RUNNING LIGHTS CONSTRUCTION FOR MOUNTING ON TOP OF A MAST

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ABSTRACT OF THE DISCLOSURE

A running light for mounting on the top of a vessel having a C-shaped frame open on the front and sides. Running lights are mounted on the top and bottom parts of the frame. A light opaque member is located to the rear of the running lights to shield the light from being viewed from astern of the vessel. The light from each running light is beamed forward for an arc of 225°.

This invention relates to a running lights construction for mounting on top of a mast, and more particularly such a construction for mounting two running lights in a vertical line above a mast top. The invention is especially useful in complying with the International Regulations for Preventing Collisions at Sea 1960, as effective Sept. 1, 1965.

In these regulations, it is stated in part B, rule 5, "a sailing vessel may carry on the top of the foremost mast two lights in a vertical line one over the other, sufficiently separated so as to be clearly distinguished. The upper light shall be red and the lower light shall be green."

Although running lights of the known port and starboard types are known, and although a signal light commonly used in connection with automobile traffic are used in an integrated support, no running lights construction for mounting on top of a mast in complying with the above noted Regulations is found to exist or to be upon the market.

To supply this need and to comply strictly with the regulations, the present invention provides a simple, lightweight construction which requires merely mechanical and electrical connection with the top of a mast. According to the invention a novel frame is suitably connected to the mast top and known light holders, having known light bulbs therein are suitably fixed within and above the frame to provide the proper orientation and the proper vertical spacing. The results is an integrated unit, complying with existing regulations, which may be easily mechanically attached and electrically connected at the top of a mast.

In order that the invention may be more clearly understood, reference may be made to the following description, together with the accompanying drawings, in which:

FIG. 1 is a side elevation of a slop having at its mast top a running lights construction according to the invention;

FIG. 2 is a side elevation, on a greatly enlarged scale, of the running lights construction;

FIG. 3 is a front view of the running lights construction shown in FIG. 2; and

FIG. 4 is a plan view of the running lights construction shown in FIG. 3.

Referring now particularly to the invention shown in detail in FIGS. 2, 3 and 4, a frame 10 is fixed to a base 11 which, in turn, is adapted to be fixed to a mast top 12. A spacing sleeve 13, coaxial with the base, is fixed to the top of the frame, and a light holder 14 is fixed to the top of the spacing sleeve. A second light holder 14' is fixed within the frame axially in line with the mast 12, the base 11, the spacing sleeve 13 and the light holder 14 on top of the spacing sleeve.

Obviously, the frame 10 might be connected directly to the mast top, thereby eliminating the base 11. However, by connecting the base to the mast top 12 by means of bolts or metal screws 15 passing through a lower flange 16 thereof and into internally threaded cavities (not shown) in the end of the mast top, it is possible to apply and remove the running lights construction as a unit. Such design would not be the case if the frame 10 were welded to the mast top 12; and it would be difficult to connect the frame directly to the mast top, as will be seen by inspection of FIGS. 2 and 3.

Obviously, also, the vertical extent of the frame 10 might be extended sufficiently to permit eliminating the spacing sleeve 13. However, since such extension might diminish the stiffness of the frame, it is presently preferred to employ the spacing sleeve.

The light holders 14 and 14' are identical standard fittings and comprise a fixing part 17, a socket and shield member 18 for a light 19, this member being carried by the fixing part, and a protective dome 20 carried by the socket and shield member. Simple manipulation of the fixing part 17 permits the light holder, with the light in it, to be removed from its support, whereas the dome 20 and then the light 19 may be as easily removed from the socket and shield. With the light 19 replaced in the socket and shield member, the light holder 14 may be as easily reassembled and again fixed to its support, a marking on the parts serving in well known manner to re-orient the light holder.

It will be observed that the socket and shield member 18 has thereon a pair of opaque fins 21 which extend rearwardly and to each side of the light 19. The purpose of these fins is to make the light visible forward and a beam of the vessel over a horizon arc of substantially 225° and invisible over an arc of substantially 135° from astern of the vessel, in accordance with the regulations mentioned above.

The frame 10 is C-shaped, and comprises a top 22, a bottom 23, and a back wall 24. The front and sides of the frame are completely open. It is preferred to construct the frame of aluminum for lightness and resistance to marine corrosion. The back wall 24 is specially formed by being cut transversely inwardly, as at 26, from the lower level of the dome 20 to the bottom level of the socket and shield member on each side of the back wall. Thus, rearward passage of the light will be shielded by the fins 21 only, defining accurately the horizon arc of 135° over which the light is not visible from astern of the vessel. It will be observed that the frame 10 offers no obstruction to passage of light forwardly of the fins 21 for an unbroken arc of 225°.

The construction just described may weaken the C-frame construction. However, it is possible to stiffen the back wall 24 in obvious manner, should such stiffening be desired.

Openings are provided in the bottom 23 and the top 22 of the frames 10 for passage of a light conductor cable 27 therethrough, which may also extend through the base 11 and the spacing sleeve 13.

From the foregoing, it will be apparent that a unitary running lights construction has been provided by the invention which meets the International Regulations for Preventing Collisions at Sea 1960, as effective Sept. 1, 1965. The construction may be easily detached, serviced and reapplied. It may also be inexpensively replaced.

The embodiment of the invention particularly described is presented merely as an example of how the invention may be applied. Other embodiments, forms and modifications of the invention, coming within the proper scope
of the appended claims, will of course readily suggest themselves to those skilled in the art.

What is claimed is:

1. A running lights construction for mounting on top of a mast of a vessel comprising a frame open on the front and sides thereof, said frame having spaced top and bottom parts extending substantially perpendicular to the longitudinal axis of said mast, means mounting first and second running lights on said top and bottom parts of said frame respectively in vertical spaced relation-ship, and a light opaque member located to the rear of each of said running lights to shield said light from being viewed from astern of said vessel; the light from each of said running lights being beamed forwardly of said member for an unbroken arc of approximately 225°.

2. A running lights construction as claimed in claim 1 wherein said frame is C-shaped and further comprising a spacing member mounting said second running light on the top part of said frame to provide the required vertical spacing between said lights.

References Cited

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