

Propelling

Issue 1

A warm ray of light
The blade's curve appears in sight
Divine beauty shines



Nakashima People Vol.1

Motoyoshi Nakashima President, 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

In 1926, Zenichi Nakashima, Motoyoshi's grandfather, started a foundry. Two years later, he started making propellers for fishing vessels. After World War II, Motoyoshi's father, Tamotsu and his brothers began manufacturing large propellers and expanded the company's market share. Motoyoshi and his team have made aggressive investments—building new factories and setting up overseas subsidiaries—turning Nakashima Propeller into a true global firm. We asked Motoyoshi what makes Nakashima unique.

Q. As a top company executive, what are your priorities?

A. Business is all about people. I thus believe it's important to be inspired by people around you and to make a difference

in the lives of others, including customers and employees. For instance, at Nakashima, we foster a culture where employees can openly express themselves, constantly take up new challenges and even make mistakes.

You also have to be brave in making decisions and carrying them out, whether you are making a step forward or a step back.

Q. What is the DNA of Nakashima Propeller?

A. My grandfather, a mould craftsman, taught us the importance of made-by-hand skills. My father loved innovation and was always eager to introduce cutting-edge technologies. And both of them shared the spirit of never settling for the status quo. Our company inherited all of these traits. Nakashima makes heavy investments in

“Whether you are making a rocket or a propeller, you need to be able to accurately reflect its design in the manufacturing process to attain its full potential.”

Motoyoshi Nakashima



computers that support our in-house designs. Our technology is among the best in the industry.

But you cannot fly a rocket to the moon by just creating a good blueprint. Whether you are making a rocket or a propeller, to attain its full potential you must accurately reflect its design in the manufacturing process. Nakashima achieves this by integrating two elements that set it apart: processing skills powered by the most advanced machines, and state-of-the-art techniques used by our craftsmen.

Q. Why do you stick to a build-to-order style for producing moulds?

A. The number of companies that can take single-item orders for a wide range of products is dwindling. Many propeller makers have a standardised moulding process, to streamline their production. However, every ship has different cargo and equipment. Every sea route has its own climate. Every port has a different water depth. In the future, the ability to design and manufacture the best propeller for each ship will be even more crucial, considering that ships’ environmental load, in addition to their speed and energy efficiency, is expected to become more important.

Q. What is the future of Nakashima as it approaches its 100th anniversary?

A. Today, Nakashima is not just manufacturing propellers. We are evolving into a specialist company that optimises

propulsion performance, to support ships throughout their entire life cycle. We are aiming to become an irreplaceable partner for ship owners and other clients—and to have an outstanding presence in the world.

The younger generation in our company is taking the lead in implementing reforms to achieve these goals, and I have great confidence in them. ■

**Maxim of
Nakashima Propeller**

“Do not seek to follow in the footsteps of those that came before, but seek what they sought”

Matsuo Basho
poet and haikuist, 1644-1694

These words were inscribed on the opening page of the book detailing the history of the company by the late Tamotsu Nakashima, the second-generation president.

A central element of Nakashima Propeller’s growth has been the spirit of not simply replicating what was made by those before, but utilising the ideals and intentions at their core to create products that surpass them. This is also intrinsically linked to Nakashima Propeller’s slogan, “We go beyond.”



INTROSPECTION – JAPANESE INNOVATION

The Wisdom of *Edo*

Utagawa Hiroshige's wonderful *ukiyo-e* wood block prints "One Hundred Famous Views of *Edo*" do more than show Tokyo—*Edo*—as one of the biggest cities in the world. They show a city and society with a relationship with nature which we now recognise as being a key to life—a balanced relationship of interdependence and co-existence rather than simple use and exploitation.

Our eye is naturally drawn to the vibrant waterfront of Utagawa's *Edo*, the entertainment and business areas of the huge city. We see a city able to feed and water a huge population, with the detail of human life which make these images so beguiling. But behind the image is, in fact, a complicated ecosystem which used the country's natural resources without destroying them.

Japan is naturally a country with many fast-flowing streams according to Yutaro Senga, an expert in water environment studies. But the foundation for the *Edo* of Utagawa was to moisten every piece of land by "creating slow currents." Thus the people of Japan developed a culture to conserve trees in the mountains and create irrigation channels, as well as ponds and paddy fields, all of which

served as a means to store and control water. Apart from high food productivity, the system provided Japan with biodiversity, rich spring and ground water, and the timeless landscapes of city and countryside.

This is development as it should be. It is sustainable and enriching, with society's current needs amply met, but not at the cost of future generations. Of course, Japan has not always followed such an impressive model of innovation and development—the modern, post Meiji, period has seen Japan exploit and exhaust its wonderful natural resources, leading to pollution, depletion and countrywide eyesores.

What price modernity? As Tokyo 2020 rediscovers Tokyo's waterfront, can Japan rediscover the spirit and practice of *Edo* era innovation—working within nature, meeting our human needs alongside the needs of nature and the environment. It surely is possible—and perhaps we will find a contemporary Utagawa to document it—wonderful bequests indeed. ■

Reference: Senga, Y. (1995) *Revive Waterfronts, Satoyama, and the Countryside* (Iwanami Shoten)
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 3000 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

NOR-SHIPING - Lillestrom, Norway 2-5 June 2015

MARINTEC CHINA - Shanghai, China 1-4 December 2015

NAKASHIMA PROPELLER CO., LTD.

688-1, Joto-Kitagata, Higashi-ku,

Okayama, 709-0625, JAPAN

+81 86 279 5111

npcwebmaster@nakashima.co.jp

Japan • Singapore • Vietnam • Philippines

Korea • Taiwan • China • U.S.A. • Brazil • Turkey • U.K. • Namibia • UAE

Propelling Issue 1 May 12th 2015

Produced by Yaoyorozu-ING Company Co., Ltd.

Photo by Takumi Ota [P1, 2, 4]

Copyright 2015 NAKASHIMA PROPELLER Co.Ltd. All Rights Reserved.