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COUNCIL ACTIVITIES

The Merchant Marine Council at its semiannual meeting on September 23 and 24, 1947, recommended for approval certain changes in the regulations which were distributed August 8, 1947, to all those who expressed a desire to receive them. The proposed regulations recommended for approval were requirements for distress signals, changes in the descriptions of boundary lines separating inland waters from the high seas, lights and day signals, load line survey report, electrical ventilation systems and wire-inserted glass, safety valves for high pressure high temperature service, piping running through deep tanks, and manning of seagoing barges.

The regulations now requiring that daytime distress signals be carried as equipment in lifeboats and life rafts will be amended to provide as an alternate the hand combination flare and smoke distress signals. The hand combination flare and smoke distress signals will be permitted as a substitute for either or both of the flare and daytime distress signals. In addition, specifications for hand distress signals, combination hand and smoke distress signals, and daytime smoke signals were recommended for approval. The changes in the regulations will appear in sections 33.3–1, 33.3–2, 33.3–6, and 33.8–1 of the "Tank Vessel Regulations" and sections 59.11, 59.52, 60.9, and 60.45 of the "Ocean and Coastwise Regulations" and sections 76.14, 76.48, and 76.60 of the the "Great Lakes Regulations."

It was recommended that, because of 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 the lines be redefined in order that the correct aids to navigation may be used as points of reference. The revised descriptions will 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) Massachusetts 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, Tex.
(17) San Pedro Bay, Calif.

The proposed lines of demarcation separating the inland waters from the high seas in certain harbors of Puerto Rico and the Virgin Islands were also recommended. The recommendations submitted by the Coast Guard District Commander after a public hearing held in San Juan, P. R., were considered and incorporated into the description of the boundary lines recommended. The recommendations will establish boundary lines in Puerto Rico and the Virgin Islands, including 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 proposed changes in the regulations prescribing lights and day signals for dredges and vessels working on obstructions on inland waters other than the Great Lakes and the Mississippi River were recommended for adoption without any changes. The amendments recommended include requirements for lights for string-out barges, shields for flood lights and search lights so that they will not blind pilots of approaching vessels and numerous editorial changes.

The recommendation that a copy of the original Load Line Survey be placed on each new vessel in accordance with an agreement reached at an International Conference of Classification Societies, Rome, in 1939, was recommended and it is proposed to amend sections 43.09, 45.07, and 46.018 of the "Load Line Regulations." It is recommended that these changes be made effective January 1, 1948.

The manning of seagoing barges was considered and the regulations in sections 31.4–2 and 35.1–4 of the "Tank Vessel Regulations" amended to provide that such barges need not be manned unless in the judgment of the Officer in Charge, Marine Inspection, such manning is necessary for the protection of life and property and for the safe operation of the vessel. In addition, new regulations were recommended for seagoing barges carrying general cargo which contain the same requirements as the revised regulations for tank barges.

INTERNATIONAL CONVENTION FOR SAFETY OF LIFE AT SEA

On May 31, 1929, representatives of 18 maritime nations signed in London a document called "The International Convention for the Safety of Life at Sea." This Convention contained a number of provisions intended to improve the safety of oceangoing shipping, particularly vessels carrying passengers. It provided a specific formula for the subdivision of vessels, their protection against fire, minimum lifesaving equipment, standards for radio telegraphy, and a number of general provisions dealing with safety of navigation. In addition to the 18 signatory nations, a total of 25 other nations acceded to the Convention. The United States ratified the document on August 7, 1936.

With the improvements in naval architecture and with the advances in science, many of which were accelerated during World War II, it became generally obvious that the 1929 Convention should be revised upwards as soon as possible after the cessation of hostilities. The Secretary of State directed that committees be formed in the United States to suggest specific proposals. Under the terms of the 1929 Convention, the United Kingdom must hold a conference whenever one-third of the contracting governments expressed a desire to that effect. Accordingly, the United Kingdom has set the date of April 16, 1948, for the holding of a conference in London to revise the present Convention, and it has requested all interested states to submit proposals to the United Kingdom for distribution among the other states invited to the conference.

Acting in accordance with instructions from the State Department, the Commandant of the Coast Guard organized 14 technical subcommittees upon which served representatives of interested government agencies and of all branches of the maritime industry. Each subcommittee dealt with a particular subject in which its members were expert. These reports have been received and consolidated into a single set of draft proposals which, in turn, will be considered by the general committee on October 21st. In such form as the general committee may finally approve these proposals, they will be transmitted to the State Department with the recommendation that they be considered as the proposals of the United States for the forthcoming conference.

Because of the fact that these proposals await the action of the general committee, they cannot be commented upon in detail at this time. Some idea of their general tenor, however, can be given.

They propose a slightly higher standard of subdivision than that contained in the present convention, although not to the degree that was recommended in Senate Report No. 184. Stability in a damaged condition is taken into account in the proposed rules. Present Coast Guard standards of fire-resistent construction, fire detection, and fire extinguishment are included, and these are in advance of the provisions of the 1929 document.

Provisions for lifeboatage and lifesaving equipment are strengthened and made to apply to cargo vessels as well as to passenger ships. A chapter is proposed to deal with dangerous cargoes for which the United States already has comprehensive regulations. Disasters such as the Bombay and the Texas City explosions emphasize the need for careful study of this matter. Provisions are included for safety of cargo gear on all vessels, following generally the British Factory Act. The United States has no specific legislation on this subject, but all United States vessels touching United Kingdom or Dominion ports are subject to the provisions of the national legislation in this respect.

The committee dealing with Rules for the Prevention of Collisions has proposed some material changes in the present International Rules, as a result of a questionnaire sent out to a large number of ship's officers and admiralty lawyers. These rules were adopted in 1889 and the replies to the questionnaire strongly indicated the need for improvement in several directions. The proposals do not affect the Great Lakes' rules or those in force on the western rivers.

Special provisions will be made for coordination of activities in the field of aviation, telecommunications, and meteorology where those fields impinge upon the maritime field. This is proposed to be accomplished through the creation of a permanent international maritime organization which will be sponsored by the United Nations as a "specialized agency" having competence in the general field of shipping.

It can be stated that, with a few exceptions, nothing is contained in the United States proposals in their present form which is in excess of standards required by existing law or regulation. The chief effect of the adoption of United States proposals would be the bringing up to higher standards the vessels of some foreign nations. There should be no appreciable additional burden upon the American shipowner.

International Convention for the Safety of Life at Sea, 1929

The Government of the United Kingdom recently announced the accession of the Government of the Union of South Africa to the International Convention for the Safety of Life at Sea, 1929. The date of accession by the Union of South Africa is February 24, 1947, and it took effect, in accordance with Article 64 of the Convention, on May 24, 1947.

The countries that have now ratified or acceded to the Convention or to which the Convention has been applied under Article 62 with the date of deposit of ratification or accession or application, are as follows:

	Date of deposit of ratification or accession or application
Argentina	Oct. 19, 1935
Australia, Commonwealth of	Dec. 23, 1935
Belgium	May 29, 1935
Brazil	Jan. 1, 1933
Bulgaria	Sept. 4, 1933
Burma	Apr. 1, 1937
Canada	Oct. 1, 1932
Chile	June 22, 1939
China	Feb. 14, 1933
Danzig	Jan. 30, 1933
Denmark	June 3, 1930
Egypt	July 24, 1936
Eire	Feb. 8, 1934
Estonia	July 12, 1935
Finland	Oct. 1, 1932
France	Oct. 1, 1932
French Indo-China	Nov. 15, 1938
Germany	Oct. 1, 1932
Greece	Feb. 20, 1938
Hong Kong	May 1, 1935
Hungary	Jan. 1, 1933
Iceland	Jan. 6, 1933
India	Oct. 1, 1934
Italy	Oct. 1, 1932
Italian colonies of Libya, Eritrea, and Somaliland and Italian islands in the Aegean	Aug. 30, 1935
Japan	June 11, 1935
Japan, for Chosen, Taiwan and Leased Territory of Kwantung	July 12, 1935
Netherlands	Oct. 20, 1930
Netherlands East Indies	May 1, 1935
New Zealand	Nov. 19, 1934
Norway	Oct. 1, 1932
Panama	July 13, 1936
Poland	June 4, 1934
Portugal	Jan. 6, 1933
Roumania	Nov. 26, 1936
South Africa, Union of	Feb. 24, 1947
Soviet Union	July 2, 1935
Spain	June 22, 1932
Sweden	Oct. 1, 1932
Straits Settlement	May 1, 1935
United Kingdom of Great Britain	Oct. 1, 1932
United States of America	Aug. 7, 1936
Yugoslavia	Aug. 13, 1940

International Load Line Convention

The Government of the United Kingdom recently announced that the Government of the Union of South Africa acceded to the International Load Line Convention of 1930 on February 24, 1947, and in accordance with Article 23 of the Convention will be effective on May 24, 1947. The governments which have ratified or acceded to the International Load Line Convention are also listed in the appendix of the "Load Line Regulations."

The governments which have ratified or acceded to the International Load Line Convention of 1930, or to which the Convention has been applied in accordance with Article 21, are as follows:

	Date of deposit of ratification or accession or application
Argentina	Oct. 19, 1935
Australia, Commonwealth of	Feb. 17, 1936
Belgium	May 29, 1935
Brazil	Dec. 31, 1937
Bulgaria	Sept. 4, 1933
Burma	April 1, 1937
Canada	Oct. 1, 1932
Chile	May 24, 1933
China	Aug. 19, 1935
Cuba	Dec. 9, 1932
Danzig	Aug. 4, 1933
Denmark	Aug. 13, 1931
Egypt	July 24, 1936
Eire	Feb. 8, 1934
Estonia	Mar. 17, 1934
Finland	Oct. 1, 1932
France	Oct. 1, 1932
French Indo-China	Nov. 15, 1938
Germany	Sept. 6, 1933
Greece	Dec. 4, 1934
Hong Kong	July 1, 1938
Hungary	Jan. 16, 1933
Iceland	Nov. 26, 1932
India	Oct. 1, 1934
Italy	Oct. 1, 1932
Japan	June 11, 1935
Japan, for Chosen, Taiwan and Leased Territory of Kwantung	July 12, 1935
Latvia	Jan. 29, 1932
Mexico	June 6, 1934
Netherlands	Apr. 9, 1932
Netherlands East Indies and Curacao	Feb. 27, 1933
Newfoundland	April 1, 1936
New Zealand (including Western Samoa)	Oct. 1, 1932
Norway	Oct. 1, 1932
Panama	July 13, 1936
Peru	Mar. 30, 1933
Poland	Sept. 6, 1933
Portugal	Oct. 1, 1932
Roumania	Jan. 1, 1933
Siam	July 11, 1933
South Africa, Union of	Feb. 24, 1947
Soviet Union	Oct. 1, 1932
Spain	Oct. 1, 1932
Sweden	Oct. 1, 1932
Straits Settlement	Jan. 2, 1939
United Kingdom of Great Britain	Oct. 1, 1932
United States of America	June 10, 1931
Uruguay	Feb. 8, 1939
Yugoslavia	Feb. 26, 1934

Sales of Undocumented Vessels to Aliens

Citizens of the United States who own vessels that have never been documented, enrolled, or licensed by the Bureau of Customs, but have been issued certificates of award of number may sell or transfer any interest in such vessels to aliens without prior approval from the United States Maritime Commission. During the war the Maritime Commission, in accordance with section 37 of the Shipping Act of 1916, as amended, 46 U. S. C. 835, has been requiring that sales of undocumented vessels by United States citizens to aliens be approved prior to the transfer of ownership. A general approval of such sales of undocumented vessels was set forth in General Order No. 58 which became obsolete when Public Law 239, 80th Congress, approved July 25, 1947, made inoperative section 37 of the Shipping Act of 1916. Public Law 239 modified the National Emergency proclaimed by the President May 27, 1941, by stating what provisions of wartime legislation were no longer in effect.

A vessel which has always been operating under a certificate of award of number may now be sold to an alien without prior approval of the Maritime Commission. However, if at any time a vessel has been documented, enrolled, or licensed, even though at time of transfer it is operating under a certificate of award of number, the prior approval of the Maritime Commission is required before selling the vessel to an alien. This requirement is based on section 9 of the Shipping Act of 1916, as amended, 46 U. S. C. 808, which still remains in effect. This section provides that it is unlawful, without the approval of the United States Maritime Commission, to transfer foreign any interest in a vessel owned in whole or in part by a citizen of the United States and documented under the laws of the United States or a vessel the last documentation of which was under the laws of the United States.

The certificate of award of number issued to an undocumented vessel is not considered a registry, enrollment, or license within the meaning of either sections 9 or 37 of the Shipping Act of 1916, as amended, even though by the provisions of the act of June 7, 1918, 46 U. S. C. 288, it constitutes a document in lieu of enrollment or license. Therefore, a vessel to which a certificate of award of number is issued is not documented under the laws of the United States.

Better Ask Than Go Astray

C1-A Freighter Converted for the Transportation of Liquefied Petroleum Gases

One of the most interesting post-war conversion projects concerning our merchant marine fleet is nearing completion at a Beaumont, Tex., shipyard. It involves the conversion of a C1–A dry cargo vessel into a special tank ship designed to transport liquefied petroleum gases in large pressure vessel type storage tanks.

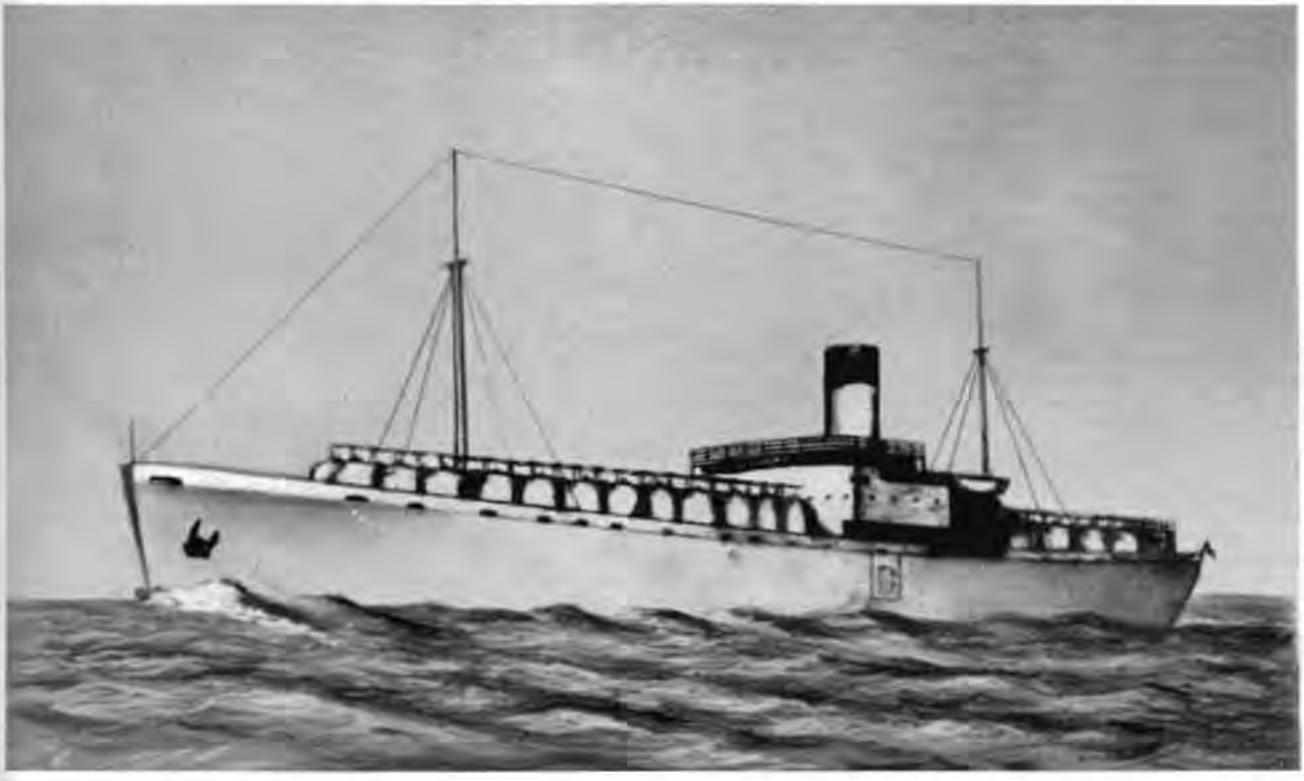
The dry cargo freighter was purchased from the United States Maritime Commission early in 1947 by a major liquefied petroleum gas manufacturer with the intention of operating the vessel in coastwise or foreign service.

In order to safely handle and transport the liquefied petroleum gases, the vessel has been fitted with 68 all-welded cylindrical tanks designed for a pressure of 250 pounds per square inch gage. The storage tanks are installed in a vertical position, the size and capacity varying with the structure of the vessel. It is estimated that the total carrying capacity of the tanks will be approximately 1,300,000 gallons of propane, the ultimate capacity depending upon the maximum permitted filling density. The tanks are installed in all 5 cargo holds and in the way of the cargo hatches, arranged in groups of 4 athwartship, with the inboard pair extending through the top deck, and the outboard pair terminating below the top deck. To permit all connections to be attached above decks the outboard tanks have been fitted with long neck nozzles extending through the top deck. Reinforcement and compensations of the second and main decks were required to maintain the structural strength of the vessel. Where tank clearances are less than 15 inches, the tank foundations have been so designed to permit rotation of the tanks for easy inspection. Weather seals have been fitted at the main deck to preserve weather tightness in way of the openings. A method of wedging the tanks at the second-deck level has been designed to restrain the horizontal movement of the tanks and to permit vertical movement through the second deck due to temperature and pressure expansion.

For cargo handling the vessel will be equipped with six turbine driven, vertical process type, centrifugal pumps of 500 gallons per minute capacity, and two vapor compressors. The main vapor compressor is a five-stage centrifugal type while the stand-by compressor is a single stage rotary type. Both compressors will be driven by steam turbines. In addition to the pumps and compressors, the cargo handling system will be fitted with a propane vapor condenser and a vapor scrubber used for condensing and cleaning the residual vapors to be discharged to shore tanks.

Each storage tank is fitted with a 4-inch combination liquid fill and discharge connection and a 2-inch vapor connection, safety relief valve set to discharge at 250 pounds per square inch gage, liquid level gaging devices, pressure gage, thermometer well, and sampling tube. The liquid and vapor connections, in addition to the manually operated shut-off valves, are fitted with hydraulically operated internal valves which may be closed by local or remote control in event of irregularities of flow in loading or unloading. Additional air operated remote control valves are installed at the loading terminals.

The liquid and vapor lines have been designed to permit the handling of the liquefied petroleum gases in a closed piping system. The pressure differential method will be employed



in the transfer of the liquid cargo. When loading the liquefied petroleum gases from shore tanks through a shore pumping installation, the vapor line from the ship's tanks will be connected to the vapor space in the shore tanks. Shore vapor compressors may be employed in the vapor lines from the ship's tanks to compress the residual vapors in the ship's tanks and discharge through the vapor connection to the shore tanks, thus displacing the liquid from the shore tanks to the ship's tanks, through the liquid line. If a shore pump is to be employed for transferring the cargo, the shore vapor compressors will be utilized to force the liquid to the shore pump. When loading from shore installations or barges not equipped with pumping units, it is contemplated that the ship's vapor compressor will be used to draw vapors from the ship's tanks and discharge through the vapor line to the vapor connection on the shore tank or tank barge, thus maintaining a pressure differential in the system sufficient to displace the liquid into the ship's tanks.

When discharging liquid cargo to shore tanks, the ship's vapor compressor will draw vapor from the vapor space of the shore tanks through a line connected at the vapor loading terminal. The vapors will be compressed and discharged into the ship's tanks, thus forcing the liquid out of the tanks to the liquid pumps, whence the liquid will be finally discharged to the shore tanks through the liquid line.

To draw off the residual vapors in the ship's tanks after the liquid cargo has been unloaded, suction will be taken from the ship's tanks through the liquid line by the main vapor compressor until the pressure in the tanks is reduced to approximately 30 pounds per square inch gage. The vapors will be scrubbed, condensed, and discharged through a liquid pump to the shore tanks. In a similar manner all residual liquid and vapors are removed from the liquid and vapor lines. When the pressure in the piping system and tanks is reduced to 30 pounds per square inch gage, all valves are closed and the compressors and pumps secured.

Many new and special safety features have been incorporated in the design of the vessel, making it one of the safest ships to handle liquefied petroleum products. However, it must be borne in mind by all persons concerned with the handling of liquefied petroleum gases that the strictest precautions must always be maintained. It is imperative in the interest of safety that those persons directly responsible be familiar with the characteristics and properties of liquefied petroleum gases and with the established practice for the safe handling of such products.

Liquefied petroleum gases, like gasoline and natural gas, are both inflammable and explosive when mixed with the correct amount of air. When handled with the proper precaution, they are no more hazardous than gasoline. However, when carelessly handled they present a hazard equal to, if not greater, than natural gas or gasoline. The possibility of explosion is increased when a correct air-gas mixture is contained in an empty tank. When liquefied petroleum tanks are unloaded, all valves must be shut tight to prevent an air gas mixture within the tank from being exposed to an open flame.

The more commonly used liquefied petroleum product, commercial propane, has a boiling point of approximately —45° F., and a vapor pressure of not more than 225 pounds per square inch gage at 105° F., as specified by the Natural Gasoline Association of America. Commercial butane has a boiling point of approximately 32° F. and a vapor pressure not in excess of 75 pounds per square inch at 105° F. Propane will flash immediately into a vapor on release to atmosphere. In flashing to a vapor, a refrigerating action takes place and the atmosphere and pipe immediately surrounding the vapor reaches a very low temperature. It is possible to have liquid propane discharging from a pipe at —45° F. It is therefore important to avoid contact of the hands or body with the product.

Propane vapors are heavier than air, and have a tendency to settle in low places. It is therefore desirable that all pump rooms be fitted with efficient exhaust systems to secure adequate ventilation and to discharge the escaped petroleum gases to atmosphere.

Liquefied petroleum gases are not poisonous, but may produce headaches. The effect produced by inhaling the gas is a form of intoxication similar to gas fumes. Liquefied petroleum gases are practically odorless and are usually artificially odorized to permit detection.

Radio Installations in Lifeboats

The Federal Communications Commission at a meeting on August 21, 1947, adopted revised regulations for radio installations in lifeboats, which were published in the Federal Register August 29, 1947, 12 F. R. 5815. These regulations were made effective immediately since they relieve an existing restriction relating to lifeboat radio installations.

The Federal Communications Commission, Washington 25, D. C., or any of its field offices may be contacted for detailed information. The requirements for lifeboat installations are:

REQUIREMENTS FOR ALL COMPULSORY LIFEBOAT RADIO INSTALLATIONS

Sec.

8.201 Inspection and maintenance of lifeboat radio installations.
8.202 Demonstration of the power supply for lifeboat installations.
8.203 Radio installation requirements.

REQUIREMENTS FOR RADIO INSTALLATIONS IN MOTOR LIFEBOATS OF PASSENGER VESSELS

8.204 Lifeboat radio station.
8.205 Optional lifeboat radio installation.
8.206 Departure from requirements.

REQUIREMENTS FOR LIFEBOAT ANTENNA KITES, ANTENNA BALLOONS, AND ASSOCIATED EQUIPMENT

8.208 Lifeboat antenna kites.
8.209 Balloons and balloon-inflating equipment.

Station Bills for Merchant Vessels

The master of every vessel carrying passengers and any other vessel of over 500 gross tons and subject to inspection is required to prepare and have posted on his vessel station bills and muster lists. The station bills and muster lists contain full particulars of the signals which will be used for calling the crew to their stations for emergency duties. The crew members are required to know the locations of their emergency stations immediately upon reporting on board and the duties each member is expected to perform.

The handling of emergency situations involving fires, man overboard, or other casualties requires a coordinated and well-organized plan for the vessel. In order that the crew will know their duties and be trained for any emergency, station bills are required by Coast Guard regulations. The benefits of having a coordinated plan for emergencies are the responsibility of the master and it is the responsibility of the crew to know the emergency stations and the duties assigned them.

The need for uniformity in station bills on merchant ships is of paramount importance because crew members very often change ships after each trip or season. The crew should be separated according to the departments of the vessel, that is, deck department, engine department, steward's department, etc.

The station bill shows the fire and emergency stations and who shall report to which one. In addition an emergency squad is designated to re-

port at the scene of emergency. If it becomes necessary to abandon ship, the personnel are assigned definite duties necessary to leave the ship. On passenger vessels it is primarily the duty of the steward's department to see that passengers are properly dressed and wearing life preservers and assembled at the proper embarkation stations.

The usual signals used on board merchant vessels are:

Fire and Emergency—
Rapid ringing of the ship's bell and continuous ringing of general alarm bells for a period of at least 10 seconds.

Abandon Ship—
7 short blasts and 1 long blast on the whistle and the same signal on the general alarm bells.

Man Overboard—
Hail, and pass the word "Man Overboard" to the bridge.

Secure—
From Fire and Emergency stations, 3 short blasts on the whistle and 3 short rings on the general alarm bells.

Where whistle signals are used for handling boats,

Lower boats—
1 short blast on the whistle.

Stop lowering boats—
2 short blasts on the whistle.

Dismissal from boat stations—
3 short blasts on the whistle.

Swing out boats—
4 short blasts on the whistle.

Man emergency boat—
1 long and 1 short blast on the whistle.

For the assistance of masters in preparing station bills sample specimens have been prepared by the Coast Guard. The masters may contact the Officers in Charge, Marine Inspection, U. S. Coast Guard, or Coast Guard marine inspectors at the time of their next annual inspection or reinspection for further information.

HEARING UNITS

Coast Guard merchant marine investigating units and merchant marine details investigated a total of 860 cases during the month of July 1947. Of this number charges were preferred involving 20 licensed and 95 unlicensed men. No hearings were held because examiners were not available.

CARGO HANDLING

To improve methods of cargo handling and increase efficiency of ships, the Maritime Commission designed and installed on board the S. S. *Sea Hawk*, a C–3 type vessel, a new type overhead crane. The experimental model was installed on the forward

section of the vessel, while the conventional boom-type loading gear was retained in the after section. By having both types of gear on one vessel it was possible to make actual comparisons between the two systems while handling similar cargo under the same conditions.

The crane, carrying two trolleys, runs athwartship on runway girders and out over the ship's sides on cantilever trusses. The trusses are hinged on the outboard ends so that they fold back and are flush with the ship's side when not in use. Fore and aft movement of the hooks is accomplished by movement of the trolleys on the crane-bridge girder. Machinery for the hoist and for trolley travel are contained in the trolley. All controls are centered on the bridge girder, thereby allowing the operator who rides in a car under the bridge girder a clear view of the hooks at all times. The entire mechanism is electrically operated.

Some interesting results were found in the tests conducted recently in New York. While loading 5,597 long tons or 12,770 stevedore tons of cargo consisting of 33-foot rails, boxed chassis, boxed cabs, and bundled stake bodies for 3-ton trucks, wood knocked-down barges, bituminous roofing paper in rolls, and other miscellaneous cargo, the overhead crane gear was approximately 15 percent faster than the boom gear in the average for all cargo handled. A breakdown for individual items showed the cranes were 23 percent better on the rails, 17 percent better on the chassis, 31 percent better on the cabs, 6 percent better on the roofing paper, 11 percent less efficient on the bodies, and 13 percent less efficient on the knocked-down barges. The principal advantage to the crane gear was in the case of large drafts or those which required accurate spotting, while the disadvantage was for that cargo requiring dragging into the hatch wings.

It was stated by the Maritime Commission that while this is entirely an experimental installation, it appears from past performances to be basically sound but is not final or the ultimate in mechanical unloading gear. Due to tests made and experience gained, a newer and more simplified installation is now undergoing land tests prior to shipboard installation in an attempt to eliminate as many operational deficiencies as possible. The unit undergoing land tests will, however, be incapable of duplicating the roll and pitch of a vessel as well as the stresses involved aboard ship.

Many improvements in cargo handling had been made in European ports prior to the war and with the advent of new port construction, greater improvements will undoubtedly follow. Due to the investment and time involved, such improvements in American ports are not feasible or likely to be made in the near future. Therefore to increase cargo handling efficiency changes must be made in the ships themselves.

One of the major limitations found

through use of this type cargo handling gear is the overhang of the cantilever jibs which requires very wide camels at docks having narrow aprons and the height of the crane limits the drift. In the case of loads with long slings the drift provided is inadequate. Other items under consideration are wheel house vision and stability, limit the height of the fixed runways and drift. As pointed out by the Maritime Commission, a real attempt has been made to increase the efficiency of our ships by the men who run them, the operators, the designers and all others.

LESSONS FROM CASUALTIES

Compressed Air and Inflammable Liquid

Using compressed air to remove an inflammable liquid such as gasoline from a storage drum is a dangerous practice. The air and vapors from the liquid form a highly explosive mixture that can and often does result in a serious explosion. Emptying a drum by gravity is slower, safer, and also tends to increase longevity.

Watch Out for Mechanical Failures

While working an anchor chain the officer in charge took a position just forward of the windlass. Both chains were engaged and heaving commenced. After one shackle had been hove in the starboard chain jumped a link, then both chains jumped the wildcat and the windlass machinery flew into pieces.

This was a fatal accident and killed the officer instantly and although this accident was due to mechanical failure the lesson to be learned is the possible danger to anyone standing forward of and especially in line with the chains while they are being worked. This officer had probably supervised this operation many times before from the same location, and for that reason had no thought of danger of mishap.

This is undoubtedly a rare accident but it points out the importance of keeping in mind that all mechanical devices have in their makeup a weakness that may not be noticed until a heavy strain or burden or sudden shock brings about failure endangering the lives of those who are most familiar with its operation. Most machinery and accouterments are engineered with a factor of safety to compensate for such contingencies but the unforseen is generally the exception that takes lives. Most all mechanical devices when properly used and cared for give long and troublefree service, hence the familiarity which eventually leads to carelessness and carelessness causes casualties.

The Pilot Rules Again

When one reads the reports of collisions occurring on the high seas the question often asked a prominent radio character comes to mind; that is, "Mortimer, how can you be so stupid?"

This thought occurred as the result of the collision between a T–2 tanker, vessel A, and a C–1 cargo ship, vessel B, which took place recently in the Gulf of Mexico.

The tanker, vessel A, was on a course of 297° and making a speed of 15 knots when the second mate at 0205 saw a bright white light approximately 1 point on the starboard bow. Vessel B was on a course of 150° and making a speed of approximately 13½ knots when the third mate, who was on watch, sighted a light at about 0115, approximately 3 points on the port bow. This was a clear crossing situation governed by article 19 of the Rules of the Road.

However, the second mate of vessel A, for some unknown reason got the impression that he was overtaking the other vessel and instead of changing his course promptly to bring vessel B on his port bow, continued to hang on.

Vessel B, in complying with the Rules of the Road, held its course and speed until it was apparent that without action on its part a collision would be inevitable, at which time a hard right rudder was given with one blast on the whistle. However, vessel A rammed vessel B in way of No. 4 hatch.

The following questions and answers taken in the course of the investigation of the casualty will illustrate the confusion in the mind of the second mate of vessel A during the approach of vessel B:

Q. What light did you see at 2:05?

A. I saw one bright white light at the time, and I watched the light closely from that time on; and after the collision from observations I noticed that the bearing of the light did not appreciably change. I looked for his stern light which I should have seen had he been the overtaken vessel, but I did not see the stern of the vessel. I picked up his range light also, one range light because it was a bit higher to the right. The range light I picked up, that was also white, and considerably dimmer.

Q. How long after you saw his first white light until you saw the other white light?

A. Perhaps 5 minutes, or something like that.

Q. At that time you were still steering 297°?

A. 297°; yes, sir.

Q. When you saw this after range light, did you think he was overtaking you?

A. I was looking for a side light but could not see any. I knew visibility was not any too good at that time.

Q. But between 2:05 and 2:27, approximately 22 minutes before the collision, you could see both masthead lights.

A. I could see the masthead and range lights. The first thought on my mind was that I was overtaking him and just coming inside the screen of his range light which was a good deal dimmer than his masthead light. His masthead light was very bright at the time compared to the range light.

Q. What was the next thing you did?

A. I looked for the side lights and then I looked for the stern light on the ship and when I did not see the stern light I thought it might have gone out. I was looking for the side light all the time. Right after I picked up the side light at 2:24, I altered the course 5° to the right.

Q. Had you seen the red light then?

A. No, sir.

Q. Where would that put the other vessel in relation to yours?

A. I did not leave the vessel on that course; I immediately put her back on her course to 285°.

Q. When you swung over to 302°, then back to 285°?

A. Yes, sir. To keep him on my starboard, because I thought the way he came up on me he was coming on us.

Q. You say you saw the range light higher up; didn't that indicate to you the direction the vessel was going?

A. It indicated her course, but I thought I could keep him on my starboard hand.

Q. You thought you could get across his bow?

A. I thought I could get by and pass him before coming too much to the right, and I thought he should have been setting to the northward anyway.

Q. When a vessel is crossing over your starboard bow, who has the right-of-way?

A. He has.

Q. While you were looking for this red light, did you ask the lookout if he could see a red light?

A. I do not recall whether I checked with the lookout or not. I was watch-

ing the lights with very powerful glasses.

Q. How far off the other vessel were you when you first saw his red light?

A. I did not stop to try to estimate the distance; I realized he was too close. I saw the outline of the vessel at that time. I just could barely see her; when I could make out the vessel I picked up her red light about the same time. I ordered the wheel hard left and rang the engine room telegraph full astern.

Q. When you first saw the after range light of this vessel and could not see the red light, how did you know which way he was going?

A. I took her bow on the course somewhat to the left of our own, I never thought the vessel was coming toward us.

Q. Did you see him after seeing his range lights?

A. Yes, sir; after picking up his range lights. There was a considerable distance between the lights and we blew him one blast indicating that we were overtaking him. We were just coming inside the range.

Q. Could you see the stern light on that vessel?

A. No, sir. One side light.

It is apparent that the second mate of vessel A was either apparently unfamiliar with the Rules of the Road or lacking in knowledge of good seamanship and judgment.

As a result of this accident both vessels were damaged to the amount of approximately $50,000 each, and the second mate of vessel A received a suspension of his license.

UNSAFE PRACTICES

Lifting with your back instead of your legs.

Working under a swinging load.

Tossing waste material toward a container instead of walking to it and placing the waste inside.

Using slings of wrong size or length for the job at hand.

Welding or burning on EMPTY drums.

Wearing loose clothing around moving machinery.

Smoking in prohibited areas.

Attempting to FIX machinery with which you are unfamiliar.

Running down ladders or leaving tools or other objects on a ladder or stairs.

Wearing rubber soles in contact with oily surfaces.

Working on electrical connections when the current is on.

Standing in the bight of a line.

Entering a hold that is not gas-free without proper breathing apparatus or the knowledge of other persons.

KNOW YOUR JOB AND DO IT

I'm Good! All that talk about safety is for the other "fellah."

But *you* are the other fellow.

Make Safety a Habit.

Every man has to be his own Safety Boss.

APPENDIX

Navigation and Vessel Inspection Circular No. 9-47

UNITED STATES COAST GUARD
Washington 25, D. C.

SEPTEMBER 5, 1947.

Subj: Safety Requirements for Motorboats Operated for Pleasure and Commercial Fishing Purposes and the Requirements for the Numbering and Recording of Undocumented Vessels

1. Navigation and Vessel Inspection Circulars Nos. 75, 77, and 78 are hereby canceled as the supply for public distribution is exhausted. The requirements covered by these circulars have not been changed but have been only rewritten and incorporated into this circular, together with other pertinent additional material based on inquiries received since these circulars were issued. These changes include a definition of the word "motorboat," the extent of the application of the Motorboat Act of April 25, 1940 (46 U. S. C. 526), the Numbering Act of June 7, 1918, as amended (46 U. S. C. 288), and a general statement concerning the application of certain inspection laws of the United States to motor-propelled vessels of above 15 gross tons carrying freight and/or passengers for hire. The extent of the application of the act of June 7, 1918, as amended, and the regulations issued thereunder is also more fully set forth, with particular reference to pleasure vessels of 16 gross tons and over which, while entitled by reason of tonnage to documentation as yachts, are not documented but are numbered under the provisions of the act. These changes have been made in response to numerous inquiries forwarded to the Coast Guard and with a view to enlightening the owners of motorboats and motor vessels of certain safety and other requirements which must be met. As to the inspection requirements, the licensing of motorboat operators and masters, mates, engineers and other licensed personnel of inspected vessels, information should be obtained from the nearest Officer in Charge, Marine Inspection, U. S. Coast Guard, the addresses of whom are listed on another page of this circular.

2. The latest law affecting motorboats in the matter of their equipment is contained in an act of Congress dated April 25, 1940 (46 U. S. C. 526–526t), which superseded the Motorboat Act of 1910. This statute and the regulations issued thereunder are applicable to all motorboats and certain other vessels propelled by machinery other than by steam more than 65 feet in length, except (a) tugboats and towboats propelled by steam, (b) vessels propelled by steam more than 65 feet in length, (c) vessels having on board inflammable or combustible liquid cargo in bulk, (d) vessels which are subject to the International Convention for Safety of Life at Sea, 1929, carrying or certificated to carry more than 12 passengers on an international voyage by sea, as defined in said convention, and (e) seagoing vessels of 300 gross tons and over propelled by internal combustion engines subject to inspection and certification by the Coast Guard. The act of April 25, 1940, and the regulations issued thereunder must be complied with by all vessels subject thereto operating on the navigable waters of the United States.

3. The act of June 7, 1918, as amended, which provides for the numbering and recording of undocumented vessels, is applicable to every undocumented vessel propelled in whole or in part by machinery, owned in the United States and found on the navigable waters thereof, except public vessels and vessels not exceeding 16 feet in length measured from end to end over the deck excluding sheer, temporarily equipped with detachable motors. The words "public vessels" as used in this act include vessels owned by the United States and any state, county, city, or municipality where such vessels are used in a governmental capacity. The exemption in favor of vessels not exceeding 16 feet in length temporarily equipped with detachable motors, is construed to apply to any undocumented vessel not exceeding 16 feet in length equipped with an outboard motor.

4. Prior to issuing regulations under the Motorboat Act of April 25, 1940, and the Numbering Act of June 7, 1918, as amended, the cooperation of yachtsmen, yacht and boat builders, and manufacturers of boating equipment was solicited. The regulations, therefore, have been formulated for the safety of the boating public by practical men who represent both the Government and the industry, and their comments and suggestions were followed wherever possible in drafting the regulations. The regulations, therefore, embody the safety requirements felt necessary by the public and the Government. The operation of motorboats in compliance with these regulations will increase safety of life on the navigable waters of the United States and should not be found burdensome. The numbering regulations were drafted with a view to the expeditious handling of applications for certificates of award of number for undocumented vessels and owners of such vessels will find that in the great majority of cases and with little effort on their part, they may immediately operate their vessels without unnecessary delay.

5. Given below is a brief digest of the more important features of the Motorboat Act of April 25, 1940, and the regulations issued thereunder.

A. A motorboat as defined by the act of April 25, 1940, includes any vessel propelled by machinery and not more than 65 feet in length except tugboats and towboats propelled by steam.

B. Fines and penalties will not be incurred for failure to carry the following equipment.

(*a*) Pilot rules.

(*b*) Fire extinguishers on outboard motorboats.

(*c*) Fog bells on motorboats less than 26 feet.

(*d*) Whistles on motorboats less than 16 feet.

(*e*) Fog horns on all motorboats.

C. *Navigation lights.*—If lights now installed are those which complied with the old motorboat law and have the range of visibility required by the new act, they may be continued in use as long as they are in serviceable condition. Lights installed or fitted 6 months after the termination of the national emergency shall be of a type approved by the Commandant.

D. *Whistles.*—If the whistle on board complies with the audibility requirements of the rules even though not the type of whistle required, it may be continued in service until 6 months after the termination of the national emergency. After that date the specified type is required.

E. *Lifesaving equipment.*—A lifesaving device is required for every person on board. Box-type buoyant cushions will be permitted as life preservers on boats up to 40 feet in length. Life preservers or ring buoys are required for motorboats 40 feet and over. Purchasers of lifesaving equipment should look for the label or stamp indicating that the device is of a type approved by the Coast Guard.

Commercial fishing motorboats—life floats.—Wooden life floats made of light buoyant wood may be used on commercial fishing motorboats. The dimensions of every such wooden life float shall be not less than 4 feet in length, 12 inches in width, and 1¾ inches in thickness, and the weight shall not exceed 25 pounds. The float may be made in one or two pieces. If made in two pieces, the pieces shall be securely attached with wooden dowels. No metal shall be used in the construction of the float. It shall be provided with two handholes, one at each side, midway in the length, which handholes shall be not less than 6 inches in length and 2 inches in width, with a margin of at least 1 inch at the edge of the float. Wooden life floats, made of balsa wood, shall not be less than 3 feet in length, 11½ inches in width, and 2 inches in thickness. The balsa wood used in the construction of such floats shall be of the same quality as required for balsa wood life preservers. Each two-piece float, in addition to the doweling, shall be securely glued and the dowels shall be four in number, of ¾-inch diameter made of straight-grained dry hardwood, driven through and entirely across the float through holes bored to slightly less diameter than the dowel.

F. *Ventilation.*—All motorboats which are constructed or decked over after April 25, 1940, and which use gasoline or other liquid fuel having a flash point of less than 110° F. shall be provided with ventilation as follows:

(*a*) At least two ventilators fitted with cowls or their equivalent for the purpose of properly and efficiently ventilating the bilges of every engine and fuel tank compartment in order to remove any inflammable or explosive gases.

(*b*) The ventilation of the boat is not required where the greater portion of the bilges of the engine and fuel tank compartments is open to the natural atmosphere.

G. *Fire extinguishers.*—The number of extinguishers listed in the table is required on board. The extinguishers on motorboats, if in good and serviceable condition, may be used until 6 months after the national emergency. Purchasers of fire extinguishers may inquire from the seller if the extinguisher is of a type approved by the Coast Guard. When in doubt, this information may be obtained from the Officer in Charge, Marine Inspection, United States Coast Guard, in the area where the motorboat is located, or from the Commandant (MVI), United States Coast Guard, Washington 25, D. C.

H. *Reckless operation.*—Any person who shall operate any motorboat or any vessel in a reckless or negligent manner so as to endanger the life, limb, or property of any person shall be deemed guilty of a misdemeanor and on conviction thereof by any court of competent jurisdiction shall be punished by a fine not exceeding $2,000, or by imprisonment for a term of not exceeding 1 year, or by both such fine and imprisonment, at the discretion of the court.

6. From the following table one may readily determine the equipment required on the various classes of motorboats which are operated for pleasure purposes. The failure to have such equipment on board at all times when the vessel is operated, constitutes a menace to safety of life and subjects the owner and vessel to the penalties prescribed by law.

7. In prescribing lights for auxiliary motorboats when propelled by sail and machinery, or by sail alone, the following excerpt is taken from section 3 of the act of April 25, 1940, and should be complied with by all such vessels when operating after sunset and before sunrise: Motorboats of classes 2 and 3, when propelled by sail and machinery, or by sail alone, shall carry the colored side lights, suitably screened, but not the white lights prescribed by section 3 of the act of April 25, 1940 (46 U. S. C. 526b): *Provided, however,* That motorboats of all classes, when so propelled, shall carry ready at hand, a lantern or flashlight showing a white light which shall be exhibited in sufficient time to avert collision: *Provided further,* That motorboats of classes A and 1, when propelled by sail and machinery, or by sail alone, shall not be required to carry the combined lantern prescribed by subsection (a) of section 3 of the act of April 25, 1940.

8. Equipment is required for the safety of the persons on board. To be effective it must be in good condition. For proper protection, equipment must not only be on hand but by frequent check it should be ascertained that the equipment is in working order and fully ready for the purpose for which it was designed.

Numbering and Recording of Undocumented Vessels

9. Under the act of June 7, 1918, as amended, and the regulations issued thereunder, every undocumented vessel operated in whole or in part by machinery, owned in the United States

EQUIPMENT REQUIREMENTS FOR PLEASURE AND COMMERCIAL FISHING MOTORBOATS [1]

Equipment	Class A 0 to 16 feet	Class 1 16 to 26 feet	Class 2 26 to 40 feet	Class 3 40 to 65 feet
Combination light	1 in fore part of boat showing red to port and green to starboard from right ahead to 2 points abaft the beam. Visible at least 1 mile.		None	None.
Portside light	None	None	1 on portside, properly screened to show red from right ahead to 2 points abaft the beam, visible at least 1 mile.	
Starboard-side light	None	None	1 on starboard side properly screened to show green from right ahead to 2 points abaft the beam. Visible at least 1 mile.	
Stern light	1 bright white light aft showing all around the horizon. Visible at least 2 miles.			
Bow light	None	None	1 bright white light in fore part of boat showing from right ahead to 2 points abaft the beam on both sides. Visible at least 2 miles.	
Whistle [2]	None	1 hand, mouth, or power-operated, audible at least ½ mile.	1 hand- or power-operated, audible at least 1 mile.	1 power-operated, audible at least 1 mile.
Bell	None	None	1 which produces, when struck, a clear bell-like tone of full round characteristics.	
Lifesaving devices [2]	1 life preserver or ring buoy or buoyant cushion for each person on board.			1 life preserver or ring buoy for each person on board.
Flame arresters	1 on each carburetor of all gasoline engines installed after Apr. 25, 1940, except outboard motors.			
Ventilation	At least 2 ventilators with cowls or equivalent capable of removing gases from the bilges in engine and fuel-tank compartments of boats constructed or decked after Apr. 25, 1940, using gasoline or other fuel of a flash point less than 110° F.			
Fire extinguishers	1 1-quart carbon tetrachloride or 1 1¼-gallon foam or 1 4-pound CO_2 extinguisher. None required on outboard motorboats.		2 1-quart carbon tetrachloride or 2 1¼-gallon foam or 2 4-pound CO_2 extinguishers.	3 1-quart carbon tetrachloride or 3 1¼-gallon foam or 3 4-pound CO_2 extinguishers.

[1] Commercial fishing motorboats may carry any of these specified devices.
[2] Commercial fishing motorboats may carry in lieu of this specified equipment prescribed wooden life floats.

and found on the navigable waters thereof, except public vessels and vessels not exceeding 16 feet in length, measured from end to end over the deck excluding sheer, temporarily equipped with detachable motors, shall be numbered. A clarification of the language of this statute is contained in paragraph 3 of this circular. The requirements contemplate that machinery-propelled undocumented vessels of less than 5 net tons used for commercial purposes, which are owned in the United States and found on such waters, be numbered under the provisions of the act as such vessels, by reason of tonnage, are exempt from documentation. The Numbering Act, however, is for the purpose of identification only and the certificate of award of number which is issued to any such vessel is solely for such purpose. It is not an authorization, license or permit for any such vessel to engage in trade.

10. Vessels of 16 gross tons and over used exclusively for pleasure purposes are entitled to be documented as yachts by the Customs. The documentation of such vessels as yachts is not a mandatory requirement, however, and where such vessels are machinery-propelled and found on United States waters, if not documented, they must be numbered under the provisions of the act. There is no restriction as to length, tonnage, or size of such vessels and the provisions of the Numbering Act should not be confused with those of the Motorboat Act of 1940 providing for the equipment of motorboats not exceeding 65 feet in length and with other machinery-propelled vessels. The regulations issued by the Commandant under authority of the Numbering Act clarify the language of the statute requiring the following undocumented vessels to be numbered:

(*a*) All boats equipped with permanently installed motors.

(*b*) All boats over 16 feet in length equipped with detachable motors.

11. The following undocumented vessels are not required to be numbered:

(*a*) Public vessels.

(*b*) All boats not exceeding 16 feet in length temporarily equipped with detachable motors.

(*c*) Motor lifeboats carried as lifesaving equipment on inspected vessels.

The words "temporarily equipped with detachable motors" shall be construed to mean outboard motors which are clamped or otherwise temporarily fastened as distinguished from outboard motors bolted or otherwise permanently secured. The controlling principle shall be whether or not the vessel has permanently installed motors rather than the design or construction of the vessel. A boat designed specifically for the use of an outboard motor as the ordinary means of propulsion if not exceeding 16 feet in length, is nevertheless exempt from the requirements of the act if temporarily equipped with an outboard motor.

Applications and Issuance of Numbers

12. (*a*) Upon the purchase of an undocumented vessel which has been issued a certificate of award of number under the provisions of the Act of June 7, 1918, as amended, and after completion of the bill of sale on the reverse side of the certificate by the vendor or the former owner, the purchaser should execute the application for number for undocumented motor vessel, which is incorporated on the reverse side of the certificate of award of number (CG 1513) and surrender the certificate, bill of sale, and application for a new number to the Officer in Charge, Marine Inspection, U. S. Coast Guard, having jurisdiction over the area in which the vessel is owned, within the statutory period of 10 days. That officer upon receipt of the certificate with the bill of sale and application properly executed and upon being satisfied with the evidence of ownership, will assign a number to the vessel and forward the certificate and accompanying papers to the District Commander for processing. He will at the same time issue to the new owner a letter authorizing the operation of the vessel for a limited period, without the certificate of award of number on board, pending the issuance of such papers by the District Commander.

(*b*) In the case of such vessels which are new or which have never been numbered under the provisions of the act of June 7, 1918, as amended, or which are operating under the old form of certificate of award of number, application should be made to the Officer in Charge, Marine Inspection, U. S. Coast Guard, having jurisdiction over the area in which the vessel is owned, for a certificate of award of number by presenting proper evidence of ownership such as a bill of sale, builder's certificate, etc., and by the execution of Form CG 1512, application for number for undocumented motor vessel. Upon the execution of these cards in duplicate and the presentation of evidence of ownership, the Officer in Charge, Marine Inspection, U. S. Coast Guard, will accept the application and accompanying papers, transmitting same to the District Commander for processing and will thereupon assign a number to the vessel, at the same time issuing a letter authorizing the operation of the vessel for a temporary period under the numbers assigned and pending the issuance of a certificate of award of number by the District Commander.

13. *Number required on bows of vessel.*—Upon assignment of a number by the Officer in Charge, Marine Inspection, U. S. Coast Guard, or upon receipt of the certificate of award of number, the number awarded shall be painted or attached to each bow of the vessel and shall be in block characters of good proportion and not less than 3 inches in height, reading from left to right and parallel with the waterline, as near the forward end of the bow as legibility of the entire number for surface and aerial identification permits. The number shall also be of a color in contrast with the color of the hull so as to be distinctly visible and legible.

14. *Carrying certificate of award of number.*—The certificate of award of number must be kept on board at all times (unless in the custody of the Coast Guard), except in the case of vessels not exceeding 17 feet in length, or vessels whose design or fittings are such that the carrying of such certificate on board would render it imperfect, illegible, or would otherwise tend to destroy its usefulness as a means of ready identification.

Certain Inspection Requirements

15. While this circular is published for the express information of owners of motorboats operated solely for pleasure or commercial fishing purposes, in view of the numerous inquiries received by the Coast Guard as to the application of the inspection laws of the United States to motor-propelled vessels, a general statement in this connection seems appropriate. Accordingly, owners and prospective owners of motor vessels of above 15 gross tons, regardless of length, are advised that if such vessels carry freight or passengers for hire, they are subject to annual inspection by the U. S. Coast Guard under the provisions of R. S. 4426 (46 U. S. C. 404) and may not be navigated in such service until a certificate of inspection has been issued. Motor-propelled vessels of not more than 65 feet in length, however, regardless of tonnage, when carrying passengers for hire need be in charge of only a licensed operator. No other officers may be required. Machinery-propelled vessels of above 15 gross tons and in excess of 65 feet in length must be in charge of such licensed officers and with such crew as are determined by the proper Officer in Charge, Marine Inspection, U. S. Coast Guard, upon inspection of the vessel and the complement of such officers and crew is inserted on the certificate of inspection. Complete information on this subject for any particular vessel may be obtained from any Officer in Charge, Marine Inspection, U. S. Coast Guard.

16. Further information in respect to the laws and regulations applicable to such vessels and for advice concerning the requirements for other vessels engaged in carrying freight or passengers for hire, may be obtained from any Officer in Charge, Marine Inspection, U. S. Coast Guard, or from the Commandant (MVI), U. S. Coast Guard, Washington 25, D. C.

17. Officers in Charge Marine Inspection, U. S. Coast Guard, are located at the following ports:

447 Commercial Street, Boston, Mass.

76 Pearl Street, Portland, Maine.

409 Federal Building, Providence, R. I.

216 Old Customhouse, St. Louis, Mo.

425–427 New Post Office Building, Cairo, Ill.

301 Post Office and Courthouse, Dubuque, Iowa.

750 New Post Office Building, Cincinnati, Ohio.

602–608 Federal Building, Louisville, Ky.

322 Customhouse, Memphis, Tenn.

1018 Stahlman Building, Nashville, Tenn.

1215 Park Building, Pittsburgh, Pa.

Post Office Building, Point Pleasant, W. Va.

42 Broadway, New York, N. Y.

332 New Post Office Building, New London, Conn.

311 Federal Building, New Haven, Conn.

313 Federal Building, Albany, N. Y.

801 Customhouse, 2d and Chestnut Streets, Philadelphia, Pa.

204 Customhouse, Norfolk, Va.

209 Chamber of Commerce Building, Baltimore, Md.

501 Professional Building, Miami, Fla.

406 Federal Building, Tampa, Fla.

East Bay and Broad Streets, Charleston, S. C.

205 Customhouse, Savannah, Ga.

Federal Building, Jacksonville, Fla.

Customhouse, New Orleans, La.

Federal Building, Mobile, Ala.

Bluestein Building, Port Arthur, Tex.

Customhouse, 18th and Strand Streets, Galveston, Tex.

1300 Wingate Building, Houston, Tex.

1134 Keith Building, Cleveland, Ohio.

440 Federal Building, Buffalo, N. Y.

205 Federal Building, Oswego, N. Y.

430 Federal Building, Detroit, Mich.

311 Federal Building, Duluth, Minn.

402 Courthouse and Customhouse, Toledo, Ohio.

Municipal Building, Saint Ignace, Mich.

610 Canal Street, Chicago, Ill.

National Bank of Ludington, Ludington, Mich.

533 Federal Building, Milwaukee, Wis.

Federal Building, San Juan, P. R.

1119 Times Building, Long Beach, Calif.

907 U. S. Appraisers Building, San Francisco, Calif.

New World Life Building, Seattle, Wash.

1005 Failing Building, Portland, Oreg.

Commercial Building, Ketchikan, Alaska.

Pier 4, Honolulu, T. H.

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

Equipment Approved by the Commandant

APPROVALS AND TERMINATION OF APPROVAL OF EQUIPMENT

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 the Reorganization Plan No. 3 of 1946 (11 F. R. 7875), the following approvals and termination of approval are prescribed: 12 F. R. 6392, September 26, 1947.

BOILERS, HEATING

Approval No. 162.003/36/0, Erie City Iron Works, #1210, 42 inch diameter welded vertical fire tube heating boiler, heating surface 284 square feet, maximum pressure 30 p. s. i., Dwg. No. 81293, dated 30 August 1947, manufactured by Erie City Iron Works, Erie, Pa. 12 F. R. 6392, September 26, 1947.

Approval No. 160.030/4/0, Type A firing attachment for Lyle type line-throwing gun, Dwg. No. C–32A, revised 25 April 1945, submitted by Coston Supply Co., Inc., 31 Water Street, New York 4, New York. 12 F. R. 6392, September 26, 1947.

BUOYANT APPARATUS

Approval No. 160.010/11/0, buoyant apparatus, spruce, copper tanks, 20-person capacity, Dwg. dated 1 April 1936, submitted by Tregoning Boat Co., Post Office Box 151, Alderwood Manor, Washington.

Approval No. 160.010/12/0, buoyant apparatus, plywood, Type B, 20-person capacity, Dwg. dated May 1940, submitted by Tregoning Boat Co., Post Office Box 151, Alderwood Manor, Washington. 12 F. R. 6260, September 18, 1947

Approval No. 160.010/13/0, Buoyant apparatus, 5' 2'' x 2' 8'' elliptical shape, 0' 7'' diameter section, hollow aluminum, flush net platform, 5-person capacity, Dwg. No. 3135, dated 30 September 1946, Alt. 4 February 1947, manufactured by Welin Davit & Boat

Division, of the Robinson Foundation, Inc., Perth Amboy, N. J. 12 F. R. 6436, September 30, 1947

BUOYANT CUSHIONS, NONSTANDARD

NOTE: Cushions are limited to service on motorboats of classes A, 1, and 2 not carrying passengers for hire in accordance with 46 CFR 25.4–1.

Approval No. 160.008/374/0, 24" x 25⅜" x 3" rectangular buoyant cushion, 82 oz. kapok, USCG Specification 160.008, Dwg. No. 181–105, dated 25 August 1947, manufactured by Cluff Fabric Products, 457–467 East 147th Street, New York, New York. 12 F. R. 6260, September 18, 1947.

COMPASSES, LIFEBOAT

Approval No. 160.014/7/0, Model 34–1000, compensating mariners liquid filled magnetic lifeboat compass with mounting, assembly Dwg. No. 34–1000, dated 22 January 1946, manufactured by Kenyon Instrument Co., Inc., 1345 New York Avenue, Huntington Station, Long Island, N. Y. 12 F. R. 6436, September 30, 1947.

CONTAINERS, EMERGENCY PROVISIONS AND WATER

Approval No. 160.026/8/0, Lifetime brand, container for emergency drinking water, Dwg. dated 3 June 1947, submitted by The Multiple Breaker Co., 82 Commercial Wharf, Boston 10, Mass. 12 F. R. 6436, September 30, 1947.

DECK COVERING

Approval No. 164.006/3/1, Asbestolith magnesite type deck covering identical to that described in National Bureau of Standards Test Report No. TG-3610–1214; F. R. 1778 dated 2 July 1940, approved for use without other insulating material as meeting Class A-60 requirements in a 1½-inch thickness, manufactured by Asbestolith Manufacturing Corporation, 257 Kent Street, Brooklyn, N. Y. (This approval modifies and, therefore, supersedes Approval No. 164.006/3/0, published in Federal Register 31 July 1947.) 12 F. R. 6436, September 30, 1947.

FIRING ATTACHMENT FOR LYLE GUN TYPE LINE-THROWING APPLIANCES

Approval No. 160.030/3/0, Model 2 firing attachment for Lyle gun type line-throwing appliance, Dwgs. No. FA 30 and FA 31, Rev. 28 April 1945, manufactured by Columbia Appliance Corporation, 8–13 Forty-third Road, Long Island City 1, New York. 12 F. R. 6260, September 18, 1947.

FIRE EXTINGUISHERS, HAND, PORTABLE, FOAM TYPE

Approval No. 162.006/10/0, Badger, 2½ gal. foam hand portable fire extinguisher, assembly Dwg. Nos. BD 1895, dated 19 June 1947, and SK 1053A, dated 26 March 1946, name plate Dwg. No. BD 1922, dated 27 August 1947, manufactured by the Badger Fire Extinguisher Co., 626 Somerville Avenue, Somerville 43, Mass. 12 F. R. 6436, September 30, 1947.

FIRE EXTINGUISHERS, HAND, PORTABLE, SODA-ACID TYPE

Approval No. 162.007/24/0, Badger's Pony, 1¼ gal. soda-acid hand portable fire extinguisher, assembly Dwg. No. SK 284, dated 1 May 1924, name plate Dwg. No. SK 258, dated 1 May 1924, rev. 27 August 1947, manufactured by the Badger Fire Extinguisher Co., 626 Somerville Avenue, Somerville 43, Mass.

Approval No. 162.007/25/0, Badger's, 2½ gal. soda-acid hand portable fire extinguisher, assembly Dwg. Nos. BD 1889, dated 25 March 1947, and SK 1034, dated 23 May 1932, rev. 9 March 1937, name plate Dwg. No. BD 1921, dated 26 August 1947, manufactured by the Badger Fire Extinguisher Co., 626 Somerville Avenue, Somerville 43, Mass. 12 F. R. 6436, September 30, 1947.

Approval No. 162.005/16/0, Kidde Model 15T, 15 lb. carbon dioxide hand portable fire extinguisher, Assembly Dwg. No. 82088, Rev. B, dated 29 August 1945, name plate Dwg. No. 82307, Rev. A, dated 19 September 1945, manufactured by Walter Kidde & Co., Inc., 675 Main Street, Belleville, N. J. 12 F. R. 6436, September 30, 1947.

FIRE INDICATING AND ALARM SYSTEMS

Fire alarm station, manual, Dwg. No. 55–111, Alt. O; and fire alarm station, test, Dwg. No. 55–112, Alt. O; for use with Henschel Corp. 55–100 series fire-alarm annunciators; manufactured by Henschel Corp., Amesbury, Mass. 12 F. R. 6392, September 26, 1947.

LIFEBOATS

Approval No. 160.035/149/0, 22' x 7.5' x 3.15' steel, oar-propelled lifeboat, 31-person capacity, identified by Construction and Arrangement Dwg. No. OMS–460–A, dated June 1947, submitted by Tregoning Industries, Inc., P. O. Box 151, Alderwood Manor, Washington.

Approval No. 160.035/150/0, 26' x 8.5' x 3.825' steel, oar-propelled lifeboat, 50-person capacity, identified by Construction and Arrangement Dwg. No. OMS 600A, submitted by Tregoning Industries, Inc., Seattle, Washington. 12 F. R. 6392, September 26, 1947.

Approval No. 160.035/169/0, 26' x 9' x 3.83' aluminum motor-propelled lifeboat with radio cabin, 43-person capacity, identified by construction and arrangement Dwg. No. 3167, dated 20 June 1947, rev. 4 September 1947, manufactured by the Welin Davit and Boat Division, of the Robinson Foundation, Inc., Perth Amboy, N. J. 12 F. R. 6436, September 30, 1947.

LINE-THROWING APPLIANCES (LYLE GUN TYPE)

Approval No. 160.029/10/0, steel line-throwing appliance, Lyle gun type, Assembly Dwg. No. SSC–105–3, Alt. A, revised 19 December 1940, and Detail Dwg. No. SSC–105–4, Alt. A, revised 19 December 1940, manufactured by Sculler Safety Corp., 116 Broad Street, New York 4, New York. 12 F. R. 6260, September 18, 1947.

LINE-THROWING APPLIANCES (SHOULDER GUN TYPE)

Approval No. 160.031/3/0, Line-throwing appliance, shoulder gun-type, Dwg. No. 15, submitted by Coston Supply Co., Inc., 31 Water Street, New York 4, New York. 12 F. R. 6392, September 26, 1947.

NOZZLES, WATER SPRAY (FIXED TYPE)

Approval No. 160.025/10/0, Model A non-adjustable, 1½" fixed type, water spray nozzle, Dwg. No. 1, dated 4 March 1938, manufactured by Sculler Safety Corp., 116 Broad Street, New York 4, New York. 12 F. R. 6260, September 18, 1947.

LIFE PRESERVERS, KAPOK, ADULT AND CHILD (JACKET TYPE)

Approval No. 160.002/32/0, Model 2, adult kapok life preserver, U. S. C. G. Specification 160.002, former Approval No. B–371, manufactured by Fairfield Textile Works, Fairfield, Calif. 12 F. R. 6436, September 30, 1947.

Termination of Approvals of Equipment

FIRE EXTINGUISHERS, HAND, PORTABLE CARBON-DIOXIDE TYPE

Approval No. 162.005/15/0, Kidde Model 10T, 10 lb. carbon dioxide hand portable fire extinguisher, Assembly Dwg. No. 82507, Rev. A, dated 27 September 1945, name plate Dwg. No. 82508, Rev. A, dated 4 October 1945, manufactured by Walter Kidde & Co., Inc., 675 Main Street, Belleville, N. J. 12 F. R. 6392, September 26, 1947.

TERMINATION OF APPROVAL OF KAPOK LIFE PRESERVER

The following approval of a kapok life preserver is terminated because it is no longer being manufactured; termination of approval No. 160.002/19/0, Model 2, Adult kapok life preserver, USCG Specification 160.002, manufactured by C. A. Reed Furniture Co., 4424 East 49th Street, Los Angeles 11, Calif. (Approval published in Federal Register, 31 July 1947, 12 F. R. 5186.) 12 F. R. 6260, September 18, 1947.

TERMINATION OF APPROVAL OF LADDERS, EMBARKATION-DEBARKATION

The following approval is terminated because the item is no longer being manufactured:

Termination of Approval No. 160.017/3/0, Model 141 embarkation-debarkation ladder, chain suspension, wood ears, Dwg. No. 141, dated 21 July 1943, manufactured by American Chain Ladder Co., Inc., 151 East 50th Street, New York 22, N. Y. (Approval published in Federal Register 31 July 1947, 12 F. R. 5201.) 12 F. R. 6436, September 30, 1947.

CONDITIONS OF APPROVALS AND TERMINATION OF APPROVAL

The above approvals of equipment shall be effective for a period of 5 years from date of publication in the Federal Register unless sooner canceled or suspended by proper authority.

The termination of approval made by this document shall be made effective upon the 31st 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 manufactured before the effective date of termination of approval may be used so long as it is in good and serviceable condition. 12 F. R. 6436, September 30, 1947.

Certification of Articles of Ship's Stores and Supplies

The articles of ship's stores and supplies certificated from August 25, 1947 to September 25, 1947, inclusive, for use on board vessels in accordance with the provisions of Part 147 of the regulations governing "Explosives and Other Dangerous Articles on Board Vessels," are as follows:

Westinghouse Electric Corp., 653 Page Blvd., Springfield 2, Mass.

Certification No. 231, September 15, 1947 "Bug Bomb."

Certification No. 232, September 15, 1947 "Bug Bomb Formula."

AFFIDAVITS

The Marine Engineering Regulations and Material Specifications require that manufacturers submit affidavits prior to the manufacture of pipe, tubes, valves, fittings, flanges, and materials, for use on vessels subject to inspection by the Coast Guard. The following affidavit was accepted during the period August 15 to September 15, 1947:

Fulton Iron Works Co., 1259 Delaware Ave., St. Louis 14, Mo.

Valves and fittings.

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	
Henschel Corp., Amesbury, Mass.					
Running light panel, nonautomatic, 5-circuit, 115 volts, D. C., drawing No. 40-035, Alt. 2	X	X			8/20/47
Running light panel, nonautomatic, 5-circuit, combined with auxiliary signal light switches, 115 volts, D. C., drawing No. 40-036, Alt. 2	X	X			8/20/47
Running light panel, nonautomatic, 5-circuit, combined with tell-tale and control switches for miscellaneous signal lights, 115 volts, D. C., drawing No. 40-037, sheets 1 and 2, Alt. 2	X	X			8/20/47
Running light panel, nonautomatic, 5-circuit 115 volts, 60 cycles, A. C., drawing No. 40-042, Alt 0	X	X			9/11/47
Running light panel, nonautomatic, 5-circuit, combined with auxiliary light switches, 115 volts, 60 cycles, A. C., drawing No. 40-043, Alt. 0	X	X			9/11/47
Running light panel, nonautomatic, 5-circuit, combined with tell-tale and control switches for miscellaneous signal lights, 115 volts, 60 cycles, A. C., drawing No. 40-044, sheets 1 and 2, Alt. 0	X	X			9/11/47
Mechanical telegraph transmitter with reply, 12", S. E. S. F., drawing No. 11-100, Alt. 1	X	X	X		8/22/47
Mechanical telegraph transmitter with reply, 12", S. E. D. F., drawing No. 11-101, Alt. 2	X	X	X		8/22/47
Mechanical telegraph transmitter with reply, 12", D. E. D. F., drawing No. 11-102, sheets 1 and 2, Alt. 1	X	X	X		8/22/47
Mechanical telegraph indicator with reply, 16", drawing No. 11-103, Alt. 2	X	X			8/22/47
Shaft speed transmitter with 8-figure counter, types I and II, 115 volts, 60 cycles, A. C., drawing No. 14-100, Alt 0	X	X			8/27/47
Shaft speed indicator with 8-figure counter, bulkhead mounting, types I and II, 115 volts, 60 cycles, A. C., drawing No. 14-101, Alt. 0	X	X			8/27/47
Shaft speed indicator without counter, bulkhead mounting, types I and II, 115 volts, 60 cycles, A. C., drawing No. 14-102, Alt. 0	X	X			8/27/47
Shaft speed indicator with 8-figure counter, panel mounting, 115 volts, 60 cycles, A. C., drawing No. 14-103, Alt. 0	X	X			8/27/47
Annunciator, gravity drop, manual reset, 2 to 24 drops, without switches, drawing No. 50-077-1, Alt. 5	X	X			9/2/47
Annunciator, gravity drop, manual reset, 26 to 64 drops, without switches, drawing No. 50-077-2, Alt. 4	X	X			9/2/47
Annunciator, gravity drop, manual reset, 72 to 96 drops, without switches, drawing No. 50-077-3, Alt. 4	X	X			9/2/47
Annunciator, gravity drop, manual reset, 100, 112, and 120 drops, without switches, drawing No. 50-077-21, sheets 1 and 2, Alt. 1	X	X			9/2/47
Murlin Manufacturing Co., Philadelphia, Pa.:					
Ceiling fixture, nonwatertight, 3 75-watt lamps maximum, fixture No. 1250, Alt. 0	X				8/20/47
Mirror light, nonwatertight, 1 25-watt lamp maximum, fixture No. 942-1, Alt. 3	X				8/28/47
Cove light, nonwatertight, A. T. C. type 18, fixture No. 1215, Alt. 0	X				9/4/47
Pilot Marine Corp., New York, N. Y.:					
Clinometer, drawing number PM-4600, Alt. 3, PM-4601, Alt. 1, PM-4602, Alt. 4, and PM-4603, Alt. 1	X	X			9/10/47
Pitometer Log Corp., New York, N. Y.:					
Pitometer Log Speed and Distance Transmitter and Indicator System, drawings numbers ML2, Alt. 0, ML3, Alt. 1, ML5, Alt. 0, ML16A, Alt. 0, and S-1931, Alt. 0	X	X			9/5/47
The Carlisle & Finch Co., Cincinnati, Ohio.:					
Incandescent searchlight, 12-inch, Pedestal Base, lever control, (code Redbreast) drawing No. 2211, Alt. 0	X	X	X		8/26/47
The Simes Co., Long Island, N. Y.:					
Spotlight, type 37-S, nonwatertight, 1 150-watt lamp maximum, drawing No. 43684, change I	X				8/29/47
Desk light, types LJ, LJX, and LJS, nonwatertight, 1 60-watt lamp maximum, drawing No. 43000, change I	X				9/11/47
Directional sign light, nonwatertight, 2 25-watt lamps maximum, drawing No. 43649, change III	X				9/11/47

Merchant Marine Personnel Statistics

MERCHANT MARINE LICENSES ISSUED DURING AUGUST 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	50	104	6	12	----	----	9	55	3	6	37	10	1	----	----	----	1	4	----	----	60	16	----	----	----	----	----	----	----	----
Gulf coast	9	22	1	4	----	----	2	7	----	7	8	3	----	----	----	----	1	----	2	----	16	5	----	----	----	----	----	----	----	----
Great Lakes and rivers	----	1	----	----	----	2	----	----	4	14	----	2	----	----	----	----	----	----	6	16	----	----	----	----	----	----	----	----	----	----
Pacific coast	29	50	3	4	----	----	7	22	----	----	15	10	----	----	----	----	1	3	2	----	20	14	----	1	----	----	----	----	----	----
Total	88	177	10	20	----	2	18	84	7	27	60	25	1	----	----	----	3	7	10	16	96	35	----	1	----	----	----	----	----	----

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	19	14	----	----	----	----	----	----	----	----	----	----	57	186	13	4	1	----	----	1	258	412	670
Gulf coast	14	5	----	----	----	----	----	----	----	----	----	----	2	25	7	7	----	----	----	----	61	85	146
Great Lakes and rivers	----	2	----	----	----	----	----	----	----	----	2	6	----	1	24	28	----	----	----	----	36	72	108
Pacific coast	38	8	----	----	----	----	----	----	----	----	----	----	26	64	----	----	9	1	2	----	152	177	329
Total	71	29	----	----	----	----	----	----	----	----	2	6	85	276	44	39	10	1	2	1	507	746	1,253

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	24	148	5	35	27	20	----	2	34	37	----	1	17	31	----	----
Gulf coast	5	31	----	2	5	3	----	----	8	4	----	----	3	2	----	----
Great Lakes and rivers	1	5	2	12	----	----	----	2	2	1	----	2	----	2	----	----
Pacific coast	19	66	----	16	16	19	----	3	13	23	----	----	31	11	----	----
Total	49	250	7	65	48	42	----	7	57	65	----	3	51	46	----	----

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	15	65	----	3	1	1	5	20	1	----	----	----	129	363	492
Gulf coast	6	16	1	----	----	----	3	5	----	----	----	----	31	63	94
Great Lakes and rivers	5	9	3	1	----	1	----	5	----	----	----	----	13	40	53
Pacific coast	24	46	1	1	6	3	24	12	----	2	1	----	135	202	337
Total	50	136	5	5	7	5	32	42	1	2	1	----	308	668	976

ORIGINAL SEAMEN'S DOCUMENTS ISSUED, MONTH OF AUGUST 1947

Region	(1) Staff officer	(2) Continuous discharge books	(3) U. S. merchant mariner's documents	(4) AB any waters unlimited	(5) AB any waters 12* months, Great Lakes 18 months	(6) AB tugs and towboats any waters	(7) AB bays and sounds	(8) AB seagoing barges	(9) Lifeboatman	(10) Q. M. E. D.	(11) Radio operators	(12) Certificate of service	(13) Tanker man
Atlantic coast	148	1	2,602	69	217	2	0	0	236	208	35	2,231	17
Gulf coast	20	11	964	19	57	0	0	0	32	112	4	882	14
Pacific coast	31	3	693	27	60	1	0	0	182	95	8	585	4
Great Lakes and rivers	5	2	1,137	16	79	0	0	0	48	71	0	1,090	21
Total	204	17	5,396	131	413	3	0	0	498	576	47	4,788	56

*12 months, vessels 500 gross tons or under not carrying passengers.

NOTE.—Columns 4 through 13 indicate endorsements made on U. S. Merchant Mariner's documents.

WAIVERS OF MANNING REQUIREMENTS FROM AUGUST 1 TO AUGUST 31, 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	543	23	69	1	810	14	273	1	----	1,191
Gulf coast	239	3	26	1	468	11	127	----	3	639
Pacific coast	113	5	4	----	164	4	58	4	2	241
Great Lakes	165	----	12	1	141	3	232	1	----	390
Total	1,060	31	111	3	1,583	32	690	6	5	2,461

CREW SHORTAGE REPORTS FROM AUGUST 1 TO AUGUST 31, 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	18	----	----	----	----	6	4	----	----	----	6	17	----	33
Gulf coast	5	----	----	----	----	1	2	----	----	1	----	4	2	10
Pacific coast	4	----	----	----	1	1	1	----	----	----	----	1	----	4
Great Lakes	220	4	8	34	----	92	19	----	7	15	41	136	28	384
Total	247	4	8	34	1	100	26	----	7	16	47	158	30	431

U. S. GOVERNMENT PRINTING OFFICE: 1947