



# JARA NEWS

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JARA Manager Matsumoto made a presentation at WRS 2017. He gave a business overview of JARA and introduced JAPRA's Green Point System



WRS 2017 took place at the Advanced Remanufacturing Technology Centre, Singapore, which was constructed in 2015.

## JARA makes presentation at the 2017 World Remanufacturing Summit in Singapore

JARA Corporation (JARA) made a presentation at the World Remanufacturing Summit (WRS) in Singapore on September 6 and 7, 2017. This international conference has been taking place every year since 2012, and key people from the remanufacturing industry, government, and academic field present business results and research findings. Steering members include researchers in the remanufacturing industry, who work at institutes in Germany, United States, and China. A total of 180 people participated in the sixth edition of the WRS, a two-day event which explored: 1) business models for remanufactured products distribution, 2) current status of the remanufacturing market and its future projection, and 3) research and innovation related to remanufacturing technology.

In his presentation, JARA Manager Matsumoto

outlined the latest situation of Japan's recycling industry, JARA's business overview, and its parts sales network. He also presented the Green Point System, which was jointly developed by the Japan Automotive Parts Recyclers Association and Waseda University. The system, which allows conversion of the reduction effect of carbon dioxide emissions by using recycled parts (compared to the use of new parts) into numerical values, captured the audience's attention.

Last year, JARA joined a working group established by the Japan Society for Precision Engineering's Life Cycle Engineering Technical Committee. Mitsutaka Matsumoto from the National Institute of Advanced Industrial Science and Technology (AIST) led the working group; Waseda University Professor Shozo Takata, University of Tokyo Professor Yasushi Umeda, and AIST Research Group Chief Keijiro Masui served as advisers, thereby helping to facilitate research activities related to life cycle engineering in a wide range of fields. From the automotive industry, JARA and Shin-etsu Denso Co. took part in the working group, while Panasonic Corp. joined in from the home appliances industry.

JARA, which has big data derived from recycled auto parts transactions, aims to contribute to building a recycling-oriented society by promoting remanufacturing. Hence, the corporation is actively involved in exchanging



JARA President Soshio Kitajima made a presentation about the recycled parts network at the previous WRS. The annual conference attracts experts from a wide range of industries.

thoughts and opinions with people outside the automotive industry in order to improve its services. (JARA Public Relations)

## JARA conducts BP workshop for door panel repair

JARA Corporation organized an Experience Workshop for Vehicle Body Repair and Paint (BP) at the Aioi Nissay Dowa Automobile Research Saitama Center in Iwatsuki City, Saitama Prefecture, on October 4. It was the second BP workshop after the bumper-focused workshop carried out last fall. Eleven people, who work for front desk and parts production operations at their companies, participated in this year's workshop. The workshop was also a part of JARA's Middle-Level Production Management and Front Staff Personnel Seminar. It allowed JARA members to observe vehicle repair work that BP businesses undertake: the aim was to "make them the personnel who have enough knowledge and ability to provide proper pricing, as seen through the customer's eyes."

While the previous year's workshop demonstrated plastic bumper repair, the participants this year got to observe repair work for dents on door panels. They also engaged in the complete process, spanning pulling with a stud welding machine, puttying, polishing, surface flattening, finishing, and surfacer painting.

For JARA members who usually handle recycled parts, experience in BP work would create a deep understanding of how their products, through various steps, are commercialized and delivered to their customers. As a result, "a JARA member will be able to provide proper pricing as seen through the customer's eyes, such as clarifying whether the number of repair process is counted in the pricing." This would help expand the production of recycled parts and increase sales. (Daily Automotive News, Oct. 12 issue)



### CO2 Reduction Effect

(based on JARA System)

The use of Reuse Parts saved  
**2,426 tons of CO2 emissions**  
in September 2017

The reference figure represents the difference of carbon dioxide (CO2) emissions at the vehicle repair using genuine (new) parts and recycled parts.\*

\*: Based on "Green Point System", which was jointly developed by the Japan Automotive Parts Recyclers Association and Waseda University Environmental Research Institute using a life cycle assessment (LCA) technique.

**JARA conducts hybrid vehicle workshop in Shizuoka**



JARA Corporation recently hosted the Hybrid Vehicle Seminar at the Aioi Nissay Dowa Automobile Research Center in Susono City, Shizuoka Prefecture. The seminar's theme focused on for hybrid vehicles, and it comes with special workshop on low-voltage handling. A total of 13 people participated in the seminar. They received a lecture on the hybrid system and observed detachment work of parts from an actual vehicle.

This was JARA's second hybrid vehicle seminar. "We have prepared content that can be easily and quickly used in everyday workplaces of participants." They learned both the mechanical structure and the powertrain principle of the hybrid system. They also experienced a test ride to identify regenerative braking in the vehicle.

As one of the tasks of their recycled parts production, the participants were involved in the detachment of an inverter unit and learned how to attach and detach service plugs, which is essential for handling a high-voltage system.

Today, hybrid and other electrified vehicles have a wide spread across the market. Recyclers are now being forced to respond to these electrified vehicles. In addition, scan tools have become an essential part of the production of recycled parts. Through such seminars and workshops, JARA will be able to assist its members to improve their technological capabilities. *(Daily Automotive News, Oct. 5 issue)*

**METI to commercialize AI-aided material development**

The Ministry of Economy, Trade and Industry (METI) is planning to commercialize the development processes of automotive rubber materials and catalyzer using artificial intelligence (AI) technology. The ministry aims to utilize a full set of technologies of simulation science, high-speed prototype creation, and the art-of-state measurement to accelerate the production of parts. The number of prototypes is expected to reduce to one-twentieth of its current value. The ministry eyes dramatic improvement in developing functional materials-based parts such as light-weight and anti-vibration rubber parts as well as catalyzers.

Currently, for the development of functional materials, hypothesis of a new function is created based on properties and structures employed in the previously developed parts. Further, repeated validation and evaluation take place through testing. METI plans to use AI-aided simulation methods, high-speed prototype creation machine and nano-level (unit: 1/100,000,000 meter) precision measurement technology to reduce the number of development processes. This would be accomplished as a joint industry-academy-government project under the New Energy and Industrial Technology Development Organization (NEDO), and conducted until the end of fiscal year 2021. METI hopes to achieve definitive results through this exercise.

The ministry also aims at the improvement of the analyzer to be used in material development as well as standardization of measurement data. When AI is widely used in simulation technology, a large collection of data, pertaining to properties, reaction paths, and evaluation results will be absorbed by the

AI, thereby helping reduce development time: in addition, it may discover rules that human beings have not until now. *(Daily Automotive News, Oct. 20 issue)*

**Toyota unveils new hybrid taxi**

On October 23, Toyota Motor Corp. held a press conference in Tokyo for the preview and launch of its new taxi, namely, "JPN Taxi". With Tokyo Olympic Games 2020 coming up in three years, the company developed the new taxi featuring improved occupant functionality and barrier-free access. The exterior design and colors are coordinated to promote the concept of a "tourism-oriented country." JPN Taxi is powered by a hybrid powertrain. It is the first time Toyota has released a hybrid taxi vehicle, and this would be the company's all-new taxi for the first time in 22 years since 1995. JPN Taxi comes with sliding rear doors to accommodate various occupants. It will be assembled at Toyota Motor East Japan, Inc.'s Higashi Fuji Plant. The sales target is set at 1,000 units a month.

JPN Taxi will be fueled by liquefied petroleum gas (LPG) or regular gasoline. The fuel economy is 19.4 kilometers per liter of gasoline. The price of JPN Taxi is approximately 200,000 yen higher than the current taxi "Comfort," but it will save 2 million yen if it travels 300,000 kilometers for five years, the company said.

The new taxi, which has been developed on the same platform as that used for Toyota Vitz, is a five-door hatchback with an overall length of 1,750 mm. The height of the floor is only 320 mm. A wheelchair can be loaded directly from the sliding door. The supporter person can also be seated next to the person on the wheelchair.

Three body colors are available, including deep indigo blue, which communicates a feeling unique to Japan. Safety Sense C and six airbags are standard equipment.

The tax-inclusive retail price of JPN Taxi ranges from 3,277,800 yen to 3,499,200 yen. *(Daily Automotive News, Oct 24 issue)*

**WELCOME TO JARA MEMBER RECYCLER**



Participants visit recycling workplace



Children participated in recycling work involving parts detachment from a vehicle, left.



Participants gain more knowledge about automobile recycling, center.



Workshop for clock craftwork using wheel caps, right.

**Kubota Auto Parts hosts first "Field Trip for Children"**

Miyazaki Prefecture-based recycler Kubota Auto Parts Co. hosted its first "Field Trip for Children" at the company's headquarters in Miyazaki city. By inviting children of the local community to the recycling site and workplace, the company intended to let the children see how their fathers work at the site. This is the first time that the company has held such an event. A total of 37 people joined the event, including president Kubota, and nine employees with their families.

**First event to involve employees and their families**

Kubota Auto Parts is engaged in the dismantling of end-of-life-vehicles (ELVs) and in production of recycled parts. Nevertheless, to engage in the

community, the company conducts industrial tours to its site on requests from the elementary school and local community groups. Moreover, they host an annual open house event known as the "Vehicle Recycling Festival," inviting the general public to see the company's recycling facilities.

This year's event was designed to focus on the both employees and their families. Participants first gathered at the headquarter building and then went on to the head office to receive a briefing on automobile recycling work. The fathers (Kubota employees) were introduced to the participants, and the event started peacefully.

Then, the participants visited the recycling plant. Even though a father may talk about his work with family, real-world images of work are often difficult to visualize. Through such a first-hand event, family members could become more familiar with the profession and recycling process.

**We want to help father so much more!**

After the plant visit, each family took part in an actual recycling process, such as the detachment of parts from a vehicle while receiving father's advice.

Participants then went back to the head office, and took part in a craft workshop for clocks. At the end, several colorful clocks were completed, inspired by various ideas of the children. This marked the end of the event.

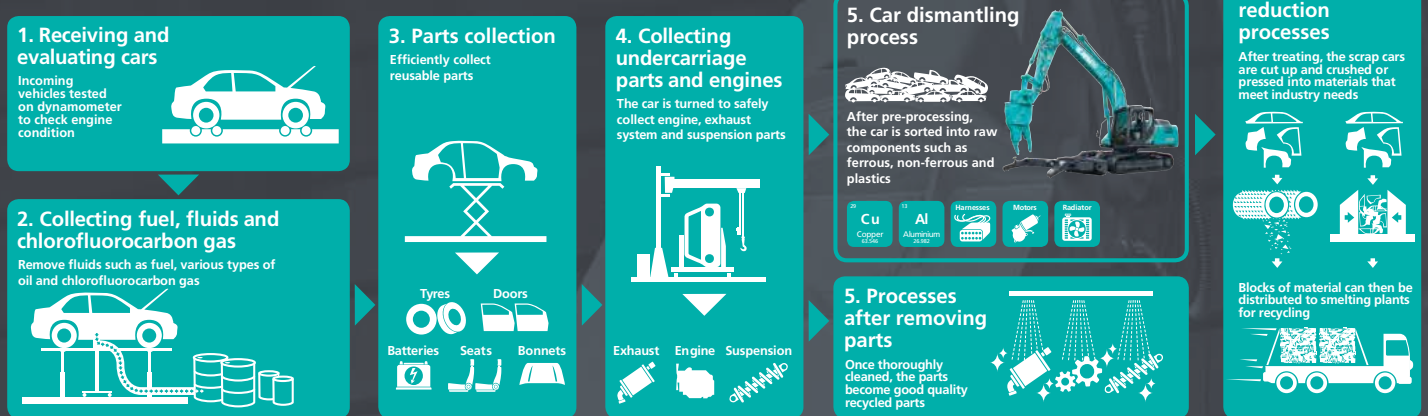
Some participants, who were impressed by their father's work, said that they wished to support their fathers to a greater extent." The words of the company were, "Our first event completed successfully. We are very happy because of how well it was received by our employees and their families. They seemed to enjoy it!" *(Daily Automotive News, Sept. 28 issue)*





## Dismantling process flow chart

How the Car Dismantling machine works



## The Evolution of car dismantling industry by Kobelco

Four times\* the vehicle dismantling capability compared with hand dismantling.

\*In one day (Kobelco test figures)

**15 vehicles >**  
One operative working by hand.

**60 vehicles >**  
One operative in a Kobelco Car Dismantling machine.

Engine, Catalytic Agents, Body Steel, Seats, Windows, Wheels/Tyres, Suspension, Radiator, Brakes, Front & Rear Bumpers, Transmission, Doors, Harnesses

The machine's special attachment is designed to strip materials from End-of-Life Vehicles (ELV) safely and thoroughly

Improved recovery rate of rare earth metals

Fe Iron	Al Aluminum	Cu Copper	Pt Platinum	Pd Palladium
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Separation of these valuable materials is quicker and easier and can be performed with one Kobelco machine.



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