serviceable condition;* and

(c) All holders of approvals which are to be terminated by this document who may desire to appeal the actions taken shall submit to the Commandant (CMC), United States Coast Guard, Washington 25, D. C., on or before September 26, 1947, a letter setting forth the reasons why the approval should not be terminated, together with supporting data showing that the item complies with the ap-

plicable requirements now in effect, in accordance with 46 CFR 2.75–50; and

(d) All the approvals for lifesaving, fire-fighting, and miscellaneous equipment or installations meeting present Coast Guard requirements and relisted in paragraph (e) below, except cork or balsa wood life preservers (jacket type), fire-extinguishing systems, fire-indicating and alarm system, electric floating automatic water lights, loud-speaker systems, hand red flare distress signals, and floating orange smoke distress signals, promulgated or declared by the Bureau of Marine Inspection and Navigation and its predecessors or the Commandant, United States Coast Guard, which have been previously published in the FEDERAL REGISTER, are hereby modified by assigning them approval numbers and by limiting the duration such approvals will be in effect to five years, effective upon the date of publication of this document in the FEDERAL REGISTER; and

(e) It is, therefore, declared that the following lifesaving, fire-fighting, and miscellaneous equipment or installations are approved effective upon the date of publication of this document in the FEDERAL REGISTER for a period of five years unless sooner canceled or suspended by proper authority:

NOTE.—The following is a complete listing for each class of approvals, as amended, but does not include cork and balsa wood life preservers (jacket type), fire-extinguishing systems, fire-indicating and alarm systems, electric floating automatic water lights, loud-speaker systems, hand red flare distress signals, and floating orange smoke distress signals.

Life Preservers, Kapok, Adult and Child (Jacket Type).
Cleaning Process for Life Preservers.
Buoyant Cushions, Standard.
Buoyant Cushions, Non-Standard.
Buoys, Life, Ring, Cork and Balsa Wood.
Buoyant Apparatus.
Gas Masks and Other Breathing Apparatus.
Water Lights (Self-Igniting, Calcium Carbide Type).
Hatchets, Lifeboat and Life Raft.
Compasses, Lifeboat.
Winches, Lifeboat.
Flame Safety Lamps.
Ladders, Embarkation-Debarkation.
Life Rafts (Catamaran Type).
Sea Anchors.
Mirrors, Emergency Signaling.
Signals, Distress, Flare Cartridge, Red, Parachute.
Nozzles, Water Spray (Fixed Type).
Containers, Emergency Provisions and Water.
Life Floats.
Signal Pistols.
Line-Throwing Appliances (Lyle Gun Type).
Firing Attachment for Lyle Gun Type Line-Throwing Appliances.
Line-Throwing Appliances (Shoulder Gun Type).
Davits, Lifeboat.
Mechanical Disengaging Apparatus (For Lifeboats).
Hand-Propelling Gear, Lifeboat.
Lifeboats.
Sound Powered Telephone Equipment.
Searchlights for Motor-Lifeboats.
Flashlights, Electric, Hand.
Safety Valves.
Boilers, Power.
Boilers, Heating.
Fire Extinguishers, Hand, Portable, Carbon-Tetrachloride Type.
Fire Extinguishers, Hand, Portable, Carbon-Dioxide Type.
Fire Extinguishers, Hand, Portable, Foam-Type.
Fire Extinguishers, Hand, Portable, Soda-Acid Type.
Fire Extinguishers, Hand, Portable, Pump-Tank Type.
Fire Extinguishers, Hand, Portable, Cartridge-Operated Type.
Backfire Flame Arresters for Carburetors.
Flame Arresters for Tank Vessels.
Liquefied Petroleum Gas Valves, Fittings, and Gauges.
Gas Ranges Using Propane or Butane Gases.
Boiler Feedwater Regulators and Low Water Alarms.
Secondary Boiler Feed Water Level Indicator.
Deck Covering.
Structural Insulations.
Bulkhead Panels.
Incombustible Materials.

NOTE—Because space does not permit, the individual approvals have not been published herein. A copy of the Federal Register dated July 31, 1947, containing the complete listings of approvals may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. at 30 cents per copy.

Dated: July 24, 1947.

J. F. FARLEY,
Admiral, U. S. C. G., Commandant.

[F. R. Doc. 47-7118; Filed, July 30, 1947; 8:46 a. m.; 12 F. R. 5185, July 31, 1947.]

FUSIBLE PLUGS

The Marine Engineering Regulations and Material Specifications require that manufacturers submit samples from each heat of fusible plugs to the Commandant for test prior to plugs manufactured from the heat being used on vessels subject to inspection by the Coast Guard. A list of approved heats which have been tested and found acceptable during the period from May 15, 1947, to July 15, 1947, is as follows:

The Lunkenheimer Co., Post Office Box 360, Annex Station, Cincinnati, Ohio. Heat Nos. 287 to 296, inclusive.

ELECTRICAL APPLIANCES

The following list supplements that published by the United States Coast Guard under date of May 15, 1943, entitled "Miscellaneous Electrical Equipment Satisfactory for Use on Merchant Vessels," as well as subsequently published lists, and is for the use of Coast Guard personnel in their work of inspecting merchant vessels. Other electrical items not contained in this pamphlet and subsequent listings may also be satisfactory for marine use but should not be so considered until the item is examined and listed by Coast Guard Headquarters.

Manufacturer and description of equipment	Location apparatus may be used				Date of action
	Passenger and crew quarters and public spaces	Machinery cargo and work spaces	Open decks	Pump rooms of tank vessels	
Murlin Manufacturing Co., Philadelphia, Pa.:					
Desk fixture, 1 60-watt lamp maximum, nonwatertight, drawing No. 620, alt. 0	X				6/30/47
Ceiling fixture, 2 60-watt lamps maximum, nonwatertight, drawing No. 920, alt. 1	X				6/30/47
Bulkhead fixture, 1 25-watt lamp maximum, nonwatertight, drawing No. 1207, alt. 0	X				6/30/47
Louvred step light, 1 25-watt lamp maximum, nonwatertight, drawing No. 1208, alt. 0	X				6/30/47
Exit light, 1 25-watt lamp maximum, nonwatertight, drawing No. 1209, alt. 0	X				6/30/47
Ceiling fixture, 1 60-watt lamp maximum, nonwatertight, drawing No. 1211, alt. 0	X				6/30/47
Ceiling fixture, 4 60-watt lamps maximum, nonwatertight, drawing No. 1216, alt. 0	X				6/30/47
Ceiling fixture, 1 10-watt lamp maximum, nonwatertight, drawing No. 1219, alt. 0	X				6/30/47
Range hood fixture, 5 100-watt lamps maximum, waterproof, drawing No. 1100, alt. 0	X	X			6/30/47

Merchant Marine Personnel Statistics

MERCHANT MARINE LICENSES ISSUED DURING JUNE 1947

DECK OFFICERS

Region	Master										Chief mate										Second mate									
	Ocean		Coastwise		Great Lakes		B. S. & L.		Rivers		Ocean		Coastwise		Great Lakes		B. S. & L.		Rivers		Ocean		Coastwise		Great Lakes		B. S. & L.		Rivers	
	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R
Atlantic coast	28	87	1	19	----	----	12	68	1	7	30	11	----	3	----	----	2	7	----	----	57	15	----	2	----	----	----	----	----	----
Gulf coast	10	24	2	3	----	----	----	3	1	9	25	2	----	4	----	----	----	----	3	1	34	3	----	----	----	----	----	----	----	----
Great Lakes and rivers	----	----	----	----	1	11	----	1	----	15	----	2	----	----	----	----	----	----	3	17	----	----	----	----	----	----	----	----	----	----
Pacific	19	30	1	2	----	2	5	2	----	----	20	2	----	1	----	----	1	3	----	----	22	3	----	----	----	----	----	----	----	----
Total	57	150	4	24	1	13	17	74	2	31	75	17	----	8	----	----	3	10	6	18	113	21	----	2	----	----	----	----	----	----

Region	Third mate										Pilots						Master mate				Total		
	Ocean		Coastwise		Great Lakes		B. S. & L.		Rivers		Great Lakes		B. S. & L.		Rivers		Uninspected vessels, high seas				Original	Renewal	Grand total
	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R			
Atlantic coast	176	14	----	----	----	----	----	----	----	----	----	1	57	153	17	10	----	----	----	----	381	397	778
Gulf coast	23	1	----	----	----	----	----	----	----	----	1	----	8	19	9	16	----	----	----	----	116	85	201
Great Lakes and rivers	----	----	----	----	----	----	----	----	----	----	2	12	----	2	12	27	----	----	----	----	18	87	105
Pacific coast	11	3	----	----	----	----	----	----	----	----	----	----	15	37	1	2	2	1	2	----	99	97	[1] 196
Total	210	18	----	----	----	----	----	----	----	----	3	13	80	211	39	55	2	1	2	----	614	666	1,280

[1] This does not include the report from Seattle.

ENGINEER OFFICERS

Region	Chief engineer, steam				First assistant engineer, steam				Second assistant engineer, steam				Third assistant engineer, steam			
	Ocean		Inland		Ocean		Inland		Ocean		Inland		Ocean		Inland	
	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R
Atlantic coast	57	128	6	46	43	35	2	9	61	33	----	1	222	29	----	----
Gulf coast	20	34	1	5	9	5	----	1	23	6	----	----	29	3	----	----
Great Lakes and rivers	----	14	4	28	4	----	2	14	----	----	1	4	3	1	----	----
Pacific coast	5	46	----	4	10	6	1	----	20	13	----	----	36	4	----	----
Total	82	222	11	82	66	46	5	24	104	52	1	5	290	37	----	----

Region	Motor vessels								Uninspected vessels				Totals		
	Chief engineer		First assistant engineer		Second assistant engineer		Third assistant engineer		Chief engineer		Assistant engineer		Original	Renewal	Grand total
	O	R	O	R	O	R	O	R	O	R	O	R			
Atlantic coast	32	53	25	21	13	15	246	14	----	----	1	----	708	383	1,091
Gulf coast	11	13	----	----	4	2	30	1	----	----	----	----	117	70	187
Great Lakes and rivers	3	6	3	4	----	2	3	2	----	----	----	----	23	75	98
Pacific coast	6	26	4	2	3	1	7	4	----	2	3	----	95	108	[1] 203
Total	52	98	32	27	20	20	276	21	----	2	4	----	943	636	1,579

[1] This does not include the report from Seattle for the month of June.

CREW SHORTAGE REPORTS FROM JUNE 1 TO JUNE 30, 1947

These Reports Submitted In Accordance With Navigation and Vessel Inspection Circular No. 2-47, Dated May 20, 1947

Region	Number of vessels	Ratings in which shortages occurred												Total
		Chief mate	Second mate	Third mate	Radio	Able seamen	Ordinary seamen	Chief engineer	First engineer	Second engineer	Third engineer	Qualified member engine department	Wiper or coal passer	
Atlantic coast	17	1	1			16	8			2	1	10	6	45
Gulf coast	24	1	2	4	1	11	11		1	4	4	22	4	65
Pacific coast	5		2	1		2			1			1		7
Great Lakes	101	1	3	19		37	15		5	6	13	50	10	165
Total	147	3	8	24	1	66	34		7	12	18	83	26	282

WAIVERS OF MANNING REQUIREMENTS FROM JUNE 1 TO JUNE 30, 1947

Authority for These Waivers Contained in Navigation and Vessel Inspection Circular No. 2-47 dated May 20, 1947

Region	Number of vessels	Deck officers substituted for higher ratings	Engineer officers substituted for higher ratings	Able seamen substituted for deck officers	Ordinary seamen substituted for able seamen	Qualified members of engine department substituted for engineer officers	Wipers or coal passers substituted for qualified members of engine department	Wipers, coal passers or cadets substituted for engineer officers	Ordinary seamen or cadets substituted for deck officers	Total
Atlantic coast	502	12	48		920	10	202			1,198
Gulf coast	221	7	23	6	478	11	87	4	1	617
Pacific coast	116	4	17		147	9	60	4	1	242
Great Lakes	74	2	2	1	69	2	51			127
Total	913	25	90	7	1,620	32	400	8	2	2,184

ORIGINAL SEAMEN'S DOCUMENTS ISSUED, DURING JUNE 1947

Region	Continuous discharge book	Certificate of identity	A. B., green, years [1]	A. B., green, 9 months emergency [1]	A. B., blue, 18 months 12 months [2]	A. B., blue, 6 months emergency [2]	A. B., blue, 6 months emergency [3]	Lifeboat, 12-24 months [4]	U. S. Merchant Marine document	Q. M. E. D., 6 months	Q. M. E. D., emergency	Radio operators	Certificate of service	Tanker man	Staff officer	Total
Atlantic coast	10	1	70	34	131	3	0	267	2,285	201	37	36	1,947	7	137	5,166
Gulf coast	152	0	8	14	58	0	1	77	1,163	78	82	8	1,195	15	25	2,876
Pacific coast	1	0	19	5	44	5	0	306	679	87	3	4	609	3	26	1,791
Great Lakes and rivers	1	0	20	14	71	19	0	108	1,233	79	31	0	1,165	5	5	2,751
Total	164	1	117	67	304	27	1	758	5,360	445	153	48	4,916	30	193	12,584

[1] Unlimited.
[2] Great Lakes, lakes, bays, and sounds.
[3] Tugs and towboats and freight vessels under 500 tons (miscellaneous).
[4] 12 months deck or 24 months other departments.

NOTE.—There were no Panamanian Employment Cards issued

U. S. GOVERNMENT PRINTING OFFICE: 1947