



Moerdijk Bridge

11 October 2016

Recently, travellers, transporters and shippers have encountered track defects on the Moerdijk Bridge. A portion of the track welds on the bridge does not meet the current standards, and there are also track geometry issues.

ProRail is currently working on a sustainable solution in collaboration with Strukton and is involving transporters, shippers and other relevant parties in this. Moreover, they are working hard to be able to prevent further disturbance of the railway traffic in the short term.

What is going on?

The rails on the Moerdijk Bridge were replaced in 2003 using an innovative new method, namely pouring the rails into an elastic emulsion, to help elongate the bridge's lifespan. Major maintenance was done on the bridge's welds in 2014/2015. However, we have now found that this maintenance was not performed correctly in the complex situation on the bridge, and some of the welds do not meet the standards. These are classified as category US1 and US2 welds. US1 means they require immediate maintenance, and for US2, they require very short-term maintenance. If no action is

undertaken, there is a risk of the rails breaking. In short, speedy and expert maintenance is required. However, this is a complicated matter, because these poured rails require special welding techniques.

Short term

Over the next few months, ProRail will be doing maintenance to tackle these 'bad' welds each weekend, in lengthened regular decommissioning on Saturday nights (for 6 hours) and Sunday nights (for 5 hours). During these decommissions, ProRail will repair the bad welds (US1 and US2) and track geometry. The state of the rails will also be measured, and any weak spots will be mapped out. This intensive maintenance and monitoring method will greatly reduce the chance of acute malfunctions.

Long term

The aim is to completely replace the railway tracks and welds by the second quarter of 2017. This will require a large-scale double-track extraction. The exact date and duration thereof is not yet known; these will be determined over the coming months in consultation with transporters, shippers and other involved

parties. The rails will be replaced using the same method that was used in 2003, which then resulted in a period of over ten years without any serious issues. Any opportunities to improve that have been noticed during earlier observations and repair work will of course be incorporated. In the stage after that, ProRail will test new and innovative techniques to apply. The supporting frame of the Moerdijk Bridge will have to be replaced in 2055.

Organisation

ProRail is doing everything it can to solve these problems in a structured manner. There will be an internal weekly taskforce meeting to discuss all of the technical aspects involved in the issue. A steering group will monitor the progress. This group will consist of representatives of Strukton, Delft University of Technology and the ProRail Capacity Allocation, Asset Management, and Projects departments. This group will meet every week as well. The welding on the bridge will require expertise, so the welders involved will practice their technique. This learning cycle is an important aspect of the current structure. If possible, other weak spots will be tackled immediately as well.