

PROCEEDINGS OF THE MERCHANT MARINE COUNCIL UNITED STATES COAST GUARD

The printing of this publication has been approved by the Director of the Bureau of the Budget, March 11, 1952.

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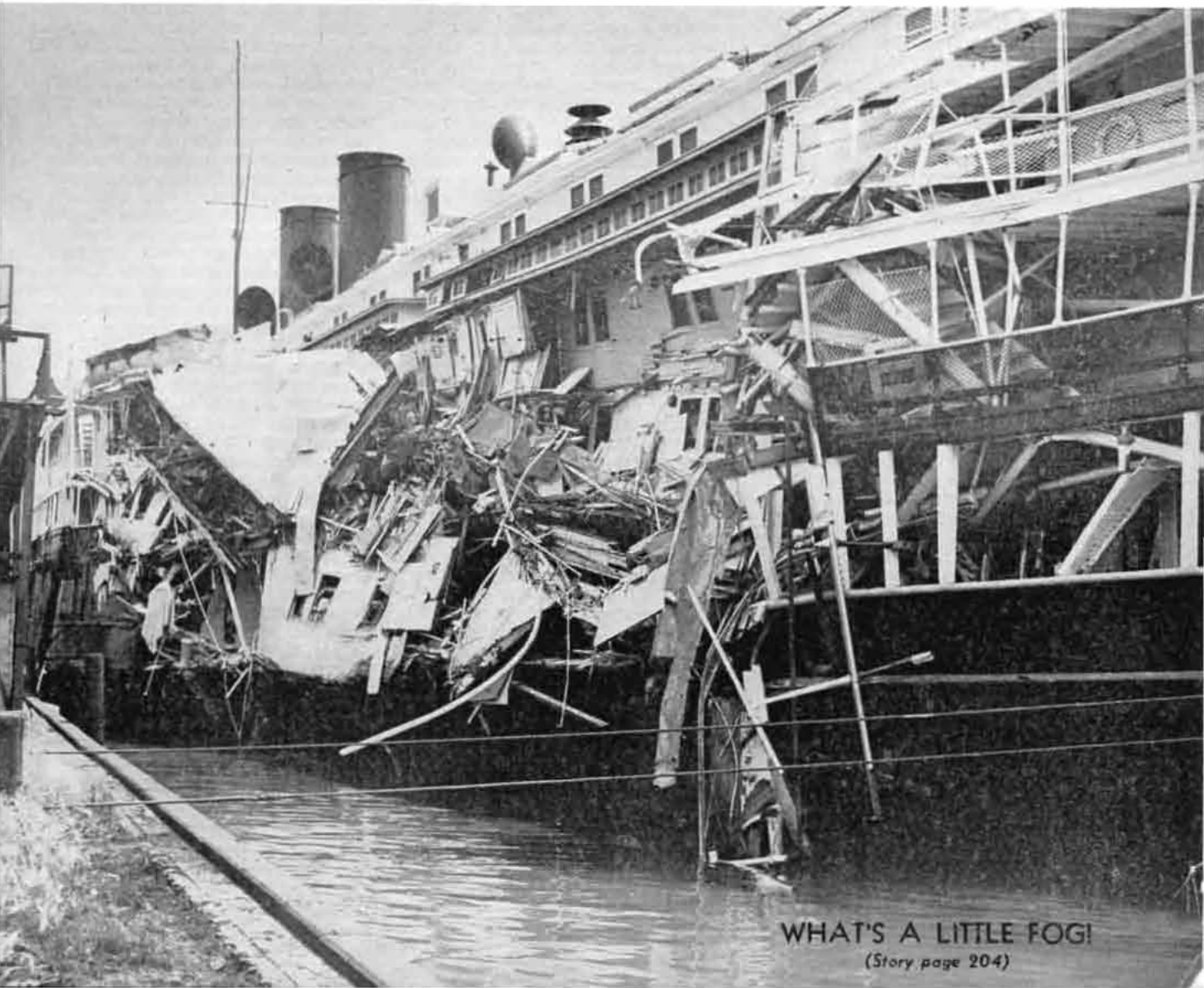
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WHAT'S A LITTLE FOG!

(Story page 204)

MERCHANT MARINE COUNCIL

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For each meeting two District Commanders and three Marine Inspection Officers are designated as members by the Commandant.

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DISTRIBUTION (SDL 50):

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- D: i (5); remainder (1).
- E: mo (1).
- List 141M.

CONGRATULATIONS CAPTAIN

(It is always heartening to note that there are individuals at sea who recognize the pitfalls of routine. We refer to a brief item entitled, Objective Reached, which appeared in the July 1952, issue of the Farrell Lines' Safety News. It contained the report of Captain T. K. Tonnesen of the "African Dawn" as to his handling of routine drills. His report is quoted below. Masters on all ships could benefit by following Captain Tonnesen's example.)

"Since hearing about the fire which broke out on the S. S. 'AFRICAN SUN', the Safety Committee decided this voyage to prepare for such an eventuality aboard this vessel by injecting a little realism into our Fire Drills (but not to the extent of actually setting a fire as some low-rate comedian on board suggested). This is what was done:

"Firstly: We resorted to the old trick (which never fails) of reversing the order of our drills. Abandon Ship Alarm Signal was given first with the inevitable result—hoses were led out! A majority of the men paid no attention to the different signals. Routine had taken such hold that when any alarm was rung they automatically went to their fire stations, since that was always the drill we started with. However this matter was straightened out by lecturing to the crew at lifeboat muster on the difference between signals, their meanings and importance.

"Secondly: The time of the drill was kept secret. Word was not passed around before hand. Drills were held on the spur of the moment. For instance, the Chief Officer would spot

an imaginary 'fire' and turn in an alarm without being given advance notice. This did not always happen on the seventh day after the last drill either. When this practice first started it caused a lot of grumbling ('No one told me about any fire drill,' etc.). It required a good two drills before we were able to have all the Officers and Crew answer the Emergency Alarm promptly. But persistence won out!

"Thirdly: The site of the 'fire' was reported and all hoses in that vicinity were trained on the area. The Emergency Squad with their required equipment rushed to the scene. The Chief Officer directed operations, keeping the Bridge constantly informed. As drills progressed, complications were added to make things more difficult and requiring everyone to exercise skill and judgment to combat it.

"Reviewing the Fire Drills held this voyage we found that had the first 'fire' been an actual one, it would have resulted in disaster, mainly because of the confusion existing. Thereafter they progressively became better until the last drill when we saved thousands of dollars worth of cargo, the vessel and many lives. We on the Safety Committee feel quite confident now that should a real fire break out, it would be handled as efficiently as humanly possible.

"At the beginning nobody was greatly impressed with our efforts in this vein—now everyone has joined in with an interest and are actually looking forward to fighting our next 'fire'. Our objective has been reached."

CARGO STOWAGE

Damage to the cargo can result from rough or careless handling; from chafing, crushing, or shifting; or from improper dunnage and chocking. It can result from the use of unsuitable cargo gear or from improper combinations of wet and dry cargoes. It can result from heat, sweat, stains, or all three. Or, it can result from insufficient ventilation or inadequate or faulty refrigeration. Cargo stowage may be well done, or it may be done in a slovenly, careless fashion. Each method has its consequences.

The responsibility for the execution of proper cargo stowage rests upon the cargo vessel's officers. The responsibility is fourfold, consisting of taking goods on board, stowing them properly, transporting them safely, and, lastly, delivering them at the designated destination. Each phase of this responsibility is closely interrelated. Each has to be executed with extreme care. This is so not only because of possible damage to the cargo, but also because under certain conditions damage to the cargo can lead to still greater damage—damage to the vessel and the people on board.

It is true that each type of cargo requires different handling and that each port brings its special problems. Nevertheless, the knowledge and use of certain, fixed, fundamental orders for the handling of general cargo is invaluable. These rules are based on experience, tempered with common sense, and as such serve as a guide for the safe stowage and safe transportation of goods placed on board a vessel.

These basic rules may be summed up as follows:

- (1) Know the condition of the vessel and the conditions under which loading of cargo is to be performed.
- (2) Make the proper preparations for stowage.
- (3) Know the scales of permissible loading and ballasting.
- (4) Use good judgement in the order of stowage.
- (5) Remember, the important thing is to keep a proper balance between weight and measurement.

Preparation for stowage should be methodical and complete as it is one of the most important duties to be attended to. Holds and 'tween decks should be swept clean, and if necessary, washed down. Limber boards should be taken up and the limbers cleaned. At the same time bilge suction strainers should be checked for cleanliness and clearness. The underside of the weather deck, the

winch beds, and the mast and king post wedges should be examined carefully. The holds and ventilators should be checked for leaks. Hold ladders, strongbacks, fore and afters, hatch covers, and tarpaulins should be checked and placed in good condition. Sufficient battens and wedges should be made available, likewise sufficient dunnage and chocking pieces.

Before starting stowage, it is wise to check the condition of the tanks which are usually filled as ballast. Similarly, it is necessary to know how much fuel is on board and whether or not fuel will have to be taken on board after loading. The extra weight of fuel and ballast must be considered in bringing the vessel down to her load marks. A few inches of fuel or water will make an appreciable difference in a large ship's cargo capacity. Failure to consider these factors can very easily lead to overloading and endanger both the vessel and its cargo.

The order of stowage depends largely upon the order of discharging, but even so, it is necessary to consider weight factors. Loading can be done on a "hit and miss" basis, but to do so is costly and unsafe. The preferable order of stowage is to put heavy weights, large crates, and dead-weight cargo in the lower holds, followed by measurement to the lower 'tween deck beams; heavy stuff, steel rails, billets, casks, cases, measurement, etc., in the lower 'tween deck in the order stated; primarily measurement in the upper 'tween decks. Generally speaking, only heavy and securely boxed or crated cargo should be placed in deep holds since the weight of such stowage on top will cause considerable damage.

Cargo diagrams can be of great value. Such a diagram facilitates discharging cargo at two or more ports. If it is necessary to jettison cargo for the protection of the vessel, the heaviest and the least valuable cargo in many cases, can be jettisoned first. It also facilitates compact and secure stowage.

Obviously, proper cargo stowage is a valuable art—one which is highly repaid in property and lives as well as dollars and cents.

Just as obvious is the fact that this art should be one merchant officers should excel at. Should there be any doubt, a good lesson bearing out the need for proper cargo stowage can be found on page 203.

LOADLINE VIOLATIONS RISE

In spite of the fact load lines have been established for the safety of individual vessels and those on board in the light of unfortunate past experience, reports of loadline violations continue to come in.

A recent case of loadline violations shows an aggravation of this dangerous practice on the part of the S. S. *Saint Christopher*. The S. S. *Saint Christopher* was found to be overloaded while in England on 22 January 1952. This vessel was then observed approaching her dock in San Francisco—on June 16, 1952—and was again found to be submerged below the specified loadline.

There was a different master on board the S. S. *Saint Christopher* in each instance. A hearing on the first violation cited above has not taken place at the time of this writing, though steps are underway to have a hearing as soon as is possible. In the latter instance, the relieving master was available for an immediate hearing, which was held June 17, 1952, at San Francisco, with the result that his license was suspended for four months on one year's probation. At the same time the operators of the vessel were cited for the penalty provided by 46 U. S. C. 88.

SUBPAR PIPE FITTINGS

It has come to the attention of the Coast Guard that forged steel pipe fittings not meeting the requirements of the regulations are being imported into the United States from foreign countries by a number of jobbers on the East, Gulf, and Pacific coasts, which are being offered for sale to shipyards and companies engaged in ship repairs.

According to information received, there is no marking on these pipe fittings whereby the identity of the manufacturer or the specifications under which the steel is produced may be established.

Contrary to American practice, a large percentage of steel is produced in Europe by the old Bessemer process which is of high phosphorus content and, therefore, inferior to open hearth, electric furnace or deoxidized acid-Bessemer steels produced in the United States. Because of the high phosphorus content of ordinary Bessemer steel, segregation in the ingot takes place which results in a banded structure of the rolled product.

In order that it may be assured that the pipe fittings comply with the regulations and are suitable for the intended application, it is urged that only pipe fittings that are marked as required by Section 55.07-10, Title 46 CFR, be used.

THE LIGHTER SIDE

COMMANDER, 9TH COAST GUARD
DISTRICT

1700 Keith Bldg., Cleveland 15,
Ohio.

Att.: Motor Boat Registration
Division

Sir: Would you please issue me a duplicate certificate of award to an undocumented vessel?

I have torn this place upside down and I can't find the title to my boat anywhere. My wife was death against it in the first place and, frankly, I think she gave it to the kid to cut out paper dolls. I bought it last fall from S— T—, who runs a boat storage layout here, and I know I received a title back from you people.

The first mistake I made was to tear out part of the fence and all the north shrubbery and put the damned thing in the back yard. It needed repairing and I wanted it handy. Commander, you should have seen the hell raised when I backed that big trailer over my mother-in-law's flowers. Things got so wild there for a while that even I got scared. Anyway, I've never seen that title since and now I have a chance to sell the boat. In fact, I have a down payment but must have the title or no sale. I'll give you the description:

24 ft. Chris-Craft, sleeps four, about 1935 vintage.

Hole in bottom

I can't give you the number because when I got it, the numbers had been taken off for a re-chrome job and all I have is a pile of loose numbers in the basement.

This is a pretty skimpy description but I'm hoping that you have a cross file in that place of yours and can track the records down.

Yours very truly,



Courtesy Maritime Reporter.

OFFICIAL LOG BOOKS OR UNOFFICIAL NOTEBOOKS

By LTJG Edward F. Oliver,
U. S. Coast Guard

One of the Coast Guard marine inspection functions which has brought the U. S. Coast Guard and the merchant seaman into continual close contact has been the administration of reports relating to conduct. This phase of the marine inspection is handled by the Merchant Marine Investigating Unit of each Coast Guard District.

In the course of maintaining discipline aboard vessels and attempting to improve the standard of conduct of merchant seamen, there have been some comments by persons connected with the marine industry. These comments have generally followed either of two lines of thought. One, that crew members too often escape proper disciplinary action, and the other that crew members are unduly disciplined. Whatever the merits of the respective comments, it is the opinion of the author that a more rigid compliance with the statutes pertaining to the Official Log Book would alleviate some of the reasons for such comments.

Upon receiving notice of an alleged act in violation of one of the statutes covered by Revised Statute 4450, as amended, or upon receipt of a signed complaint, an investigation is conducted by the local Merchant Marine investigating unit. If at the conclusion of the investigation, it is the opinion of the investigating officer that there has been a violation of the law, the crew member in question is presented with a formal charge supported by fact statement specifications, and action instituted under Revised Statute 4450, as amended. In deciding whether a charge is in order, consideration is also given to the statutory penalties that may be invoked by the master at the time of the violation. A hearing is subsequently scheduled, at which time the U. S. Coast Guard as complainant must offer sufficient competent evidence to establish a prima facie case. The person charged may then offer evidence in defense or mitigation, the conclusion being an order handed down by the hearing examiner.

The U. S. Admiralty Courts and the U. S. Coast Guard hearings as provided by Revised Statute 4450, that portion of the United States Judiciary System concerned with marine cases, have recognized the peculiar

nature of seafaring and the transient nature of seafaring personnel. To facilitate the expeditious handling of marine cases, wide latitude is allowed in obtaining depositions of seafaring witnesses. However, many times it is difficult to obtain the necessary witnesses as they scatter as a rule when the ship's articles are terminated. There is a document, however, the official logbook, which not only serves the court, as a silent witness, but under some circumstances is treated as competent evidence sufficient in itself to establish a prima facie case. The official logbook of a vessel has a historical background that has vested in it inherent powers and authority found in few other documents. The United States has long recognized the status of this document and as far back as 1878 certain laws were enacted setting forth statutory requirements that must be met. (Title 46 U. S. C. 201, 202, 203, and 703.)

The effect of these laws and later amendments has been that the legal integrity of the logbook and the entries therein, is maintained so long as the statutory requirements are adhered to. Should there be an omission of any of the requirements however, the logbook entries then cease to have any legality or authority other than that accorded any memoranda made in the regular course of business.

There are many occasions when the crew member to be charged is not located until a long period of time has elapsed since the alleged offense. Witnesses by then have scattered and the U. S. Coast Guard in presenting the evidence necessary to establish a prima facie case, must rely solely on the pertinent logbook entries. The statute 46 U. S. C. 702 places it in the discretion of the court, in this case, the hearing examiner, to order a dismissal for failure of the log entry to meet the requirements as provided by law. Consequently, it is possible that a serious breach of conduct could be and frequently is dismissed due to the insufficiency of the evidence. By the same token an injustice could be done the crew member in the equally possible situation where the entry is allowed to stand, establishing a prima facie case; where the crew member was not accorded his right to reply to the log.

Continued on page 198

CAUSES OF ACCIDENTS TO FIRE-TUBE BOILERS

Following is an abstract of a survey of accidents involving fire tube boilers operated in laundries which was made by the Hartford Steam Boiler Inspection & Insurance Co. The abstract appeared in the January, 1952 issue of the National Board Bulletin and is published herein by permission of The National Board of Boiler and Pressure Vessel Inspectors, which publishes the National Board Bulletin. The information conveyed in this abstract is believed to be of primary interest to engineering personnel responsible for the safe operation of packaged auxiliary marine boiler installations, inasmuch as the same principles apply. It may assist those in the maritime field who are concerned with steam boiler operation to set up maintenance and operating programs to reduce boiler accidents and to increase boiler reliability.

GENERAL TYPES OF ACCIDENTS

In the following table, the types of accidents encountered in the survey have been divided into three classifications. The percentage of cases falling into each classification is also shown to indicate the relative importance of each.

Type of Failure:	Percentage
Boilers damaged by overheating or burning.....	62
Furnace explosions.....	22
All other.....	16
	100

The first item on the list—"Boilers damaged by overheating or burning"—includes everything from catastrophic explosions to cases of bagged shell plates, collapsed furnaces, bulged firebox sheets, and burned tubes. In making up the list, no account was taken of the extent of the damage, but every case that involved overheating or burning was included.

The figures shown in the table indicate that operators of fire-tube boilers can reduce the chances of a boiler accident most effectively by eliminating the various kinds of failures that lead to damage by overheating or burning. The survey, therefore, was carried further to find the most common causes for accidents of that kind.

BACK COVER:

Pictured on the back cover is the Gloucester Fisherman's Memorial Statue. Located at Gloucester, Massachusetts, it commemorates the hardy Gloucester fishermen who lost their lives in the pursuit of their seagoing heritage.

CAUSES FOR OVERHEATING ACCIDENTS

The second step in the survey showed the following results:

Cause of Failure:	Percentage
1. Low water due to failure of fuel cut-out.....	39
2. Low water due to failure of feeder controls.....	10
3. Low water due to failure of pump or injector.....	6
4. Low water due to other miscellaneous causes.....	13
5. Burning due to scale, mud, or oil in boiler.....	18
6. Burning due to other causes, and undetermined.....	14
	100

The fact that damage by low water (items 1 to 4) accounted for 68 percent of the overheated boilers on the list may seem surprising when it is considered that one of the first rules for operating a boiler is WATCH THE WATER LEVEL! However, the man responsible for operating the boiler usually has other duties as well, and he may rely too heavily on the automatic controls.

This does not mean that automatic boiler operation is risky and manual operation is to be preferred. On the contrary, most controls are well-made and reliable, but like any other mechanical devices they must be maintained properly and used correctly.

LOW-WATER CUT-OUT FAILURES

Failure of low-water fuel cut-out devices was responsible for more of the overheating accidents in this survey than any other single factor. But neglect or poor treatment of the equipment will be found behind the majority of such cases.

One of the most common causes for the failure of a float-operated cut-out is nothing more than an accumulation of mud or sediment in the float chamber. The obstruction holds the float up, and prevents the cut-out switch from tripping.

The chances of failure from this cause can be greatly reduced by testing the cut-out at regular intervals not less than once a week. By this simple means, the chances of an accident are greatly reduced.

The test is made by opening the drain valve on the float chamber and flushing the chamber until the cut-out switch trips. If the float "hangs up" it may be that an accumulation of hard scale has formed in the chamber which cannot be flushed clean. In such cases, it is necessary to open the bowl for cleaning.

Another frequent cause for failure of a cut-out is binding or sticking of

moving parts due to inactivity when the device has not operated automatically or by manual test for a long time. This type of failure and other mechanical faults can be discovered by regular tests, and corrections made before a low-water accident results.

Not so frequent, but more embarrassing, are the cases where a faulty cut-out has been "blocked up" or bypassed so the boiler can be continued in operation. If repairs are put off, someone may forget that the boiler is operating without the safety device, and then the situation is ripe for a low-water accident.

Improper use of a cut-out is behind some failures. A low-water fuel cut-out should be treated purely as a safety device; not as a substitute for checking the water level. Its function is to act in an emergency when the regular method of controlling the water level (manual or automatic) goes wrong. It can be compared to a safety valve that is used to limit the pressure in an emergency, but not as a means for regulating the pressure. If the water level is habitually ignored, and the low-water cut-out is used as an indicating device to tell the operator when it is time to start the feed pump, sooner or later the cut-out will fail at a critical moment, and a low-water accident will be the result.

OTHER CAUSES OF LOW-WATER ACCIDENTS

Mechanical failures of other boiler appliances are listed under items 2 and 3 of the table. Some of these were the result of neglect or misuse of the apparatus; and, like the cut out failures, could have been avoided by regular maintenance and testing programs.

Overheating accidents that were caused simply because the operators of hand-fired boilers were careless about watching the water level are not classified separately. Most of them are included among the miscellaneous group (item 4), but there are probably others under item 6 along with the "undetermined" cases. It is sometimes difficult to get the complete story of such a failure, therefore, some of these cases must be written off as "undetermined."

SCALE AND OIL CAUSE MANY ACCIDENTS

Internal scale, mud, or oil, was the second largest single cause for overheating or burning in the cases reviewed. This is a problem that has always confronted boiler operators in any industry, and will probably continue to rank high in the list of boiler

NUMBERED AND UNDOCUMENTED VESSELS

The table below gives the cumulative total of undocumented vessels numbered under the provisions of the act of June 7, 1918, as amended (46 U. S. C. 288), in each Coast Guard district by customs ports for the quarter ending June 30, 1952. Generally speaking, undocumented vessels are those machinery-propelled vessels of less than 5 net tons engaged in trade which by reason of tonnage are exempt from documentation.

Coast Guard District	Customs port	Total
1. (Boston)	(4) Boston.....	17,206
	(1) Portland, Maine.....	11,778
	(2) St. Albans.....	2,944
	(5) Providence.....	4,872
		36,800
2. (St. Louis)	(45) St. Louis.....	15,298
	(12) Pittsburgh.....	2,556
	(34) Pembina.....	71
	(35) Minneapolis.....	5,676
	(40) Indianapolis.....	3,920
	(42) Louisville.....	3,963
	(43) Memphis (part).....	8,244
	(46) Omaha (part).....	510
	(47) Denver.....	7
		40,245
3. (New York)	(10) New York.....	43,687
	(6) Bridgeport.....	9,519
	(11) Philadelphia.....	21,151
		74,357
5. (Norfolk)	(14) Norfolk.....	16,822
	(13) Baltimore.....	24,285
	(15) Wilmington, N. C.....	8,930
		50,037
7. (Miami)	(18) Tampa (part).....	24,037
	(16) Charleston.....	1,997
	(17) Savannah.....	3,425
	(49) San Juan.....	487
	(51) St. Thomas.....	100
		30,046
8. (New Orleans)	(20) New Orleans.....	20,674
	(18) Tampa (part).....	779
	(19) Mobile.....	8,471
	(21) Port Arthur.....	4,088
	(22) Galveston.....	11,044
	(23) Laredo.....	2,171
	(24) El Paso.....	6
	(43) Memphis (part).....	76
		47,309
9. (Cleveland)	(41) Cleveland.....	6,577
	(7) Ogdensburg.....	2,585
	(8) Rochester.....	4,692
	(9) Buffalo.....	4,139
	(36) Duluth.....	2,503
	(37) Milwaukee.....	3,531
	(38) Detroit.....	16,412
	(39) Chicago.....	5,335
		45,774
11. (Long Beach)	(27) Los Angeles.....	9,389
	(25) San Diego.....	1,829
	(26) Nogales.....	111
		11,329
12. (San Francisco)	(28) San Francisco.....	21,049
		21,049
13. (Seattle)	(30) Seattle.....	16,402
	(29) Portland, Oreg.....	8,402
	(33) Great Falls.....	424
		25,228
14. (Honolulu)	(32) Honolulu.....	3,868
		3,868
17. (Juneau)	(31) Juneau.....	7,748
		7,748
Grand total.....		393,790

accident causes for a long time to come.

Much has been accomplished in feed water treating methods. Where feed water is precisely controlled, boilers can be kept on the line for months at a time without internal cleaning; but where ordinary feed-water treatment is used, prevention of accidents due to internal deposits still depends largely upon regular and frequent internal cleaning.

SUMMARY

The results of this survey point to the way for the boiler operator to reduce the chances of a boiler accident. It can be done by setting up one schedule for testing appliances, and another for internal cleaning; and then sticking to those schedules. It is easier to follow the program when a record (or log) is kept. If the date of each test or internal cleaning is entered on a chart in the boiler room, the records will act as a reminder for holding to the schedule. Such records help to maintain uninterrupted service in the main propulsion unit, and the same idea can be used to advantage in the operation of the auxiliary units.

LOG BOOKS

Continued from page 196

This lack of reply to the log entry possibly gives rise to an inference of guilt, or admission by silence.

The usual omissions in making log entries are those requiring the entry to be read to the crew member, his reply noted, and a copy presented to him; and failure to make the entry within the prescribed period of time.

Thus it is seen that much of the responsibility for the outcome of disciplinary proceedings rests with the master of the vessel. It is his statutory obligation to see that the seaman has a chance to reply to the alleged offense. Failure to do so not only is in violation of the law but eventually may have an adverse effect in the meting out of justice. Aside from the master's responsibility to see that the law is not violated, he should also bear in mind the penalty provided by law for making an improper log entry. This penalty is prescribed in 46 U. S. C. 203 as \$25 for each offense.

In addition to complying with the basic essentials to make the log entries conform with the law, the master should appreciate the fact that the context of the entry will reflect his attitude and the extent of his investigation or lack of investigation. This entry assumes a great deal of importance, when, as often is the case, there are no other witnesses and the log-book entry must stand alone as the only evidence in support of the allega-

tion. The defendant's testimony often will offset the weight of a valid log entry because of its brevity. In view of the weight attached to the pertinent entry it should, as a minimum contain these points: An outline of the incident, names of witnesses, and a brief comment on the persons involved. While the last point might be considered hearsay in nature, it would still be admissible as the expressed opinion of the master of the vessel.

It is hoped that in the future, the masters of the United States merchant vessels who have been careless in maintaining their official logbooks will realize that their omissions, which might appear to be of a minor nature, have a far reaching effect and can relegate the ship's official logbook to the status of a loose-leaf notebook.

Recommendations for making an official log entry:

1. Meticulous care in stating the offense of the crew member.
2. Confronting the crew member with the accusation and accurately recording his reply.
3. Disclose source of information; i. e., whether the master himself witnessed part or all of the incident, and if not, name the persons who did witness it.
4. Witnesses to logging: The statute requires a witness to the entry. Masters frequently confuse this with a witness to the incident or subject matter of the logging. Where several officers or seamen merely sign the log entry under the caption "witnesses" they must be treated only as witnesses to the logging. A simple notation "witnesses to the incident" will distinguish the signatories, strengthen the log entry, and aid the investigating officer in any subsequent investigation.

(EDITOR'S NOTE.—An official log must contain an entry as to every offense committed by any member of the crew for which it is intended to prosecute, or to enforce a forfeiture, together with a statement concerning the reading of the entry to the person logged and his reply to the charge if any. Each such entry in the official logbook must be signed by the master and then countersigned by the mate or some other member of the crew. Moreover, the entry must be made as soon as possible after the occurrence to which it relates. In the event that it is not made on the same day as the occurrence to which it relates, the entry must note the date of occurrence and the date of entry. In no case is it valid to make such an entry as to an occurrence happening prior to the vessel's arrival at her final port after the vessel has been in its final port 24 hours.)

Your Fact Forum

Q. What may happen to carbon dioxide extinguishers if left in extremely hot sun?

A. Heat from sun causes expansion of gas within extinguisher and explosion may result.

Q. How should the wearer of an asbestos suit be dressed before putting on the suit?

A. Fully dressed.

Q. If during the fire-fighting operations the asbestos suit becomes wet, what should the wearer do?

A. Withdraw from the heated area or be kept wet to prevent water from turning to steam and scalding wearer.

Q. What are the two dangers of carbon monoxide?

A. (a) Toxic fumes. (b) Explosion.

Q. What deadly gas is formed when carbon tetrachloride is exposed to hot objects or open flames?

A. Phosgene.

Q. When is the hazard of using a carbon tetrachloride fire extinguisher the greatest?

A. When the liquid is discharged on slow burning or smoldering electrical equipment, automobile motors, or any metal object involved in a fire.

Q. What signal should be displayed by day when loading or discharging oil in bulk at a dock?

A. A red flag.

Q. What should be used to make a flanged joint in an oil hose tight?

A. A gasket.

Q. What is meant by the word "Maru"?

A. It's a term which accompanies the name of all Japanese vessels and carries the hope or assumption of perfection or completeness. Its original meaning was a circle or sphere.

Q. Why should axes be located on piers near bitts or bollards where vessels' lines are secured?

A. To cut lines in the event vessels are required to vacate a slip quickly because of fire on the pier.

Q. Why should gasoline never be used for cleaning purposes?

A. Because of the explosive vapor hazard.

Q. What is the recommended distribution in distance for fire extinguishers aboard large vessels?

A. So that not more than 50 feet (horizontally) will have to be traveled to reach the nearest extinguisher.

Q. Why should tow lines be available on the offshore side of a vessel undergoing repairs at a pier?

A. So that they may be quickly passed to a tug in the event a hasty departure is required due to a pier fire or a fire aboard ship.

Q. Before welding or burning operations on a bulkhead are commenced, what check must be made?

A. The conditions on the other side of the bulkhead.

Q. What signal should be displayed by night when loading or discharging bulk oil at a dock?

A. A red electric lantern.

Q. How often should oil-pressure gages be tested?

A. At least once each year.

Q. When transferring an oil cargo, what should be done if a severe electrical storm comes up?

A. Stop the transfer operation.

Q. If fire were to break out in the crew's quarters, what should you do?

A. Call the master. Sound the general alarm. If possible, put out the fire by extinguishers or smother it with wet blankets, etc. Close all ports and doors to prevent a draft. If unable to extinguish it in this manner flood the compartment.

Q. How is a life ring used?

A. It is thrown to a person overboard so that he may cling to it until assistance arrives.

Q. When should you use a foam type of fire extinguisher?

A. This type of extinguisher is used to extinguish combustible materials and inflammable liquids, such as burning oils or gasoline, by smothering the surface with foam.

Q. What are line throwing guns used for?

A. For lifesaving in cases where boats cannot be used.

Q. Why is it important to use the proper knot for each particular purpose?

A. Knots so tied greatly increase the grip as power is applied to them, yet are easily untied when not in use. Improper knots may slip at the crucial moment and moreover are very hard to untie once they have been jammed.

Q. Can boiler compounds be used for washing paint work?

A. No. They are too strong for this purpose. In addition if a boiler compound mixture gets on your skin or in your eyes it may result in a serious infection or loss of eye sight.

SO UNNECESSARY!

It is believed that if a poll were taken among rivermen, the percentage of those who could neither swim nor stay afloat would be amazingly high, and yet, each workday in the riverman's life is filled with hazards which make drowning the number one cause of the riverman's death.

Probably the most serious hazard is that of working on tows while they are underway or being made up, particularly if this is done at night. As tows become larger and more cumbersome this hazard increases.

Recently the mate on a pusher-type towboat, northbound up the Mississippi at night, observing that his tow was bending in the middle, told the pilot he intended to tighten the lines on the starboard side. There was nothing unusual about the tow and the weather was clear. He called his three deckhands together; told them what had to be done and the dangers involved; directed each to procure a flashlight (which they did); and told them to follow him. However, the mate said nothing about donning life jackets as it was not the practice to do so on this line.

Proceeding to the second or middle tier of barges, starboard side, the four men tightened the fore and aft lines. The mate then decided to run another line from that barge to the outboard barge, starboard side, in the first tier.

This tier of barges extended beyond the middle tier on the starboard side, creating a void space known as a "duck pond."

After the mate made the lead fast, the four men walked over to the head tier barge, starboard side. The mate, seeing that the lead was too long, sent the three deckhands back to change it, telling them to come back when this had been done to help him pull up the slack so it could be ratcheted.

After changing the lead the three deckhands started to return to the mate, two going inboard to avoid the duck pond, the third apparently not following, instead proceeding forward along the outboard catwalk.

Neither the mate nor the other two men saw this man fall, but the mate heard a splash, and turning his light toward the men, observed only two. He immediately sensed that the third man had fallen overboard and signaled the pilot to stop. He and the two deckhands ran to the towboat and launched the lifeboat and

motorboat, while the pilot, using his searchlight, picked up the man in the water about 150 feet off the starboard side of the towboat and followed him until he went out of sight in a surface haze off the starboard quarter.

The man, while in sight, appeared to be trying to climb out rather than stay afloat. He was seen to disappear and reappear twice and is presumed to have lost his life.

In another recent casualty, a clam shell dredge with a shell barge on the hip was working in Lake Salvador at night when a deckhand slipped on the deck, fell overboard, and drowned. The barge was well illuminated, but its decks were covered with water, mud, fish, and shells which spewed out of the chute. As the deckhand was walking on the after rake toward the shell pile he was to level off, he slipped overboard, and although he could be heard for a few minutes, the mist closed in and he was lost from sight.

No instructions had been issued for these men to wear life jackets.

Another nighttime drowning occurred when a deckhand, standing on the bow of his towboat making fast cables which had been passed to him by deckhands on the barges, fell overboard. The decks of the towboat and barges were well illuminated by the deck lights and searchlights, and specific instructions had been issued by the captain that men were to wear life jackets when making up tows or performing work on the barges. This man had not heeded the warning.

Still another drowning at night occurred when a deckhand, observing what he thought was a loose bowline running from an empty outboard barge to the bow of a loaded barge alongside the dock, attempted to climb down the line, fell in the water and was lost. Actually the line had parted and was hanging about 1½ feet above the water.

All these drownings could have been avoided if the men involved had been wearing life jackets. Life jackets are uncomfortable and cumbersome. As such they tend to restrict a riverman's movements while working, but they are necessary.

JET PROPULSION

A 35-pound Lux extinguisher was removed from a vessel for the purpose of weighing and checking, and was left standing in an upright position on the dock in the sun. About an hour and a half later the extinguisher exploded and, according to the report, "traveled 115 feet in a southwesterly direction until it struck a dock piling; it was deflected and traveled 95 feet north and reached an altitude of 30 feet before it fell." The explosion was a result of the heat from the sun; the control valve fractured, which resulted in jet propulsion for the whole extinguisher.

CO₂ extinguishers should not be left in the sun or otherwise subjected to high temperatures.

A TRAITOR TO SAFETY

The vessel was tied up to a pier in an east coast port. Efforts were made to prepare her for sea; the lifeboats had been put out to test their operation.

As the chief electrician walked along the deck, he was approached by an A.B. The conversation was in effect as follows:

A.B.: "Chief, would you give us a hand to crank up the lifeboat?"

C.E.: "Sure, fella—but wait a minute, I know enough about these limit switches so we don't have to strain our backs to get it up. Those switches are just a lot of bunk."

Whereupon the chief electrician proceeded to try out his idea. He bypassed the limit switches by closing the circuit with the end of a screw driver. See diagram on opposite page. This caused the electrical contacts to fuse, resulting in his inability to remove the screw driver. The lifeboat was two-blocked, but the strain on the lines was so great that the falls parted and the lifeboat dropped to the water, a distance of approximately 25 feet!

Punitive action was taken, however, it will not compensate for the monetary damage sustained to the lifeboat and its equipment. It is hoped that any future aspirants to the art of bypassing limit switches remember the limit switch was put there for a specific purpose.

**A tip on how to be respected:
See that Safety's not neglected**

100 PERCENT CARELESSNESS

Because one person was careless, another person lost his life.

The stevedores had completed discharging the cargo from the holds of a C-3 cargo type vessel, which was moored to a pier in the Far East. Dunnage had been stacked in the wings, debris generally swept up and the hatch boards in the 'tween deck hatches put in place. The vessel was about ready to depart for the next port of call. All that remained to be done was an inspection tour by the chief and second mate; as usual, checking the seaworthiness of the cargo spaces and checking for stow-aways.

Although the sun was shining brightly and helped to light up the holds by shining through the cracks between the hatch boards, the chief mate, a man of forethought, still relied upon his personal flashlight. They entered through the main hatch into the upper 'tween deck then proceeded to the lower 'tween deck via the centerline ladder located approximately 10 feet forward of the hatchway. The chief mate started to in-

spect the lower 'tween deck while the second mate entered the manhole in the forward end of that deck to descend the ladder to the lower hold. Both the second mate and the chief mate were using flashlights although there was a fair amount of sunlight penetrating the lower 'tween deck from the spaces between the hatch boards overhead.

The hatch boards were laid in the square of the hatch and cargo was stowed to a height of approximately 8 feet all over the after half of the lower 'tween deck, its forward boundary being directly over the middle 'thwartship king beam in the hatchway. The cargo was walled off at this point by crosstying the outer tiers of bags.

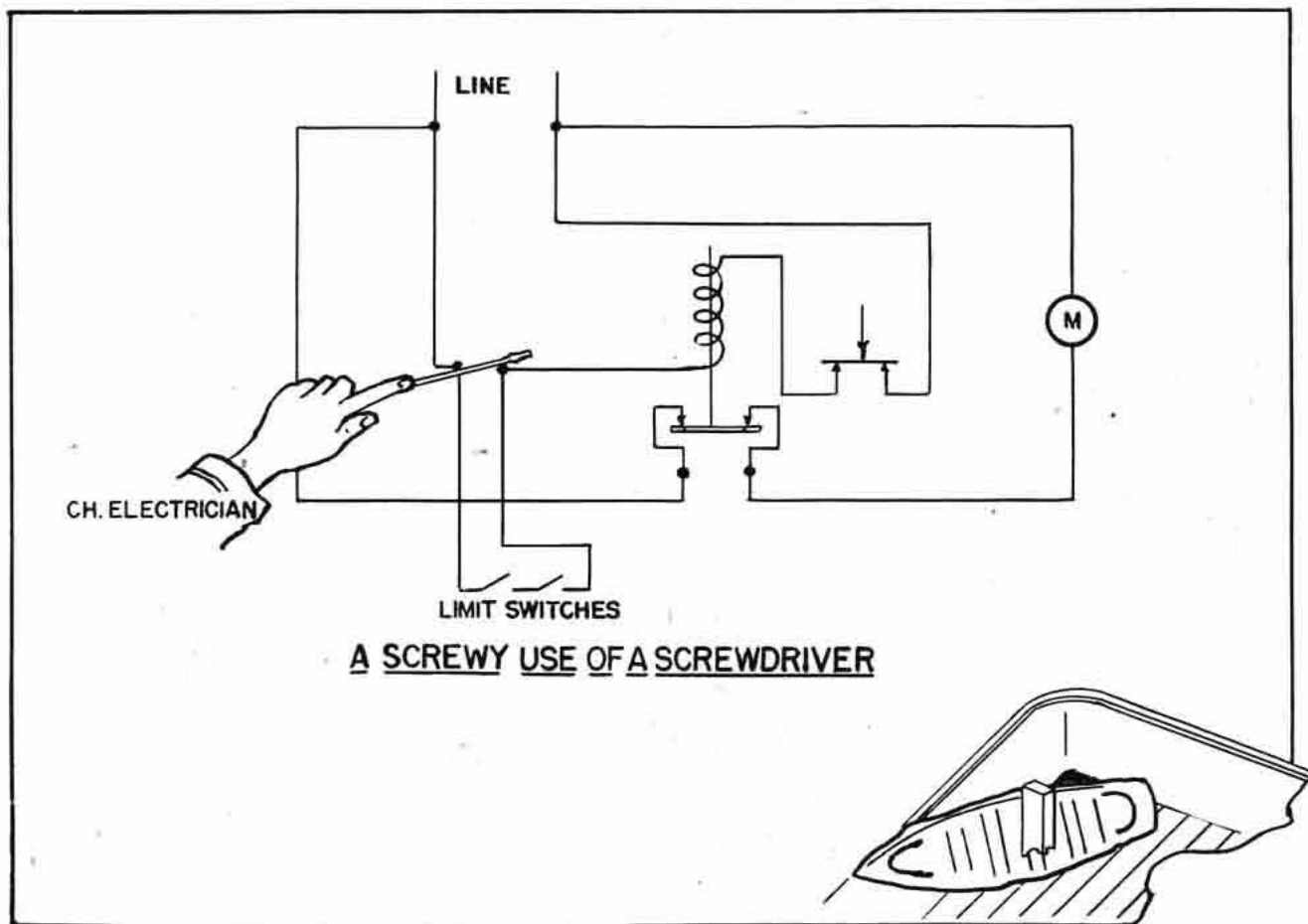
As the second mate entered the aforementioned manhole to the lower hold, he saw the chief mate walk aft over the lower 'tween deck hatch boards towards a point near the middle of the hatch, presumably to inspect the condition of the cargo wall. He had his flashlight in his hand and its light was on. As he

neared the cargo he suddenly dropped from sight through the hatch and at the same time the second mate saw what appeared to be an up-ended hatch board disappear through the hatch along with the chief mate. The second mate immediately sent word to the master and then descended to the lower hold to give whatever aid possible.

The chief mate was removed to a nearby hospital ship where his condition was considered critical and immediate surgery was deemed necessary. However, death came to this young man two hours and fifty minutes later.

It is apparent from the administrative investigation of this tragedy that the chief mate inadvertently stepped on an unsupported end of a hatch board, causing him to fall to the lower hold.

The crux of this tragedy lies in the fact that an irresponsible person whose job was to properly replace the hatch boards failed to do his job. He was careless!



WORDS AND PICTURES



SLACK TANKS

The above photograph depicts a vessel after her arrival at Newport News, Va., with a 12° list to port which attracted considerable attention.

This vessel loaded a full cargo of lumber, including a 7-foot deck load, at a port in Oregon. She received as additional deck cargo two LSU's, each of which had been dismantled into three sections. Four LSU sections were stowed in cradles and shoved on top of the lumber cargo on the forward deck. The remaining two LSU sections were stowed on top of the lumber cargo on the after deck. As a result the vessel had a 5° trim by the head. The master, preferring a trim by the stern, discharged the fresh water from the forepeak to eliminate this undesirable trim.

En route from Oregon to Balboa fuel oil for steaming was drawn from Nos. 1 and 3 double bottoms, also the level of the fuel in the remaining double bottoms was lowered to avoid spills from expansion in high temperature sea water. The vessel gradually developed a 9° port list which led to an attempt to overcome the list by pumping No. 2 double bottom into No. 3 and ballasting No. 3 deep tank, but the list prevailed.

Fresh water taken on at Balboa temporarily corrected the list to 4° and brought the ship to an even keel. However, after departing Balboa, and while in the vicinity of Cape Hatteras,

the vessel experienced a list of from 11° port to 22° starboard. Upon the vessel's arrival at Newport News the 12° port list still existed.

That the lists experienced by the vessel while at sea were due to slack double bottom tanks was clearly borne out at Newport News when the slack tanks were pressed up, bringing the vessel back to about 2° port list.

ANOTHER GROUNDING

The vessel below was proceeding seaward down a winding river on the start of her voyage home. Her cargo of coal had been discharged, however, no ballast had been taken on board because . . . the river water was so muddy. Her draft at the time was 6' 3" forward and 14' 3" aft.

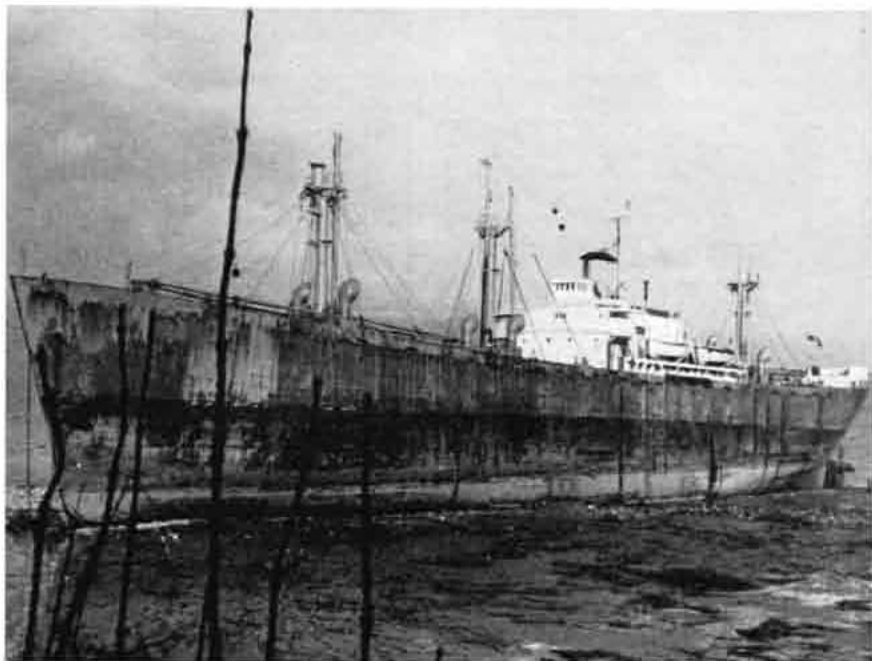
As the vessel proceeded down river the wind shifted and increased in force. Shortly, gusts of force 9 to 10 were encountered.

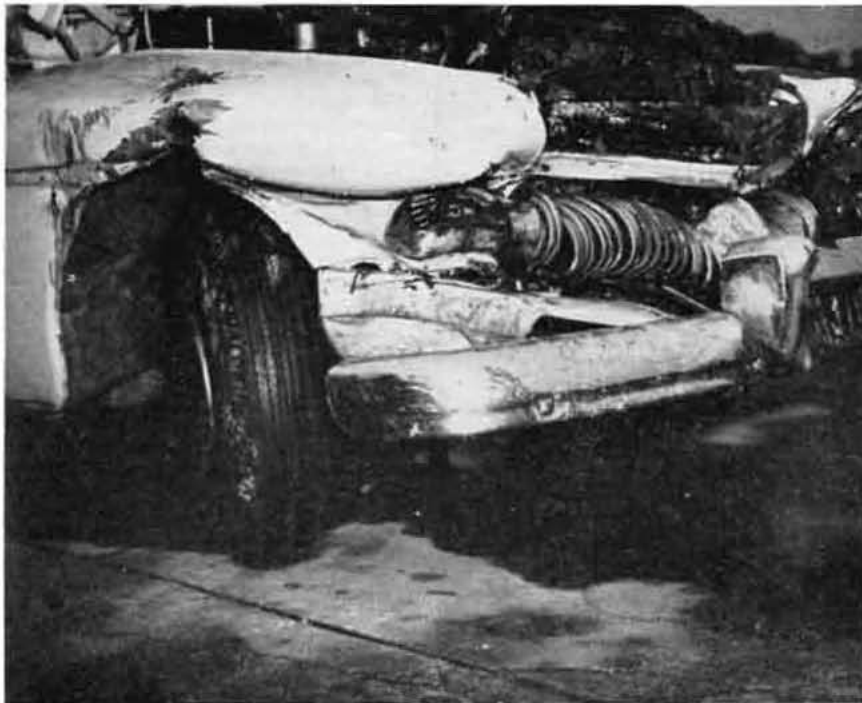
When the vessel approached a severe right bend in the river, the pilot ordered full speed in order to negotiate the turn. Simultaneously, a hail squall struck and set the vessel to port. Hard right rudder failed to counteract the effect of the wind as high seas and current hit the bow of the unballasted vessel, and the vessel commenced to go aground. As soon as she touched, the wind and seas pushed her far up on the beach. Settling high and dry, the ship could not be refloated by her own power.

It was 11 days after the grounding that she was refloated.

Fortunately, subsequent drydock examination disclosed little bottom damage.

The grounding taking place during the peak of a spring tide, the vessel appeared as shown at the ebb.





SLIGHTLY USED CAR DEPARTMENT

Pictured alongside is the No. 3 lower hold of a victory-type vessel.

A cargo of 2,050 tons of iron pyrite concentrates was loaded into this hold at a Pacific coast port. When this ore was loaded, it was quite wet, so wet that small puddles formed on top of the cargo. Nevertheless, the ore cargo was trimmed; four layers of 1-inch dunnage were laid on top of the ore; 2- by 12-inch planks were laid athwartships on top of this dunnage; and 31 new passenger vehicles were stored on this planking.

These vehicles were secured by chocking the wheels with 2 by 4's, but no lashings were attached. After stowage only 1 foot of space remained between the tops of the automobiles and the overhead beams.

On the first day at sea the vessel encountered rough head seas and when the wind and seas increased, the vessel rolled 20° to 30°. The course was changed to ease the rolling. Then it was noticed that the vessel appeared to be developing a port list.

The chief officer made an inspection of the holds, and in No. 3 lower hold, he found that the vehicles had come adrift. The timber flooring was broken up and submerged in the muddy ore. The vehicles were crashing into each other and against the overhead beam.

Subsequent course changes relieved the situation. Several days later the vessel made port, where the damaged cargo was removed.

Needless to say, heavy shifting boards should have been erected. Iron pyrite concentrates contain



SEAGOING MOTORISTS

Every now and then we come up with a death or two, which may be termed the result of experiments to determine the buoyancy of passenger cars and trucks. If an automobile were ever successfully navigated from, say, Jersey to New York we might award it a number and thereby place it and the operator under certain marine regulations, but there is little time to consider hypothetical situations from the instant the vehicle is water-borne until it sinks below the surface carrying with it the "skipper" and his guests.

In the case illustrated opposite, a car carrying two people continued through the ferry and off the river end, breaking the slip hook of the restraining cable in its travel.

Both occupants were drowned.

The damage to the car shows that a tremendous stress was placed upon it by the restraining cable before it parted. Quite possibly, the driver was confused and emotionally upset. There was, however, no member of the ferry's crew on the river end to direct or assist the loading of vehicles.

moisture which tends to "settle out" at the surface, thus raising the percentage of moisture near the surface until the ore has consistency of mud. Moreover, this excess moisture was obvious.



Two vessels were underway in the Great Lakes on opposite courses during foggy weather. One, a Great Lakes passenger vessel with 80 passengers, was proceeding at 16 knots. The other, a foreign freighter, was proceeding at approximately 7 knots. Both vessels had radar on board, but the radar on the passenger vessel was inoperative. These vessels were sounding regulation fog signals and had proper lookouts posted, but, neither vessel reduced speed until collision was imminent, even though visibility was limited to roughly 1,000 feet. As a result, the vessels collided and five people died.

The freighter was steering to the west of the recommended upbound course laid out by the Lake Carriers' Association. The master of the passenger vessel, on the other hand, had decided to navigate *between* the upbound and downbound courses, because as he stated, he wanted to avoid weaving in and out as he overhauled slower vessels on the downbound course. Eventually, the two vessels departed somewhat from their prospective courses due to the difficulty of navigating in the fog.

The freighter established radar contact when the vessels were approximately 8 miles apart and 5° off each other's bow. As the distance closed on a constant bearing, the freighter changed course some 34° to give the other vessel a wider berth. In the meantime, the master of the passenger vessel heard the fog signals of the vessel ahead, but failed to stop and proceed cautiously as required by the rules of the road. The master assumed he was overtaking a slower downbound vessel and changed his course to the right to give it a wider berth, thus negating the change made by the freighter.

Visual contact was established when the vessels were 1,000-1,100 feet apart. Desperate maneuvering on the part of the confused vessels followed, but due to the fact neither had reduced speed while proceeding through the fog, the vessels collided.

Five deaths bear testimony to the careless violation of the rules of the road and the lack of prudent seamanship. Their epitaph could read: False assumptions. Confusion. Excess speed in fog. Sacrificed to carelessness!

Since the freighter was a foreign vessel, her master was not subject to disciplinary action by the Coast Guard. The license of the master of the Great Lakes passenger vessel was suspended for 1 year.

Amendments to Regulations

TITLE 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

[CGFR 52-35]

Subchapter O—Regulations Applicable to Certain Vessels During Emergency

PART 154—WAIVERS OF NAVIGATION AND VESSEL INSPECTION LAWS AND REGULATIONS¹

DEPARTMENT OF THE INTERIOR VESSELS OPERATED BY PACIFIC MICRONESIAN LINES, INC.

Pursuant to the provisions of section 1 of Public Law 891, 81st Congress, approved December 27, 1950 (64 Stat. 1120), the Deputy Secretary of Defense by letters dated June 12 and June 24, 1952, requested a general waiver of all the navigation and vessel inspection laws administered by the United States Coast Guard, as well as the regulations issued thereunder and published in 33 CFR Chapter I or in this chapter to the extent necessary to permit the operation of certain vessels which are the property of the Department of the Interior and operated under contract by the Pacific Micronesian Lines, Inc., to furnish transportation in the Trust Territory of the Pacific Islands, as well as between the Trust Territory of the Pacific Islands and all the ports of the United States, including the territories and possessions, and foreign ports.

The purpose of the following waiver order designated § 154.35, as well as 33 CFR 19.35, is to waive the navigation and vessel inspection laws and regulations issued pursuant thereto which are administered by the United States Coast Guard to the extent necessary to permit the operation of the U. S. S. *Chicot* (AKL 170), U. S. S. *Camano* (AKL 1), U. S. S. *Elba* (AKL 3), U. S. S. *Errol* (AKL 4), U. S. S. *Metomkin* (AKL 7), U. S. S. *Roque* (AKL 8), and U. S. S. *Torry* (AKL 11), as well as the schooner *Frela* and the schooner *Milleeta* or other vessels which may be used as substitutes for these vessels, of the Department of the Interior by the Pacific Micronesian Lines, Inc., to furnish transportation in the Trust Territory of the Pacific Islands, as well as between the Trust Territory of the Pacific Islands and the United States, including its

territories and possessions, and foreign ports until and including June 30, 1953, unless sooner terminated by proper authority. It is hereby found that compliance with the notice of proposed rule making, public rule making procedure thereon, and effective date requirements thereof of the Administrative Procedure Act is impracticable and contrary to the public interest.

By virtue of the authority vested in me as Commandant, United States Coast Guard, by an order of the Acting Secretary of the Treasury, dated January 23, 1951, identified as CGFR 51-1, and published in the Federal Register dated January 26, 1951 (16 F. R. 731), the following waiver order is promulgated and shall be in effect from July 1, 1952, to and including June 30, 1953, unless sooner terminated by proper authority:

§ 154.35 *Department of the Interior vessels operated by the Pacific Micronesian Lines, Inc.* Pursuant to the request of the Deputy Secretary of Defense, in letters dated June 12 and June 24, 1952, made under the provisions of section 1 of Public Law 891, Eighty-First Congress (64 Stat. 1120), I hereby waive in the interest of national defense compliance with the provisions of the navigation and vessel inspection laws administered by the United States Coast Guard, as well as the regulations issued thereunder and published in 33 CFR Chapter I or in this chapter, to the extent necessary to permit the operation of the U. S. S. *Chicot* (AKL 170), U. S. S. *Camano* (AKL 1), U. S. S. *Elba* (AKL 3), U. S. S. *Errol* (AKL 4), U. S. S. *Metomkin* (AKL 7), U. S. S. *Roque* (AKL 8), and U. S. S. *Torry* (AKL 11), as well as the schooner *Frela* and the schooner *Milleeta* or other vessels which may be used as substitutes for such vessels, of the Department of the Interior and operated by the Pacific Micronesian Lines, Inc., in the Trust Territory of the Pacific Islands or between the Trust Territory of the Pacific Islands and the United States, including its territories and possessions, and foreign ports, and this waiver order shall be in effect from July 1, 1952, to and including June 30, 1953, unless sooner terminated by proper authority.

(Sec. 1, Pub. Law 891, 81st Cong.)

Dated: June 30, 1952.

[SEAL] A. C. RICHMOND,
Rear Admiral, U. S. Coast Guard,
Acting Commandant.

[F. R. Doc. 52-7376; Filed, July 3, 1952;
8:49 a. m., 17 F. R. 6047-7/4/52.]

Navigation and Vessel Inspection Circular No. 5-52

UNITED STATES COAST GUARD,
WASHINGTON 25, D. C.

April 11, 1952.

Subj: Motorboats, pleasure and commercial fishing; safety requirements and registration procedure.

1. Navigation and Vessel Inspection Circular No. 6-50 is hereby canceled as the supply for public distribution is exhausted.

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 or by any state, county, city or municipality where such vessels are used

¹ This is also codified in 33 CFR Part 19.

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 boatbuilders, 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 embody the safety requirement 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 of motorboats 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) Foghorns 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 re-

quirements 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.*—An approved 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. Approved 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 dowsing, 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 flashpoint 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 minimum number and type of extinguishers listed in the table are required on board. The type of extinguishers on motorboats, if in good and serviceable condition, may be used until 6 months after the national emergency. Purchasers of new 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, U. S. Coast Guard, in the area where the motorboat is located, or from the Commandant (MVI), U. S. 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. (46 U. S. C. 526l and 526m)

I. *Destruction of life.*—Title 18, U. S. Code, Section 1115, provides as follows:

Every captain, engineer, pilot, or other person employed on any steamboat or vessel, by whose misconduct, negligence, or inattention to his duties on such vessel the life of any person is destroyed, and every owner, charterer, inspector, or other public officer, through whose fraud, neglect, connivance, misconduct, or violation of law the life of any person is destroyed, shall be fined not more than \$10,000 or imprisoned not more than 10 years, or both.

When the owner or charterer of any steamboat or vessel is a corporation, any executive officer of such corporation, for the time being actually charged with the control and management of the operation, equipment, or navigation of such steamboat or vessel, who has knowingly and willfully caused or allowed such fraud, neglect, connivance, misconduct, or violation of law, by which the life of any person is destroyed, shall be fined not more than \$10,000 or imprisoned not more than 10 years, or both.

6. From the tables printed herein 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, operator, and the 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 regulations in 46 C. F. R. 25.1-1 to

25.1-8, inclusive, regarding navigation lights, must be complied with by motorboats when operating after sunset and before sunrise. The following requirements are taken from these regulations and apply to all motorboats, when propelled by sail and machinery or by sail alone:

A. Motorboats of classes A and 1, when propelled by sail and machinery or by sail alone, shall carry a white light aft to show all around the horizon. The combined lantern in the fore part of the vessel will not be carried.

B. Motorboats of classes 2 and 3, when propelled by sail and machinery or by sail alone, shall carry the colored side lights properly constructed and screened but not the white lights in the fore and aft part of the vessel.

C. In addition, motorboats of all classes, when propelled by sail and machinery or by sail alone, shall carry ready at hand a lantern or flashlight showing a white light which shall be exhibited in sufficient time to avert collision.

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.

FIRE EXTINGUISHERS

Class of motorboat	Number of extinguishers ¹	Boats fitted with fixed CO ₂ system ²
A.....	1	0
1.....	1	0
2.....	2	1
3.....	3	2

¹ The extinguishing units required by the above table shall be of any of the following approved types and capacities: 1½-gallon foam; 4-pound carbon dioxide; 1-quart carbon-tetrachloride or 4-pound dry chemical. On boats of class 3, the approved extinguishers required, may, in the case of the foam and carbon-dioxide type, be of larger capacity; i. e., 2½-gallon foam or 15-pound carbon dioxide and provided in the ratio of one larger unit for two of the units required by the table.

² To secure this reduction, the fixed carbon-dioxide system fitted must be of an approved type and installed and maintained in accordance with the provisions of the regulations covering such systems.

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 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. 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. The regulations issued by the Commandant under the authority of the Numbering Act require 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 life-saving equipment on inspected vessels.

APPLICATIONS AND ISSUANCE OF NUMBERS

12. The following procedures describe how to obtain a number:

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 appli-

EQUIPMENT REQUIREMENTS FOR PLEASURE AND COMMERCIAL FISHING MOTORBOATS

Equipment	Class A 0 to less than 16 feet	Class 1 16 to less than 26 feet	Class 2 26 to less than 40 feet	Class 3 40 to not more than 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.
Port side light.....	None.....	None.....	1 on port side, 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 ¹	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 approved life preserver or ring buoy or buoyant cushion for each person on board.			1 approved life preserver or ring buoy for each person on board.
Flame arrestors.....	1 approved 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 flashpoint less than 110° F.			

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.

cation for a new number to the Coast Guard District Commander or 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 Coast Guard District Commander or 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 to the Officer in Charge, Marine Inspection, U. S. Coast Guard, he 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. At a port where the Coast Guard District Commander has authorized the Officer in Charge, Marine Inspection, U. S. Coast Guard, to issue certificates and maintain record of ownership of vessels, it will, of course, not be necessary to transmit the application for a certificate of award of number to the District Commander and the papers will be processed by the Officer in Charge, Marine Inspection, who will issue the certificate of award of number.

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 as-

signed or 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 water line, 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.

YACHTS ENTITLED TO DOCUMENTATION

15. The Bureau of Customs has recently extended the privilege of documentation as yachts under the navigation laws to a large class of pleasure boats heretofore excluded. The change makes possible more expeditious travel by small boats between the United States and foreign ports, and facilities financing and transfers of title of such craft. The order affects vessels of not less than 5 net tons nor more than 15 gross tons used exclusively for pleasure. In addition, as in the past, vessels used exclusively for pleasure of more than 15 gross tons may be licensed or enrolled and licensed as yachts, if otherwise entitled to be documented.

16. Important privileges extended by documentation of vessels as yachts are:

A. Authority to fly the yacht ensign, a right highly prized by yachtsmen.

B. Right to voyage to a foreign port without clearing the vessel through United States customs.

C. In the case of yachts of 15 gross tons or less, the right to return to a port of the United States from a foreign port or ports without entering the vessel through customs.

D. Provision for recording of mortgages, bills of sale, and other instruments of title, and the keeping of permanent records thereof in the offices of collectors of customs. Mortgages which are so recorded may, upon compliance with the applicable requirements, become preferred mortgages, thus giving additional security to the mortgagee. Owners who document such vessels must effect renewals annually and must report any changes of master to a collector of

customs. Requests for documentation should be made through the customhouse at or nearest the port where the vessel is located.

17. The requirements in connection with the documentation of yachts are not mandatory and it is entirely discretionary with the owner as to whether he should document his yacht. Owners who desire to have their vessels documented as yachts should consult with the nearest collector of customs. The regulations on the subject are contained in 19 C. F. R. Part 3. However, yachts and other vessels which are not documented, which are machinery propelled, which are owned in the United States, and which are found on the navigable waters thereof must be numbered under the provisions of the act of June 7, 1918, as amended (46 U. S. C. 288). There are no restrictions as to the length, tonnage, or size of such vessels under the provisions of the Numbering Act which should not be confused with those of the Motorboat Act of 1940 (46 U. S. C. 526-526q).

CERTAIN INSPECTION REQUIREMENTS

18. 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 motorboats and motor vessels of above 15 gross tons 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. Motorboats of not more than 65 feet in length, which are less than 100 gross tons, when carrying passengers for hire are only required to be operated by Coast Guard licensed operators. No other licensed officers may be required. Machinery-propelled vessels of above 15 gross tons and in excess of 65 feet in length, carrying freight or passengers for hire, must also be manned with such officers and crew as is determined by the proper Officer in Charge, Marine Inspection, U. S. Coast Guard, upon inspection of the vessel. The complement of such officers and crew is stated in the certificate of inspection. Machinery-propelled vessels of 100 gross tons, or over, generally speaking, are subject to all the provisions of the Seamen's Act of March 4, 1915,

as amended. Complete information on these subjects may be obtained from any Officer in Charge, Marine Inspection, U. S. Coast Guard.

NOTICE OF MARINE CASUALTY

19. Title 46, Code of Federal Regulations, Section 136.05-1, provides in part as follows:

The owner, agent, master, or person in charge of a vessel involved in a marine casualty shall give notice as soon as possible to the nearest marine inspection office of the Coast Guard whenever the casualty results in any of the following:

- (a) Actual physical damage to property in excess of \$1,500;
- (b) Loss of life; or,
- (c) Injury causing any person to remain incapacitated for a period in excess of 72 hours.

Notice of such marine casualties must be made to the nearest Officer in Charge, Marine Inspection, U. S. Coast Guard, in writing and in person, at the port at which the casualty occurred or nearest the port of first arrival, provided that when from distance it may be inconvenient to report in person, it may be done in writing only.

20. Further information in respect to the laws and regulations applicable to motorboats and motor vessels, and advice concerning the requirements for all 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.

By direction of the Commandant.

/S/ H. C. SHEPHEARD,
Rear Admiral, United States
Coast Guard, Chief, Office
of Merchant Marine Safety.

Equipment Approved by the Commandant

DEPARTMENT OF THE TREASURY

United States Coast Guard

[CGFR 52-28]

APPROVAL OF EQUIPMENT

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Order No. 120, dated July 31, 1950 (15 F. R. 6521), and in compliance with the authorities cited below, the following approvals of equipment are prescribed and shall be effective for a period of five years from date of publication in the Federal Register unless sooner canceled or suspended by proper authority, and the following corrections in Coast Guard Docu-

ment CGFR 52-22, Federal Register Document 52-4871, published in the FEDERAL REGISTER dated May 1, 1952, shall be made:

CLEANING PROCESSES FOR LIFE PRESERVERS

NOTE: When buoyancy fillers are not removed from envelope covers during cleaning process.

Approval No. 160.006/21/0, Overall cleaning process for kapok life preservers, as outlined in letter of April 1, 1952, from Overall Cleaning and Supply Co., 220 Yale Avenue, North, Seattle 9, Wash.

(R. S. 4405, 4417a, 4426, 4482, 4488, 4491, sec. 11, 35 Stat. 428, 49 Stat. 1544, 54 Stat. 164, 166, 346, and sec. 5 (e), 55 Stat. 244, 245, as amended; 46 U. S. C. 367, 375, 391, 396, 404, 475, 481, 489, 526e, 526p, 1333, 50 U. S. C. App. 1275; 46 CFR 160.006)

BUOYANT CUSHIONS, NON-STANDARD

NOTE: Cushions are approved for use on motorboats of classes A, 1, or 2, not carrying passengers for hire.

Approval No. 160.008/511/0, 14½" x 24" x 2" rectangular buoyant cushion, 31 oz, kapok, American Pad and Textile Co., dwg. Nos. A-43 and C-78, dated April 24, 1952, manufactured by The American Pad & Textile Co., Greenfield, Ohio, for Thompson Bros. Boat Mfg. Co., Inc., Peshtigo, Wis.

(R. S. 4405, 4491, 54 Stat. 164, 166, as amended; 46 U. S. C. 375, 489, 526e, 526p; 46 CFR 25.4-1, 160.008)

BUOYANT APPARATUS

Approval No. 160.010/17/1, 5.0' x 2.5' (7½" x 9" body section) elliptical, solid balsa wood buoyant apparatus, 5-person capacity, dwg. No. 31052 and specifications, dated March 10, 1952, manufactured by Atlantic-Pacific Manufacturing Corp., 124 Atlantic Avenue, Brooklyn 2, N. Y. (Supersedes Approval No. 160.010/17/0 published in the Federal Register dated June 23, 1949.)

(R. S. 4405, 4417a, 4426, 4488, 4491, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, 245, as amended; 46 U. S. C. 367, 375, 391a, 404, 489, 1333, 50 U. S. C. App. 1275; 46 CFR 59.54a, 60.47a, 76.51a, 160.010)

VALVES, SAFETY (FOR STEAM HEATING BOILERS)

Approval No. 162.012/3/0, Series 90 semi-steel body safety valve for steam heating boilers and unfired steam generators, dwg. No. D-90 dated July 27, 1951, approved for 1½", 2", 2½", 3", and 4" inlet sizes for a maximum pressure of 30 pounds per square inch, manufactured by Marine & Industrial Products Co., 3731-35 Filbert Street, Philadelphia 4, Pa.

Approval No. 162.012/4/0, Series 90-E semi-steel body safety valve for steam heating boilers and unfired

steam generators, dwg. No. D-90-E dated July 10, 1950, approved for 1½", 2", 2½", 3", and 4" inlet sizes for a maximum pressure of 30 pounds per square inch, manufactured by Marine & Industrial Products Co., 3731-35 Filbert Street, Philadelphia 4, Pa.

Approval No. 162.012/5/0, Series 92 semi-steel body safety valve for steam heating boilers and unfired steam generators, dwg. No. D-92 dated July 27, 1951, approved for 1½", 2", 2½", 3", and 4" inlet sizes for a maximum pressure of 30 pounds per square inch, manufactured by Marine & Industrial Products Co., 3731-35 Filbert Street, Philadelphia 4, Pa.

Approval No. 162.012/6/0, Series 92-E semi-steel body safety valve for steam heating boilers and unfired steam generators, dwg. No. D-92-E dated July 10, 1950, approved for 1½", 2", 2½", 3", and 4" inlet sizes for a maximum pressure of 30 pounds per square inch, manufactured by Marine & Industrial Products Co., 3731-35 Filbert Street, Philadelphia 4, Pa.

(R. S. 4405, 4417a, 4418, 4426, 4433, 4491, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 375, 391a, 392, 404, 411, 489, 367, 1333 50 U. S. C. 1275; 46 CFR 52.65)

WINCHES, LIFEBOAT

Approval No. 160.015/23/1, Type B135 lifeboat winch, approval is limited to mechanical components and for a maximum working load of 13,500 lbs. pull at the drums (6,750 lbs. per fall), identified by general arrangement dwg. No. 2105-7 dated May 15, 1951, and revised July 19, 1951, manufactured by Welin Davit and Boat Division of Continental Copper & Steel Industries, Inc., Perth Amboy, N. J. (Supersedes Approval No. 160.015/23/0 published in the FEDERAL REGISTER dated July 31, 1947.)

Approval No. 160.015/57/0, Type H21G lifeboat winch, approved for a maximum working load of 2,100 lbs. pull at the drums (1,050 lbs per fall), identified by general arrangement dwg. No. 3337 dated July 6, 1950, and revised Apr. 11, 1952, manufactured by Welin Davit and Boat Division of Continental Copper & Steel Industries, Inc., Perth Amboy, N. J.

(R. S. 4405, 4417a, 4426, 4488, 4491, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, 245, as amended; 46 U. S. C. 367, 375, 391a, 404, 481, 489, 1333, 50 U. S. C. App. 1275; 46 CFR 33.10-5, 59.3a, 60.21, 76.15a, 94.14a, 160.015)

LADDERS, EMBARKATION-DEBARKATION (FLEXIBLE)

Approval No. 160.017/10/0, Model 241-A/GR, embarkation-debarkation ladder, chain suspension, steel ears, steel rungs, dwg. No. 241-A/GR, dated January 10, 1952, manufactured by

Great Bend Mfg. Corp., 151 East Fiftieth Street, New York 22, N. Y.

Approval No. 160.017/11/0, Model CTL-6, embarkation-debarkation ladder, chain suspension, steel ears, steel rungs, dwg. No. CTL-6, dated January 14, 1952, approved for use where the height of the boat deck above the lightest seagoing draft exceeds 55 feet and stowage facilities require special consideration of the ladders used, manufactured by Great Bend Mfg. Corp., 151 East Fiftieth Street, New York 22, N. Y.

Approval No. 160.017/12/0, Model CTL-6/WR, embarkation-debarkation ladder, wire rope suspension, steel ears, steel rungs, dwg. No. CTL-6/WR, dated January 28, 1952, approved for use where the height of the boat deck above the lightest seagoing draft exceeds 55 feet and stowage facilities require special consideration of the ladders used, manufactured by Great Bend Mfg. Corp., 151 East Fiftieth Street, New York 22, N. Y.

(R. S. 4405, 4426, 4488, 4491, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, 245, as amended; 46 U. S. C. 367, 375, 404, 481, 489, 1333, 50 U. S. C. App. 1275; 46 CFR 59.63, 76.56a, 94.55a, 113.47a, 160.017)

DAVITS, LIFEBOATS

Approval No. 160.032/127/0, mechanical davit, straight boom sheath screw, size A-5-6, approved for maximum working load of 5,000 lbs. per set (2,500 lbs. per arm) using 2-part falls, identified by general arrangement dwg. No. G-458, revised March 27, 1952, manufactured by C. C. Galbraith & Son, Inc., 99 Park Place, New York 7, N. Y.

(R. S. 4405, 4417a, 4426, 4481, 4488, 4491, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 375, 391a, 404, 474, 481, 489, 1333, 50 U. S. C. 1275; 46 CFR 160.032)

LIFEBOATS

Approval No. 160.035/277/0, 20.0' x 6.5' x 2.6' aluminum oar-propelled lifeboat, 20-person capacity, identified by general arrangement and construction dwg. No. 51-2020 dated January 9, 1951, and revised April 23, 1952, manufactured by Lane Lifeboat & Davit Corp., 8920 Twenty-sixth Avenue, Brooklyn 14, N. Y.

Approval No. 160.035/278/0, 30.0' x 10.0' x 4.13' aluminum, hand propelled lifeboat, 70-person capacity, identified by construction and arrangement dwg. No. 3367 dated June 15, 1951, manufactured by Welin Davit and Boat Division of Continental Copper & Steel Industries, Inc., Perth Amboy, N. J.

FLASHLIGHTS, ELECTRIC, HAND

Approval No. 161.008/9/0, Model F-91X, watertight and explosion-

proof flashlight, Types I and II, size No. 3 (3-cell), identified by assembly dwg. No. C-1108 dated April 11, 1952, manufactured by Stewart R. Browne Mfg. Co., Inc., 258 Broadway, New York 7, N. Y.

Approval No. 161.008/10/0, Model F-81X, watertight and explosion-proof flashlight, Types I and II, size No. 2 (2-cell), identified by assembly dwg. No. G-1108 dated April 11, 1952, manufactured by Stewart R. Browne Mfg. Co., Inc., 258 Broadway, New York 7, N. Y.

(R. S. 4405, 4417a, 4426, 4491, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, 245, as amended; 46 U. S. C. 367, 375, 391a, 404, 481, 1333, 50 U. S. C. App. 1275; 46 CFR 33.15-1, 33.15-5, 59.11, 76.14, 161.008)

VALVES, SAFETY

Approval No. 162.001/181/0, Series 100 cast-steel body safety valve, 600 p. s. i. maximum pressure, 450° F. maximum temperature, dwg. No. D-100 dated July 27, 1951, approved for sizes 1½", 2", 2½", 3" and 4", manufactured by Marine & Industrial Products Co., 3731-35 Filbert Street, Philadelphia 4, Pa.

Approval No. 162.001/182/0, Series 110 cast-steel body safety valve, 600 p. s. i. maximum pressure, 450° F. maximum temperature, dwg. No. D-110 dated July 27, 1951, approved for sizes 1½", 2", 2½", 3" and 4", manufactured by Marine & Industrial Products Co., 3731-35 Filbert Street, Philadelphia 4, Pa.

(R. S. 4405, 4417a, 4418, 4426, 4433, 4491, 49 Stat. 1544, 54 Stat. 346, and sec. 5 (e), 55 Stat. 244, 245, as amended; 46 U. S. C. 367, 375, 391a, 392, 404, 411, 489, 1333, 50 U. S. C. App. 1275; 46 CFR 52.65)

FIRE EXTINGUISHERS, PORTABLE, HAND, DRY-CHEMICAL TYPE

Approval No. 162.010/5/0, Kidde Model 20 dry-chemical type, hand portable, fire extinguisher, assembly dwg. No. 890047, Rev. C dated March 9, 1951, name plate dwg. No. 270127, Rev. E dated February 3, 1949, manufactured by Walter Kidde & Co., Inc., Belleville 9, N. J.

Approval No. 162.010/6/0, Kidde Model 30 dry-chemical type, hand portable, fire extinguisher, assembly dwg. No. 890048, Rev. C dated March 9, 1951, name plate dwg. No. 270141, Rev. C dated February 4, 1949, manufactured by Walter Kidde & Co., Inc., Belleville 9, N. J.

DECK COVERINGS

Approval No. 164.006/28/0 "LORA-LITE," magnesite type deck covering identical to that described in National Bureau of Standards Test Report No. TG10210-1826:FP3121 dated April 1, 1952, approved for use without other insulating material to meet Class A-60 requirements in a 1½-inch thickness,

manufactured by Lorentzen Co., 2207 Market Street, Oakland, Calif.

(R. S. 4405, 4417a, 4426, 49 Stat. 1384, 1544, 54 Stat. 346, 1028, and sec. 5 (e), 55 Stat. 244, as amended; 46 U. S. C. 367, 369, 375, 391a, 404, 463a, 1333, 50 U. S. C. 1275; 46 CFR 164.006)

STRUCTURAL INSULATION

Approval No. 164.007/6/1, "BX Spuntex," mineral wool type structural insulation identical to that described in National Bureau of Standards Test Report No. TG-3619-36; FR-1404 dated May 17, 1939, bats and blankets approved for use without other insulating material to meet Class A-60 requirements in a 3-inch thickness and 8 lbs. per cubic foot density, and a 4-inch thickness and 6 lbs. per cubic foot density, manufactured by Johns-Manville Sales Corp., 22 East Fortieth Street, New York 16, N. Y. (Supersedes Approval No. 164.007/6/0 published in the Federal Register dated July 31, 1947.)

Approval No. 164.007/7/1, "#450 Cement," mineral wool cement type structural insulation identical to that described in National Bureau of Standards Test Report No. TG-3619B; FR-1466B dated July 7, 1939, approved for use without other insulating material to meet Class A-60 requirements in a 3½-inch thickness and 30 lbs. per cubic foot density, manufactured by Johns-Manville Sales Corp., 22 East Fortieth Street, New York 16, N. Y. (Supersedes Approval No. 164.007/7/0 published in the Federal Register dated July 31, 1947.)

[CGFR 52-29]

TERMINATION OF APPROVAL OF EQUIPMENT

By virtue of the authority vested in me as Commandant, United States Coast Guard, by Treasury Department Order No. 120, dated July 31, 1950 (15 F. R. 6521), and in compliance with the authorities cited below, the following approvals of equipment are terminated because the items of equipment covered are no longer being manufactured for marine service or the company has gone out of business:

CLEANING PROCESS FOR LIFE PRESERVERS

Termination of Approval No. 160.006/5/0, Moreland's cleaning process for kapok life preservers, Moreland's Industrial Laundry, 225 Roy Street, Seattle 9, Wash. (Approved Federal Register dated July 31, 1947.)

(R. S. 4405, 4417a, 4426, 4482, 4488, 4491, sec. 11, 35 Stat. 428, 49 Stat. 1544, 54 Stat. 164, 166, 346, and sec. 5 (e), 55 Stat. 244, 245, as amended; 46 U. S. C. 367, 375, 391, 396, 404, 475, 481, 489, 526e, 526p, 1333, 50 U. S. C. App. 1275; 46 CFR 160.006)

Dated: June 9, 1952.

[SEAL] MERLIN O'NEILL,
Vice Admiral, U. S. Coast
Guard, Commandant.

[F. R. Doc. 52-6548; Filed, June 13, 1952;
8:50 a. m., 17 F. R. 5398-6/14/52.]

FUSIBLE PLUGS

The regulations prescribed in 46 CFR 162.014, subchapter Q, specifications, require that manufacturers submit samples from each heat of fusible plugs 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 June 15 to July 15, 1952, is as follows:

H. B. Sherman Mfg. Co., Battle Creek, Mich. Heat Nos. 766 through 773.

AFFIDAVIT

The following affidavit was accepted during the period from June 15 to July 15, 1952:

Anchor Equipment Co., 526 Folsom Street, San Francisco 5, Calif. Fittings.

ARTICLES OF SHIPS' STORES AND SUPPLIES

Articles of ships' stores and supplies certificated and recertificated from June 26 to July 25, 1952, inclusive, for use on board vessels in accordance with the provisions of part 147 of the regulations governing "Explosives or Other Dangerous Articles on Board Vessels."

CERTIFIED

E. F. Houghton and Co., 303 West Lehigh Avenue, Philadelphia 33, Pa. Certificate No. 352, dated July 21, 1952. "Vimsolv 'M'."

West Disinfecting Co., 42-16 West Street, Long Island City 1, N. Y. Certificates numbered 347, 348, 349, 350, and 351, dated July 9, 1952. "West Sanikleen," "Westamine X," "Showersan," "West Liquid Bowlbryte," and "Kleenoda Drip Fluid."

RECERTIFIED WITH ORIGINAL NUMBERS IN ACCORDANCE WITH SECTION 147.03-7

West Disinfecting Co. Certificates numbered 138, 148 and 157 dated June 27, 1952, 296 and 332, dated June 30, 1952. "Comax Pine Oil Disinfectant," "Teramine, the Odorless Sanitizer and Disinfectant," "Dripco Special," "West Insecticide," and "Karspray."

Merchant Marine Personnel Statistics

MERCHANT MARINE OFFICER LICENSES ISSUED

May 1952
DECK

Grade	Original	Renewal
Master:		
Ocean	35	160
Coastwise	4	13
Great Lakes	7	8
B. S. & L.	7	67
Rivers	2	19
Radio officer licenses issued	100	
Chief mate:		
Ocean	28	47
Coastwise	7	1
Mate:		
Great Lakes	6	6
B. S. & L.	4	10
Rivers	4	10
Second mate:		
Ocean	32	50
Coastwise	1	5
Third mate:		
Ocean	34	33
Coastwise	1	
Pilots:		
Great Lakes	1	18
B. S. & L.	72	158
Rivers	52	38
Master: Uninspected vessels	3	1
Mate: Uninspected vessels	1	1
Total	390	635
Grand total		1,025

ENGINEER

Grade	Original	Renewal
STEAM		
Chief engineer:		
Unlimited	32	175
Limited	9	98
First assistant engineer:		
Unlimited	33	59
Limited	5	10
Second assistant engineer:		
Unlimited	54	87
Limited	1	2
Third assistant engineer:		
Unlimited	53	91
Limited		
MOTOR		
Chief engineer:		
Unlimited	6	56
Limited	23	66
First assistant engineer:		
Unlimited	9	7
Limited	8	2
Second assistant engineer:		
Unlimited	3	8
Limited		
Third assistant engineer:		
Unlimited	35	80
Limited	1	
Chief engineer: Uninspected vessels	1	2
Assistant engineer: Uninspected vessels	1	3
Total	274	746
Grand total		1,020

INVESTIGATING UNITS

Coast Guard Merchant Marine Investigating Units and Merchant Marine Details investigated a total of 805 cases during the month of May 1952. From this number, hearings before examiners resulted involving

ORIGINAL SEAMEN'S DOCUMENTS ISSUED

May 1952

Type of document	Canal Zone	Atlantic coast	Gulf coast	Pacific coast	Great Lakes and rivers	Total
Staff officer		41	10	34	3	88
Continuous discharge book				2		2
Merchant mariner's documents:						
AB any waters unlimited	1,077	497	761	1,155	3,490	
AB any waters, 12 months		85	18	65	18	186
AB Great Lakes, 18 months		45	8	67	94	214
AB tugs and towboats, any waters		1		3	44	48
AB bays and sounds		3				3
AB seagoing barges		2		1		3
Lifeboatman		70	1	94	15	180
Q. M. E. D.		164	59	106	100	429
Radio operators		5		7	2	14
Certificate of service	1,025	493	739	1,021	3,278	
Tankerman		3	17	4	54	78

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

NOTE.—The last 11 categories indicate number of endorsements made on United States merchant mariner's documents.

WAIVER OF MANNING REQUIREMENTS

Waivers	Atlantic coast	Gulf coast	Pacific coast	Great Lakes	Total
Deck officers substituted for higher ratings	2		6	3	11
Engineer officers substituted for higher ratings	14	1	10	3	28
OS for AB	100	57	94	24	275
Wiper or coalpassers for Q. M. E. D.	44	22	75	2	143
Total waivers	160	80	185	32	457
Number of vessels	91	54	85	19	252

NOTE.—In addition, individual waivers were granted to permit the employment of 114 able seamen holding certificates for "any waters, 12 months" in excess of the 25 percent authorized by statute.

41 officers and 107 unlicensed men. In the case of officers, no licenses were revoked, 11 were suspended without probation, 14 were suspended with probation granted, 1 license was voluntarily surrendered, 8 were dismissed after hearing, and 4 hearings were closed with an admonition. Of the unlicensed personnel 11 certificates were revoked, 32 were suspended without probation, 45 were suspended with probation granted, 4 were voluntarily surrendered, 5 hearings were closed with admonitions, and 11 cases were dismissed after hearing.



THEY THAT GO
DOWN TO THE SEA
IN SHIPS

1623 - 1923