

**“OPTIMIZATION OF WHITE WATER-SELARI RIVER RO-RO
FERRY VESSEL DESIGN”**

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ABSTRAK

KMP Bahari Nusantara is a fleet of ships which is currently one of the ships in the Roro Airputih-Sei port on the Selari River which has a maximum ship speed of 9 knots and an operational speed of 8 knots, with this speed it can be optimized with a speed performance of up to 10 .5 knots maximum speed and operational speed of 9 knots by changing the deadrise angle of the ship's bow from 0.3 degrees to 12.5 degrees. To obtain adequate ship performance, it can be seen based on the stability of the ship which meets the appropriate criteria in the IMO ship. Based on the optimized performance of the ship, it can be concluded that the speed performance is optimal at an angle of 12° because the maximum speed reaches 10.5 knots from the previous 9 knots and the stability meets the criteria in accordance with the applicable standard provisions. Based on several experimental analyzes it can be seen the results of changing the deadrise angle from 0.3 degrees to a deadrise angle of 12 degrees and having a more optimal speed from 9 knots to 10.5 kno maximum speed and meeting the appropriate stability criteria.