Vessel & Fleet Technical Management

Crew Management

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MSc Marine Engineering and Management
Ship Crew Management

1.0 Introduction

This chapter provides an overview of the basic principles of crew management on ships and demonstrates the ways crewing agencies operate, how they are structured and the method for choosing the right crew for your ship.

2.0 Crewing Agency

The increasing demand for crews on ships have made crewing agencies more successful than in the past. They connect unemployed candidates to shipping companies around the world as the shipping business is a global market.

It is fairly common that the shipping agent promises the new crew member more than the ship actually offers. For example one particular agent was nick named: “Magic Tongue”. As he was so good that even experienced crew members trusted his word.

There are two different kinds of agents that one distinguishes between, which comprises of the in house and independent agents. The advantage of the independent agent is that the crew member has the option to choose which company they want to work for and not just the type of ship they would like to join. On the other hand, the in-house agent has a better access to information about the ship and company.

Most agents have offices in different parts of the world such as Cyprus, Singapore, Rotterdam and Hamburg. Agencies carefully select locations for future branches based on the Country in which they plan to recruit, while the head office is in a country with tax advantages.

Locations where seaman are frequently recruited:

- Belgium
- China
- Denmark
- England
- Finland
- France
- Germany
- Greece
- Japan
- Norway
- Philippines
- Poland
- Portugal
- Spain
- Scotland
- Taiwan
3.0 Crew structure

The most important person on the ship is the Captain as he/she is responsible for the crew, ship and its cargo. Furthermore, he/she is the representative of the company in every port and responsible for loading and offloading the cargo as it is intended.

Around 40 years ago there where only Officers and seaman on a ship as it had only sails. Through the Industrial-Age engines replaced sails on ships, which made them more complex than before. The engine and bridge work is completely different from each other and requires highly skilled personal for the duties in these areas.

Most nautical schools around the world are under the impression that the period spent studying bridge and engine are lengthy, which has led most to split the education into two separate subjects instead of undertaking both concurrently. Nevertheless, in France nautical students are required to acquire both engine and bridge certifications in order to qualify as nautical Officer/Engineer.

The structure on the ship requires the Captain to provide orders to the 1st Officer or 1st Engineer. The 1st Officer also referred to as Chief Mate and is responsible for the bridge and deck work on a ship, while the 1st Engineer is in charge for the engine department.

Both bridge and engine staffs have several Officers or Engineers that share the responsibility between them. For example, the watch is divided on a ship with three Officers to allow each Officer/Engineer two shifts.

<table>
<thead>
<tr>
<th>Time</th>
<th>1st Officer/Engineer</th>
<th>2nd Officer/Engineer</th>
<th>3rd Officer/Engineer</th>
</tr>
</thead>
<tbody>
<tr>
<td>00:00 – 04:00</td>
<td>04:00 – 08:00</td>
<td>08:00 – 12:00</td>
<td></td>
</tr>
<tr>
<td>12:00 – 16:00</td>
<td>16:00 – 20:00</td>
<td>20:00 – 24:00</td>
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The above working schedule provides each Officer a working day of 8 hours and resting time of 16 hours. This separation is fairly common on PanMax container ships, which travel long distances. On smaller ships such as Feeder the watch time might increase to 12 hours on duty and 12 hours off duty due to the high work intensity in harbours.

In a port it is common that most staff member are on duty due to loading and unloading cargo, refilling heavy fuel, engine maintenance and dealing with local agents and regulation systems.

The Officers and Engineers are supported by a larger work force. These seamen are employed to carry out various tasks consisting of lookout, oiling the engine, repair and paint jobs as well as loading/offloading cargo and supplies and mooring the ship.

Furthermore, only the Captain is permitted to instruct the Chef on ship regarding his duties. This is a highly responsible task as good food equals a content worker.
4.0 Crew mixture

To make a ship operational and sea worthy a good and reliable crew members are required. It is ideal to have two different nationalities of crew men on a ship, though this is not is common. To date the biggest mix recorded is 7 different nations on one ship.

There are various regulations regarding the crew on a ship, one of which is SOLAS (Safety of Life at Sea). In this particular policy it states that all crew members have to have one common language due to safety reasons. For example, during an emergency all crew members have to understand the instructions immediately without hesitation due to translation. This does not mean everyone has to speak English; if all crew members are capable of another language such as Greek, they would comply with this rule.

In the past it was common that most of the crew were from one country. Today things have changed and it has become a practice to have two different nationalities on a ship. This solves the problem of different wages. A German might not work as a Chef on a tanker but as an Officer because of the salary difference. On the other hand, a Philippino would gladly work on a tanker as a Chef because of the different living standards in his country. Furthermore, if countrymen get highly dissimilar wages it creates personal problems on the ship.

When mixing the different crew member together one has to be very careful, which countries to choose. For example, an English Officer and French Crew would not work well together as team. In comparisons an English Officers and Philippine Crew would be a far better combination. Additionally, the Chinese are not permitted to work with seamen from other Countries on a ship due to their communist government policies.

5.0 Crew Education

The educational path to become a Captain is very strict and can be lengthy. In order to gain the rank of a Captain, it is essential to climb the shipping career ladder. This means most candidates aiming for a position as Captains have to start their career as Cadets and then gradually develop the relevant experience and skills required to hold a position as 3rd Officers, 2nd Officers and 1st Officers before they will be considered for a position as Captain of a ship.

To acquire the basic knowledge on a ship it is common practise for potential candidates to join vessels as a Cadet for a period of 12 month. The position of a Cadet is considered a low ranking position. However, it is through being a Cadet that most candidates develop
the basic skills required to sustain a working life on a ship. Furthermore, being a Cadet can assist potential candidates to decide whether to pursue a career in the industry.

In order to obtain a position as an Officer, most candidates are required to undertake an international certified educational that provides an understanding of relevant subjects that are needed in order to manage a ship, such as mathematics, technology, meteorology, law and health and safety. A ship's presence offshore creates lack of access to data so most often crew members are required to be multi-skilled because of the endless possibilities that ships encounter while offshore.

The educational structure of how a course is implemented in College or University is not controlled by international standards though the examination is assessed by international standards. At present, there are two known educational structure being used internationally and consists of the following:

- Nautical students are required to undertake degree level education and thereafter commence on their as 3rd Officer on a ship.
- Candidates can also opted to undertake vocational courses and after successful completion apply for an Officer or Engineer positions.

STCW (International Convention on Standards of Training and Certification) states that an Officer is required to have one year experience on a ship as an Officer/Engineer in order to qualify for a Chief Officer position. An additional year worth of Chief Officer experience is required before one can be considered for a position as a Captain.

Additionally, nautical staff have to undertake continuous education to ensure a safe and sound knowledge of the ship, which is managed by STCW an international regulation.

6.0 Crew Health

The health and welfare of the crew is most vital to the safety of the ship and its cargo. The Captain, Officers, Engineers and Seaman have to undergo Health checks on regular bases to verify their health status.

To ensure the condition of the crew continuous health checks are implemented. Some health checks are internationally regulated and mandatory while others are compulsory (Alcohol Test). Some shipping companies require its employees to undergo a Drug Test or HIV Test before joining the ship.

The crew also have to undergo training in hospitals to learn the advanced principles of first aid. To assist the crew on a ship each vessel is equipped with an on board hospital and pharmacy. The Captain, his Officers and Engineers are permitted prescribe medicine to the crew in an event of an emergency. Additionally, advise can be obtained from a Doctor via satellite telephone on the ship.
7.0 Crew Future

It is difficult to predict the future but looking at present facts of ships and its crew members, it is possible to forecast future outcomes.

In the past the most crew members shared the same culture and language, which was influenced by strong hierarchies in society. For example, aristocrats took on the role of Officers on a ship and peasants filled up lower ranking positions.

This structure changed when societies became democratic giving more freedom and power to the masses. This led to the formulation of a new crew structure on ship as employees from difference cultural backgrounds had difficulty accepting each other.

The resolution to this problem was resolved by appointing Europeans as Officers and Engineers while the lower ranking positions were filled by seamen from continents such as South East Asia. This current structure has some advantages as the lower ranking seamen earn a higher wage than they would have in in their Country.

However, the work and vacation periods have gradually changed though in the 1960’s it was common to be on a ship for a period of 12 months without contact which led to a melt down in respect of staff turnover. The long periods offshore became less attractive and caused a resource shortage in the market.

To ensure continues growth it became imperative for shipping companies to reduce the period of time spent on the ship. Currently the time frame for an European crew employee is approximately two month on offshore and two month ashore, while for example, the Philippines still have to work for more than 8 month though they are more likely to retire around age 40 due to their high earnings.

The current increase in technologies suggests that shipping companies may have to consider reducing its staff in take at some stage in the future though at present it is impossible to imagine a ship without proper personal on board. However, there is a a possibility that crew in-take could be reduced allowing just Officers and Engineers to monitor and report on ship progress. Furthermore, the number of crews required to repair and maintain a ship could be reduced from 18 crew members to 6-8 and the maintenance carried out in the dockyard every 6 or 12 months.

In addition, every Country is required to operate an independent trading fleet. For example, Alliances such as the NATO have requirements to their members. For instance, Germany being a part of NATO has to support this Alliance with a big trading fleet under the German flag. A ship under a German flag needs to be operated by German citizen, which means that the Captain, Officers and Engineers have to be German.

8.0 Conclusion

Looking at the basic principles of crew management it is possible to understand how a good ship can function well. Examining different subjects of the management to align a shipping company strategy toward a successful crew as the crew is the most important asset of the company.