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ANALYSIS OF DELAYS PREVENTION EFFORTS IN THE LOADING PROCESS AT XIN LIN HAI MV 16

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ABSTRACT

This research aims to understand and prevent delays in the loading process and preparation of the loading space. The subject of the study is the process of preparing the loading room in the MV. Xin Lin Hai 16. The method used in writing this scientific paper is qualitative descriptive, by means of observations, interviews, and literature studies related to delays in the loading process due to lack of supervision from mualim I, bosun, and helmsman. The results of the study showed that problems in the loading room cleaning process were caused by a lack of communication, coordination, and maintenance of the loading room cleaning equipment in accordance with procedures to prevent delays in the loading process. The conclusion of this study is to improve supervision, coordination, and communication between ship crew and workers, as well as to perform routine maintenance on cargo room cleaning equipment.

Keywords: *Delays, Loading, Cleaning*

ABSTRAK

Penelitian ini bertujuan untuk memahami dan mencegah keterlambatan dalam proses pemuatan dan persiapan ruang muat. Subyek penelitian adalah proses persiapan ruang pemuatan di MV. Xin Lin Hai 16. Metode yang digunakan dalam penulisan makalah ilmiah ini adalah deskriptif kualitatif, dengan cara observasi, wawancara, dan studi literatur terkait keterlambatan dalam proses pemuatan karena kurangnya pengawasan dari mualim I, bosun, dan juru mudi. Hasil penelitian menunjukkan bahwa masalah dalam proses pembersihan ruang muat di sebabkan oleh kurangnya komunikasi, koordinasi, dan pemeliharaan peralatan pembersih ruang muat sesuai dengan prosedur guna mencegah keterlambatan proses pemuatan. Kesimpulan dari studi ini adalah untuk meningkatkan pengawasan, koordinasi, dan komunikasi antara kru kapal dan pekerja, serta melakukan pemeliharaan rutin pada peralatan pembersih ruang muat.

Kata kunci*: Keterlambatan, Pemuatan, Pembersihan*

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1. INTRODUCTION

Indonesia is widely recognized as one of the largest archipelagic countries in the world, consisting of thousands of islands connected primarily by maritime transportation routes. In such geographical conditions, sea transportation plays a fundamental role in supporting economic activities, logistics distribution, and inter-island connectivity. Compared with land and air transportation, maritime transport offers advantages in terms of carrying capacity, operational efficiency, and cost effectiveness, particularly for large volumes of cargo.

The increasing demand for global trade has intensified the role of maritime shipping in ensuring the smooth movement of goods between ports. In maritime operations, the loading and unloading process is a critical stage that significantly affects the efficiency of ship operations and port performance. Any disruption or delay in cargo handling activities may lead to operational inefficiencies, increased turnaround time, and financial losses for shipping companies, charterers, and port operators. Therefore, maintaining the efficiency and reliability of loading operations is essential to ensure optimal vessel utilization and to minimize operational costs.

One of the key operational aspects that influences the smoothness of the loading process is the proper preparation of cargo holds. Before new cargo is loaded, the cargo hold must be thoroughly cleaned and inspected to ensure that it meets safety and cleanliness standards. This is particularly important when the vessel carries different types of cargo in consecutive voyages. Residues from previous cargoes, especially chemical or bulk materials, may contaminate the next cargo, potentially causing cargo damage, quality degradation, or rejection by the cargo receiver. For this reason, international maritime operational standards require cargo holds to be properly prepared and verified through inspections conducted by surveyors prior to loading activities.

However, in practice, the preparation of cargo holds often encounters several operational challenges, such as inadequate supervision, lack of coordination among crew members, limited maintenance of cleaning equipment, and time constraints during port operations. These factors may result in incomplete cleaning processes, which can lead to inspection failures and ultimately cause delays in the loading

schedule. Such delays not only disrupt the operational planning of the vessel but may also generate additional costs for shipping companies.

Previous studies have discussed the importance of cargo handling management and operational efficiency in maritime transportation. However, limited research has specifically examined operational delays caused by inadequate cargo hold preparation on bulk carrier vessels. Understanding these operational constraints is important to identify effective preventive measures that can improve shipboard operational performance.

Based on these considerations, this study aims to analyze the factors that cause delays in the loading process on board MV Xin Lin Hai 16, particularly those related to the preparation of cargo holds after unloading bulk fertilizer cargo. Furthermore, this study seeks to identify preventive efforts that can be implemented to improve coordination, supervision, and maintenance practices in order to minimize delays during loading operations.

2. METHODS

This research applies a qualitative approach. Based on the opinion of Roosinda et al. (2021), qualitative research is based on complex data and diverse reference sources from various points of view, so as to be able to generate arguments from different perspectives that produce conclusions in observing social phenomena or in a particular environment.

To provide convenience in the measurement process of this research, the concept discussed is defined, among others, as Efforts to prevent loading delays are efforts made so that there are no loading delays that can harm the company or charter parties.

3. RESULT AND DISCUSSION

3.1 Research Results

The ship arrived at the unloading port of Zhenjiang, China on June 5, 2024 and immediately carried out the bulk fertilizer load after docking. During the dismantling process, the ship's management and the *charterer* contacted the Captain of the ship to ensure that after completing the dismantling, the loading space in the hatch that had been empty was immediately cleaned,

without using a bilge pump to dispose of the remaining bulk fertilizer load mixed with water, and recommended the use of *a submersible* pumpinstead. Bulk fertilizer loading room cleaning consists of several steps, starting with sweeping. In this phase, the remnants of the bulk fertilizer load in the loading bay are collected to the center of the ship's hatch. Then, the remains will be vacuumed using demolition equipment to effectively clean the loading space.

By June 9, 2024, the ship had completed the *unloading process*, and the ground workers completed *spraying* on the hatch at 19:00 a.m. local time. When the ship is sailing to Shanghai, China, to load *the steel coil* cargo, the journey to the loading port takes only 15 hours, so the crew has to proceed with the cleaning of the loading room. The crew went down into the loading room and installed *a submersible pump* to drain the puddle mixed with the rest of the bulk fertilizer cargo into the sea. When disposing of the remaining cargo, it was found that the remaining bulk fertilizer had hardened due to mixing with water and puddles.

The next load that will be loaded is steel *coil* where this load should not be mixed with the previous load, namely bulk fertilizers, especially those that are chemical, can leave powder residues, moisture, and active chemical elements that stick to the surface of the hatch or the floor of the loading room. When not thoroughly cleaned before loading the steel iron, the residue may cause corrosion or rust on the iron surface. This not only degrades the quality of the steel iron, but can also cause huge losses to the receiver. Therefore, before carrying out the loading of iron and steel, it is very important to ensure that the loading space has been cleaned and declared free of bulk fertilizer residues. This procedure is part of the operational standards to maintain safety, quality of goods, and a smooth distribution process.

Finally, the floor and gutter surfaces are thoroughly cleaned using the methods of scraping, brushing, and sweeping until they are completely free of dirt. However, this process takes a long time because it is only done from morning to evening. After completion, *the surveyor* is invited back to evaluate the loading space. In *re-inspection* , especially on the floor and gutters, *the surveyor* issued a certificate stating that the space was ready for loading. However, there are problems due to poor coordination from the team regarding

the preparation of the loading space. There are still loads that have hardened and should have been cleaned optimally. This situation creates obstacles during the inspection by *the surveyor* and delays the loading process. The delay is detrimental to the company, as time that could have been allocated to other activities is wasted on additional cleaning that could actually have been prevented through more careful preparation in advance.

3.2 Discussion

Efforts to avoid delays To improve the efficiency and smoothness of the unloading process, especially bulk fertilizer loads, it is very important to improve the skills, capabilities, and knowledge of crews in using and operating the equipment used to wash the loading room. In addition, awareness of the importance of caring for cleaning equipment also needs to be instilled as a preventive measure against damage to the tool and to support the smooth work process. No less important, efforts are also needed to build awareness of the importance of teamwork and reduce individualism among the crew.

Cleaning maintenance must be carried out regularly to maintain its performance and reliability during the work process on the ship. The steps that need to be taken include the application of lubricant (*grease*) and periodic maintenanceof each part of the equipment. In addition, a thorough inspection must be carried out to ensure that all cleaning tools are in good condition and ready for use. If damage is found, repairs must be made immediately before the damage becomes more severe and disrupts operations. No less important, replacement parts should also be done as soon as possible when the hatch cleaner is considered not to be working as it should.

Efforts to Overcome the Occurrence of Delays are; Ship Crew Selection, Utilization of Experienced Unloading Services, Optimal Use of Equipment, Handling of Residual Cargo.

Efforts to deal with the lack of discipline of the ship crew in using work safety equipment, The first step that needs to be taken is to familiarize and provide debriefing and direction to all crew members regarding the duties, responsibilities, and roles of each individual, the Company needs to add work safety equipment (*safety equipment*)) because most of the equipment available on the ship is still incomplete and has not fully met the standards of

ship safety regulations, motivation for work safety in the crew can be provided in several ways, namely; *Toolbox meeting* and Poster.

4. CONCLUSION

Based on the results of the discussion that has been submitted, it can be concluded that to avoid the danger of collisions, it is very important to follow the procedures of the guard service that have been set. These procedures are designed to ensure effective coordination, careful monitoring of surrounding conditions, and appropriate decision-making in emergency situations. By adhering to existing guard procedures, the risk of accidents can be minimized, and operational safety can be well maintained. Therefore, every individual involved in the operation of the ship must understand and carry out guard procedures in a disciplined and consistent manner.

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