

MIIRA

A CAF GROUP COMPANY



MAINTENANCE & SPARE PARTS SOLUTIONS

www.cafmiira.com

Beyond
wheelset
solutions

Your partner for wheelset solutions



INTEGRAL WHEELSET SOLUTIONS

At CAF MIIRA, we are dedicated to being your global leader in providing cutting-edge Integral Wheelset Solutions. Our commitment extends from the heart of the rail industry, offering innovative engineering, manufacturing, and maintenance solutions for complete wheelsets and portal axles, for all type of trains.

Our solutions are designed to streamline supply chain management and reduce the carbon footprint, contributing to a greener and more sustainable future.

By designing and manufacturing the main elements of the wheelset internally, we ensure full traceability throughout the assembly process.

A committed and highly qualified team, with strong leadership capabilities, focuses on customer satisfaction, continuously driving innovation and excellence in every project. Together, we strive to exceed expectations and achieve shared success.

Forward together.

WHY CHOOSE CAF?

- **Reduced lead times and improved logistics efficiency**
- **Reliability, efficiency, and cost-effectiveness**
- **Decreased total weight of the complete solution**
- **Minimized carbon footprint**

The CAF Group is a multinational group with over 100 years’ experience offering integrated transport systems at the forefront of technology that provide high value-added sustainable mobility for our customers.

We are international leaders in the implementation of comprehensive rail and bus mobility solutions, with extensive experience addressing projects throughout the entire project life cycle in a multi-tude of geographies.



CERTIFICATIONS

Our quality systems are rigorously tested and currently comply with major international standards and regulations.

PRODUCT & MANAGEMENT SYSTEM

<p>QUALITY</p> <ul style="list-style-type: none">• ARR• ISO 9000• IRIS• ISO 1725• RISAS• VPI	<p>ESG</p> <p><i>Sustainability & Environment</i></p> <ul style="list-style-type: none">• CDP• EPD• ISO14001• ISO26000• RAILSPONSIBLE• ECOVADIS PLATINUM <p><i>Labour health & safety</i></p> <ul style="list-style-type: none">• 45001
<p>SAFETY</p> <ul style="list-style-type: none">• UNE	<p>SCIENCE BASED TARGETS</p> <p>RACE TO ZERO</p> <p>EPD®</p> <p>2023 ecovadis Sustainability Rating</p>
<p>TSI</p> <ul style="list-style-type: none">• TSI	

Lead the way with CAF
MIIRA’s Eco-Approved
solutions



Green e-Energy

100% renewable certified e-Energy, produced by wind turbines.

Sustainable. Infinite.

ECO design

More efficient designs that are lighter, require less maintenance and offer longer lifetimes.

Complete wheelset and gearbox designs that eliminate compatibility related problems, maximizing the reduction of total weight.

Efficient. Lightweight.

ECOmmited

Part of SBTi (Science based targets initiative) and Race to Zero initiatives against climate change aligned with the Paris Agreement.

Focus on continuous improvement to reduce carbon footprint throughout the entire life cycle of our products.

Endless improvement.

ECOnsumption

Lightweight designs that require less material and generate less waste.

Production and supply of complete wheelsets generate less carbon footprint: we avoid unnecessary operations and transports.

Integral. Clean.

Circular ECOonomy

100% of the scrap generated by our products is used to produce the steel we use. No additional external resources needed.

Reusable packaging system.

Recyclable.

Green Steel

Green Steel wheels and axles. Our steel is below Standards in terms of generated GHG intensity and below industry average.

Responsible. Green.

Maintenance and Spare Parts Solutions

COMPREHENSIVE SOLUTIONS FOR RAILWAY MAINTENANCE AND SPARE PARTS

CAF MIIRA is at the forefront of delivering comprehensive maintenance and spare parts solutions tailored to meet the dynamic needs of the railway industry. Our commitment to excellence, innovation, and reliability ensures that your fleet remains operational, efficient, and safe.

We offer a wide range of services designed to minimize downtime and maximize performance, including:

- **Maintenance Services**
- **Technical Assistance**
- **Spare-Parts Supply Services**
- **Spare-Parts Engineering Services**

With a focus on quality and customer satisfaction, CAF MIIRA is your trusted partner in railway maintenance and spare parts solutions.

MAINTENANCE SERVICES

Keeping Your Fleet Running Smoothly

Our maintenance services are designed to ensure your equipment operates at peak performance, day in and day out. We provide comprehensive support through:



All-in Guarantee

Ensuring top-quality care and attention for optimal performance and longevity



Preventive Maintenance Services

Proactive maintenance to maximize uptime and reliability



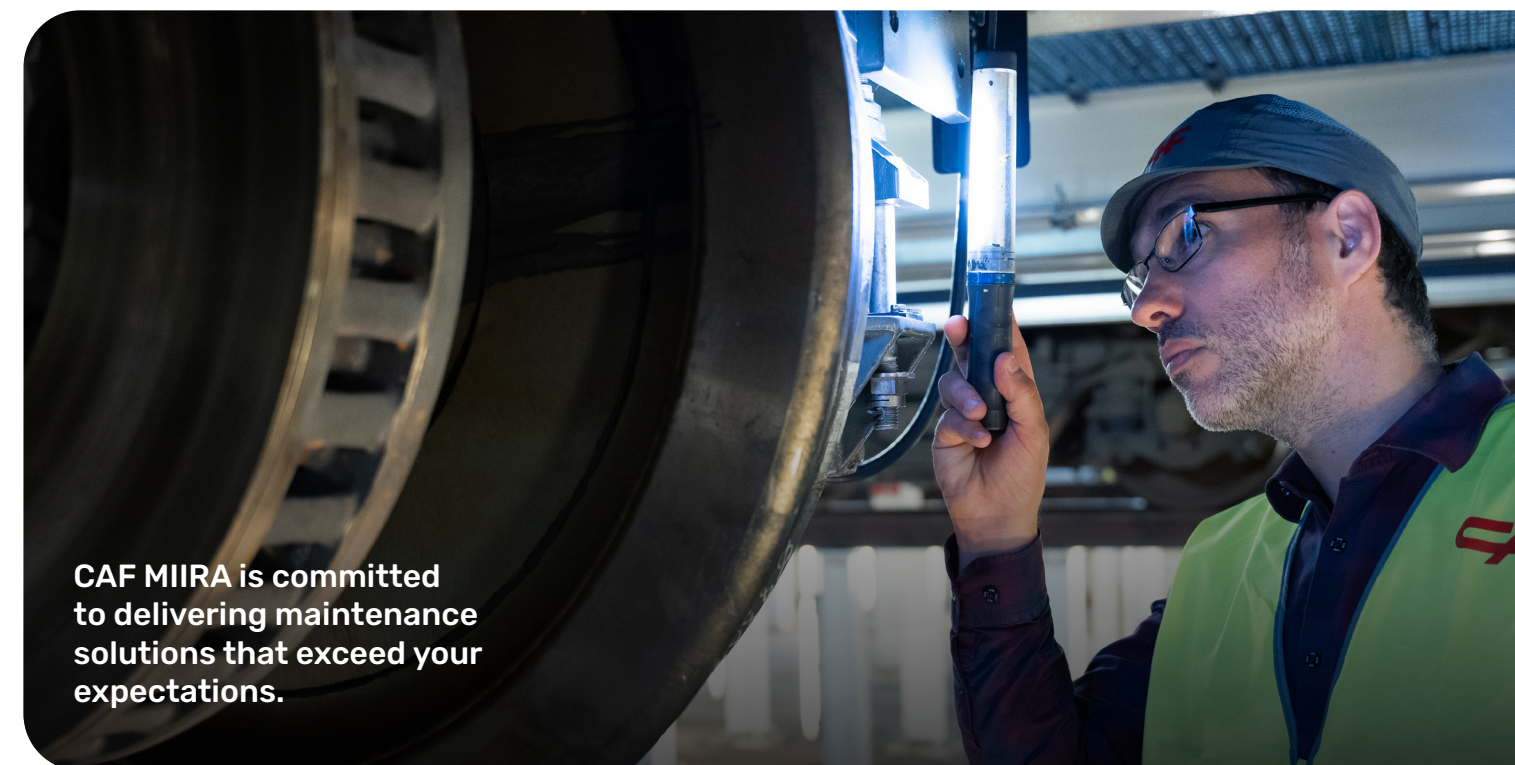
Routine Inspections

Maintaining high standards of quality and safety



Corrective Maintenance Services

Swift solutions for equipment issues or failures



CAF MIIRA is committed to delivering maintenance solutions that exceed your expectations.



PREVENTIVE MAINTENANCE AND ROUTINE INSPECTIONS

Proactive Maintenance for Optimal Performance

Our preventive maintenance services are conducted by skilled CAF MIIRA personnel at client facilities. By adhering to scheduled maintenance routines, we minimize the risk of unexpected failures and costly downtime.



PREVENTIVE MAINTENANCE SERVICES:

- Maximize equipment uptime and reliability
- Minimize unexpected failures
- Conducted by skilled personnel at client facilities



ROUTINE INSPECTIONS:

- Ensure equipment operates smoothly
- Meet regulatory requirements
- Conducted by experienced professionals to uphold the highest standards of quality and safety

CORRECTIVE MAINTENANCE SERVICES

Swift and Effective Corrective Maintenance

In the event of equipment issues or failures, our corrective maintenance services provide swift and effective solutions. With One-Stop Shops strategically located across Europe, we offer convenient access to expert maintenance and repair services for integral wheelsets.



CORRECTIVE MAINTENANCE SERVICES:

- Swift solutions for equipment issues or failures
- Strategically located One-Stop Shops across Europe
- Minimize downtime and restore equipment functionality promptly

TECHNICAL ASSISTANCE SERVICES

Empowering Your Maintenance Teams

At CAF MIIRA, we provide comprehensive technical assistance services to empower operators and maintenance teams with the knowledge, tools, and support they need

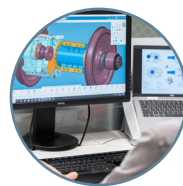


TRAINING PROGRAMS:

Comprehensive Training: Equip maintenance operators with necessary skills and knowledge

Hands-On Experience: Practical sessions for maintenance personnel to familiarize with procedures

Manufacturer Expertise: Share valuable insights and best practices for quality and safety



SPECIAL TOOLING DESIGN AND SUPPLY:

Customized Tooling Solutions: Design and manufacture custom tools for specific project needs

Precision Engineering: Create high-quality tools for optimal performance and reliability

Quality Assurance: Rigorous testing and validation to ensure functionality and safety

MAINTENANCE ENGINEERING AND LEAN IMPLEMENTATION

Expert Engineering and Continuous Improvement

Our maintenance engineering services and Lean implementation are designed to optimize your maintenance operations



MAINTENANCE ENGINEERING SERVICES:

Workshop Design: Define and implement efficient workshop layouts

Machinery Selection: Assist in selecting suitable machinery and equipment

Process Optimization: Analyze and optimize maintenance processes for efficiency and quality



LEAN AND KAIZEN IMPLEMENTATION:

Lean Principles Integration: Eliminate waste and improve efficiency

Kaizen Continuous Improvement: Foster a culture of continuous improvement

OEE Monitoring and Enhancement: Assess and improve maintenance operations

Cost Reduction Strategies: Develop strategies to reduce operational costs

SPARE-PARTS SUPPLY SERVICES

Reliable Spare-Parts Supply for Uninterrupted Operations

Our spare-parts supply services are designed to ensure the uninterrupted operation of your railway fleet.



CUSTOMIZED SPARE-PARTS CONTRACTS (TSSSA):

Tailored Solutions: Design customized contracts for planned component deliveries or full-service agreements.

High-Level Storage: Ensure highest standards of component storage.

Professional Logistics: Efficient and timely delivery of spare parts.



SPOT SPARE-PARTS ORDERS:

Responsive Solutions: Address immediate maintenance needs promptly.

Stock Availability: Expedite shipping for in-stock parts.

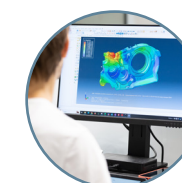
Quality Assurance: Manage procurement to guarantee highest quality and authenticity.



SPARE-PARTS ENGINEERING SERVICES

Innovative Solutions for Spare-Parts Engineering

Our spare-parts engineering services are designed to maintain optimal performance and longevity of your railway assets.



REVERSE ENGINEERING SERVICES:

Experience and Expertise: Maintain products from other OEMs.

Comprehensive Analysis: Thorough analysis of components.

Precision Engineering: Manufacture new parts equivalent to originals.

Modernization and Fleet Renewal: Offer cost-effective solutions for discontinued components.



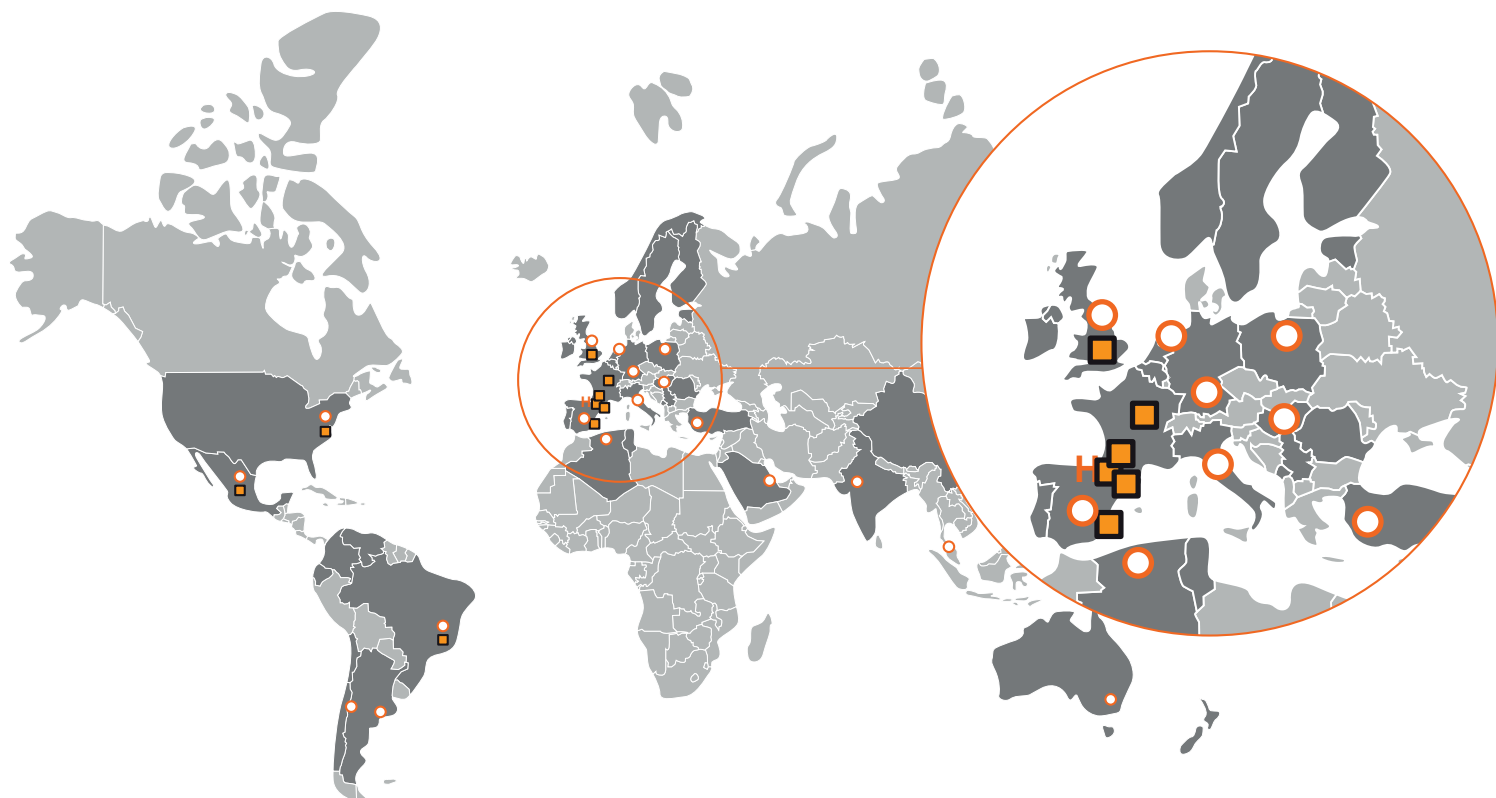
OBSOLESCENCE MANAGEMENT:

Proactive Approach: Identify and manage product obsolescence risks.

Risk Mitigation: Ensure continuity with homologated spare parts.

Seamless Maintenance: Minimize disruptions with effective management strategies.

Long-Term Reliability: Deliver reliable spare-parts engineering services for long-term asset reliability.



- H** Headquarters
- Production Plants
- Offices
- Countries with ongoing projects

Headquarters:

- SPAIN

Production Sites:

- SPAIN • FRANCE
- USA • BRAZIL
- MEXICO • UK

Subsidiaries:

- MADRID • PARIS • LONDON
- MUNICH • WASHINGTON D.C.
- NEW DELHI • MEXICO D.F.
- ROME • SYDNEY • WARSAW
- SAO PAULO • BUENOS AIRES
- ISTANBUL • ROTTERDAM
- DOHA • KUALA LUMPUR
- SANTIAGO DE CHILE
- BUDAPEST

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