

Saved from the scrap heap

Re-coating reduces need for new parts

Re-coating train axles allowed a logistics company to save money and scrap fewer parts.



Situation

When train axles were wearing out, one logistics company found themselves forced to simply scrap the parts. Re-coating and repair were just too expensive. The company ended up with an excessive amount of scrapped parts—which wasted materials and required keeping more parts in inventory.

Praxair solution

Praxair Surface Technologies offered this company a better option: an iron-based coating applied with our high-velocity oxy fuel (HVOF) process. The resulting coating had lower thickness, better adhesion, lower porosity and a better surface finish compared to traditional repair with a wire deposition arc spray method.

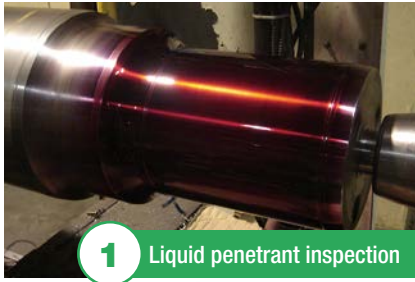
Customer advantages

The new coating protects against wear, abrasion and corrosion. High-quality powders from Praxair, plus the HVOF process, ensure coatings with repeatable composition and properties, so there's no concern about variability in coating performance from part to part.

Better yet, coating and repairing the axles saved the company 40% compared to purchasing new parts. On top of the significant savings, the company was able to scrap far fewer parts and reduce their on-hand inventory.



Re-coated axles have a consistent finish and properties, reducing the need for total replacement.



1 Liquid penetrant inspection



2 Preparation



3 Coating



4 Finishing

Case summary

- Transportation company was scrapping and fully replacing train axles due to costs of repair.
- Company had an excess of scrap, plus had to keep a lot of parts inventory on-hand.
- Praxair Surface Technologies developed a durable, high-performance iron powder-based coating for the axles using HVOF application.
- Re-coating saved 40% versus part replacement.
- Coating provides consistent performance and properties with significant savings in cost and inventory.

Learn more about how Praxair coating materials and processes can help your company reduce inventory and expenses. Visit praxairsurfacetech.com or call **1-317-240-2500**.

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