



## PRODUCT FOCUS: SWITCH TILTER



### THE CUSTOMER

The British railway operator Network Rail owns the infrastructure, including the railway tracks, signals, tunnels, bridges, level crossings and most stations, but not the passenger or commercial freight rolling stock of the former state-owned British Rail. In October 2003, Network Rail took on the task of carrying out all maintenance work that had been executed by private companies so far. The reasons for this change were reservations as to the working performance quality of some of the subcontractors even as massive cost overruns.

### THE TASK

With the Modular Switch Tilter Project, Network Rail had an ambitious aim: It wanted to radically reduce the times for points reconstruction and, at the same time, increase the quality of the points-laying works. First of all, switches with separable sleepers had to be developed for the British market. Then, in the second step, switch transport wagons that are capable of transporting the maximum 3.7 m wide switch sections at an angle had to be obtained. For this second step, Network Rail decided to adopt the Switch Tilter.

### THE SOLUTION

The modular switch sections are lifted off the Switch Tilter in the preassembled state, and then inserted at the switch construction site. The great advantage of this procedure: The switch sections are manufactured in the works under optimal conditions and then transported on the Switch Tilters in an equally proficient manner, i.e. with extremely careful handling. So the switches can be installed, not only with perfect accuracy and quality, also installation times are considerably reduced. Furthermore, this method does not cause any further costs for extra assembly areas in the vicinity of the switch construction site.

### WHAT THE DESIGNER SAYS

„Only 15 months after receipt of order for the development and delivery of 26 point transport wagons, the first Switch delivered as per contract. After extensive approval test in accordance with both the European TSI, as well as the British Group Standards, the Switch Tilter got their license. That all sounds like a very smooth process, but it was not quite so easily achieved. Particularly demanding was the design of the Switch Tilters, e.g. with regard to the running qualities. We worked in cooperation with specialised English engineering consultants (Lloyds Register Rail) and the University of Manchester in order to harmonize the natural frequency of the main frame to that of the bogie. With this, it was necessary to conduct meticulous testing on derailment safety, braking behaviour and noise generation. At the same time, we initiated training for the operators who needed to know, not only how to operate the Switch Tilters, but also how the loading and unloading of the Kirow Multi Tasker was carried out, in order to achieve the transportation and laying of the switches in one continuous operation. In a nutshell: The Switch Tilter sets standards in precision and logistics intelligence.“



### CONTACT INFORMATION

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