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# **Evaluation Of Passenger And Vehicle Transport Systems On KMP. Tarusi And KMP. Lohoraung North Sulawesi Province**

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#### Abstract

Likupang crossing port is one of the ports in North Minahasa regency which has 3 (three) Ro-Ro crossing ships, namely KMP. Lohoraung, KMP. Tarusi, KMP. Watunapato which serves the interisland track in North Sulawesi. In the transportation system security and safety are very important as a form of good service delivery. As well as the arrangement and handling of passenger and vehicle loads on board. However, vehicle loading is above KMP. Lohoraung and KMP. Tarusi not in accordance with established standards. The method used to analyze the existing problems is a qualitative method of manifest analysis of passengers and vehicles, the analysis of the procedures for transporting vehicles on board, the analysis of binding obligations of vehicles on board. While in the existing conditions of the procedures for transporting vehicles on board the KMP.Lohoraung and KMP.Tarusi still not in accordance with the loading of vehicles that have been arranged in PM No.115 of 2016, the obligation of fastening the vehicle on board on the KMP.Lohoraung and KMP.Tarusi is still not in accordance with the obligation to bind the vehicle on board which has been regulated in PM No.30 of 2016, due to the absence of vehicle fastening on board. In order to create security, comfort and safety, things that can be done is to check the appropriate passenger and vehicle manifest form and observe the process of filling in passenger and vehicle data, and implement procedures for transporting vehicles on board.

Keywords: Port, Passenger, Vehicle, Transport, Binding

#### 1. Introduction

Likupang is an area in North Minahasa regency of North Sulawesi province about 46 kilometers from the city of Manado. Transportation in Likupang is one of the links of a high distribution network of goods, dynamically developing passenger mobility, its role is to support, encourage, and support all aspects of life.

Crossing transportation is one of the very important modes in the transportation sector, which functions as a mobile bridge that connects the road network and the railway network that is interrupted due to the waters to transport passengers, vehicles, and goods. One of the ports that serve ferry transportation in this region is Likupang ferry port.

The ferry port in North Sulawesi province is still a top priority to connect the separated areas by water. Community activities can not be separated from the transport crossing, among others: trading activities, shopping, work, to visit relatives. North Sulawesi has 13 crossing ports, one of which is the Likupang crossing Port located in North Minahasa regency and is managed by the North Minahasa Transportation Office which still has the status of a pioneer port. Likupang ferry port is currently served by 3 RO-RO (Roll-On/Roll Off) vessels serving the Pioneer track. The ferry port of Likupang serves three routes, namely Likupang-Pananaru-Melonguane, Likupang – Biaro – Tagulandang – Makalehi – Siau, Likupang – Melonguane –

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Marampit-Miangas the ferry transportation used is Ro-Ro ship with the name KMP. Tarusi, KMP. Lohoraung and KMP. Watunapato belongs to the government.

In the transportation system, security and safety are highly favored as a form of good service delivery. Safety is demonstrated not only to service users, but to ship operators. As well as the arrangement and handling of vehicle loads on ships. The better the arrangement, handling of vehicles on board the better the level of security and safety of vehicles on board. Conversely, the worse the arrangement, the handling of vehicles on board the worse also the level of security and safety of vehicles on board.

In an effort to improve the security, comfort and safety of crossing transportation, the identity of service users is needed both pedestrian and vehicle service users and passengers and cargo loaded in the vehicle. This identity will be used to fill in the manifest list of passengers and vehicles at the Likupang crossing Port. In addition, passenger and vehicle identity data are also useful for regional owned enterprises( BUMD ) as KMP managers.Lohoraung and PT.ASDP as the manager of KMP. Tarusi for daily passenger and vehicle productivity data collection of crossing transportation as regulated in the regulation of the Minister of Transportation number 25 of 2016 on the list of passengers and crossing transportation vehicles and also ships in the Likupang crossing Port vehicle transportation arrangements, determination of the position of the vehicle on the ship is still overlapping and not in accordance with the proper regulations so that the arrangement of the cargo is still haphazard and disrupts the loading and unloading activities of the ship and without rope security (lashing) in accordance with the regulations so it is very dangerous for both the vehicle operator and the ship operator who is on board. In an effort to implement shipping safety, the Indonesian government in this case the Ministry of Transportation issued regulation of the Minister of Transportation number 115 of 2016 on the procedures for transporting vehicles on board ships and regulation of the Minister of Transportation number 30 of 2016 on the obligation to bind vehicles on board crossings.

# 2. Research Methods

The methods and techniques used in writing this research are qualitative, namely the efforts of a researcher to describe and narrate a situation in the field with primary data and secondary data as follows:

#### a. Primary Data

Primary Data is data directly collected by the researcher, in obtaining primary data the author uses the following methods:

## 1) Observation Method

Directly observing the actual conditions in the field, namely checking the form on the passenger and vehicle manifest in accordance with the regulation of the Minister of Transportation number 25 of 2016 on the list of passengers and crossing transport vehicles, observing the process of filling in passenger and vehicle data, observing the loading of vehicles on board, measuring the distance between vehicles on board and observing the type of vehicle class on board in loading vehicles using lashing and the distance between vehicles in accordance with regulation of the Minister of Transportation number 115 of 2016 on the procedures for transporting vehicles on board.

#### 2) Measurement

Measurements are carried out to obtain information about the reasons for loading that are not in accordance with existing regulations so that it can affect the safety of the ship

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and dig deeper into the factors that cause this. The Data can include vehicle productivity data and distance data between vehicles on board.

# b. Secondary Data

Data that has been arranged in the form of documents such as productivity data of a college and so on. In obtaining secondary data authors use the following methods:

- 1) Method of literature
  - Library method is an effort to collect data and information based on reference books and regulations related to research. In this study used the literature or books in the library or other related to this research.
- 2) Institutional Methods
  - The institutional method is an effort to collect data obtained from various agencies related to this, namely:
  - a) Office of Land Transportation Management Center region XXII North Sulawesi province
  - b) BPS North Minahasa regency
  - c) Likupang Ferry Port Service Unit

#### 3. Results and discussion

Based on the analysis results obtained, the following discussion of the problems that have been analyzed:

# a. Passenger and vehicle Manifest forms and Data

From the results of the analysis of the existing system with the planned therefore for KMP. Tarusi in order to make a sailing approval letter to the ship's officers who have been assigned to better understand and be more thorough in filling out passenger manifest data and vehicle manifest because passenger manifest and vehicle manifest is one of the requirements in issuing a sailing approval letter. In the KMP. Lohoraung to the ship's officers for the manufacture of passenger and vehicle manifest forms to be made in accordance with PM Regulation No.25 of 2016 concerning the list of passengers and crossing transport vehicles listed in Article 4 paragraph (3) and Article 8 paragraph (2).

# **b.** Procedure For Transporting Vehicles

1) Load type and weight information

From the results of the analysis of the existing system with the planned system obtained, in the beginning with the vehicle that will be loaded on the ship after being weighed on the vehicle weighing device, then the information on the weight of the cargo held by the service user in the form of a ticket that contains information on the class of vehicles, the weight of the cargo, and the type of Vehicle Cargo is forwarded to the toll gate which is a condition to be served, if the service user does not have information on the weight of the vehicle the officer at the toll gate should not serve the service user, then the toll gate officer returns the cargo weight information ticket to be forwarded to the ship operator which is specifically designated for vehicle fastening officers in order to regulate according to the regulations contained in Article 18 of regulation of the Minister of Transportation number 115 of 2016. So, it should be at the Port of Likupang crossing immediately enlarge the electric power so that the weigh bridge facilities can be used.

2) Vehicle Placement Space

From the analysis of the existing system with the planned system obtained, therefore

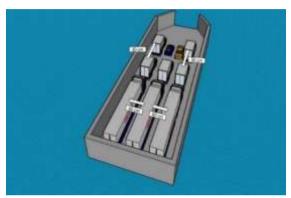
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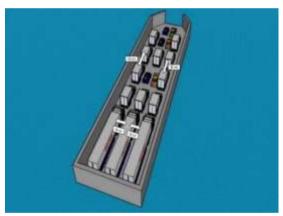
the ship operator must always clean the vehicle loading space when finished loading and unloading the vehicle.

# 3) State Of The Vehicle

From the analysis of the existing system with the planned system obtained, that the placement of the vehicle is required longitudinally or longitudinally bow or stern should not be placed transversely. Here is an illustration of the planned vehicle placement.



Figur 1. Vehicle placement circumstanceson board the ship planned on KMP.Lohoraung



Figur 2. Vehicle placement circumstanceson board the ship planned on KMP. Tarusi

#### 4) Distance Between Vehicle and Wall

Based on the results of the analysis of the distance between vehicles on board in accordance with the regulation of the Minister of Transportation number 115 of 2016 article 20 that the distance between vehicles and walls as follows:

- a) The distance between one side of the vehicle is at least 60 cm
- b) Distance between face and rear of each vehicle 30 cm
- c) For vehicles whose side is adjacent to the vessel wall, a distance of 60 cm is calculated from the inner wall layer or the outer side of the tusks.

Here are the results of the analysis of the distance between the planned vehicles:

a) The distance between one of the sides of the vehicle should be at least 60 cm.

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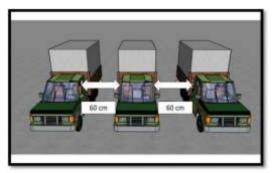


Figure 3. Distance between vehicle sides

b) The distance between the face and rear of each vehicle is 30 cm.

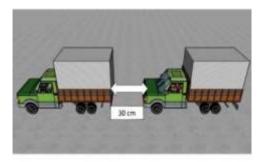


Figure 4. Distance between face and rear of vehicle

c) For vehicles whose side is adjacent to the wall of the ship, a distance of 60 cm is calculated from the inner wall layer or the outer side of the tusks.

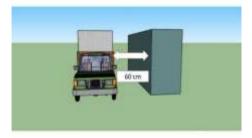


Figure 5. Vehicle Distance To Vessel Wall

# c. Binding Obligations Of The Vehicle On Board

1) Fastening of the vehicle on board
As for The Binding of the vehicle on the bow, middle and stern which is determined from
the type of vehicle itself, the following is a mandatory lashing row plan in accordance
with regulation of the Minister of Transportation number 115 Article 19 paragraph 2.

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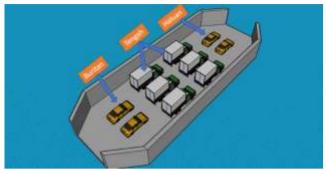


Figure 6. Mandatory Lashing Line on KMP.Lohoraung

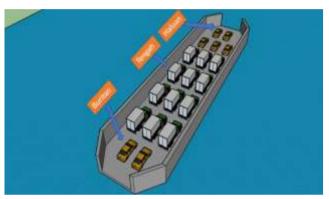


Figure 7. Mandatory Lashing Line on KMP. Tarusi

2) Availability of fastening tools and types of fastening tools (Lashing)

The results peenelitian then on KMP. Tarusi and KMP. Lohoraung has provided vehicle straps but the vehicle straps provided by the ship operator are only in the form of ropes and types of vehicle straps needed for vehicle fastening on KMP ships. Tarusi and KMP. Lohoraung is a rope automobile tiedown, a ratchet strap assembly, or a chain with a turnbuckle contained in the annex to regulation of the Minister of Transportation number 115 of 2016.

## 4. Closing

# a. Conclusion

- 1) Passenger and vehicle manifest list Format on KMP. Tarusi is not appropriate because of the format of the passenger and vehicle manifest on the KMP. Tarusi passenger and vehicle manifest format is appropriate but the data is input on the passenger and vehicle manifest on KMP. Tarusi is not complete, while at KMP. Lohoraung passenger and vehicle manifest format is not appropriate and the data input on the passenger and vehicle manifest on KMP. Lohoraung not yet complete, so manifest passengers and vehicles on KMP. Tarusi and KMP. Lohoraung has not complied with the provisions set forth in the regulation of the Minister of Transportation number 25 of 2016 on the list of passengers and crossing transport vehicles.
- 2) The existing condition of the level of compliance of the carriage and the obligation to bind the vehicle on board at the Likupang crossing Port is still not in accordance with the regulation of the Minister of Transportation number 115 of 2016 on the procedures for transporting vehicles on board and regulation of the Minister of Transportation number 30 of 2016 on the:

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- a) The vehicle to be transported on board is not equipped with weight and load type information.
- b) Still found the state of the loading space on the ship that there is still a splash of oil
- c) The vehicles on board are still placed transversely.
- d) Setting the distance between adjacent vehicles.
- e) Ship operators only provide ropes of the rope type
- f) There are still found vehicles that are not fastened to the front (bow), middle (midship), and rear (stern).

# b. Suggestions

- 1) In order for the passenger and vehicle manifest form in accordance with the regulation of the Minister of Transportation number 25 of 2016 diamana for KMP officers. Tarusi which has been assigned to be more understanding and thorough in filling out passenger and vehicle manifest data because the passenger and vehicle manifest is one of the requirements in the issuance of a sailing approval letter, in the KMP. Lohoraung to the ship's officers for the manufacture of passenger and vehicle manifest forms to be made in accordance with the regulation of the Minister of Transportation number 25 of 2016 on the list of passengers and crossing transport vehicles listed in Article 4 paragraph (3) and Article 8 paragraph (2).
- 2) Socialization needs to be done to the managers of Likupang crossing Port and KMP operators. Tarusi and KMP. Lohoraung on procedures for transporting vehicles and binding obligations on board. It is considered important to provide knowledge and training so that Ministerial Regulation No. 115 of 2016 on the procedures for transporting vehicles on board ships and Ministerial Regulation No. 30 of 2016 on the obligation to bind vehicles on crossing transport ships can be truly understood by port management operators and ship operators. After the socialization is done, it is expected that it can be applied and carried out so that the level of security and safety during the voyage can be better than before and prevent accidents between vehicles that cause vehicle body abrasions that harm vehicle owners and ship parties.

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