

TOP INTERVIEW

Dialog with the Future The Next Reality

Interview on Manufacturing

The bright future of TAKAMAZ envisioned by the Future Promotion Team

WORK&SOUL

TOYOTA MOTOR HOKKAIDO, INC.

Traveling the Hokuriku Area to Experience Craftsmanship Visiting a world of delicate and gorgeous beauty, a district adorned with gold leaf

[Cover photo]

Location: The "Golden Tea Room" at the main store of HAKUZA

The "Golden Tea Room" is found in the main store of HAKUZA, which passes on the skills of the traditional "entsuke" gold leaf recognized as Intangible Cultural Heritage by UNESCO. We photographed the President of Takamaz in the heautiful space of a lea room finished with beautiful space of a tea room finished 40,000 sheets of "entsuke" gold leaf.

TAKAMATSU MACHINERY PR Magazine Winter 2024



The new year of 2024 has started. It is a fitting time to talk about the future. For this reason we got the top management of TAKAMAZ to talk about the future.

This is a special edition of "Interviewing on Manufacturing".

Please tell us your thoughts about TAKAMAZ's future and vision.

If we look not so far ahead, we started new operations at the Asahi plant in April the year before last, so one realistic goal is to secure corresponding orders and to manufacture machine tools at both the headquarters plant and the Asahi plant. Beyond that, at a time when the needs in relation to the machine tools that we work with are changing, it stands to reason that we must also change. We have to make products that are suited to the times and that the customers want. I think it is probably important to change with the needs of the age rather than getting caught up in the experience of success that we have had up until now.

As for what I think about the agenda (vision) twenty or thirty years beyond this, I wonder whether we will still be manufacturing just machine tools. Through extensive exploration to date, we have ended up with lathes as our main and ongoing line of business. We have been discussing that we should do all kinds of other things, but the current situation is that we have not diversified very much. However, I wish to continue taking on challenges. Offering automation and labor-saving solutions other than lathes to our existing customers, as we are currently doing, is one such new business development. Another is examining the challenge of how our technology can be of practical use in completely new markets.

What has gradually taken shape in this way is the "recyclable waste automatic AI sorting machine".

This is the new business of sorting recyclable waste. It is a new challenge that started last year, and which it is expected can be further developed in various ways into the future. We will not stop there, and will listen to many opinions, both in-

house and from outside the company, and embark on new challenges.

So TAKAMAZ is recognized as a machine tool builder now, but it is possible that twenty years from now we will be engaged in completely different lines of business.

We will redouble our efforts in the machine tool business, but taking on challenges on a different stage than the industry where we have currently built our reputation is also appealing. If the whole company wants to do this, rather than me alone, I definitely want to take on the challenge. As for what we should do, we are a manufacturer in the manufacturing field and have the functions and strengths of being a manufacturer, so we have the ability to quickly develop products under our own brand. We should take on challenges where TAKAMAZ is uniquely qualified.

What are your thoughts on the theme of the shift toward electric vehicles that has been highlighted from several years ago?

I think it is important to pay attention to the speed at which society undertakes the shift to electric vehicles. It may be difficult to determine the speed of change, but it will definitely not stay the same as it is now. We are among those who have great expectations because this is a market that requires new technology. In reality there are issues of various kinds, and it is because of this that people from a range of fields are taking on challenges, so we should be proactive if we are capable of taking on challenges in the same way. It is rewarding precisely because this is a new market, not an existing one.

While there are a range of issues and various rivals, I feel strongly that we should develop business in this market. I think that the shift to electric vehicles will not be just about the engine changing to a motor. Whether it be automation technology or safety related, it is sure to involve many other innovations at the same time. So there will be expectations about

what kinds of products and solutions we'll be able to propose.

Are you focusing on anything other than the shift to electric vehicles?

Well yes. We have enjoyed a lot of support for our machine tools for the automobile industry up until now. In addition, I think we should become actively involved in fields other than automotive.

From now on, by paying close attention to the possibilities of lathes that stem from technological innovations such as mill/turn cutting, IoT, Digital Transformation (DX) and so on, I believe that we can not just actively take on challenges in new fields but also offer customers more attractive machine tools.

In preparation for such a future TAKAMAZ, the Future Promotion Team was formed a year and a half ago.

The reason that we started up the Future Promotion Team was to work on improving the environments surrounding projects rather than directly engaging in business. Until now we had shared opinions from this kind of angle but not undertaken any reforms. We tended to put the focus on how to address practical problems. Now, rather than setting numerical targets, we are asking the Future Promotion Team to discuss targets that may seem a bit far away but can be reached if we all work together. What I'm thinking now is that, rather than just numerical targets and a business philosophy, we should share a vision that is indistinct but one that we wish would happen. I think we should first all create a mental picture by exchanging opinions, and then share this vision of the future. Improvements such as productivity improvements and work style reform are very important, but we should not cling to them only. We must reflect again on what we are working for. It is necessary to work so that we can envision an enjoyable and bright future.

The bright future of TAKAMAZ envisioned

by the Future Promotion Team/

The Future Promotion Team was formed in order to lead reforms as we look ahead 16 years to the 90th anniversary of the founding of TAKAMAZ. It is run by the Planning and Accounting Department of the Administration Division, and comprises members in their late twenties to early forties who were brought together through self-recommendation or being recommended by others. Now, a year and a half after it was started up at the beginning of last year, the leaders of each section spoke to us about their enthusiasm for it.

The Future Promotion Team is perhaps the first such initiative in the history of the company. What kind of vision for TAKAMAZ 16 years from now are you working to achieve?

Chief of Technical Development Dept. Machine Design Section

The 18 team members talked it over, and the major vision that we set forth was the concept of "a company that we can be proud of to our family and friends".

Chief of Security Trade Control Office Administrative Division Michihata

That's right. As a result of discussing the

direction that the company should take in various settings including general meetings, we decided to go with "a company that we can be proud of to our family and friends". This goal is determined and we won't deviate from it. And we are working towards it in three separate teams dedicated to "business", "organization" and "working environment".

Please tell us about the actual details of the initiative.

Michihata

I am in the "Business Team" and we are taking a number of initiatives within the concept of creating a foundation for smoothly carrying out company businesses before starting actual businesses.

The first thing we started was the Future Box, which is an initiative intended to resolve the issues that are not apparent to the departments that are directly involved. The idea is that it is an in-house opinion box, where any employee can post an opinion online. Another initiative that we are working on at is "improving the company website". We are making progress with the idea of creating one large item by creating links between departments. We are also now thinking

of further new initiatives to resolve issues between different departments.

The "Organization Team" has shared a concept where the primary concern is to become a company that has an internal sense of unity, where boundaries between offices and departments are eliminated and there is respect for other departments. To that end we have established an award system called the TAKAMAZ Awards, with the theme "Let's make a culture of praise take root". At the company policy presentation for the new year, we plan to have the President present awards. The second item is education. We conducted an in-house survey about superiors who can be respected and subordinates who can be relied on, with the aim of enhancing employee education. The results will be incorporated into the education plan for next year onward. We are also thinking of creating a "Department Introductions". The situation at present is that other departments cannot see what work is being done at a particular department and what processes are followed to do it. I believe that understanding each other's tasks will lead to work progressing smoothly, to more care about the people we deal with, and to evaluation material for career advancements.

Chief of Planning and Accounting Dept. Administrative Division Information System Section Kitagawa

Finally, the initiatives of the "Working Environment Team" are expressed in the themes of improving employees' work style and level of comfort at the office, and improving our company's level of recognition and image in relation to the region and to society, as a "company we can be proud of". We also think that, in addition to getting to know the company better in the first place, we should facilitate lateral connections for the employees.

When we asked ourselves if there was something we could do, what emerged was participation in the Kanazawa Castle Relay Marathon. We planned the budget and prepared matching T-shirts to elicit a sense of unity, while recruiting five employees to be participants. The result of the recruitment greatly exceeded our expectations, with 78 employees participating in the event. It was good public relations in the region, with coverage in newspapers and so on, and I also really feel it was good that the employees communicated with many others through lateral and diagonal connections that would not have happened outside of work.

Another initiative is building mechanisms for diversification of work styles, including home working and flexible working hours. We recognize that the number one issue to tackle from this point on is to reassess the rules so that the employees can select work styles

that match with their workplace environment and living environment, including childcare.

According to what you say, the Future Promotion Team is engaged with themes that are quite fundamental to the organization: how do you evaluate the year and a half up to

Kitagawa

I think this is the same for every team, but even if you come up with an idea, it is very difficult to realize it.

Hagiwara

At the start I have to admit I was surprised by the fact that the Future Promotion Team had more attention than I expected. I was doubtful about how much importance would be attached to our proposals, but in fact when we gave a presentation to the management team they told us: "All of them are important, so let's work on them positively". Since we had the support of the management team, it became easy to operate in the company too. However, the number of things that we wanted to do kept increasing, and the one or two hour meetings we are holding each month have become insufficient. Resolving that is one of the issues from here on.

Michihata

We are doing things that are not easy to experience in the course of regular work. The pressure is correspondingly high, but the work is rewarding. I really feel that I am gaining experience, and I have had input from many people during this year and a half.

Kitagawa

At the Kanazawa Castle Relay Marathon there was a moment-by-moment sense of accomplishment, but there is the issue of how to make it take root, and concerning whether we are really achieving what we want to, we are only half way there. Or rather, we haven't even reached the halfway mark. What we really want to do is achieve results in core areas and make TAKAMAZ a company that many more people want to join. In the context of this big vision we are still a long way from success.

Michihata

The fact that we have released concrete items like the Future Box and "website improvements" can be considered an achievement. However, we really want to undertake core business projects. Ultimately, we see ourselves building up new businesses that are going to generate

Hagiwara

All of the teams have ideals, and they are progressing step by step to attain them. For this reason, even if somebody suggested to me switching the members of the Future Promotion Team next year, I would probably say that I want to stay in the team. I think it'll take a few more years to reach a point that I have set as my own ideal.

The Future Promotion Team has only just set out on its journey. Its achievements are, little by little, forming buds that are blossoming within the company. I would like to end this interview by wishing that each of the leaders will attain the future that they are envisaging.

Introduction to the Future Promotion Team / Leaders of the 3 Sections

[Business Team]

Main achievements: Establishing the Future Box, etc.

Team Leader / Ryo Michihata

I joined the company part way through my career so I felt that there was a lot I did not know about TAKAMAZ, but it presented a good opportunity to exchange all kinds of information.





[Organization Team]

Main achievements: Establishing the TAKAMAZ Awards, etc.

Team Leader/Shuhei Hagiwara

I decided to come to this company myself, so there were many things that I wanted to pursue until I was satisfied, and many things that I want to change in order to enjoy the work more.



the Kanazawa Castle Relay Marathon, etc.

Team Leader / Narise Kitagawa

I felt that there was an issue with communication between departments, and I wanted to hear the various opinions of others who thought the same thing.

[Working Environment Team]

Main achievements: Promoting participation in







WORK & SOUL

vol.004

— TOYOTA MOTOR HOKKAIDO, INC. —

IDEAL FIGURE

An advanced company in Team Toyota that leads in the area of quality products at a reasonable price

The Toyota Production Method is making contributions in the Hokkaido region too.





Direct Shift-CVT Unit

RAV4 Adventure

"Becoming an indispensable company for Team Toyota, and for Hokkaido."

Tackling the theme stated as the vision for 2025 is
a group with sophisticated thinking that understands the customers' perspective.



TOYOTA MOTOR HOKKAIDO, INC.



Chief of Unit Planning Office
Technical Development Dept./Ryu Yamashita



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President: Yasuo Hojo
Stated capital: 27.5 billion yen
Number of employees: 3,373 (as of November 1, 2023)
Establishment: February 8, 1991
Nature of business: Manufacturing automobile parts

Products: Automatic transmissions, CVTs, hybrid

transmission axles, transfers, forged parts

Firstly, could you tell us about the nature of the business of TOYOTA MOTOR HOKKAIDO INC., which is the only Toyota manufacturing base in Hokkaido?

[Manager Yamashita] Having set "Becoming an indispensable company for Team Toyota, and for Hokkaido" as our vision for 2025, TOYOTA MOTOR HOKKAIDO INC. is aiming to become a company that is appreciated and trusted by everyone in the region, and working day by day to be able to make customers happy with quality products at a reasonable price.

As for what the company does, it handles the entire production process, from materials to assembly, of the "drive train parts" that are fitted in Toyota automobiles both in Japan and overseas, including automatic transmissions. CVTs. hybrid transmission axles and transfers. This has been a core area of business right from the foundation of the company, but in recent years we are also focusing efforts on issues such as "promotion of carbon neutrality", "collaboration among different industries to solve local issues", and "promotion of Digital Transformation (DX)". The promotion of DX centers on activities that are

primarily in-house, but for the promotion of carbon neutrality there are many companies around us that are involved in various proving tests in fields such as solar power generation and hydrogen energy, so we are collaborating with them to utilize renewable energy to the best effect as a region.

Moving to collaboration among different industries to solve local issues, in the area of sales activities we have for three years now maintained links with companies outside the group and kept up activities to solve a variety of difficulties together as we have been investigating what we can do outside the automobile field. This includes using our machines and technology to lighten the workloads of primary industries such as fishing and farming.

It seems you have also been giving advice on inventory management and other issues to retail stores in major shopping malls.

Yes. There is limited space in the back yards of shops in shopping centers. Goods are taken out and put into these spaces frequently, which leads to problems like not knowing where something is, and having difficulty

moving around because people are using the same paths. We help to create stores with no wasted space by adapting a fundamental principle in Toyota's production method - make only the required quantity of the required item at the required timing so that there is no waste - and only ever placing a set quantity of an item at the set place, and regulating human traffic.

Are you providing this as a business? It hasn't developed into anything we could call a business yet, but we are starting to work on it. When you are in this organization, the TPS (Toyota Production System) way of thinking comes naturally. This TPS way of thinking is widely known, but its core is not well understood by everybody, so we are working on providing that understanding. On a related note, we also provide the safety training that is implemented at Toyota. We are rolling out training to other companies too, where we use videos to have people experience the "fear" of falling from a high place or being crushed in a large press, for example, then train them so that they can work safely.

Please tell us more about your company's attitude and way of thinking about manufacturing.

We make every effort to incorporate the conditions for good products. From the design planning stage, all the members identify the anticipated challenges from all perspectives and resolve them in advance, making it possible to manufacture good products safely from the start of operations. The important point is that rather than the planning department alone, we build up items with the participation of the departments responsible for the manufacturing and maintenance as well. In the event of trouble we implement the five whys technique, and after a thorough investigation of the cause on site and in person, we implement countermeasures. We believe that it is not acceptable for customers to have trouble with an automobile that they bought for several million yen, so every single employee goes about their daily production activities with a strong conviction that defectives will never be released.

So your strength and competitive edge in manufacturing seems to stem from that kind of effort and the awareness of every individual.

In order to make products that will satisfy customers, we keep making "continuous improvements" on a daily basis and make efforts to improve quality and strengthen our competitiveness. Changes in our environment, such as the rapidly progressing electrification in the automobile industry, are happening at a speed that is way beyond our

imagination. To overcome this challenging environment, we are working on various advanced technologies and measures aimed at higher quality manufacturing. We are continually taking on new challenges, such as policy planning to achieve a prosperous and vibrant future through utilization of big data, application of automatic judgment technology based on AI, and the SDGs/carbon neutrality. Toyota upholds a "multi-pathway" approach, so whatever products come to us, whether electric vehicles or hybrid, we are always thinking about delivering good, low-cost products to the customers with an overwhelming competitive edge over our rivals. We also maintain an awareness of the need to break free from the status quo in all situations, and place a high value on "imagination" to envisage how things should be and the future, and the "creativity" to tackle new ways of doing things and "continuous improvements" without fear of failure. And we are working to train personnel who can acquire both "imagination" and "creativity", be mindful of who they are acting for, and take action unconstrained by precedents.

Please tell us your thoughts as an office manager about the vision for the future.

In order to realize a decarbonized society in the future, we are, in addition to our daily energy-saving efforts, working in collaboration with the relevant government agencies and related companies on using new energy including renewable energy that takes advantage of the regional characteristics of Hokkaido, and hydrogen, with a view to strengthening the technological capabilities to support the next generation of electric vehicles, and achieving carbon neutrality at our plants.

Also, if I can relate a thought about the situation a little further into the future, I believe the automobile industry itself will be affected by the decrease in population. If we think about making vehicles and products that will definitely sell in such circumstances, I

consider that ultimately demand will call us to make products tailored to each individual customer. Currently we are running "manufacturing" in units where one "package" is 20,000 vehicles, but the ideal is to manufacture one vehicle for one individual. It would be interesting if we could make vehicles with the ability to select not just the appearance and interior, but even the internal performance.

TOYOTA MOTOR HOKKAIDO, INC. was founded in 1992, and we have been delivering TAKAMAZ lathes ever since from 1995. This served as an opportunity to deliver to the TOYOTA MOTOR COMPANY too.

Unless we can make "better products more cheaply", we cannot maintain our competitiveness. Our ability to manufacture more cheaply than other bases in Japan makes the existence of our base in Hokkaido valuable. Accordingly, while looking for good makers who had not yet done business with the Toyota Group, we came across TAKAMAZ. Then, as a result of having made better items at lower costs on TAKAMAZ machines, these machines started to be introduced at other bases

What did you assess regarding TAKAMAZ's lathes, personnel and service before adopting them? I would be grateful if you could be specific.

There was the fact that you fully understood our required specifications, and also the fact that you proposed specifications that raised the productivity and quality beyond what we envisaged. The things that reassured us above all were that the equipment can be started up reliably because the deliveries for completion of production lines are on schedule, and the after-sales service is solid too.

Thank you very much. I am grateful for the opportunity to conduct this valuable interview. We hope you will continue to support TAKAMAZ.





Traveling the Hokuriku Area to Experience Craftsmanship

— CRAFT CONSCIOUS —

Visiting a world of delicate and gorgeous beauty, a district adorned with gold leaf

The traditional craft of gold leaf representative of Kanazawa, which boasts a 99% share. It is used in various crafts such as lacquerware and ceramics,

including at the Kinkakuji Temple and Nikko Toshogu Shrine.

The technology for making ultra-thin gold leaf of 1/10,000 mm passed down in the Kanazawa region delights the eyes of visitors to Kanazawa, centering on the Higashi Chaya district with products such as tableware, accessories and bags.





The craftsmanship to spread the gold out to a thickness of 1/10,000 mm without losing its shine was cultivated in Kanazawa, which is blessed with a climate and water quality suited to making gold leaf. Anyone who visits the Kanazawa Yasue Gold Leaf Museum will get to know the history of gold leaf in Kanazawa while also being drawn to the beauty of gold leaf craftsmanship. Gold leaf crafts can also be enjoyed as tableware, accessories and bags that we can use in everyday life. In the Higashi Chaya district, which is less than a five-minute walk from the Kanazawa Yasue Gold Leaf Museum, there is a collection of shops selling gold leaf handicrafts, and there is a wide variety of goods that can be enjoyed just by looking around. Among these shops, HAKUZA Hikarigura, where there is a golden storehouse nestled in the courtyard, is not to be missed, and the area in front of the storehouse is an extremely scenic spot. The reliable manufacturing techniques of gold leaf handicrafts continue to attract people. The trip to discover how wonderful they are is very interesting and this is an itinerary that I highly recommend.

TAKAMAZ

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