

The Arrangement of Electric Fan Ventilators Atop *Titanic's* Fourth Funnel Deckhouse

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Introduction

The position of electric fan ventilators on the roof of the deckhouse under *Titanic's* fourth funnel has been the source of controversy for a long time. This is because we don't have many photos of this area of *Titanic* and most of the photos are not of high quality. In this article, photo analysis will be done to determine the positions of the three electric fan ventilators as closely as possible.

Sightlines

The method which will be employed to determine the positions of the ventilators will be by the use of sightlines in photos. Our best photo in terms of clarity is the port side Cork Examiner photo taken while *Titanic* was in Queenstown. This is shown in Figure 1.

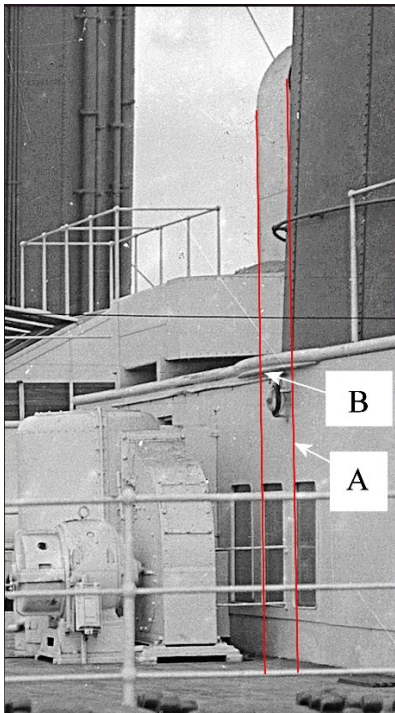


Figure 1

Port side photo of *Titanic* showing sightlines through ventilators

To determine sightlines to the ventilators, a vertical line is drawn from the outboard edge of the port 20-inch sirocco ventilator down to the base of the deckhouse. This sightline is designated "A". A second vertical sightline is drawn from the outboard edge of the 35-inch sirocco ventilator down to the base of the deckhouse. This sightline is designated "B". The second photo is the Whilems photo of *Titanic* taken in Southampton and is shown in Figure 2.

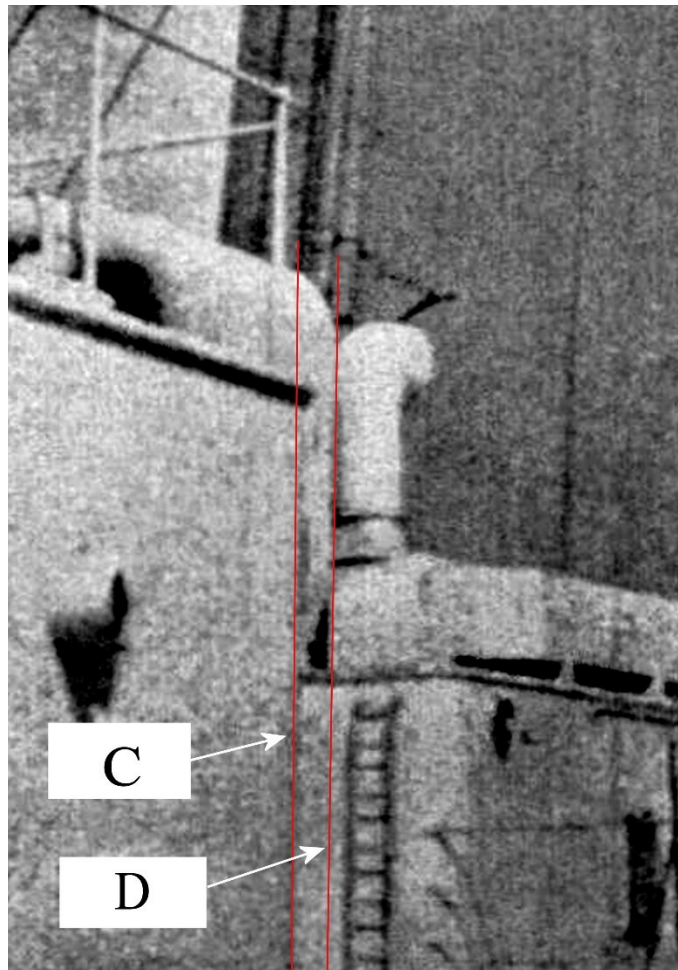


Figure 2

Whilems photo of *Titanic* showing sightlines through ventilators

This photo is not of high quality but it will not be used to determine precise sightlines. The importance of this photo is that it will be used to determine one of two possible positions for the 35-inch ventilator.

In the photo, the sightline which runs along the edge of the tank room deckhouse is designated "C". The sightline which is drawn from the outboard edge of the 35-inch ventilator is designated "D".

Figure 3 is a plan view drawing of the deckhouse roof forward of funnel #4. The four sightlines taken from the photos are labeled "A", "B", "C", and "D".

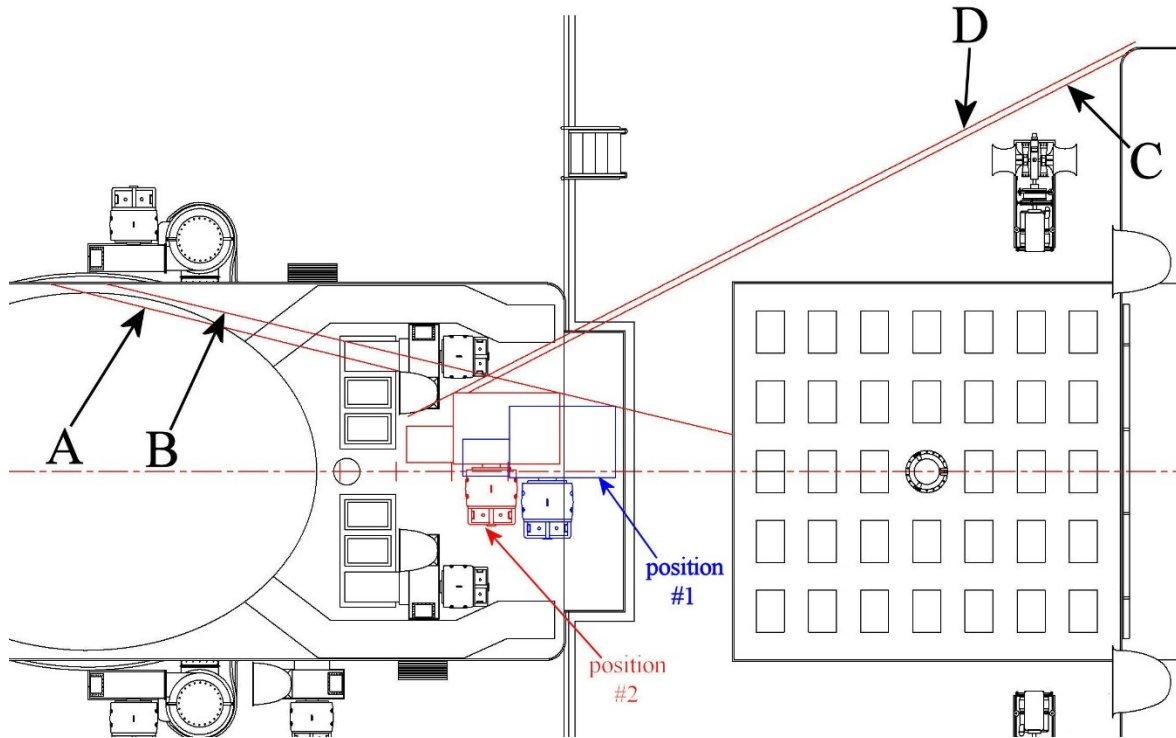


Figure3

Plan view of sightlines taken from Figure 1 and Figure 2.

It can be seen that with the sightline "B" that there are two possible positions of the 35-inch ventilator. These are labeled "position 1" and "position 2". There only two possible positions because the output duct of the 35-inch ventilator through the roof must be centered between roof frames which correspond to the locations of hull frames.

Because of the sightlines, "C" and "D", it can be seen that the "position 2" is the confirmed position of the 35-inch ventilator.

Positions of the 20-inch Ventilators

With the position of the 35-inch ventilator now fixed, we turn to the possible positions of the 20-inch ventilators. Because of the verified position of the 35-inch ventilator, the restaurant galley skylights, and the outboard ventilation ducts, it is clear that the 20-inch ventilators can't be placed so they duct through the roof of the deckhouse and be centered between roof frames. This forces us into accepting a configuration where the 20-inch ventilators duct from the restaurant galley skylights like the 20-inch ventilator on the roof of the fourth funnel

deckhouse of 1913 *Olympic*. The one adjustment is that the skylights must be moved inboard approximately 8 inches so that the 20-inch ventilators can duct from the location of the outboard pane of the skylight. By doing this, the location of the 20-inch ventilators can coincide with sightlines "A" and "D". Figure 4 show a plan view of the arrangement and location of the electric fan ventilators on the roof of *Titanic's* fourth funnel.

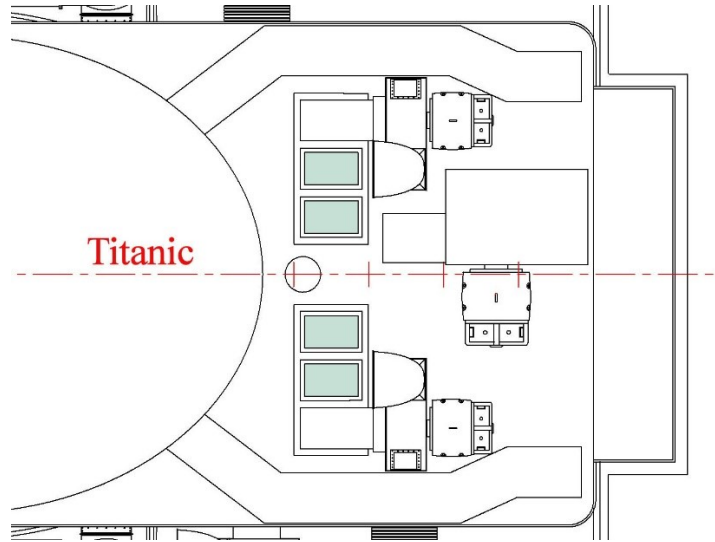


Figure 4

Plan view of arrangement of ventilators atop *Titanic's* fourth funnel deckhouse

Figure 5 shows an elevation view drawing of this area.

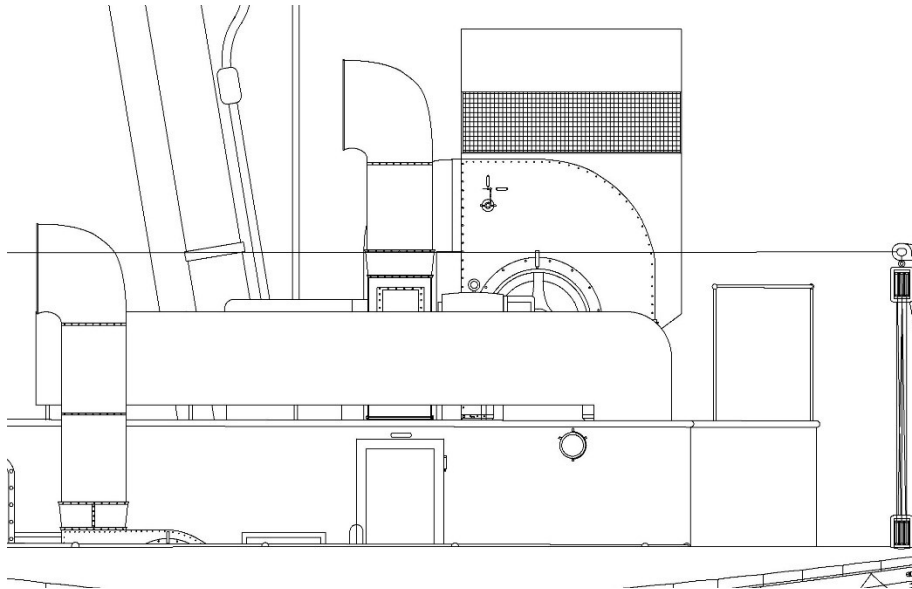


Figure 2

Elevation view of ventilators atop *Titanic's* fourth funnel deckhouse

Conclusion

Photo analysis of sightlines was utilized to locate the positions of the electric fan ventilators atop *Titanic's* fourth funnel deckhouse. It was necessary to use two photos to confirm the positions of the ventilators.