

# SHIPS

## GENERAL

Bremen to New York is 3590 nautical miles. A nautical mile is 6080 feet. A land mile is 5280 feet.

A knot is a measurement of speed. A knot is 1.1515 miles per hour.

The speed of a ship can be measured in several ways :

- on a measured mile
- sea speed in fine weather
- average speed on long voyage

There were several key advances in ships :

1833	sail to wooden paddle	speed
1843	wood to iron hulls	strength
1850	paddle to screw	economy
1856	simple to compound engine	efficiency
1879	iron to steel hulls	cost
1889	single to twin screws	safety

Gross Tonnage is the cubic capacity of the permanently enclosed space of the ship ( hull , superstructure and deckhouses ) . 100 cubic feet is equal to one gross ton

Ships carry hundreds of tons of water for use as ballast.