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## Report on Results: Application of Rewitec Nanocoating in Diesel Railcar Bm 596 673 of the German Branch of Swiss Federal Railways SBB

The three Bm 596 class diesel-electric railcars No. 671-673 of the GTW 2/6-type (GTW = German abbreviation of "articulated railcar"; two of a total of six axles driven) were introduced as prototype diesel GTWs in 1996 and subsequently delivered to the MThB (Mittelthurgau-Railway). They are powered by one MTU 12V 183 TD13 diesel engine each; the nominal maximum output of this engine is 550 kW.

The Rewitec nanocoating (EUR 1 320 + VAT) was applied on the diesel engine of No. 673 in September 2005 in comparison with a regular W6-overhaul according to MTU/Mercedes specifications carried out on No. 672's diesel engine in February 2005 (circa CHF 50 000). All leaking gaskets had been replaced on both engines at the beginning of the comparative trial.

Although the second Rewitec treatment of No. 673 could not be carried out due to the intervention of the SBB fleet management, its engine performance was "equal, if not a bit better" than that of No. 672 according to a statement of the driver in charge made on September 19, 2006. "The same holds true for the smoothness of running," the driver continued. The better smoothness of running of No. 673's engine was not only confirmed by the author's check of both engines but also by the fact that an alternator cracked in its suspension on No. 672 (rotational vibrations of the engine had been in resonance with the V-belt) which was not the case on No. 673.

Finally it can be stated that the Rewitec treatment is equal if not better than the replacement of cylinder-liners and bearings in a first main overhaul. In addition to the Rewitec treatment, all gaskets should be replaced as recommended by Rewitec in order to achieve an overall result that is equal to a main overhaul.

With the kindest regards  
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