

Propelling

Issue 3



Nakashima People Vol. 3

Yoshihisa Okada General Manager, Propeller Design 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

Yoshihisa Okada's passion is to create something unique. His creativity has no boundaries: whether writing novels, drawing, launching a local soccer league, climbing or making propellers, he has always found room for innovation.

His inventive mind has been indispensable in advancing Nakashima's vision to transcend the realm of craftsmanship as the company celebrates its 90th anniversary and looks to the future. What does designing propellers mean for Yoshihisa, and how does he view the future of propellers?

Q. What is the appeal of working for Nakashima Propeller?

I joined Nakashima after studying under a leading expert of cavitation at university. Although at the time that I joined the company I did not have a particular interest in propellers or ships, I am still here after 20 years. I have stayed because of Nakashima's strong culture of trust and independence. I am able to design freely and am involved in the entire process of delivery, including designing marketing collaterals and selling the new products myself to clients around the world. The world is never far away in my role, and that is perhaps the biggest allure of my work.

*“The world is
never far away
in my role.”*

Yoshihisa Okada



Q. What do you value in your work?

In a way, I am intentionally self-focused. I believe that being fulfilled and comfortable helps others around me to feel the same way. Having said that, I am never truly satisfied and I enjoy the challenge of incompleteness.

In this industry we typically find ourselves having to compete in a market in which we don't get to define parameters; the key rule making is mostly done in Europe. But I take a positive view of this competitive environment. I aim to deliver results, regardless of changing external conditions—challenges are a “feast” to me.

Q. In your view, why do clients choose Nakashima?

Nakashima is one of the few companies in the world that specialises in propellers. Therefore, our level of commitment is naturally unrivalled not only in quality, but also in maintenance and services as a whole. Our clients have high expectations and confidence in our capabilities, which have been sharpened over the years and extend beyond craftsmanship.

Going forward, the skills and spirit that Nakashima has nurtured and the vast data it has accumulated through its commitment to build-to-order production—making optimal propellers for each unique ship—will become integral to the company's “ultimate” expertise in a new field of maximising a ship's propulsive performance.

Q. What are you envisioning for Nakashima's future?

We are already seeing signs of progress in the first stage of Nakashima's vision, the development of new products such as its “ultimate rudder”, one of our energy-saving innovations and my area of expertise. The next stage is building services and nurturing the business of optimising a ship's propulsive performance. This goal is not so easy because it is keyed to the development and use of new technologies such as those that allow the analysis of in-service data, but these are advancing, paving the way for our new business. Thereafter, we will be heading into the unknown, where we will be propelling a new generation of ships in uncharted territory. That will be the real challenge and the best part that awaits us. ■

Nakashima's Aesthetics

Surrounded by Roses and Works of Art

The exterior wall of the head office, covered with roses, is a popular hidden spot in Okayama City in early summer. Inside the office building, the walls are adorned with various paintings and sculptures. Nakashima's appreciation for beauty also shows in its commitment to excellent quality, not even allowing errors down to 1/100 of a millimetre on the surface of a 100-ton propeller.



INTROSPECTION — JAPANESE INNOVATION

A Path in the Forest

Yusuhara in Kochi Prefecture is the source of the clear-flowing Shimanto River. According to folklore, Tsuno Tsunetaka, who was born into the Fujiwara Sekkan family, came to the town and, upon discovering a marsh that reflected sunlight in the woods from atop a hill, drew water from there and began clearing nearby land for cultivation. For over 1,100 years since, the town has quietly nurtured its cultural existence despite its remote location.

The town of Yusuhara is little known, and yet it has captured the hearts of prominent figures such as folklorist Tsuneichi Miyamoto, author Ryotaro Shiba, religious scholar Testuo Yamaori and architect Kengo Kuma. It's a hidden, sacred place—a “beacon” to which people who pursue values unique to Japan and who work to build a new future by unleashing these values are naturally drawn, in order to rediscover the essence of Japanese culture.

There are many places remaining in Yusuhara that bring back “memories” of how Japanese people lived in the past. The water channel that has thrived in the forest for over 100 years is one such remnant of far-off days.

As you walk along the water, you hear the murmuring of a river from the bottom of the valley and the sounds of rustling leaves and birds overhead. You see a sketch of green and blue moss around the edges of the channel, and before long you are lured by the sweet smell drifting in the wind and you start to fade into the big, organic body of nature. While the man-made waterway itself blends into nature, it acts as a tool to affirm the biodiversity of the forest and serves to gracefully incorporate humans into the ecosystem.

In sharp contrast to man-made creations in other cultures that attempt to dominate or replace nature, artefacts in Japan typically not only harmonise with Mother Nature, but support it and thrive in it.

The path in the forest reveals the essence of a civilisation particular to Japan, shaped by people who used to live with a sense of being an integral part of nature.

However, since the Meiji Restoration, Japanese people have actively adopted Western culture in the name of civilisation and enlightenment, pursuing a policy of enhancing national prosperity and military power, and later an objective of high economic growth in the post-war period.

The traditional Japanese civilisation, with a worldview and aesthetics rooted in nature, is rapidly becoming a lost treasure. Even in Yusuhara, the displacement of humans from nature is accelerating. Water channel maintenance is becoming a challenge as residents quit farming and rice paddies disappear.

If the self-generating ecosystem encompassing water, the forest and humans is broken and the waterway becomes merely a man-made object divorced from its surroundings, then all humankind, not only the Japanese, would lose another crucial beacon.

Natural disasters in Japan in recent years have perhaps rekindled Japanese people's sense of belonging to nature. For example, there are signs of distinctly Japanese innovation that sidestep the power of nature instead of fighting it, such as electric cars that are made to float over water to make them safer during a tsunami or flood. Will Japan unleash its potential by combining its unique ability to live as a part of nature with its world-class technology, and use these to propose alternative solutions to help the world?

Yusuhara is also the town from which Sakamoto Ryoma and other patriots at the end of the Edo period crossed the ridge and ventured off in the hope of seeing Japan's new dawn. When the patriots of today who are concerned about the world's future carry the wisdom lying deep in Japanese culture and pass the “ridge”, it will mark the beginning of a new “enlightenment” from Japan. One dreams of such a future. ■

The original article was in Japanese.
Written by Yaoyorozu-ING

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.

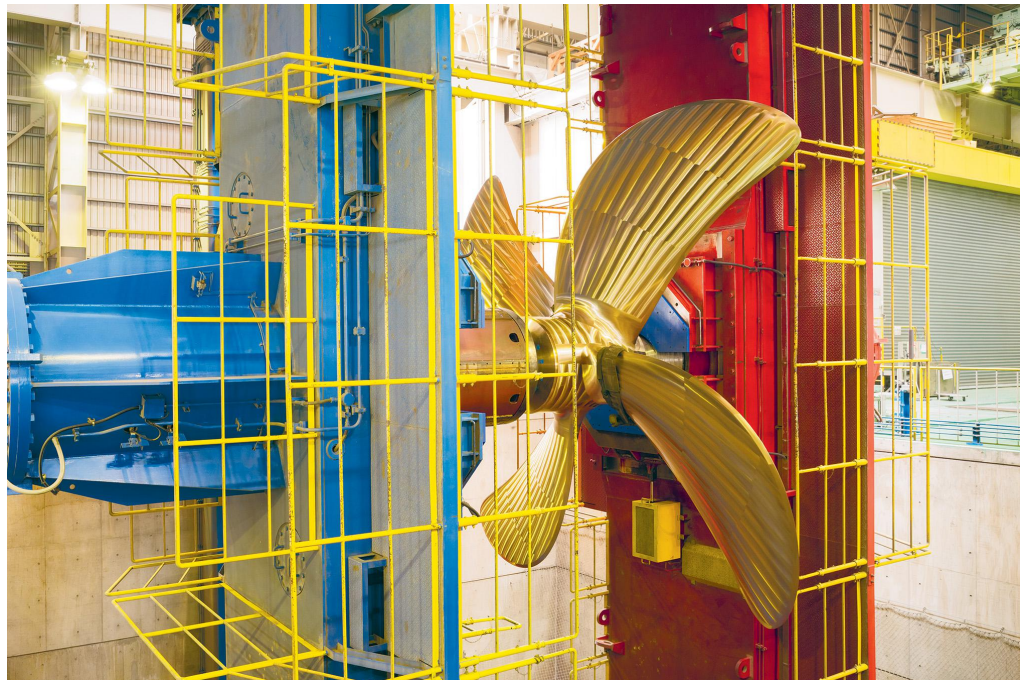
■ OUR SERVICES

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

SMM - Hamburg, Germany, 6-9 September 2016

METS TRADE - Amsterdam, The Netherlands, 15-17 November 2016

SEA ASIA - Singapore, 25-27 April 2017

BARI-SHIP - Imabari, Ehime, Japan, 25-27 May 2017

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