Today

INTERVIEWS

Swan Defence and Heavy Industries powers India’s journey to maritime glory

Rear Admiral Vipin Kumar Saxena (Retd), CEO, Swan Defence and Heavy Industries (SDHI) outlines the acquisition’s importance, challenges, and Swan Defence and Heavy Industries’ plans for India’s maritime future.

by **Staff Writer** August 19, 2025

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India aims to become one of the world's top five shipbuilding nations by 2047, and a bold step has just been taken in that direction. **Swan Corp Limited**, a century-old conglomerate, has brought new life to **Reliance Naval and Engineering Ltd** through its subsidiary **Swan Defence and Heavy Industries Ltd (SDHI)**. This move revives India's largest shipyard and positions it as a global hub for shipbuilding and heavy engineering.

A view of Swan Defence and Heavy Industries' shipyard on the west coast of Gujarat. Photo credit SDHI

Leading this mission is **Rear Admiral Vipin Kumar Saxena (Retd), CEO, Swan Defence and Heavy Industries**. A seasoned naval officer who has transitioned into an industry leader, he is driving the revival with fresh capital, strong leadership, and governance reforms. In this interview, Rear Admiral Saxena explains why the acquisition is important, the challenges involved, and how SDHI is preparing to shape India's maritime future.

Can you detail the strategic rationale behind the acquisition of RNEL and the key objectives driving SDHI's revival plan? What were the initial challenges faced, and how were they overcome?

Swan Corp Limited a 116-year-old engineering and project-oriented conglomerate, made a strategic decision to revive a critical national asset as India seeks to become one of the top five shipbuilding nations by 2047.

After acquiring Reliance Naval and Engineering Ltd and assuming full control of the shipyard, Swan Corp Limited – through its step-down subsidiary, Swan Defence and Heavy Industries Limited (SDHI) – is transforming India's

largest shipyard into a world-class hub for shipbuilding and heavy engineering. The group aims to unlock long-term value, create high-quality employment, and strengthen India's maritime and industrial self-reliance by restoring the shipyard's global prominence.

We have navigated the typical challenges of large acquisitions, including legacy liabilities, stakeholder negotiations, investor confidence, and regulatory clearances. These were systematically resolved by committing capital, bringing in experienced leadership, and establishing transparent governance – all of which have revitalised the shipyard in a short period.

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The renaming of the company to Swan Defence and Heavy Industries Ltd and the resumption of trading on the NSE and BSE represent important milestones. What is the significance of these steps in signalling a renewed commitment to the market and stakeholders?

The relisting of Swan Defence and Heavy Industries Limited signifies a new era of revival, resilience, and strategic readiness for shareholders and the market. It reaffirms our financial stability, operational turnaround, and commitment to transparency, governance, and long-term value. As India's largest shipyard, SDHI supports the nation's ambition to rank among the world's top five shipbuilding nations by 2047.

SDHI possesses unparalleled infrastructure, including India's largest dry dock. How will the company leverage this existing infrastructure and its extensive capabilities (fabrication, piping, painting, etc.) to drive future growth and profitability? What are the key investment priorities for upgrading or expanding existing facilities?

SDHI is home to world-class infrastructure, including India's largest dry dock (662m x 65m), capable of accommodating vessels up to 400,000 DWT, with the potential to double the country's shipbuilding capacity. We are also the only Indian shipyard with a dedicated offshore yard (750m x 265m) featuring a load-bearing capacity of 10,000 MT. Our facilities include India's largest semi-automatic panel line (300m x 22.5m), with a monthly throughput of 5,000 MT and an annual steel fabrication capacity of 144,000 MT – greater

than all other Indian yards combined. This allows us to undertake large-scale, complex defence, commercial, and offshore projects.

Our key priorities are modernising facilities and building leadership and skilled operational teams to match our technological edge. This integrated approach ensures we remain agile, future-ready, and globally competitive.

How would you characterise the current state of the Indian maritime sector, including both challenges and opportunities? What are the key government policies or initiatives impacting the industry?

India's shipbuilding sector is gaining strategic importance due to rising vessel demand, capacity saturation in traditional hubs (China, Japan, South Korea), and policy support through Make in India, Atmanirbhar Bharat, and Maritime India Vision 2047.

The government's key initiatives – such as the revised Shipbuilding Financial Assistance Policy, the Rs 25,000 crore Maritime Development Fund, infrastructure status for large vessels, and import duty exemptions – outline a clear roadmap to make India a self-reliant, globally competitive maritime hub.

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SDHI aims to become a premier global maritime hub. What are the key competitive advantages that will enable the company to achieve this ambitious goal in a globally competitive market? How will SDHI differentiate itself from other shipyards in India and internationally?

SDHI is uniquely positioned to emerge as a global maritime hub through its strategic coastal access and one of India's most advanced shipbuilding infrastructures. Spanning more than 600 acres, the shipyard is home to the country's largest dry dock (662m x 65m) with a capacity of up to 400,000 DWT – specifically designed to accommodate ULCCs (Ultra Large Crude Carriers) and VLCCs (Very Large Crude Carriers). It also boasts a fabrication capacity of 144,000 tons per annum and 2.41 million sq. ft. of covered sheds, enabling uninterrupted, all-weather operations. This scale and versatility allow SDHI to handle large commercial vessels, complex naval platforms, and offshore projects simultaneously – setting it apart from other Indian and global shipyards.

What is SDHI's assessment of the demand for shipbuilding and ship repair services in India and globally in the coming years? What are the key growth drivers, and what are the potential risks or uncertainties?

At SDHI, we foresee robust growth in both the shipbuilding and ship repair markets. Globally, the sector is projected to grow to USD 200–204 billion by 2030–33, driven by rising seaborne trade, decarbonisation, and the replacement of ageing fleets.

India, too, is on a remarkable growth trajectory, expanding from USD 90 million in 2022 to a projected USD 8 billion by 2033. This acceleration is fuelled by policy reforms, the Make in India initiative, and the Maritime India Vision.

While challenges such as reliance on imports, supply chain disruptions, and regulatory bottlenecks persist, the long-term outlook is promising. With sustained government support, strategic collaborations, and a focus on indigenous capabilities, we believe India is well-positioned to emerge as a global shipbuilding hub.

How does SDHI plan to contribute to India's ambition of becoming a leading shipbuilding nation? What specific roles will the company play in supporting the nation's maritime security and economic development?

With state-of-the-art infrastructure and unmatched capacity, SDHI aligns with India's ambition to be a leading shipbuilding nation by 2047. Beyond large-scale projects, we aim to build an enduring national capability. From constructing complex naval platforms and commercial vessels to supporting offshore energy infrastructure, SDHI serves both strategic and economic imperatives.

By advancing indigenous capabilities, we aim to reduce dependence on foreign yards, strengthen maritime self-reliance, and bolster defence readiness. At the same time, SDHI will contribute to job creation and industrial growth, making shipbuilding a key pillar of India's economic and security architecture.

The successful refits of Indian Coast Guard Fast Patrol Vessels Raj Ratan and Meera Behn, and Offshore Patrol Vessel Sajag, demonstrated SDHI's operational efficiency. Could you elaborate on the scope of these projects, the key challenges overcome, and the lessons learned? How did these milestones contribute to the shipyard's revival, and how do they position SDHI for future naval and defence projects?

The successful refits of Indian Coast Guard vessels – Raj Ratan, Meera Behn (Fast Patrol Vessels), and Sajag (Offshore Patrol Vessel) – highlighted SDHI's technical expertise and execution capability. The scope included hull, machinery, and electrical work under short refit norms.

A key challenge was reactivating infrastructure, coordinating cross-functional teams, and integrating quality and safety systems simultaneously. These were effectively addressed by a dedicated professional workforce. These milestones marked a turning point in the shipyard's revival, restoring confidence in our capabilities and positioning SDHI as a credible partner for future naval projects.

What are the key metrics used to measure the shipyard's operational efficiency? What initiatives are in place to continuously improve operational

performance?

Shipyard efficiency is primarily measured by "man-hours per ton of steel" – a global benchmark of productivity and process maturity. This is calculated in Compensated Gross Tonnage (CGT), which adjusts for structural complexity; for example, fabricating thinner steel for offshore vessels is more labour-intensive than for standard bulk carriers.

Indian shipyards typically operate at around 200 man-hours per ton, compared to 30–40 in global yards due to greater automation and process discipline. At SDHI, our initial target is 90 man-hours per ton as part of our transformation roadmap.

To achieve this, we are implementing key initiatives:

- Modular block construction using semi-automatic panel lines and larger fabricated block sizes, reducing assembly time and improving welding efficiency.
- Pre-outfitting at ground level to minimise dry-dock time and streamline integration.
- Standardisation and use of jigs and ergonomic tools to reduce manual variability.
- Retraining and upskilling the workforce to meet global shipbuilding and safety standards.

These initiatives reflect our commitment to building a globally competitive, process-driven Indian shipbuilding ecosystem, capable of delivering high-quality vessels on time and at scale.

SDHI possesses advanced facilities, including a pre-erection berth and a dual berthing quay. How are these facilities utilised to optimise the shipbuilding process and enhance productivity? What are the plans for further optimising these facilities?

SDHI's facilities are purpose-built to fast-track ship construction and delivery. The pre-erection berth, dual berthing quay, and 662m x 65m dry dock enable high-throughput operations. High-capacity cranes, including a 600T Goliath Crane, handle large pre-outfitted blocks, reducing lifts and dock time. Our dry dock supports the Tandem Construction Method, allowing parallel shipbuilding to shorten timelines and increase productivity.

To further compress schedules, we use semi-automated fabrication techniques for welding, alignment, and structural assembly. Facilities include:

- Modern panel line for automated steel panel fabrication
- CNC profile cutting machines for precision and speed
- Humidity-controlled painting cells for consistent marine-standard coating

These legacy systems are being revitalised to restore process discipline and drive productivity. To further optimise operations, we are enhancing design accuracy and supply chain flow through collaborations with global shipyards. This ensures Indian-built ships meet international fit-and-finish benchmarks.

Additionally, we are extending the quay to handle more vessels and adding a lock gate to convert the dry dock into a protected wet basin — boosting flexibility and enabling all-weather operations. Importantly, we recognise that human capital is the cornerstone of shipyard productivity. We are investing in better living conditions, training programmes, and a safe, growth-oriented work environment for our workforce. Enhancing skills, morale, and culture is integral to our broader objective: making SDHI a benchmark for world-class shipbuilding in India.

What are SDHI's upcoming plans for shipbuilding and ship repair projects? Can you provide details on any significant contracts secured or anticipated in the near future?

Due to confidentiality agreements, full disclosure is not possible. However, SDHI is at an advanced negotiation stage for next-generation patrol vessels,

offshore supply vessels, and commercial bulk carriers. We are also actively bidding for strategic refit and MRO contracts for defence platforms.

How is SDHI positioned to support India's growing needs in the defence and commercial maritime sectors? What types of vessels or projects are being prioritised?

SDHI is uniquely positioned to meet the needs of both defence and commercial maritime sectors. We are the only shipyard in India with the infrastructure to build large commercial vessels — from bulk carriers and tankers to specialised offshore and construction ships. Our capabilities extend across defence and commercial shipbuilding, ship repair, and heavy engineering, including offshore structures such as jackets, piles, and topsides of offshore platforms. This integrated setup allows us to meet a broad spectrum of national and industrial demands under one roof.

Our current priorities align with India's focus on indigenisation, fleet modernisation, and green shipping. These include LNG-fuelled vessels, hybrid propulsion systems, coastal cargo ships, and offshore support vessels, each contributing to a sustainable and self-reliant maritime ecosystem.

What are the major technological advancements or innovations that SDHI is pursuing to maintain a competitive edge in the shipbuilding industry? What role will digital technologies play in enhancing efficiency and productivity?

Technology is a key differentiator in today's shipbuilding industry. At Swan Defence and Heavy Industries (SDHI), we are actively adopting digital twin technology for real-time monitoring and optimisation of ship performance. Our new generation of automation-driven manufacturing accelerates production timelines, maximises operational efficiency, and reduces turnaround times. Additionally, we are exploring the use of advanced materials such as lightweight composites and high-strength steel to enhance fuel efficiency and durability.

With these innovations, India's shipbuilding industry is poised to lead the future of next-generation maritime technology, shaping the global commercial and defence naval landscape. By combining these technologies,

we aim to maintain the highest standards of sustainability and quality while continuing to lead the commercial and naval shipbuilding markets.
