

April 10th, 2013  
Yokohama, Japan

**J-TREC and Tokyu Corporation Jointly Announce  
the Completion of Sustina Prototype Car**

Japan Transport Engineering Company (hereafter referred to as J-TREC) and Tokyu Corporation, one of the major rail operators in the Tokyo area, announced today that the prototype of the next-generation stainless steel railcars Sustina was completed and will be put into revenue service in the middle of this coming May on the Toyoko Line of Tokyu's commuter rail network.

J-TREC's latest innovation in stainless steel railcar model, Sustina, was introduced to the international railway market in September, 2012. Utilizing state-of-the-art technologies such as laser beam welding for its carbody structure and interior roll-bar, J-TREC has decided to advance its new product into the Japanese domestic market and the prototype intermediate car will be inserted into the 8-car train set designated as 5050 series for Tokyu Corporation.

Also, a new logo has been established with the introduction of domestic model Sustina. Based on the logo for the overseas market which incorporates rising sun, the new logo for the domestic market reflects an image of the earth which symbolizes Sustina's environmental-friendliness features.



Sustina logo for Japanese domestic market



Sustina logo for overseas market

J-TREC and Tokyu Corporation have concluded today's announcement by stating that the two parties will continue to collaborate in the future and put much effort into the development of safe and customer-oriented stainless steel railcars.

\*Main features and technical details of Sustina prototype for the domestic market are summarized in the appendix page.

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## Appendix: Main Features of the Next-Generation Stainless Steel Railcars Sustina



### 1. Further reduction in weight and greater energy savings

-Redesigned carbody considering light weight frame structure has made possible a reduction in carbody weight that is equivalent to that of aluminum-made carbody, resulting in greater energy savings during operation.

### 2. Enhanced safety

-Unique interior roll-bar that is installed laterally near the ceiling strengthens the overall carbody structure in case of collision from the side.

### 3. Attractive aesthetics taking full advantage of stainless steel

-With the cutting-edge laser beam welding technology, many of the exterior parts which gave carbody sides an uneven appearance such as protruding drain pipes, door frames and window frames are all relocated, realizing flat and smooth surface. Surface of the interior panels is also made as simple and as flush as possible.

### 4. Improved water-tightness by laser beam welding

-Replacing spot welding with continuous laser beam welding for the joining of side sheets results in higher water tightness and better maintainability by eliminating the need for application of resin-based sealants.

### 5. Lower production cost

-Adopting module configuration for interior equipment contributes to shorter production time and hence lower production cost.

J-TREC



# *SUSTINA*

Prototype sustina  
Debut!!



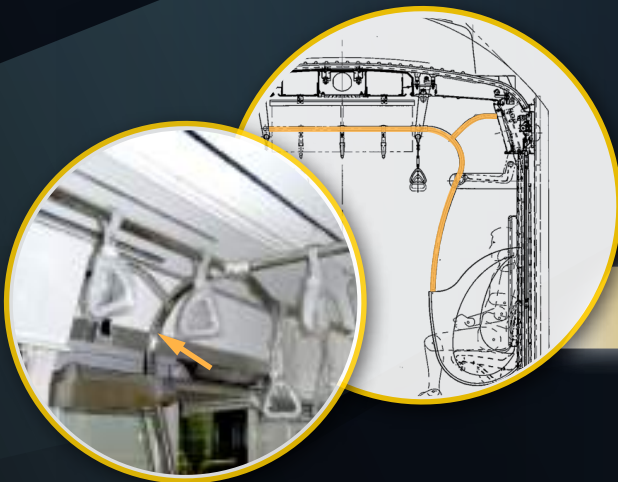
## ■ Improvement in Aesthetics

- Flat carbody side eliminating uneven appearance of protruding drain pipes, window frames and door frames
- Aesthetically pleasing interior design



## ■ Light Weight Carbody

- Reduction in carbody weight to the same level as aluminum-made carbody



## ■ Enhanced Safety

- Improved side-crashworthiness by interior roll-bar

## ■ Higher Maintainability

- Secure water tightness by laser beam welding



## ■ Simplified Manufacturing Process

- Lower production cost by module-based interior