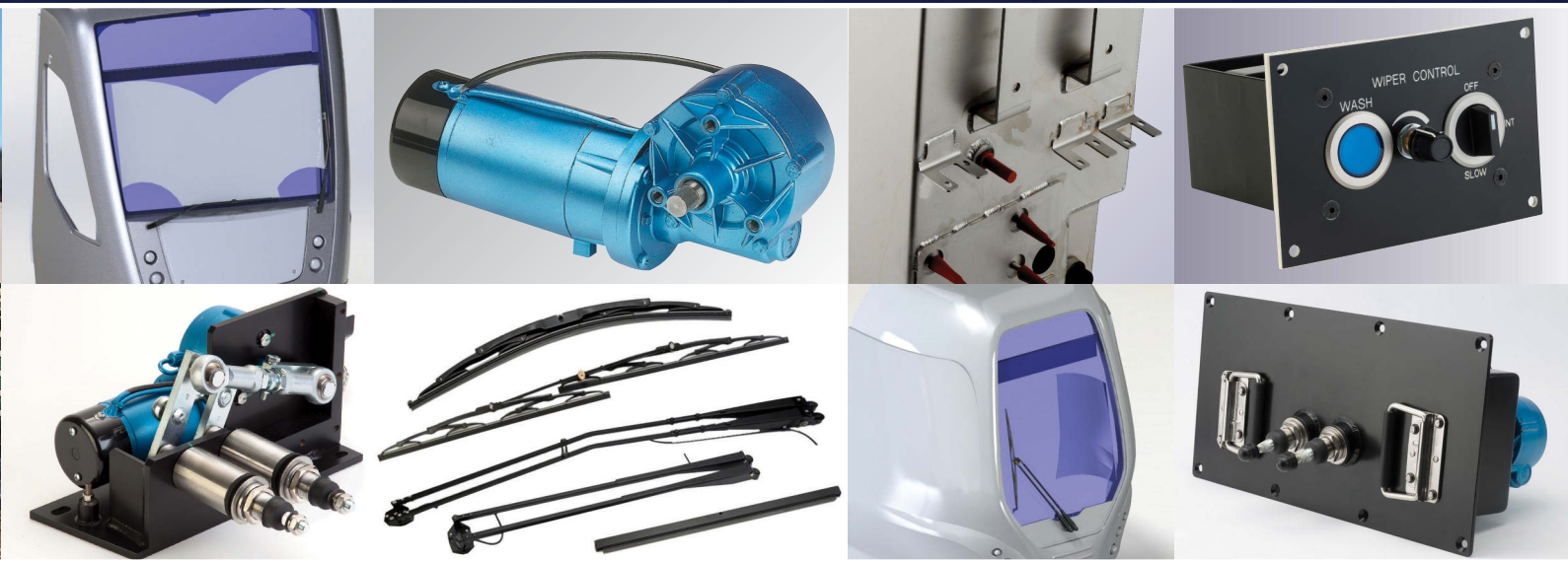




HEPWORTH RAIL
INTERNATIONAL



PERFORMANCE DESIGNED WIPER SYSTEMS



rail



HEPWORTH RAIL INTERNATIONAL

Hepworth Rail International is the world's leading supplier of bespoke rail windscreen wiper equipment, having over seventy years of experience specialising in the design and manufacture of heavy duty windscreen wiper and wash systems.

Meeting the challenges of rapidly developing technology alongside the stringent demands of the rail industry, Hepworth Rail has built a reputation at home and abroad, synonymous with quality and reliability. Hepworth continually work to maximise and expand our product range by providing fully compliant systems, including the latest standards such as IRIS, ISO9001, EN45545, EN50155, EN50121-3-2 and EN15085. Hepworth design philosophies are successfully applied to both low speed and high speed vehicles – up to 500kph.

EN 15085

IRIS
BUREAU VERITAS
Certification



ISO 9001
BUREAU VERITAS
Certification



LRV / METRO / TRAMS

LOCOMOTIVES

EMU / DMU

HIGH SPEED TRAINS

Based in Worcestershire, West Midlands, our specialist team of employees work across three manufacturing plants covering 92000 sq ft.

Services and products offered include:

- Design, supply and fit of standard/bespoke rail wiper systems
- Refurbishment, overhaul and retrofit
- On site system training
- First fit support
- Aftersales support
- Comprehensive spare parts service

system types



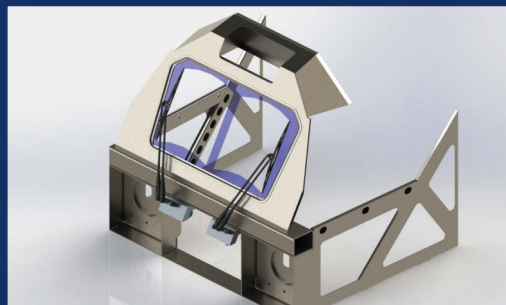
Single Pendulum



Dual Pendulum



Single Pantograph



Dual Pantograph



ALSTOM

Kawasaki
INNOVATING RAIL

BOMBARDIER



ŠKODA

SIEMENS

CNR

VOITH

UNIPART
RAIL

customers & projects

Technical distributors are located across all continents enabling quick deliveries and offering flexible support with any queries that may arise. Our trained distributors can help with any technical issues and even attend site visits if required.

With a 50-plus client base in the rail sector we have successfully supplied our wiper systems for over 300 projects across all 6 continents. From locomotives to high speeds trains, we are recognised globally for supplying high quality performance wipers.

For our high profile customers such as Bombardier, Alstom, Siemens we have successfully implemented and continue to work on many international projects. Below are some applications we are proud to have our wipers fitted to:

London Underground S Stock

191 vehicles manufactured by Bombardier (Derby)

San Francisco S200 Tram

150+ trams being manufactured by Siemens (Sacramento)

Coradia Nordic X60, X61

150+ vehicles manufactured by Alstom (Salzgitter)

products

Wiper Motors and Integrated Linkage Assemblies

- Any voltage allowing compatibility with all vehicles & eliminating the need for DC/DC converters
- 30Nm, 50Nm, 80Nm & 120Nm wiper motors available to suit all applications
- Standard 1 or 2 speed motors (2 speed 21/36 RPM, 30/45RPM - 1 speed 26RPM)
- Ingress protection 54 & 56 motors also fully enclosed
- Linkages for internal or external applications
- EMC compliant to EN50121-3-2



Wiper Arms and Wiper Blades

- Pendulum arms at any length & cranks within operating parameters
- Pantograph arms at any lengths and cranks within operating parameters
- Wash tube fed internally through shaft
- 4 spray wash nozzles for maximum screen coverage or more if required
- Articulated and flat blades from 450mm to 1300mm



Control Systems, Drivers Switches & Electrical Harnesses

- Multiple intermittent functions at any pause frequencies
- Integrated switches including intermittent, slow, fast & wash functions
- Any wash cycles available
- Electrical synchronization programmes available
- Electrical harnesses at any lengths with the use of any required connectors



Wash Pumps, Wash Tanks & Wash System Kits

- Stainless steel wash tanks at any required capacity
- Plastic moulded or fabricated wash tanks at any required capacity compliant with fire and smoke standards
- Electrical and visual level sensors/indicators
- Any voltage washer pumps allowing compatibility with all vehicles
- Incorporated filters to prevent contamination
- Wash hose kits including various adaptors for securing hoses
- External and internal filler spouts



Additional Products

- Rail compliant rain sensors in all voltages for uses on up to 12mm thick glass
- Mating half connector kits
- Bulkhead connectors and spray jets
- Installation kits including MCB's, Cable, Crimps, etc

retrofits

Our retrofit wiper kits are designed as replacements for pneumatic, older electrical and under-performing systems. We have standard off-the-shelf kits, as well as the ability to design bespoke systems to meet the customer's requirements.



Over time we have been able to gain the knowledge and experience to design standard off-the-shelf systems that can be used on the majority of older vehicles. Our low maintenance systems come at an affordable price as well as maintaining the high levels of quality and still meeting the industry specific standards. Our 50Nm, 80Nm, and 120Nm compact wipers come in any required voltage and can be used on all rail vehicle applications.

In addition to the standard off-the-shelf parts, we can also offer additional products to give you a complete new system.

Other available products include wash tanks (stainless or plastic), wash pumps, control systems, electrical harnesses and drivers interface units, as well as wash hose kits and mating half connectors.

Along with supplying products to meet your requirements we have a dedicated team of engineers to support in any site visits. Our technical team will make an initial visit to understand the existing wiper system and mounting positions, and to provide technical information as to what system would be best suited for your application. We will also attend the initial installation and provide any support required.

Your system could be as simple as plug and play!

overhauls and refurbishment

Our specialised servicing and refurbishment department enables us to carry overhaul activities on all our wiper systems. Our skilled engineers have the training and experience to rejuvenate your system back to a new condition.



Based on past experience and testing carried out during project development, we recommend that a condition assessment is carried out on your wiper systems at around 5 years of in-service operation. It is at this point we can assess the wear on components and understand the life of the system in its operating conditions.

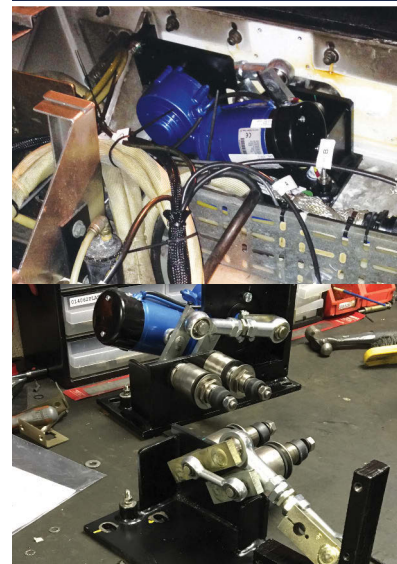
Results of the condition assessments have in the past identified that many more years of fault free operation can be expected. We are therefore able to advise an extended period before the recommended overhaul is carried out. This recommendation will also take in to account a number of

factors such as system use, environmental conditions and loads on the system.

The benefit of overhauling the wiper system is the extended life that this will give, in addition to reducing the risk of in-service failures which lead to vehicle delays. Also it gives you the confidence that your wiper systems will not give you any cause for concern, leaving you safe in the knowledge that you will not need to do anything until the next serviceable period.

We offer our full support in setting up overhaul programmes that suit you best and guarantee short turnaround times. All systems are rejuvenated back to a new condition as well as being fully tested to the original specifications and being issued with a 1 year warranty.

We also offer onsite training so you are able to carry out the overhaul activities as you require.





HEPWORTH
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...showing the way

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