

SHIP MANAGEMENT

An Inspiration for Various Shipping Companies



Introduction

In today's world, several thousand vessels of all kinds are deployed and must be safely maintained and well-managed.

Before globalization and digitalization, there were only a few activities to ensure the shipping industry functioned smoothly. However, as the scale and complexity of international maritime operations grow, the task becomes increasingly difficult to manage.

This calls for a well-structured ship management team. Ship management is tasked with the responsibility of ensuring efficient ship operations. In the maritime industry, ship management is carried out by independent firms or owners.

The ship management firm oversees the ships on behalf of the owner.



Ship Owners, Managers and Operators

- ❖ According to the broad definition, a shipowner is a natural or legal person who owns or rents a ship.
- ❖ A shipowner employs the captain and crew and is also liable for the ship's operation. Thus, it is also the shipowner who wields all the power, aided by a hierarchy of subordinates.
- ❖ It is certainly a difficult responsibility and job to run ships daily.
- ❖ The ship manager, who is responsible for this tremendous challenge, must manage and monitor ships in the most cost-effective way so that they save time and the ships under his supervision are ready for work wherever and whenever summoned.
- ❖ With a complete view of activities, the ship manager must also ensure the safety of the crew on board.



Ship Management - Market

- ❖ Ship Management comprises functions/services like technical Management, Procurement, and Crewing as well as Quality and Safety Management.
- ❖ More than 1,500 companies are globally managing more than ten vessels each.
- ❖ Only 150 manage more than 40 vessels, which results in a long tail of mid-size entities. These ship managers in total manage approx.. 25,000-30,000 vessels.
- ❖ Around 20,000 vessels managed by smaller entities.



Ship Management - Market

The global ship management market size was USD 2.39465 billion in 2021. The global Covid-19 pandemic has been unprecedented and staggering, with ship management market experience higher than anticipated demand across all regions compared to pre-pandemic level. As per the research, the market is expected to reach USD 4.0642 billion in 2027, exhibiting a CAGR of 9.22% during the forecast period.



Types of Ship Managers

1. Many ship management activities are integrated into large owner-operator companies, like the big container liners (such as Maersk, MSC, or Hapag Lloyd), or exist as separate group companies (such as NYK ship management, Columbus Shipmanagement) that also serve external ship owners.
2. Many tanker and bulkier owners manage their own vessels in their own shipping entities and charter them out.
3. A significant portion of that market is served by 3rd party ship management companies, which provide ship management services to ship owners (such as V.Ships, Anglo Eastern or Columbia Shipmanagement) without being a significant owners themselves.

The market presents itself substantial with, despite the current challenges, a good outlook. The global fleet is growing.



Ship Management - Activities



Planned Maintenance

The company should supervise the maintenance of machinery onboard the ship. The process should also include different surveys and repair works. It should arrange and manage dry dockings and overlook the whole process. It has to arrange for the sampling and testing of bunkers.

- Preventive or Scheduled Maintenance System -
- Corrective or Breakdown Maintenance
- Condition Maintenance system



Flag State Requirement

Ship Management company should ensure that the ship complies with Flag State's requirements and the classification society's recommendations.



ISM and ISPS Code

It should also comply with the ISM and ISPS Code. (ISM-International Safety Management) (ISPS-The International Ship and Port Facility)



Crew Management

The company should provide a good crew for manning the ship. It also undertakes crew training, career development, and everything related to its payrolls, insurance and other employee benefits.



Loading and Unloading of the Cargo

It should arrange for the loading and unloading of the cargo. It can hire the ship on behalf of the ship owner.



Negotiate Contracts for Bunker

The company should negotiate the contracts for bunker and lube oil.

(In the shipping industry, the word bunker is used for fuel and lube oils, which are stored on a ship and used for machinery operation only)



Company Pays the Expenses

The Ship Management company pays the expenses on behalf of the owner.

Payment, on behalf of the owner, of expenses incurred in providing services or in relation to the management of ship



P&I

Management company arranges the ship's entry into the P&I (Protection and Indemnity) association.

The company also deals with various claims related to insurance, salvage etc.



Conclusion

Having discussed various activities of Ship Management companies, SDSD provides ship managing software **MAMs** to ease the activities of the management companies with the below services

- Planned Maintenance
- Safety Management
- Crew Management
- Procurement Management
- Voyage Monitoring
- Document Management etc...



Thank You

MAMS AND VESSELS

An overview of MAMS data and its vessels



Digital solutions for maritime

TOC

- MAMS: An overview
- MAMS modules
- Understanding the market vessel types
 - Dry cargo
 - Liquid cargo
 - Specialised cargo
- MAMS trend (Jan - Dec 2021)
- MAMS trend (Jan - Dec 2022)

Overview

Marine Asset Management System (MAMS) is a web-based vessel management platform designed to help ship managers and operators make informed decisions via easy to use customisable dashboards and reporting.

Each module has its unique function created to optimise fleet performance, reduce operation and maintenance costs, conduct fleet tracking and improve vessel and crew safety.

In order words, the software help businesses monitor, track and create detailed performance report on their vessels. The software is fully customisable and can be adapted to client's workflow and processes.



MAMS Modules

- Procurement
- Planned Maintenance (PMS)
- Safety Management
- Crew Management
- Rest Hours
- Document management
- Forms Management
- Voyage Monitoring
- Marine Accounting
- Risk Assessment
- Environmental Management

An aerial photograph of a large, multi-segmented barge floating on a wide river. The barge is composed of several long, rectangular sections joined together, with a small cabin visible at the front. The river is dark blue, and the surrounding landscape includes a forested hill on the left and distant hills on the horizon under a blue sky with wispy clouds. The text "Understanding the market vessel types" is overlaid in white on the left side of the image.

Understanding the market vessel types

Overview

Modern seagoing commercial vessels come in all shapes and sizes and are designed to carry a wide variety of cargoes.

Cargoes are divided into **dry**, **liquid** and **specialised**, with each of these divided further into subcategories. Dry cargoes include bulk, general and breakbulk, containers, reefer and Ro-Ros. Liquid cargoes are usually oil-based but may also include chemicals and liquefied gases. Specialised cargoes include tugs, support vessels, passengers, livestock and heavy-lift/project.

For the purpose of this presentation, we'll be covering the vessel types in MAMS database



Dry cargo

A large dry cargo ship is sailing on a wide river, viewed from an elevated perspective. The ship is long and narrow, with multiple cargo holds visible. The river is calm, and the surrounding landscape is lush with green trees and hills. The sky is blue with some light clouds.

Dry Cargo

Bulk carrier

A bulk carrier or bulker is a merchant ship specially designed to transport unpackaged bulk cargo — such as grains, coal, ore, steel coils, and cement — in its cargo holds.

Statistically, the bulk cargo carriers have a stake of about 40% in the international shipping sector. Of these 40%, the market leaders in terms of ownerships and operations are the South Asian countries like China, Japan and South Korea. Greece is another leading owner and operator of bulk carriers.

Present no of fleet using MAMS:
36



Dry Cargo

General cargo

General cargo vessels are designed for flexibility and can carry a huge variety of cargo.

They mostly carry packaged goods but do not have space for containers. They use their own built-in cranes for loading and unloading operations once at ports.

It's also labelled a multi-purpose vessel for the variety of loads it can accommodate and its adaptability

Present no of fleet using MAMS:
9



Dry Cargo Container

It is the most common mode of sea freight transport. As the name suggests, these vessels are designed to carry standard 20', 40' and 45' containers. They can accommodate most dry-load transport.

Containers can accommodate anything from foodstuffs to electrical equipment to automobiles. They are also used to transport bagged and palletised goods, as well as liquids and refrigerated cargo.

Present no of fleet using MAMS:
11



Liquid Cargo

An aerial photograph of a large oil tanker ship sailing on a wide river. The ship is carrying several large cylindrical liquid cargo tanks. The river is surrounded by lush green hills and forests. The sky is blue with some clouds. The text "Liquid Cargo" is overlaid on the left side of the image.

Liquid Cargo

Crude (oil) tanker

A crude tanker is a an oil tanker built specifically for transporting crude oil (as opposed to refined oil).

They are specifically used to transport crude or unrefined oil from the excavation site to the crude oil refining industrial plant where they are refined into various products. They can hold 2 million barrels.

Present no of fleet using MAMS:
126



Liquid Cargo

Product tanker

These vessels, which are generally smaller than crude carriers, transport the refined products from larger terminals to smaller ports around the world.

Products carried include petroleum, jet fuel, diesel, asphalt, lubricating oil and paraffin. Smaller tankers are also used to transport non-petroleum bulk liquids such as molasses and palm oil.

Present no of fleet using MAMS:

1



Liquid Cargo

Chemical tanker

Chemical tankers are those cargo tankers which transport chemicals in various forms. Chemical tankers are specifically designed in order to maintain the consistency of the chemicals they carry aboard them.

The products carried are mainly sophisticated bulk liquid chemicals, acids, edible oils, alcohols, biofuels and clean petroleum products

Chemical cargoes can be very dangerous, most of them being flammable and/or toxic.

Present no of fleet using MAMS:
31



Liquid Cargo

Liquefied Gas tanker

Also known as a gas carrier, LPG/LNG tanker or LPG/LNG carrier is a vessel designed specifically for the purpose of carrying bulk quantities of liquefied petroleum gasses (LPG) or liquefied natural gasses (LNG) from one destination to another.

A most notable characteristic of liquefied gas carriers is being equipped with special cargo handling installations designed to keep gas products in a liquefied (liquid) state.

Present no of fleet using MAMS:

4



Liquid Cargo

Asphalt and Bitumen carrier

Asphalt and bitumen tankers are specialized tankers designed for the carriage of liquified asphalt or bitumen at a specific temperature. This type of tanker is equipped with an independent tank and a powerful cargo heating system.



Present no of fleet using MAMS:
2

Others

Oil and chemical tanker:
2

Other liquids:
5

Specialised Cargo



Specialised Cargo

Tug boat

A tugboat or tug is a vessel that manoeuvres other vessels by pushing or pulling them, with direct contact or a tow line.

These boats typically tug ships in circumstances where they cannot or should not move under their own power, such as in crowded harbour or narrow canals, or cannot move at all, such as barges, disabled ships, log rafts, or oil platforms.

A tug is a special class of boat without which mega-ships cannot get into a port.

Present no of fleet using MAMS:
21



Specialised Cargo

Offshore Supply

They are designed to carry goods, supplies, offshore workers, and equipment, including below-deck cargo in support of exploration, exploitation, or production of offshore mineral or energy resources.to, from and between offshore installations.

OSVs are specially designed ships for the logistical servicing of offshore platforms.

Present no of fleet using MAMS:
7



Specialised Cargo

Anchor Handling Tug Supply

It is common knowledge that oil rigs are located in the middle of the ocean or in the high seas. But just as this is easy to understand, the question arises that what type of vessels help such oil rigs reach the middle of the ocean? The answer is AHTS.

AHTS have multiple functions, but are capable of assisting drilling rigs with the handling of mooring chains and anchors, towing rigs, and supply platforms

Present no of fleet using MAMS:
5



Specialised Cargo

Crew boat

A crew boat is a vessel specialised in the transport of offshore support personnel, deck cargo, and below-deck cargo such as fuel and potable water to and from offshore installations such as oil platforms, drilling rigs, drill and dive ships or wind farms.

Compared to other support vessel, they are smaller and primarily handles personnel transportation, as well as the transfer of cargo.

Present no of fleet using MAMS:
10



Specialised Cargo

Barge

A barge is a large, very long, flat bottom vessel usually used to transport large or numerous things along inland waterways. This can be anything from shipping containers to passengers and even trash. You will chiefly find them along rivers, canals and other inland waters rather than out on the open sea.

The most important part about barges is the fact that they are not independent boats or vessels. They have to be towed or pushed along with other naval vessels in the water. Barges are mostly used in smaller water parts like rivers, lakes or canals.

Present no of fleet using MAMS:

4



Specialised Cargo

Utility boat

Multi-purpose vessels for the transportation of supplies to and from offshore oil platforms. They can also perform a standby emergency function.



Present no of fleet using MAMS:
2



Specialised Cargo

MODU

A mobile offshore drilling unit, shortly MODU, refers to another vessel or structure capable of engaging in drilling operations for the exploration or exploitation of resources beneath the sea bed, such as liquid or gaseous hydrocarbons.

MODUs are used offshore with the purpose of either drilling a new well or conducting some sort of maintenance on an existing well.

Present no of fleet using MAMS:
1



MAMS vessels

Jan - Dec 2021


	2021											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Vessel Type	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count
Barge	5	5	5	5	5	5	4	4	4	4	4	4
Bulk vessel	35	35	35	35	35	35	34	34	34	34	35	35
Container	12	12	12	12	12	12	12	12	12	12	12	12
Crew Boat	7	7	7	7	7	7	7	7	7	7	7	7
Inland Waterways General	15	15	15	15	15	15	15	15	15	15	15	15
Landing Craft	2	2	2	2	2	2	0	0	0	0	0	0
MPV	11	11	11	11	11	11	11	11	10	10	10	10
OSV	97	97	97	97	97	97	12	12	12	12	12	12
Others	7	7	7	7	7	7	8	8	8	7	7	7
PSV	20	20	20	20	20	20	0	0	0	0	0	0
Tanker	118	127	128	128	160	160	156	154	157	157	159	159
Tug	36	36	36	36	36	36	36	36	36	36	36	36
TOTAL	365	374	375	375	407	407	295	293	295	294	297	297

Affected by client's contract termination

MAMS vessels

Jan 2022 - Jan 2023

	2022												2023
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Jan
Vessel Type	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count
Barge	4	4	4	4	4	4	4	4	4	4	4	4	4
Bulk vessel	35	37	37	37	40	40	37	37	37	36	36	36	36
Container	11	11	11	11	11	11	11	11	11	11	11	11	11
Crew Boat	7	7	7	7	7	7	7	7	7	10	10	10	10
Inland Waterways General	15	15	15	15									
MODU								1	1	1	1	1	1
MPV	10	10	9	9	11	11	11	11	11	11	11	11	11
OSV	12	12	12	12	12	12	12	12	12	12	12	12	12
Others	4	6	5	5									
Tanker	168	170	172	172	170	170	170	175	171	172	172	171	171
Tug	36	36	36	36	19	19	19	19	19	21	21	21	21
TOTAL	302	308	308	308	274	273	271	277	273	278	278	277	277

 Affected by client's contract termination



THANK YOU