



**REGULATIONS  
FOR  
THE UNITED STATES  
COAST GUARD**



**1923**

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**[EXCERPT OF THE 1923 SECTION OF THE *REGULATIONS* RELATING TO  
PAINTING OF CUTTERS & BOATS]:**

**PAINTING INSTRUCTIONS, VESSELS**

**2621.** (1) The instructions contained in this chapter are applicable to all vessels of the service as

hereinafter specifically noted and shall govern the painting thereof as regards materials, methods of application, color schemes, etc., whether the work is to be accomplished by the ship's force, navy yards, or private contractors. Only such materials as are included in the latest edition of Appendix 6 of the United States Navy general specifications: "Instructions for Painting and Cementing Vessels of the United States Navy," and the prepared paint brands noted hereafter shall be used for painting ships. Departures from these requirements shall be made only by specific authorization from headquarters. Headquarters may make exceptions to these regulations in such instances where it becomes advisable, for the best interests of the service, to apply special or experimental paints to meet certain conditions.

(2) For painting underwater surfaces of steel hulls anticorrosive, antifouling and boot-topping paints of approved proprietary brands may be specified on docking proposals. Vessels concerned with the application of these bottom paints will be kept informed of the brands appearing on the list approved by headquarters and of any changes which may occur. Responsible officers shall take particular care to make certain by a check of the original containers that the bottom paints applied are included among those approved, if Navy formulae are not used. Underwater paints for wooden hulls shall be as prescribed in article 2639.

**2622.** Steel surfaces to be repainted shall be carefully and thoroughly cleaned; loosely adhering paint and blisters shall be removed and the metal in way thereof thoroughly scraped, scaled, and cleaned to a bare surface and shall be thoroughly dry before any preservative coating is applied. On plating of destroyers and vessels of similar light construction, old paint and rust shall be removed by means of scrapers and wire brushes; scaling hammers shall be used only where there exists actual scale which can not otherwise be removed. On galvanized plating neither scaling hammers nor steel scrapers shall be used. In no case shall paint or other coatings be applied over damp; oily, or greasy surfaces, or any foreign substances. All pits and holes shall be thoroughly cleaned so that no rust or spots of scale will remain embedded therein.

**2623.** Outside hull surfaces above the boot-topping, inboard sides of bulwarks, outsides of superstructures, companionways, hatch coamings, skylights, etc., shall, before additional paint is applied, be thoroughly smoothed and washed; flush seams, butts, and rivet joints shall be smoothed with an approved rivet cement before being painted in the required colors. Where the old paint on these surfaces is lumpy or thick, fine sand may be used with soap, but steel brushes or scrapers shall not be used unless the whole surface is to be cleaned. The use of lye water, potash, and other strong solutions for scrubbing and cleaning paintwork is prohibited. Where paint on these surfaces has been cleaned to bare

metal a priming coat of either red lead, or aluminum paint with a spar varnish vehicle, shall be used before color coats are applied.

**2624.** (1) When a steel vessel is docked, the bottom shall be thoroughly cleaned and all loose and blistered paint scraped, but no paint of any kind which adheres firmly and affords proper protection shall be removed in the absence of specific permission from headquarters. Unusually corroded areas requiring special attention shall be thoroughly cleaned to bare metal and given one coat of anticorrosive paint. Thereafter one coat of anticorrosive and one of antifouling over the whole underwater surface of the hull shall constitute routine painting during the docking interval. The use of red lead paint on underwater surfaces of vessels operating in salt water is prohibited. The anticorrosive paint shall extend from the keel to the upper edge of the boot-topping. The antifouling paint shall extend to the lower edge of the boot-topping. The anticorrosive paint shall be thoroughly dry before the antifouling is applied. The antifouling shall not be applied until shortly before the vessel is floated. The bottoms of steel vessels operating in fresh water shall be coated with red lead. Regulations governing the bottom painting of wooden hulls are contained in article 2639.

(2) The outside surfaces of steel protectors shall be painted. Zincs shall not be painted. All protectors shall be thoroughly embedded in red lead.

(3) Draft marks shall be painted white on black or red surroundings, and black on white or gray surroundings. Arabic numerals shall be used.

(4) Boot-topping shall extend from bow to stern on all steel vessels. Boot-topping shall not be required for wooden vessels. The boot-topping shall extend to a definite height above the normal load water line amidships, viz: 18 inches for vessels 250 feet in overall length; other vessels in proportion. The height of the boot-topping at the forward perpendicular shall be increased by one-third the height amidships, and the height aft shall be reduced by one-third the height amidships. Commanding officers shall sufficiently alter this line to the minimum extent necessary, to prevent intersecting the lowest row of airports. The bottom edge of the boot-topping shall coincide with the normal light operating water line of the vessel under ordinary circumstances. Since boot-topping generally has no antifouling properties, its immersed extent should be restricted to the minimum necessary to accomplish its purpose. Boot-topping shall be black on vessels having white or light gray hulls and red on vessels having black hulls.

**2625.** Prepared smokestack paint is authorized for use on smokestacks over a priming coat of red lead. Heat and oil-proof paint will be permitted in machinery spaces on surfaces exposed to extreme heat and to the action of oil, but not for general painting.

**2627.** The following surfaces, fittings, etc., shall be painted red:

Boot-topping of vessels having black hulls.

Decks of destroyers and unsheathed decks of steel patrol boats within bulwark angles (red boot-topping or red deck paint).

Wood interior decks of cutters (red shellac).

**2628.** The following surfaces, fittings, etc., shall be painted black:

Hulls of harbor cutters, harbor launches, and cable ships, above boot-topping.

Anchors and visible parts of chain and hawse pipes on harbor cutters, harbor launches, and cable ships.

Spare anchors stowed aboard harbor cutters, harbor launches, and cable ships.

Boot-topping of white and gray painted steel vessels. Waterways of wood-decked steel vessels and areas in the vicinity of anchor handling gear where wood deck is omitted.

Exterior superstructure deck, boat, and bridge decks (unless of wood) on first and second class cutters, harbor cutters and harbor launches.

Smoke band on stack (to be painted black for a distance equal to one-half the diameter downward from the top).

Vessels and boat names on gray or white hulls unless letters are of composition, in which case they shall be kept bright.

**2629.** The following surfaces, fittings, etc., shall be painted white:

(1) On cruising cutters (not including cable ships)-- Hull above boot-topping.

Anchors, and visible parts of chain and hawse pipes.

Spare anchors stowed on deck or against superstructure.

(2) On cruising cutters, harbor cutters, and harbor launches- Sides of superstructure, companions, skylights, and hatch coamings.

Outside doors of steel or soft wood.

Bulwarks, inboard side, including braces.

Bulwark type chocks.

Vegetable lockers.

Battery lockers on weather deck.

Miscellaneous deck chests.

Padding on boat strongbacks.

**2630.** The following surfaces, fittings, etc., shall be painted light gray: Hulls of destroyers and steel patrol boats above boot-topping, including bulwark angle and bulwark.

hulls and decks of wooden patrol boats and picket boats from upper edge of bottom painting to and including plank-sheer.

Superstructures, outside doors of steel or soft wood, sashes and blinds unless of hard wood, masts, ventilator cowls (inside and out), smokestacks below smoke band, deck fittings and appurtenances generally, on destroyers, patrol, and picket boats.

On picket boats, the floorboards, engine beds, and inside of hulls to a distance of about 18 inches above floorings.

**2631.** The following surfaces, fittings, etc., shall be painted regulation straw color:

(1) On cruising cutters, harbor cutters and harbor launches-- Masts, yards, gaffs, blocks, crow's nest, etc., except rigging.

Those parts whereon yards are hoisted or hoops travel shall be kept bright and greased.

Ensign staff and jack staff.

Smokestack (except smoke band), whistle piping and atmospheric exhaust piping.

Gallows frames.

Awning ridgepoles.

Canvas decks on housetops.

Anchor davits.

Boat davits.

Gypsy and windlass.

Vessel's names on black hulls unless letters are of composition, in which case they shall be kept bright.

Towing and mooring bitts, and mooring cleats.

Open and closed chocks, except bulwark type.

Slop chute hoppers.

Ventilators (including inside and outside of cowls).

Gooseneck ventilators.

Gasoline drums.

(2) On harbor cutters and launches-- Wood rails on bulwarks.

**2632.** The painting of guns and mounts shall be in accordance with "Ordnance Instructions--United States Coast Guard" 1929.

**2633.** The painting of interior surfaces of living spaces shall, in general, be in accordance with "Instructions for Painting and Cementing Vessels of the United States Navy" unless otherwise stated herein.

**2635.** The following exterior woodwork on cutters shall be kept bright:

Handrails and quarter rails of teak, mahogany, or oak.

Swinging booms.

Boat strongbacks.

Hatch covers, movable and others.

Skylights, frames, and companionways.

Outside wood doors of teak, mahogany, or oak if of good appearance and in good repair, otherwise they shall be painted in the color of the surrounding surface.

Sashes and blinds of hardwood with exception as in the foregoing.

Gratings.

Deck ladders and steps.

Side ladders and steps.

## **BOATS FOR VESSELS AND STATIONS**

(Including bottom painting of all wooden boats)

**2639.** (1) All boats shall be painted in accordance with the following standard scheme as nearly as their designs permit:

(2) The following surfaces shall be finished bright with approved spar varnish:

(a) Gunwales, guards, wood towing and quarter bitts, masts, and spars.

(b) Thwarts to knees. (If the boat has side air cases or compartments, only that portion of thwarts between inboard sides of air cases or compartments shall be kept bright.)

(c) Such trimmings, gratings, portable stretchers, moldings, hand grabs~ etc., of oak, mahogany, ash, or other similar hardwood as were finished bright when the boat was accepted.

(d) Water breakers, boat hooks, and flagstaffs.

(e) Oars shall be kept bright, without varnish.

(3) Surfaces to be white:

(a) On boats attached to cutters and stations, the outside of the hull above the water line, including tops and outsides of end compartments and engine inclosures above the sheer line. The water line for painting shall be about 6 inches above the actual water line of boats 30 feet long or over, and about 4 inches above the actual water line of boats less than 30 feet long.

(b) On boats attached to cutters, the outside of the hull below the water line.

(c) On boats attached to cutters and stations, the inside above sheer line of top of thwarts or side compartments. This includes the outside of the engine compartment above the sheer line of top of thwarts and such other compartments as project appreciably above the gunwale of the boat, and virtually become white deck houses rising above the sheer.

(d) The inside of all compartments not ordinarily exposed to view, such as compartments below decks of self-bailing boats; inside of compartments visible above the gunwale; and inside of engine compartments, to improve the lighting, except as in (4) (b).

(4) Surfaces to be light gray:

(a) Outside and inside of boats carried on destroyers, patrol and picket boats.

(b) On motor lifeboats, power surfboats, motor launches, and motor dinghies, attached to cutters and stations, the floor boards, engine beds, etc., inside of engine compartment to a distance of about 18 inches above the flooring.

(5) Surfaces to be regulation straw color:

(a) On boats attached to cutters and stations, all inboard surfaces exposed to weather up to the sheer line of top of thwarts or side compartments, except parts finished bright or light gray. This includes tops of side and end compartments (unless they are located above the gunwale), canvas-covered and wood decks, ends of thwarts, and the outside of the engine compartment when it is below the gunwale line or projects only slightly above it.

(6) Bottom painting:

All wooden vessels and small boats regularly kept afloat shall have their underwater bodies well painted with an approved brand of brown copper-bottom paint, as follows-

(a) Once each year if located on the Great Lakes or other fresh-water points.

(b) Twice each year (April and September) if located on the Atlantic coast north of and including New York, N. Y., or on the Pacific coast north of San Francisco, Calif.



(c) Three times each year (March, July, and September) if located on the Atlantic coast south of New York, N. Y., but north of Norfolk, Va., also if located on the Pacific coast south of and including San Francisco, Calif.

(d) Four times each year (about March 1, May 15, August 1, and October 15) if located on the Atlantic coast south of and including Norfolk, Va., or on the Gulf.

(e) Copper-bottom paint must in all cases be of the best quality and shall be of proprietary brands conforming to standard specifications adopted by headquarters. Service units concerned with the application of copper-bottom paints will be kept informed of these specifications and any changes therein.

(f) The underwater body of a wood hull to be repainted shall be thoroughly cleaned of foulness with fresh water, and shall be scrubbed, scraped, and sandpapered, if necessary, to obtain a smooth surface, taking care that all oil and grease are removed. It is desirable that the bottom be allowed to dry thoroughly, the boat to remain hauled out for two or three days, and longer if possible. Careful examination of the entire underwater body shall be made to discover evidence of marine-borer attack and, if found, such localities or spots shall be treated by carefully burning with torch or replacing destroyed material. All entrance openings of borer shall be securely plugged or cemented. When painting the bottom, two coats shall be applied, thoroughly brushed out so that no portion is left uncoated. All copper bottom paints must be well mixed before using and shall be kept constantly stirred while applying; this is of utmost importance. Brushes used must be absolutely clean. About 12 hours should be allowed between the first coat and the second; the boat should be launched as soon as the second coat has set. The manufacturer's directions on containers should be followed, if possible. In the case of self-bailing boats, the freeing trunks shall be thoroughly painted by using special brushes or by temporarily plugging freeing slots, filling them with copper paint, draining and collecting the remaining paint after suitable interval of time.

**2643.** (1) Coast Guard boats less than 40 feet long will be designated by number. Boats and vessels over 40 feet long will be designated by name, or by letters and number.

## **STANDING RIGGING**

**2645.** The lanyards, service, and seizings of standing rigging and other exposed hemp rope shall be tarred at least once every six months. The exposed parts of wire standing rigging and other wire rope shall be painted gray as often as may be necessary to prevent rust.

**2646.** Wire rope actuating through blocks or over sheaves shall be covered with a

preservative of the following or equally good, composition:

Lubricating machinery oil 1 pint.

Stockholm or American tar 1 quart.

Tallow or Albany grease 5 pounds

Graphite 1 pound.

## GENERAL PAINTING

**2650.** Weather decks of wood, except those canvas covered and those on wooden patrol boats and picket boats, shall not be painted unless by express authority of headquarters. Interior wood decks of cutters shall be kept clean and coated with red shellac carefully and evenly applied. They shall be touched up as necessary to maintain them in satisfactory condition.

**2651.** (1) Outside of hulk above the water line shall be painted not oftener than three times each year, in

the absence of unusual circumstances.

(2) Deckhouses and other deck work shall be painted not oftener than once each year, in the absence of unusual circumstances.

**2652.** The holds, bunkers, and bilges of steel vessels shall be touched up with red lead or other approved composition to conform to the material previously applied in such compartments. If in the opinion of the commanding officer, the painting material previously used has proven unsatisfactory, he shall submit to headquarters a report describing the condition of the material and the manner in which it failed so that headquarters may be guided thereby in prescribing a suitable substitute.

**2653.** (1) All finished brass handrails and similar work shall be kept bright and polished. The faces of

raised, composition letters of vessel's names shall be kept bright; the sides shall be painted in the color of the background. Care shall be taken that Coast Guard seal and emblem, builder's nameplate, boat number plates, and similar fittings furnished with dull and stippled finish be allowed to remain in such condition.

(2) Black paint may be used sparingly for local sections of handrails, grabs, etc. (not brass), in places where it has actually been found extremely difficult to keep a light-colored paint from accumulating finger prints and such other discolorations.

(3) Aluminum paint shall be used on miscellaneous fittings, not portable, whereon the galvanizing has become thin or imperfect. Portable galvanized fittings shall be regalvanized where practicable, otherwise aluminum paint shall be used. Life rails, handrails grabs, etc., unless of brass, shall in general be painted with aluminum paint. Aluminum paint may be used as a priming coat for red lead (except for underwater surfaces) where rapid drying properties are important, and for painting of various minor outside fittings. The widespread use of aluminum paint should not be permitted.

(4) Cork-ring life buoys shall be painted white with the designating inscription as follows: The vessel's name (or designating number, if the vessel have no name) shall be placed on the top semicircle; on the bottom semicircle, U.S. Coast Guard shall be inscribed. Block lettering 2 1/2 inches high shall be used; the inscription shall be arranged to be easily legible without the necessity of rotating the life buoy from the stowed position.

(5) The distinguishing numbers on sides of destroyers, patrol, and picket boats shall be in accordance with headquarters' standard plans.

**2854.** All paintwork shall be touched up as frequently as may be necessary to keep it in proper condition.

**2655.** The general instructions as to painting and the formulae contained in "Instructions for Painting and Cementing Vessels of the United States Navy" shall be followed wherever they do not conflict with the regulations of the service and the instructions in this chapter.

**2656.** The painting of stations and buildings shall be in accordance with instructions issued from headquarters.

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