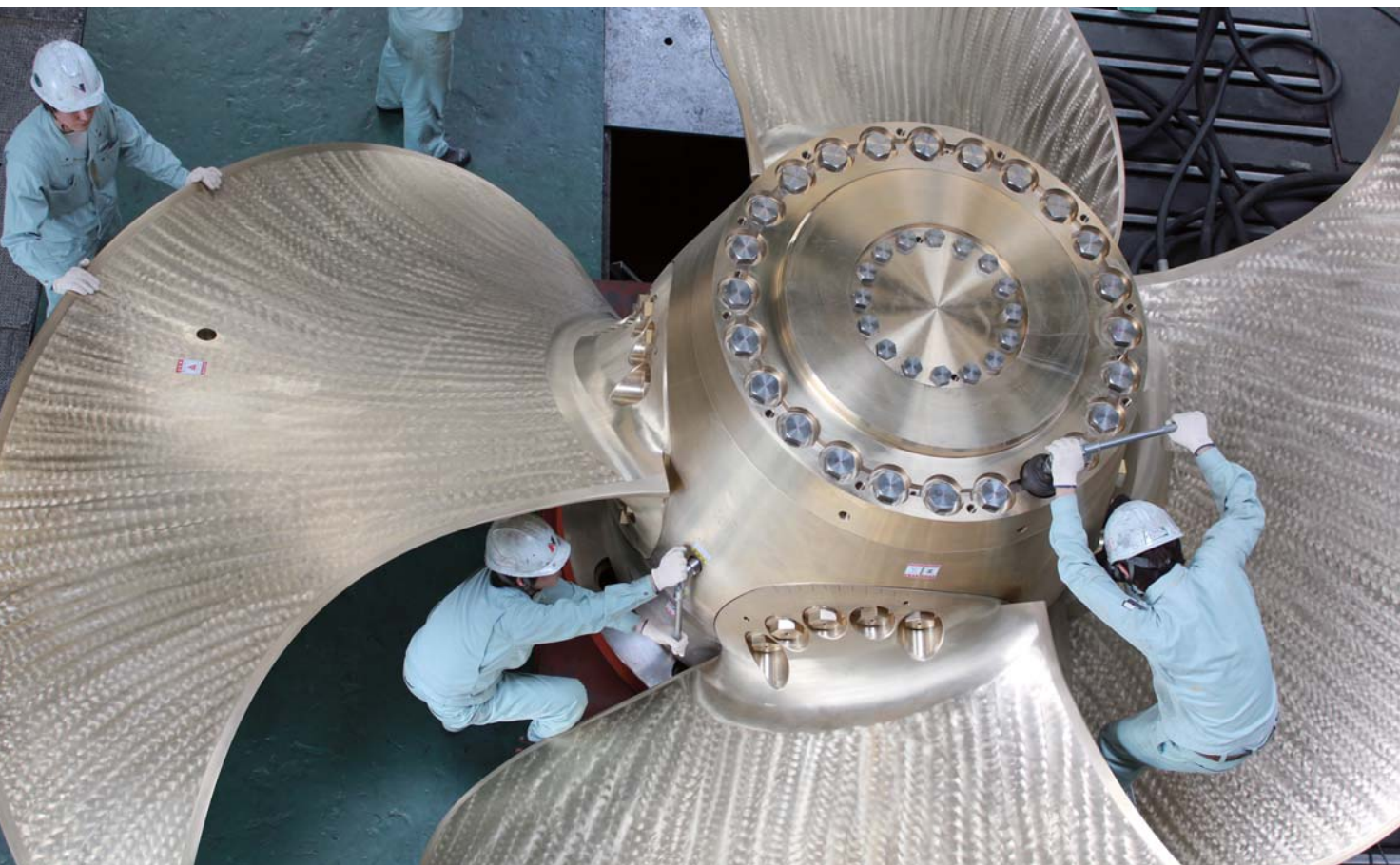


# Propelling

Issue 8



## Nakashima People Vol. 8

Junko Ohkouchi    General Manager, Quality Control Department, Nakashima Propeller

Propelling, a newsletter from Okayama, Japan, spotlights the hidden allure of propellers and aims to steer the world's ships, and their world, one step into the future

At a time when the shipbuilding industry in Japan was dominated by men, Nakashima Propeller set out to empower women. It hired Junko Ohkouchi as one of its first female employees in a non-clerical, high responsibility position.

Junko has risen to the challenge, helping make diversity one of Nakashima's strengths and paving the way to the future for herself and the company. In the interview that follows, she discusses the work that goes into delivering Nakashima quality to the world.

**Q. What has been your experience leading the path for diversity at Nakashima?**

The company took an experimental approach to my career path. I initially wanted to work in overseas sales, but was instead given the task of translating catalogues from overseas manufacturers. Looking back, the knowledge I gained through this

immersion (at a time when there was no internet) ultimately became a huge asset for my future career in sales.

Once I finally began working in sales, I noticed that I had very few female peers, even in other countries. In that sense I think I was something of a pioneer for the whole industry. Being given the autonomy to create the future while transforming difference into strength really helped me advance. Today, the experience enables me to deal with wide-ranging challenges and to develop new standards and systems.

**Q. What does 'quality control' look like at Nakashima Propeller?**

Put simply, it is dynamic. We are having to think and act across divisions that separate departments, cultures, the tangible and the intangible, people and machines, technology and nature, and so on.

*“As an industry-leading company, Nakashima has a unique role in helping set global benchmarks”*

**Junko Ohkouchi**



All Nakashima’s propellers combine cutting-edge design and manufacturing capabilities with delicate manual craftsmanship, and are built to order, meaning each product has unique specifications. Since Nakashima’s proposition is to optimise a ship’s propulsion performance throughout the propeller’s 20-to-30-year lifecycle, we have to manage not only the quality of individual units but of our entire service. This includes everything from preliminary proposals for usage to post-delivery maintenance and after-sales service.

Another important aspect of quality control is to build and support a system that ensures Nakashima quality is maintained in all overseas operations while catering to a range of differences in each locality.

Also, as we face growing environmental and resource pressures, strategy demands that we look beyond our current way of working to anticipate future constraints and adjust our standards accordingly. It’s not just important to do this for ourselves; as an industry-leading company, Nakashima has a unique role in helping set global benchmarks.

**Q. What makes it possible to create such standards?**

I see introspection as being one way. We have a duty to pass the wisdom we have accumulated over the past century to future generations.

For example, I have a notebook handed down to me from my predecessors in which they detailed the causes and solutions to problems they encountered. Quite often, this offers hints

as to how to resolve issues that we think are completely new. Above all, I am moved and inspired by the scenes conveyed by my predecessors’ handwriting on the discoloured pages. It’s easy to digitise textual information, but most important to me and to Nakashima is to pass on its essential wisdom, including emotional intelligence sharpened by facing unprecedented challenges in a pre-IT era.

As our agendas involve ever more complex issues, it is also crucial that we expand partnerships that bring together various expertise. Increasingly diverse products and corporate cultures mean Nakashima must continue to draw on its capacity to harmonise and use diversity to support the development of innovative, state-of-the-art services.

In the end, this will add new layers to the work of quality control, with its responsibilities becoming heavier. I am determined to play an integral part in this process. My hope is to expand the possibilities of Nakashima and our industry while helping to build a better relationship between people and the sea. ■

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## Nakashima’s Aesthetics

### *Pursuing excellence holistically*

Nakashima Propeller cultivates world-class quality by combining advanced technologies and traditional craftsmanship. This reflects our commitment to striking the optimum balance of maritime propulsion systems between performance, sustainability and the environment.

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## INTROSPECTION — JAPANESE INNOVATION

## Inventing a Sustainable New Normal –Part 1

'New normal' has become a common term over the years to describe the impact of socioeconomic upheavals. These have included the IT bubble and global financial crisis, international terrorism, and the current COVID-19 pandemic. This two-part article explores the limitations of today's new normal and how humankind can identify and capitalise on opportunities by tackling underlying challenges.

### Avoiding Catastrophe

By the end of June this year, COVID-19 had brought about a death toll of more than 500,000 people. In an updated assessment in May, the Asia Development Bank estimated that the economic impact of the pandemic could reach almost 10% of global GDP under a six-month containment scenario. Among the unexpected outcomes of the pandemic thus far have been oil futures contract prices going negative at one point amid plunging demand, and air pollution declining markedly in many regions owing to reduced carbon and nitrogen oxide emissions.

Thus far, the new normal for many people has entailed complying with socioeconomic activity constraints to contain the pandemic, notably quasi or complete lockdowns, social distancing, and teleworking. There could be significant upsides for the environment and human health from more localised infrastructure, manufacturing, and services. A socioeconomic revitalisation under the new normal could drive the dismantling of global supply chains that capitalism has conventionally employed to move goods and fuel consumerism.

There is of course the risk that humanity could revert to past practices after the crisis passes, learning nothing and consuming more of everything. On top of that, the human-centric thought that underpins modern civilisation limits people's willingness to live in a way that would avert environmental crises, and to invest in localised infrastructure that would foster self-reliant communities.

### Seeing the Invisible Hand in a Different Light

Many speak about living with COVID-19, although they are essentially saying they will put up with the virus until they can vanquish it. In other words, they put people centre stage. For viruses, however, we are merely part of a range of natural hosts in creating the world's rich tapestry of life. A little gratitude to viruses seems overdue. We owe quite a lot of our DNA to viruses that inserted themselves into our genomes millions of years ago.

We should also keep in mind that viruses have flourished for an impressive 3 billion years on Earth. Modern humans date to just 200,000 years ago. Our odds of defeating viruses are minuscule.

Yet we choose to keep tilting at windmills. A good example is the development of eco-goods, which are increasingly popular. Shouldn't we consume less things rather than more? Even the United Nations' Sustainable Development Goals are a rather poor attempt at lightening humankind's environmental footprint because they are predicated on a modern socioeconomic model of consume, compete, and grow. The goals fail to properly appreciate that pursuing supposed eco-friendliness and innovations does not address the core issue—we are diverting limited resources for no good reason. This makes it virtually impossible to materialise truly sustainable societies and resolve conflicts.

One problem is that we have long neglected delving deep into what is intrinsically valuable to identify and address causes. We have opted instead to find solutions to symptoms through what are basically band-aids in science and technology and medicine. With our limited approach to creativity and innovation in an effort to counter change, we have long been caught in an evolutionary cul-de-sac from which we are likely to find it very difficult to extricate ourselves. Our responses thus far to COVID-19 are par for the human course, which is a concern.

Humankind faces a plethora of risks and restrictions over the next decade. They include killer new viruses, frequent and massive natural disasters that are beyond our control, and conflicts and other manmade tragedies that hopelessly divide regions and nations and derail or sidetrack civilised progress. We could materialise progress, however, if we dedicate ourselves to sustainable living.

Adam Smith famously used the invisible hand as a metaphor for the hidden forces that automatically propel free market economies as a result of the actions of individuals. We are likewise collectively subject to the control of the invisible hand of our planet's ecosystem. Our reckless behaviour and our reactions to the COVID-19 pandemic show that we have yet to grasp that reality.

The second and final installment of this article will explore Japanese insights into nature 150 years ago through today that yield clues to inventing a sustainable new normal that empowers us to escape our evolutionary cul-de-sac. ■

# NAKASHIMA PROPELLER

## *We Go Beyond*

Headquartered in Japan's Setouchi region, the centre of the country's shipbuilding industry, Nakashima Propeller is a manufacturer of marine propulsion equipment boasting a leading share in marine propellers.

Having started as a foundry for fishing boat propellers, the company has continued to pursue innovation in the capability of propellers to deliver security, safety and comfort. It will be celebrating its 100th anniversary in 2026.

A ship's optimal state is found when it is viewed from the propeller, the centre of propulsive functions. With this fresh perspective, Nakashima Propeller seeks to offer a full range of services catering to each ship's entire life cycle while achieving fuel efficiency to reduce the burden on the environment. Nakashima Propeller works to contribute to the world, beyond the realm of its industry.

## ■ OUR STRENGTHS

### JAPANESE QUALITY

Nakashima Propeller offers refined in-house capabilities in design and manufacturing. Using a high-performance computer with a 5000 core large-scale processor, Nakashima's craftsmen create a blueprint based on data accumulated from a world-class production history of 1 million propellers. Moreover, with its unique manufacturing skills that integrate cutting-edge technology and experienced craftsmanship, Nakashima is fully equipped to delicately reflect design in manufacturing and deliver reliable Japanese-quality products.

### CUSTOMISED PRODUCTION

The propeller is at the centre of optimising propulsion performance—and a hundred different vessels will have a hundred different propellers. Rather than pursuing efficiency as a manufacturer, Nakashima takes pride in its commitment to build-to-order production, designing and manufacturing optimal propellers for each unique ship under an integrated production system.

### CUTTING-EDGE USE OF SMART TECHNOLOGY

Nakashima's smart technology is able to define the shape of the high-efficiency propeller's complex three-dimensional, curved surface. By increasing the surface area of machining with adjustments such as modification of the trailing edge, a process requiring special craftsmanship is simplified and speedy production without dispersion is achieved.

### SERVICE ANY TIME, ANY PLACE

Nakashima Propeller promptly responds to propeller damage by sending repair engineers from its worldwide network to your site. Nakashima takes into account various conditions such as the ship's fuel efficiency, course and degradation due to ageing to propose solutions such as edge modification, fuel-saving polishing and retrofit, providing detailed support throughout the ship's entire life cycle.

## ■ OUR SERVICES

Nakashima Propeller designs and manufactures marine propellers (FPP and CPP), thrusters, energy-saving devices for the stern and CFRP propellers.

We also offer a full range of after-sales service, including repair of damaged propellers, edge modification, fuel-saving polishing, support of propulsion equipment for ships in operation and optimisation of propulsion performance for fuel efficiency.

\*We provide propellers for ULCS, VLCC, VLOC, VLGC, LNG/LPG-carriers, PCC, cruise ships, working boats, coastal vessels, research vessels and coast guard vessels

\*Our services satisfy requirements for all major classification certificates (including ice-class)



*“World-recognised Japanese quality cannot be described solely in terms of mechanical precision or reproducibility. Lacquerware used at the dinner table, Japanese knives that are indispensable to create Japanese delicacies—only with the deep commitment and thorough experience of the people who make them can the full potential of such products be unleashed. Our propellers embody the same spirit of Japanese quality.”*

—H. Kubo, General Manager, Innovation Section, Nakashima Propeller

## ■ EVENTS

POSIDONIA - Greece

METSTRADE - The Netherlands

INTERNATIONAL WORKBOAT SHOW - USA

SMM HAMBURG - Germany

Please check individual websites for the latest updates from event organisers.

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