

## **Unipart Rail Fleet Engineering**

Comprehensive engineering and product support to improve fleet reliability



"Cradle to grave" product development support

Dedicated fleet engineering team with customer help desk facility

Technical and incident investigation providing root-cause analysis and resolution

Obsolescence management of parts to ensure continuous supply

Innovative product design to improve vehicle reliability





## **Our services**

Unipart Rail's services span the entire spectrum of the railway system and help our clients deliver their required business outcomes. We solve complex technical service problems on rolling stock, address matters relating to product and vehicle interface issues, deliver cost reductions through improved asset management and reliability improvement.

We are expert in systems integration and working through all stages of the railway asset lifecycle, from feasibility, specification and procurement, through operations, maintenance and renewal. This enables Unipart Rail to deliver effective and efficient solutions across all aspects of the rail industry. We provide support at all organisational levels, from strategic railway management through to engineering and detailed technical services, to meet clients' exact needs and thus deliver benefits for their business.

Assignments undertaken typically include engineering and technical support to help keep the railway running, through to the management of major capital renewal or refurbishment projects and strategic advice such as supporting clients in bidding for passenger rail franchises and concessions.

### Warranty and Reliability

Improving performance

## **Engineering Product Support**

Onsite service, problem resolution, help desk facility

## **Product Innovation** and Improvement

Design, testing and trialling

## Safety and Incident Management

Incident management and quality assurance

## **Obsolescence Management**

Working with suppliers to anticipate supply problems



# Warranty and reliability management

Network success depends on performance. Performance upon reliability. You don't need us to tell you that.

#### What you might not be aware of though is that Unipart Rail provides train operators and owners a complete warranty and reliability management service.

Careful performance tracking means that we can quickly identify underperforming products. Armed with that knowledge we can then go about doing something about it.

#### The results?

Industry leading warranty and reliability processes that save money, increase train availability and enhance network performance.

#### Find out how:

#### **Our Service Features**

- Proactive development of design improvements to prevent long-term reliability issues
- Perpetual review and analysis of warranty returns to identify reliability trends



- Pro-active reviews of poor performance data to understand root cause of failures
- Uses a large team of supplier and customer facing engineers to develop and implement improvements to ensure dependable vehicle reliability
- Industry leading warranty process ensures faulty components are returned and replaced with minimum disruption and in a timely manner using world class logistics
- Sharing of warranty and rejection data with customers to drive continual improvements and performance of components
- Use of six sigma and FMEA studies to develop new overhaul standards for components
- In house design and development team can provide new drawings, specifications and repair standards for improved products
- Condition assessment of customer assets and proactive review of data so that Unipart Rail engineers can predict the lifecycle of components and to offer enhanced repairs to customers giving greater longevity and reliability in service
- Continued service operations (CSO) studies carried out to understand and predict which system, component and vehicle fleet may need short, medium or long term plans to ensure reliable operation in service
- Management of warranty returns for new build fleets on behalf of operators

#### Your Operational Benefits

- Cost effective re-engineering of components to deliver added service life to vehicles
- Ensured compliance of new parts with contractual warranty requirements
- Minimising staffing required to manage non-core rail activity
- Improvement of component performance and reliability to reduce whole life costs
- Reduced service failures and improved service performance



## **Engineering product support**

#### Complete engineering support.

## Whilst the mechanisms that support it, to be fair, are inherently complicated, the concept isn't.

Because we've got the most extensive rail industry supplier network and the most talented engineers; because we understand performance, and because we take the time, trouble and expense to find out exactly what you want - it means that you get exactly that.

The support and services you need, when and where in the world you need them.

#### **Our Service Features**

- Perpetual review of product performance and continual drive to improve reliability of products using trend analysis tools and techniques
- Large team of customer/supplier facing engineers that have extensive resources available in the supply chain
- In-house engineering expertise and facilities to solve 'real-time' technical issues
- Specific project and design engineering capability allowing "Turnkey" solutions

- Managing product reliability workshops with both customers and suppliers
- Access to new technology and innovation
- Provision of engineering change documentation and configuration management
- Help desk and customer support facilities
- Active involvement with Rail industry user groups and forums

#### Your Operational Benefits

- Access to over 700 suppliers and specialist engineering services
- Using proven methods of improving quality and reliability of products
- Enabling a perpetual management of product performance
- Access to specific engineering resources that work closely with customers to identify product enhancement requirements



## **Product Innovation**

Do you have a good idea, but no idea how to develop it? We can help bring your ideas to life.

#### From inception through to manufacturing and implementation. Our Product Innovation services are at your side every step of the way.

Incredible tools, incredible talent and outstanding support. Your creative thinking captured, nurtured and turned into fully fledged commercial offerings. Products that help you build a better, more profitable business.

#### A clear advantage to you.

#### **Our Service Features**

- Product design and analysis using state of the art CAD systems
- Production of manufacturing drawings and supporting documentation
- Rapid prototyping to develop concepts into functional models
- Access to an extensive supply chain network to offer competitive manufacture and supply

- Testing and commissioning of products and systems
- Project management from concept to implementation
- Support for building customer safety and business case
- Managed through a structured innovation and design process
- Close working relationships with customers and clients across the global industry

#### Your Operational Benefits

- Bringing ideas to life
- Improved service performance and reliability
- Product improvement and life extension
- Reduction of your business operating costs



## **Safety and Incident management**

The primary concern for Unipart Rail is safety on the railway and its infrastructure and to ensure that all materials and parts supplied to the industry are fit for their purpose/environment and that all potential risks are mitigated where and when required to ensure this primary need is satisfied.

All updated and improved specifications are reviewed by the Unipart Rail engineering section to check for accuracy and engineering integrity including a review of risk to the railway and any safety implications that may need further specialised (third party) review. All Unipart Rail Suppliers are also audited on a regular basis by the Unipart rail auditing team and appropriately certified against the relevant product they supply, any non-conformance found is noted and corrective action reports are issued by the audit team, and this data is used to drive supplier improvements on a continual basis.

## **Obsolescence Management**

Unipart Rail has developed an obsolescence management process that identifies current and future parts that will need to be replaced by either new parts of the same design or alternative parts manufactured to a new design using specific CSO asset models based on individual customer requirements. Unipart Rail engineering department are continually requested by our customers to assist in identifying possible alternatives to obsolete parts and can arrange and help in the design of new prototypes, validation of designs, third party accreditation and controlled trials with customers.

Unipart Rail engineers also hold performance review meetings with key suppliers (and customers) to develop and improve vehicle operational equipment using six sigma and other analytical processes and tools as part of a continual improvement approach to the services offered.



#### **About Unipart**

The Unipart Group is a leading UK manufacturer, full service logistics provider and consultant in operational excellence. Operating across a range of market sectors, including automotive, manufacturing, mobile telecoms, rail, retail and technology, Unipart offers a breadth of services to a wide range of blue chip clients internationally.

Unipart Rail (Traction and Rolling Stock) Jupiter Building, First Point, Balby Carr Bank, Doncaster DN4 5JQ Tel: +44 (0) 1302 731400 Fax: +44 (0) 1302 731401 email: trsenquiries@unipartrail.com



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