

# Titanic

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# 1. Construction

- Construction of Titanic began on March 31, 1909
- Titanic's sister ship The Olympic had begun some three months earlier and the two ships were constructed side by side by over 15,000 workers
- Construction on the Titanic resulted in the death of 8 employees due to the often dangerous construction site.
- They constructed two huge custom built gantries, with moving cranes and lifts, called the Arrol gantries.
- They also purchased a massive 200 ton floating crane which was used to lift the huge boilers and other mechanical items into place on the ships.
- The huge structures of Olympic and Titanic could be seen across most of Belfast City, shrouded by the even larger gantries in which they were constructed.



## 2. Design

- Steel welding was still in its early stages, so the colossal steel plate structure of the Titanic needed to be held together by over three million iron and steel rivets, which were hammered into place by hand.
- There were many flaws in the design of the ship that had little to do with the quality of the steel used, including compartments that were meant to be watertight, and lack of welding technology.
- The steel used for the Titanic was far inferior to the steel used today, being more brittle and not as impact resistant. It was the best steel that could be produced at the time.
- It was concluded that flaws in the design of the ship were a much bigger factor of the sinking of the Titanic than the actual steel used in production.
- The Hull measured 882.9 ft in length and 92 feet in width and required at least 59 feet of water to float unobstructed.

- **The Boilers:** To power the Titanic required an enormous power source and in the early 1900's that source was coal powered steam.
- There were twenty-four double ended Scotch class boilers and a further five single ended boilers which were housed in six boiler rooms.
- The double ended boilers measured 20 feet long, with a diameter of 15 feet 9 inches and contained six coal burning furnaces. The single ended boilers were 11 feet 9 inches long with the same diameter. With all boilers firing the Titanic produced around 46,000 horsepower.
- **The Funnels:** Thomas Andrew's original design of the Titanic was so efficient that it was originally conceived with only three funnels to service the massive boilers some 150 feet below.
- White Star thought it a necessity a ship of such grandeur must possess four funnels. As a result only three of the funnels were functional and the fourth was purely aesthetic.
- **The propellers:** The Titanic was equipped with a steam powered triple screw propulsion/ propeller system to ensure it moved across the ocean at a respectable pace ,but the blades were deliberately pitched at such an angle that the ship would not vibrate or disturb the passengers.

### 3. The Voyage

- 2<sup>nd</sup> of April 1912: The Titanic was launched and set sail from Belfast for Southampton to begin her maiden voyage.
- 4<sup>th</sup> of April: The Titanic arrived in Southampton
- 10<sup>th</sup> of April: Titanic arrives in Cherbourg, France
- 11<sup>th</sup> of April: Titanic arrives in Queenstown( Cobh), Co.Cork, Ireland, and later departs for New York City
- 14<sup>th</sup> of April: Titanic hits the iceberg at 11:40pm
- 15<sup>th</sup> of April: At 2:20am Titanic begins to sink, at 4am the Carpathia picks up the first survivors from the lifeboats



## 4. Life On Board

- First class passengers were some of the richest and most important people of the time. They included businessmen like John Jacob Astor IV and Benjamin Guggenheim, as well as members of the upper classes and even sportsmen.
- Many of the second class passengers were tourists, made up of professions such as teachers and clergy. A team from Harland and Wolff travelled as second class passengers alongside some staff of the first class passengers, like chauffeurs or nannies.
- The passengers in third class were mainly immigrants heading for a new life in America. They came from a variety of locations across Europe such as Ireland, England, Scandinavia and Jewish migrants from Eastern Europe. A significant number also came from Lebanon.



## First Class

- First class facilities included veranda cafes, a smoking room, restaurant, a dining saloon and a reading and writing room. The facilities on Titanic far surpassed those of rival ships of that time.
- Passengers really dined in style. The dining room was the largest ever seen on a ship and a live orchestra played background music. The furniture and panelling was carved in fine detail in oak, mahogany and sycamore.
- In addition, first class passengers could play deck games, such as shuffleboard, and use the gym, squash courts and swimming pool on board. Games such as chess and backgammon could be played on the deck.



## Second Class

- Most of the second class accommodation on Titanic consisted of cabins with bunk-beds.
- Each cabin had either two beds or four and in total there was room for around 550 passengers. These cabins didn't have private bathrooms, but inside there were sinks and mirrors and the bed linen was changed every day.
- Passengers in second class had facilities such as a spacious outdoor promenade, a smoking room, a library and dining room. Afternoon tea and coffee was served in the library.
- The dining room could seat almost 2,400 people at one time and a pianist would entertain the diners. All of the furniture was mahogany with crimson red upholstery and pivoted lights to add to the atmosphere.



## Third Class

- Third class was much more basic with very few facilities, but passengers still enjoyed a high level of luxury compared to other liners of the day.
- The general room was where most passengers gathered, talked and socialised. There was a piano for passengers to make their own music in the evenings. There was also a male-only smoke room which was panelled and furnished in oak with teak furniture.
- Third class passengers ate in their own dining room which could seat around 470 passengers in 3 sittings. The food was very simple but plentiful consisting of rice soup, biscuits, roast beef and fruit. On most other ships, third class passengers were expected to bring their own food which was supposed to last for the entire journey.
- With over 1000 third class passengers on board, accommodation was basic. Cabins slept up to 10 people and were located at the noisy bottom part of the ship close to the engines. Single men and women were split up at the front and back with families in the middle. There were only two baths for everyone in third class!



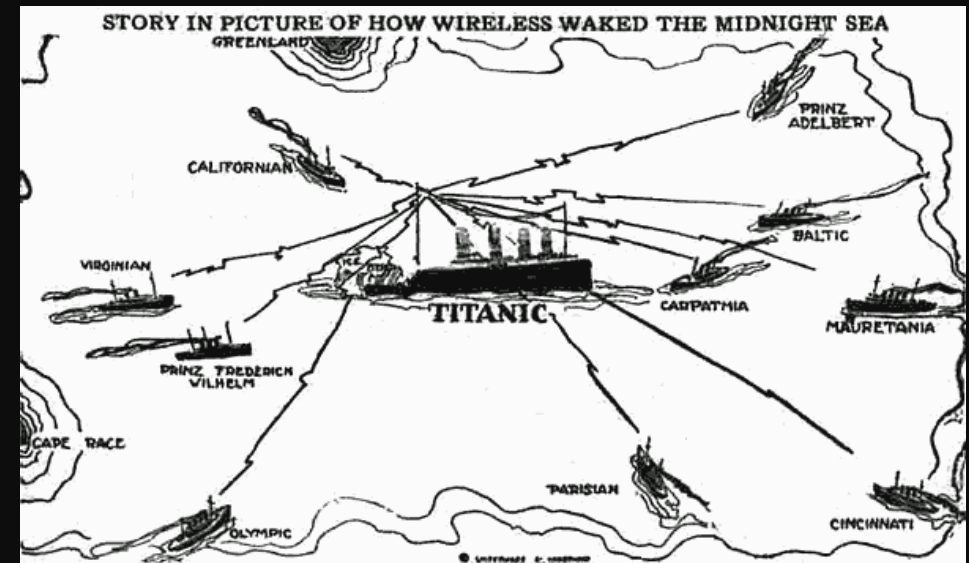
## 5.The Iceberg

- After 4 days of uneventful sailing, Titanic received reports of ice from other ships, but the sea was calm and the sky was clear
- At about 11:30pm, a lookout saw an iceberg in the haze ahead and rang the warning bell and telephoned the bridge
- The engines were quickly reversed and the ship turned sharply
- It seemed to graze along the side of the iceberg sprinkling ice on the forward deck
- The ship was unable to turn quickly enough and the iceberg hit the starboard side, opening 6 of the 16 compartments to the sea
- There was no sense of collision but they had no idea the iceberg had slashed a 300 foot gash in the hull below the ship's waterline
- When the chief engineer Thomas Andrews toured the damaged areas he calculated they would remain afloat for roughly an hour and a half
- At that point the SOS signals were sent and the lifeboats were launched



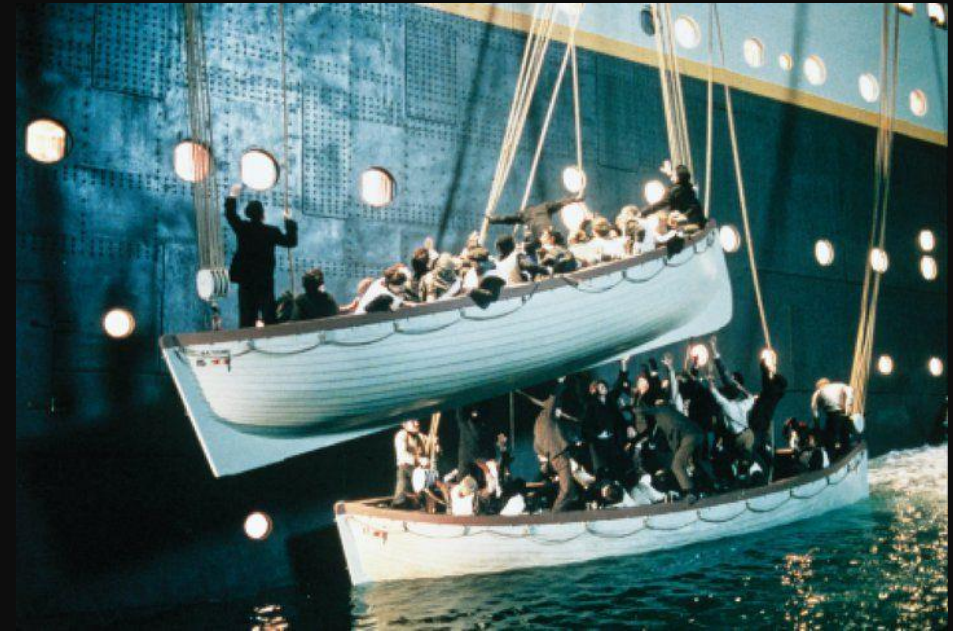
## 6.SOS

- Once the crew of Titanic realized they were sinking, SOS messages began shortly before 11pm and continued every few minutes until 2:25am
- The cry for help was picked up dozens of ships that changed course and sped towards the co-ordinates given for Titanic's position in the ocean
- At 12:20am, Carpathia picks up the message and within minutes is heading to the rescue
- At 1:30am Titanic tells another ship, Olympic, that they were putting passengers in small lifeboats and that they could not last much longer



# 7.Lifeboats

- Titanic's original design called for 64 lifeboats
- That number was later cut in half, then nearly halved again
- The ships owners felt that too many lifeboats would clutter the deck and obscure the first class passengers views
- One of the ships most infamous legacies was that it had only 20 lifeboats that could hold 1178 people despite the fact there were approximately 2224 on board, although the ship had a maximum capacity of 3547 passengers and crew
- Only 18 of the 20 lifeboats were successfully launched
- 30 people survived by climbing onto the upturned hull of a lifeboat
- In the end only 705 people were rescued in lifeboats, and 1500 perished
- The lifeboats had a further capacity of 472 spaces that went unused



## 8.The Sinking

- The RMS Titanic sank in the early morning hours of 15<sup>th</sup> of April 1912, in the North Atlantic Ocean
- It had been designed to stay afloat with 4 compartments flooded but no more, six in total were flooded
- As passengers waited to enter lifeboats they were entertained by The Titanic's musicians, none of whom survived the sinking
- By 1am water was seen at the base of the Grand Staircase
- The Titanic's bow continued to sink and the stern began to rise out of the water placing huge strain on the mid section
- At about 2am the sterns propellers were visible above the water
- At approximately 2:18am the ships lights went out and the ship broke in two with the bow going under water and the stern settling back in the water before rising again and becoming vertical until it plunged under the sea
- The sinking took 2 hours and 40 minutes



## 9.The Rescue

- Carpathia's wireless operator was in the process of going to bed 10 minutes later than usual but still had his earphones on his head. Had this not been the case there would have been no survivors from Titanic.
- On receiving the first SOS from Titanic, he raised the captain from his bed and the ship headed towards Titanic.
- The Carpathia arrived in the area at approximately 3:30am, more than an hour after Titanic sank.
- A green flare was sent up by Titanic lifeboat number 2 which was seen by the crew of the Carpathia.
- The ship was fully prepared to rescue the Titanic survivors with lifeboats at the ready, warm drinks and blankets,
- Over several hours the Carpathia picked up all survivors and headed back to New York where it had started its journey.

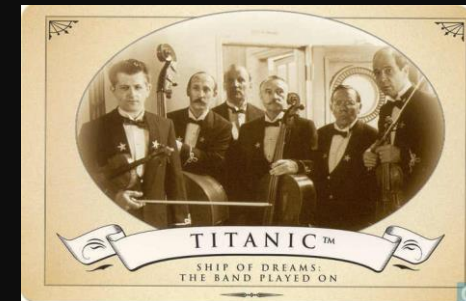


## 9. Famous Passengers who died

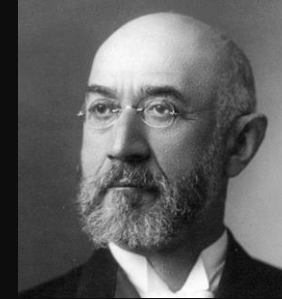
- **John Jacob Astor IV**: Of the casualties from the actual sinking, the most famous – and richest – was probably John Jacob Astor IV, a German-American millionaire who had made his fortune in real estate. Following the guidelines of women and children first, Astor IV's wife made it to a lifeboat and survived, but Astor didn't, and died aged 47.
- **Benjamin Guggenheim**: Another famous and rich passenger who died was Benjamin Guggenheim, heir to the family's mining business. Ironically, he wasn't even meant to be on the Titanic; he had been scheduled to sail on the Lusitania, but when that vessel needed repairs, he decided to take a trip on the newest luxury sea liner instead.



- **Thomas Andrews**: One of the more famous people post-disaster was Ulsterman Thomas Andrews, the engineer who oversaw the construction of the Titanic. He stayed on board to the end, helping passengers and taking every second he could before his dream sank forever.
- **The Band**: Perhaps the most celebrated group of victims was the band of eight musicians who played as the ship sank beneath the waves. Led by bandmaster and violinist Wallace Hartley, they sat on the freezing deck and played uplifting music to try to reassure the passengers as they took to the lifeboats.



- **Isidor Straus**: Isidor Straus was the German-born co-owner of Macy's department store in New York, and he died alongside his wife Ida. They were last seen sitting in deck chairs on the deck, having refused to be separated in the lifeboats: they wanted to be together, no matter what
- **Jack Phillips**: Jack Phillips was the senior wireless operator on board, and he was the one who sent the distress and rescue signals – the code CQD, though the new SOS was replacing it, and he relayed that too. Always under pressure to send passenger messages too, he was later blamed for not passing messages from the steamship Mesaba and the SS Californian, who had both reported icebergs and ice in the path ahead of the Titanic



- **Captain Edward Smith:** Captain Edward Smith went down with his ship. Although he'd been in charge of the Titanic's sister ship RMS Olympic during a collision with the HMS Hawke the previous year, he was vastly experienced and was given command of the Titanic. Nonetheless, Smith's actions in the aftermath of the accident have been heavily criticized; maybe his realization that the lifeboats were not going to be enough for the passengers and crew was the fatal blow.
- **Unknown Child:** There are still over a hundred unidentified bodies buried at a cemetery in Nova Scotia, Canada. One of them was finally given a name in 2008. The child was Sidney Leslie Goodwin, a 19 month old boy from England.
- **Margaret Brown:** She is known as "the unsinkable Molly Brown". She was an American socialite and philanthropist. She is famous for wanting the crew in lifeboat six to return to look for survivors.

