

Diesel Systems

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Experiment Report: Coating hydraulic valves with Rewitec Nano Coating.

To whom it may concern,

Background:

After the hydraulic valves in our processing machines had failed repeatedly in recent years, a team was put together with a mechanic, a machine setter, and a maintenance foreman, who considered how to deal with this problem at its roots, and what options may arise to prevent this in the long term.

Transfer of knowledge:

Due to the various options for using Rewitec's coatings, we had a meeting with Mr. Baumann (owner of Baumann Mineral Oil Distribution) in the Bosch factory in Bamberg, Section 4, Diesel Systems.

Mr. Baumann and Mr. Schrauder already discussed the options for use at the Maintain Fair 2008 (a trade fair for maintenance).

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Test Facts/ Process:

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Rewitec coating concentrate IG 10 was used for testing (for approx. 10 litres of oil content).

To test the effect of the coating, we dismantled 3 "faulty" valves (valve switching times greatly increased, some valves not working at all) into their individual component parts.

This showed that the running surfaces of the valves had moderate to severe wear.

The valves were cleaned, fitted with new seals, and assembled.

They were mounted on a test stand and continuously flooded with the oil containing the coating, for approx. 6 days without stopping, as instructed by Mr. Baumann.

Result:

After the testing, the valves were disassembled again and inspected visually.

Result of visual inspection was that the surface quality was much better on the pistons and running surfaces.

Due to the high level of effort for us to use the coatings, and the necessary amount of coating medium in order to use it in a series run (oil content per hydraulic unit approx. 200 litres), we have temporarily postponed this option for improvement.

Images and other details are not included in this report.

Yours sincerely

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