

NAUTILUS SHIPPING

From

2%

to a Stronger
Workforce:

Why Women in
Shipping Matter

Smarter
Ships,

Greener Ports:

How Digitalization is
Changing the Industry

Where Are the
Seafarers?

Addressing the
Maritime Crew
Shortage

The Changing Tide

A Look at Maritime's Biggest Shifts

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NAVIGATING THE FUTURE OF SHIP MANAGEMENT

Narayan
Managing Director

The ship management industry is at a critical juncture. Rising costs, regulatory compliance, and a global crew shortage are converging with the push for sustainability and digital transformation. Additionally, ongoing geopolitical challenges affecting supply chains and freight markets highlight the unprecedented complexities faced by both ship owners and managers.

In these challenging times, transparency and trust between owners and managers have never been more critical. The industry must shift away from the traditional service-provider model and foster deeper partnerships. Ship owners need to stop viewing managers as mere cost centres, while managers should take on accountability that extends beyond just operational execution.

Rethinking the Ship Owner-Manager Relationship

A key shift needed in the industry is transitioning from flat-fee compensation models to performance-based frameworks. Metrics such as vessel availability, fuel efficiency, safety records, and overall operational excellence should define the manager's success. When the owner prospers, the manager should prosper as well. Unfortunately, the current contract structures often place the financial burden solely on the owner, with limited accountability for the manager. Changing this dynamic is essential for a more collaborative and mutually beneficial future.

How Nautilus Shipping is Driving Change

At Nautilus Shipping, we believe in being more than a service provider; we strive to be an extension of the shipowner's team. Our model is based on a 'pay-for-performance' approach, where we define key result areas in collaboration with owners and take responsibility for achieving them.

Transparency is another cornerstone of our approach. Our digital management system offers owners real-time insights into procurement decisions, operational strategies, and cost considerations. This ensures that every decision—whether selecting a refurbished part due to supply chain delays or optimizing fuel usage—is well-documented and accessible for review. This level of openness fosters trust and ensures alignment on long-term asset preservation.

Sustainability: A Fundamental Priority

Sustainability is no longer optional; it is essential. However, the industry must adopt a pragmatic approach to achieving greener operations. At Nautilus, our sustainability strategy emphasizes four key areas:

- Fuel Efficiency & Route Optimization**
Ensuring vessels operate in the most fuel-efficient manner possible.

- 
Alternative Fuels & Retrofitting Assisting owners in exploring and implementing cleaner fuel solutions.
- 
ESG Reporting & Carbon Reduction Aligning with global emissions targets and tracking progress.
- 
Crew Training & Awareness Educating seafarers on sustainable practices, from reducing plastic waste to minimizing fuel and resource waste.

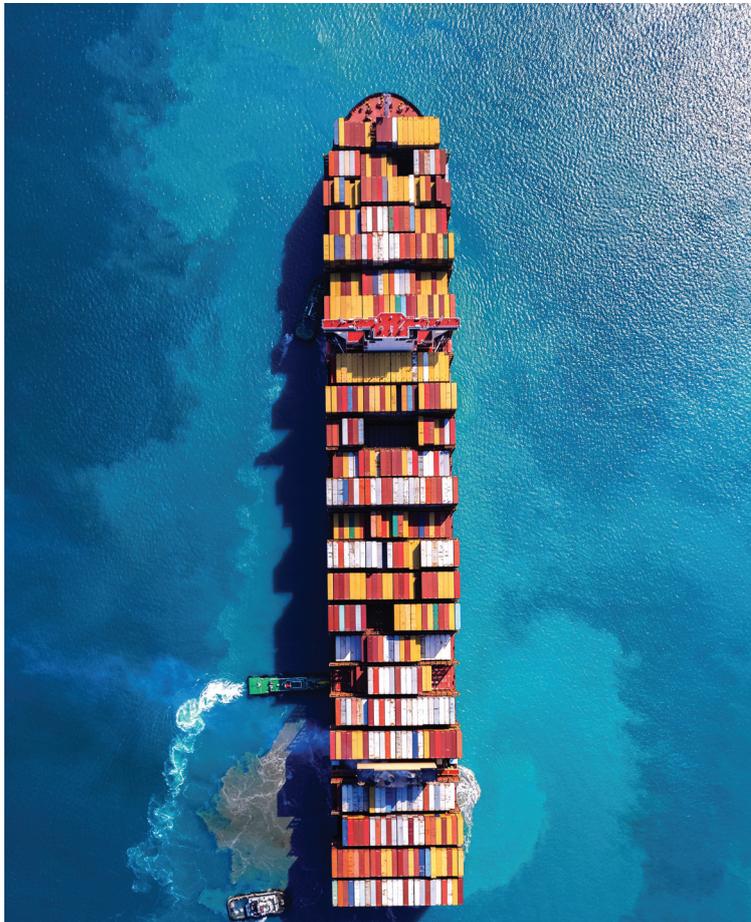
A Future Built on Partnership and Accountability

The future of ship management hinges on stronger partnerships, performance-driven contracts, and a firm commitment to transparency and sustainability. At Nautilus Shipping, we are committed to leading this transformation—working hand in hand with ship owners to navigate these evolving challenges and create lasting value.

By integrating sustainability into daily operations realistically and achievably, we aim to not only meet compliance requirements but also contribute to a cleaner maritime future.

As the industry moves forward, the question is no longer whether ship management needs to evolve, but how quickly we can drive this change together.





THE FUTURE IS HERE:

The Rapid Growth of the Maritime Industry

The maritime industry is evolving. With global trade expanding, technological advancements reshaping operations, and sustainability taking center stage, shipping is growing at an unprecedented pace. The industry today is vastly different from what it was a decade ago, and the coming years are expected to bring even more change.

Maritime Industry: Then, Now, and the Future

The maritime industry has always been the backbone of global trade. Ten years ago, traditional fuel-powered vessels dominated the industry, automation was in its early stages, and digital tools were barely integrated into daily operations. Fast forward to today, and the landscape has shifted dramatically. **Alternative fuels, digitalization, AI-driven ship management, and the rise of smart ports** are redefining shipping.

Industry Evolution (2014 – 2024 – 2034)

Year	2014(Then)	2024(Now)	2034(Future)
Key Industry Developments	Heavy reliance on fossil fuels ----- Manual processes in ship operations ----- Minimal use of digital tools	Growth in AI-driven automation ----- Increased alternative fuel adoption ----- Global push for decarbonization, rise in smart ports	Widespread adoption of AI and automation ----- Net-zero emission vessels ----- Fully digitalized ship management ----- Autonomous shipping on the horizon

The global marine vessels market is expected to grow from **USD 111.10 billion in 2024 to USD 133.63 billion by 2030**, driven by increasing trade, naval modernization, and passenger tourism (Markets and Markets, 2024).



Growing Needs and Demands for the Industry

As the maritime industry expands, so do its demands. Shipowners, regulators, and stakeholders are now focusing on **cost optimization, fleet sustainability, regulatory compliance, and workforce management**. New investments are targeting **alternative fuels, ship digitization, and automation**, all of which are reshaping the industry's future.

The pressure for change is also mounting due to the IMO's **net-zero emission targets by 2050**, with key milestones including a **30% reduction by 2030 and 80% by 2040** compared to 2008 levels (IMO, 2023).

Automation, AI, and Digitization: The Next Frontier

Automation and AI are reshaping shipping operations by making vessels more efficient, reducing operational costs, and enhancing safety. AI-driven solutions are optimizing route planning, predictive maintenance, and cargo handling.

30%

AI-powered automation is expected to reduce operational costs by up to 30% (McKinsey, 2024)

50%

Over 50% of global ports will incorporate AI-driven automation by 2030 (World Economic Forum, 2024)

20%

Smart ports like Singapore and Rotterdam have reduced turnaround times by 20% through AI-powered logistics management (Spire Maritime, 2024)

The introduction of autonomous shipping technologies is gaining momentum. Projects like NYK Super Eco Ship 2030 are integrating AI to enhance fuel efficiency and operational performance.

Green Shipping: The Decarbonization Push

Shipping accounts for 3% of global greenhouse gas emissions, making decarbonization a priority. The IMO’s first-ever global carbon tax for shipping is set to take effect in 2027, a historic step toward green shipping (Ships & Ports, 2024).

99% of the industry’s energy demand still comes from fossil fuels, creating pressure to scale up alternative fuel solutions. Hybrid vessels and multi-fuel engines (e.g., diesel and methanol) are being widely adopted as shipowners prepare for stricter regulations. Alternative fuel-ready vessels are a key trend, allowing ships to transition to ammonia, LNG, or hydrogen with minimal modifications.

Global marine fuel suppliers are broadening their reach, with companies expanding their supply of LNG and biofuels in key ports.

The Crew Shortage Crisis

One of the most pressing challenges the maritime industry is looking at is **seafarer shortages**. A recent report by the **International Chamber of Shipping and BIMCO** predicts a **shortage of nearly 90,000 officers by 2026**, despite increased recruitment efforts.



Demand for skilled officers is outpacing supply, particularly in specialized sectors like tankers



European and Asian labor pools have been disrupted post-pandemic, exacerbating the shortage

Addressing this issue requires **investment in training, recruitment, and career development**, ensuring that the workforce keeps pace with evolving industry demands.

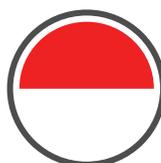
The Top Seafarer-supplying Nations



Philippines



Russia



Indonesia



China



India

Growth in Security and Compliance

Maritime security has also become a critical issue. With increasing geopolitical tensions and piracy threats, **ports and shipping companies must enhance cybersecurity, safety measures, and regulatory compliance.**



Cybersecurity risks are growing due to the digitization of ship operations



Regulatory compliance is tightening, requiring stricter adherence to international maritime laws



Insurance companies are reassessing risks, especially with the growth of mega-ships and container vessels

What Does the Future Look Like?

The maritime industry is evolving faster than ever. While there are challenges, opportunities for growth, innovation, and sustainability are abundant.

- 🔧 Shipowners and operators must invest in alternative fuels and green technology to stay ahead of regulations
- 🤖 AI and automation will continue optimizing fleet operations, reducing costs, and improving efficiency
- 👨‍🚀 Training and recruitment of skilled seafarers must accelerate to address shortages.
- 🛡️ Security, compliance, and risk management will play an even bigger role in shaping maritime operations

By adapting to these changes, the maritime workforce, shipowners, and industry stakeholders can drive a future that is smarter, greener, and more resilient.

Conclusion: The Industry at a Turning Point

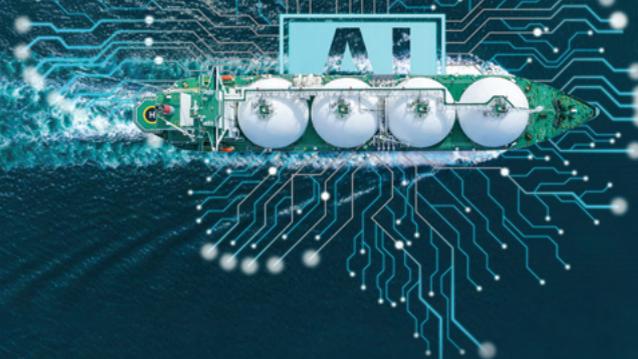
As the maritime industry moves into a new era, **embracing innovation, sustainability, and workforce development** will be the key to long-term success. **The future is now**, and companies that take proactive steps will not only **adapt but lead the transformation** toward a **more efficient, sustainable, and technology-driven shipping industry.**

FUN FACTS!



Bigger Than Ever!

Over the past decade, the global shipping fleet has expanded by a massive 67%, with oil tankers and bulk carriers making up nearly 70% of all vessels! More ships, more trade, and even bigger ports!



AI'S TRANSFORMATIONAL IMPACT ON SHIPPING:

What the Next Decade Holds

As we look ahead to the next decade, the shipping industry finds itself at a critical juncture, at the threshold of a revolutionary transformation. With the rapid advancements in technology, especially Artificial Intelligence (AI), the sector is set to change like never before. AI, known for its ability to analyze vast amounts of data, optimize processes, and enhance automation, promises to reshape the way goods are transported across the globe.

With AI-powered automation projected to cut operational costs by up to 30% and over 50% of global ports expected to operate with AI-driven automation by 2030 (McKinsey Report), the shipping industry is undergoing a massive transformation.

FUN FACTS!



Women Who Made Waves in Maritime History!

For a long time, the maritime world was considered a man's domain—but these women proved that skill, determination, and courage matter more than tradition.

- 📍 Victoria Drummond (UK) – The first female marine engineer who refused to back down, even when no one would hire her. She faced discrimination at sea, but her resilience earned her an MBE for bravery during wartime.
- 📍 Anna Ivanovna Shchetinina (Russia) – The first woman to captain a transatlantic liner in 1935. She didn't stop there—during WWII, she took charge of evacuation missions and led military operations at sea.

AI's Growing Influence in Shipping & Logistics

Artificial Intelligence is working towards reshaping the way ships navigate, cargo is managed, and fleets are maintained. By harnessing real-time data, predictive analytics, and automation, AI can help reduce inefficiencies and improve decision-making.

Autonomous Shipping: The Future of Freight

Leading shipping companies are investing in AI systems that navigate oceans with reduced human intervention. This means:

Route Optimization: Analysing weather, currents, and vessel performance for the best path

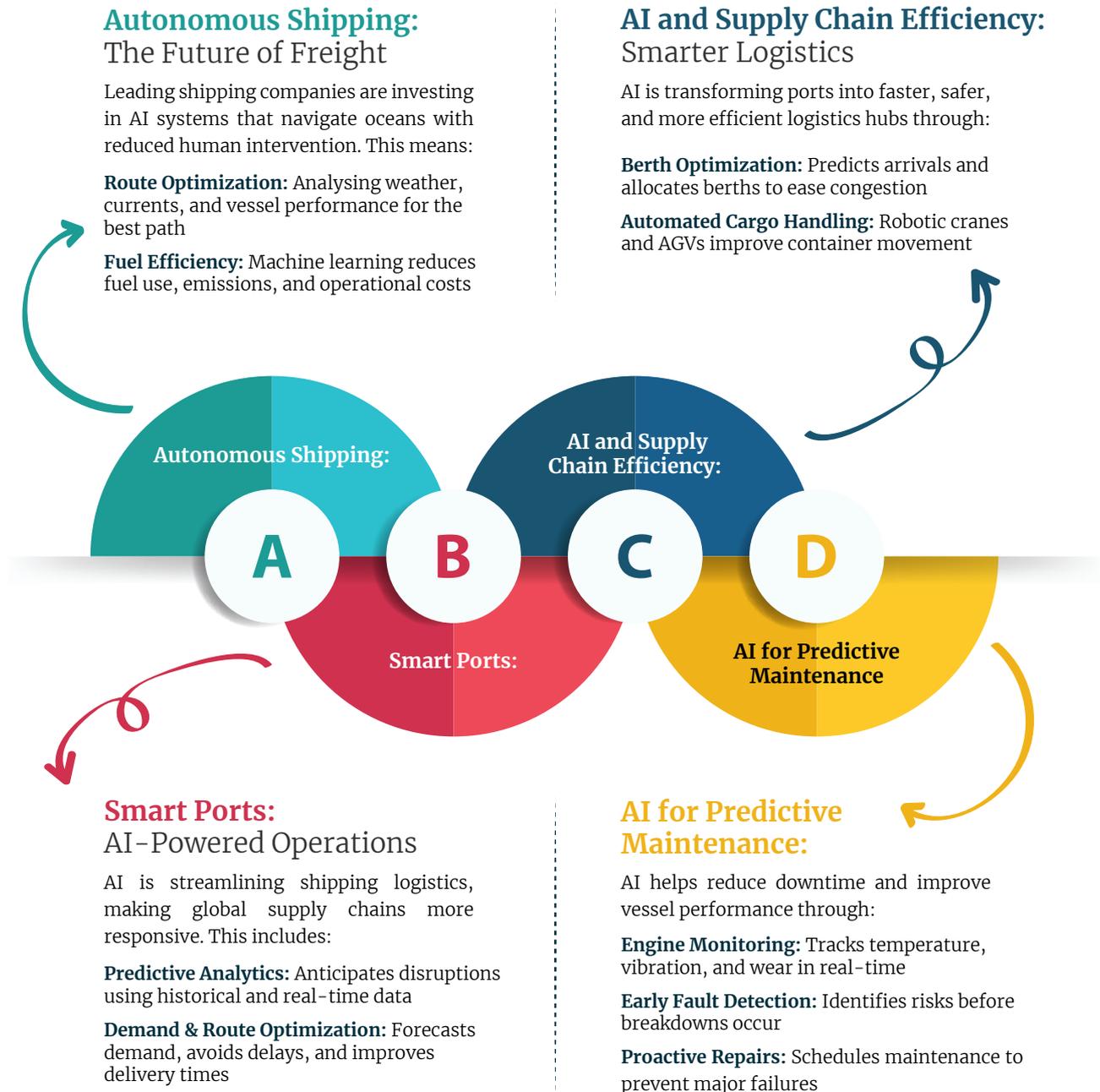
Fuel Efficiency: Machine learning reduces fuel use, emissions, and operational costs

AI and Supply Chain Efficiency: Smarter Logistics

AI is transforming ports into faster, safer, and more efficient logistics hubs through:

Berth Optimization: Predicts arrivals and allocates berths to ease congestion

Automated Cargo Handling: Robotic cranes and AGVs improve container movement



Smart Ports: AI-Powered Operations

AI is streamlining shipping logistics, making global supply chains more responsive. This includes:

Predictive Analytics: Anticipates disruptions using historical and real-time data

Demand & Route Optimization: Forecasts demand, avoids delays, and improves delivery times

AI for Predictive Maintenance:

AI helps reduce downtime and improve vessel performance through:

Engine Monitoring: Tracks temperature, vibration, and wear in real-time

Early Fault Detection: Identifies risks before breakdowns occur

Proactive Repairs: Schedules maintenance to prevent major failures

AI & Sustainability: Reducing Maritime Carbon Footprint

With the shipping industry responsible for 3% of global CO₂ emissions, AI is playing a crucial role in sustainability efforts. This includes:



Fuel Optimization Models:

AI reduces carbon emissions by suggesting fuel-efficient routes and speeds



Emission Tracking:

AI ensures compliance with IMO decarbonization targets



Smart Voyage Planning:

Machine learning forecasts weather patterns, optimizing routes to cut emissions

By embracing AI, shipping companies can meet sustainability goals while cutting operational costs.



The Human Factor: AI & Seafarers

AI is not replacing seafarers but helping them enhance their capabilities. Various possible innovations include:

AI-Assisted Training: AI-powered simulations train seafarers for real-world scenarios

Decision Support Systems: AI provides real-time recommendations for navigation and risk assessment

Reducing Workload: AI handles repetitive tasks, allowing seafarers to focus on critical decisions

Challenges

Despite its promise, AI adoption in maritime faces hurdles. Major challenges that need to be addressed include:

Cybersecurity Risks: AI-driven systems require strong protection against hacking

Regulatory Uncertainty: IMO and national governments must establish AI governance and automation policies

High Initial Costs: Implementing AI infrastructure requires significant investment

CASE STUDY: NYK LINE'S AI-POWERED DIGITAL TRANSFORMATION

NYK Line, a leading global shipping company, is at the forefront of AI adoption.

Key AI Initiatives by NYK Line

The Super Eco Ship 2030 is an AI-powered self-operating vessel.

Autonomous Ship Project

Blockchain Supply Chain Management

AI and blockchain ensure secure shipping documentation.

Big data and predictive analytics optimize fleet performance.

AI-Driven Fleet Optimization

Results

AI adoption has cut NYK Line's fuel consumption, lowered emissions, and improved efficiency across its fleet

As technology advances, AI will continue to reshape the maritime industry, making it more efficient, sustainable, and innovative.

AI is no longer a futuristic concept—it is actively transforming the shipping industry. From smarter navigation and automated ports to predictive maintenance and green shipping, AI is enhancing efficiency, sustainability, and safety.

While challenges like cybersecurity and regulatory hurdles remain, the opportunities far outweigh the risks. AI isn't replacing seafarers—it's empowering them, making maritime operations smarter and more effective.

The AI revolution in maritime technology is just beginning. The question is—**Are you ready to set sail into the future?**

EXPERT SPEAKS



Sailing Through Change: An Industry Veteran's Perspective on 14 Years of Evolution

Vinodh
GM - HSEQ & Technology

🗣️ You've been with Nautilus for 14 years. What has kept you motivated to stay in this industry and company for so long?

My management team and colleagues have supported me, helping me learn about the shipping industry. I started with one role but took on more responsibilities as I was given the freedom to do so. My main goal is to learn and understand my role and responsibilities. Like many companies, we face evolving client requirements and industry shifts. However, the team at Nautilus has adapted and remained strong, providing the stability that has kept me with the company for so long.

🗣️ How has your role evolved over the years, and what key milestones stand out in your career?

I started my career as an Assistant Manager in Admin/Ops and worked in departments such as Human Resources, Procurement, Technical and now in Marine & IT. With the support of the management and my colleagues, I learned about the shipping industry and now lead as GM-HSEQ & Technology. My focus has been on audits, statutory compliance, external affairs and administration.

🗣️ What is your outlook on the next decade of growth for the marine industry?

Technology will keep transforming the industry. In the next decade, we'll see more digitization

and automation, like automated cargo handling, predictive maintenance with IoT sensors, and advanced vessel tracking. We can expect more innovations, such as fully autonomous ships, which will revolutionize sea operations. These advancements could reduce costs and improve safety. Despite technological advancements, skilled human workers will still be needed to manage and maintain advanced technologies. There will be a focus on training in data analytics, robotics, and advanced maritime engineering. The industry will also aim to attract younger talent and promote diversity, bringing fresh perspectives and innovative ideas to keep progressing.

🗣️ In your 14 years with Nautilus, is there a major incident or a memorable experience that stands out? It could be a challenge you successfully navigated, a moment of professional pride, or a key milestone for the company. What lessons did you take from it?

One memorable experience was when our team managed the takeover of 6 Jindal vessels in 2012. We worked day and night to recruit and board nearly 120 crew members, ensuring a smooth transition. It was incredibly rewarding to see everything come together. A similar situation occurred when we took over our first vessel under Technical Management, overcoming challenges with Class and Flag State.

Another significant challenge was implementing

new HR policies and procedures. This required seamless integration with our existing infrastructure while minimizing disruption. I successfully streamlined HR processes, improving data accuracy and employee satisfaction.

A moment of professional pride was when I implemented ISO 9001:2015 in Nautilus and achieved certification. This involved creating quality management processes, finding areas to improve, and implementing best practices. Working with different departments, I streamlined procedures and conducted internal audits. Enhancing our certification showed our commitment to quality and improved our reputation with clients.

These experiences taught me the importance of teamwork, effective communication, and staying organized under pressure. They also reinforced the value of having a supportive management team and colleagues willing to go the extra mile. The key lesson is that it's not about the number of people you have, but how effectively you use the resources available.

🗣️ What advice would you give to young professionals looking to build a long-term career in this industry?

My biggest advice is to never stop learning. Stay curious and be open to new ideas, tools, and approaches. Whether it's getting new certifications, attending seminars, or keeping up with trends, it's important to build a knowledge base that can adapt to changes. You don't need to know everything from the start, but the more you learn, the more valuable you'll become. A career in shipping requires HARD WORK & PATIENCE. Over the past 14 years, I've learned that it's a journey that needs steady and consistent effort. Stay committed to your goals, work diligently, and don't expect quick results. Over time, small efforts add up, leading to personal growth and career advancement. Focus on developing your skills and take pride in your progress.

🗣️ Over the past 10 years, how has the marine industry evolved in terms of safety, environmental regulations, and technology?

Over the past decade, safety in the marine industry has greatly improved. Training programs, especially with simulators and virtual reality, have increased, allowing crew members to safely practice real-world scenarios. Safety management systems (SMS) are now more standardized, and stricter regulations from the IMO have reduced accidents and fatalities. The industry will also aim to attract younger talent and promote diversity, bringing fresh perspectives and innovative ideas to keep progressing.

FUN FACTS!



Shipping's Carbon Footprint is Growing

Despite decarbonization efforts, the industry's greenhouse gas emissions have increased by 20%, now making up 3% of global emissions. The push for greener fuels has never been more urgent!

Racing Against the Tide

The First All-Women Crew to Conquer the Open Ocean

Told they "couldn't do it," Tracy Edwards & her all-female crew entered the 1989 Whitbread Round the World Race—and finished second in their class! Proof that barriers are meant to be broken.

NEWS & INSIGHTS

Latest News

The Growth of Vessel Electrification

The maritime industry is moving towards electrification at an unprecedented pace. With battery-powered vessels on the rise and shaft generators becoming a standard feature in deep-sea vessels, shipowners are increasingly considering retrofitting existing fleets to integrate these advancements. Experts predict that 2025 will see the biggest surge in electric propulsion adoption, as the industry pushes for greater sustainability, fuel efficiency, and reduced emissions.

Marine Market Set for Growth

The global marine vessels market is expected to grow from USD 111.10 billion in 2024 to USD 133.63 billion by 2030, at a CAGR of 3.1%. This expansion is fueled by rising global trade, naval modernization, and increasing demand in passenger and tourism sectors. As the industry faces new challenges in 2025, data-driven insights and technological advancements will be key to navigating the evolving landscape.

Alternative Fuels Gaining Momentum

Global marine fuel suppliers are expanding operations across key Middle Eastern ports, with companies like Peninsula increasing their supply of LNG and biofuels. New initiatives in Abu Dhabi, Jebel Ali, and Fujairah reflect the industry's commitment to reducing emissions and adopting sustainable fuel alternatives. Meanwhile, the EU is backing alternative fuel infrastructure projects with €422M, further accelerating the transition to cleaner maritime energy.

Blogs



The Green Energy Transition: A Path to Net Zero by 2050

The maritime sector is making significant strides toward sustainability, with a strong focus on alternative fuels, energy-efficient technologies, and emissions reduction. This blog explores how the industry is aligning with global climate goals to achieve net-zero emissions by 2050.



Decarbonization in Maritime: Controlling Greenhouse Gas Emissions

Reducing carbon footprints and enhancing energy efficiency are now top priorities for maritime trade. From IMO regulations to breakthrough fuel alternatives, this blog delves into the evolving strategies for decarbonizing shipping and meeting sustainability targets.

Scan to read more





NAUTILUS AT BREAKBULK MIDDLE EAST 2024

Breakbulk Middle East is the premier event for project cargo, Breakbulk, and logistics professionals, bringing together EPCs, energy companies, freight forwarders, ports, and carriers from over 125 countries. It serves as a critical networking hub, fostering discussions on emerging trends, industry challenges, and strategic growth.

On Feb 10-11 2024, Nautilus engaged in insightful discussions with industry leaders, partners, and stakeholders about the future of maritime logistics. Topics ranged from optimizing supply chain efficiency to leveraging sustainable shipping solutions.

Key Takeaways

Collaboration is the key:

Strengthening industry partnerships is crucial for navigating evolving maritime challenges.

Sustainability is a priority:

Green logistics and alternative fuels are shaping the future of breakbulk shipping.

Innovation in logistics:

The industry is embracing digitization and automation to streamline operations.

SOFT SKILLS WORKSHOP AT NAUTILUS CHENNAI



Nautilus hosted a Soft Skills Workshop in our Chennai office, focusing on communication, assertiveness, corporate etiquette, and teamwork.

Key Takeaways

Strengthening client & inter-team communication

Understanding corporate etiquette & ISO basics

Building confidence & teamwork through interactive sessions

A great session fostering professional growth!

The best accounting is like poetry—precise, impactful and timeless
Vanisree



Champions keep playing until they get it right
Revathy



Leading with heart, driven by purpose
Supriya



Embrace strength, Navigate challenges, and Steer your own course
Vishali




Success is a journey, not a destination. The doing is usually more important than the outcome. Not everyone can be number ONE
Selin



The ability to apply lipstick and negotiate a multi million dollar deal simultaneously is a core skill for many working women
Priya

A great leader accepts slightly more blame than they deserve and slightly less credit than they deserve
Swathi





*Anchored in efficiency
– Brewing solutions,
docking deals!*

Esa

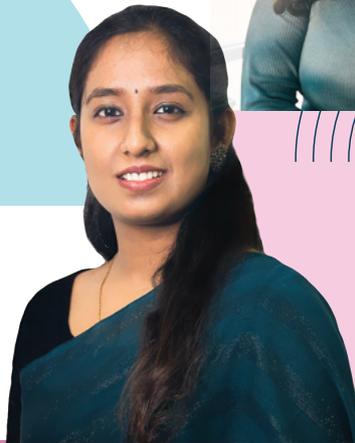


*I'd like the
world to slow
down and eat
cake together*

Architha

*Life Is Like Accounting
Everything Must Be
Balanced*

Akila



*Life is a party' and I
am here to dance*

Deepika



*Steeped in
success –
Sipping tea,
Closing deals!*

Sabitha



*I handle
chaos with
grace and a
touch of
caffeine*

Ashwini



*Moving forward
with resilience and
hardwork*

Pornima



*Strength, Grace,
and Grit*

Pradeepa

WOMEN AT THE HELM:

Navigating Change in Maritime

The maritime industry is undergoing a transformation, with women playing an increasingly vital role in its growth. Today, women make up just 2% of the world’s seafarers, equating to approximately 24,000 women seafarers out of a total global workforce of 1.89 million. However, the sector has seen a significant 45% increase in female maritime graduates over the past decade ([World Maritime University, 2024](#)), further highlighting the waves of sustainable growth.

In India too, the waves of change are evident. The Directorate General of Shipping recorded a 514% increase in the number of registered Indian women seafarers between 2015- 2023. However, steps toward inclusivity and accessibility are still necessary to ensure that women have the support needed to break through the barriers they face. Without increased diversity in the next 10 years, the pace of innovation in the maritime industry will be slow.



During World War II, when men left for the battlefields, women stepped into maritime roles. By 1943, at the height of the shipbuilding boom, nearly 65% of shipbuilding workers on the West Coast were women. By the late 20th century, women began securing leadership roles, with the first licensed female captains and officers paving the way for broader inclusion in shipping. In 1974, the United States Merchant Marine Academy admitted its first group of women. Among them, Captain Wagner became the first woman to earn an Unlimited Master’s License, allowing her to captain any vessel anywhere in the world.

Women in Maritime History: Unsung Pioneers

The maritime sector has historically been a male-dominated industry. Seagoing careers were closed to women during the sailing ship era, and those who sought to join often had to disguise themselves as men. If discovered, their careers would end immediately. Before 1900, the only way most women could participate in running a merchant vessel was if they were a captain’s wife or daughter, learning to sail and stepping in as needed during emergencies.

She is just one of many women who have made history in the maritime industry.

Women in Today’s Maritime Industry

Today, women are making significant strides in the maritime sector, occupying roles in leadership, engineering, and port management. They are seafarers, engineers, captains, regulators, and industry overseers, shaping the maritime industry’s sustainable future.

WOMEN LEADING THE INDUSTRY

A key advocate for gender inclusivity in maritime policy.

Ambassador Nancy Karigithu



Managing Director of Kamarajar Port, modernizing operations in India.

J.P. Irene Cynthia



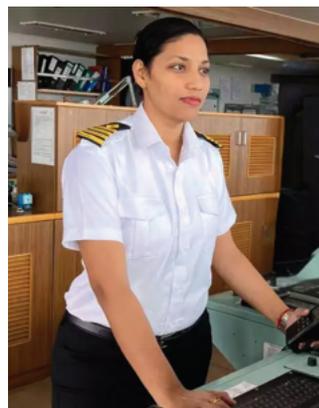
First American woman to captain a mega-cruise ship.

Captain Kate McCue



First woman to be promoted to Master at Fleet Management.

Captain Deepti Singh



India's first woman marine pilot, breaking barriers since 2011.

Reshma Nilofer Visalakshi



Vice Chancellor of Indian Maritime University, shaping maritime education and policy.

Malini V. Shankar



First woman Chairperson & MD of the Shipping Corporation of India.

H. Kaur Joshi



First woman globally to head a shipowners' association, awarded the Padma Vibhushan in 1971.

Sumati Morarjee

Despite these advancements, **workplace bias, limited career progression, and work-life balance challenges** remain obstacles to greater inclusion. ✕



Challenges Faced by Women in Maritime

Women in maritime continue to face significant hurdles at various career stages.

Key Challenges



Systemic Bias – Hiring practices and job advertisements often favor male candidates. Even academically successful women face difficulty securing employment, and some maritime institutions do not admit women at all, perpetuating underrepresentation. In a recent survey, 27.1% of women seafarers identified limited job opportunities as their biggest challenge.



Workplace Discrimination – Gender bias impacts career progression and leadership opportunities. More than one in five women report gender discrimination as a major obstacle to securing shore-based roles. The 2024 INTERTANKO Seafarers Survey revealed that while 54% of women saw opportunities for advancement, 46% reported finding ‘few’ or ‘none’, compared to 70% of men who believed such opportunities existed.



Career Transition Difficulties – Women seafarers face higher rejection rates when applying for shore-based jobs. The survey showed that 50% of men reported experiencing no rejections, compared to just 12% of women.



Lack of Adequate Maternity Benefits – Many companies fail to provide necessary support, discouraging female retention in the industry.

Policies & Industry Support for Women

Governments and organizations are actively working to promote gender inclusivity in maritime. Notable initiatives include:

IMO’s Women in Maritime Programme

Focused on training, visibility, and recognition for women in the industry.

Sagar Mein Samman Initiative (India, 2023)

Creating a safer working environment for female seafarers.

ILO Gender Sensitization Programs

Providing training to cadets to foster inclusive workplaces.

Various initiatives are working to reshape gender inclusion through **mentorship, leadership programs, policy support** and opportunities **for young women to explore maritime careers.**



The Future of Women in Maritime

With advancements in **AI, automation, and sustainability**, new opportunities for women are emerging in the maritime sector.

Key Future Trends:



AI and Automation

Making technical roles more accessible for women.



Sustainable Shipping

Creating new jobs in environmental regulation and maritime innovation.



STEM and Maritime Education

Encouraging young women to join through scholarships and mentorship.

A shift toward gender diversity is not just about equality but also about economic progress. Companies with diverse leadership teams perform better, and inclusivity leads to better decision-making and innovation in the industry. The future of maritime depends on embracing diversity, inclusivity, and equal opportunities. By challenging stereotypes and implementing progressive policies, the industry can fully utilize the skills and talent of women.



MARITIME LEADER INSIGHTS

Sridhar
Director-UAE

Embracing AI in Shipping – The Decade Ahead ...

As the world around us evolves at an ever-accelerating pace, we at Nautilus have always understood that change is inevitable. But instead of seeing change as something to fear, we see it as an opportunity – an opportunity to grow, to innovate, and to create new ways of doing things better than ever before. Artificial Intelligence (AI) has been the most disruptive technological innovation of the 21st century and has already begun reshaping industries from finance to healthcare. Shipping, being no exception, is the one sector that is poised for dramatic digital transformation in the coming years.

At the first glance, AI might sound like a buzzword, something reserved for futuristic visions. But in reality, AI is already making tangible differences in the way the industry operates. AI promises to streamline operations, improve efficiency and enhance safety. From freight management to vessel operations, AI is creating new opportunities for improvement and cost-saving measures.

AI is set to streamline operations in the shipping industry in transformative ways. By analyzing vast datasets including weather patterns, port conditions, ocean currents and traffic AI is able to identify more efficient routes for vessels.

By optimizing routing, AI reduces fuel consumption, minimizing delays and lowers

operations costs. These algorithms can adjust to dynamic conditions, such as port congestion, unexpected delays, ensuring that vessels follow the quickest and safest paths.



It is not the strongest, nor the most intelligent of species that survives, but the one that is most adaptable to change

– Charles Darwin

AI can help monitor the health of ships and machinery through sensors and data analytics. By analyzing operational data, AI can predict when a

part or system is likely to fail, allowing shipping companies to perform maintenance before a breakdown occurs. This would prevent costly downtime, reduce repair costs and extend the lifetime of vessels. AI is also streamlining operations by automating cargo handling, sorting and loading-unloading at ports reducing time and ensuring faster cargo movement.

Another area where AI is revolutionizing the shipping industry is by enhanced real-time tracking and international customs compliance, two key areas that significantly improve transparency and trust. Using AI shipping companies can offer real-time visibility into their shipments, providing updates on location, potential delays and estimated delivery times. By this proactive communication, AI helps reduce uncertainty.

Additionally, AI can play a crucial role in streamlining customs compliance. Shipping companies must navigate complex regulations and paperwork to ensure shipments are processed without delay at ports of entry.

AI can help automate the documentation process, ensuring that all customs requirements are met and reducing the risk of human error. By leveraging AI, shipping companies can avoid paying costly penalties and prevent shipping delays, increasing reliability and improving trust.

Finally, AI helps make shipping a safe industry. Using vast amount of data, AI can help predict potential risks before they occur. AI can foresee dangerous weather conditions or the likelihood of mechanical failure, allowing crews to take preventative action. By forecasting risks like storms, piracy or mechanical issues, AI enables shipping companies make data-driven decisions that can prevent accidents or minimize impact.

AI is also key in the development of autonomous ships, which use advanced sensors and machine learning algorithms to navigate the seas with minimal human intervention. These AI-powered systems are capable of detecting obstacles, avoiding collisions and adjusting course in response to environmental changes like fog, icebergs or other vessels in the vicinity.

“Artificial intelligence is not a substitute for human intelligence; it is a tool to amplify human creativity and ingenuity.”- Fei-Fei Li

In conclusion, AI is a transformative force for the shipping industry, offering groundbreaking solutions that streamline operations, increase trust and enhance safety. As we embrace these innovations, we want to commit to help build a smooth, safe, transparent and reliable future for the shipping industry.

FUN FACTS!



Sagar Mein Samman: Respect at Sea

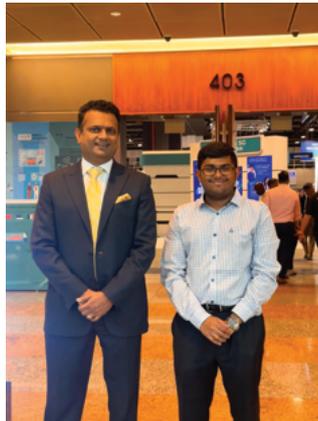
Empowering women seafarers for a stronger maritime future!

Did you know? The Sagar Mein Samman initiative is shaping a safer, more inclusive maritime world for women seafarers. Launched at GIMS 2023, it promotes gender equity & workplace safety at sea.

NARAYAN RAJAN AT THE TRADEWINDS TV STUDIO

How distrust between shipowners and managers is harming the industry

At the TradeWinds TV Studio, Narayan Rajan (Co-Founder and Managing Director) shared how Nautilus is redefining ship management by focusing on trust, transparency, and sustainability. He addressed key challenges, including bridging the gap between owners and managers and steering the industry toward greener operations.



SINGAPORE MARITIME WEEK 2025



Nautilus Shipping joined global maritime leaders at Singapore Maritime Week 2025, engaging in vital conversations around resilience, sustainability, and the future of ship management.



AT THE SHIPOWNERS FORUM

Sponsored by Nautilus Shipping

As a sponsor of the Shipowners Forum, Managing Directors Mr Narayan Rajan and Mr Manikandan joined discussions on regulation, resilience, and decarbonisation—highlighting our commitment to responsible innovation and long-term value creation.



From panel discussions to EXPO@SMW, the week offered powerful insights and meaningful connections. Nautilus is proud to be part of shaping what's next in maritime.

STORIES FROM THE SEA

Technical Story



Navigating the Suez Canal: A Test of Preparation and Precision

F Ravat
Technical Superintendent

The Suez Canal is one of the most crucial maritime routes in the world, connecting the Mediterranean and Red Seas, facilitating the movement of global trade. For two cargo vessels set to make the passage, careful planning and execution were critical. With a highly skilled crew and extensive pre-transit preparations, the journey through the canal was an exercise in coordination, risk management, and problem-solving.

Before the transit, we carried out extensive planning to ensure smooth passage through the Suez Canal. This included verifying the vessel's compliance with the Suez Canal Authority (SCA) requirements, such as draft restrictions, hull conditions, and navigational equipment functionality. We also conducted detailed route planning, ensuring that our voyage plan aligned with the canal's convoy system and scheduling.

Crew preparedness was a top priority. We held pre-transit briefings covering safety procedures, communication protocols, and emergency response plans. Coordination between bridge teams and engine room staff was strengthened to ensure operational readiness. Additionally, we ensured that all required documentation and permits were in place to avoid unnecessary delays.

Managing Risks: Addressing Challenges on the Go

The primary operational risks included congestion within the canal, potential mechanical failures, and environmental factors such as strong currents or poor visibility. To mitigate these risks:

- 🔧 **Mechanical reliability:** We conducted thorough pre-transit maintenance checks, focusing on propulsion systems, steering gear, and generators. Standby equipment was tested to ensure operational redundancy.
- 🚢 **Navigation safety:** The bridge team was briefed on maneuvering procedures, and contingency plans were in place in case of emergency anchoring or delays.
- 🌤️ **Environmental factors:** Weather forecasts were closely monitored, and transit timing was adjusted if necessary to avoid adverse conditions.

Unforeseen Challenges: A Test of Swift Decision-Making

While the transit was largely smooth, we encountered a temporary traffic congestion due to a vessel ahead experiencing technical difficulties. This required a slowdown in speed

and close coordination with the SCA to adjust our position in the convoy.

Additionally, one vessel experienced minor steering fluctuations, which we quickly diagnosed as an issue with the hydraulic system. The engineering team acted swiftly, implementing corrective measures without delaying the transit. Our proactive approach and well-trained crew ensured minimal impact on the schedule.

Lessons from the Passage: The Importance of Proactive Risk Management

My journey in the marine industry has been both challenging and rewarding.

Over the years, I’ve had the opportunity to work in various roles, from shipboard operations to shore-based technical management. Each role has given me valuable insights into vessel operations, regulatory compliance, and crew management.

The industry has evolved significantly, with advancements in technology and stricter environmental regulations shaping the way we operate. It has been fulfilling to contribute to safer and more efficient shipping practices while continuously learning and adapting to new challenges.

Seafarer Story



Guru Prasath
Chief Officer

Q: How many years have you been a seafarer?

A: Since March 2013. I joined my first vessel then as a Trainee. Later, I became a Junior Officer and eventually an Officer.

Q: That’s great! So, in just three years, you became a Third Officer. Is this typical, or does it usually take longer?

A: It depends. For some, it can take around three years, but the contract duration plays a role. For example, if you’re on a nine or ten-month

contract, it may extend your training period. In my case, I had shorter contracts — around seven months — which helped me reach Third Officer faster.

Q: So overall, how many years have you been in the shipping industry?

A: About 12 years in total .

Q: What inspired you to become a seafarer?

A: During my school days, I was inclined towards joining a challenging field like the Army, Navy, or Air Force. I attempted to get into the NDA but couldn’t clear it. Later, a counselor suggested the merchant navy as a good alternative, and that’s how I pursued this career.

Q: How has your experience been so far? Any memorable challenges or achievements?

A: One memorable experience was when I had to stay awake for over 48 hours. Never imagined we could stay up for that long with intense work. Managing that situation successfully made me feel accomplished.

Q: Could you describe a specific challenging incident and how you managed it?

A: On 31 Jan 2025, we were berthed in an Indian port to carry out discharging operations.

The full day we were engaged in bringing the ship safely into the dock, carrying out mooring and cargo operations and dealing with cargo delays. This stretched our working hours beyond late evening. Many of our colleagues signed off the same day while we continued working till midnight. Around midnight, I instructed the night watch officer and crew, called my family to wish my son on his first birthday and tried to grab some sleep.

At around 2 am, my duty officer called me saying that they had seen some smoke in the cargo pumps. I immediately instructed him to stop the pump and dressed up to quickly inspect the situation to make sure there was no accidental release of highly toxic vapour that to affect 26 lives onboard.

On close inspection we found that the cargo pump bearing was worn out, and because of timely action a major accident was prevented. To make matters worse, it started raining heavily with thunderstorms, delaying the work being carried out.

People were drenching in rain, pulling up their sleeves, giving their maximum effort to quickly complete the repair work with no proper sleep while parallelly another team were carrying out cargo operations efficiently. About 6 am in the morning, after everything was set right with the machinery, we all were looking at the horizon. It was a very beautiful sunrise and it melted our problems away, leaving satisfaction at completing the job and happy smiles on our faces. We were prepared to take on ourselves any other challenge we faced.

Q: You mentioned some mentors who inspired you. Could you share about one of them?

A: Yes, one of my mentors is Capt. Abhijeet

Kumbhedakr from Mumbai. He always thinks what is right, he acts on it. One question he always asked me is, am I doing it right or not?

Q: How do you see the future of seafaring with AI becoming more prominent?

A: While AI is advancing, there will still be a strong need for human involvement. In my opinion, labour work is required at least for the next 10 years. The shipping industry may adopt automation, but human oversight and decision-making will remain essential for years to come. First companies need to identify the exact problem where seafarers can be replaced by AI. The companies need to ensure that if the AI is useful and impactful. Only then it needs to be implemented which will lead to the replacement of the seafarers. This first step towards the automation initiatives needs to be from the companies.

Q: Finally, what advice would you give to aspiring seafarers?

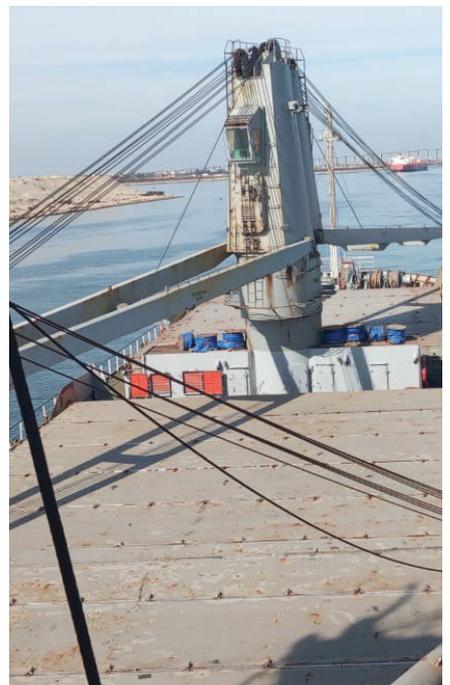
- 🎧 Keep trying, no matter how many times you fail
- 🎧 Scale up your skills
- 🎧 Keep pushing and think positive - something will definitely turn
- 🎧 The industry works on demand and supply



FUN FACTS!

Where Are the Seafarers?

The maritime industry is struggling with crew shortages! In 2021 alone, there was a gap of over 26,000 officers, and the demand for skilled seafarers continues to rise.



Operations Story



Akash
Operations Executive

Q. You’ve been handling crewing operations. How has your journey in the marine industry been so far?

My journey in the marine industry has been both challenging and fulfilling since July 2021. Handling crewing operations has given me the opportunity to work closely with seafarers, coordinate crew changes, and manage compliance with international regulations. I’ve developed strong problem-solving skills, especially when dealing with last-minute changes, visa challenges, and crew mentality.

The dynamic nature of the industry keeps me engaged, as every day presents new situations that require quick thinking and adaptability. I also enjoy the human aspect, ensuring the well-being of crew members and maintaining smooth operations. Overall, it’s been a great learning experience that has helped me grow both professionally and personally. By the way, the current industry has helped me to develop my personal characteristics, which is very useful for my life and ultimately increases personal development.

Q. Can you share a major incident or challenging experience that stands out in your career? How did you handle it, and what did you learn from it?

I would be glad to share 2 of my experiences that I feel were major challenges in my career:

Incident 1 :

In 2022, one of our clients planned to take over more than 10 oil tanker vessels in a very short timeframe. As the only operations personnel, I was responsible for verifying crew documents, issuing contracts, and managing flag applications for approximately 22–25 new crew members per vessel. I successfully handled these tasks, resulting in the takeover of 12 vessels within three months. This experience provided valuable insights into the planning process for vessel takeovers and managing last-minute challenges, which ultimately helped me develop standard operating procedures.

Incident 2:

Recently, we had a ship calling at the port of Mauritius, where the port agent typically does not work on weekends to arrange visas. In an emergency crew sign-off situation, the agent initially declared that a crew change was not possible, which also led to pressure from the client. We initially planned to cancel the crew change, but given the urgency, I sought assistance from a different agent in Mauritius. I then discovered that crew members could arrive in Mauritius without a visa if they traveled on Mauritius Airlines. This crucial information enabled me to successfully carry out the crew change over the weekend.

A similar situation recently occurred in Italy, where a visa was required. After gathering information from a local agent, I was able to complete the crew change in a short time using a transit visa.

Q. How do you see the marine industry evolving in terms of crewing operations, seafarer mobility, and travel logistics?

Crewing operations:

Crew operations have significantly improved in recent years, thanks to the DG's efforts to streamline processes for the benefit of seafarers. Much of the paperwork has been reduced, leading

to the digitization of crew certificates, which speeds up crew changes. However, there are still areas like flag documents and STCW certificates that could be further digitalized for greater efficiency. Shipping companies are adopting integrated software solutions to manage recruitment, scheduling, and certification, which reduces administrative delays. As vessel technology evolves, ongoing training both onshore and at sea ensures that crews remain competent and comfortable using new systems.

Seafarer mobility and travel logistics:

Over the last five years, seafarer travel has become more efficient and streamlined, with fewer major travel-related issues. However, luggage collection at the final airport can still pose challenges, often due to airline negligence. In today’s connected world, the ability to track seafarers during transit and offer assistance when needed is essential. Furthermore, globalization has made it easier for seafarers to obtain visas in many countries, thanks to options like online visa applications.

Q. What trends do you think will shape the future of crewing operations in the next decade?

Digitization – Software solutions for recruitment, scheduling, and certification will become more widespread, while digital documentation and e-certificates will help reduce administrative tasks.

Real-Time Crew Tracking – Standardized tools for monitoring crew movements will allow for quicker responses to any issues that arise.

Strict Compliance and Verification – Authorities should continue refining guidelines, pushing companies to adopt strict auditing processes and maintain comprehensive documentation.

Enhanced Mental Health Support – More focus will be placed on seafarer well-being, including counselling services and better onboard facilities.

Ongoing Skill Development – As vessels evolve technologically, continuous training onshore and at sea will be vital to ensure crew proficiency.

Improved Connectivity at Sea – Better onboard internet access will increase communication, enable remote diagnostics, and support virtual training sessions. It also reduces the seafarer’s worries and helps them to contact their families at any time they require.

Q. What advice would you give to someone just starting their career in the marine industry, especially in operations?

Stay Updated – Keep learning about new regulations, technologies, and best practices in the evolving marine industry.

Know the Standards – Understand STCW, ISM, and RPSL requirements for compliance and error-free documentation.

Communicate Boldly – Be confident when dealing with clients, crew, port authorities, and senior management.

Expand Your Network – Connect globally to gain marine insights and implement innovation.

Be Clear & Proactive – Raise concerns early to prevent small issues from escalating.

Focus on Details – Small mistakes can have big consequences—stay meticulous.

Plan & Adapt – Gain experience by understanding geographical conditions.

Prioritize Well-being – Manage long hours by maintaining mental and physical health.

Embrace Technology – Combine regulatory knowledge, communication, and innovation for success.

Crewing Story



Swathi
Marine Personnel Executive

Navigating the World of Crewing: Insights from a Maritime Professional

For me, the past two years in the crewing team have been incredibly rewarding. Here, I'm developing the most valuable skills like communication, sourcing and so on.

Among the most valuable lessons learned, three stand out:

-  The importance of attention to detail
-  Effective communication
-  Building Rapport with seafarers

Crewing comes with its own set of challenges, often demanding quick thinking and problem-solving under pressure. This includes meeting tight deadlines and addressing the evolving needs of seafarers.

A major incident that stands out in my career was my contribution in takeovers and major crew changes. This was when I learned the importance of remaining calm under pressure.

The Future of Crewing: Evolving with the Industry

The marine industry is evolving to prioritize seafarer well-being and sustainability, so I expect to see increased investment in technology that supports seafarer development and retention in the upcoming years.

In the next decade, I anticipate that crewing will be shaped by trends such as automation, artificial intelligence, and the growing importance of soft skills like leadership and communication. These trends will require crewing professionals to adapt and develop new skills to remain relevant and effective.

My advice to someone starting their career in crewing is to be proactive, curious, and open to learning and to be adaptive in every situation.



Nautilus Wishes You

Happy Birthday



February & March

MASTER		3RD OFFICER	
Pradhan	05-02-1984	Menachem	09-02-1978
CHIEF OFFICER		3RD ENGINEER	
Karanbeer	14-02-1984	Manimaran	17-02-1988
Rajnikant	28-02-1986	Suganthan	28-02-1998
Sandeep Kumar Singh	24-02-1987	NCV NWKO	
Vivek Kumar	01-02-1994	Fredy	18-02-1976

4TH ENGINEER	
Abhishek	10-02-1988
Shrudeep	21-02-1993

AB	
Karthick	05-02-1990
Kent Lim Vallejo	23-02-1993
Imran	01-02-1999
Chandan	09-02-2001
Pratham	01-02-2002

ELECTRO TECHNICAL OFFICER	
Vignesh	15-02-1993

BOSUN	
Merab	27-02-1966

COOK	
Jayanta	12-02-1985
Arif	04-02-1991
Chiranjit	11-02-1995
Rahul	02-02-2003

FITTER	
Galsim	02-02-1973
Gia	20-02-1995
Bindalal	15-02-2002

NCV CHIEF OFFICER	
Raushan	25-02-1986
Naveen Dinka	05-02-1987

NCV CHIEF ENGINEER	
Kali Charan	16-02-1972

WIPER	
Raghaw Ranjan	25-02-1996
Jeswin	08-02-2004

MTM/OILER	
Afzal Ali	02-02-1969
Irakli	05-02-1983
Parbhubhai Krushnabhai	16-02-1987
Mamuka	18-02-1989
Mohammad Akhtar	25-02-1997
Suwendu	19-02-1999
Ashish	12-02-2002

OS	
Arjun	14-02-1997
Didmanidze	17-02-1999
Sannidhbhai Maheshbha	24-02-2001
Abiyuthinfant	19-02-2006

PUMPMAN	
Roman	14-02-1975
Rama Rao	17-02-1976

NCV 2ND ENGINEER	
Subramaniyan	21-02-1999

NAVIGATION HANDLER	
Satyam	10-02-1998
Prabhat	16-02-2000

MASTER	
Susil	05-03-1967

CHIEF OFFICER	
Jojomon Kollasseril	31-03-1973
Danish	25-03-1991

2ND OFFICER	
Gopi	10-03-1973
Sijo	22-03-1993

CHIEF ENGINEER	
Balagopalan	05-03-1976

JUNIOR ENGINEER

Sithin Kkrishnan	15-03-1996
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AB

Tornike	01-03-1992
Manu Christus	23-03-1992
Stepin	29-03-2001

ELECTRICAL OFFICER

Swaroop	15-03-1963
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BOSUN

Syed Kausar	10-03-1965
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COOK

Rahul	11-03-2000
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NCV MASTER

Vikas	15-03-1981
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NCV CHIEF OFFICER

Shahid Iqbal	29-03-1975
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NCV 2ND ENGINEER

Danasagaran	04-03-1971
Indrajit	06-03-1990
Selvendiran	03-03-1996
Kavin Raj	01-03-1996

NAVIGATION HANDLER

Bishok	14-03-1990
Bharat Lal Yadav	15-03-1992

MSM/GS

Ramin	10-03-1993
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NCV CHIEF ENGINEER

Muparathil Rajish	23-03-1978
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FITTER

Kumar	04-03-1961
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OS

Sufiyan	08-03-1998
Yagesh	01-03-1991
Jiarul	01-03-2000
Anshu Kumar	02-03-2001
Rayan Rashid	28-03-2001
Monu	15-03-2001

PUMPMAN

Jambulat	29-03-1977
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MTM/OILER

Ruslan	19-03-1995
Logeshvaran	22-03-1996
Suraj	06-03-1999
Munjur	05-03-2001

NAUTILUS ONSHORE

Priyadarshini R	14-02-1986
Architha	20-03-1998



Happy Work Anniversary!



Vinodh
18-02-2011



Divakar
18-03-2024



Supriya
25-03-2024



Manoj
29-03-2022



UNTIL NEXT
MONTH
KEEP SAILING
FORWARD

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