Responsibilities for manufacturing critical components for cars

Yazaki produces crucial components for automobiles, wire harnesses and related parts around the world. The first feature showcases Yazaki’s wire harness business, and outlines its commitment to employee training and management improvement globally in order to satisfy stringent quality and delivery requirements by automobile manufacturers.

Global Production of Wire Harnesses

Yazaki supplies wire harnesses to auto makers around the world. With more than 200,000 employees in 38 countries, we have also established R&D and production facilities.
Many components in modern cars, including engines, gauges and lights, are electronically controlled. Electronic devices and parts are all connected by wires, ensuring basic performance of these components. Generally speaking, a small passenger car needs approximately 1,000 wire circuits, and the combined total extended length of these wires can reach 2,500 meters, weighing about 20kg. A luxury passenger car uses approximately 3,000 wire circuits, with the total length of more than 7,000 meters and a weight of 50kg or more. Wire harnesses compactly bundle this massive number of electrical wires and data circuits, allowing them to be installed according to the car’s design. These electrical wires, although not visible, extend to every corner of the car.

Yazaki first began producing wire harnesses in 1939. Its wire harnesses are now used by all automakers in Japan, and more than half of all vehicle models in Japan use Yazaki wire harnesses. Yazaki also has production sites in 38 other countries and supplies wire harnesses and other parts to overseas automakers.

Wire harnesses are essential to both a vehicle’s basic performance and its safety performance. Automakers, therefore, set forth high quality requirements for wire harnesses. By establishing even stricter internal standards for quality, Yazaki has satisfied customers’ needs. We are committed to not only adhering to the highest quality standards but to overcoming any hurdles to remaining a market leader in the wire harness business.

Yazaki has taken pride, throughout its history as a wire harness supplier, in its pursuit of the basic three elements, QCD (quality, cost and delivery). In recent years, we added E (environment), as we take environmental considerations seriously.

To preserve the environment, the EU and other nations have enacted regulations to restrict the use of certain chemicals. Yazaki has established a stringent management system to eliminate their use in our products and submits reports to automakers regularly to certify our compliance.

Yazaki has tackled the challenge of reducing the weight of wire harnesses, making cars weigh less. Lightweight vehicles emit less CO2, thereby further contributing to lowering emissions into the environment. Yazaki has developed technology that produces thin wires with the diameter of less than 1mm that still withstand use in rigorous conditions. Thinner wires also help to solve the problem of limited space for wire harnesses in a car, as the number of wires contained in wire harnesses keeps increasing as more vehicle functions are added year after year.

Yazaki’s wire harness factories have provided employment in the communities they operate in. One of our social responsibility policies emphasizes that Yazaki’s commitment to being a good neighbor.

Yazaki assists employees around the world to improve their skills through training and educational programs and fosters workers’ development so they assume leadership positions and, at the same time, feel motivated and find pleasure in working. This commitment is rooted in a credo at Yazaki: to make products is to be in the business of educating the people who make them.
We take on our responsibility to society in our role as a global supplier

Our customers, automakers, vary in their strategies and operations. Some operate globally, while other focus on certain regions. Their need for and expectations of suppliers differ accordingly. We at Yazaki believe it a challenge to meet each one of their needs by taking an attention-to-detail approach. As an automotive parts supplier, the crucial responsibility to our customers is the consistent and stable supply of our products. Our work flow has transcended national boundaries and expanded globally so that our efforts to ensure a stable supply of parts translates into establishing global management systems.

I would like to discuss some activities that illustrate how we have tackled recent challenges globally.

The copper price surge in the past few years has posed a grave concern to our stable supply of wire harnesses, since copper is a main wire material. The price hike has made it difficult to purchase copper and contain cost increases. To meet this challenge, we have set up networks in collaboration with various departments around the world to share price information, streamline purchasing channels, and revise purchasing contracts. We have also redesigned wire harnesses to use less copper, as well as reduced copper wastes or reused them in manufacturing processes.

In compliance with European regulations including ELV*1 and REACH*2, we have established an organization and a set of rules to manage groupwide supply chain information and systems on a global basis. Beginning in FY2007, the new organization has been responsible for ensuring materials and parts made in the U.S., Japan and Southeast Asia are compliant with REACH regulations, and overseeing the smooth supply of those materials and parts for our production bases in the EU.

Yazaki has been engaged in efforts to reduce CO2 for nearly 10 years. We have established five regional organizations to further promote CO2 reduction and set groupwide reduction goals that all regions are working toward.

While formulating guidelines and rules and setting goals to preserve the environment are essential and certainly responsible actions, we plan to go a step further with our environmental efforts. We want to add E (environment) together with QCD (quality, cost, delivery), because we believe the E factor will increasingly play an important role in why our customers choose Yazaki.

The Yazaki Group continues to operate without compromising three issues: safety, environment and compliance. Lastly, let me also stress the significance of carefully listening to customers and respecting different cultures and peoples in the places where we do business. I believe honestly that following this simple idea will lead us to living by our Corporate Policy.

Masashi Yamashita
Senior Managing Director,
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*1 ELV directive
The EC directive on End-of-Life vehicles (ELVs), which took in effect in July 2003, bans the use of four substances by automobile makers: lead, cadmium, mercury and hexavalent chromium.

*2 REACH
Registration, Evaluation, Authorisation and Restriction of Chemicals: The regulation entered into force in June 2007, requiring manufacturers and importers to assess and manage the risks associated with chemical substances.
Putting heart into making wire harnesses. We pass on not only the skills but also the heart that comes with them.

Except for a few automated processes, wire harnesses are produced predominantly by manual labor. Quality control, therefore, means human resource management. In other words, it becomes important to remember that “the heart” is required to make wire harnesses. I want to elaborate on what I mean by the heart, and discuss a future vision for Yazaki.

In overseas plants, Japanese managers are often assigned to provide training to locally hired employees. I always tell those managers not to forget that it's they who are given the opportunity to work in foreign countries and emphasize the importance of humbleness. I also encourage them to communicate with their subordinates, using sympathy and consideration. This piece of advice derives from my own experience.

On the other hand, I also advise local workers to try to understand the goals and meanings of the tasks they are given and to seek to make further improvements. Teaching skills is not enough, and I believe it’s crucial that they also put their hearts into their manufacturing. The core of that heart should come from responsibility and pride in the fact that we are making very critical components for cars.

To effectively motivate workers, a manager cannot just say, “that's no good; do it this way,” and show how it should be done. The workers cannot comprehend why that’s no good, and their innovation and personal growth wither. A better way is to simply suggest that a change must be made and leave them to figure out what change to make. Then you will have more motivated workers with growth potential. It's human nature: people will innovate and take positive actions once goals and meanings are internalized.

When I worked in a factory in the Philippines, a female employee reported that she began educating her children about sorting out wastes at home, after practicing the sorting out of wastes and recycling at the factory. There is no such practice at home in the Philippines, but, she said, after realizing the importance of waste management and recycling, she wanted to introduce the idea at home. I almost jumped with joy when I heard her story. This is precisely what I meant to pass on: the heart that comes with skills.

I envision that Yazaki’s wire harness plants around the world will be autonomously operated. These days, we begin to see that vision becoming a reality, as some leaders trained in one country move to train others in another country.

I continue to advocate the importance of putting our hearts into making wire harnesses, fostering employee development, and helping Yazaki to grow as a corporation welcomed and needed by communities in which we do business.
Feature 2

Working together at Yazaki

Thanks to the recruitment policy at Yazaki, employees from a diverse array of backgrounds and nationalities work together. Several employees, who have seldom encountered each other through work, sat down recently to talk about issues of generations of diversity.

What matters most in manufacturing wire harnesses

Yoshinaka: When I was working in Europe, Yazaki had just begun expanding its offices there. It was hard to grasp what our customers wanted, since cultures and business practices differ from us and from one country to another. Repeated face-to-face discussions finally broke the ice, and I was sometimes even able to read between the lines of what was being said.

Takahashi: I was assigned to work in a factory in Thailand in 2000. I was surprised that Thai employees closely observed working relations among the Japanese staff. This made me see that good working relationships among Japanese reflected the performance of the factory. The role of an interpreter is also a key to success. Although it takes a long time to develop a seasoned interpreter, I came to believe that a central task of the factory manager should be retaining a talented interpreter.

Gu: When communicating policies and ideas from our quality control division to Chinese colleagues, mere translation from Japanese to Chinese didn’t suffice, but “cultural” translation that included interpreted background information, was necessary to convey true intentions. I feel that Yazaki employees from different countries and departments exchange frank and open dialogue in the workplace. It is a good corporate culture.

Asyikin: I became interested in wire harnesses when I was studying in a technical college in Japan. My current job is to convert specification data from automakers and send it to our factories, which requires understanding both our work and our customers’ work. I am...
responsible for factories in the Philippines, and I not only communicate by email but speak on the phone with representatives there to ensure they understand converted data.

Conrad: It’s been two years since I came to Yazaki in Japan, and I occasionally encounter cultural differences. In Japan everyone follows corporate decisions without hesitation, so that the startup is quick, but sometimes it’s questionable if everyone understands the goals. Americans usually don’t start anything until everyone understands the goals, since they presume everyone has different opinions. Once everyone shares the goals, changes are made fast. Since Yazaki operates globally and goals and policies must be shared everywhere, the way they are pursued should be customized to each country or division.

Developing corporate culture for working together while recognizing differences

Takahashi: I was a foreigner in Thailand, so I followed the old saying: “When in Rome, do as the Romans do.” Buddhist influence is seen in that country, and they listen to the national anthem twice a day. I believe we work together well when assignees from Japan appreciate working in that culture.

Conrad: Americans recognize differences among people, since they think it’s ok to have different ways of doing things as long as common goals are reached.

Gu: Compared to Americans, I believe Chinese thinking is closer to Japanese. Many realize the importance of bridging differences through frank discussions, since manufacturing quality will not improve unless common goals are shared and differences reconciled.

What kind of person is “kokusaijin” (an internationally-minded person)?

Yoshinaka: A person who understands others’ views. When capable of putting your feet into others’ shoes, one can communicate beyond cultures.

Takahashi: A person who respects others as fellow humans.

Gu: A person who is capable of listening to other opinions with respect from the bottom of the heart.

Asyikin: In addition, that person clearly states his/her opinions.

Conrad: We all strive to build good relations despite commonly felt gaps in communication. I would add to Mr. Yoshinaka’s comment on the globalist – a person who doesn’t stop learning and thinking of the future.

What is important for the future at Yazaki?

Takahashi: Yazaki faces the challenge of raising its technology levels. Another area of importance is human factors in labor relations overseas.

Gu: I believe it’s important to pass on Yazaki DNA to new employees and nurture collaboration among employees worldwide.

Ashkin: Lightweight wire harnesses can be used for environmentally friendly purposes, including applications in electric vehicles, and such research should be enhanced.

Conrad: By capitalizing on its resources around the world and adopting the best from different places without minding precedent, Yazaki will grow to become a stronger company.