

# Different types of cargo ships

## Introduction

In this report we'll talk about the differences between three different types of ships that are used for the transportation of containers or solids in bulk. In general, the Automatic Identification System (AIS) classifies these ships as vessel type 70 through to vessel type 74. The second digit helps us discern how dangerous the cargo these vessels carry, 71 being the most hazardous category through to 74, which is the least hazardous, but still dangerous.

In this report we won't be looking at any hazard type, so all the ships presented will be vessel type 70.

In our research we have come across three different types of ships that are distinctly designed for each specific task. In order to better understand the differences between these ships, we'll be looking specially at their functionality and providing examples of real-world cargo ships that are classified similarly. Knowing this, we also won't be looking into any size categorization of any ships and we'll be strictly talking about function.

## Container Ship / Box Ship

Container ships are the general-purpose cargo ships, designed to carry different types of inter-modal containers, these are backbone of the world's economy.

They are typically equipped with a cargo crane, to make ease of loading and unloading as well as a cargo hold to keep containers secure while at sea; an open cargo hold, which are designed for efficiency and speed of loading and unloading operations; numerous lashing systems, these are used to secure containers in place and may vary in design depending on the ship; and finally, the control bridge where the ship is controlled.

Generally speaking, these ships do not offer refrigeration support which makes it not suitable for the transportation of any perishable goods.

### General

IMO: **9811000**

Name: **EVER GIVEN**

Vessel Type - Generic: **Other**

Vessel Type - Detailed: **Container Ship**

Status: **Active**

MMSI: **353136000**

Call Sign: **H3RC**

Flag: **Panama [PA]**

Gross Tonnage: **219079**

Summer DWT: **199692 t**

Length Overall x Breadth Extreme: **399.94 x 59 m**

Year Built: **2018**



Example no. 1 – Ever Given

## Reefer

Reefer ships are refrigerated cargo ships typically used to transport perishable cargo, which require temperature-controlled handling such as meat, fruits, and similar items.

These ships differ from the conventional container ship design to accommodate power generation and electrical distribution equipment. The design itself of these ships may vary, but in general the goal is to encapsulate the cargo hold fully so that it insulates against high outside temperatures from locations such as tropical zones.

Traditionally, the cooling of these cargo holds was the only way to keep cargo cold, but with the resurgence of refrigerated containers some reefers are specially designed to accommodate to supply energy for them instead of cooling the entire cargo hold, which ends up not being optimal since not everything has the same storage temperature.

### General

IMO: **9179256**

Name: **ATLANTIC REEFER**

Vessel Type - Generic: **Cargo**

Vessel Type - Detailed: **Reefer**

Status: **Active**

MMSI: **636016238**

Call Sign: **D5FE2**

Flag: **Liberia [LR]**

Gross Tonnage: **14505**

Summer DWT: **17100 t**

Length Overall x Breadth Extreme: **175.72 x 22.6 m**

Year Built: **1998**

Home Port: **MONROVIA**



Example no. 2 – Atlantic Reefer

## Bulk Carrier

Bulk carriers are specifically designed cargo ship that transport unpackaged cargo in bulk, such as grains, ores, and minerals, among others.

The main difference in their design is how the cargo hold is accommodate and split into different sections used to store large amounts of the same solid. These sections are also covered with hatchways that make it so the cargo is water-sealed and safe from any cargo hold flooding that naturally occurs in other types of cargo ship.

It is important to note how dangerous unloading these cargo ships can be, which leads to a very time-consuming operation with a lot of steps to unload these ships. Aside from this, these types of ships are also known to have various safety problems that may threaten the ship's integrity such as: cargo shifting, spontaneous combustion and cargo saturation.

### General

IMO: **7390272**  
Name: **MESABI MINER**  
Vessel Type - Generic: **Cargo**  
Vessel Type - Detailed: **Bulk Carrier**  
Status: **Active**  
MMSI: **366904880**  
Call Sign: **WYQ4356**  
Flag: **USA [US]**  
Gross Tonnage: **34729**  
Summer DWT: **64457 t**  
Length Overall x Breadth Extreme: **304.8 x 32 m**  
Year Built: **1977**



Example no. 3 – Mesabi Miner