Vögele│ The New Dash 5 Road Paver Proves Itself in Wind and Weather

Rehabilitation of a Rural Highway with the SUPER 1800-5i

The lead contractor used the most versatile Vögele paver model of the latest generation for the rehabilitation of the L 106 between Wagenstadt and Bleichheim. With the SUPER 1800-5i, the paving crew was able to work efficiently, safely, and precisely, despite the poor weather conditions and a tight completion deadline.

The project involved the rehabilitation of a 1.3 km section of the L 106 rural highway about 30 km north of Freiburg. The section of the road between Wagenstadt and Bleichheim was in extremely bad condition and also crossed an important migration route for toads. This is why the rehabilitation work could only begin after a migratory toad crossing solution had been installed. Because the section had to be completely closed for the project, the paving crew had to complete the work in both directions within the shortest possible time.

First Paving Project with the SUPER 1800-5i

Because the project involved the rapid paving of a high-quality binder course and surface layer with varying widths from 5.6 to 8 m, road construction contractor Johann Joos Tief- und Straßenbau GmbH decided to use a Vögele paver from the new Dash 5 generation: a SUPER 1800-5i in combination with the AB 500 extending screed. This versatile Universal Class paver is very compact for its class and, with a laydown rate of 700 t/h, is also extremely efficient. In view of the poor weather conditions, the tight completion deadline, and critical requirements with regard to evenness, numerous new technologies of the Dash 5 generation and the Big MultiPlex Ski sensor system played a decisive role in the project.

Fast and Efficient Operation

The SUPER 1800-5i impressed the crew with a practical feature even before the paving work began: The Dash 5 function Paver Access Control (PAC) allowed the operators to get the paver ready for paving from the ground. The control unit positioned on the screed allowed the crew to conveniently start all the initial steps – such as switching on the lights, starting the diesel engine, booting up the machine control system, raising and locking the weather canopy in place, and lowering the screed – all with the push of a button. At the end of the day’s work, the crew was able to return the paver to its transport position in the same way. “This saves time, prevents errors, and makes setting up and shutting down the paver even safer and more convenient,” said site foreman Josef Gutmann. “It was still dark in the early morning, so it was a great help to be able to turn on the lights before climbing up onto the operator’s platform.”

Poor Visibility? No Problem at All with Light Package Plus

The overall weather conditions were far from ideal: Apart from it being dark, rain and snow made the situation even worse. Gutmann and his crew were therefore glad to have the Light Package Plus on board, as the integrated LED lighting system provides even better lighting over the operator’s platform, service points, and the screed tow point rams. As an alternative to light balloons, the powerful LED floodlights integrated in the canopy extension evenly illuminate the entire working area up to four meters behind the screed and up to a pave width of ten meters. “This meant that we had an ideal overview of all relevant working areas and could save ourselves the cost and effort of bringing in and setting up additional lamps,” says Gutmann. “It also considerably reduced the set-up times on the project site.”

Even and Jolt-Free Feeding Increases Quality

To achieve high paving quality, one of the things the operating crew had to ensure was jolt-free feeding and even transfer of the asphalt mix. This is another area in which Gutmann and his crew benefited from several new technical features of the Dash 5 paver. The improved PaveDock Assistant from Vögele made communication easier during the transfer of the asphalt mix to the paver. The paver operator gave the truck driver clear instructions with the signal lights at the right and left of the paver’s canopy: green for back-up and dock, and red for stop. The sprung PaveDock push-bar efficiently absorbed jolts from the mix tipper trucks and prevented them being transmitted to the paver and, in turn, to the asphalt. Because the push-rollers on the push-bar of the Dash 5 pavers feature a floating suspension, trucks could even dock and feed mix to the paver without jolting in bends.

Big MultiPlex Ski Ensures Maximum Evenness

Gutmann’s crew also had to ensure maximum evenness of the paved surface on the L 106. Parts of the old road surface were in extremely bad condition, which made it necessary to pave not only a 4 cm surface layer, but also a new binder course with a thickness varying between 4 and 14 cm. The paving crew used the Big MultiPlex Ski leveling system to compensate for irregularities in the form of long undulations. The sensor system from Vögele is just the thing for projects like this, inn which absolute longitudinal evenness is essential. The paving crew attached three multi-cell sonic sensors to the variable, 5 to 13 m carrier beam. This allowed the Big MultiPlex Ski to simultaneously scan reference values at several separated measuring points. The Niveltronic Plus automated grade and slope control system calculated mean values from the data of the entire scanned area and used them to compensate for unevenness, even over longer distances.

Optimal Tamper Stroke at the Push of a Button

In addition to precise paving, a further criterion on the construction site in Bleichheim was optimal pre-compaction. The decisive factor for achieving this is a correctly adjusted tamper stroke. “Up to now, we always had to mechanically adjust the tamper stroke. Due to the varying layer thickness here in Bleichheim, that would have been a very laborious and time-consuming job,” said Gutmann. “With the SUPER 1800-5i, all we have to do is push a button and it’s done.” Hydraulic tamper stroke adjustment is available in combination with the fixed-width screeds from Vögele and the AB 500 and AB 600 extending screeds. It's really easy: Depending on the version, the tamper stroke can be set to either 4 and 2 mm or 4 and 8 mm from the operator’s console or the screed control console. “We paved the binder course with a tamper stroke of 4 mm and the surface layer with 2 mm. The hydraulic adjustment saved us a lot of time and effort on this job,” said Gutmann. “The new features of the SUPER 1800-5i are very well aligned with our needs.”

**Photos:**



JV\_SUPER\_1800-5i\_Bleichheim\_001\_PR

Construction contractor Johann Joos Tief- und Straßenbau GmbH rehabilitated a 1.3 km section of the L 106 rural highway between Wagenstadt and Bleichheim with the new SUPER 1800-5i paver from Vögele.



JV\_SUPER\_1800-5i\_Bleichheim\_002\_PR

The weather conditions were far from ideal: the paving crew therefore made use of the new Light Package Plus to make up for the poor visibility.

  
JV\_SUPER\_1800-5i\_Bleichheim\_003\_PR

The signal lights of the PaveDock Assistant system make it easier to communicate with the truck driver and the PaveDock push-bar enables jolt-free transfer of the asphalt mix.



JV\_SUPER\_1800-5i\_Bleichheim\_004\_PR

The paving crew used the Big MultiPlex Ski leveling system from Vögele to compensate for irregularities in the form of long undulations. The paving crew attached three multi-cell sonic sensors to the variable, 5 to 13 m carrier beam.

Note: The photographs shown here are only previews. If you wish to publish them in other media, please download the higher resolution (300 dpi) versions from the link provided here.

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