

Staples for a Trip

Service Facilities for the Shinkansen and Other Trains —

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Currently, people design their living space richly and diversely, to suit their respective lifestyle. In this age, users of train services have increasingly high expectations for the comfort of compartments and various other train facilities.

Especially, the privatization of the former National Railways has resulted in a focus on improving the comfort of express trains as living spaces. Compartments and other facilities in an express train are now provided not only with the minimum required functions, utilities and services, but with more amenities for passengers.

This essay presents some efforts to improve the comfort of express train facilities (other than compartments), with a focus on toilets and powder rooms; and discusses related future tasks.

○Improvement of Toilets and Powder Rooms in Terms of Amenities

Among train facilities, toilets and powder rooms represent particularly intimate interfaces between passengers and utilities. These facilities are changing significantly, from merely functional utilities to full-fledged living spaces that are comfortable and refreshing for passengers. This redefinition of toilets and powder rooms as living spaces has contributed to an added value of train services.

○Recent Efforts

Some efforts to improve train facilities in terms of function and user-friendliness are presented in the following sections.

1. Introduction of More Western-style Toilets and Urinals

In the period immediately after the privatization of the National Railways, Japanese-style toilets were still used heavily for trains, for the convenience of aged people who were not accustomed to Western-style toilets in those days. Subsequently, however, many advantages of Western-style toilets have come to be pointed out, including more safety against vehicle shakings, vibrations, acceleration and deceleration; a stable posture during toilet use; and more convenience for aged and handicapped people in recent years. Currently, Western-style toilets have therefore been introduced to an increasing number of train cars.

Also, urinals have come to be installed not only in Shinkansen trains, but in a growing number of conventional express trains, to improve convenience for female passengers and the sanitary condition of toilets. Mostly, urinals are provided in combination with Western-style

toilets.

2. Washstands, Hydrants, Sensor-equipped Toilets

Use of sensor-equipped washstands and toilets has become widespread to improve convenience for users. Recently, washstands that automatically run soapy water have been introduced to some vehicles. Washbasins have become larger in size, for better user-friendliness and easier maintenance. Also, use of washstands designed for wheelchair users is spreading.

3. Facilities for Infants and Babies

Currently, some vehicles are equipped with baby beds, baby chairs and other facilities for passengers who trip with their infants or babies. In express trains on JR lines, passengers can use a multipurpose room etc. for breast-feeding by requesting to the conductor.

4. Facilities for Female Passengers

Some facilities for female passengers now come as staples in express trains, including a large mirror for appearance check on the wall of a powder room or a passage; a separate powder room that also serves as a dressing room; and a toilet designed exclusively for women.

5. Design (Color, Material etc.)

A growing proportion of train facilities are designed for clean appearance and easy maintenance. Among such facilities are unit and single toilets that are made of FRP for improved waterproofing and corrosion resistance; facilities with enhanced appearance, such as walls faced with decorative sheets, and tables and floors made of artificial marbles; and ceramic toilets that are more soothing to the eyes than stainless steel products.

6. Sewage Treatment System (Designed for Odor Control and Water Saving)

Conventional circulation type sewage treatment systems are being replaced with vacuum type systems, which give out fewer odors from the sewage tank. The latter systems, as well as Teflon-treated toilets, have helped save wash water by improving cleanliness; and thereby increase the allowable frequency of use.

7. Barrier-free and Universal Design

Recently, toilets for wheelchair users are designed by incorporating additional user-friendly features for those who trip with their infants or babies, others who have artificial organs, and various other people who have special needs. Also, toilets for general passengers are provided with clearly visible signs, as well as Braille signs for the visually handicapped. Furthermore, after the enactment of the PL Law and the Traffic Barrier-Free Law, more handrails have been installed in a train car to smoothen passenger

movements.

8. Layout

Spaces other than compartments are designed to facilitate the movements of various types of passengers, including wheelchair users; and enhance the interior view from the entrance or passage. In particular, minimum layouts, with such features as curved doors and double sliding doors, have been adopted for toilets and other small rooms to improve safety and user-friendliness.

○Future Tasks

Basically, a desirable train car should be something that looks “normal,” in view of the highly public character of rail transportation. Also, the main focus in designing and manufacturing vehicles will continue to be on safety. It is important to create truly valuable train cars by fully understanding the role of vehicle design, and by monitoring changes of the times.

It is also important that toilets, powder rooms and other facilities in a train car give users an impression as clean and safe, regardless of what kind of design is used for the facilities. Ultimately, a passenger’s favorable impression is clinched by carefully designed user-friendly features. In other words, the design of train facilities should be aimed at improving not only their functions and performance as hardware, but also their “software” aspects as perceived by users, cleaning staff etc.