## General cargo ship



Defining a general cargo ship The term "general (multipurpose) cargo ships" covers many different ship designs that do not fit into other more specialised cargo ship types. Thus, general cargo ships are not specialised for transport of only dry bulks, only containers or only heavy-lift cargoes, but they have flexibility to carry any of these cargo types. General cargo ships are the world's most numerous ship types, excepting fishing vessels. Thus, in the year 2002 their share in the overall world merchant fleet amounted to about 37% in numbers and to about 11% in dwt.

The average deadweight of the world fleet of general cargo ships is about 5600 dwt. Larger vessels, up to about 30000 dwt are intended to carry break-bulk cargo (bagged, boxed and palletised cargo) or containers, while small general cargo ships, usually below 5000 dwt are mostly found as flexible solutions for many dry-cargo types in shortsea shipping. The concern for structural safety of general cargo ships follows from the fact that during the period from 1995 to 2000 approximately 90 losses of these ships per year occurred, which in other words means one ship every 4 days, with 170 fatalities per year.

Even 42% of losses of all merchant ships belong to general cargo ships and similar percentage is valid also for fatality experience. Despite these figures, general cargo ships are not considered in publicity as risky ships, probably because general cargo ship accidents are not as spectacular as for example accidents of oil tankers Erika or Prestige. There are several reasons for poor statistical records of general cargo ships. Ship ages, inappropriate maintenance, poor quality in operation of these ships and defi ciencies in design are some of the main causes of a large number of accidents.

Smaller general cargo ships are particularly vulnerable to collision and grounding accidents because of their frequent operation in inland waterways and coastal waters. The general cargo ship consists of as large a clear open cargo-carrying space as possible, together with the facilities required for loading and unloading the cargo. Access to the cargo storage areas or holds is provided by openings in the deck called hatches. Hatches are made as large as strength considerations will allow to reduce horizontal movement of cargo within the ship.

Hatch covers of wood or steel, as in most modern ships, are used to close the hatch openings when the ship is at sea. The hatch covers are made watertight and lie upon coamings around the hatch which are set some distance from the upper or weather deck to reduce the risk of flooding in heavy seas. One or more separate decks are fitted in the cargo holds and are known as tween decks. Greater flexibility in loading and unloading, together with cargo segregation and improved stability, are possible using the tween deck spaces. Various combinations of derricks, winches and deck cranes are used for the Handling of cargo.