

TANKERS

Energy: Safely and Efficiently Delivered

M.V. ARCTURUS VOYAGER Very Large Crude Carrier (VLCC)

LENGTH: 1,100 ft (335.28 m) | SPEED: 16.7 knots (19.2 mph)
LWT: 47,000 Mt | DWT: 320,000 Mt | DRAFT: 74 ft (22.5 m)
CAPACITY: 2,200,000 bbl | CREW: 35 persons

Designed for Stability

Ballast tanks (blue), around the outer edge, hold sea water to improve stability while the cargo tanks (red), in the interior, have a combined capacity of 95 million gallons. When fully loaded, the ship sits about two-thirds underwater or 75 ft below the surface.

Designed for Durability

Large carriers are designed with a double hull system—with 10 ft between the two hulls—to withstand impact and allow for ease of ballasting in emergency situations, providing better protection.

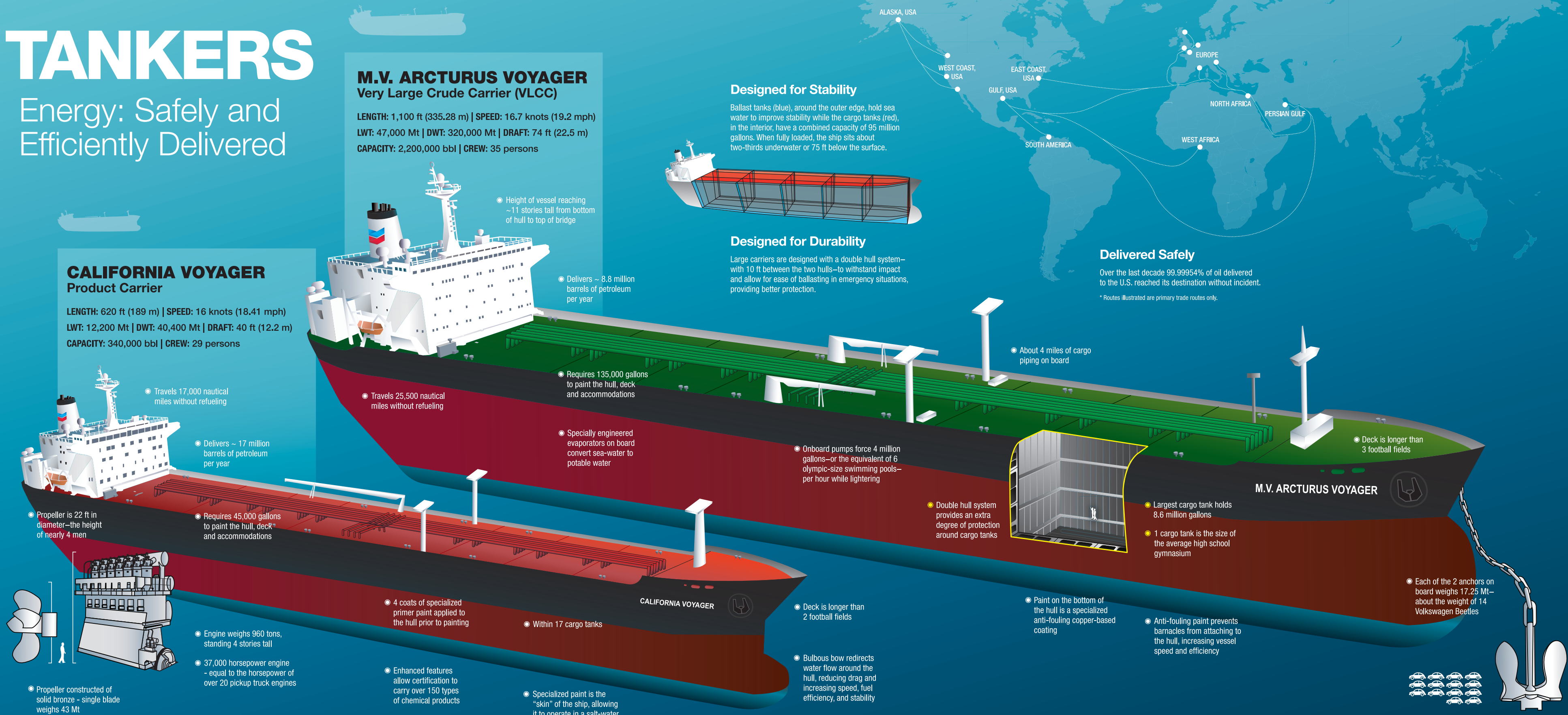
Delivered Safely

Over the last decade 99.99954% of oil delivered to the U.S. reached its destination without incident.

* Routes illustrated are primary trade routes only.

CALIFORNIA VOYAGER Product Carrier

LENGTH: 620 ft (189 m) | SPEED: 16 knots (18.41 mph)
LWT: 12,200 Mt | DWT: 40,400 Mt | DRAFT: 40 ft (12.2 m)
CAPACITY: 340,000 bbl | CREW: 29 persons



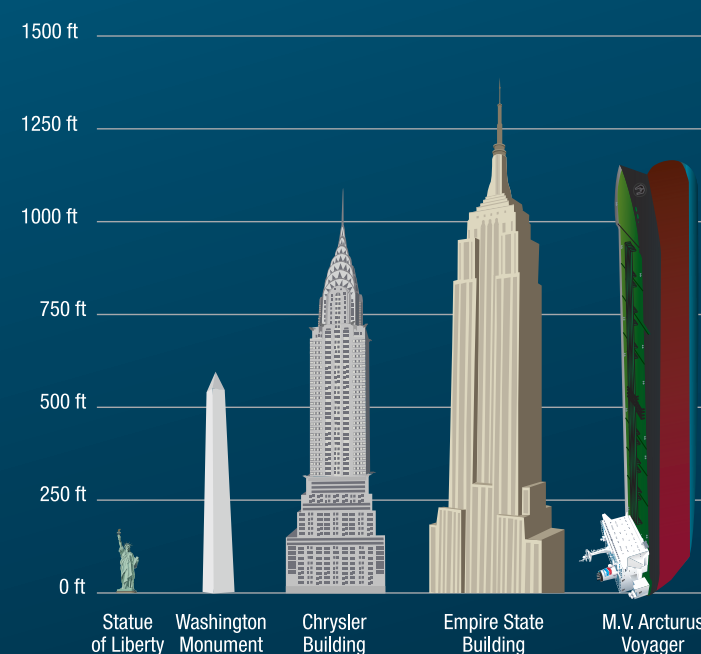
Fueling American Life

It's hard to imagine modern life without petroleum. From the gas in our cars to the asphalt on the road, from bicycle helmets to mobile phones to medical equipment, almost everything we use today is in some way made from a barrel of oil. And how does much of that oil reach America? By tanker. Today there are thousands of tankers working safely to deliver to us the energy we need. Smaller tankers transport gasoline and other specialized petroleum products throughout the United States, while tankers measuring as long as the Empire State building transport crude around the globe.

Few people connect the dots between the everyday products they use to the men and women of the maritime industry and the vessels they operate—around the clock and across the world—to ensure safe and timely delivery at minimal cost. Roughly 5,800 gallons of crude oil per second—that is what America requires to live, prosper, and enjoy the amenities essential to everyday life. This is what the people of the tanker industry deliver to our shores—largely out of sight and out of mind every day.

Over the past century, improved shipbuilding procedures and advancements to ship systems have enhanced the safety and efficiency of petroleum transportation. Today's tankers signify these advancements in every component of the ship, from hull coatings to fuel-efficient engines that generate fewer emissions than their predecessors, from sophisticated navigation and communication systems to double hull protection. But even the newest ships with the most advanced equipment cannot operate on their own. Ensuring the latest technology safely and efficiently delivers the energy to port: this is the irreplaceable role of the mariner.

Tankers and the people who run them work hard to provide the energy resources that power American industries and fuel our domestic economy. Together, they provide gas for our cars, heat for our homes, fertilizer for our farms and toys for our children. Often unnoticed by us, tankers and the men and women who operate them are an important and principal link in our American and global supply chain. Touching our lives in many ways every day, they dependably and affordably deliver the products Americans need to keep moving forward.



85% of crude oil is transported on long haul freight by sea



1 Tanker Truck = 214 Barrels
1 Very Large Crude Carrier = 6,800 Tanker Trucks



5 jumbo 757s fit on the deck of one VLCC (23,000 square yards)



46 trillion bbl of oil safely delivered to port per year



60% of energy used daily by Americans is delivered by tanker



U.S. consumption is 20 million barrels of petroleum products per day



Cost of oil transported by tanker is 2-3 cents per dollar of gasoline



U.S. imports 12 million bbl of crude and refined products per day

Terms

Lightweight Tonnes (LWT): measures the actual weight of the ship with no fuel, passengers, cargo, water, etc. on board

Deadweight Tonnes (DWT): the sum of the weights of cargo, fuel, fresh water, ballast water, provisions and crew

Draft: Distance between the waterline and lowest point of the ship underwater

- 1 Knot = 1.15 MPH
- 1 Barrel (bbl) = 42 U.S. Gallons
- 1 Nautical Mile = 6,076 Feet (1,852 Meters)
- 1 Meter (m) = 3.28 Feet (ft)
- 1 Metric Tonnes (Mt) = 2,204.6 Pounds (1,000 Kilograms)



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