A PRELIMINARY DESIGN OF CATAMARAN FOR FISHING VESSEL OF 100 GT

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2012

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LP 10 FMSM 2 2012

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A preliminary design of catamaran for fishing vessel of 100 GT /
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Lihat sebelah

A PRELIMINARY DESIGN OF CATAMARAN FOR FISHING VESSEL OF 100 GT

By

HAMDAM BIN MOHD KASA

A thesis submitted in partial fulfilment of
the requirements for the award of the degree of
Bachelor of Applied Science (Maritime Technology)

DEPARTMENT OF MARITIME TECHNOLOGY

FACULTY OF MARITIME STUDIES AND MARINE SCIENCE

UNIVERSITI MALAYSIA TERENGGANU

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UNIVERSITI MALAYSIA TERENGGANU

DECLARATION AND VERIFICATION REPORT

FINAL YEAR RESEARCH PROJECT

It is hereby declared and verified that this research report entitled:

A PRELIMINARY DESIGN OF CATAMARAN FOR FISHING VESSEL OF 100 GT

By **HAMDAM BIN MOHD KASA**, Matric No. **UK 18144** have been examined and all errors identified have been corrected. This report is submitted to the Department of Maritime Techonolgy as partial fulfillment towards obtaining the Degree of Applied Science (Maritime Technology), Faculty of Maritime Studies and Marine Science, Universiti Malaysia Terengganu.

Verified by:

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Date: 20/6/2012

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DECLARATION

I hereby declare that this thesis entitled "A Preliminary Design of Catamaran for Fishing Vessel of 100 GT" is my own research except as cited in the references.

Signature   :

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ACKNOWLEDGEMENT

A PRELIMINARY DESIGN OF CATAMARAN FOR FISHING VESSEL OF 100 GT

ABSTRACT

This study is aim to establish a preliminary stage design of a catamaran for fishing vessel of 100 gross tonnage in technically. The fishing vessel design has to be suitable with the environment of Malaysian fishery and feasible to operate in Malaysia waters. Three desired ship's length are fixed as the primary independent variable in the design project and the others correlation parameters are thus contribute to achieve the gross tonnage as required. Evaluate the performance for three difference catamaran of fishing vessel design in the influence of resistance, powering requirement and stability condition. The evaluations of the performance for three new designs of fishing vessels use the Maxsurf Pro, Hullspeed and Hydromax software. The lines plan and general arrangement plan will be generated from the Maxsurf and AutoCAD. The preliminary stage of fishing vessel design methods and process will be discussed detailed in this project study. Finally in this paper, be found the most suitable dimension of the selected catamaran which are more stable, less power requirement due to less hull resistance were determined by comparing the results obtained.

REKABENTUK AWAL UNTUK KATAMARAN SEBAGAI KAPAL IKAN LAUT 100 GT

ABSTRAK

Kajian ini adalah bertujuan untuk mewujudkan rekabentuk awal sebuah katamaran untuk kapal nelayan yang mempunyai 100 tanan kasar dari segi teknikal. Rekabentuk kapal nelayan ini perlu sesuai dengan persekitaran perikanan Malaysia dan beroperasi di perairan Malaysia. Panjang tiga buah kapal yang diinginkan telah ditetapkan sebagai pembolehubah bebas dan parameter lain berkorelasi untuk mencapai tanan kasar seperti yang telah ditetapkan. Menilai prestasi untuk tiga rekabentuk katamaran yang berbeza dalam aspek rintangan, kuasa yang diperlukan dan kestabilan. Penilaian prestasi bagi tiga rekabentuk baharu kapal nelayan ini menggunakan perisian Maxsurf, Hullspeed dan Hydromax. Pelan garis dan pelan susun atur am akan dihasilkan menggunakan perisian Maxsurf dan AutoCAD masing-masing. Kaedah dan proses rekabentuk peringkat awal kapal nelayan ini akan dibincangkan secara terperinci dalam projek kajian ini. Di akhir kajian, akan diketahui dimension kapal nelayan bagi katamaran yang paling sesuai akan dipilih dengan mempunyai lebih kestabilan, kuasa yang diperlukan kurang disebabkan oleh rintangan kapal yang kurang yang mana ditentukan melalaui perbandingan analisis keputusan yang diperolehi.