

An Introduction BKI Rules for Indonesian Domestic Vessel “Machinery Installations”

Munir Muradi

Research and Development *Division*
PT.Biro Klasifikasi Indonesia (*persero*)
Jakarta
munir.m@bki.co.id

Muhdar Tasrief

Material and Component *Division*
PT.Biro Klasifikasi Indonesia (*persero*)
Jakarta
muhdar@bki.co.id

Triyan Indrawan

Research and Development *Division*
PT.Biro Klasifikasi Indonesia (*persero*)
Jakarta
triyana@bki.co.id

Abstract— The main condition for ships to operate on the sea is the proof of its seaworthiness or safety. This requirement can be met by adhering to safety regulation that is enforced by a classification society and the Administration. However, based on data from The Ministry of Transportation Republic of Indonesia, there are 25.559 ships operating in Indonesian waterways which flies Indonesian flag and from that amount only approximately 41% of them are classed by classification society. Those ships are not classed due to their inability to comply with class’s requirements since those requirements are designed to be applied by sea-going ships while those ships only operate domestically on Indonesian waters. As a national classification society, Biro Klasifikasi Indonesia has a very important role to ensure the safety of domestic ships by developing rules/regulations for ships that voyage only on Indonesian waters. The rules which have been developed consists of 5 (five) parts : Rules for construction/hull, Rules for classification and surveys, Rules for machinery installations, Rules for electrical installations and Rules for materials. This paper will present the requirements for machinery installation for ships which operates on Indonesian waters.

Keywords—*BKI, Classification, Machinery, Domestic*

I. INTRODUCTION

A. Background

Ships are a vessel with prime mover or without prime mover used to transport passengers and/or goods by sea or river. The main requirement for the ship to sail safely is the fulfillment of the elements of marine worthiness or operational safety of the ship. To fulfill these elements, it must refer to the safety provisions governed by the ship’s classification society and local government regulations/ administration. However, based on data from The Ministry of Transportation Republic of Indonesia, there are 25.559 ships operating in Indonesian waterways which flies Indonesian flag and from that amount only approximately 41% of them are classed by classification society. The ships which are not registered in terms of size have met the mandatory class requirements. In accordance with the Minister of Transportation Regulation No.7 of 2013 that Indonesian-flagged vessels with sizes of 20 m and above, 250 HP and GT 100 engine power must be clarified at the classification body[2]. That ships not registered because not comply with provisions of class which have a high level of safety because it is intended for ocean going, while the unregistered vessels only sailing in Indonesian waterways.

Many aspects that affect the ships not comply the provisions of the ship classification society in the framework of classifying the ship, that the ship is registered in a classification society, one of which is the aspect of the “machinery installation”. More specifically are the use of outboard engines on passenger ships with a total passengers is 36 [see Fig.1] the number of pumps on the ship base on the voyage distance, use fuel with flash point < 43°C, the fire fighting equipment at ship, as well as steering gear systems and anchor engines by diesel engine and etc. These provisions have been formulated in a standard into a regulation that can be recognized and used as a mandatory requirement that must be fulfilled for ships sailing in Indonesian waterways and was developed based on the study/ research by researcher and experiences of BKI surveyors.



Fig.1 Speed Boat with outboard engine (source;foto munir)

B. Application of Rule

This Rule contains provisions machinery Installations including equipment for ship operational and ship safety for the classification of new or existing ship which voyage in Indonesian Waterways.

C. Definition

a) *Classification Society*: a non-governmental organization that establishes and maintains technical standards for the construction and operation of ships and offshore structures.

b) *Surveyor*: a person who conducts surveys or examinations of marine vessels to assess, monitor and report new or existing vessels conditions to ensure compliance with standards of Classification society.