

# success story

## Swiss Federal Railways SBB Passenger Transportation Division Manufacturing Plant

### Assembly of bearing housings on wheelsets

Railway carriages are serviced and fully overhauled at the SBB manufacturing plant, part of the Passenger Transportation Division of the Swiss Federal Railways. In some cases, this involves fully dismantling components, inspecting them and refitting them as reconditioned units.

One important element of such a complete overhaul is the repair of all vehicle axle assemblies. This involves reworking the wheels and replacing the wheel bearings. More than 100 axles daily are completely overhauled at the SBB manufacturing plant in two shifts.

Assembly of the new bearings is an exceedingly important process in this work. These bearings are slid onto the axle and locked with a special-purpose nut. The bearing housings then have to be heated to 70 °C in order for them to be slid over the bearings. **simatherm** induction heaters manufactured by simatec are the ideal solution for heating the housings. A simatherm IH 210F is successfully used for this work at SBB. The IH 210F is suitable for workpiece weights up to 200 kg and designed for continuous duty thanks to fan ventilation.

The bearing housings that appear somewhat misshapen owing to the support flanges for the carriage suspension are heated above the horizontal yoke since this facilitates handling during further processing. The temperature is monitored continually with the temperature probe. Of course, the parts could also be arranged around a coil and the heating process would be even somewhat faster in this case.

After the heated housings have been slid over the bearings, the bearings are packed with grease and sealed, and the housing is then locked with 4 nuts.

Several **simatherm** induction heaters are now in use at the SBB manufacturing plant, also for operational maintenance and for fitting special-purpose axles where a **simatherm** IH 210-XL for instance is used to fit long bearing bushes.



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