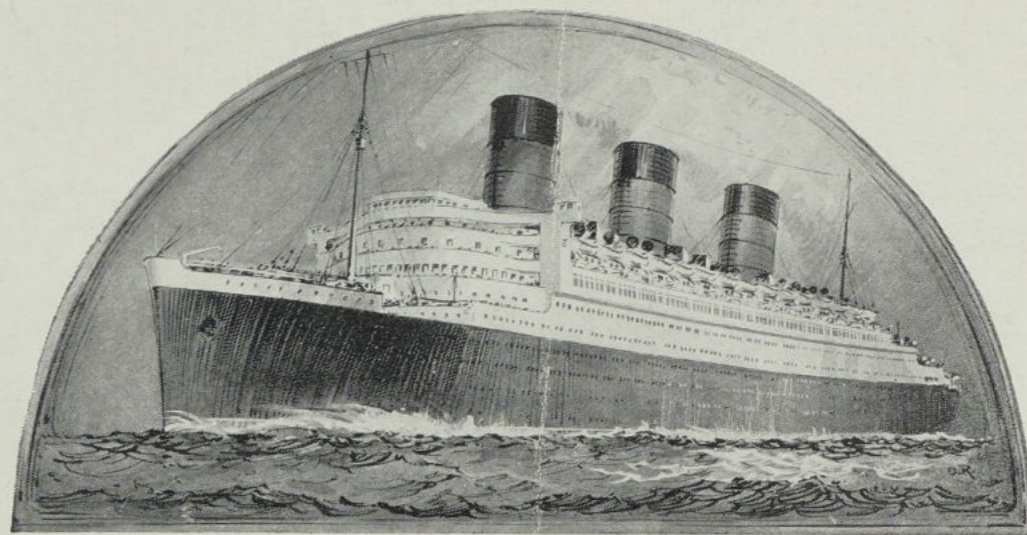


How the "Queen Mary" would look placed across Trafalgar Square, London.

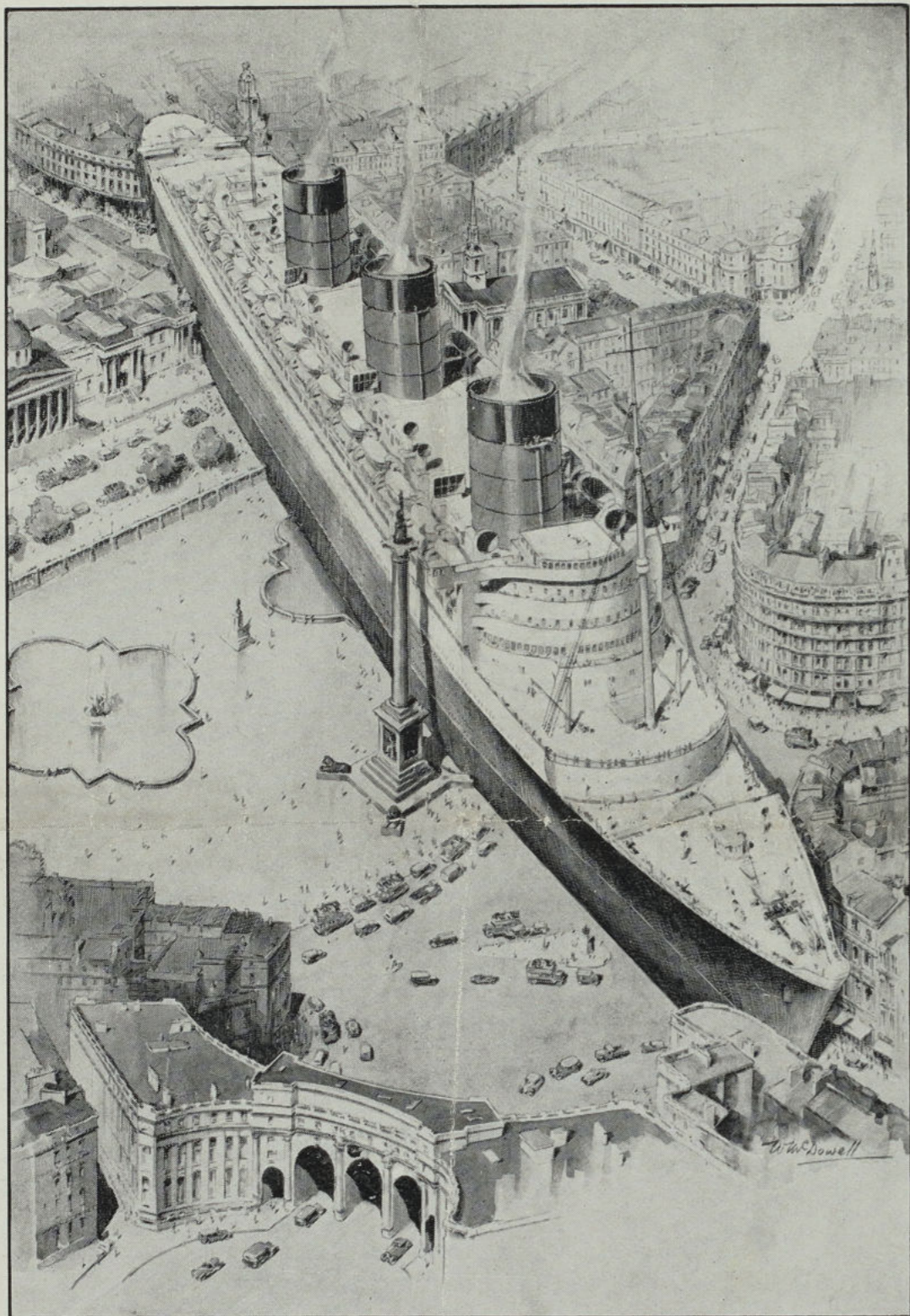
Cunard White Star



"Queen Mary"

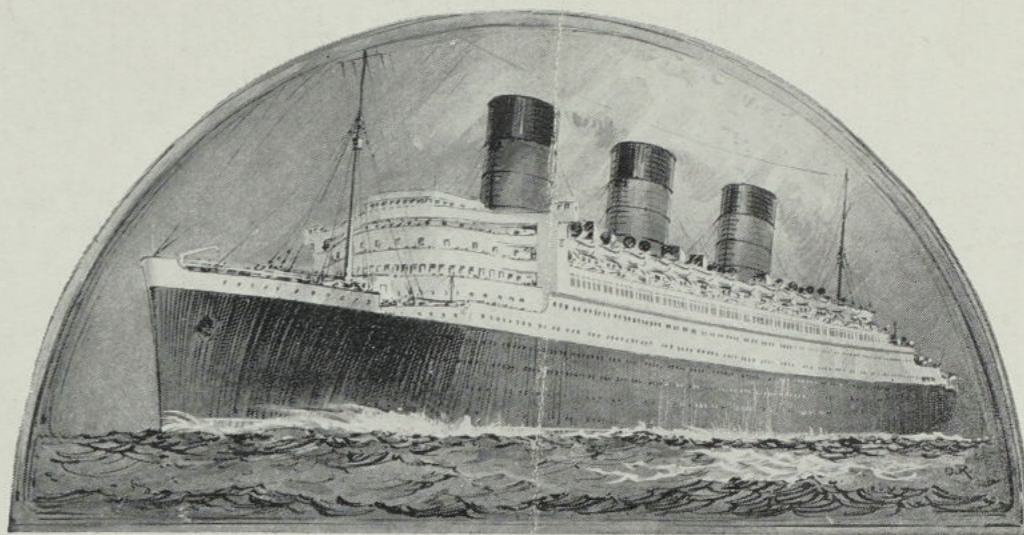
Masterpiece in the
Making

Cunard White Star



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"Queen Mary"

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"QUEEN MARY"

The Cunard White Star liner "QUEEN MARY" was launched by Her Majesty the Queen in the presence of His Majesty the King and the Prince of Wales, on September, 26th, 1934.

The main dimensions of the great ship are:—

Length on waterline	1,004 feet.
Beam	118 "
Height:—	
Keel to top superstructure ..	135 "
Keel to top forward funnel ..	180 "
Keel to masthead	234 "

[The model of the "QUEEN MARY" which is now being exhibited is nearly 22 feet in length and has been constructed on a $\frac{1}{4}$ " to one foot scale.) IN THE SOUTH KENSINGTON MUSEUM]

7,000 Experiments

Prior to her construction very thorough researches were carried out by Messrs John Brown & Co. Ltd. on the hull form in their experimental tank at Clydebank where it is possible to reproduce in miniature all the features of Atlantic weather conditions. Over 7,000 experiments on numerous models were conducted before the form was finally determined, in the course of which the models travelled a total distance of over 1,000 miles up and down the tank.

The massive hull with a sloping stem, clear-cut cruiser stern and three large funnels of suitable rake and height to ensure that the promenades on the upper decks will be clear of funnel gases, will emphasize the strength, power and speed of the ship.

Twelve Decks

The hull structure comprises twelve decks from the sun deck down to the lower decks which are discontinued in the way of the extensive machinery spaces.

An unusual feature in the construction of the hull has been the use of special high elastic limit steel in the superstructure.

The total weight of metal in the hull and machinery will exceed 50,000 tons.

Thousands of steel plates ranging from 8 feet in length to 30 feet in length have been rivetted into position.

These rivetting operations have involved the use of over 10,000,000 rivets which if placed end to end would stretch a distance of over 270 miles.

The "QUEEN MARY" will have about 2,000 portholes and windows. The area of glass is more than 2,500 square feet. The panes of glass will range from those one foot in diameter to large oval panes over 2 feet in height.

Stern Frame and Rudder

The total weight of the stern frame shaft brackets and rudder is nearly 600 tons.

Constructed at Darlington their transportation to Clydebank was the greatest feat of its kind ever attempted.

The rudder itself weighs over 140 tons. The largest ever constructed for any ship, the job of hoisting it into position on the ship involved many days of intricate work.

Lounge will hold Nine Buses

Accommodation will be provided for first class, tourist and third class passengers. The enormous size of the ship has resulted in the provision of unusually large spaces for the public rooms. In the first class lounge, for instance, it would be possible

GIANT BREVITIES

to place nine double-decked passenger omnibuses with three "Royal Scot" engines superimposed on their roofs.

Two Acres for Sport

An area of nearly two acres in the ship will be available for promenading and deck games. In addition to the impressive sun deck, the whole of the space outside the first class public rooms on the promenade deck (which is longer than the front facade of Buckingham Palace) will be available for exercise. Large sliding windows in a steel screen along the promenade will afford protection from the weather.

All-Electric Ship

Apart from her actual means of propulsion, the new liner will be to all intents and purposes an "all-electric ship." Her vast turbo-generators will be capable of supplying electrical energy sufficient to meet the lighting and public services of a town of nearly 150,000 people.

4,000 miles of cable will be required to run the energy through the ship. 30,000 lamps will be installed.

Propelling Machinery

The "QUEEN MARY" will be driven by a system of Parson's single reduction geared turbines supplied with steam from high pressure water tube boilers.

There will be four propellers each of which is to be driven by an independent set of machinery comprising a large gear wheel driven by four turbines.

The main machinery spaces will be unusually large, in fact equal in length to some of the largest Atlantic liners.

Every single one of the 257,000 blades for the turbines has been tested and fitted by hand.

Each of the four gear wheels is 14 feet in diameter and weighing together nearly 320 tons have been cut to a thousandth of an inch, the process of cutting each wheel occupying from two to three months.

The gearcases, weighing 200 tons, have been fitted to a limit of $1\frac{1}{2}$ thousandths of an inch.

Steam will be supplied through an installation of 27 enormous boilers occupying five rooms. The number of tubes in these boilers is nearly 160,000 whilst the main steam piping is over 2,600 feet in length.

There are four sets of engines. The four propellers, which are the largest ever constructed, are each cast from 50 tons of manganese bronze and weigh when finished about 35 tons each.

Progress since Launch

Rapid progress has been made in the work of fitting out the "QUEEN MARY" since her launch five months ago.

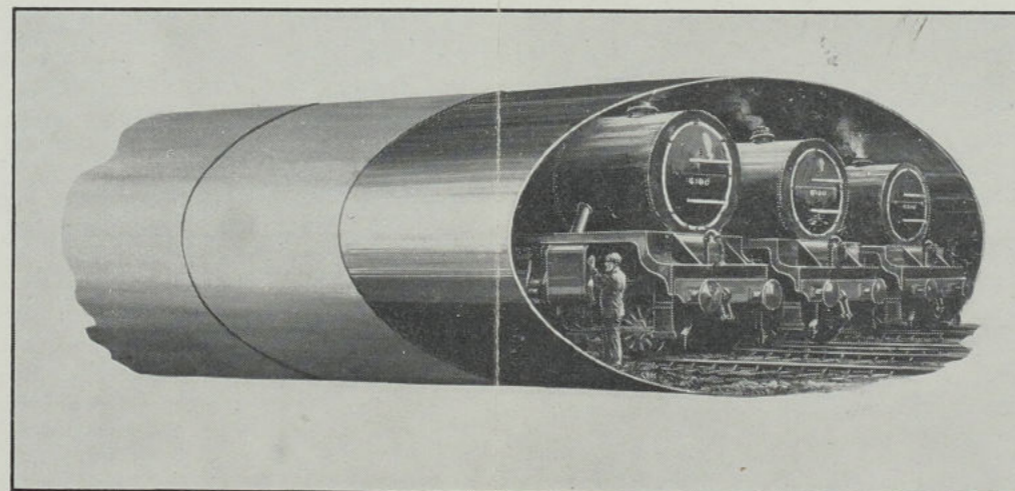
Already a large portion of the propelling and auxiliary machinery and equipment has been installed in the engine spaces.

Another important task has been the installation of the seven turbo generators which will supply electrical power throughout the ship.

The masts and the giant funnels are also being constructed and will shortly be erected on board the ship.

Maiden Voyage

The work of fitting out the "QUEEN MARY" will provide employment for thousands of people during the next twelve months and it is expected that she will make her maiden voyage from Southampton and Cherbourg to New York in the early summer of 1936.



Each of the three funnels would house three "Royal Scot" engines.

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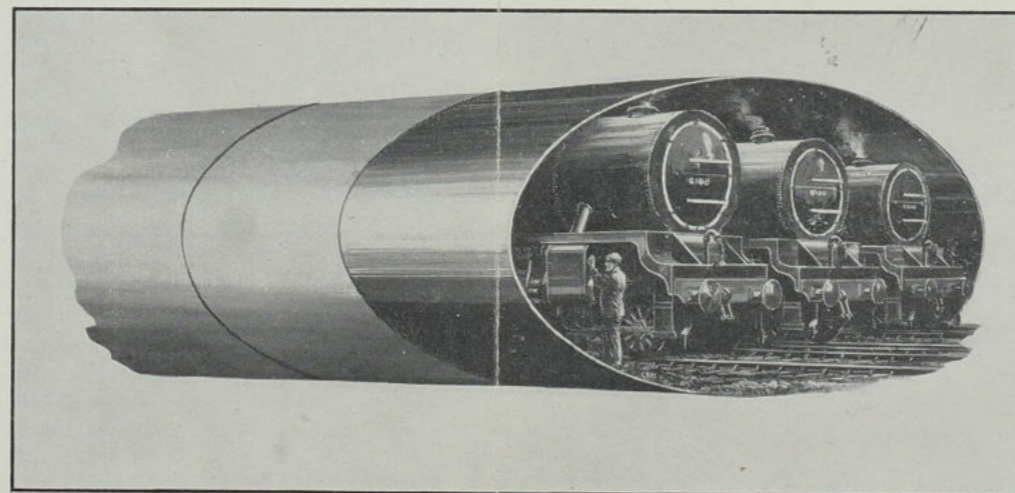
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