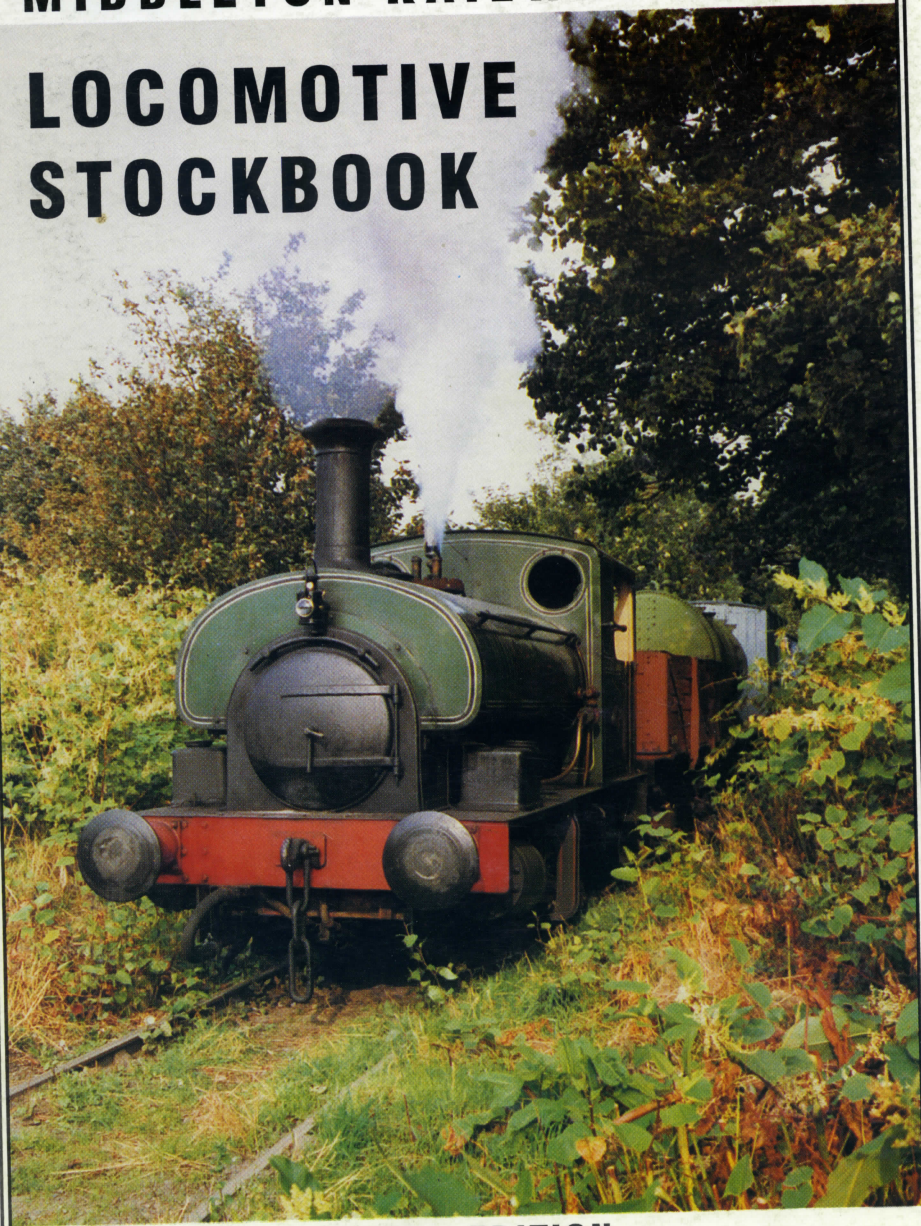


MIDDLETON RAILWAY TRUST

**LOCOMOTIVE
STOCKBOOK**



SIXTH EDITION

FOREWORD

It is probably true to say that the world as we know it today partly owes its existence to the invention of the steam locomotive. Just exactly which was the first steam locomotive is open to debate, but it is an indisputable fact that the first commercially successful, revenue earning steam locomotives entered service on the Middleton Railway on 24th June 1812.

They were built in Leeds by the renowned local engineer, Matthew Murray, and incorporated the rack-rail traction system patented by John Blenkinsop, manager of the Middleton colliery and estate. Though this system, considering subsequent developments, is often regarded as something of a dead-end except for use on mountain railways, the Middleton locomotives worked reasonably well on cast iron rails, which others did not, and they proved both the economic and technical viability of the steam locomotive. Their undoubted success is evidenced by a working career of over twenty years for at least two of the locomotives - an eminent achievement by any standards.

The Railway and its locomotives were visited by engineers and travellers from many other countries, before sinking into obscurity as the locomotives came to the end of their lives and other locomotive-operated lines were built. However, the small township of Hunslet, through which the Railway passed on its way to Leeds, gradually grew in renown. The locomotive-building industry, which sprang up adjacent to the Middleton Railway, was to make Leeds and Hunslet familiar names in all corners of the fast growing Victorian Empire. The locomotive-building firms of Hudswell, Clarke, Hunslet Engine Company, Kitson, Manning, Wardle, and Fowler, amongst others, were synonymous with quality and reliability, and their products can still be found in use today.

It is our ambition, as a wholly volunteer run organisation, to preserve and operate a representative collection of locomotives, particularly those built in Leeds, for use on our line. The following pages show that we have an interesting collection of small main-line and industrial steam and diesel locomotives, all in character with the unique environment which is the Middleton Railway. Today, these are equally appropriate hauling passenger trains or demonstration goods trains over lightly laid track, abounding in sharp curves and steep gradients, as they were when our regular passenger and goods services commenced in 1960. (The former ran for less than a week at that time, but they were the first standard gauge passenger services operated by preservationists.)

The Locomotive Stockbook is arranged in the form of an illustrated narrative, based on the order of the locomotives' arrival at the Railway, with Appendices listing technical details and other rolling stock at the line. Unlike their mainline counterparts, industrial steam locomotives are often referred to by their cylinder size as an indication of their power, instead of the more familiar notional tractive effort. Both are referred to in Appendix 1. All locomotives at Middleton at the time of writing are listed in the book, but from time to time the Railway is host to locomotives visiting from other lines, or on test from their owners.

As to the future, other locomotives which may come to our line on a more permanent basis, are likely to be drawn from the pool of small engines kept by the larger preserved lines or railway centres, in circumstances where they are unlikely to see regular use. We are always interested to hear from the owners or custodians of suitable Leeds-built locomotives, who may prefer to see them put to work in an appropriate environment.

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Photo: R. Stewart-Smith

H1697 7051 The Middleton Railway Preservation Society, as it was first called, began life with a diesel, built in 1932 a few hundred yards from the Railway, as Hunslet Engine Company No.1697. After being exhibited at the British Industries Fair in February 1932, it went on trial, first at the nearby Waterloo Main Colliery, and then on the London Midland & Scottish Railway. In 1933, following minor modifications, 1697 was sold to the LMS as one of a batch of four different Hunslet diesels. 1697 was given the LMS running number 7401, altered almost immediately to 7051 to make way for a batch of LMS 3F 0-6-0T's, the very locomotives which 7051 and its successors would eventually replace. As built, it was fitted with a German MAN engine, developing 150 h.p. and driving to a jackshaft through a Hunslet patent friction clutch and David Brown 4-speed gearbox.

1697 initially worked at Hunslet Lane Goods Yard, Leeds, before being transferred to the Lightfoot Street Warehouse Yard at Chester, where its designer John Alcock had to personally train the fitters. It later went to the Ditton Junction Sleeper Yard. In 1943 it was transferred to the War Department, becoming 27 (later 70027). After the war, 1697 was resold to Hunslet's, who overhauled it and replaced the MAN engine with a McLaren Ricardo 132 h.p. engine. It was used as works shunter and hire loco, the longest hiring being to Thames Haven Oil Wharf Ltd. in 1949-51.

In June 1960, it was loaned to the Middleton Railway Preservation Society, in order to haul the first passenger trains to run on a standard gauge preserved railway, starting on 20th June 1960. The loco proved so successful that it was later purchased by the society, and began hauling daily goods trains over the newly preserved line. It was named *John Alcock* in 1961, after its designer, who was Managing Director of the Hunslet Engine Company at that time. The loco was repainted into its LMS 7401 livery and sent on loan to the National Railway Museum between 1978 and 1989, returning in order to play its part in the Middleton Railway's 30th Anniversary celebrations in 1990, for which role it was fitted with vacuum brakes for the first time in its career.

In 1994, whilst in use on another railway, the loco suffered a catastrophic and irreparable failure of its McLaren-Ricardo engine. Eventually, a McLaren M6 power unit, the type which had succeeded the Ricardo, was located at a mill in Kent, purchased, and transported to Leeds for overhaul. 7401 was stripped down, overhauled and painted, and the new power unit was fitted. The Ricardo engine will later be sectioned for display. Repainted as its second LMS *persona*, 7051, and therefore temporarily without its name, the loco re-entered service in June 1996.

S8837 68153 In 1961, a second locomotive arrived on the Middleton Railway: this time a small 4-wheel geared steam locomotive. Originally supplied in 1933 by Sentinel Ltd., Shrewsbury (Works No.8837) to the order of the London & North Eastern Railway, the loco spent its entire life at the Geneva Permanent Way Depot at Darlington. Classified Y1/2 by the LNER, it was originally No.59 in their stock, becoming 8153 under the 1946 renumbering, and 68153 on nationalisation in 1948. In 1954 the locomotive was transferred to Departmental stock and again renumbered, this time as No.54. It continued its fairly quiet existence at Geneva Yard until it was withdrawn on 29th June 1961 and purchased by the Middleton Railway, arriving on 23rd September of that year.

Though a typical Sentinel product, it is by no means an orthodox locomotive, having a water tube boiler and vertical cylinders inside the cab. The crankshaft is totally enclosed, running in an oil bath, and the drive to the four wheels is by two roller chains. At 275 lbs. p.s.i., the loco has the highest boiler pressure of any loco now in service in this country. They were a very successful type, especially on small, cramped industrial systems, and continued to be built in various forms until the mid-1950's. The loco received its last full overhaul in the 1980's, returning ceremoniously to regular traffic in July 1988 as 68153. It then saw much service on our own tracks as well as visiting other preservation sites and steam events before being withdrawn once more for overhaul in 1997.

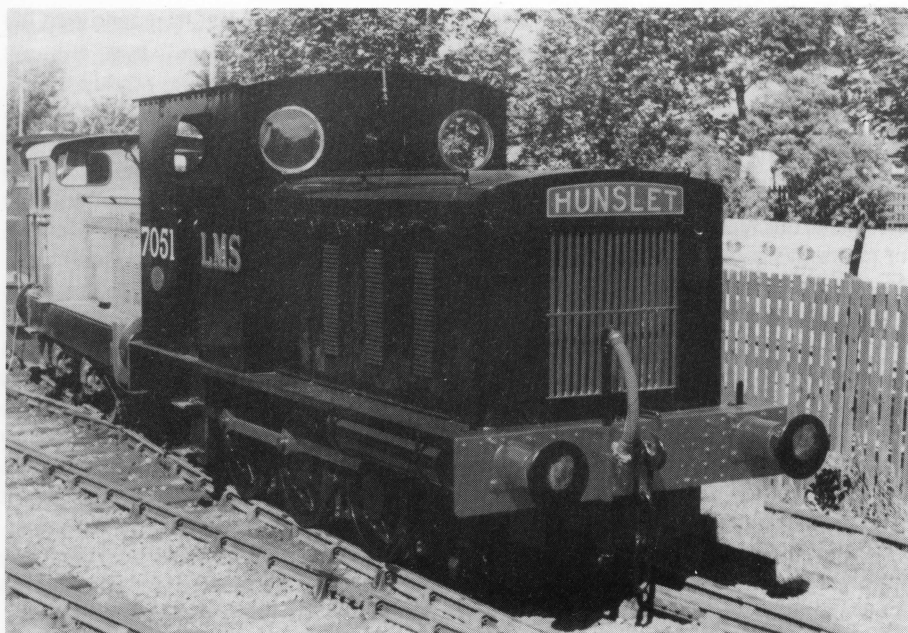


Photo: I. Dobson

Photo: MRT Archive



EB53 *Windle* The next engine to arrive was *Windle*, an 0-4-0WT of 1909 vintage. This neat 14½" cylinder engine was one of a number supplied to Pilkington Bros., the well known glass manufacturers, by E. Borrows and Sons, of St. Helens. Borrows continued, and developed, a design of well tank originally built by the little-known firm of James Cross & Co., also of St. Helens, the first of which appeared as long ago as 1866.

Borrows turned out 38 similar engines between 1875 and 1910, and several more were built by H.W. Johnson & Co., also of St. Helens, and Kerr, Stuart & Co. of Stoke-on-Trent, the last one of this type being produced by them in 1929. Although comparatively few of this type of locomotive were built, they became quite familiar in Lancashire and, remarkably, four have been preserved (three built by Borrows and one built by Kerr, Stuart). The design is somewhat unusual in that a well tank is employed using the mainframes for the tank sides. Because a well tank is used, the valve gear (which is Stephenson link motion) has to be accommodated outside the frames, and is most unusually placed between the wheels and the frames.

Windle (Works No.53) was the last of Pilkingtons' stud of Borrows locomotives in service, and had been used on the firm's glassworks lines since it was built, with a new boiler being fitted in 1950. It was withdrawn from use in 1961, and was presented to the Middleton Railway in October of that year. The locomotive was stored out of use for over ten years, being eventually returned to service in 1975. *Windle* was a regular performer from then until the end of the 1986 season, when it was withdrawn pending its turn in the workshop queue for a ten year overhaul. In 1982, the loco starred as 'Fred Windle' in *Fred the Steam Fugitive*, a half hour comedy/adventure film made for children's television, but not shown until several years later.

NER38 1310 One of the oldest locomotives at Middleton is 1310, a North Eastern Railway Class H 0-4-0T, built in 1891 at their Gateshead works (Works No.38). Twenty four locomotives of this design were built between 1888 and 1923, mainly for dock shunting and departmental duties, though one of them aspired to the dizzy heights of passenger engine on the erstwhile North Sunderland Railway.

1310 (the number was retained throughout its life) was re-designated Class Y7 by the LNER and was withdrawn in 1931 and sold to the Pelaw Main Collieries. In 1947, the coal industry was nationalised, and 1310 became the property of the National Coal Board. With the closure of a large part of the Pelaw Main system in 1959, 1310, along with sister locomotive 1308, was sent to the nearby Bowes Railway, working at Ravensworth Ann Colliery.

At the end of 1959, 1310 was transferred yet again, this time to Watergate Colliery on the Tanfield Branch. When Watergate closed in 1964, 1310 was destined for the scrap heap. However, several enthusiasts joined together to form a group called the Steam Power Trust '65, and bought the locomotive for the then princely sum of £300.

Much work was done on 1310 after its arrival on the Railway in June 1965, and it was restored to full NER livery. Incidentally, at some time in its life it has been fitted with an extended cab. This is not the luxury it sounds as, even with this modification, the cab is probably one of the smallest ever fitted to a standard gauge steam engine of comparable size! 1310 celebrated its centenary in 1991 and, after a seventeen years 'rest', the locomotive was given a major overhaul to return it to working order for its anniversary.



Photo: MRT Archive

Photo: I. Dobson



WB2702 Despite the presence of the afore-mentioned locomotives, it was felt that an additional small, functional steam locomotive would be a useful asset and, accordingly, at the end of 1965 Bagnall 0-4-OST Works No.2702 of 1943 came to the Railway. The locomotive was found at the premises of George Cohen & Co. at Stanningley, and was saved 'at the eleventh hour' from the cutters' torch. 2702 was put to work immediately, and soon proved its worth despite a weight of only 15¾ tons.

Though bought primarily as a working engine and not as a museum piece, 2702 embodies an interesting piece of locomotive engineering in that it was one of the few locomotives fitted with Bagnall-Price valve gear, which works on both sides of the locomotive's main frame. The gear was introduced by Bagnall's in 1903, being designed by W.G. Bagnall, the firm's founder, and S.T. Price, the Works Manager. It was occasionally fitted to locomotives up to 1953.

2702 was supplied new to Thomas Firth & John Brown, Barnsley. Little is known of its subsequent history except that it later worked for W. & J. Fraser & Co. of Monk Bretton, and the colliery owners Pope & Pearson's of Normanton. From the latter it was acquired by George Cohen's, and was used on various contracts associated with this firm.

Between 1968 and 1996, the locomotive bore the name *Matthew Murray*, after the Leeds engineer who built the 1812 Middleton steam locomotives. The first two Middleton locos to bear his name were built in 1869 and 1909 by the local firm of Manning, Wardle and, when the Trust achieved its ambition of purchasing a Manning, Wardle locomotive, it was decided that it would be appropriate to transfer the name from the Bagnall locomotive, so that the Railway once more had a Manning, Wardle named *Matthew Murray*. 2702 has been out of service for many years, awaiting major boiler work when our limited resources permit.

JF3900002 It had long been felt that another diesel locomotive, to act as standby to *John Alcock*, would be a useful asset. *John Alcock* had been the regular engine for goods traffic, and when it was not available a steam loco was used. This was fine during the summer, when the days were long and plenty of time was available to light up engines, but it was very much a liability during the winter, when days were short and precautions had to be taken against frost damage each time the loco was used.

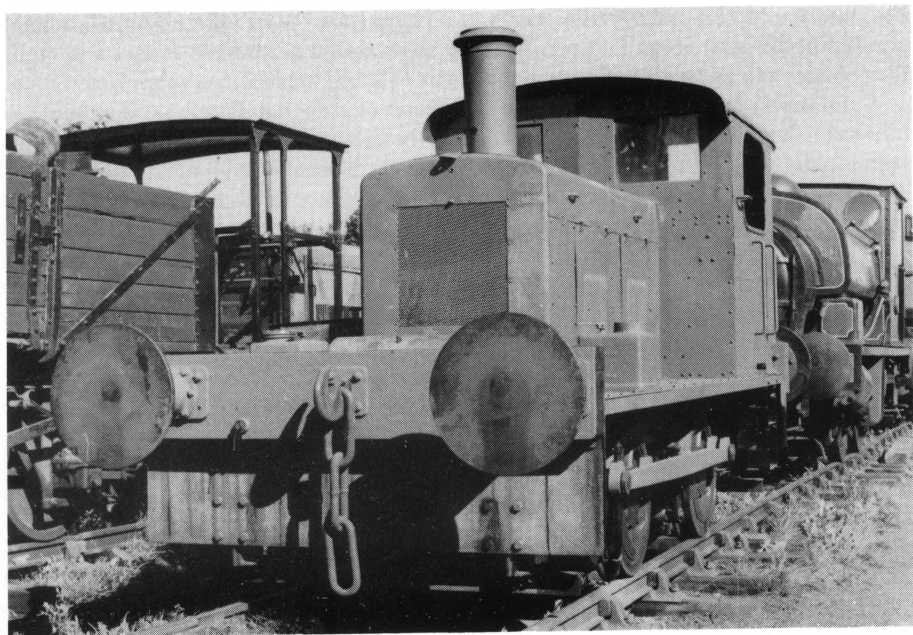
When **WB2702** was found reposing in the yard of George Cohen, it was standing next to a small 0-4-0 diesel mechanical engine. The loco was in reasonable condition, and Cohen's were approached to determine whether they were willing to dispose of it. A sale was agreed, and the loco was transported to Middleton in December 1967.

It was built in 1945 by John Fowler & Co. Ltd., the well known Leeds engineering company (Works No.3900002), and supplied to Keighley Gas Works where it stayed until rail traffic ceased, whereupon it was acquired by Cohen's. It was one of Fowler's standard range of small diesel locomotives, considerable numbers of which were built. It is powered by a Fowler Saunders 4-cylinder engine developing 40 h.p. Drive is by means of a dry plate clutch through a 3-speed gearbox and jackshaft final drive. The loco is currently out of service awaiting overhaul, but was cosmetically restored some years ago.



Photo: A.J. Naylor

Photo: D.R.C. Monckton



H1786 *Courage* It was over a year before the next arrival at Middleton, and this was another product of the Hunslet Engine Company (Works No.1786). A diesel, it is by far the smallest locomotive at Middleton.

This diminutive machine was delivered to the Alton Brewery of John Courage by the Hunslet Engine Company in July 1935. Shortly after this, the brewery changed over to road transport and 1786 saw little use. For some reason Courage's waited over thirty years before deciding to dispose of it, and they wished it to go to a preservation society rather than to the scrapyards. The locomotive was delivered to Middleton by rail, loaded on to a 'Lowmac'. It was the second loco to be delivered by this method, 68153 being the first.

The engine is a Lister 2-cylinder developing 22 h.p. at 1200 r.p.m., starting being accomplished by nothing more sophisticated than a starting handle! Its lack of power and of adhesive weight restricts its use to engineering trains and lightweight shunting, but for these purposes it has proved to be a very useful acquisition. It was purchased for the Leeds University Union Railway and Transport Society, and carries the name *Courage* in honour of its previous owners. In May 1994, the loco visited the Mid Hants Railway near its old home at Alton and, appropriately, spent some time on display parked outside the Engine Inn there, which bears a painting of *Courage* as its sign.

HC1309 *Henry De Lacy II* For many years, familiar sights to passengers travelling on the Midland main line north from Leeds were the two little 0-4-OSTs which shunted at Kirkstall Forge Engineering. They were always beautifully turned out, with their shining red and black paintwork and highly polished brass and copper pipes.

However, in 1968 changing circumstances caused the Forge to abandon its internal railway system, and the two locomotives (*Henry De Lacy II* and *III*) became redundant. Following an appeal by our Chairman, the Directors of Kirkstall Forge kindly agreed to present one of the locomotives to the Middleton Railway. *Henry De Lacy II* was chosen as being the better of the two.

The locomotive had been passed by B.R. to travel to Middleton under its own steam, but because of track circuiting problems (*Henry's* wheelbase is too short to guarantee operation of circuits) it formed part of a short ballast train hauled by a B.R. diesel. After a formal handing over ceremony, the cavalcade set off for Middleton, with *Henry* doing all the work. The journey was all the more remarkable as the B.R. steam ban was then at its height.

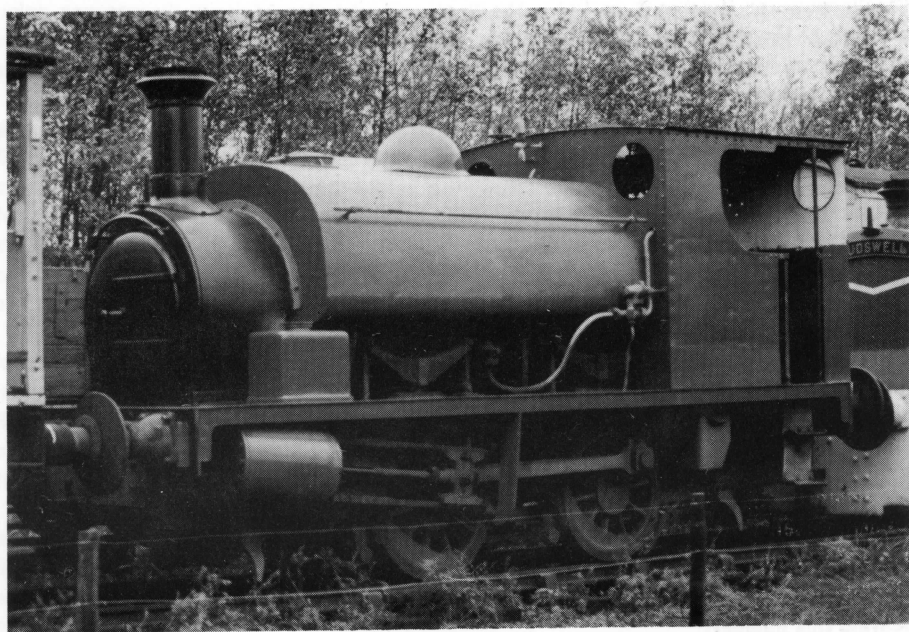
Henry De Lacy II was built by Hudswell, Clarke & Co. Ltd. in 1917 (Works No.1309), and spent all its working life at Kirkstall. The locomotive had been converted to oil-firing during its time there, but this did not suit Middleton's requirements and it was quickly converted back to coal-firing. It is very typical of the small 0-4-OSTs produced in large numbers by Hudswell, Clarke over a period of many years, and has 14" diameter cylinders and 3'4" diameter driving wheels.

Henry has been out of service for many years, awaiting extensive repairs and heavy overhaul.



Photo: K.M. Hartley

Photo: I. Dobson



HCD631 *Carroll* *Carroll* was built in 1946 for Keighley Gas Works, later moving to Laisterdyke Gas Works in Bradford, from where it was purchased by the Middleton Railway Trust in 1969, for the princely sum of £75!

Another Leeds-built loco, *Carroll* was built by Hudswell-Clarke at their Jack Lane works in 1946 as D631, and is a typical Hudswell diesel product from that era, with the steam loco style chimney and large side-opening doors, identifying its manufacturer very clearly. The loco is powered by a de-rated Gardner 6LW (60hp instead of 107hp) which drives through a clutch and three-speed gearbox to a jackshaft.

The locomotive was delivered in standard Hudswell green livery and, like all Hudswell products, was hand-painted. It is interesting to note that in those days it took no less than 15 coats of paint and varnish before a loco was considered complete!

In spring 1998, a major restoration of *Carroll* was completed. It included replacement of much bodywork, and the locomotive was also repainted in its original Hudswell green livery. *Carroll* is now once more to be seen engaged in shunting duties at Moor Road, or working passenger trains on summer Saturdays.

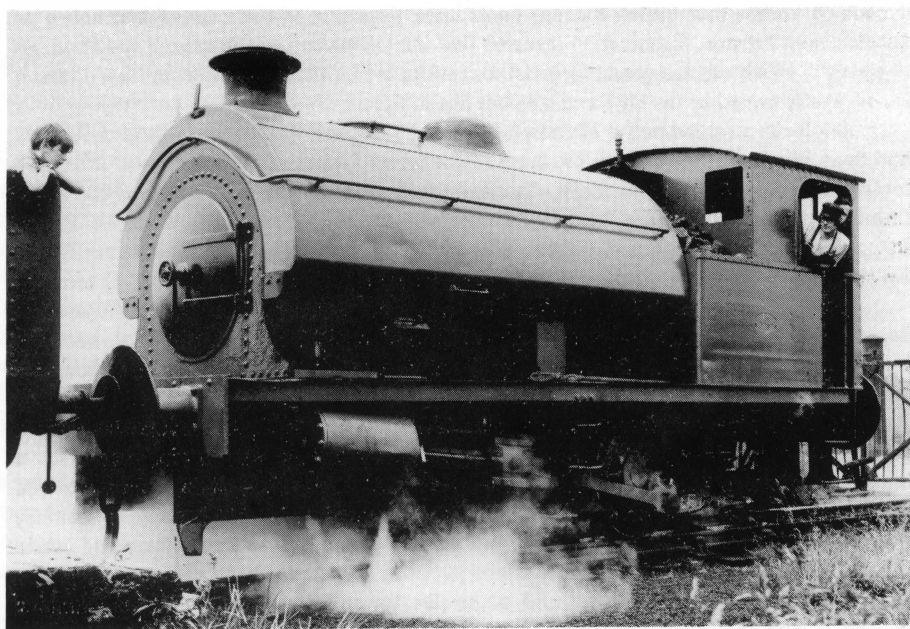
HL3860 No.6 No.6 was one of a fleet of seven steam locomotives which used to shunt at the Associated Portland Cement Manufacturers Ltd. quarry and works, at Swanscombe in Kent. Six of the locomotives were identical, five being built in 1928/9 and one in 1935. They were built by the well known firm of Hawthorn, Leslie. The seventh loco was a slightly larger version built by that firm's successors, Robert Stephenson and Hawthorn, in 1948. The fleet worked trains of chalk from the nearby quarries to the works through two tunnels operated, unusually for an industrial line, on the token system. By the summer of 1970, diesels had arrived at Swanscombe and the steam locomotives were declared redundant. The Association of Railway Preservation Societies was invited to act as a clearing house in the negotiations for the disposal of the locomotives, and No.6 was kindly donated to the Middleton Railway. Sister engine No.3 (3717) was purchased at the same time by the Quainton Railway Society for a nominal sum, which included a donation from the Middleton Railway. No.6 saw much use following its arrival in June 1971 but, like *Henry De Lacy II*, has been out of service for many years awaiting repairs.

The exact identity of the locomotive is subject to much argument. In 1969, No.6 was recorded as being Hawthorn, Leslie Works No.3717, but when it arrived at Middleton it was recorded as 3860. The A.P.C.M. made a regular habit of exchanging the various parts of the locomotives; the running number was carried on the saddletank and if the tanks were exchanged so were the numbers! The Swanscombe engineer regarded the boiler as the basis of the engine and ensured that if the boilers were exchanged, the worksplates went with them. We are thus certain that our No.6 carries the original 3860 boiler shell; as to the rest of the engine, it's anybody's guess. The frames, generally regarded by the purist as the basis of an engine, carry the numbers 3716, 3717 and 3719 on various parts. However, 3860 is regarded as its number by the Middleton Railway, if for no other reason than that we have the worksplates bearing this number!



Photo: I. Dobson

Photo: MRT Archive



Ha2110 Nr.385 The members of Steam Power Trust '65 had been negotiating with the Danish State Railways (DSB) for a small 0-4-0WT of Class Hs. Their efforts were successful, and the group was fortunate enough to obtain the locomotive that had been destined for a Danish Museum, Nr.385. It was in superb mechanical condition, having just received an overhaul. Although out of gauge for most British lines, there are no problems at Middleton in this respect. Nr.385 arrived at Middleton in September 1972. It entered traffic in 1985, and has steamed regularly since then, including a round trip of Leeds city centre in steam, on the back of a low loader, as part of the Lord Mayor's annual Torchlight Procession.

Although some of the class were built by Robert Stephenson's at Newcastle, this particular locomotive was built by the German firm of Richard Hartmann of Chemnitz in 1895, for use mainly in the goods yards and docks, and for shunting stock on and off the numerous train ferries that plied between the various islands of Denmark.

It is interesting to compare this locomotive with 1310, a British locomotive of similar vintage. Among the many fascinating things fitted to the locomotive are a steam-operated bell (in addition to two whistles!) and a steam generator to power the large lamps fitted to the front and rear of the locomotive. The chimney is huge by British standards, probably to ensure that the smoke was kept well clear of the cab and went up the smoke troughs in the locomotive shed roofs. The connecting and coupling rods appear spindly by British standards and, unusually, the valve gear is a form of outside Allen straight link. It is fitted with steam-heating connections to heat coaching stock but, surprisingly, it is not fitted with air brakes to enable coaches to be moved.

P2003 John Blenkinsop At about the same time as Nr.385 arrived at Middleton, it became known that British Nuclear Fuels were disposing of their steam locomotive at Salwick, near Preston. Examination revealed that the locomotive was in superb condition, an opportunity which was too good to miss. A successful bid for the locomotive was made, and it is now jointly owned by the MRT and member Sheila Bye.

Originally supplied to the Ministry of Supply by the well known Bristol firm of Peckett and Sons (Works No.2003) in 1941, it was initially put into service at the Royal Ordnance factory at Swynnerton, Staffordshire. Shortly after the war it was transferred to the Royal Ordnance factory at Salwick, later to become part of the United Kingdom Atomic Energy Authority and eventually British Nuclear Fuels Ltd. The locomotive had a very easy life at Salwick, where it was standby to two Hudswell, Clarke diesels - hence its fine condition.

2003 is a standard Peckett Class W7 locomotive, and exhibits all the features of design (such as cab style, high set saddletank and straight wing plates) that were the hallmarks of latter-day Pecketts. It is, like *Henry De Lacy II*, a 14" engine and, although of later origins, can be compared directly with it.

After its arrival at Middleton on the 16th November, 1972, the locomotive was in service for at least part of every one of eighteen years, then the current record for a preserved steam locomotive. The locomotive was retubed in 1980, when it also received minor repairs to the axleboxes and motion. On 20th June 1987, 2003 was ceremonially named *John Blenkinsop*, in honour of the rack system patentee, who was colliery and estate manager at Middleton in the early 19th century.

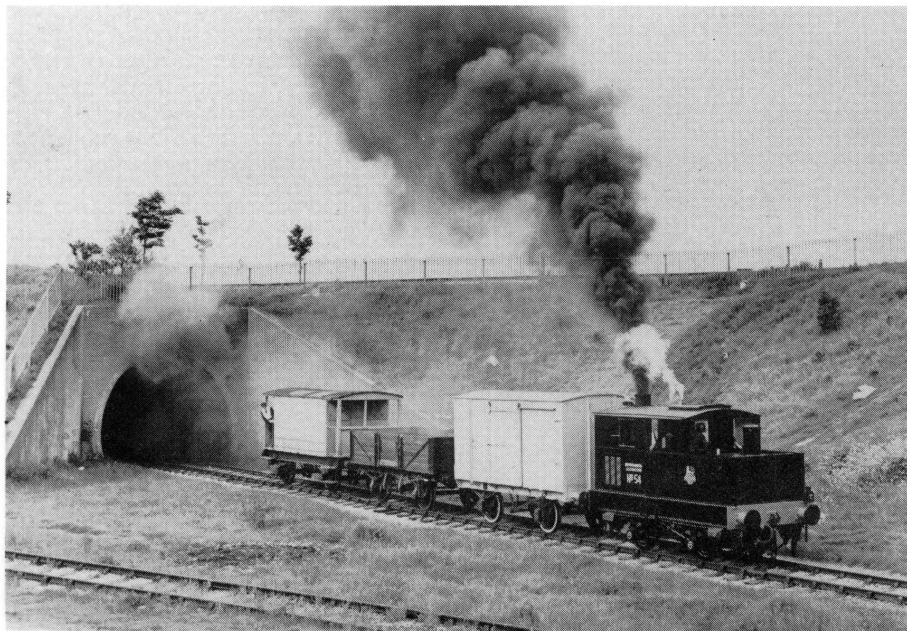
John Blenkinsop was taken out of service towards the end of the 1990 running season, to wait its turn for a well-earned overhaul.



Photo (in Denmark): A.R. Thompson

Photo (at British Nuclear Fuels, Salwick): J.A. Peden





S8837 hauls a demonstration goods train southwards from the tunnel, 1988.

Photo: M. Taylor

The 1995 Middleton multiple-header, the traditional *finale* to our September steam galas. Photo: I. Dobson





Sir Berkeley heads a demonstration goods train on the Balm Road branch, 1996.

Photo: J.F. Stiles

Lucie steams out of Moor Road Station with a passenger train, 1998.

Photo: I. Dobson





Photo: K.M. Hartley

Photo: I. Dobson



HCD577 Mary *John Blenkinsop* was destined to be the last locomotive to come to Middleton for nearly eight years. However, early in 1980 it was learnt that the Severn Valley Railway were wanting to dispose of the small diesel locomotives obtained in the earlier years of that organisation. One of these was an early example of Hudswell, Clarke's, Works No.D577, which had been built by that firm in 1932 at the same time as *John Alcock* was being built by Hunslet's, literally on the opposite side of the road.

Mary, as D577 is called, went to the Severn Valley Railway from Beswick's Limeworks, Hindlow, Derbyshire, where it had been companion to an even older Hudswell. Since its haulage and braking capacity was limited, it was little used by the S.V.R. and eventually was put into store. *Mary* was privately purchased, and transported to Middleton by road on the 7th October, 1980.

D577 is an 0-4-0, and was originally powered by a 150 h.p. 6-cylinder Mirrlees, Bickerton & Day diesel engine, which is in itself of interest as it is sleeve valve operated. Starting was accomplished by admitting compressed air to three of the six cylinders, to turn the engine. The compressed air supply came from a small petrol donkey engine which was situated in the cab. However, because of the condition of the engine and its uniqueness, arrangements were made for it to be replaced by a Gardner 4L3. The Mirrlees engine is now sectioned and displayed in the Manchester Museum of Science and Technology. *Mary*, owned by member Graham Parkin, has been vacuum fitted, and is used on Saturday passenger trains in addition to general shunting duties. Being the oldest working diesel on site at that time, *Mary* formally opened the Trust's new workshop in 1994, whilst 1310, then the oldest steam loco on site, worked the special trains for the event.

P2103 The next addition to the steam locomotive fleet was another Peckett, this time owned by members Tony and Joyce Bell.

2103 was one of three identical 'R4 Special' 0-4-OSTs built in 1948 and sent to the C.E.G.B. Power Station at Croydon. The loco has a lower cab, to allow use in the power station 'tippler house'. However, the power station was not operational at this time, and the three locomotives were returned to Peckett's and put into storage. They were eventually re-delivered in 1950, complete with new worksplates dated for that year! The three locomotives remained in use at Croydon until early 1973 when two of them were disposed of, both going to the Quainton Railway Society. 2103 was retained, ostensibly in a standby capacity to the two diesel locomotives which were now working at the power station. However, the locomotive was probably never used after 1975 and, although an overhaul was started in 1977, it was never completed. The power station eventually closed in October 1980 and the locomotive was offered for sale, arriving at Middleton on 16th May 1981.

Its basic condition was very good but, unfortunately, several of the fittings had gone missing during its long period of storage. Efforts were made to replace these, and it was hoped that the locomotive might see service before too long. However, in 1986 it was moved to the premises of the Great Yorkshire Railway Preservation Society near Harrogate. The locomotive later moved to Murton, near York, before returning to Middleton in summer 1996.

Following an overhaul, including minor repairs and replacement of some fittings, the locomotive is expected to be brought into service during 1999.



Photo: I. Dobson

Photo: I. Dobson



TH138C The steam locomotives designed by Sentinel's (see S8837 - 68153, page 4) continued to be produced well into the 1950's, when that firm turned its attention to diesel traction. The Rotherham firm of Thomas Hill were Sentinel agents, and they built up a unique business converting Sentinel steam locomotives to diesel power.

The standard Sentinel design was, of course, eminently suitable for this, being chain driven, and relatively little in the way of modification was required to the chassis to accommodate the new form of power. 138C was one of these conversions.

The locomotive's original identity is not known, but it was rebuilt as a diesel in 1965, and part-exchanged for another Sentinel steam locomotive at the C.E.G.B. Power Station at Wakefield. The locomotive continued to work at Wakefield Power Station until rail traffic ceased there in 1981. Purchased by MRT member Peter Nettleton, 138C arrived at Middleton in December 1982.

It is powered by a Rolls Royce C6NFL diesel engine, developing 189 h.p. Drive is by means of a Rolls Royce type CF 10000 torque convertor and spiral bevel final drive through duplex roller chains to the four wheels. 138C was vacuum fitted several years ago.

The locomotive was again withdrawn from service in 1996 for repair and improvement, but has now returned as a regular performer on the Railway's Saturday passenger services.

HC1882 *Mirvale* *Mirvale* was built by Hudswell, Clarke & Company in 1955 (Works No.1882), for the Mirvale Chemical Company at Mirfield, as a 'one off' design, using component drawings prepared for a variety of earlier Hudswell locomotives. It worked regularly at Mirfield until late in 1964, when it appears to have been placed in store.

In 1968, it became one of the most modern industrial steam locomotives in preservation, when it was purchased privately and taken to the North Yorkshire Moors Railway, which was then in its infancy. There it became a celebrity, being the first steam locomotive on the preserved line, and also the first locomotive to traverse the full length of the preserved line from Pickering to Grosmont. However, it was only steamed occasionally in the following two years, and then fell into disuse as it was considered to be too small for regular work, and there were doubts as to the condition of the boiler.

Mirvale languished largely out of the public eye on the Moors, until the locomotive's owner put it up for sale in 1986. The MRT, together with a consortium of individual members, were successful in their bid for it, and *Mirvale* arrived at Moor Road in late December 1985, for restoration to working order. The distinctive lettering of *Mirvale's* name, incidentally, re-creates the style of the original name, which was transposed from the company's letterhead.

The fully restored locomotive was ceremonially re-dedicated on 31st March 1990, and it formally entered service the following week. It is just the right size for the Railway's current passenger service, and was in regular use until late 1998, when it was withdrawn for boiler repairs a few months ahead of its 10 yearly boiler examination and overhaul becoming due.



Photo: I. Dobson

Photo: I. Dobson



B/BP91/7856 No.91 No.91 was built by Beyer-Peacock of Gorton in 1958 as their Works No.7856, for the Steel Company of Wales (Orb Steel Works).

The design was a standard Brush design, and the loco carries Brush works plates and the Brush Works No.91. It was the first Brush-Beyer-Peacock locomotive to be built, weighs 30 tons, and has 3'6" diameter wheels. A diesel electric locomotive powered by a 220 h.p. National Gas Engine, it has a maximum speed of 18 m.p.h. A very similar locomotive was on trial on British Railways, as D2999.

No.91 came to the Middleton Railway on permanent loan from British Steel. It worked at their Orb Works, Newport until 1976, when it was placed in store in full working order, until started up and driven on to the low loader which brought it to Moor Road in August 1987. A derailment had left No.91 suffering from a badly split gear case, which was repaired shortly after the loco's arrival at Middleton. However, there were a large number of smaller repairs which also required attention, in addition to which the loco was fitted with vacuum brakes - a task which involved drilling through the 3 inches thick buffer-beams.

After the fitting of new batteries, and a meticulous repainting in its original steelworks livery, No.91 finally entered service at Middleton in May 1991, and is regularly used on our Saturday diesel services. No.91 is especially popular with loco crews in cold or wet weather, as it has a fully enclosed cab complete with such luxuries as a seat!

RH441934 Rowntree No.3 The Ruston and Hornsby Class 88DS 4-wheel diesel mechanical shunting locomotive was produced in large numbers from the 1940's up to 1967. A number of the design also worked for British Railways, the last one leaving BR service as recently as 1986. *Rowntree No.3* has an air start system, whereby high pressure air is introduced into the diesel engine cylinders to turn it over on starting. The air is stored in a separate air receiver, which is charged up each time the engine is run.

The loco (Works No.441934) was built in 1960, and came to the Middleton Railway in the autumn of 1988, on loan from the North Yorkshire Moors Railway. It had been presented on loan to that Society by Rowntree Mackintosh, together with a sister engine and other stock, when Rowntrees' abandoned rail operation at their Fawdon factory in Newcastle-upon-Tyne, a year or so earlier.

Rowntree No.3 was started up after arriving at Moor Road, but required minor attention, including the fitting of vacuum brakes, before it could be considered for traffic. The loco was repainted during 1991, and in the following year a leaking water pipe was repaired. This accomplished, *Rowntree No.3* became a regular on the Saturday diesel service.



Photo: D.R.C. Monckton

Photo: D.R.C. Monckton



MW1601 This locomotive was built by Manning, Wardle in 1903 (Works No.1601 - Class L), for P.&W. Anderson and Company to use in their contract to build the Kent Portland Cement Works, near Gravesend. On completion of this contract, Andersons' sold the locomotive to the cement company. At some time during its career, the loco acquired the name *Arthur*. It remained at the cement works until 1967, when it was sold to the Industrial Locomotive Preservation Co., based on the Kent and East Sussex Railway. Here it enjoyed some use as their No.17 in the early days of public running on that line, but was stored out of use by the mid 1970's. During the mid 1970's, *Arthur* was purchased privately, and by the late 1980's was at the Buxton depot of the Peak Railway Society, undergoing repairs.

The loco was sold to the Middleton Railway, where it arrived on 31st January, 1990, filling an important gap in our collection of Leeds built locomotives. However, there proved to be a great deal of work necessary to bring the loco into working order. Many parts were badly worn or badly corroded, and needed extensive repair or complete replacement. The amount of work already accomplished at the time of writing is a credit to the Trust's comparatively small engineering team. It had been hoped to have the loco ready to make its debut at the autumn 1997 Gala, but during an in-steam Boiler Inspection a small leak was discovered to have developed in the boiler, which had previously undergone hydraulic and ultrasonic testing without any sign of weakness. The decision was taken to replace the boiler, with generous assistance from a member, and the loco should enter service in 2000.

It is intended that when repair and restoration has been completed, the loco will be renamed *Matthew Murray No.4*, continuing a long tradition of there being a Manning, Wardle locomotive at Middleton bearing the name of our pioneer locomotive builder.

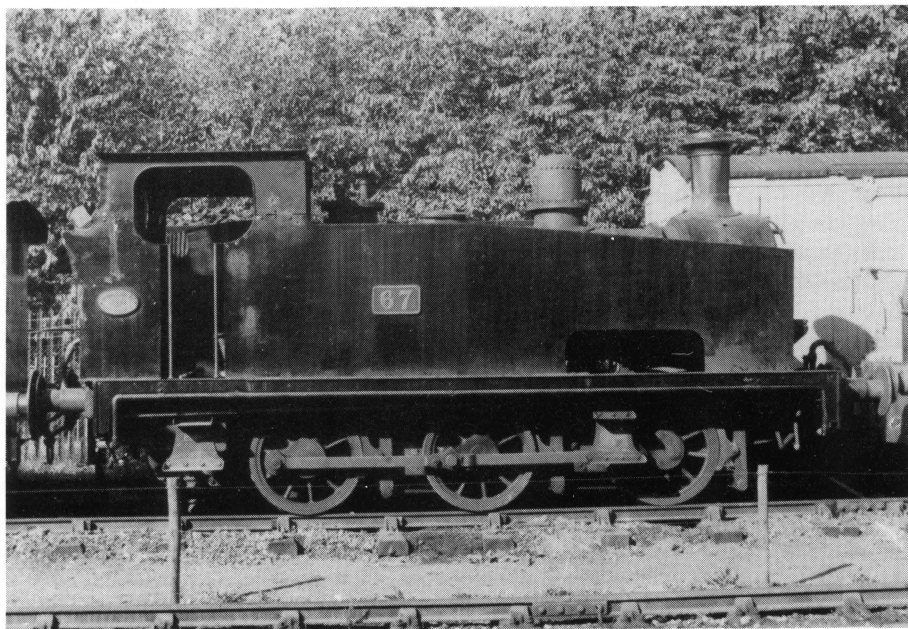
H2387 *Brookes No.1* In September 1940, the Hunslet Engine Company received an order from Brookes Chemicals Ltd., for one of their standard 14" shunting engines, which was completed in July 1941 as Works No.2387. The new loco was named *Brookes No.1*, and was set to work shunting the firm's private sidings at their Lightcliffe Works near Halifax. In 1969, the works closed, and *Brookes No.1*, together with two Pecketts, was stored on site until July of that year, when they were sold at auction to a scrap merchant. *Brookes No.1* was almost immediately resold to the new tenants of the Lightcliffe Works, Phillips Electronics & Associate Industries. After two years on static display, the loco was sold again, this time to Mr. Alf Hall, who took it to the former Delph Station near Oldham. Here it was steamed occasionally on a short length of track shared with another Hunslet saddletank, *Darfield No.1*, 3783 of 1953. In March 1983, *Brookes No.1* was purchased by the Peak Railway Society, becoming their first working steam loco at Buxton. About this time, due to the condition of its boiler, its working pressure was reduced from 160 to 120p.s.i. The loco was a popular and capable performer until summer 1985, when it was withdrawn requiring boiler and firebox repairs. Five years later, Peak Railway decided that the cost of these would be unjustified by their needs, and the loco was put up for sale in a dismantled state.

In spring 1991, *Brookes No.1* was purchased by Middleton member, David Monckton. The loco was reassembled and brought to Moor Road, where it was smartened up and parked behind the platform, with access into the cab, making it a popular display item. Meanwhile, the new owner was trying to locate parts which had gone missing at Buxton. In 1995, the loco entered the workshop, where a new boiler was found to be necessary. *Brookes No.1* is expected to finally enter service in 1999/2000, initially with side tanks, though it may be re-converted to a saddletank locomotive at some time in the future.



Photo: K.M. Hartley

Photo: I. Dobson



C1625 *Lucie* This odd-looking locomotive is a typical product of Cockerill's of Seraing, Liège, Belgium, by whom it was built in 1890 (Works No.1625).

The loco is a Cockerill Type 91, and comprises an orthodox 0-4-0T chassis, with outside Walschearts valve gear, and a vertical, steam-crane type boiler, giving a very 'square' appearance. Although it is very small by English standards, with wheels only 620mm in diameter, the loco has proved surprisingly powerful, and is more than equal to the demands made of it at the Middleton Railway, where it provides an interesting contrast to typical English industrial locomotives of that era.

The various Cockerill steelworks in the neighbourhood of Liège had a total internal network of about 80 kilometres of standard gauge track. Haulage was by 45 locomotives, mainly of a type specially designed and built by Cockerill's for use within their own factories. The vertical position of the boiler, adopted in 37 of these locomotives, permitted the bringing closer together of the two axles, providing greater stability on the track and much easier negotiation of tight curves within the works yards. Combined with the small diameter of the wheels, this made the locomotives extremely easy to manage, with an ability to stop within a few metres, even when travelling at full speed.

The design was soon in much demand for use at other firms' factories etc., and a great many locomotives, including *Lucie*, were built by Cockerill's to the same general design over a period of about 80 years.

Lucie was imported from Belgium in the mid-1980's, and initially worked on the Peak Railway in Derbyshire. It arrived at Middleton in 1995, after some time in open storage near Sheffield, and is a regular performer on our steam services, gaining much popularity with our younger visitors due to its similar appearance to a well-known T.V. character. The locomotive's owner, Hugh Wainwright, died in November 1997, and his Executors most kindly donated *Lucie* to the Middleton Railway Trust.

HC1329 Manchester Ship Canal No.67 Manchester Ship Canal No.67 was one of 70 steam locos which operated on the MSC system, the largest privately owned system in the country.

Hudswell, Clarke supplied much of the motive power for this system, and No.67 was one of several examples of that company's 'Long tank' design which, quite literally, had longer tanks than the previous version. No.67 was built in 1921 as Works No.1329, and spent all its life on the MSC system until being preserved by Dr. Gordon Bleas in 1969, and taken to the infant Worth Valley Railway.

It was used on the lighter KWVR services, and took part in the feature film *The Railway Children* before being withdrawn for overhaul. Unfortunately, the loco was really too small for KWVR use, and was transferred to Middleton in October 1995.

No.67 is currently being fully overhauled. The boiler tubes were removed during winter 1995/6 and the locomotive was completely stripped down during 1996, as the start of a heavy overhaul which is still proceeding at the time of writing. It is hoped that No.67 will be ready to operate our weekend passenger services some time in the not too distant future, as yet another example of Leeds loco-building for future generations to see at work, less than a mile from the place where it was built.



Photo: I. Dobson

Photo: I. Dobson



MW1210 *Sir Berkeley* This attractive little engine was built in 1890 by the Leeds firm of Manning, Wardle, as one of their Class L contractors' engines. 1210 was built for the contractors Logan & Hemingway as their No.30, later No.10. It was sold in 1935 to the Cranford Ironstone Company, Kettering, where it received the nameplate *Sir Berkeley* from a similar MW engine in 1943. After working at Pilton Quarries, Rutland, and at Cranford, in May 1959 the loco moved to Byfield Quarries. After a fairly uneventful life, the engine was purchased in 1965 by Roger Crombleholme and was transferred to the Keighley & Worth Valley Railway, where it took part in the BBC series *The Railway Children*. Ownership was transferred to the Vintage Carriages Trust in the early 1980's, and the loco was returned to full working order in 1991. It has since become a much-travelled little engine, even visiting Holland, in 1995, to run at Haaksbergen and Utrecht.

The locomotive is identical to the MRT's own Manning, Wardle, 1601, except that *Sir Berkeley* has no cab roof. The loco remains in the ownership of the Vintage Carriages Trust, whose base is at Ingrow on the KWVR, but has been based on the Middleton Railway for some time. It is likely to be seen frequently at Middleton as well as appearing at a variety of other preservation sites, over the next few years. *Sir Berkeley* is ideal for family events and School or Playgroup specials, as it is very easy to see the driver and fireman at work.

DB998901 This is one of two vehicles built for British Railways by the Drewry Car Company in 1950, for overhead electric line inspection and maintenance. They were used on the Manchester-Sheffield-Wath (Woodhead) route before being transferred to Colchester in the early 1970's. By late 1976 they were surplus to requirements and were acquired by the railway technical centre at Derby. They were used to maintain overhead lines on the BR test track at Old Dalby, in Leicestershire, where testing for the APT project was then in progress. In November 1997, the two vehicles were again redundant, and were offered for sale by Serco Railtest who had taken over the Old Dalby site following privatisation.

The EM2 Locomotive Society, who own EM2 E27000 *Electra*, had had their eyes on the Drewry Cars for some time, due to their connection with the Woodhead route, and successfully tendered for both vehicles. Whilst *Electra* is a museum piece at the Midland Railway Centre, Butterley, Derbyshire, owing to the lack of an electrified preserved railway in the UK, the Drewry Cars were capable of restoration and operation as they are diesel powered. As they were too small for the Midland Railway Centre, and most working members of the society live in the West Yorkshire area, a home was negotiated at the Middleton Railway. It was decided that DB998901, the better of the two vehicles, would be moved to Leeds and the other vehicle (DB998900) would be broken up for spares. In late 1998, however, the other Drewry Car was sold to the First Generation DMU Group and is to be restored at the Northamptonshire Ironstone Railway Trust, Hunsbury Hill, Northampton. DB998901 arrived at the Middleton Railway on 28th November 1997, and the engine was started up the following day after only a small amount of necessary adjustment and checking over. The car is diesel powered, and has a maximum speed of 23.1 m.p.h.! It was designed originally to work at a speed as low as 1.5 m.p.h. whilst inspection of an overhead line was in progress. It was fitted with a hydraulically operated tower for use during inspections of the overhead line, but this has now been removed. The roof has been extensively repaired, and repairs to the bodywork continue. The air braking system, unique to this vehicle, is to be overhauled and it is hoped, in due course, to convert the vehicle for passenger use.

KEY to abbreviated Builders' names in the tables:

B/BP	Brush/Beyer Peacock	HC	Hudswell, Clarke	RH	Ruston & Hornsby
C	Cockerill	HL	Hawthorn, Leslie	S	Sentinel
DCC	Drewry Car Company	JF	John Fowler	TH	Thomas Hill
EB	E. Borrows	MW	Manning, Wardle	WB	W. Bagnall
H	Hunslet Engine Co.	NER	North Eastern Railway		
Ha	Hartmann, Chemnitz	P	Peckett & Sons		

Other abbreviations:

4WGT:4 wheel geared tank engine ST:saddletank engine T:tank engine WT:well tank engine

APPENDIX 1: TECHNICAL DETAILS - STEAM LOCOMOTIVES

Name/No.	Builder/ Works No.	Date	Wheels	Weight ton cwt.	Boiler Pressure lbs.psi	Cylinder Size ins.	Tractive Effort lbs.
68153	S 8837	1933	4WGT 26"dia.	19.6	275	6¾ x 9	7260
<i>Windle</i>	EB 53	1909	0-4-OWT 34"dia.	25.0	160	14½ x 20	14300
1310	NER 38	1891	0-4-OT 35"dia	22.14	160	14 x 20	11040
	WB 2702	1943	0-4-OST 29"dia	15.15	150	10 x 16	6180
<i>Henry De Lacy II</i>	HC 1309	1917	0-4-OST 34"dia.	28.5	160	14 x 20	13320
No.6	HL 3860	1935	0-4-OST 34"dia.	33.0	165	15 x 20	17350
385	Ha 2110	1895	0-4-OWT 37½"dia.	23.10	140	13 x 20	9245
<i>John Blenkinsop</i>	P 2003	1941	0-4-OST 32½"dia.	30.0	180	14 x 22	17140
	P 2103	1948	0-4-OST 30½"dia.	23.0	180	12 x 20	12072
<i>Mirvale</i>	HC 1882	1955	0-4-OST 31"dia.	20.6	160	13 x 18	10150
	MW 1601	1903	0-6-OST 30"dia.	20.10	140	12 x 18	8568
<i>Brookes No.1</i>	H 2387	1941	0-6-OST(T) 34"dia.	29.2½	160	14 x 20	11760
<i>Lucie</i>	C 1625	1890	0-4-OT 25"dia.	14.10	140	11 x 12	?
No.67	HC 1369	1919	0-6-OT 33"dia.	33.0	140	15½ x 20	14660
<i>Sir Berkeley</i>	MW 1210	1891	0-6-OST 30"dia.	19.18	140	12 x 18	8570

APPENDIX 2: TECHNICAL DETAILS - DIESEL LOCOMOTIVES

Name/No.	Builder/ Works No.	Date	Wheels	Weight t.cwt.	H.P.	Tractive Effort lbs.
7051 <i>(John Alcock)</i>	H 1697	1932	0-6-0 3'0"dia.	21.8	132	10520
	JF 3900002	1945	0-4-0 2'6"dia.	9.6	40	4600
<i>Courage</i>	H 1786	1935	4 wheel 2'9"dia.	6.12	22	1800
<i>Carroll</i>	HC D631	1946	0-4-0 2'6"dia.	14.0	60	6900
<i>Mary</i>	HC D577	1932	0-4-0 2'9"dia.	21.0	102	11980
	TH 138C	1965	4 wheel 3'2"dia.	30.0	189	16800
No.91	B/BP 91/7856	1958	0-4-0 3'6"dia.	30.0	220	16800
<i>Rowntree No.3</i>	RH 441934	1960	4 wheel 3'0"dia.	20.0	88	11200
DB998901	DCC 2268	1950	4 wheel 2'6"dia.	16.10	68	3420

APPENDIX 3: STOCK LIST - OTHER ROLLING STOCK

Cranes:

5 ton Booth rail crane - No.5821 (built 1952).

13 ton Smith steam crane.

13 ton Isles steam crane.

Petrol-engined Permanent Way Trolley built by D. Wickham of Ware.

Rolling Stock includes:

Two C.C.T.s converted for passenger use - Nos. 1867 and 2084.

C.C.T. as Stores Van - No.1074.

Wooden Coal Wagon - No.350, Middleton Estates & Colliery Co. (built c. 1890).

LMS 12 ton Van - No.85133.

LMS Brake Van - No.158760 (built Derby 1926).

LNER Ballast Brake Van (built 1940).

G.W.R. 12 ton Open Wagon - No.113084 (built Swindon 1927).

B.R. 12 ton Open Wagon (wood body) - No.B420709.

14 ton B.P. Tank Wagon - No.A5576.

Five Flat Wagons of varying origin.

NCB 4-wheel Lowmac (built circa 1966 by the Central Wagon Co., Wigan).

Norwegian State Railways (N.S.B.) Coach No.549 (built 1911). Owned by S.P.T.'65.

10 ton Spoil Wagon (built 1962 by Chas. Roberts).

Leeds Forge Company tank wagon - No.78651 (built 1916)



Leeds Forge Company tank wagon No.78651.

Photo: I. Dobson

The Trust's two passenger coaches, converted C.C.T.s.

Photo: I. Dobson



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