



David Brown Santasalo

Cement
Chemicals
Defence
Fibre, paper & tissue
Food & beverage
Marine & port operations
Metals
Mining & minerals
Oil & gas
Panelboard
Power generation
Rail
Rubber
Sugar
Water & wastewater

Rail

Value engineered power transmission
solutions for the rail industry

Mechanical power transmission solutions for the rail industry

Across the globe, rail manufacturers and train operators are seeking engineering partners to help them capitalise on the emerging opportunities and meet the challenges of the future. Building on our combined experience of almost three centuries, and in line with our reputation for designing and manufacturing quality transmission solutions, David Brown Santasalo has experts in rail gearbox engineering, project management and procurement to deliver total life support across the rail industry.

David Brown Santasalo understands that in the rail industry quality and total cost of ownership are paramount. That's why our rail gearboxes and gear tooth couplings are value-engineered to meet the most demanding technical and commercial specifications.

Increasingly, vehicle builders are standardising parts to make them more efficient to produce, and David Brown Santasalo is happy to supply standard products. We also appreciate that many applications require a bespoke approach.

We know that manufacturers and operators are seeking engineering partners more than a supplier – and David Brown Santasalo is proudly collaborative, in fact we have built our offering around the customer voice. We pride ourselves on building long term relationships with customers, working with them throughout the development process and product lifecycle to reduce design costs, engineer-in performance improvements and deliver optimal transmission solutions.



Longer life, lower costs, fewer stops

In an increasingly competitive global rail industry, we know that gearbox failure isn't an option. Maximum availability is paramount for both manufacturers and operators and David Brown Santasalo has a proven pedigree in delivering reliability, extending product life and reducing the total cost of ownership.

Our long-standing expertise gives customers the confidence to trust us with their business-critical engineering challenges. With sourcing specialists able to reduce the cost of manufacture – and the ability to recommend the most cost efficient manufacturing location – we can deliver real value to your supply chain.

Key features

- Full in-house design, test and manufacturing capability
- All designs optimised for lifetime performance and ongoing maintainability
- New designs prototyped and type tested to ensure specific gearbox-application fit
- State of the art in-house manufacturing provides strong engineering solutions
- Extensive and stringent testing process coupled with an unsurpassed knowledge of gear applications
- Rapid global service support

We know that speed of response, availability and agility are of utmost importance and our global footprint means we have people on the ground wherever and whenever you need us. Whenever you call, we're on hand to complete servicing or onsite maintenance or happy to provide training and manuals for your own maintenance staff. Around the world, our local repair and maintenance teams are committed to supporting you for the life of your vehicle.



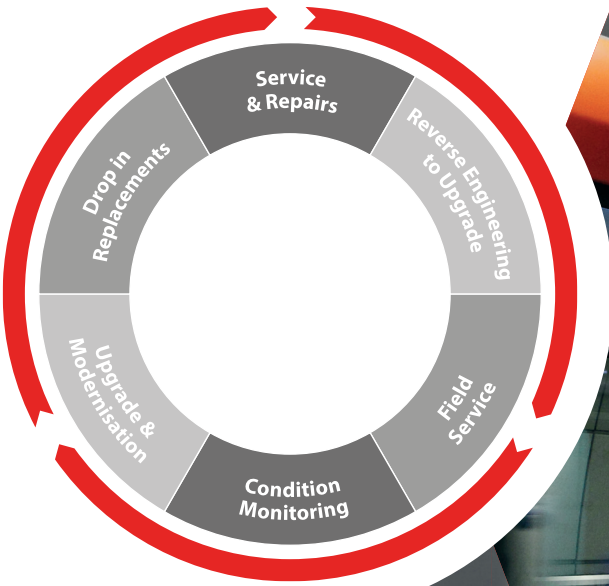
Lifetime support right down the line

From the moment you engage with David Brown Santasalo, our dedicated team of experts is there for the lifetime of your gearbox. We pride ourselves on developing close relationships with our customers to the point that we understand the pressure on equipment and personnel.

Our team is there to ensure maximum productivity and efficiency and will respond rapidly with whatever you need, whether its a technical proposal, or onsite repair and maintenance.

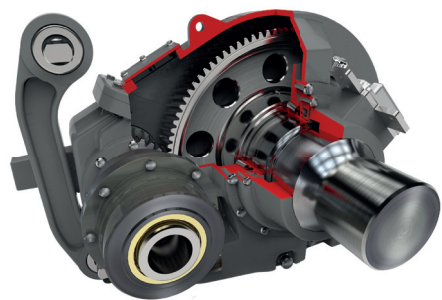
Together we will create the best asset management strategy to help you maximise product availability and reliability, whilst minimising total cost of ownership.

With dedicated teams based around the world, we can offer vital support for any gearbox on a global 24/7 basis.



Serving rail networks across the globe

For more than 25 years, David Brown Santasalo has supplied a wide range of drivetrains to subway, above ground light rail and railway projects around the world. In addition to London Underground in the UK and many projects around Europe, our robust, reliable EMU transmissions are in operation on rail networks in Australia, Chile, China, Korea and Malaysia.

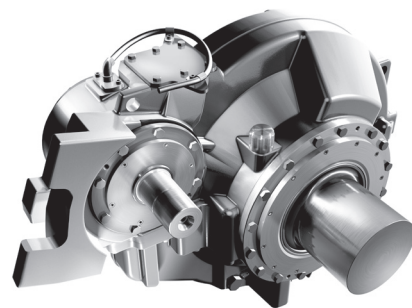


Metro

Full service solutions for metro systems, including couplings, torque links and transmissions.

Key features

- Highly reliable, safety critical gear systems designed for the low speed and frequent stops, which characterise the metro's duty cycle
- Extensive gearbox design, test and manufacturing capabilities, driven by your need for dependable, safety conscious technologies
- Optimised geometry case hardened and ground gearing for maximum reliability, low noise and high efficiency
- Full service and in-house test facilities available across the world

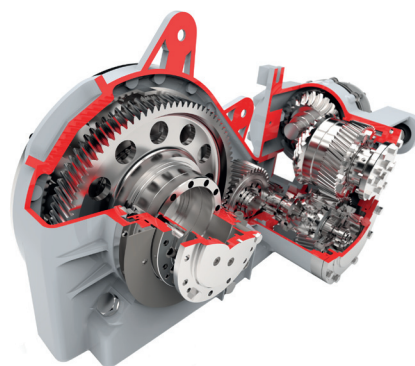


Electric Multiple Units

Bespoke axle mounted gearboxes engineered to suit your specific interfaces and technical requirements.

Key features

- Split gear case designs allow for speedier serviceability and maintenance resulting in lower life cycle costs.
- Integrated design to minimise space requirement
- Fully type tested and approved



Tram / Light Rail Vehicles

Compact, highly integrated and reliable bespoke tram drive solutions.

Key features

- Innovative integrated space designs for low floor tram and light rail vehicles
- Currently in operation in a number of cities globally
- Proven differential units for tight radius track curves
- Tram/LRV transmissions incorporate interfaces for motor, braking and primary suspension
- Designed with lifetime performance in mind



Couplings

Our couplings are known for their proven reliability, with the first designs supplied in 1988 still in operation today.

Key features

- Specifically designed gear type couplings for all rail applications
- Couplings can be incorporated in a transmission package or bought as separate units
- Large modulus crowned tooth design gives high overload capability
- High angular and axial misalignment capability
- Internally damped at limit of movement for smooth low noise operation
- Accommodate relative axial and lateral movement between the transmission and bogie mounted motor

RISAS
Railway Industry Supplier Approval Scheme

On track for a long and problem-free future

David Brown Santasalo gearboxes are specially designed to transmit torque efficiently with minimum losses, low noise and maximum reliability. Gear sets are designed to utilise the latest tooth contact analysis methods to ensure optimum load distribution, efficient performance and minimum operational noise, ensuring the best gearbox for all rail applications.

All David Brown Santasalo's rail gearboxes are designed by the best and most experienced design engineers, assisted by the latest software tools. All gearboxes are subjected to a full range of load, speed and low pressure testing to simulate on track operation. This ensures that the gearbox carries ultimate safety assurance and is on track for a long and problem free future.



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