



Description:

Fiberglass cruiser catamaran. Built on 2014, owners found engine low performance, vibration presence, cracks due to ship knock with water fore. Tecnavin was assigned on 2015 to re-design and to correct this defects

Main Features

Overall length (Original)	24.71	m
Overall length (Re-designed)	30.68	m
Overall beam	10.35	m
Depth	3.40	m
Draft	1.47	m
Max. Displacement	116.8	Ton
Power	2x350	HP
Speed (Original)	10	Knots
Speed (Re-designed)	12.5	Knots
Fuel Capacity	9.4	m ³
Water Capacity	8	m ³



HULL OPTIMIZATION:

- 3D hull model
- Weights estimation
- Resistance analysis
- Sea keeping analysis



Original stern



Re-designed stern



Original aft



Aft lengthening

TECNAVIN S.A.

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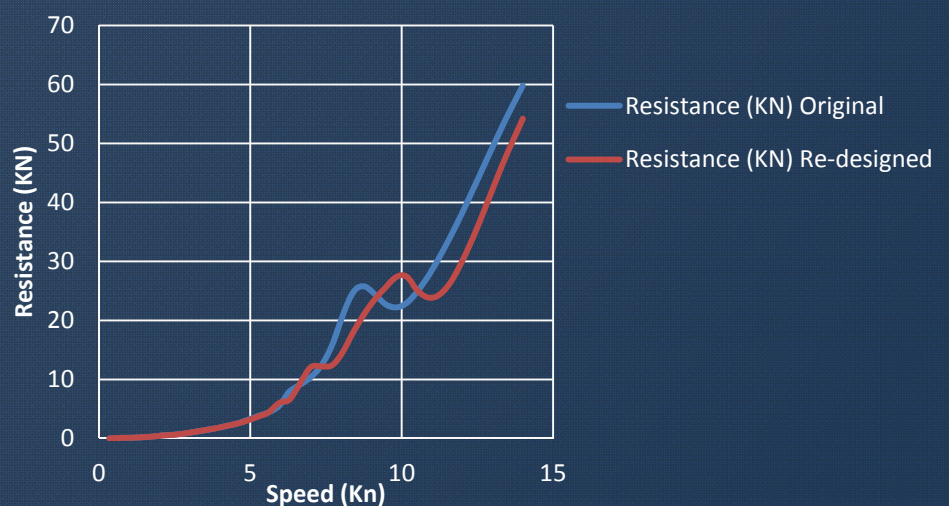
Garcia Goyena 600 & Chimborazo
Guayaquil – Ecuador

www.tecnavin.com

UPGRADES:

Ship speed upgrade from 10 knots to 12.5 knots with same engine power and displacement.

Better sea keeping. Ship knock with water are not present and cracks stopped.



VIBRATION:

- Engine foundation re-design
- Aft structure reinforcement



ENGINE PERFORMANCE:

- Back pressure measurement (excessive back pressure)
- Re-location and re-design of exhaust system and exhaust outlet



New exhaust outlet

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UPGRADES:

Vibration decrease under Classification Societies limits for passenger ships.

Engine works efficiently up to MCR.

Back pressure bellow manufacturer limit.