

Title: Stability, seakeeping and safety assessment of small fishing boats operating in southern coast of Peninsular Malaysia

Author/Authors: O. B. Yaakob, Farah Ellyza Hashim, Mohd. Rajali Jalal, Muhammad Adli Mustapa

Abstract: Most fishing boats in Malaysia are built traditionally, usually with no guidance and approval from naval architects. Thus, hydrodynamics performance, viewed in terms of stability and seakeeping as well as safety performance, has become a major concern in traditional fishing boat designs. This study mainly focused on the assessment of hydrodynamics performance and safety of small fishing boats. Two small boats, each from the East and West Coast of Peninsular Malaysia, were selected for measurement of their hulls. Maxsurf Ship Design software was used to assess the seakeeping and stability performance according to the respective requirements or standard criteria. The assessments showed that although both boats fulfill static stability requirements, one of the boats should only be allowed operating in restricted operational area with maximum sea state 2, while the other can be allowed to operate in operational area up to sea state 3. A survey on safety equipment showed that both boats lacked the necessary equipment stipulated by international guidelines for safety of small fishing boats.