

Titanic's Funnels: Exterior Details

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Introduction

In two previous articles, the various heights of *Titanic's* funnels were discussed ([What Height Are Titanic's Funnels?](#)) and the various water pipes were discussed ([Water Pipes on Titanic's Funnels](#)). This third article will examine various external details. These exterior details are being examined primarily for the benefit of the model maker.

Figure 1. is an elevation drawing of one of *Titanic's* funnels.

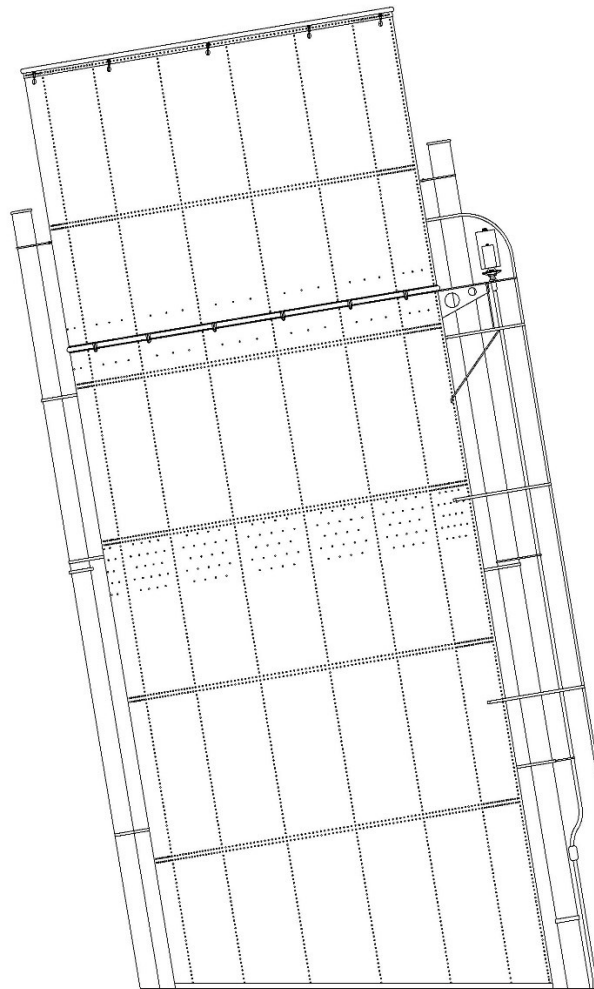


Figure 1

Elevation of one of *Titanic's* funnels

Reinforcement Bands

The upper black painted smoke band of *Titanic's* funnels is approximately 18 ft. 6 in. wide. At the top and bottom of the smoke band are reinforcements which are riveted onto the funnel skin. These areas are reinforced because these are areas which are subject to greater strain. The funnel shrouds attach to eyes attached on the lower reinforcement band. Sheaves for the painters' lines are attached to the upper reinforcement band. The lower reinforcement band is formed by a flat steel bar whose dimensions are roughly $\frac{3}{8}$ in. thick by 5 in. wide. This bar is riveted on its upper and lower edges. To this flat steel bar is riveted a half round steel bar of roughly $3\frac{1}{2}$ in. diameter. Figure 2 shows a cross section of the flat bar and the half round bar riveted to it.

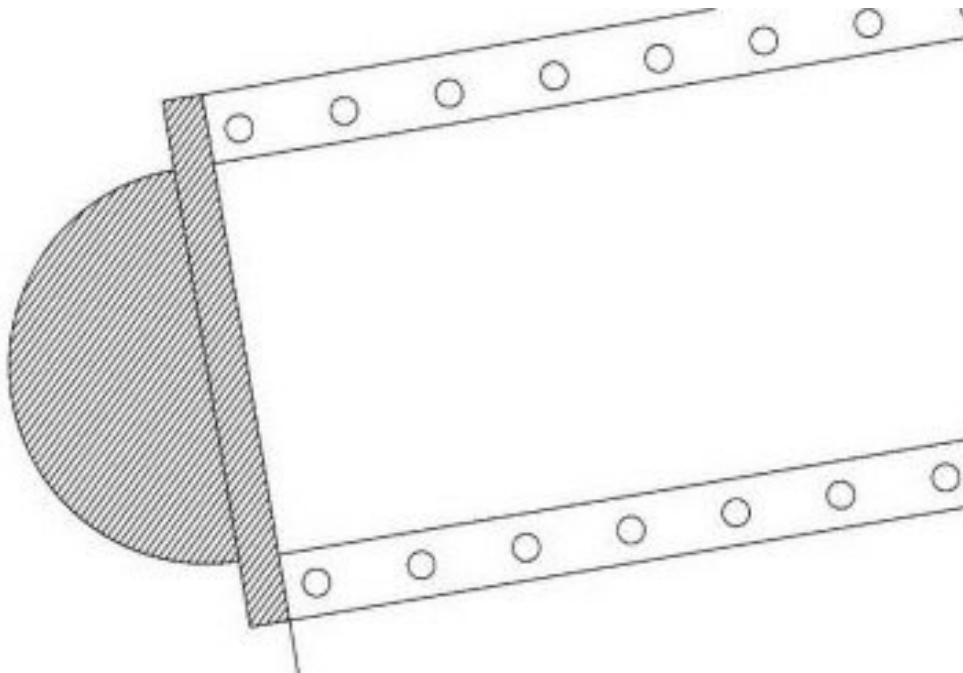


Figure 2

Cross section of flat and half round reinforcement bands

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Figure 3 shows a cross section of the shroud bracket.

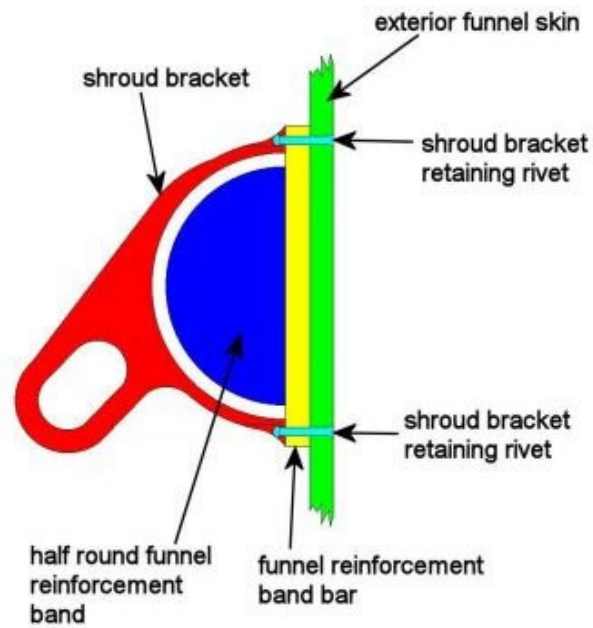


Figure 3

Cross section of shroud bracket

Figure 4 shows an elevation of the complete funnel shroud bracket assembly.

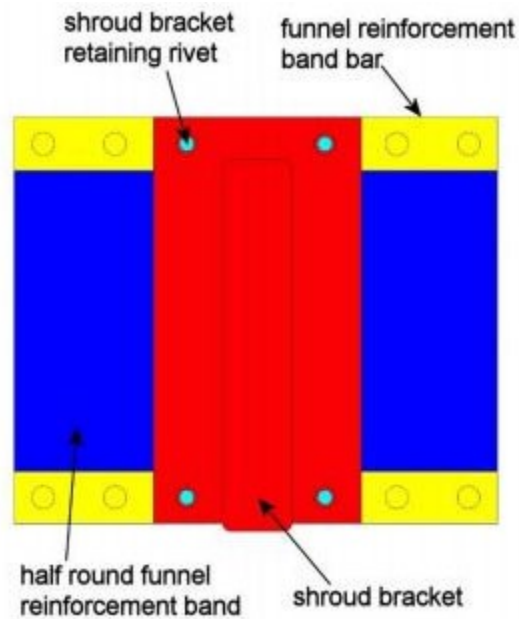


Figure 4

Elevation of shroud bracket

Figure 5 shows a funnel shroud rigged to one of the funnel shroud brackets.

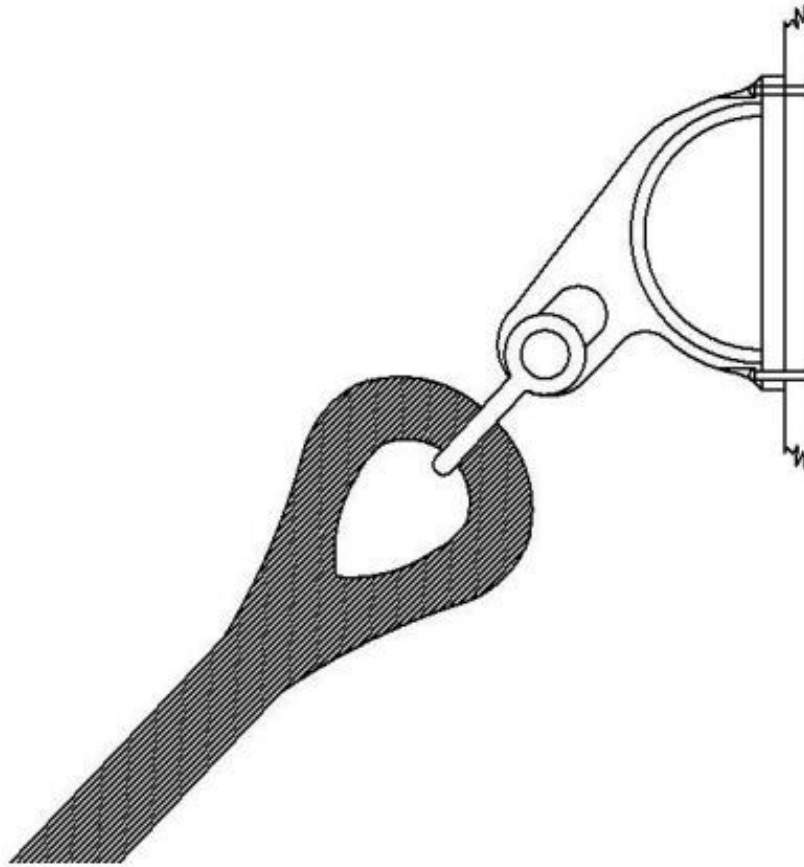


Figure 5

Rigging to the funnel shroud bracket

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Figure 6 shows an elevation of one of the shroud brackets.

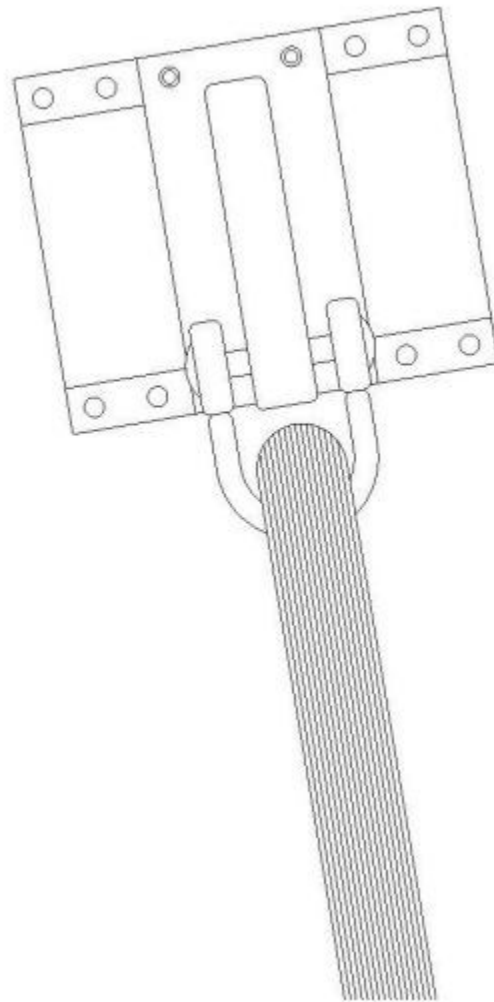


Figure 6

Elevation of rigged funnel shroud bracket

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Figure 7 shows a cross section of the brackets for sheaves of the painters' lines which are riveted to the upper reinforcement band. The upper reinforcement band is approximately $\frac{3}{8}$ in. thick and 7-1/2 in. wide. There are 5 painters' lines brackets aside for each funnel.

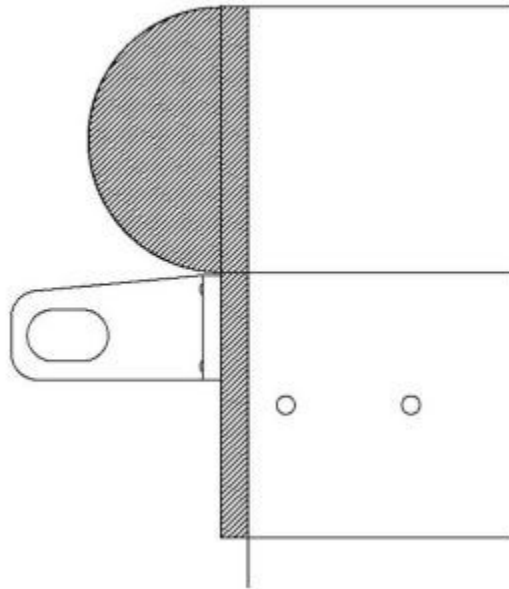


Figure7

Cross section of painter's line bracket.

Figures 8 show an elevational view of one of the painters' line brackets with a sheave rigged.

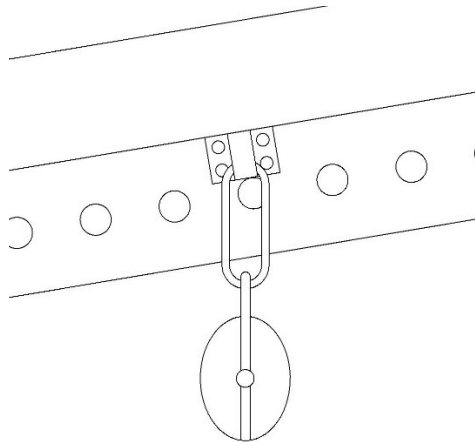


Figure 8

Elevation of one of the painters' line brackets with sheave rigged

Riveting Patterns

The riveting patterns consist mainly of horizontal and vertical bands of rivets. The funnels are divided by 15 equidistant vertical bands of rivets. These bands have rivets paced approximately 3 in. between centers. They are located as seen in Figure 9. Where the radii meet the funnel perimeter on the drawing is where the vertical riveting bands are located.

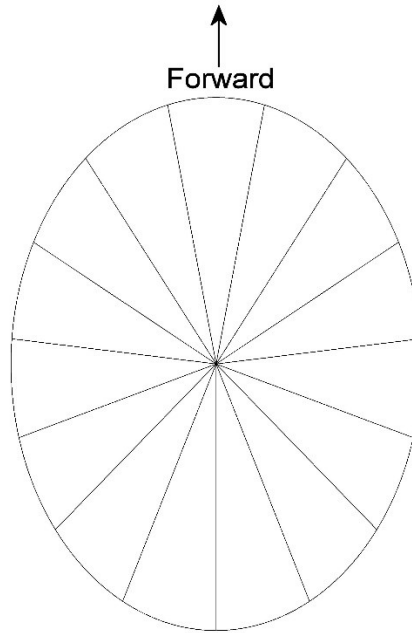


Figure 9

Location of vertical riveting lines on funnel skin

There are 5 horizontal bands of riveting. These are double rows of rivets with the same 3 in. spacing. These horizontal bands can be seen in Figure 1.

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There are two areas of additional riveting. Flanking the lower reinforcement band above and below, are 3 horizontal rivets between each vertical riveting band. These bands can be seen in Figure 10.

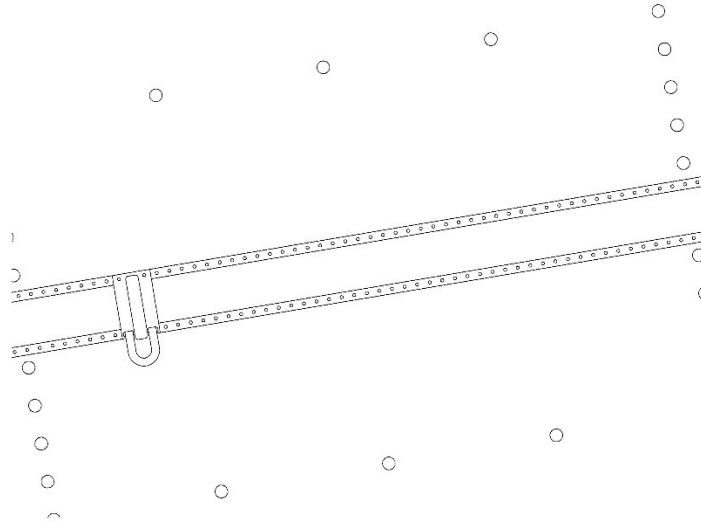


Figure 10

Supplemental horizontal riveting flanking lower reinforcement band

Secondly there is a riveting band directly below the middle horizontal riveting band. This band consists of 5 horizontal bands of rivets between each vertical band of funnel rivets. The rivets in each horizontal band are spaced 9 in. apart. Each band of these rivets is staggered in relation to the rivets in its neighboring band. These riveting bands are shown in Figure 11.

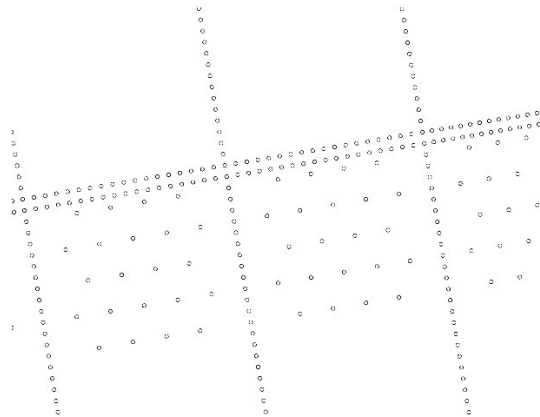


Figure 11

Supplemental horizontal riveting below middle horizontal riveting band

Additional Structures

There are several additional structures are part of the funnel structures. The first is the ladder on the forward side of the funnel. This structure can be seen in red in Figure 12.

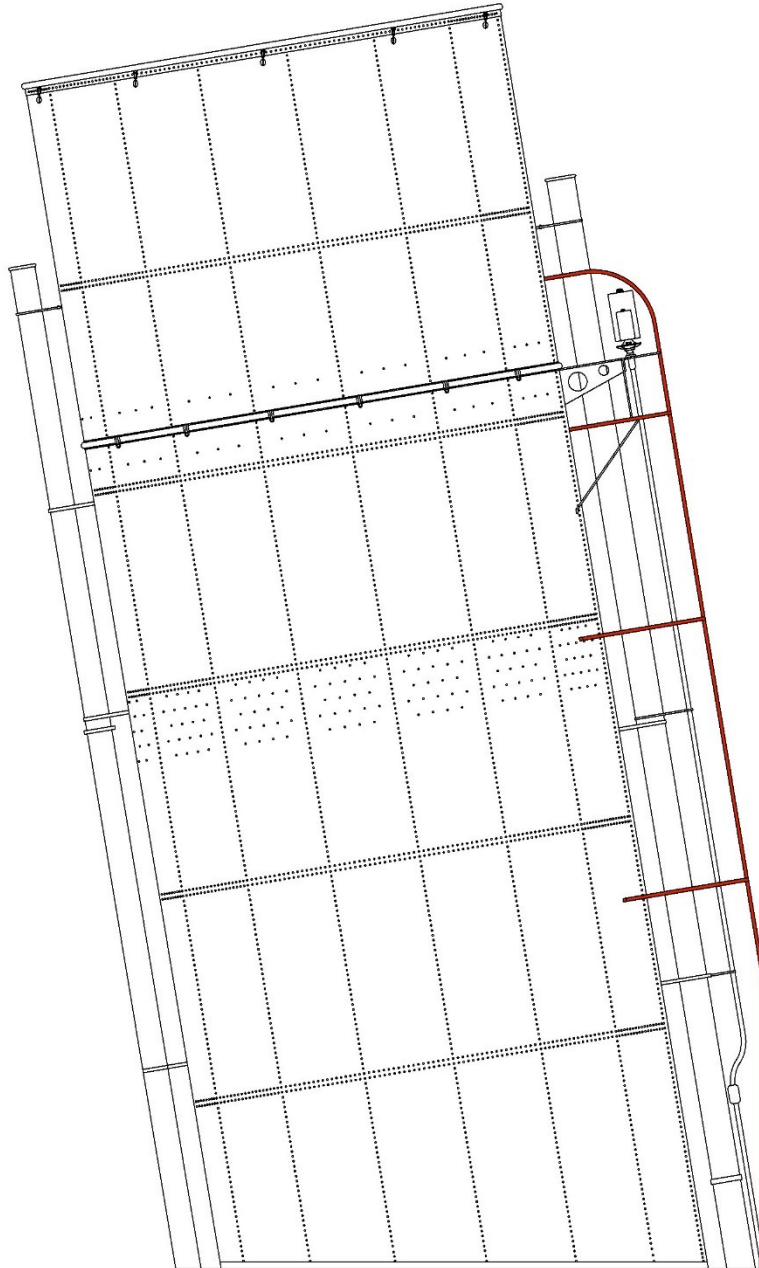


Figure 12

Funnel ladder (in red)

Also, on the forward aspect of the funnels are the whistles and the steam pipe to them. Only the whistles on the two forward funnels were functional. The whistles and their steam pipes can be seen in red in Figure 13.

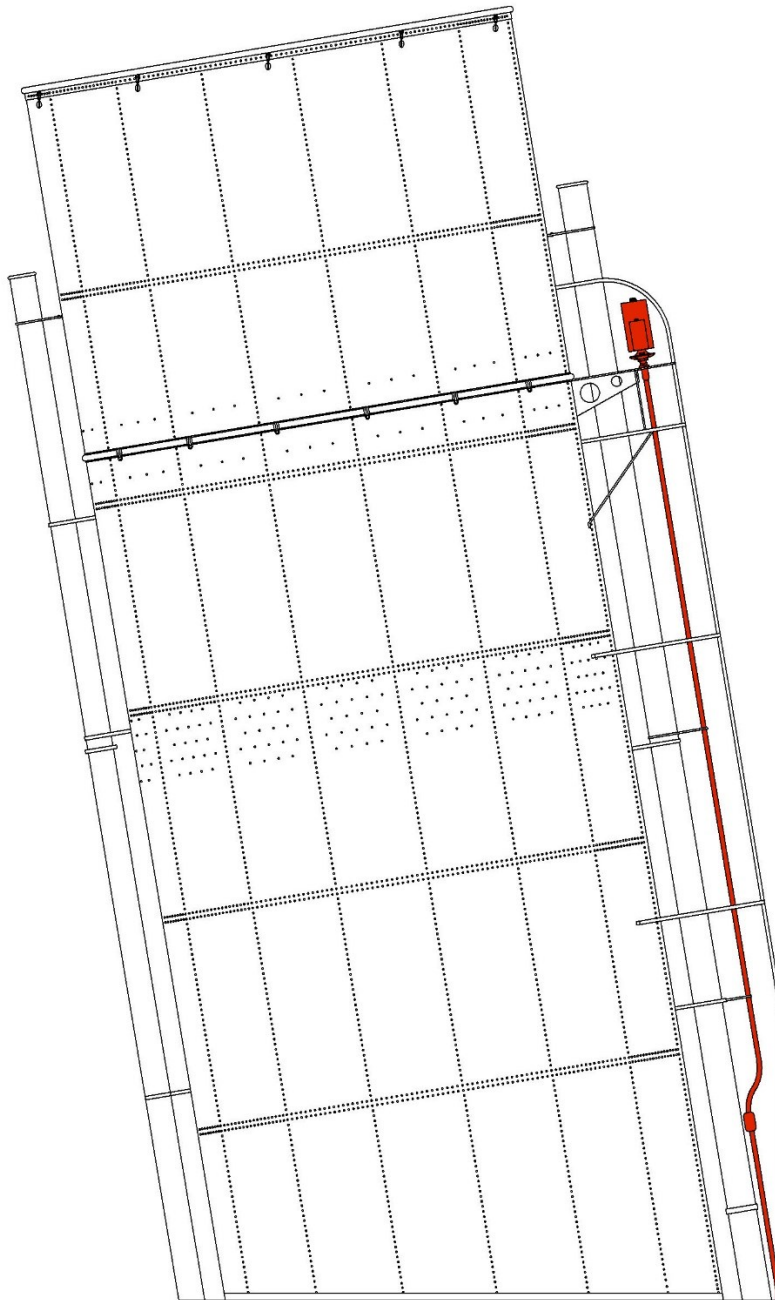


Figure 13

Whistles and steam pipe (in red)

On the forward and aft sides of the funnels are steam escape pipes. The aft pipes are roughly 15 in. diameter and the forward pipes are roughly 17 in. diameter. There seen in red in figure 14.

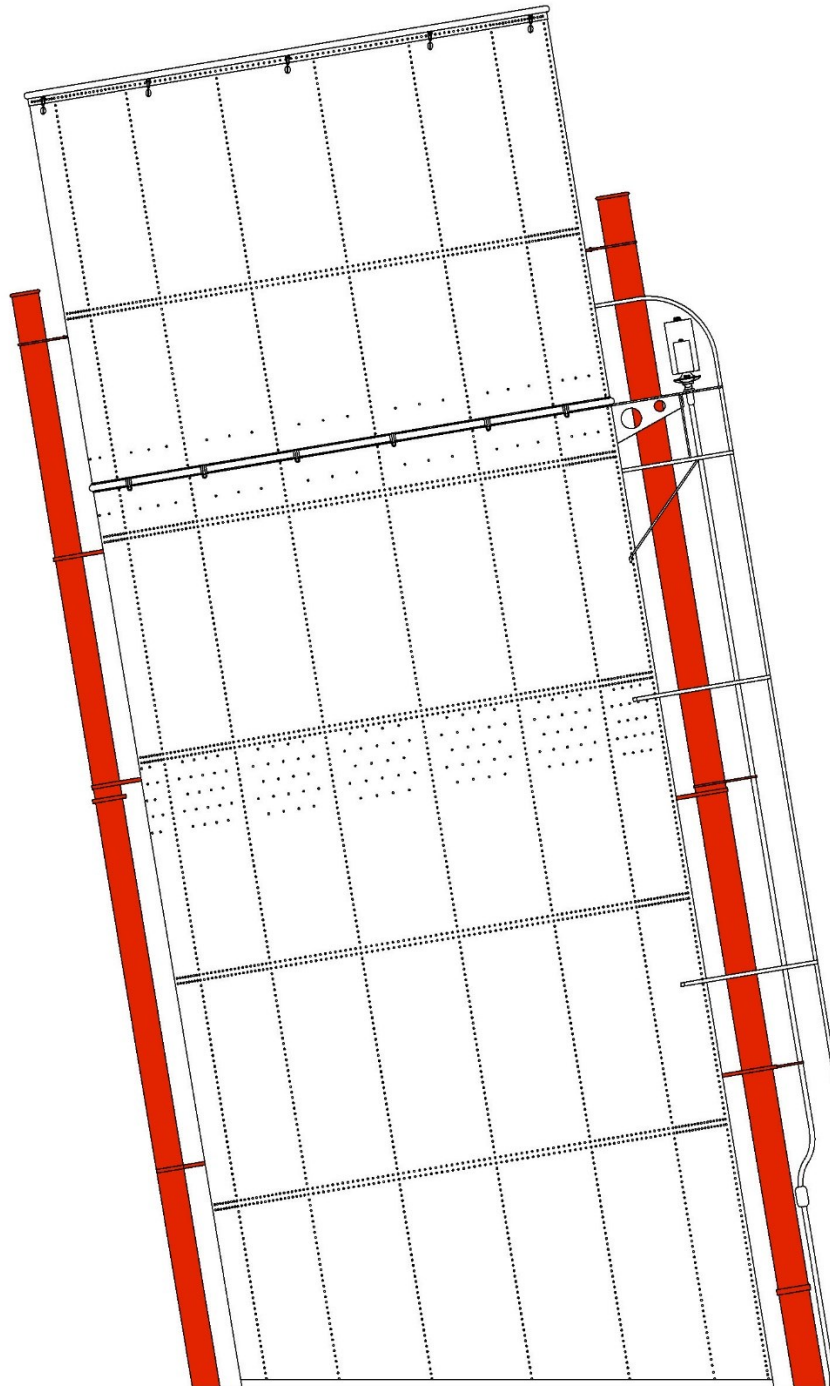


Figure 14

Steam escape pipes (in red)

At the base of each funnel is a right-angle flange to allow the funnel to be riveted to the boiler casing. Figure 15 is a photo of one of *Britannic's* funnels being lowered into place and you can see the flange at the base of the funnel.



Figure 15

Flange at base of funnel

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Figure 16 is a photo which shows many of the funnel details with more clarity.

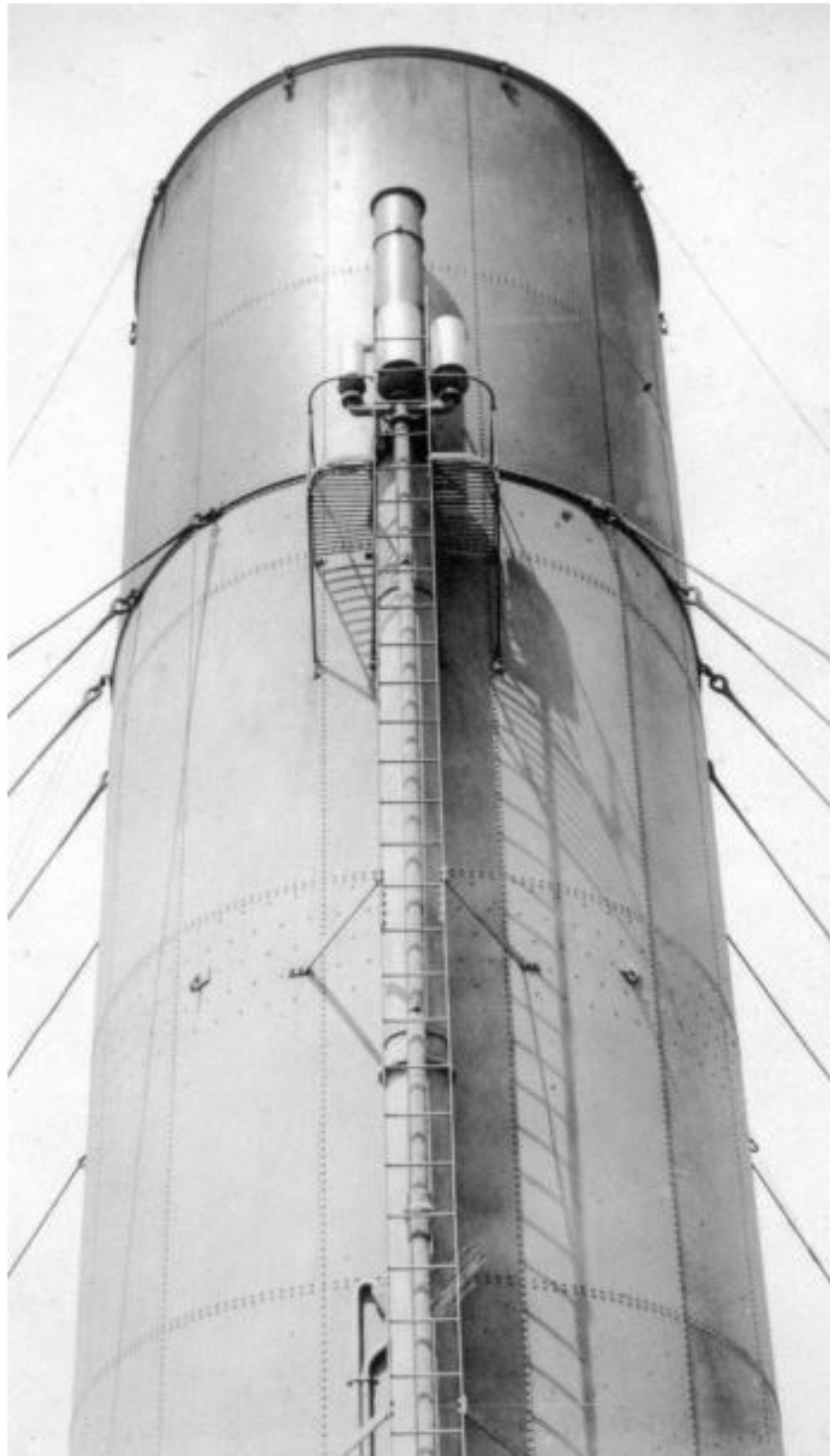


Figure 16

Funnel details

Top of Funnels

Figure 17 shows a representative top of one of the first three funnels.

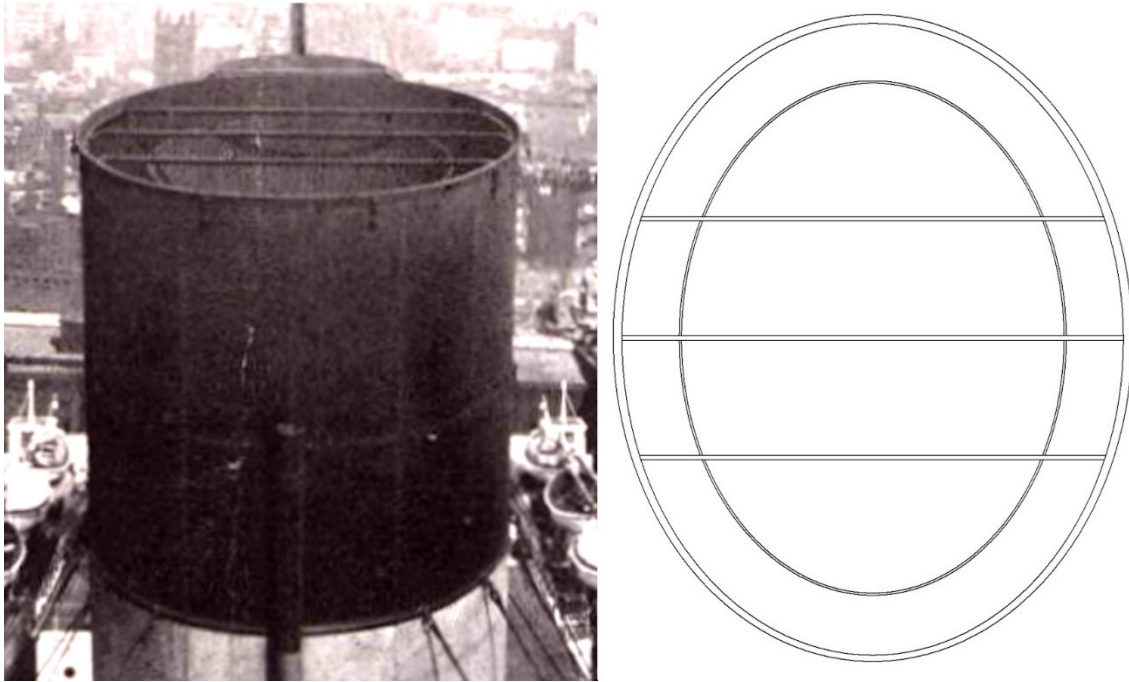


Figure 17

Representative top of one of the first three funnels

Figure 18 shows the top of the fourth funnel.



Figure 18

Top of fourth funnel

Paint

Titanic's funnels are painted with two main colors. The smoke band and the base flange are both painted black. This black has a satin finish. The funnel between the smoke band and the base flange is painted "White Star Buff". This paint is flat. Figure 19 shows that the smoke band is painted black from the lower reinforcement band to the top of the funnel.

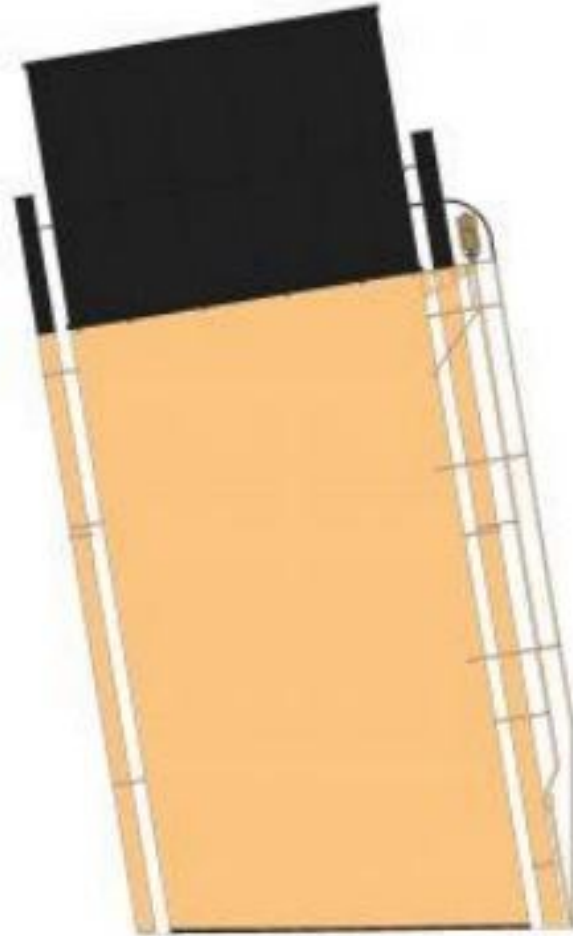


Figure 19

Paint guide to *Titanic's* funnels

Conclusion

This article has illustrated exterior details of *Titanic's* funnels. This third article is a supplement to the first two funnel articles which are linked to in the introduction to this article.

