

H&S Demonstration Car

1. Renewed demonstration car

We set one of our goals—becoming an H&S company—based on our core principle of “maximizing customer value.” As an H&S company, we aim to provide not only seal products (hardware) but also overall seal engineering.

As part of our efforts, in 2014 we opened a Seal Training Center (STC), which is a hands-on training center for sealing work, and have since been offering training services. To promote the value and effectiveness of the STC, in 2015 we started using an STC demonstration car, which is fitted with STC training equipment. This car enables simple hands-on demonstrations to be conducted at a customer’s premises.

Such approaches are greatly appreciated by many customers, and are highly evaluated by plant owners as well as engineers. The number of STC training sessions continues to rise year by year, and we are honored and humbled to receive such positive feedback.

During the two years of its operation, the STC demonstration car has helped to achieve one of our goals, which is to promote the value of the STC. Accordingly, we have completely renewed the STC demonstration car to create an “H&S demonstration car,” and started using it in autumn 2017 to increase advertising and promote various H&S service packages.



Figure1 H&S Demonstration Car

2. Concept

The concept of the H&S demonstration car is not only to attract attendees to the STC training sessions but also to visually and physically promote the value of the H&S solutions. To do this, we installed part of our service packages, which we newly developed and started using in relation to our H&S solutions centering on seal engineering, on the car and gave customers the opportunity to try out these solutions. In addition, the full-scale renewal allowed us to promote the values of the new H&S service package to customers, for whom we had performed work and given demonstrations in the past.

3. Outline of equipment installed on the demonstration car

3-1) Mobile Seal Training System (MSTS)

Mobile Seal Training System (MSTS) is a service package which integrates both equipment and lecturer-training services. In MSTS, some of STC’s training facilities are installed on the car to make a mobile/assembly type training facility, which allows

customers by themselves to give seal training to on-site operators at their sites.

In addition, the demonstration car features training equipment for flange tightening and training equipment to acquire a sense of torque, which are especially appealing. With this equipment, operators have the chance to experience training.



Figure2 Mobile Seal Training System (MSTS)

3-2) Flange Solution Tool

To ensure robust sealing, it is important to select not only optimal seals but also optimal operation management. When the positional relation of different piping flanges is not optimal, correction is dangerous and requires many workers and much time. Accordingly, we started to offer Flange Solution Tool, which allow these operations to be executed safely and efficiently.

On the demonstration car, a large demonstration flange unit is installed. This unit is used for demonstrations on how to adjust the misalignment of a flange. In addition, actual bolt-fastening tools



Figure3 Flange Solution Tool

including hydraulic wrenches and bolt tensioners, are exhibited.

3-3) Rust-proofing service

Various plants and ships & vessels are located and operated mainly in coastal areas of Japan to facilitate distribution. Coastal areas are convenient for distribution, but involve the challenges of salt damage (equipment rusting) to the devices and piping of plants and ship & vessels.

To help solve these challenges, mainly rust-proofing painting is applied. However, such painting involves various issues regarding life cycle, application period, smartification, and other challenges. Therefore, new rust-proofing technologies are needed.

Commonly-used rust-proofing paints have poor adhesion. Therefore, if a gap or space develops between equipment and paint, it leads to separation, requiring re-painting every 2 to 3 years. When re-painting, scraping to remove the degraded coating film is also required. Therefore, in plants which need to avoid combustion risk, operations should be conducted within a limited period during shutdown. However, re-painting requires many procedures such as drying.

A rust-proofing management service using a special rust-proofing resin material can resolve these problems. The material has the following characteristics:

- ① Long-term anticorrosion
 - Oil exuding from within resin blocks oxygen and fluid.
 - Since the exudation period is long, long-acting blocking is expected.
- ② Paint application is possible during plant operation
 - Unlike common paints, no scraping using tools is needed.
 - Painting can be conducted even on areas where scraping cannot be performed (painting cannot be performed) .
- ③ Excellent post-painting workability
 - Since the special rust-proofing resin material can be cut with a cutter, overhaul inspection is simple.

The demonstration car contains a special rust-proofing operation unit. This unit is used to demonstrate the application of special rust-proofing resin, highlighting the differences from conventional painting.



Figure4 Special rust-proofing operation unit

4. Conclusion

This report introduced an H&S demonstration car, which aims to improve the advertising and appeal of H&S solutions. We will revise the range of equipment installed on the car in turn depending on the customers' needs, status of new development, and handling. We dispatch the car all over Japan to help our customers.



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Figure5 A case of rust-proofing treatment