

Restoration Grants 2019

OVERVIEW



A record number of applications came in 2019, some well in advance but most of them tight up against the deadline of 31st March (at that time). The spread covered: five locomotives (an 1897 Taff Vale Railway loco, a 1906 saddle tank loco, a 1920 Peckett saddle tank loco, a 1940 John Fowler diesel shunter, and a 1951 NER tank loco); five buildings (an 1805 coastal fort for conversion to a cinema; a grain store and

bakehouse, a railway weighbridge building, a lock-keeper's cottage, and a 1936 bus garage); five vessels (a 1926 Brixham trawler, a 1948 canal boat, a 1949 motor vessel, a 1951 lifeboat, and a 1953 canal lighter); four water mills (the leat of a 1784 cotton mill, the sluice of an 1839 a corn mill, the repair of a 1990s water wheel, and the refurbishment of a 2008 water wheel); four types of factory machinery (an 1854 rope-making machine, a set of Victorian fur felt hatting machines, two Jacquard silk weaving looms, and three coin-minting machines); four vehicles (replica seats for a 1935 bus, modifying the gauge of a tramcar truck, restoration of one of a pair of 1929 Fowler ploughing engines, and the overhaul of a Centurion tank); two stationary engines (bearings for a pumping station engine, and a brine pumping engine); a mining headgear; a 1948 railway inspector's saloon carriage; a 1954 Bristol freighter aeroplane; transport of an early 19th century timber waggonway; and repair of cast-iron a signpost.

The projects had a total value of £2,145,960, for which grants of £530,300 were requested. Thanks to the ongoing generosity of our anonymous donors, out of this batch of 34 we were able to fund eight to a total of £130,683. The eight projects were:

Stephenson Museum. The Willington Waggonway – conservation and display of wooden track

In the summer of 2013, the remains of a section of the Willington Waggonway were uncovered during archaeological investigations at the former Neptune Shipyard close to the River Tyne. This internationally significant find is the most complete and best-preserved section of early wooden railway to have been unearthed anywhere in the world. Its discovery is important evidence for the pioneering technology of North East coal mining in the nineteenth century, and particularly evidence of the formative history of the railway; it is the earliest railway track yet discovered that was built to what became the international 'standard' gauge (4'-8^{1/2}" or 1,435mm), firmly linking the waggonway to Stephenson and the development of modern railways.



The initial programme of research and preservation of 93 waggonway timbers took place from late 2013 to early 2018 and this section was first displayed, temporarily, at the Great Exhibition of the North in the summer of 2018 and attracted considerable public interest. The grant of £11,000 from AIA is to cover the cost of preserving the remaining 50 waggonway timbers, their transportation to and from York and incorporation in a new permanent display close to SRM's star exhibit the Killingworth 'Billy' to establish a logical and coherent story about early railways in the North East.

Work was originally due to begin in July 2019 for completion the following March, but has been delayed due to Covid-19.

Chatham Historic Dockyard Trust, Ropery machinery



Chatham's first naval ropery was built shortly after the dockyard moved to the site of the present Historic Dockyard in 1618. A new Double Ropehouse accommodating yarn spinning on its upper floors and ropemaking forming and closing machines on the lower floor was built between 1786 and 1791 becoming operational at the beginning of the Great French wars. The new building was equipped with a range of then 'state of the art' ropemaking equipment including equipment patented by both Joseph Huddart and John Daniel Belfour. In 1809-11 Simon Goodrich (Navy Board mechanist) and Henry Maudslay introduced pioneering mechanical forming machines to improve the quality of the

manufacture of rope strands – one of which remains in regular operational use today. In 1837 a steam engine was introduced to power the forming machines (until then both forming and closing operations were powered by hand).

In 1854 new sets of closing machines were installed enabling the rope closing process to become steam powered. Both these and the earlier Maudslay forming machines have remained in use to the present day initially serving the Royal Navy and Britain from the Crimean War, through the two World Wars and to the Falkland's conflict in 1982. It is now operated by Chatham Historic Dockyard Trust which endeavours to continue to operate the Ropery to demonstrate its unique equipment to visitors and maintain traditional ropemaking skills into the 21st century.

The AIA grant of £17,200 was towards a £21,700 project for the cost of essential repairs and conservation to the middle side closing machines to enable ropemaking demonstrations to continue at Chatham and this traditional craft to be kept alive. Work started in November 2019 for completion by the following March.

Paradise Mill, Macclesfield. Conservation of Two Silk Jacquard Looms



Paradise Mill, which was a working mill up until 1981, is the only surviving example in the UK, of a Hand Weaving silk mill with its Jacquard Looms still in their original locations. It is a lasting reminder and the only one of its kind in the town that illustrates how Macclesfield was once the centre of Britain's silk production for much of the 19th Century. Today the mill and all its machinery and ephemera belong to the Silk Heritage Trust.

There are 26 Jacquard Looms in situ at the mill, but only 2 of which can be used for demonstration purposes. One of the looms needs a new set of silk warp, while the second machine needs a new harness. The AIA grant of £16,600 towards a £21,200 project will allow these two looms to continue to produce silk goods and be the centrepiece of the Silk Museum's Dynamic Tours. Work began in July 2019 and is approaching completion.

Big Pit National Coal Museum, Wales. Restoration of headframe structure



The steel headframe structure at Big Pit is Grade II* listed and an important element of the site's rich cultural heritage, a defining feature of Wales' identity as an industrial nation and set in an industrial landscape designated as a World Heritage Site by UNESCO.

The all-steel headgear was erected in the 1920s, replacing an earlier timber structure, and used to raise and lower cages carrying coal, miners and materials up and down the mine shaft. Today it is a central part of the visitor experience. It lowers visitors 90 meters down the mineshaft for the famous underground tour; a captivating journey around a section of original underground workings led by an ex-miner. However, having recently discovered serious corrosion, the headframe structure was in need of urgent repair.

Following a survey of the headframe it was recommended that a scheme of extensive renovation works be put in place to restore, repair and preserve the entire structure. The AIA grant of £20,000 towards the £71,300 project to refurbish the headgear will allow the underground tours to continue.

Big Pit staff carried out any structural work necessary and contractors carried out the preparation and painting work. The work was undertaken in September 2019 and the headframe was back in use in November.

Gwill Vintage Carriage Group with NRM. Taff Vale Railway Locomotive No. 28



Taff Vale Railway locomotive No. 28 represents a unique and largely forgotten piece of railway and Welsh history. Built in 1897 at the West Yard Works, Cardiff of the Taff Vale Railway, it represents the last and only surviving mainline steam locomotive built in Wales. Designed by Tom Hurry Riches, Chief Locomotive Foreman of the Taff Vale Railway, the locomotive was built to haul coal from the South Wales Valleys to the ports at Cardiff.

The locomotive has survived through a series of fortunate events. Having outlasted the Taff Vale Railway, it was absorbed by the Great Western Railway. In 1926 as its classmates were scrapped, No. 28 was offered for sale, being bought by the Longmoor Railway. The engine was named 'Gordon' after General Gordon of Khartoum and its military service came to an end in 1947 when she was deemed surplus to requirements.

'The Last Survivor', as the loco is affectionately nicknamed, was again saved from the scrap man as she headed north to the Hetton Colliery Railway, County Durham, under the ownership of the National Coal Board. In 1960 the locomotive was retired, but realising its historical importance the NCB donated the locomotive to the British Transport Commission (later the National Railway Museum). It arrived back in South Wales at the Caerphilly Works in February 1962. It was then farmed it out to various preservation societies. After some years in steam it had to be dismantled and was eventually restored to a non-operational cosmetic condition.

The work funded by the £18,250 AIA grant is to complete the £160,000 restoration of the chassis, running gear and brake gear to full operational condition. It is estimated that the work will take the volunteers a little over three years. The Gwill Vintage Carriage Group volunteers who currently care for the locomotive is a diverse mix of railway enthusiasts, engineering professionals, craftsmen and also a number of people who have never been involved with preserved railways before. A key objective of the project is to develop heritage skills and the locomotive will be used as a basis for this.

The Hat Works, Stockport. Restoration of Victorian Hatting Machinery



Though overshadowed by the vast mills of the local textile industries 'Hatting' was Stockport region's specialist trade, and one for which it was held in high regard throughout the world. Fur felt hatting is a distinctive and fascinating branch of the ancient art of hat making for which Stockport became renowned.

Stockport has the UK's only museum dedicated to the hatting industry. Alongside the machinery floor the Hat Works has a recreated hatter's cottage, a hat block maker's workshop, a Victorian haberdashers and a collection of over 400 hats. The machines

themselves were salvaged from Christy's Hat Factory when it closed in the 1990s, acquired by Stockport Council and accessioned into the Museum's collections. The collection comprises machines used in the making of fur felt hats – and demonstrates over 30 hat making processes; including fur cleansing, fur blending, fur forming, planking, blocking, finishing and trimming as well as machinery used in hat block manufacture.

The AIA grant of £16,463 is to restore the belt drives and for the lubrication and air jet cleaning of the 30 fur felt hatting machines and to bring them back to full, working order so that visitors can experience them as part of a guided tour named 'Gearing up'. Work was due to begin in December 2019.

Bristol Aero Collections. The Bristol Freighter Type 170: Restoration and Conservation



The restoration of the Bristol Freighter Type 170 is to be a stand-out project for Aerospace Bristol's Conservation in Action programme. The Freighter entered the museum's collection in January 2018 thanks to a huge effort by Aerospace Bristol's dedicated team of volunteers, to bring the Freighter home to Bristol from Ardmore Airfield, New Zealand, where the aircraft was parked in preparation to be scrapped. The Type 170 is one of only eleven Bristol Freighters remaining in the world today and now is the *only one of its kind in the whole of Europe*.

Designed and built by the Bristol Aeroplane Company, the Type 170 was used both as a freighter and as a passenger airliner, known as the Wayfarer. The innovatively-designed Freighter had a 108ft wingspan and featured distinctive clamshell doors that allowed cargo – including vehicles and large animals – to be loaded via its nose. Aerospace Bristol's Freighter was used by the Royal New Zealand Air Force. Developed during the Second World War, the Type 170 first took off from the Filton airfield in 1954. It has even been the star of a film, 'The Man in the Sky' (1957).



The AIA grant of £11,770 is for tools, equipment, safety gear, access equipment and for three months' worth of raw materials that will be purchased to allow volunteers within the Conservation in Action workshop to undertake the restoration, which will include the doping of fabric wing flaps and the creation of replacement parts.

The work will be done in front of the public starting in January 2020.

Susan Trust Chelmer & Blackwater Navigation. Restoration of the wooden lighter, Susan



'Susan' is the only surviving wooden lighter from the Chelmer & Blackwater Navigation. She was also the first and only lighter on the Navigation to be fitted with an inboard engine. Her design is, however, similar to that of earlier horse-drawn lighters which from 1797 carried a variety of commercial cargoes between Heybridge Basin and Chelmsford on this 14 mile river navigation. As none of these survive, she has added heritage interest.

Built in 1953 by R & J Prior of Burnham-on-Crouch for Brown & Son timber Merchants of Chelmsford, Susan

has spent her whole life on the waterway for which she was built. Susan retains her original form which relates to her function with a simple and practically constructed design. She also has her original Thornycroft engine. Susan is 18 metres (59 feet) long x 4.5 metres (14.6 feet) wide and has a displacement of 30 tonnes. She is listed in the National Register of Historic Ships.

The restoration of Susan, part funded by the AIA Grant of £20,000 as part of a £65,506 project, aims to return her to the Chelmer & Blackwater Navigation as a working exhibit and operational vessel at the Museum & Science Education Centre at Sandford Mill, Chelmsford. The work requires the completion of the gunwales and superstructure and the re-installation of the original engine and stern gear and is expected to take about ten months to complete.