

GLOBAL RAILWAY ENGINEERING





Table of contents

Understanding the Railway Reality Long Term	3
Global Railway Engineering: a brand helping partners on their path toward a railway future	5
Our Purpose	7
Helping You Achieve Your Railway Goals	9
How We Propose to Work	10
Global Railway Engineering	11
Our Certifications	13
Our Commitment	15
Where You Can Find Us	16
Our Global Approach	17



Understanding the Rail Reality Long Term

2

Almost every mineral and metal we use in our daily lives is brought to us by Rail. It is without saying that this industry is a pivotal part of life and is partly responsible for the great innovations, technologies, and basic essentials used in our day-to-day life's. To alleviate the impact that the industry has on the environment, many mining organizations are making it a top priority to implement improvements where they can access rail to export products at the best possible prices to Ports. To achieve this and to have control, mining companies need to rethink railway operations to better optimize resources.

With Global Railway Engineering committed to the collective goal of achieving all the objectives and by leading the Net Zero Rail future in lowering cost of rail for clients, we are already at the center of Rail Transportation in South Africa. Scheffel Bogies are, without a doubt, reducing Rail costs by Lowering Wheel Wear, Rail Wear, Fuel Consumption, thus playing its role in Lowering Carbon emissions by 2050.

Global Railway Engineering Technology in Scheffel Bogies are, no doubt, a sustainable solutions that attain rail decarbonization goals.



BELUGA TANK WAGON

WITH CARE
DANGER
NRZ
ZIMBABWE
SABLE CHEMICAL WAGON LTD

MAX WATER VOL CAP
NOM WATER VOL CAP
CARRYING CAP (TNN)
CARRYING CAP (KNN)
TARE MASS

AMMONIA
DIESEL
PETROL
LPG

GLOBAL RAILWAY ENGINEERING

SCHEFFEL

29th ANNIVERSARY

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Global Railway Engineering leads the Railway Industry by offering:

- * In-House Design of all Railway Rolling Stock products using modern design programs.
 - * Design and conform to AAR Specifications, using FE Analysis, of all Railway Rolling Stock products built by Global.
 - * Building of all Railway Rolling Stock In-House.
 - * Developing of all Castings according to AAR Specification.
 - * Supporting all products based on Maintenance Cycles via Life Cycle period
 - * Offering full support on Spares.
 - * Offering Refurbishing Programs for Railway Rolling Stock in-house or within Client's facilities in country of operations.
-

“Global Railway Engineering with the Scheffel Bogie Technology has been at the forefront of Transnet Railway Operations.

Global Railway Engineering can directly contribute to sustainable rail goals”.





For almost 30 years, Global Railway Engineering has been designing Rolling Stock for other Railway Customers in the Railway Industry Internationally. Our solutions help to improve rail efficiency and operational reliability, which help to make a significant environmental impact on the efficiency of these railway operations.

Global Railway Engineering stands by its three fundamental guiding principles: decrease OPEX, lower wheel & rail consumption, and decrease greenhouse gases.

Our head office is located in South Africa, and other offices are in Botswana, Maputo. Global Railway Engineering also has very strong ties to China as Global has worked in China since the early 1980's. We also have other representative offices around the world, allowing us to respond swiftly and effectively in providing global customers with the best local solutions.

As a leading organization in the Railway sector, sustainability is one of our main priorities, both internally, in our people and our products, and nationally, with our customers, suppliers, and partners, with the main aim of creating jobs in South Africa.. Global Railway Engineering helps companies on their decarbonisation journey simply by using Scheffel solutions.

Global Railway Engineering:
a brand helping partners
on their path toward
securing their rail future.

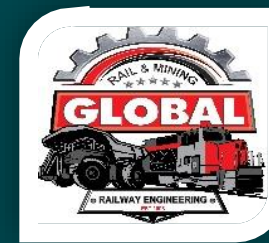




It is important for us at Global Railway Engineering, to not only share our values but also, to live them. We are continuously looking to improve ourselves by providing our partners with the utmost sustainable options, to increase our Engineering expertise.

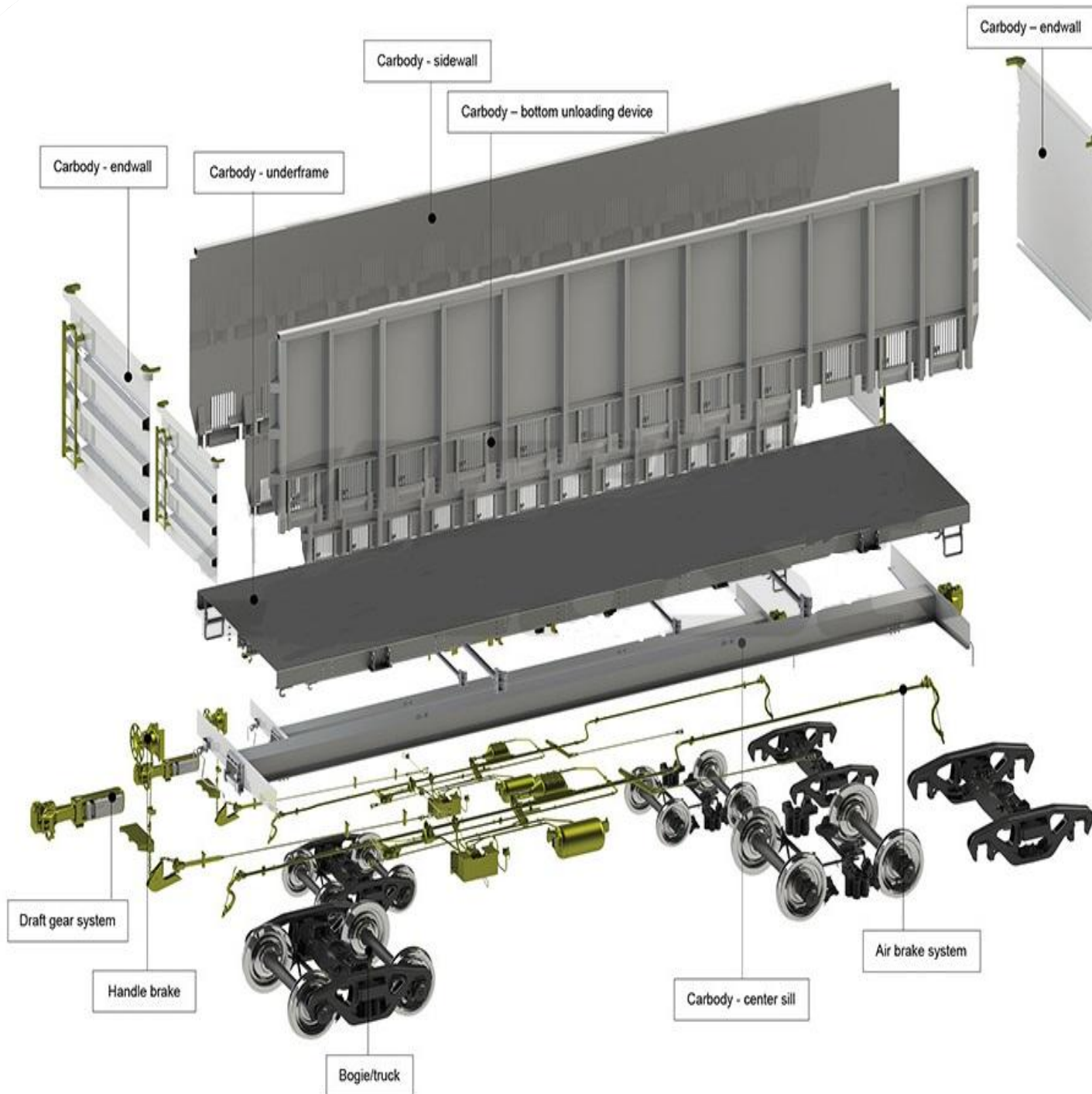
Our ultimate goal is to expand our manufacturing capability to be able to service as many as possible potential clients in South Africa and further afield, using South Africa as our manufacturing base, as much as possible. Global Railway Engineering is no doubt capable to help our clients along the journey of successful RaiRoading by providing our expertise and technical assistance wherever we can. .

As a global company, Global Railway Engineering has spent the last 29 years, building a strong reputation in relation to its strong technical and application expertise and understanding rail related issues associated with challenges. Our dedicated experts apply a problem-solving approach and implement a customized rail solution, delivering unique customer experiences. both trust and loyalty.



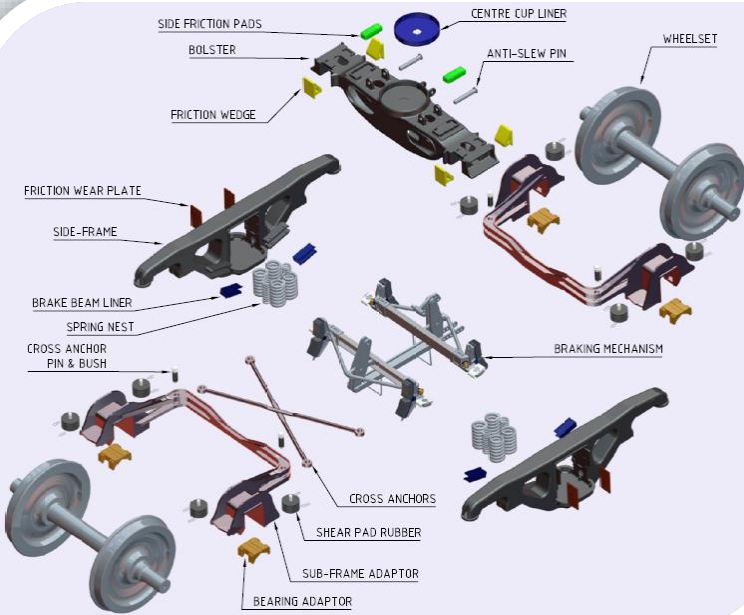
Worldwide Reach



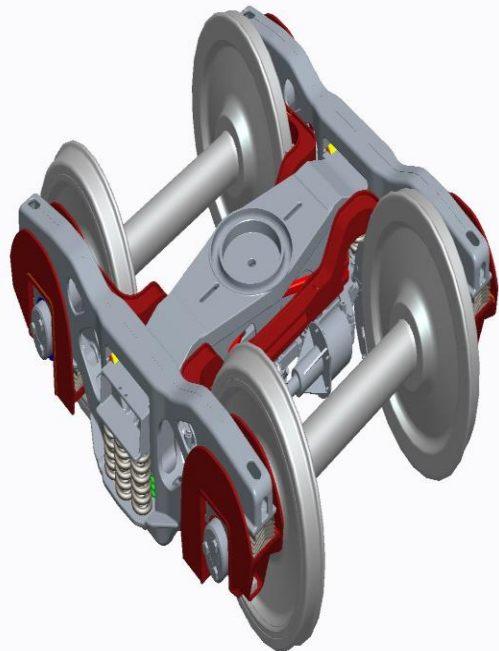


OUR PURPOSE

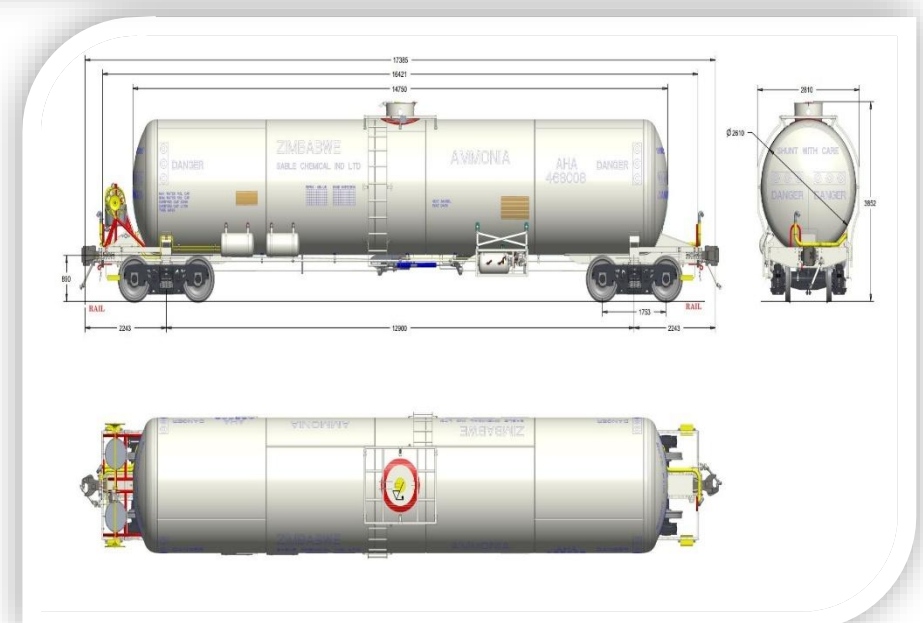
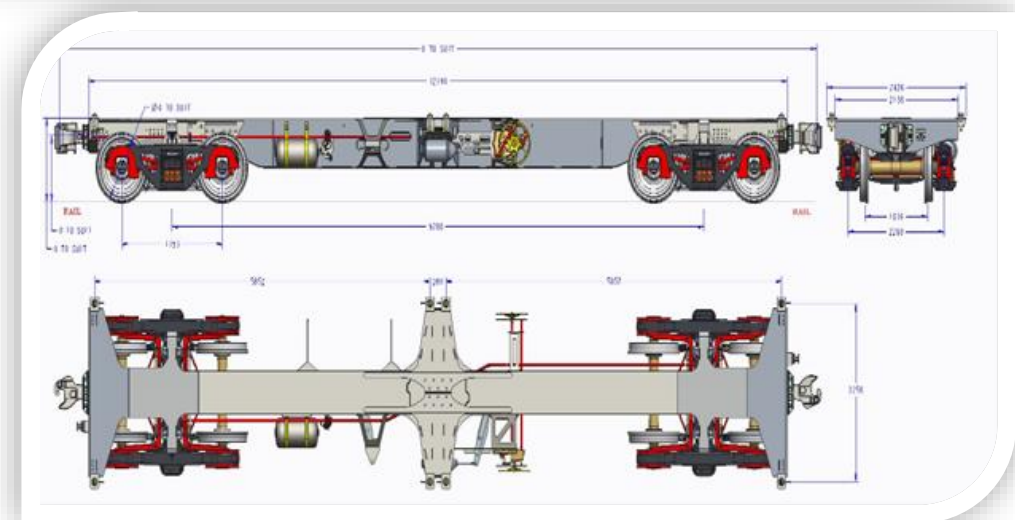
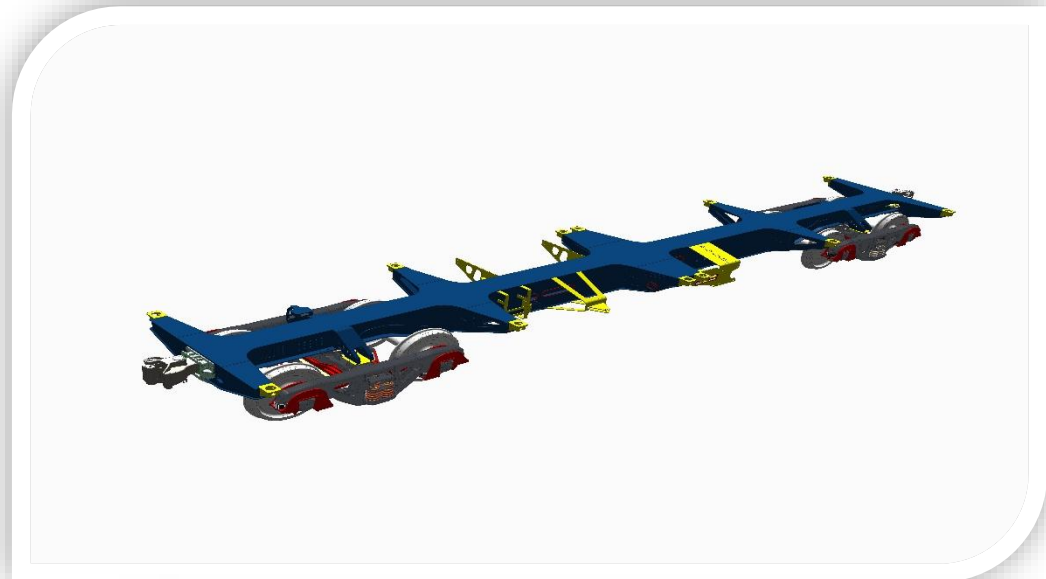
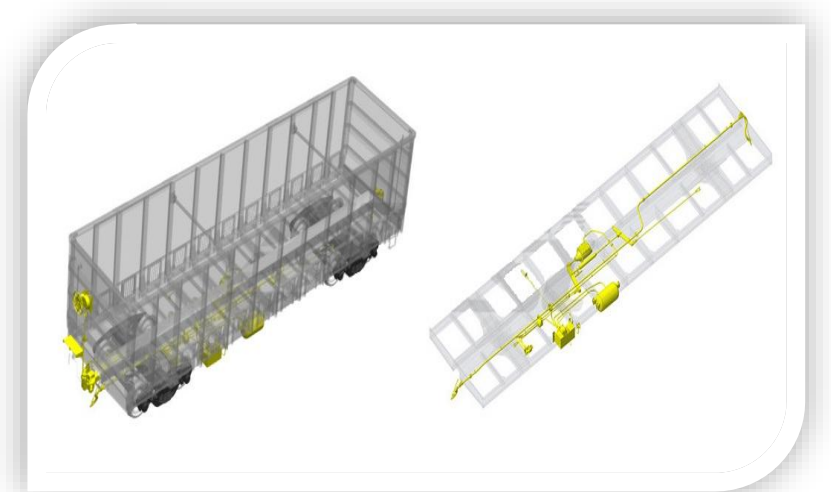
We believe the next generation of railway wagons require state of the art rolling stock, build by state of the art engineering expertise.



During the development of the Scheffel bogie, and where Rowlen was intimately involved with, thousands of test was conducted looking at saving in operational costs for a railway using the Scheffel bogie. These tests have shown that by using the Scheffel Self Steering Bogie technology could lead **to 3000% plus rail savings in curves, 500% plus wheel wear savings, 5-10% fuel savings**, all of which results in a massive reduction of CO₂ emissions.



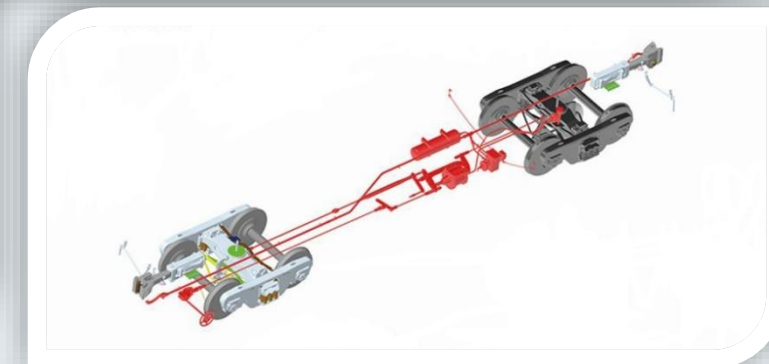
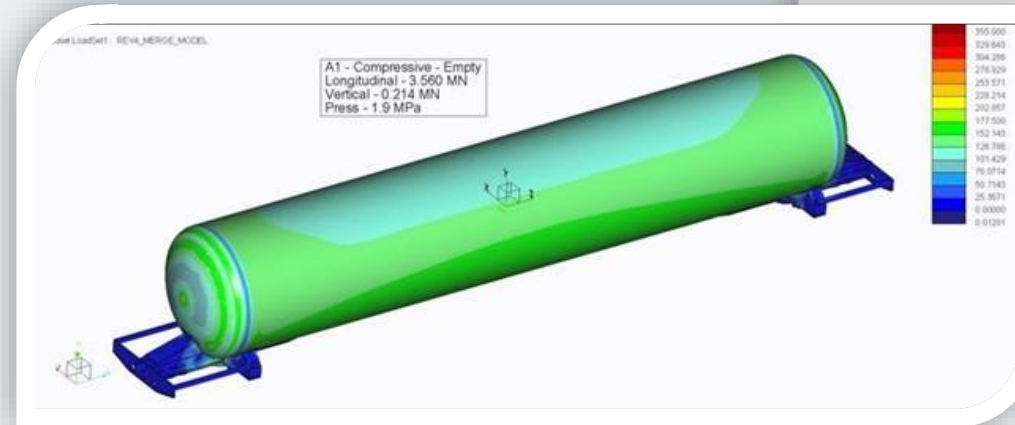
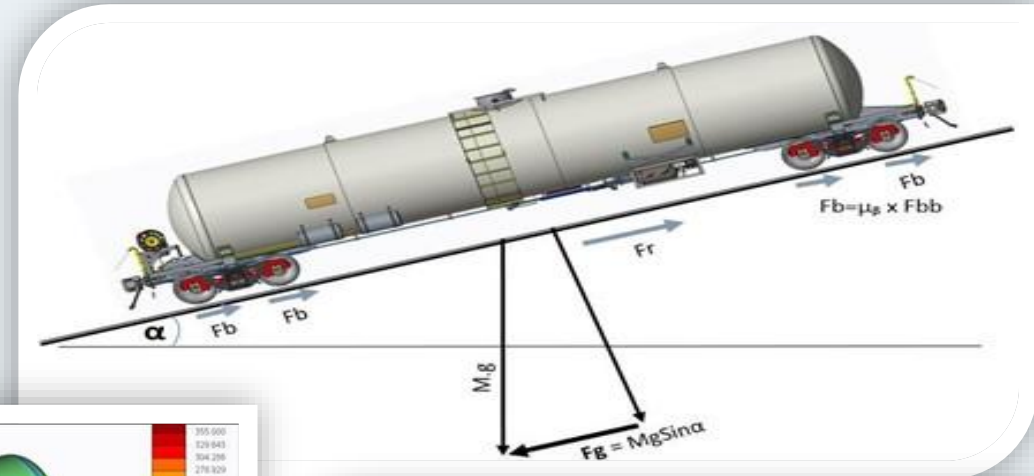
OUR RESULT OF YEARS OF ENGINEERING VARIOUS WAGON DESIGNS



Helping Railway Clients Achieve Light Weight Tare Wagons Results

9

Over the last 30 years, Global Railway Engineering as achieved ISO9001–2015 as well as ISO3834–2 Certification which place us in firm place to design and build Rail industry excellence. We are putting initiatives in place to move towards a sustainable modern rail environment which allows clients to rail products to a greener future. Global Railway Engineering provide rail partners with an effective and sustainable solution as they move towards their goals, by improving rail optimization and reducing rolling stock tare weight.



How do we go about

Technology & Solutions



Global Railway Engineering provides its clients with a sustainable solution, by optimizing lightest possible tare weight, reducing excess weight and allowing for a more complete life cycle cost. Global Railway Engineering improves efficiency, maximizes uptime, and reduces wear of wheels, wear of rail and lowering fuel costs and emissions, as well as limiting the negative impact of hydrocarbons and catalytic fines.

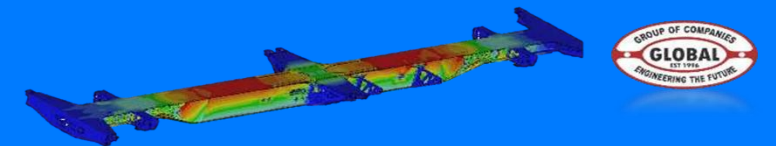
Global Railway Engineering solutions use Self Steering Capability designed over many years to give clients to lowest need for Maintenance. Up to 70% reduction in Maintenance are achieved via Scheffel Self Steering technology that has a physical impact on operations including lowering the fuel, meaning there are huge benefits to the bottom line.

Therefore, our solutions are safe for end-users and the environment.

Our solution increases the performance and efficiency of operational Locomotives giving them longer overall life.

Designs are studied for optimal weight reduction and strength

Wagons are made entirely of carbon steels and stainless steels to have the maximum life cycle between 25–35 years, with the lowest life cycle cost operational. This sustainable solution is win-win for a safe rail operations for users and the environment.





New Ammonia Tank Wagons

Ammonia Tank Wagon is our most sophisticated flagship product yet. This Ammonia Tank wagon was developed and designed in-house within a record time. Our Ammonia Tank Wagons create solutions for clients formulated for large-volume ammonia users. Our design is also compatible with all other liquid types such as; petrol, diesel, biodiesel, HFO, LPG, acid and sulfuric acid.

Global Railway Engineering not only build according to the highest railway specifications but design and develop light weight to optimize in maximum net tonnage to be transported. In addition, Global Railway Engineering Technology helps to mitigate derailments and maintenance related issues such as corrosion, wheel and rail wear.

THE RESULT:

Reduce wheel machining, reduce wheel wear, reduce excessive workshop time, reduce fuel consumption, reduce harmful CO2 emissions both in less fuel consumed but also in less manufacturing of wheels and rails.

OTHER BENEFITS INCLUDE:

Lower time to produce wagons, which reduces building of big quantities of tankers

Lowering Maintenance Cycles

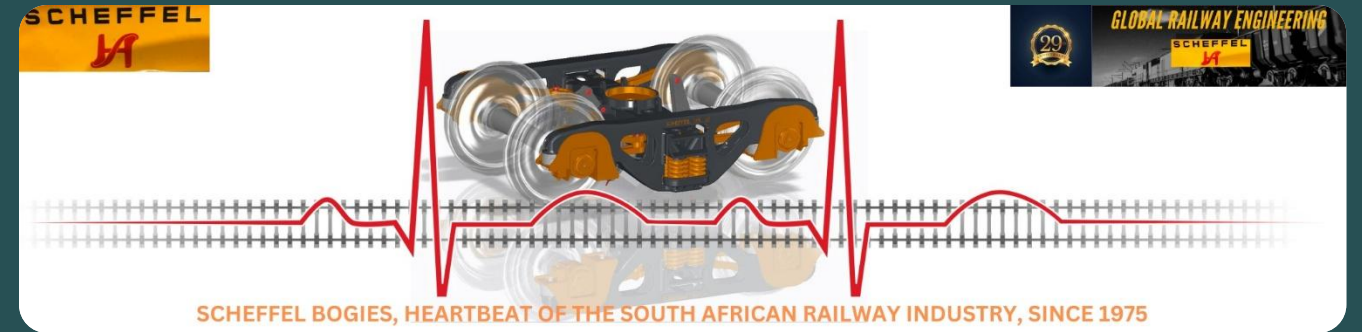
Reduced Workshops Space

Improved Life Cycle Costs

Longer Economy

IDEAL FOR:

All large-scale fuel operations

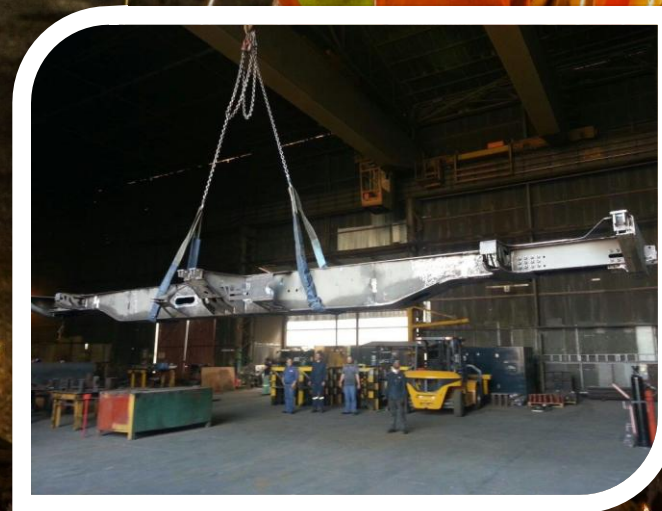


Global Railway Engineering at the Heartbeat of South Africa Rail.

Global Railway Engineering can help organizations on their journey, by **reducing operational costs** simply by using state of the art rolling stock for modern railways.



Rolling Stock products build



ISO 14001
BUREAU VERITAS
Certification



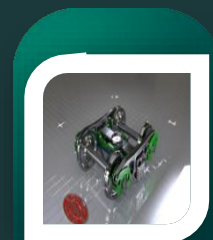
ISO 9001
BUREAU VERITAS
Certification





“Global Railway Engineering listens, delivers technical advice, and acts as a strategic partner in all matters related to Rail. A partnership with Global Railway Engineering is a long-term collaboration, one founded on common goals for achieving a more sustainable modern rail for everyone’s future.”

Rowlen v Gericke,
CEO



Our Commitment

We see our commitments and focus growing from strength to strength in South Africa for Southern Africa, where we build our products and services for Southern African Rail Operators and beyond.

We recognize that we all have a role to play in providing solutions to achieve the United Nations (UN) Sustainable Development Goals. We've linked each of our four CSR pillars, which are: People & Communities, Positive Product, Ecosystem Preservation, and Climate Change, to a Sustainable Development Goal (SDG) where Global Railway Engineering's actions can have an impact.

We continue to track the progress of, and further advance, the SDGs that we have committed to as an organization and will help do our part in contributing to this global agenda.

15



We have made the commitment to align ourselves with the following SDG goals through our business activities and have already put certain initiatives in place, such as;

- Commit to the South African Local Made policies,
- Attained gender parity, as our company strive to achieve a ratio of 50/50 between men and women where possible.
- Provide continuous learning and development opportunities for at least five employees every year.
- Ensure that our employees follow two training courses on working conditions every year.
- By 2025, reduce CO₂ emissions linked to our employees' commute to work by 20%. To achieve this goal, we have put some of the following initiatives in place such as; ask employees to use 50% of the commute train passes, encourage our employees to commute to and from work, and ensuring that all company vehicles are either hybrid or electric in the future.
- By 2025, reduce the volume of products transported by air, by 20% by using maritime and rail transportation as much as possible.
- Research and implement alternatives to Global Railway Engineering packaging to find an even more sustainable options (our current packaging is 100% recyclable).



Where You Can Find Us

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Global Engineering Worx

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Vaal Triangle
South Africa

16



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Our Global Approach

Global strive to grow its business in the following regions where we aim to create service points in strategic locations around the globe. Global ensures quick response and rapid turnaround to meet our customers' mission-critical needs.

- Global Railway Engineering – South Africa
- Global Railway Engineering – China
- Global Railway Engineering – India
- Global Railway Engineering – East Asia
- Global Railway Engineering – North America
- Global Railway Engineering – South America
- Global Railway Engineering – Australia & NZ

OUR CLIENTS INCLUDE:



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