

An Analysis of the Configuration of One of *Titanic's* Vent Trunk Intakes

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Introduction

The purpose of this article is to give evidence for the configuration of the vent trunk intake on the aft face of *Titanic's* tank room. The link to the configuration of the same intake on early (pre-1913 refit) *Olympic* will be explored. No attempt will be made in this article to explain the other ventilation functions of this vent trunk.

Olympic Evidence

The so-called "Andrews Notebook" has a list of electric fan ventilators on early *Olympic*. In this list, modifications which were made up to and during her 1913 refit are noted. The tank room vent trunk intake on early *Olympic* was utilized by a single 30-inch fresh air delivery ventilator which sat atop a platform in the reciprocating engine casing at the B deck level. This ventilator drew in air from the tank room vent trunk intake and delivered fresh air via a duct downward through the reciprocating engine casing to the reciprocating engine room.

Figure 1 shows the path of fresh air through the intake, down the vent trunk to the 30-inch ventilator, then downward to the reciprocating engine room.

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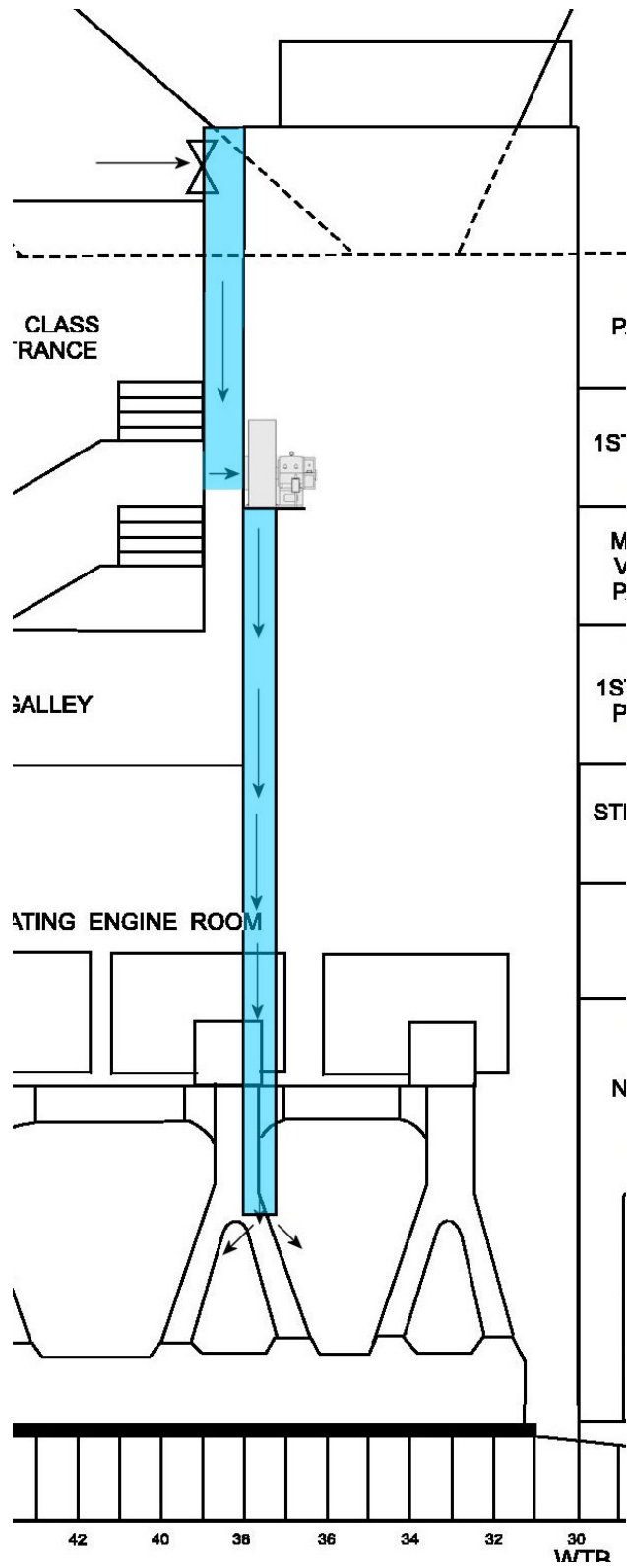


Figure 1

Fresh air path from vent intake to reciprocating engine room

The somewhat more difficult task is determining the width of the vent trunk intake. Figure 2 is a photo which show the vent trunk intake on the aft face of early *Olympic's* tank room.

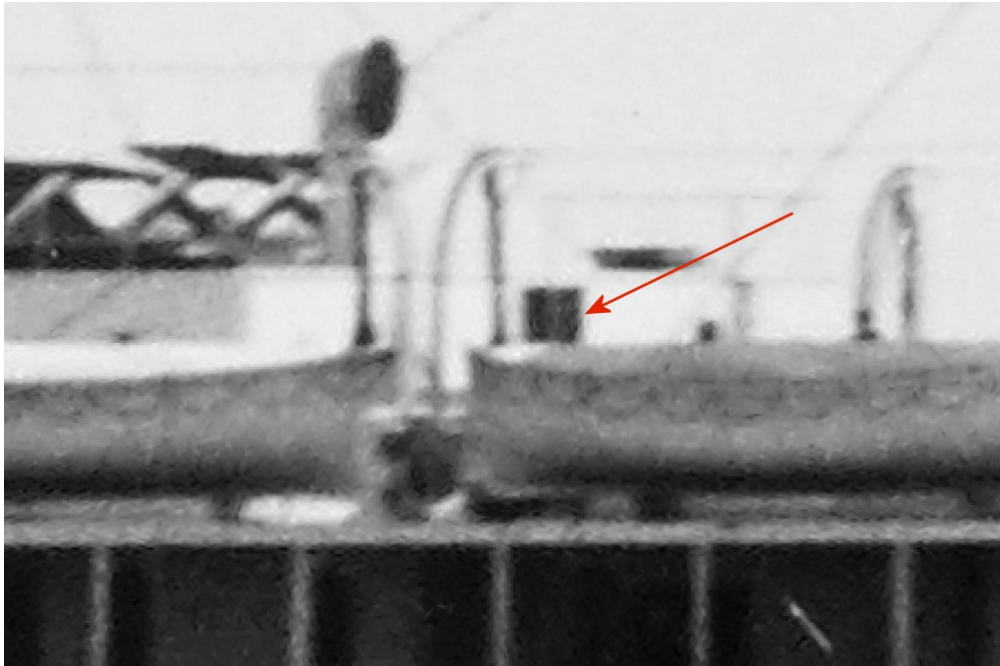


Figure 2

Early *Olympic* tank room vent trunk intake

The resolution of this photo isn't high enough to make precise measurements. It can be seen though, that the intake is relatively narrow with respect to the total width of the vent trunk. Another possibility is to look at the width of the fresh air trunk at the boat deck level in ventilation system drawings of post-1913 refit Olympic. Figure 3 shows this ventilation plan.

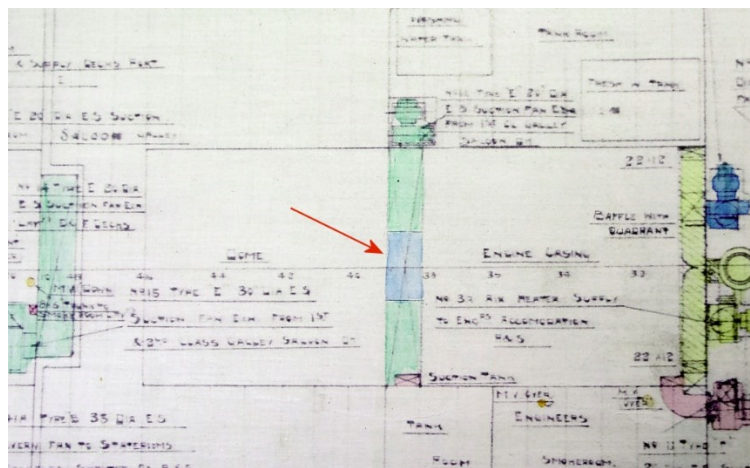


Figure 3

Fresh air trunk (in blue) at boat deck level on post-1913 refit *Olympic*

This fresh air trunk measures 6 ft. in width. If we draw a vent trunk intake with a 6 ft. width, the results are seen in Figure 4. This appears consistent with the approximate width we see in the early Olympic photo in Figure 2.

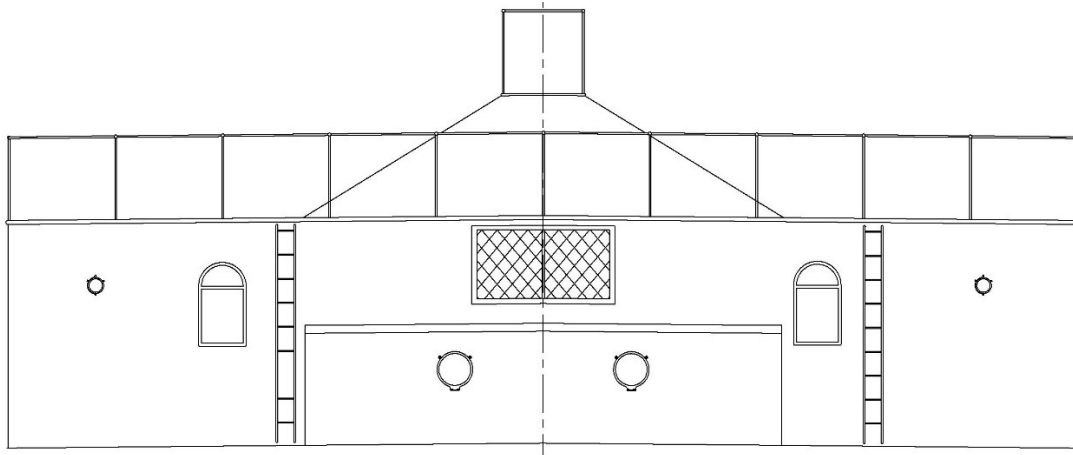


Figure 4

Proposed configuration of early *Olympic's* vent trunk intake

Titanic

Once again, our best photo of *Titanic's* tank room vent trunk intake is not of high quality. This *Titanic* photo is shown in Figure 5.

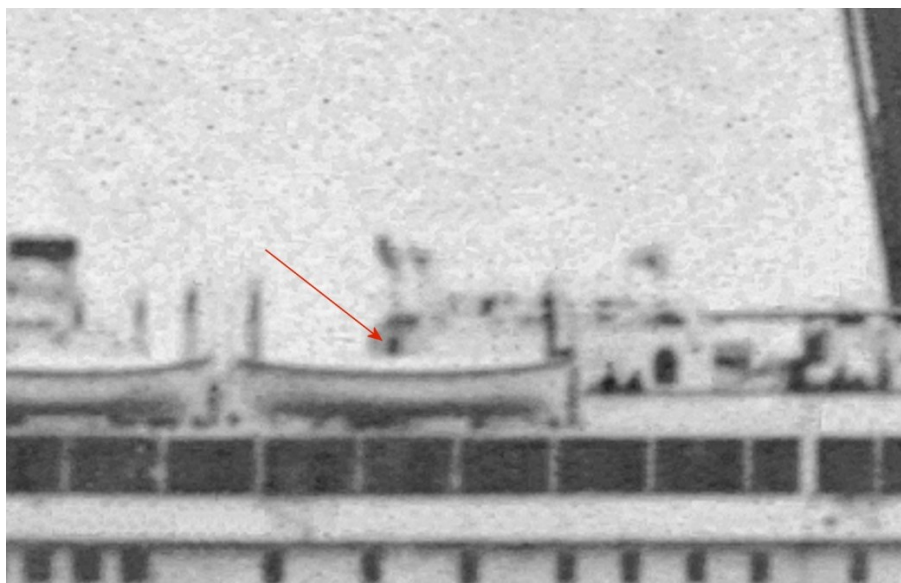


Figure 5

Titanic tank room vent trunk intake

It can also be seen that the width of the intake appears consistent with the intake we see in the early *Olympic* photo seen in Figure 2. We do not have any listing of the electric fan ventilators like we do for *Olympic*. The two ships have some similarities in their ventilation system but there are also numerous differences. Many of the upgrades to *Olympic's* ventilation system which were made during 1912 and during her 1913 refit were incorporated into *Titanic*. During *Olympic's* 1913 refit, the 30-inch fresh air delivery fan which utilized the vent trunk intake was upgraded to two 35-inch fresh air delivery fans at the same location in the reciprocating engine casing at B deck level. This also resulted in a widening of the intake which was no longer centered on the midline. Because this is not what we see on *Titanic*, I believe that this 30-inch delivery ventilator on early *Olympic* was **not** upgraded on *Titanic*. I believe this explains why the vent trunk intake in photos of early *Olympic* and *Titanic* appears similar. I believe that the intakes were not only similar but were, in fact, **identical**. Figure 6 show the proposed tank room vent trunk intake on both early *Olympic* and *Titanic*.

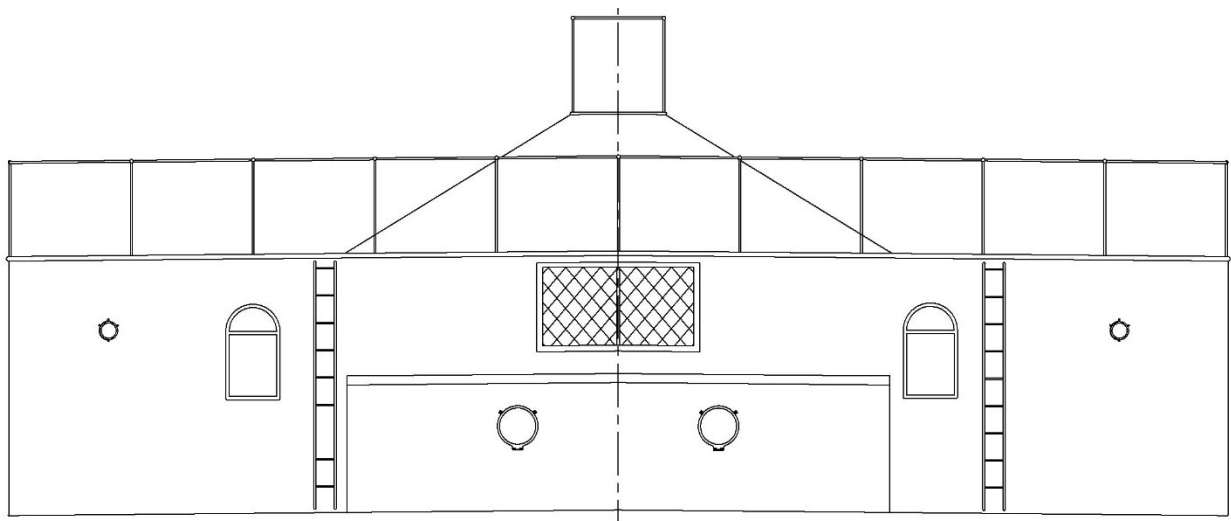


Figure 6

Proposed tank room vent trunk intake on both early *Olympic* and *Titanic*

Summary

In this article, photo evidence of the tank room vent trunk intake on both early *Olympic* and *Titanic* has been examined. Their similarity plus the lack of similarity to post-1913 refit *Olympic's* intake duct has led me to conclude that *Olympic's* 30-inch fresh air delivery ventilator was not upgraded on *Titanic* such that the two ships had identical tank room vent trunk intakes.

