

CHAPTER 14

FIRE BILL  
(PLATE XII)

14-1 GENERAL:-

Fire on board ship is one of the greatest hazards of the sea. During the present war, many of our most serious losses in ships and men, have been directly or indirectly due to fire. It may be caused by enemy action, explosions, collision, faulty wiring, negligence on the part of some member of the ship's complement and many other reasons.

The Fire Bill provides for an orderly procedure to be followed when fire has been reported on board. Experience has shown that when a crew is properly organized, thoroughly drilled and provided with modern fire fighting equipment, almost any fire that may occur on board, regardless of its origin, can be brought quickly under control and extinguished.

14-2 FIRE ALARM;-

Time is a most important factor in fighting fire. Any person discovering fire on board will endeavor to extinguish it by any means quickly available. At sea, the Officer of the Deck, and in port, the Gangway Watch, should be notified immediately, giving the exact location.

The Officer of the Deck or the Gangway Watch, will immediately:

- (a) Pass the word "FIRE" followed by the location of the fire, such as "Fire in the Steering Engine Room."
- (b) Sound the General Alarm; followed by ten rapid strokes on the ship's bell, followed by strokes of the bell to indicate the section of the ship in which the fire is located. The indicating bell strokes will be as follows:

|                |    |                                |
|----------------|----|--------------------------------|
| 1 Bell Stroke  | -- | fire forward (frs. 0 to 14)    |
| 2 Bell Strokes | -- | fire amidships (frs. 14 to 19) |
| 3 Bell Strokes | -- | fire aft (frs. 19 to 41)       |

March 1, 1944

CHAPTER 14

FIRE BILL

14-2 FIRE ALARM:-

- (c) When the fire has been extinguished, the word "SECURE FROM FIRE QUARTERS" will be passed throughout the ship.

14-3 APPARATUS AND EQUIPMENT:-

The fire fighting apparatus and equipment on the LSM is modern and efficient and consists of the following:

(a) Fire and Sprinkling System

- (1) On the fire main, there are sixteen outlets or fire plugs with the hose for each fire plug stowed in a rack immediately adjacent to it and connected to it at all times. These fire plugs are located as shown below in TABLE 14-1.

TABLE 14-1

FIRE PLUGS

| PLUG NO. | VALVE INSCRIPTION | CUT-OUT VALVE INSCRIPTION | LOCATION          |     |         | SIZE   | LENGTH OF HOSE |
|----------|-------------------|---------------------------|-------------------|-----|---------|--------|----------------|
|          |                   |                           | DECK & FRAME      | P/S | COMPT.  |        |                |
| 1        | Fire Plug 01-8-1  | Cut-out 1-9               | Super.Deck fr. 8  | S   | Weather | 1-1/2" | 100'           |
| 2        | Fire Plug 01-15-2 | Cut-out 1-15-2            | Super.Deck fr. 15 | P   | Weather | 1-1/2" | 100'           |
| 3        | Fire Plug 01-8-3  | Cut-out 1-9               | Super.Deck fr. 8  | S   | Weather | 1-1/2" | 100'           |
| 4        | Fire Plug 01-15-4 | Cut-out 1-15-2            | Super.Deck fr. 15 | P   | Weather | 1-1/2" | 100'           |
| 5        | Fire Plug 01-25-1 | Cut-out 1-25-1            | Super.Deck fr. 25 | S   | Weather | 1-1/2" | 100'           |

March 1, 1944

LSM CLABB

CHAPTER 14

FIRE BILL

14-3 APPARATUS AND EQUIPMENT:-

TABLE 14-1 (cont'd.)

FIRE PLUGS

| PLUG NO. | VALVE INSCRIPTION    | CUT-OUT VALVE INSCRIPTION     | LOCATION             |     |                 | SIZE   | LENGTH OF HOSE |
|----------|----------------------|-------------------------------|----------------------|-----|-----------------|--------|----------------|
|          |                      |                               | DECK & FRAME         | P/S | COMPT.          |        |                |
| 6        | Fire Plug<br>01-25-2 | Cut-out<br>1-25-2             | Super.Deck<br>fr. 25 | P   | Weather         | 1-1/2" | 100'           |
| 7        | Fire Plug<br>01-25-3 | Cut-out<br>1-25-1             | Super.Deck<br>fr. 25 | S   | Weather         | 1-1/2" | 100'           |
| 8        | Fire Plug<br>01-25-4 | Cut-out<br>1-25-2             | Super.Deck<br>fr. 25 | P   | Weather         | 1-1/2" | 100'           |
| 9        | Fire Plug<br>1-15-1  | Cut-out<br>2-14-1 &<br>1-15-5 | Main Deck<br>fr. 15  | S   | A-103-<br>1/2L  | 1-1/2" | 100'           |
| 10       | Fire Plug<br>1-15-4  | Cut-out<br>2-15-2 &<br>1-15-8 | Main Deck<br>fr. 15  | P   | A-104-<br>1/2EL | 1-1/2" | 100'           |
| 11       | Fire Plug<br>1-15-3  | Cut-out<br>2-14-1 &<br>1-15-5 | Main Deck<br>fr. 15  | S   | A-103-<br>1/2L  | 1-1/2" | 100'           |
| 12       | Fire Plug<br>1-15-6  | Cut-out<br>2-15-2 &<br>1-15-8 | Main Deck<br>fr. 15  | P   | A-104-<br>1/2EL | 1-1/2" | 100'           |
| 13       | Fire Plug<br>1-23-1  | Cut-out<br>1-23-5 &<br>2-24-1 | Main Deck<br>fr. 23  | S   | C-101-<br>1/2E  | 1-1/2" | 100'           |
| 14       | Fire Plug<br>1-23-2  | Cut-out<br>1-23-6 &<br>2-24-2 | Main Deck<br>fr. 23  | P   | C-102-<br>1/2AE | 1-1/2" | 100'           |
| 15       | Fire Plug<br>1-23-3  | Cut-out<br>1-23-5 &<br>2-24-1 | Main Deck<br>fr. 23  | S   | C-101-<br>1/2E  | 1-1/2" | 100'           |

March 1, 1944

CHAPTER 14

FIRE BILL

14-3 APPARATUS AND EQUIPMENT:-

TABLE 14-1 (cont'd.)

FIRE PLUGS

| PLUG NO. | VALVE INSCRIPTION | CUT-OUT VALVE INSCRIPTION | LOCATION         |     |             | SIZE   | LENGTH OF HOSE |
|----------|-------------------|---------------------------|------------------|-----|-------------|--------|----------------|
|          |                   |                           | DECK & FRAME     | P/S | COMPT.      |        |                |
| 16       | Fire Plug 1-23-4  | Cut-out 1-23-6 & 2-24-2   | Main Deck fr. 23 | P   | C-102-1/2AE | 1-1/2" | 100'           |

(2) The fire main has two shore connections as shown below in TABLE 14-2:-

TABLE 14-2

FIRE MAIN - SHORE CONNECTIONS

| LOCATION                        | SIDE | COMPT.  | SIZE   | LENGTH OF HOSE |
|---------------------------------|------|---------|--------|----------------|
| Superstructure Deck, frs. 7-8   | S    | Weather | 2-1/2" |                |
| Superstructure Deck, frs. 24-25 | P    | Weather | 2-1/2" |                |

(3) The two magazines, A-209M and C-202M, are provided with a sprinkling system working from the fire main. The sprinkling system is controlled by hand operated valves arranged for local and distant control. The valve control for this sprinkler system is given in TABLE 14-3 following:-

March 1, 1944

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CHAPTER 14

FIRE BILL

14-3 APPARATUS AND EQUIPMENT:-

TABLE 14-3

VALVE CONTROL FOR SPRINKLING SYSTEM

| VALVE TYPE    | INSCRIPTION  | LOCATION |      |           |             |
|---------------|--|----------|------|-----------|-------------|
|               |  | P/S      | DECK | FRAME NO. | COMPARTMENT |
| V-F200        | Sprinkler Valve 2-12-1   | S        | Hold | 12-13     | A-208L      |
| V-F201        | Sprinkler Valve 2-26-2   | P        | Hold | 26-27     | C-201EL     |
| V-F202        | Cut-out Valve 2-12-3   | S        | Hold | 12-13     | A-208L      |
| V-F203        | Cut-out Valve 2-26-4   | P        | Hold | 26-27     | C-201EL     |
| Valve Box     | Ammunition Sprinkling A-209M Valve Box                             | S        | Hold | 12-13     | A-208L      |
| Valve Box     | Ammunition Sprinkling C-202M Valve Box                             | P        | Hold | 26-27     | C-201EL     |
| Handwheel Box | Ammunition Sprinkling A-209M Remote Control Station Cut-out 2-12-3 | S        | Main | 12-13     | A-103L      |
| Handwheel Box | Ammunition Sprinkling C-202M Remote Control Station Cut-out 2-26-4 | S        | Main | 26-27     | C-101-1/2E  |

- (4) Two Portable Handybilly Pumps, gasoline engine driven, are also provided for emergency use. One of these pumps is located on the Superstructure Deck, port side, just abaft frame 18. The other pump is located on the Main Deck, starboard side, just abaft frame 31.

March 1, 1944

CHAPTER 14

FIRE BILL

14-3 APPARATUS AND EQUIPMENT:-

(b) CHEMICAL FIRE SYSTEMS

- (1) There are three semi-fixed Carbon Dioxide Systems provided. One system is located in the engine room, lower level, starboard side, between frames 23-24 with 75 ft. of hose attached. One system is located on the Superstructure Deck, port side, between frames 15-16 with 75 ft. of hose attached. One system is located on the Superstructure Deck, port side, between frames 23-24 with 75 ft. of hose attached.

Each system consists of two 50 pound cylinders, with cylinder valves arranged for independent release of the carbon-dioxide, and connecting piping to a hose reel having gas tight trunions. Flexible reinforced hose, suitable for handling carbon-dioxide is mounted on a reel and connected to the cylinders. This hose is provided with a discharge nozzle having a suitable gas expander and cut-out valve.

- (2) Four Foam Generator Systems are provided. Two systems are located in the engine room, upper level, between frames 19 and 20, port and starboard side respectively. One system is located in the windlass machinery room, compartment A-104EL, Main Deck, port side, between frames 10 and 11. One system is located in the boiler room, compartment C-101-1/2E, Main Deck, starboard side, between frames 26-27.

These foam generator fire extinguishers are of the vertical duplex pressure proportioner type, using a liquid foaming agent.

The foam generators discharge through a 1-1/2" cotton rubber-lined hose with an aerating nozzle. The water supply is taken from the fire main and controlled by a stop valve.

March 1, 1944

14-

LSM CLASS

14-

CHAPTER 14

FIRE BILL

14-3 APPARATUS AND EQUIPMENT:-

(b) (2) (cont'd.)

The foam generators in the engine room are provided with ten - five gallon charges each. The foam generators in the windlass machinery room and boiler room are provided with twenty - five gallon charges each. Precaution should be taken to protect stowed foam charges against freezing.

(c) PORTABLE FIRE EXTINGUISHERS

Twenty portable CO<sub>2</sub> fire extinguishers of 15-lbs. capacity are provided and located as follows:

|  |                 |
|--|-----------------|
| 1 - Galley   | - (A-104-1/2EL) |
| 1 - Crews space  | - (A-208L)      |
| 1 - Wardroom   | - (A-210L)      |
| 1 - Crews space  | - (A-210L)      |
| 1 - Troops space                                       | - (C-201EL)     |
| 1 - Pilot house  | - (A-0301C)     |
| 4 - Engine room  | - (B-1)         |
| 1 - Chart house  | - (A-0101CL)    |
| 1 - Ramp mach. compt.                                  | - (A-102AE)     |
| 1 - Bow Door mach. compt.                              | - (A-101EV)     |
| 2 - Amidships, Main Deck, at doors, port and starboard |                 |
| 1 - General work shop, port                            | - (C-102-1/2AE) |
| 1 - Boiler room, starboard                             | - (C-101-1/2E)  |
| 1 - Aft, Main Deck, at door, starboard side            |                 |
| 1 - Engineering stores                                 | - (C-102A)      |
| 1 - Steering engine room                               | - (C-206E)      |

14-4 PROCEDURE:-

(a) When the Fire Call is sounded, all hands will proceed to their fire stations on the double.

March 1, 1944

CHAPTER 14

FIRE BILL

14-4 PROCEDURE:-

- (b) Heads of Departments will inspect stations for which they are responsible and make reports to the Officer in Charge at the scene of the fire that their stations are manned and ready.
- (c) Two hoses will be led to the scene of the fire from an unaffected area and each manned by two men. It should be noted here that all fire hoses are to be connected to their respective fire plugs at all times and ready for instant use.
- (d) The engine room watch, both at sea and in port, will carry out the following:
  - (1) Cut in second fire and bilge pump.
  - (2) Cut in power winches, anchor and steering engine and if at anchor, make preparations for getting underway. Warm up main engines, but do not turn over screws until ordered.
  - (3) Cut off power to all ventilators unless otherwise directed.
  - (4) Secure cut-out valves to flushing system.

14-5 FIRE STATIONS:-

Fire may occur under any of the four conditions of readiness, in port or at sea. To cover all contingencies, each watch section should have a complete fire party.

If the fire occurs at sea, it will be fought by the fire party from the sections off watch. The section on watch will remain at their stations unless otherwise ordered. Any remaining men will fall in at their parades and be mustered by the senior petty officer. This group will normally be under the direction of the Gunnery Officer and will be used as required. In port, the fire will be fought by the section on duty. Any men from the sections off duty that are aboard, however, will go to their regular fire stations.

March 1, 1944

14-5 FIRE  
(a)

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|                |
|----------------|
| 1ST<br>SECTION |
|                |
| CBM            |
| EM3c           |



CHAPTER 14

FIRE BILL

14-5 FIRE STATIONS:-

(a) Officers:

The ship's officers will have the following stations and duties:

- (1) Commanding Officer - Conn.
- (2) Executive Officer - In charge at the scene. Damage Control.
- (3) Engineering Officer - In charge engine room.
- (4) Gunnery Officer - In charge of reserves at parades.

The preceding assignments can normally be followed when at sea. In port, they will be followed whenever possible. When an officer is absent, his duties will be taken over by the senior petty officer of the department.

(b) Crew Fire Party Assignments

The Fire Party is responsible for fighting the fire and extinguishing it. It will be divided into two groups:

- (1) The Fire Detail
- (2) The Explosive Detail

The various duties and the personnel assignments are given in TABLE 14-4 below:

TABLE 14-4

| 1ST SECTION        | DUTIES  | 2ND SECTION |
|--------------------|---|-------------|
| <u>FIRE DETAIL</u> |   |             |
| CBM                | Petty officer in charge at scene.   | BM1c        |
| EM3c               | Provides electrical kit; cleans debris from fire area; jettisons any inflammables at scene. | RM2c        |

March 1, 1944

CHAPTER 14

FIRE BILL

14-5 FIRE STATIONS:

TABLE 14-4 (cont'd.)

| 1ST SECTION     | DUTIES  | 2ND SECTION     |
|-----------------|---|-----------------|
|                 | <u>FIRE DETAIL</u>  |                 |
| MoMM3c          | Provides mechanical kit; cleans debris from fire area; jettisons any inflammables at scene.                         | MoMM3c          |
| F2c             | Provides 2-15 lb. CO <sub>2</sub> extinguishers; use as directed.   | F2c             |
| Flc             | Provides 2-15 lb. CO <sub>2</sub> extinguishers; use as directed.   | GM2c            |
| Cox<br>Flc      | Lead out hose from fire plug in unaffected area to scene. Hose should be equipped with fog nozzle; use as directed. | BM2c<br>Flc     |
| Sealc<br>StM2c  | Lead out hose from fire plug in unaffected area to scene. Hose should be equipped with fog nozzle; use as directed. | Sealc<br>StM1c  |
| Sealc<br>MoMM2c | Rig handybilly pump and lead out hose to scene; use as directed.  | Sealc<br>MoMM3c |
| Sea2c<br>RdM2c  | Rig nearest foam generator system and lead hose to scene; use as directed.  | Sea2c<br>MoMM2c |
| Sea2c<br>Sea2c  | Lead out nearest CO <sub>2</sub> hose to scene and use as directed.   | Sea2c<br>SC3c   |
| RM3c            | Mans telephone at scene.  | RdM3c           |
| SM2c            | Provides rescue breathing apparatus.  | SM3c            |
| SC1c            | Provides first aid kit.   | PhM1c           |
| MoMM1c          | In charge of engine room.   | CMoMM           |
| MoMM1c          | Engine room pumps.  | MoMM2c          |

March 1, 1944

14-5

1ST SECTION

EM2c

Y2c

RM1c

QM1c

14-6

CHAPTER 14

FIRE BILL

14-5 FIRE STATIONS:

TABLE 14-4 (cont'd.)

| 1ST SECTION | DUTIES  | 2ND SECTION |
|-------------|---|-------------|
|             | <u>FIRE DETAIL</u>  |             |
| EM2c        | Engine room switchboard.  | EM1c        |
|             | <u>EXPLOSIVE DETAIL</u>   |             |
| Y2c         | Provides Officer of the Deck Keys; stands by to unlock store-rooms & magazines as directed. | SK1c        |
| RM1c        | Stands by to operate sprinkler controls.  | RT2c        |
| QM1c        | Mans telephones on bridge.  | QM3c        |

LSM CLASS

14-6 FIRE AT GENERAL QUARTERS:

Should a fire break out while the ship is at General Quarters, the operation of the guns must not be interrupted insofar as this is possible.

(a) Officer in Charge

The Executive Officer will be the officer in charge at the scene of the fire.

(b) Fire Party

The fire party personnel will be provided as follows:

- (1) The Fire Detail will be taken from the forward and after repair parties with the exception of the engine room personnel which have their regular battle stations.

March 1, 1944

CHAPTER 14

FIRE BILL

14-6 FIRE AT GENERAL QUARTERS:-

(b) Fire Party (cont'd.)

(2) The Explosive Detail is provided from the bridge battle stations assignments.

The various duties and personnel assignment for the Fire Party are given in TABLE 14-5 below:

TABLE 14-5

FIRE DETAIL

| RATE            | REPAIR PARTY                               | DUTIES  |
|-----------------|--|---|
| CBM             | Forward Repair Party                       | Petty officer in charge at scene.   |
| EM2c            | After Repair Party                         | Provides electrical kit; cleans debris from fire area; jettisons any inflammables at scene.                         |
| MoMM3c          | Forward Repair Party                       | Provides mechanical kit; cleans debris from fire area; jettisons any inflammables at scene.                         |
| Flc             | Forward Repair Party                       | Provides 2-15 lb. CO <sub>2</sub> extinguishers; use as directed.   |
| Sea1c<br>MoMM2c | Forward Repair Party<br>After Repair Party | Lead out hose from fire plug in unaffected area to scene. Hose should be equipped with fog nozzle; use as directed. |
| Sea2c<br>MoMM2c | Forward Repair Party<br>After Repair Party | Lead out hose from fire plug in unaffected area to scene. Hose should be equipped with fog nozzle; use as directed. |
| BM1c<br>MoMM1c  | After Repair Party<br>Forward Repair Party | Rig handybilly pump and lead out hose to scene; use as directed.  |

March 1, 1944

14-6

RATE  
Sea2c  
MoMM2c

Sea2c  
EM3c

RM3c

PhM1c

CMoMM  
EM1c  
MoMM1c

SK1c

RT2c

RdM3c

14-7

CHAPTER 14

FIRE BILL

14-6 FIRE AT GENERAL QUARTERS:

TABLE 14-5 (cont'd.)

FIRE DETAIL

| RATE                    | REPAIR PARTY                               | DUTIES  |
|-------------------------|--|---|
| Sea2c<br>MoMM2c         | After Repair Party<br>Forward Repair Party | Rig foam generator system and lead hose to scene; use as directed.                          |
| Sea2c<br>EM3c           | After Repair Party                         | Lead out nearest CO <sub>2</sub> hose to scene; use as directed.                            |
| RM3c                    | Forward Repair Party                       | Mans telephone at scene.  |
| PhM1c                   |  | Provides rescue breathing apparatus; provides first aid kit.                                |
| CMoMM<br>EM1c<br>MoMM1c | Regular battle station.                    | In charge engine room.<br>Engine room pumps.<br>Engine room switchboard.                    |
| <u>EXPLOSIVE DETAIL</u> |  |   |
| SK1c                    | Provided from bridge detail.               | Provides Officer of the Deck keys; stands by to unlock store-rooms & magazines as directed. |
| RT2c                    | Provided from bridge detail.               | Stands by to operate sprinkler controls.  |
| RdM3c                   | Provided from bridge detail.               | Mans telephones on bridge.  |

14-7 FIRE IN TROOP EQUIPMENT:-

Should a fire break out in any of the troop equipment, the same procedure will be followed as outlined in the foregoing paragraph for other fire on board.

March 1, 1944

FIRE BILL

14-8 FIRE FIGHTING INSTRUCTIONS:-

Great progress has been made in recent years in the development of fire fighting equipment and the methods to be employed in fighting fires of all classes.

Modern fire fighting equipment, however, to be fully effective, must be operated by personnel who thoroughly understand how to use it. The Executive Officer, acting in his capacity as the Damage Control Officer, must know all phases of fire fighting and be able to outline the procedure necessary to fight any class of fire in any part of the ship and under all conditions. All hands on board should be given frequent instruction and realistic drills in the operation and use of all the fire fighting equipment with which the ship is supplied.

No attempt will be made in this manual to discuss the classes of fires, the methods of extinguishment or the operation of the fire fighting equipment. Complete instructions on these subjects are given in Bureau of Ships "Fire Fighting Manual" 688 with supplement.

14-9 CARE AND MAINTENANCE:-

Fire fighting equipment to be fully effective, must at all times be kept clean and in first class working order. The following information is given concerning the care and maintenance of this equipment:

(a) Fire and Sprinkling System

- (1) All fire plugs should be flushed under full firemain pressure weekly in order that incipient marine growth will be blown out before it has had an opportunity to adhere tightly to the fire main. Ships should completely fill and flush their fire mains with fresh water whenever it is available from shore.

March 1, 1944

CHAPTER 14

FIRE BILL

CARE AND MAINTENANCE:-

14-9

(a) (cont'd.)

- (2) All fire main discharge plugs should be protected from mechanical damage. Hose threads on fire plugs and hose couplings should be kept clean and free from burred or damaged threads. DO NOT OIL. Clean threads with stiff or wire brush and wash in warm soapy water.
- (3) All fire hose attached to fire plugs or connected together should be made up snug with hose spanner but not set too tight.
- (4) Fire hose when stored in racks should be dry. Do not paint fire hose except with a Bureau of Yards and Docks approved water dissolvable paint, Specification P5.
- (5) Do not permit oils or gasoline to come in contact with or remain on cotton hose. Remove any oily spots as soon as possible, using a warm soapy water and corn broom; Do not scrub, rinse and dry thoroughly before placing in rack.
- (6) Do not pump oil or gasoline through fire hose.
- (7) Do not permit water to remain standing in fire hose. After each use, thoroughly drain as standing water may form a solution of sulphuric acid which damages the cotton jacket of the hose if contact is made.
- (8) Check all fire plugs at regular intervals against leakage.
- (9) Do not forcibly remove frozen hose from the deck but carefully chip ice away.
- (10) Do not attempt to fold or roll frozen hose, thaw it first.

March 1, 1944

CHAPTER 14

FIRE BILL

14-9 CARE AND MAINTENANCE:

(a) (cont'd.)

- (11) Dry and drain hose after every use; do not dry in hot sun, when temperature is above normal.
- (12) Flush all hose monthly; change position of folds or rolls.
- (13) Do not drop hose couplings on the deck; lay them down.
- (14) At every fire drill, check every female coupling for gasket; keep an extra supply of gaskets on hand.
- (15) Where possible, self-cleaning strainers should be flushed at each fire drill. These strainers should be attached to fire mains in such a manner that the fire plug will not have to support the entire weight of the strainer.

(b) Handybilly Pumps

- (1) After pumping salt water, operate with fresh water for a few minutes in order to flush circulation system of salt water.
- (2) After using, dry and wipe the complete unit with oily rag; squirt oil liberally over pump impellers, and replace thread protection caps.
- (3) After using, remove each spark plug and squirt small quantity of oil into each cylinder. Turn engine over several times to lubricate cylinder walls thoroughly.
- (4) Inspect spark plugs; clean thoroughly and, if necessary, adjust gap of firing points. The correct setting of gap is 0.025 of an inch.

March 1, 1944



CHAPTER 14

FIRE BILL

CARE AND MAINTENANCE:-

14-9

(b) (cont'd.)

- (5) Check breaker points, the correct setting is 0.025 of an inch.
- (6) Make sure that fly-wheel nut is secure. A loose fly-wheel nut can be the cause of extensive damage if not tightened at once.
- (7) Remove and clean screen from gas line nut connection at base of carburetor.
- (8) Check oil level of pump gear case; fill it to proper level using SAE-30, if available.
- (9) Pack grease cups on pumps with light cup grease and turn down snugly.
- (10) Make certain that the starter card is replaced in its holder on the cylinder side cover.
- (11) Store pumps in a dry place with uniform temperature, to protect electrical parts from condensation.
- (12) To avoid excessive absorptions of moisture by the ignition coils, the engines should be run for a short period each week. They should be tested for starting several times each week.
- (13) Do not run engines without pumping, except for short test periods as the engines depend on the water from the pump for cooling.
- (14) In general, the operators assigned to these pumps, know what attention they should have before stowing and should be held strictly accountable. Proper care and attention means quick starting and satisfactory operation when the emergency arises.

March 1, 1944

CHAPTER 14

FIRE BILL

14-9 CARE AND MAINTENANCE:-

(c) CO<sub>2</sub> Extinguishers

- (1) Always store in upright position.
- (2) Do not store where temperatures exceed 140° F.
- (3) Do not return a partially used extinguisher to its rack or holder. Once used, the disc type release valve will not hold the CO<sub>2</sub> and the ground seat valve permits a partially filled bottle to escape detection.
- (4) The proper method of checking CO<sub>2</sub> extinguishers is by weighing. The weight of a fully charged 15-lb. extinguisher should include:-

Weight of empty cylinder (stamped on  
cylinder)

Weight of horn and hose (usually 2-lbs.)  
15-lbs. of CO<sub>2</sub>

- (5) CO<sub>2</sub> extinguishers should be tested each week. The cylinder valve assembly should be protected against mechanical damage. The charge is under a pressure of 850 lbs. per square inch and if the valve is broken, the release of this pressure may cause serious damage.

- (6) Do not wire a fixed installation closed.

(d) Foam Generator System

- (1) Pressure proportioners using foam are subject to freezing and should be protected against very cold weather. Cans of foam liquid should always be stored in a warm place and inverted from time to time to prevent any settling of the contents.

March 1, 1944

CHAPTER 14

FIRE BILL

CARE AND MAINTENANCE:-

14-9

(d) (cont'd.)

- (2) Protect against leakage of valve. After using, thoroughly wash and rinse before recharging.

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March 1, 1944