

## BLOHM & VOSS A. G.

Full ahead for 72 years



In the long-ago year of 1893, Hamburg's busy port celebrated launching of the paddle-powered ferry boats *Delphin* and *Phonix*. When finally retired at the end of 1959, despite their 65 years of dependable service, they were still operating full ahead at 11 knots on an 18-hour-per-day schedule. Right up to the last they served as modest examples of Blohm & Voss shipbuilding quality.

The founding of one of the world's most famous and deserved reputations for efficient constructions, fine workmanship and punctual deliveries dates back to 1877 when Herman Blohm and Ernst Voss established their shipyard and engine works in Hamburg. The beginning wasn't easy sailing, coming as it did at the transitional period between two widely different eras in shipbuilding. Designs were changing from sailing ships to steamers, construction from wood to iron. And there were other problems.

At that time Germany's facilities for building ships were practically non-existent, as was its shipbuilding reputation. This meant competing with other European yards including the famous ones in England then favored by German shipowners. So, "risky" was the word for starting a large shipyard in Hamburg complete with engine works and boiler shop. It was even more so since building iron ships was still quite a novelty at the time.

The two founders actually had to risk their own funds to finance the yard's first newbuilding. She was the 970-gt, three-masted iron bark *National*. From this venturesome start Blohm & Voss developed an enterprise

from whose ways came some of the largest and fastest German-flag vessels. For example:

- 1913—*Vaterland*, quadruple-screw liner. Then the largest ship in the world, her 54,282 gross tons put her well up in the class of today's seagoing giants.
- 1927—*Cap Arcona*, 27,500 gross tons. Crack German ship on the South American run.
- 1930—*Europa*, whose 105,000 hp B & V turbines won for her the coveted Blue Riband for the fastest North Atlantic crossing to New York.
- 194?—*Bismarck*, acclaimed as the all-time ultimate in heavy-armored, heavy-gunned men-of-war.

Wartime damage, followed by dismantling and then production restrictions, made re-establishing Blohm & Voss a formidable task. Reconstruction was accomplished in partnership with the Phoenix-Rheinrohr Ag, Vereinigte Hütten- und Röhrenwerke, Dusseldorf. It was helped along by credits from the Free and Hanseatic Town of Hamburg.

Today there are extensive facilities for every phase and scale of shipbuilding. All are of late design and organized according to modern principles of work-flow to assure fast, economical production of the finest quality work.

In B & V shipbuilding sheds equipped with traveling and swing cranes, efficient production machines plus traditionally skilled craftsmanship transform raw material into plates and profiles. These range all the way from

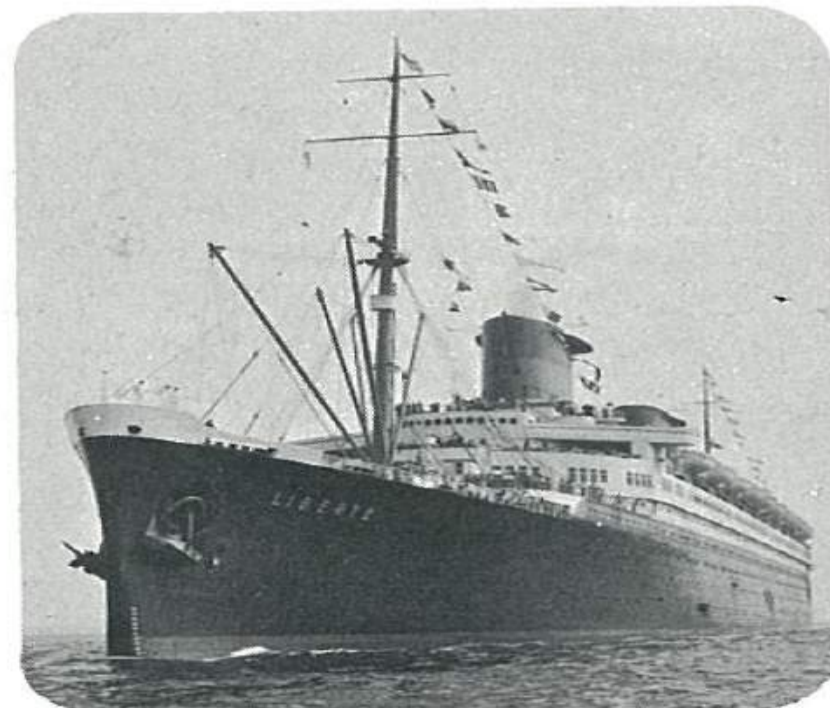
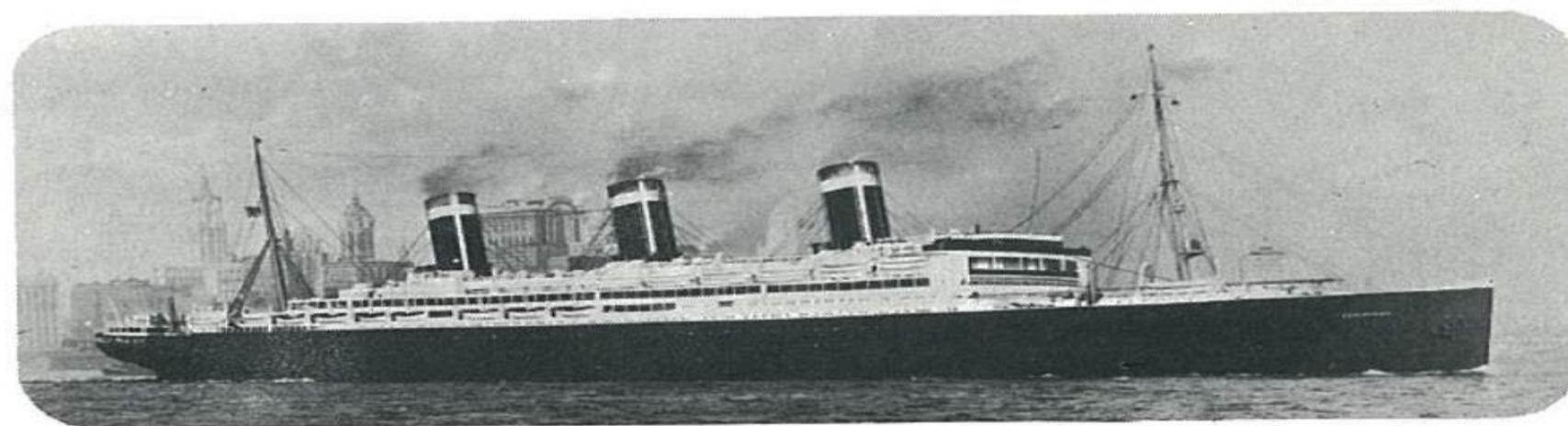


optically-accurate markings on pieces to be worked, to prefabricating huge ship's sections and blocks. From the prefabricating bays, sections move to the four slipways, each big enough for building ships up to the largest tonnage afloat today.

As in the shipbuilding sheds and other areas, machines in the B & V fitting-out workshops are of the most efficient design and are arranged as far as practical on a production-line basis. Final fitting-out and erection operations carried out aboard ship follow the over-all high standards of quality set by B & V.

*Engine and Machinery Construction*

Blohm & Voss's world-wide reputation for fabricating top-quality marine propulsion machinery was earned right along with the company's reputation for quality shipbuilding. For example, intensive theoretical and practical work on turbines was begun under a Parsons' license in 1906. In 1909 a working agreement with M.A.N. started a joint effort to develop an efficient, reliable marine diesel engine. Today, as an outgrowth of its work on marine power plants, the company can completely outfit new steam-powered construction. Besides main and auxiliary engines, this capability extends to steam generating plants thanks to a close relationship with Bau- und Montage G.m.b.H., manu-



*Three famous Blohm & Voss ships: S/S Leviathan (U.S. Lines). She was launched at B & V April 3, 1913 as the Vaterland (Hamburg-Amerika Linie). At the time she was the world's largest ship (54,282 gross tons). She was scrapped before World War II.*

*S/S Liberté (French Line) was delivered by B & V to Norddeutsche Lloyd in 1930 as the Europa. She held the "Atlantic Blue Riband" from 1931 to 1933. She went to an Italian breakers yard during 1963.*

*Battleship Bismarck.*





*Painting of an express cargo liner for Hamburg-Amerika Linie. B & V is building a series of these.*

facturers of oil furnaces, steam boilers and piping systems.

The company is also well-known for the diesel engines it resumed building after the war under M.A.N. license Today's B & V single-acting, turbo-charged crosshead engines fulfill the basic requirements of shipping companies for efficiency and operating economy.

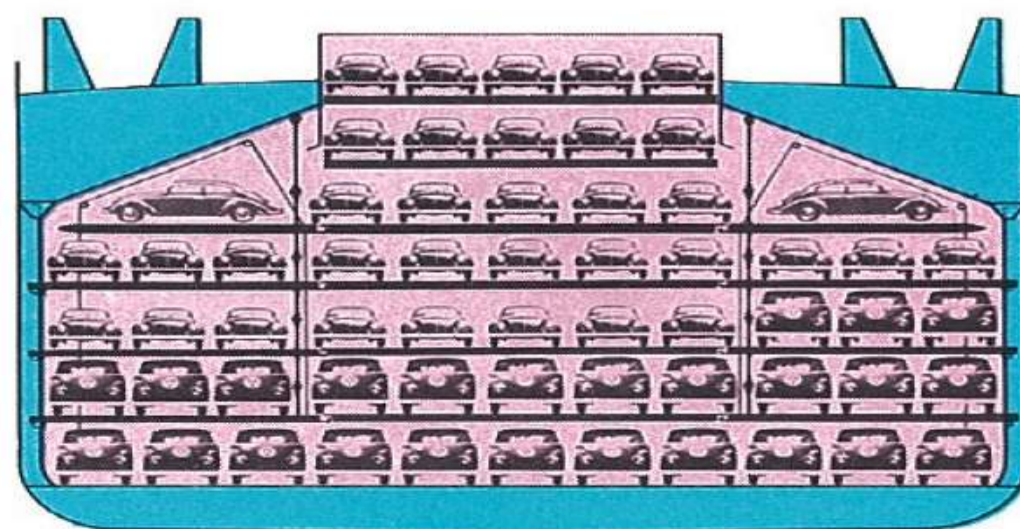
Since 1952 Blohm & Voss has added other skills. One is the manufacture of secondary structures for hydraulic revolving-type steering gears of A.E.G. design. This equipment eliminates all the complicated transmission elements and, because of its enclosed construction, requires little or no maintenance. Another is the development of stabilizers marketed under the trade-name *Elektrofin*. This is a joint operation with Siemens-Schuckertwerke AG, Erlangen, who are responsible for the control mechanisms.

According to Blohm & Voss a number of vessels are equipped with the device with more scheduled for the future.

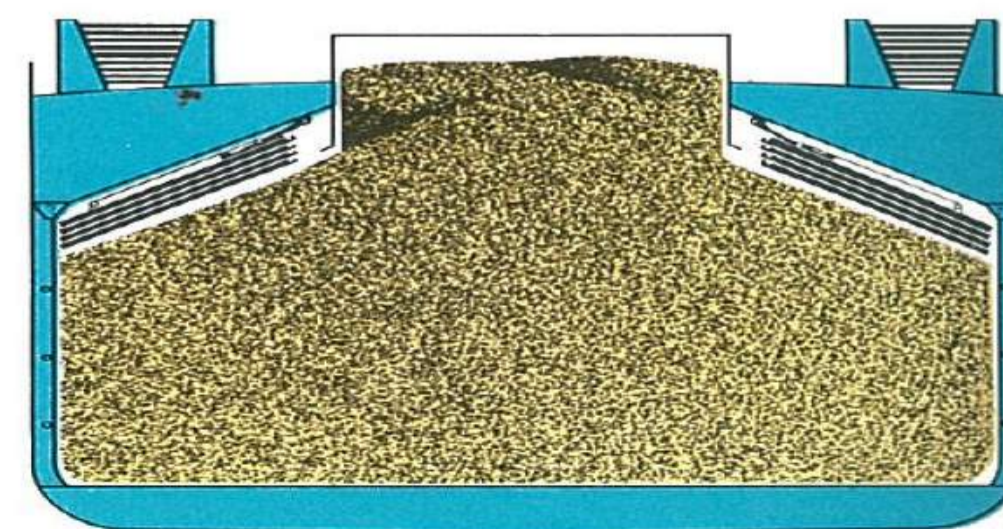
Although German shipowners have not been in a position to order the ocean-going giants of former years, Blohm & Voss continues to make significant contributions in the field of construction development. Following are a few typical examples:

#### *Bulk Cargo Vessels*

In re-establishing its name for building special type ships, the company has contributed a number of remarkable ideas in the construction of bulk carriers. It all started with the so-called tophold type on a universal bulk carrier designed and built by Blohm & Voss. This is a ship that carries almost half of the total load in topholds. Nine of this type in various sizes have been built.



*Sketch of B & V cardeck system.*



Perhaps even more outstanding is the company's contribution to transporting cars in bulk carriers. This development provides owners with a type of vessel that carries its traditional cargo, such as, grain, coal or ore in one direction and then returns with revenue cargo instead of in ballast. Working closely with Volkswagenwerk, the yard devised what is now widely known as the Blohm & Voss cardeck system. Today, 21 ships either built by Blohm & Voss or by other yards have been, or will be, equipped with the system.

#### *Reefers and Refrigerated Cargo Motorships*

With delivery of the M/S *Alsterblick* in 1959, Blohm & Voss successfully entered the reefer field. Concept of the vessel was as a prototype for a whole series of ships having certain common characteristics. For example, the design provides for a relatively large paying deadweight in relation to the length, breadth, and depth of the vessel. Too, superb hull lines result in higher speeds per horsepower available from a vessel's power plant.

This is even further enhanced by incorporating a bulbous bow in the design concept, a construction feature adopted by Blohm & Voss more than 40 years ago. These refinements produce a particularly favorable load to fuel consumption ratio.

Another of the company's recent developments, particularly aboard these express reefers (up to 22 knots), is in the field of automation. A typical example is the M/S *Polarlicht* now under five-year charter to United Fruit Company. Her system is so ingeniously planned that complement could be reduced to only 27 men, quite a small crew for such a large, fast vessel.

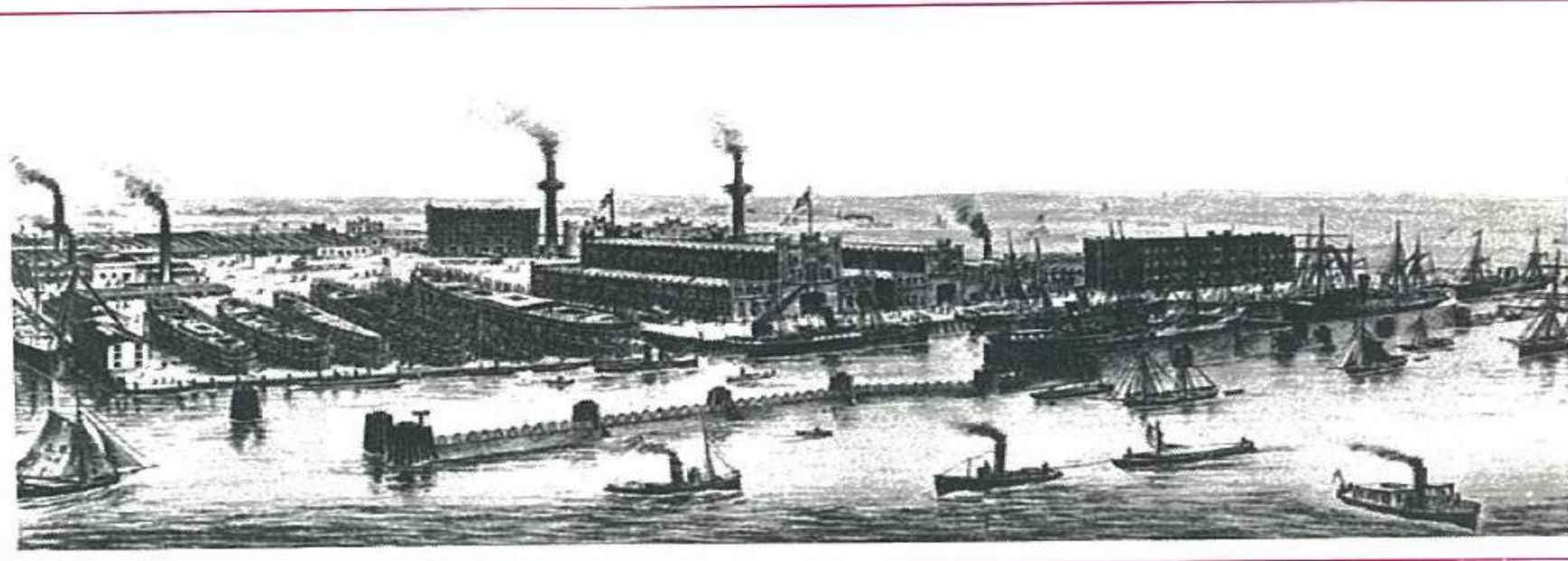
#### *Passenger Vessels*

Though not called upon to build any large ones during the post war years, the company is still noted for its passenger-ship design and construction. Several smaller ones (up to 4,000 grt), however, have been built. In addition, the yard has completed several passenger-liner conversions, another of its many notable skills. Modern design concepts for larger liners are not being ignored. Blohm & Voss have a variety of interesting designs on hand awaiting the time when German owners will be in a position once more to order a large passenger newbuilding.

#### *Dry Cargo Motorvessels*

Blohm & Voss has also designed and built a number of dry cargo vessels during the post war years. The latest delivery is a fully automated one of about 12,649 dwt, powered by a MAN two-stroke Diesel engine, type K9Z 86/160 of 18,900 hp; the ship has a service speed of at least 21 kn. Though not yet disclosed, speed on her maiden voyage to the Far East is said to make her the fastest ship in the German merchant fleet. She is the M/V *Westfalia*, built for the Hamburg-Amerika Linie, Germany's biggest shipping company. Her delivery marked another chapter in a long and happy relationship with the line that goes back over a 75-year period. She actually is the 44th Blohm & Voss ship to fly HAPAG colors.

The present day picture of the yard would be incomplete if no mention was made of current research activities. Studies are underway on atomic-powered, bulk, LPG and LTG carriers and Hydrofoil boats. From these will come



*The yard in 1895 and at the turn of the century.*

a whole new concept of shipbuilding, both from a hull and engine design standpoint.

A great deal is being done by the yard's management to insure a continuing demand for Blohm & Voss products. To these farsseeing men, the past, though interesting, is now history. It's what the future holds and how to keep the yard abreast of future demands that is their all-consuming interest.

But then, if history is any judge, management will find the answers as it always has. No doubt, the company will continue to serve ship owners for many many years to come.

#### *Express cargo reefer showing bulbous bow construction.*

