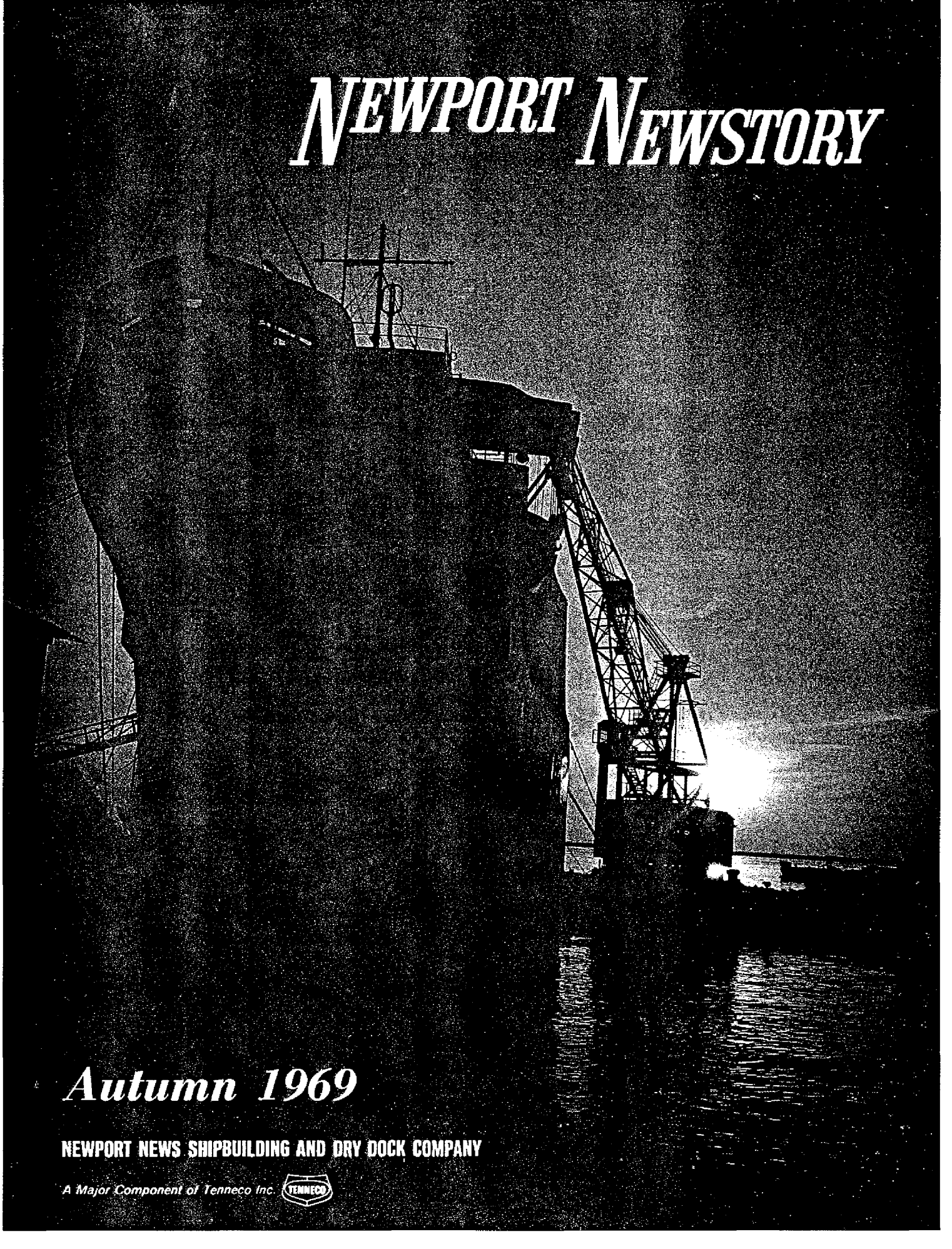


NEWPORT NEWSTORY



Autumn 1969

NEWPORT NEWS SHIPBUILDING AND DRY DOCK COMPANY

A Major Component of Tenneco Inc.



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IN THIS ISSUE

the do-anything yard	1
shave and a haircut	4
blasting and coating	7
just a little thing	10
the ship stretchers	11
the special conversions	14
bow thrusters	17
damage repairs	18
the good ship Esso Houston	20
newport newstory in pictures	22
Dateline: Newport News Shipbuilding	24

ON THE COVER:

The silhouette of a ship at a repair pier at Newport News dominates the foreground of this view of the waterfront as the sun sets across the James River (Photo by L. S. Everton).

from the president

Newport News Shipbuilding has always enjoyed an outstanding reputation for quality ship construction. Within the industry, we have also maintained a leading position in ship repairs and conversion.

The competitive edge the company holds in repairs is a direct result of our new construction capability: we build the most sophisticated ships afloat, and we therefore can perform repairs other yards are not equipped to handle.

With the unique resources and facilities available here, and the full support of our parent organization, Tenneco Inc., Newport News Shipbuilding is in a position to provide its customers unmatched service.

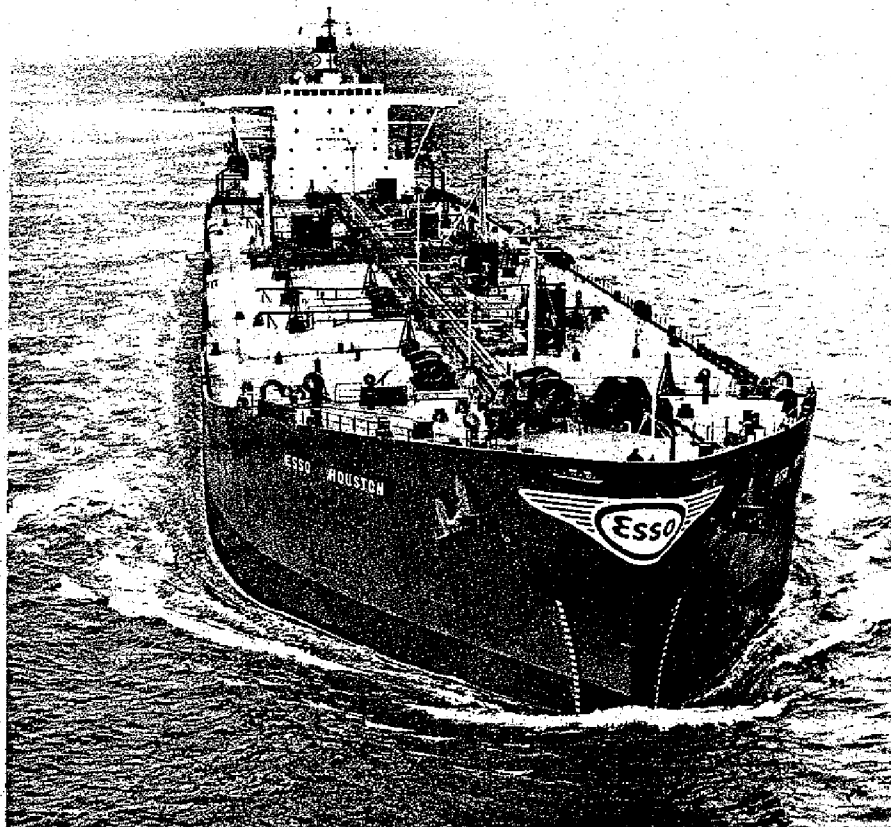


President and
Chief Executive Officer

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the good ship Esso Houston



The Esso Houston runs on a five day schedule from Gulf port refineries to Atlantic Coast cities.

The officers and men of Humble Oil & Refining Company's Esso Fleet gawked in shocked surprise when the Esso Houston was delivered five years ago. The absence of the traditional midship house was what made them sit up and look twice.

The striking new design brought such spontaneous remarks as:

"She looks sorta naked without her midships."

"Looks like a lady without a bust."

"Looks like an oversized barge to me."

Indeed, the Esso Houston represented a new look. She was radically different from the ships Esso fleet crews had been sailing. Moreover, design changes seen in the Houston have become widely accepted in the marine industry.

Her keel was laid at Newport News Shipbuilding in January, 1964, and nine months later the Esso Houston went down the ways. Five months later a sister ship, the Esso New Orleans, followed in her wake.

The Houston's somewhat Spartan appearance was only the first indication of far-reaching design innovations that Humble crews found in her power plant, cargo handling system and lift capability.

Economy and efficiency were the driving forces behind new engineering features that cut costs in construction, operation and maintenance. For instance, a simplified ship propulsion plant in the 800-foot-long tanker was a first in the marine industry.

Some power plant features in the ship representing departures from conventional designs include the use of **one** main boiler, **one** generator, **one** condenser, **one** air ejector — all of which usually come in pairs. "The one-for-two components idea has worked well," said Albert T. Fellows, assistant port engineer for Humble's Esso Fleet.

Steve English, the fleet's repair superintendent, agrees. "The Houston is a good ship, and she's lost no time

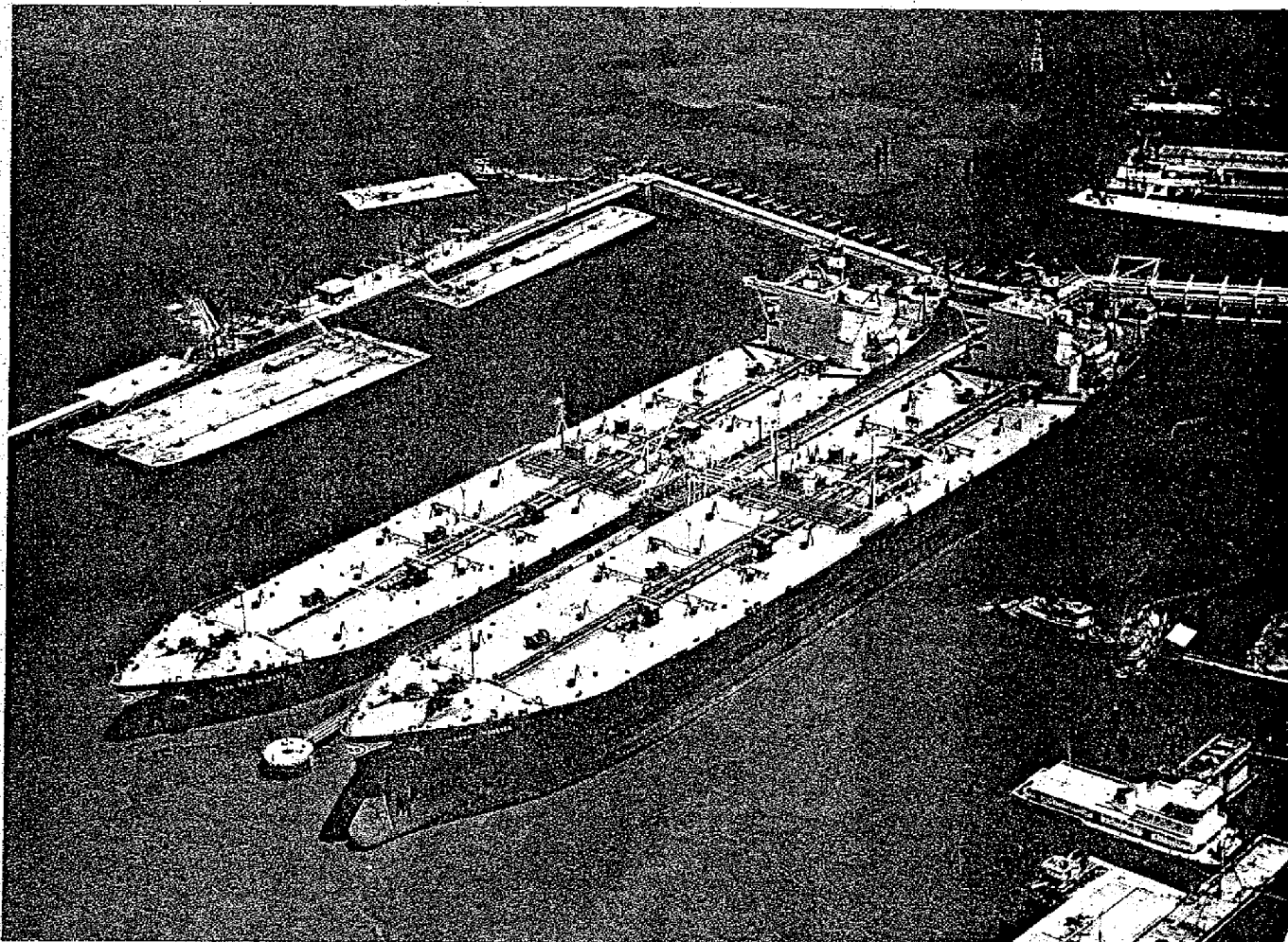
as a result of the one-boiler design," he reported.

The engine room itself is laid out something like an efficiency bachelor apartment. Gauges, instruments and power components are arranged in close quarters in a cluster around a platform where an engineer can observe the entire operation.

"Everything is centrally located in the same area as opposed to the three separate compartments found in most conventional engine rooms," observed Fellows, who is a former chief engineer in the New Orleans as well as the Houston. "An engineer can stand in one place on the operation platform and see the workings of the entire plant system. It sure saves a lot of steps and makes your watch a lot easier."

The single boiler produces 19,000 shaft horsepower that turns a 23-foot, four-bladed bronze propeller weighing 70,750 pounds.

One of the biggest plus marks for economy is the Esso Houston's huge cargo-carrying capability. Loaded to



Sister ships Esso New Orleans and Esso Houston are tied up at Humble's Baytown, Texas, refinery.

the gills, her 21 cargo tanks — each taller than a five-story building — can lift 582,000 barrels of petroleum products. Measured another way, she can transport up to 24,480,000 gallons, equivalent to the cargo capacity of 2,448 railroad tank cars.

What's more, with adequate shore facilities, the 71,540 deadweight ton ship can load or discharge her entire cargo in less than one day, which makes for quick turn around at ports. "Turn around time is vital, of course, to any ship because they don't make money in port," said Luddy Bade, head of the ship allocation and dispatch section in Humble's marine department.

Modern engineering improvements that help step up turn-around time include the use of deep well pumps for cargo handling that eliminated the conventional pump room, usually found in an out-of-the-way cranny below deck. "These deep-well deck pumps not only make the pumpmen's job easier but also further reduce the possibility of pipeline leaks between

pumps and tanks," Bade said.

The Esso Houston and the Esso New Orleans sail in what tanker crews call "clean service." It means a ship hauls such relatively clean products as gasoline, kerosene, jet fuel, diesel oil and heating oil as opposed to the "dirty duty" of lifting crude oil and ship bunkers. The two ships also move solvents such as toluol, xylol, paraxylene and a wide variety of other products with similar tongue-twisting names.

Both ships trade from Gulf ports to the Atlantic Coast cities of Paulsboro, New Jersey, and Boston. The twin tankers sail out of Baytown, Texas, near Houston and Baton Rouge, Louisiana, where Humble operates large refineries. Running time from either Gulf port to Boston is just over five days.

Today, some five years later, Humble Oil is convinced that the Esso Houston and her sister have lived up to expectations from start to finish. "A very important part of the Esso

Houston and the Esso New Orleans is the high grade of workmanship that Newport News Shipbuilding employees put into both tankers," said T. J. McTaggart, port engineer for Humble ships, which comprise the largest privately owned fleet flying the American flag. "It was equal to the excellent cooperation that developed between Humble and Newport News during the construction of the two ships."

The Esso Houston has not only lived up to expectations, but her new look is no longer so strange and unladylike as Humble crews once thought. "The Houston is clean, attractive, efficient, and she's making money," said Third Mate Michael Sharik III. "Admittedly, the absence of the midship house was startling at first sight. Today, all but the die-hards have accepted the Houston for what she is."

And she is a very good ship according to the opinions of Humble marine department professionals.