

## HYDRALIFT SKEGS

### Improve Directional Stability Without Increasing Resistance

- **Normal skegs typically add 30 to 50 percent more resistance over the bare hull drag**
- **HYDRALIFT skegs add 10 percent or less resistance over the bare hull drag**
- **For example, on one barge design, regular skegs increase the resistance by 23 percent, while Hydralifts increase it by only four percent.**
- **These model test results suggest a three quarter to one knot speed increase for the same horsepower**
- Gerry Stensgaard, manager of the Ocean Engineering Center at B.C. Research, Inc., in Vancouver, Canada, reporting on tests on barges in *Maritime Reporter and Engineering News*

*Towed vessels, such as barges, require directional stability, but conventional skegs, while offering stability, also increase the resistance and drag. The patented low-resistance Nautican Hydralift Skegs provide directional stability to barges with much less resistance—typically between a 35 to 50 percent improvement—improving towing speed and saving fuel.*

The key to this remarkable efficiency is the optimization of the skeg profile and the angle of attack to the water flow. Unlike a regular skeg, which is a long single piece, each Hydralift Skeg is made up of three narrow hydrofoils supported by a horizontal foil that holds the vertical ones in place. The vertical foils are angled inwards, similar to a normal skeg, while the horizontal foil is angled downward, almost at the same angle as the rake.

This unique design stabilizes the barge by lifting it laterally, which counters the drift of the barge stern, provides thrust, and results in increased towing speed and fuel savings.

Hydralift Skegs give the fastest payback to ocean going barges that are towed long distances and in applications where increased speed will cut towing time and save fuel.

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#### REQUEST AN OPERATIONAL ANALYSIS

We are happy to partner with you to help you determine the best solution for optimizing performance and reducing fuel consumption. By analyzing your fleet's operational needs, we can help you identify vessels that are the best candidates and assist you in determining the return on investment. Please fill out a form at <http://nautican.com/operational-analysis/> for each vessel you would like us to analyze.

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