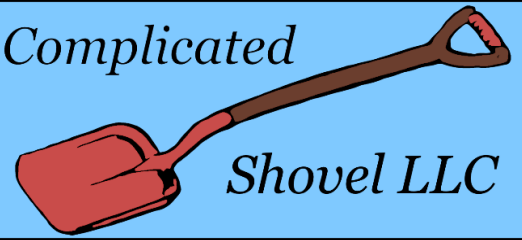


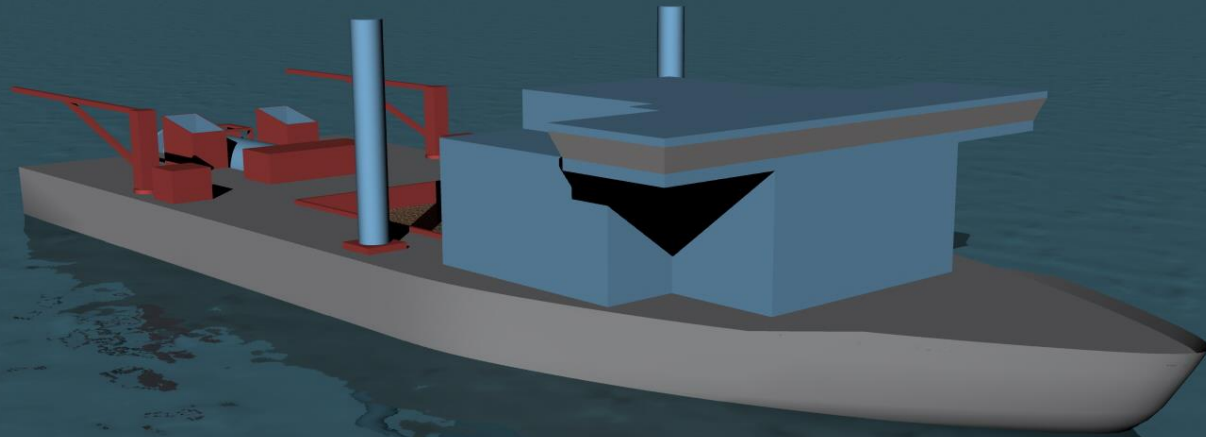
BUILT DIFFERENT

Inland Waterways Dredge

Complicated



Shovel LLC



Mission Requirements

This self-propelled cutter suction dredger with hopper capacity will support maritime operations within the Nigerian Lagos Lagoon and associated waterways through channel deepening and maintenance dredging. It is designed to operate at extremely shallow drafts and has capability for offshore discharge of spoils.

Principal Particulars

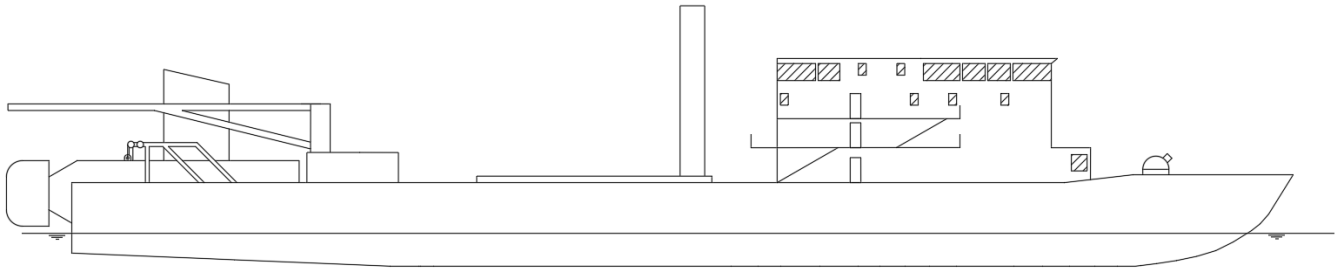
Length Overall	98.1 m
Length Between Perpendiculars	88.0 m
Breadth, Molded	30.0 m
Depth, Molded	6.4 m
Full Load Draft, Molded	2.5 m
Maximum Sailing Speed	10 kts
Total Installed Power	7680 kW
Hopper Capacity	1000 m ³
Hopper Fill Time	45 min
Maximum Dredging Depth	12 m
Complement	10 persons

Operating Modes

- Discharge through bow nozzle during dredging
- Discharge through floating pipeline during dredging
- Dredging spoils to hopper for intermediate storage
- Hopper discharge through hopper doors, bow nozzle, or pipeline

Design Highlights

- Hopper / Cutter Suction Dredge hybrid design
- Self-reliance in a variety of operating modes
- Flexible diesel-electric powering
- 10 knot full-load top sailing speed
- Twin-screw fixed pitch propellers in stern tunnels
- Bureau Veritas NR217 Compliant



Team Member Profiles

Jonas Armstrong



Hometown: Flagstaff, AZ

Work Experience:

- Westport Yachts, WA
- HydroComp Inc.

Aspirations: Marine Software and Propeller Design

Addison Harris



Hometown: Wichita, KS

Work Experience:

- Detyens Shipyard, SC
- Stolt Tanker
- American Bureau of Shipping

Aspirations: Graduate School

Kevin O'Keefe



Hometown: North Babylon, NY

Work Experience:

- Detyens Shipyard, SC
- Stolt Tanker
- American Bureau of Shipping

Aspirations: Undecided

Gracie Schmitz



Hometown: Locust Valley, NY

Work Experience:

- Metal Shark Boats, LA
- Cape May-Lewes Ferry
- Gibbs & Cox, Inc.

Aspirations: Business School