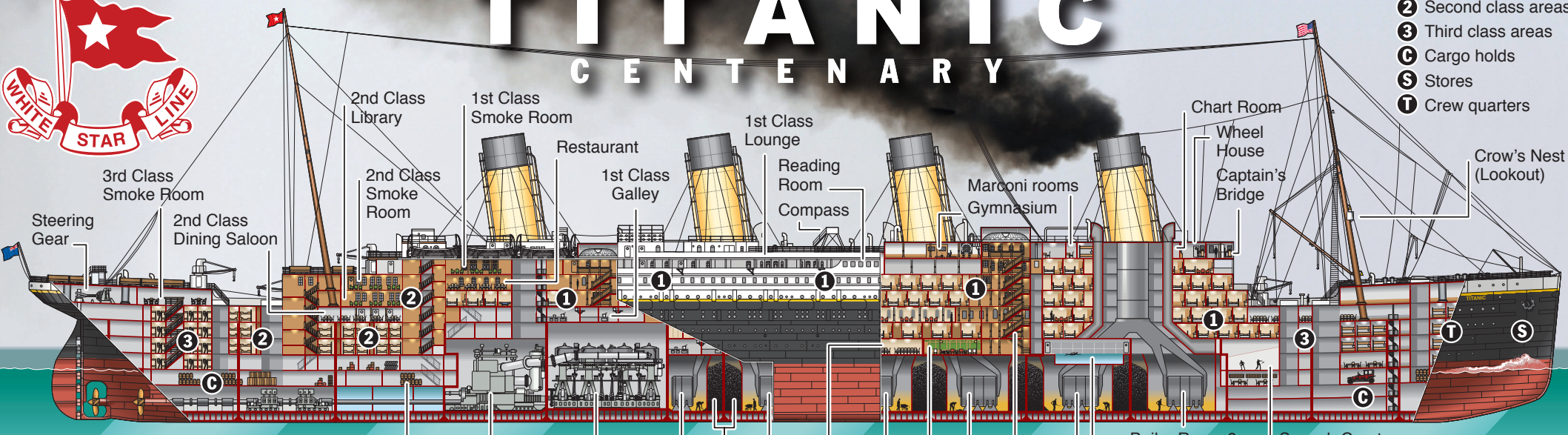




TITANIC

CENTENARY

- 1 First class areas
- 2 Second class areas
- 3 Third class areas
- C Cargo holds
- S Stores
- T Crew quarters



RMS TITANIC SPECIFICATIONS

Length	270m	Total horsepower	46,000
Beam	28m	Service speed	21 knots
Tonnage	46,329	Top speed	23-24 knots

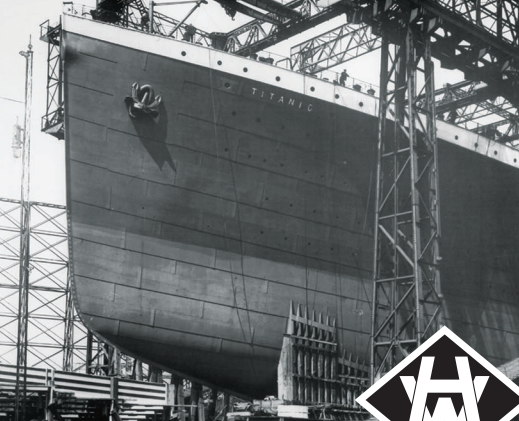
PASSENGERS AND CREW: 2,201 CASUALTIES: 1,490

1st class	325 / 122 (38%)	3rd class	706 / 528 (75%)
2nd class	285 / 167 (59%)	Crew	885 / 673 (76%)

TIMELINE

■ **1907:** White Star Line plans new Olympic-class liner – largest and most luxurious ships afloat – to rival Cunard ships

■ **Mar 31, 1909:** *Titanic* keel laid at Harland & Wolff shipyard in Belfast, months after that of sister ship *Olympic*. 46,000-ton ship is largest moving object ever built and, fully equipped, costs around £1.5m – £250m at today's values



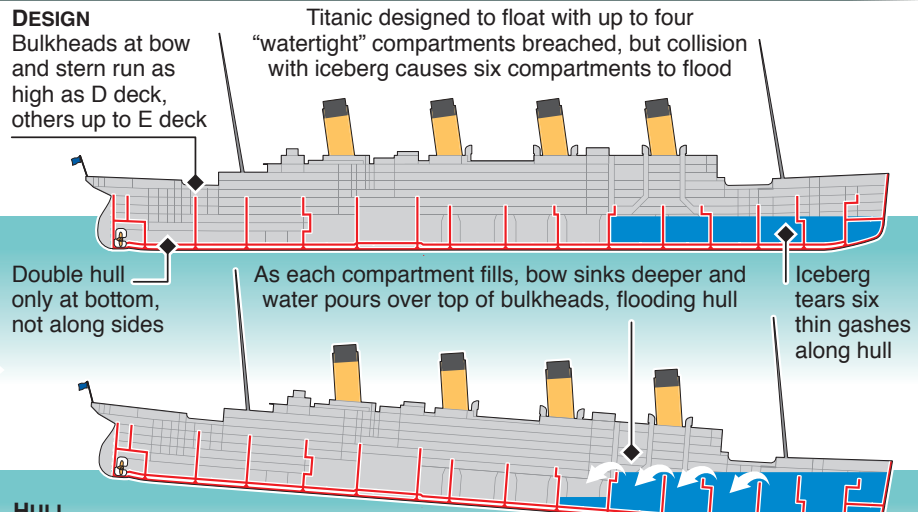
■ **May 31, 1911:** *Titanic* launched – 10 months of fitting out begin

■ **Apr 2, 1912:** *Titanic* sails for Southampton after six hours of sea trials in Irish Sea

■ **Apr 10, 1912:** *Titanic* sets sail from Southampton via Cherbourg and Queenstown (now Cobh) en route to New York. **Captain Edward J. Smith**, 62, is set to retire after commanding maiden voyage of "practically unsinkable" ship



HOW TITANIC WAS LOST



HULL
Fatigue tests on recovered hull plates reveal steel contained high levels of sulphur, making it brittle at low temperatures and liable to fracture rather than deform. *Steel quality met industry standard of 1912, when concept of brittle fracture was unknown*

RIVETS
Stronger, steel rivets used on central hull, iron rivets on stern and bow. Some critics say pressure to build *Titanic* and *Olympic* at same time created shortage of top quality iron. Iron rivets recovered contain slag, potentially reducing ability to withstand pressure. *Manufacturers dispute claim*

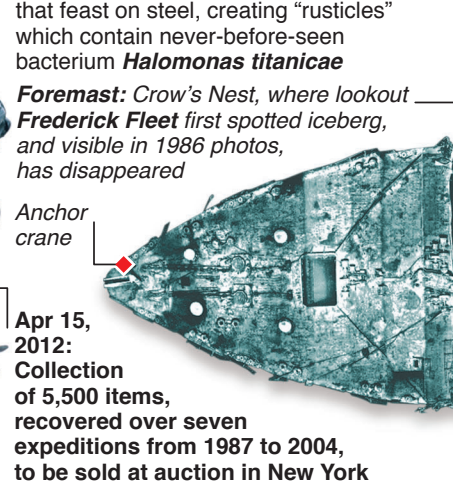


RUDDER
Some argue small size of rudder made ship less manoeuvrable. Others say triple screw engine configuration, which allowed only two of three propellers to go into reverse, may have reduced rudder's effectiveness

HUMAN ERROR
Includes failure to reduce speed despite ice warnings. Lookout had no binoculars, hampering ability to spot ice

LIFEBOATS
Titanic carried 16, plus four collapsible boats, exceeding legal minimum of time but still only enough for 52% of people on board

DISCOVERY



■ **1985:** Franco-American team led by **Dr Robert Ballard** locates and photographs *Titanic*

■ **1986:** Ballard leads second expedition, landing submersible on *Titanic's* decks. 57,000 photographs record detail of wreck and debris field

■ **1987:** U.S. Congress designates wreck an international memorial

■ **1998:** First tourists visit site

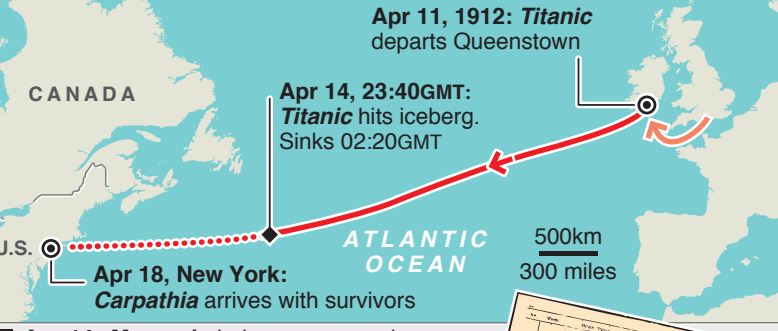
■ **2004:** Ballard says visits by tourists and treasure hunters significantly damaging site

WRECK: Slowly being eaten by bacteria that feast on steel, creating "rusticles" which contain never-before-seen bacterium *Halomonas titanicae*

Foremast: Crow's Nest, where lookout **Frederick Fleet** first spotted iceberg, and visible in 1986 photos, has disappeared

Apr 15, 2012: Collection of 5,500 items, recovered over seven expeditions from 1987 to 2004, to be sold at auction in New York

Number 1 Funnel opening, Skylight of Marconi Radio Room, Collapsed roof of Grand Staircase, Well-deck cranes, Number 2 Funnel opening



■ **Apr 11, 1912:** *Titanic* departs Queenstown

■ **Apr 14, 23:40GMT:** *Titanic* hits iceberg. Sinks 02:20GMT

■ **Apr 18, New York:** *Carpathia* arrives with survivors

■ **Apr 14:** Marconi wireless room receives multiple reports of large quantities of ice ahead

■ **Apr 14, 11.40pm:** Lookout reports "Iceberg right ahead!" First Officer turns rudder hard left and throws engines into reverse but huge mass of ship does not allow time to avoid iceberg gashing starboard bow

■ **Apr 15, 12.05am:** Captain Smith orders evacuation. Radio operators transmit **CQD** – Come Quick Danger – distress call, followed by new signal, **SOS** – Save Our Souls

■ **12:25am:** Order given to load lifeboats with women and children first. Cunard ship **RMS Carpathia** heads to rescue

■ **12:45am:** Distress rockets fired

■ **2:05am:** Last lifeboat leaves – nearly 1,500 people left on board

■ **02:20:** *Titanic* sinks

■ **04:10:** *Carpathia* picks up first survivors. **Of more than 2,200 people on board *Titanic*, only 711 survive**

