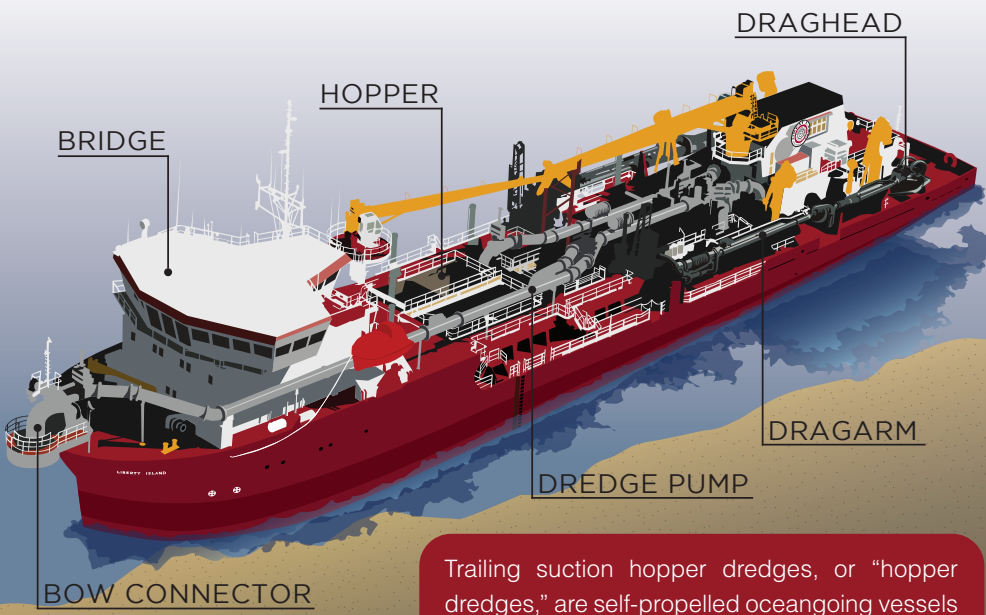
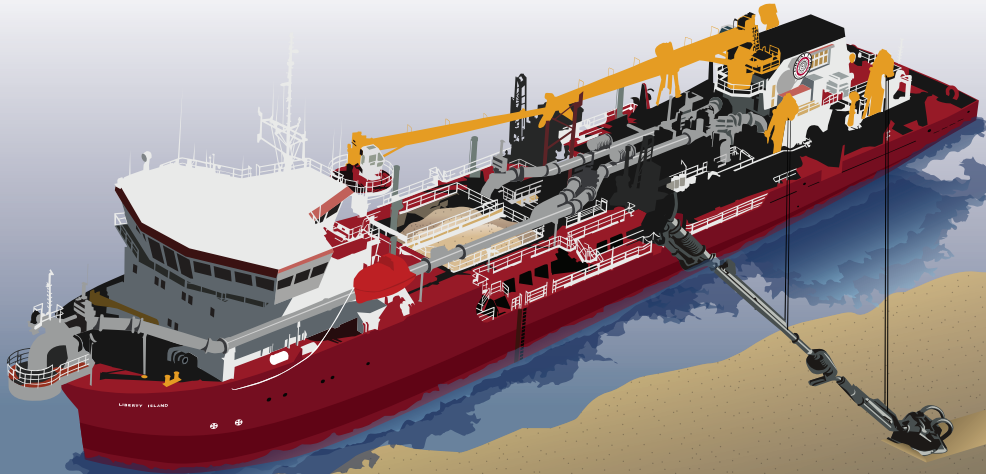


# TRAILING SUCTION HOPPER DREDGE

GREAT LAKES DREDGE & DOCK COMPANY, LLC



Trailing suction hopper dredges, or “hopper dredges,” are self-propelled oceangoing vessels that operate by suctioning up dredged material from the seabed into the ship’s hull for transportation to the placement (disposal) site.



At the dig site, dragarms are lowered into the water. The draghead moves slowly along the seabed vacuuming up material through suction pipes into the hopper (cargo bin) on the vessel’s hold. When the hopper(s) reaches maximum cargo capacity, the dredge retracts its dragarms and sails to the project’s placement site.



Material can be pumped to an upland placement site for coastal protection or beach renourishment. Inside the hopper, the material is re-fluidized and pumped through sunken or floating pipeline (discharge line) to the placement site. Booster pumps are sometimes placed along the pipeline to assist in pumping material over long distances.



Material can also be bottom dumped, either by opening doors in the bottom of the hull, or in split hull dredges, separating the two halves of the hull to release material.



The dredge can also rainbow material, pumping it through a nozzle at the bow to place material directly on a beach or fill.

