

BIG SHIPS AND SMALL BOATS

By Mark Chirnside

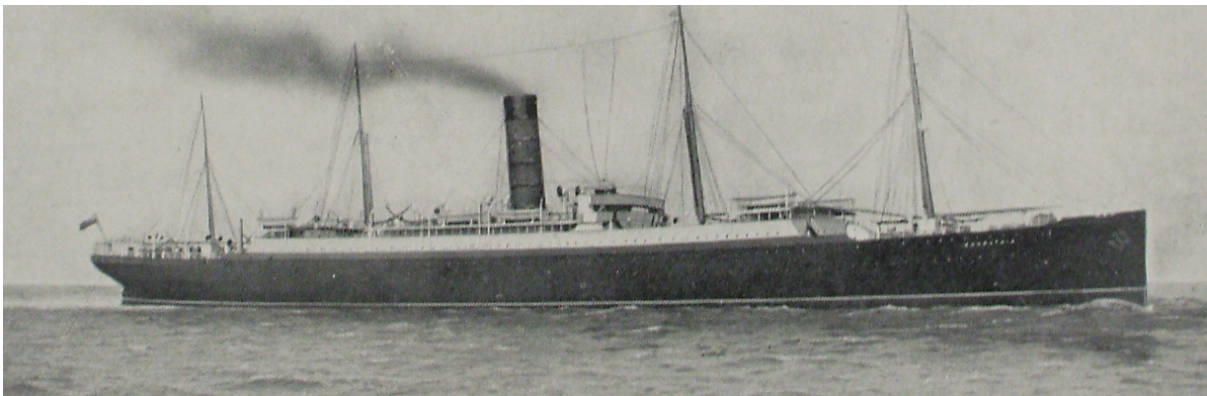
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Between 1894 and 1911, the size of the largest ship afloat increased from under 13,000 gross tons to over 45,000 gross tons – an increase of about 3.5-fold. The increasing size of ships showed no sign of stopping, because the construction was well underway of larger ships whose tonnage would be even greater. The lifeboat regulations in the United Kingdom, which came into force in 1894, were based on a scale of tonnage: the largest ship considered at that time was one of over 10,000 gross tons. In the years immediately prior to 1912 and right through to discussions in modern times, there was and is a focus on how much ships had grown in relation to those envisaged by the regulations. However, what is often overlooked is that larger ships did not necessarily carry more people than their smaller counterparts. Where they did carry more passengers and crew, their lifeboat capacity was not necessarily any worse, either. It is important to take this into account when considering the context of *Titanic's* lifeboat capacity.

An example of two ships with a similar lifeboat capacity is to take a snapshot comparison from April 1912. Cunard's *Carpathia* had been in service for the best part of a decade and she was similar in size to the largest liner afloat in 1894, whereas White Star's *Olympic* had been in service less than a year and represented the 3.5-fold increase in size. The Cunarder's lifeboat capacity in terms of the lifeboats she carried directly under davits was slightly worse than the White Star liner's, whereas their total lifeboat capacities were broadly the same in percentage terms:¹

Passenger Certificate as in force April 1912	Lifeboat Capacity <u>under davits</u>	Passengers & Crew	Lifeboat Capacity
<i>Carpathia</i>	702	2,864	25%
<i>Olympic</i>	976	3,447	28%

Passenger Certificate as in Force April 1912	Lifeboat Capacity <u>total</u>	Passengers & Crew	Lifeboat Capacity
<i>Carpathia</i>	1,005	2,864	35%
<i>Olympic</i>	1,178	3,447	34%



Above: Cunard's *Carpathia*. (Author's Collection)

Although *Carpathia* was a smaller ship, she carried a large proportion of third class passengers and they were allocated less space per person. She carried 83 per cent of the passengers and crew of *Olympic* and yet she was only 30 per cent of *Olympic's* size.

The HAPAG liner *President Lincoln*, completed by Harland & Wolff in 1907, was an example of a smaller ship carrying more people than *Olympic*. She carried 4,108 passengers and crew and had total lifeboat accommodation for 1,465 persons. That represented total lifeboat accommodation for 36 per cent of her passengers and crew, similar to *Olympic's* 34 per cent, even though *Olympic* was far larger, at about 2.5 times *President Lincoln's* gross tonnage. In absolute terms, *President*

Lincoln carried 661 more passengers and crew but only had 287 more lifeboat seats, meaning that 2,643 people might be left without lifeboat accommodation if she foundered before help could arrive, compared to 2,269 on *Olympic*.

We have some official data available which represents a 'List of all Foreign-Going Passenger Steamers (St 1. Certificate) Holding Certificates on 25th April 1912' in the United Kingdom. It includes what were, essentially, the top twenty foreign going British registered passenger steamers on that date. Under the regulations, each of these liners was required to provide lifeboat accommodation for 550 persons in lifeboats carried under davits. Where this was insufficient to accommodate all passengers and crew, additional lifeboats or rafts needed to be carried with an additional three-fourths of cubic capacity, because they were all over 5,000 gross tons.

Ship	Gross Tonnage	Passengers & Crew on Passenger Certificate	Lifeboat Capacity ('carried under davits')	Lifeboat Capacity ('carried under davits') %
<i>Olympic</i>	45324	3447	980	28%
<i>Mauretania</i>	31398	2972	976	33%
<i>Lusitania</i>	31550	2889	978	34%
<i>Adriatic</i>	24541	2225	886	40%
<i>Baltic</i>	23876	2411	948	39%
<i>Celtic</i>	20904	1546	774	50%
<i>Caronia</i>	19687	3483	838	24%
<i>Carmania</i>	19524	3520	834	24%
<i>Franconia</i>	18150	3115	960	31%

<i>Laconia</i>	18099	3109	960	31%
<i>Oceanic</i>	17274	2121	750	35%
<i>Arabic</i>	15801	1766	744	42%
<i>Laurentic</i>	14892	2147	992	46%
<i>Megantic</i>	14878	2234	978	44%
<i>Minnewaska</i>	14316	615	644	105%
<i>Saxonia</i>	14271	2634	831	32%
<i>Ivernia</i>	14210	2589	816	32%
<i>Empress of Ireland</i>	14191	1910	766	40%
<i>Empress of Britain</i>	14189	1914	764	40%
<i>Carpathia</i>	13603	2864	702	25%
Average	20034	2476	856	35%

There are limitations in the data and some caveats. For example, White Star's *Cedric* was not included and the passenger and crew figures for *Celtic* seem questionable. It would also be preferable if the data encompassed the total capacity of **all the lifeboats carried, rather than merely those under davits**. In the case of *Olympic*, the four collapsible boats were not counted because they were not 'under davits' and had to be moved over for launching. Her total lifeboat capacity was actually superior to that of *Lusitania* and *Mauretania* in both relative and absolute terms, whereas it was inferior on the basis of lifeboats under davits. We have also seen that *Carpathia* had a number of additional boats not under davits. It appears the data effectively shows the pre-*Titanic* disaster situation, even though efforts were already underway to make sure each ship had enough lifeboats for everyone aboard.

Although the data has its limitations, we know that the average gross tonnage of these twenty ships was just over 20,000; the average number of passengers and crew on the passenger certificate was 2,476; and the average number of persons accommodated in boats under davits was 856 (35 per cent).

How does *Olympic* rank? She was by far the largest in gross tonnage but only had the third highest number of passengers and crew; the second highest number of persons accommodated in boats under davits; and the proportion of persons accommodated in boats under davits was seventeenth. The three ships which ranked below her on that final measure were *Carmania* (24 per cent), *Caronia* (24 per cent) and *Carpathia* (25 per cent), all of which were under 20,000 gross tons.

If all design factors were equal, it might have been reasonable to assume that a larger ship would automatically accommodate more passengers and crew. However, even with limitations in the data, the reality was more complicated than that.

The regulatory requirements would have been formulated better if they had been based on considering lifeboat capacity in a proportional relationship to the total number of passengers and crew a ship could carry. Any change, higher or lower, in the number of passengers and crew carried would have been accommodated automatically without any need to change the regulations – regardless of whether the rules had required ‘lifeboats for all’.



Shortly after the *Titanic* disaster, the *Illustrated London News* published a comparative illustration drawn by W. B. Robinson which depicted 'boats carried and boats needed to save all' by ship. It appears from this, for example, that *Carmania* and *Oceanic* also carried additional lifeboats which were not 'under davits'. It is interesting to note that the Union Castle liners came close to carrying 'boats for all' and the Allan Line's *Virginian* had a total lifeboat capacity equivalent to 83 per cent of her passengers and crew. (*Illustrated London News*, 1912/Author's collection)



'Fitting up a collapsible boat about the *Olympic*', April 1912. (*Illustrated London News*, 1912/Author's collection)



'A busy scene on the *Olympic*'s deck: the White Star liner's lifeboats undergoing tests', April 1912. A number of passengers watch with interest. (*Illustrated London News*, 1912/Author's collection)

ACKNOWLEDGEMENTS & BIBLIOGRAPHY

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¹ The total lifeboat capacity data for *Carpathia* needs to be taken with a little caution because it is from a secondary source – an article Brent Holt kindly shared from the *Philadelphia Evening Bulletin*, dated 17 April 1912. However, it looks to be approximately correct and all other data in the table is from British government data.