



Tugs are the workhorses of port operations in India (source: IRS)

India becomes a tug-construction powerhouse

28 Jan 2026by Martyn Wingrove

Indian Register of Shipping is supporting the nation's drive to become a top-10 shipbuilder by 2030

Indian shipyards have always had the potential to build tugboats for domestic ports and owners, and 2025 was the year the marine construction industry made its mark.

With impetus from the nation's government, India has become a hotbed for the construction of electric-powered tugboats, with some industry experts claiming tens or even hundreds of these vessels could be built in the next 10 years.

Tug construction is part of the Indian Government's long-term strategy to make the nation a top-10 shipbuilder by 2030, and in the top five by 2047, which requires investment in assets, people, infrastructure, technology and supporting services such as system integration, naval architecture, engineering and classification.

Indian Register of Shipping (IRS) is a key element in the nation's evolution into a major tug construction base and electric-tug production powerhouse.

"This scheme to speed up the construction of tugs is part of the Government of India's initiative – the Green Tug Transition Programme [GTTP]," said Indian Register of Shipping chief surveyor and senior vice president, H V Ramesh.

“Presently, 49 tugs are at various stages of construction at shipyards, both public and private, and many are at the tendering stage, with conventional propulsion.”

Many of these are on order at Cochin Shipyard Ltd (CSL) and its subsidiaries, while other shipyards are producing tugboats for commercial use in harbours and terminals, including Atreya Shipyard, Jawaharlal Nehru Port Trust, Garden Reach Shipbuilders, Paradip, Shoft Shipyard, Titagarh Shipyard and VO Chidambaranar. Hindustan Shipyard and Goa Shipyard have built tugs for the Indian Navy and Coast Guard.

“India aims to be one of the top-10 shipbuilding nations by 2030 and top five by 2047,” Mr Ramesh told Riviera.

“We expect many brownfield and greenfield shipyards to be set up, providing a vibrant and competitive environment encouraging owners, both Indian and from overseas, to order in India.”



Adani Ports subsidiary Ocean Sparkle took delivery of Ocean Grace in 2023 (source: IRS)

Supporting these construction initiatives are tugboat designs, specifications and standards, all supported by IRS and its classification services.

There are currently five IRS-approved standard technical design and specifications (ASTDS), ranging in bollard pull from 40 tonnes to 80 tonnes.

As of January 2026, four tugs built in India for the ASTDS are in operation, and 18 are under construction.

“As a classification society, our primary responsibility is ensuring the safety of the tugs while performing various envisaged operations,” said Mr Ramesh, adding that IRS supports naval architects and shipyards.

“Designs are vetted in advance through our approval-in-principle service to ensure the designs are compliant and ready for the next stage, reducing the time during construction.”

Tugs are workhorses for ports, and port authorities want these vessels to be equipped with equipment for towing, pushing, berthing, undocking and escorting ships and to tackle maritime emergencies such as firefighting, pollution control, oil recovery and emergency towing assistance.

“Considering the dimensions of tugs, accommodating the requirements becomes a challenge,” said Mr Ramesh.

“The challenges start from the layout, tank arrangements, powering, structure and stability. As a technical partner, we engage with designers from the initial stages, understanding the requirements and advising on compliance,” he added.

“Here, IRS approval in principle for a design comes in handy. The basic design, including stability, is already addressed, giving confidence to the builders to quickly choose the designs, instead of starting from scratch.”

As the Indian shipbuilding industry becomes more advanced under the GTTP, more tugs will be built with technology to cut exhaust emissions from onboard engines or enable zero-emissions towage.

The Government of India’s GTTP includes tugs built to operate on alternative fuels, such as methanol, and to use batteries.

“Considering that the technology is at a very nascent stage, and available options require substantial space for storing fuel, the designs so far have been restricted to propulsion using energy storage,” said Mr Ramesh. “Currently, there are four tugs under construction with energy storage systems.”