



A walking tour around the Hunslet area to see what remains of the local engine making industry.

This booklet also details some of the other works that once operated around Leeds.



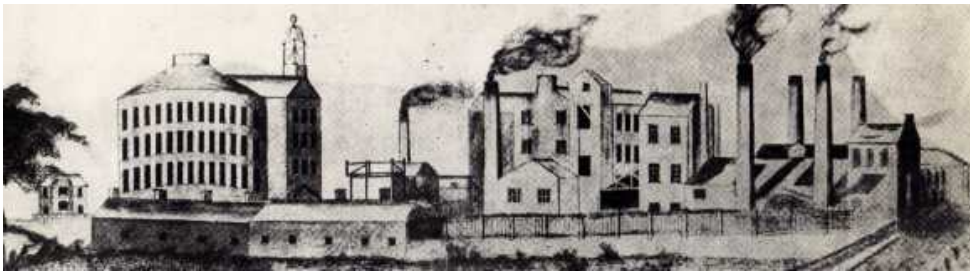
The Birth of Commercial Locomotive Building



Above – The former Fenton, Murray and Wood works today, the buildings now renovated and in use as offices, bars and restaurants. Plaques on the buildings detail their former use.

It was in the Holbeck area of Leeds where commercial loco making first began. **Fenton Murray & Wood** built the Murray / Blenkinsop rack locomotives from 1812 for use on the Middleton Railway, the first successful locomotives in the world. Most of the works production was stationary engines and mill machinery but a return to locomotive production in the 1830s and 1840s saw them produce locomotives for many early railways in the UK and overseas. The most notable were the 20 Great Western “*Firefly*” locomotives that included *Phlegathon*, the first loco to haul Queen Victoria and *Ixion*, the loco used in the gauge trials that saw 4ft 8½in become the standard gauge despite Brunel’s broad gauge being better for greater speeds.

Below – The Round Foundry as seen from Water Lane.



The works was known as the 'Round Foundry' due to its 'Rotunda' building, sadly long since burnt down, though the foundations are now marked out in the paving where it stood. The site is worth a visit today and it is interesting to compare to later works. The various trades involved in engine making operated in separate buildings and yards rather than on one big factory floor as seen in later works. Names like Foundry Street and Saw Mill Yard can be seen in the site today.

In 1837 a new engine works, the ‘**Railway Foundry**’ was established in the nearby Hunslet area by Charles Todd from the Round Foundry with new partners Kitson and Laird. Following strikes in the older engineering factories, many personnel left the Round Foundry to go to the new works in Hunslet. Orders dwindled for the Holbeck works and it closed in 1843. The local engine building industry effectively moved to Hunslet and in the years that followed around 20,000 locomotives were built here.

To Hunslet - The Engine Building Community

This tour starts at the Middleton Railway (number 1 on the map on the next page) a great place to learn more about local engine making and see some examples. Just outside the entrance on is a subway and a footpath towards Hunslet following the route of the Middleton Railway which once continued to coal staiths nearer the city centre (8) though nothing can be seen of these today. The path goes under the Tunstall Road roundabout. Follow this path as it continues alongside the A61. When you cross over the railway bridge seen in the picture on the right look down at the main line railway, you can see the site of the junction where a line went off towards the Hunslet works (2).



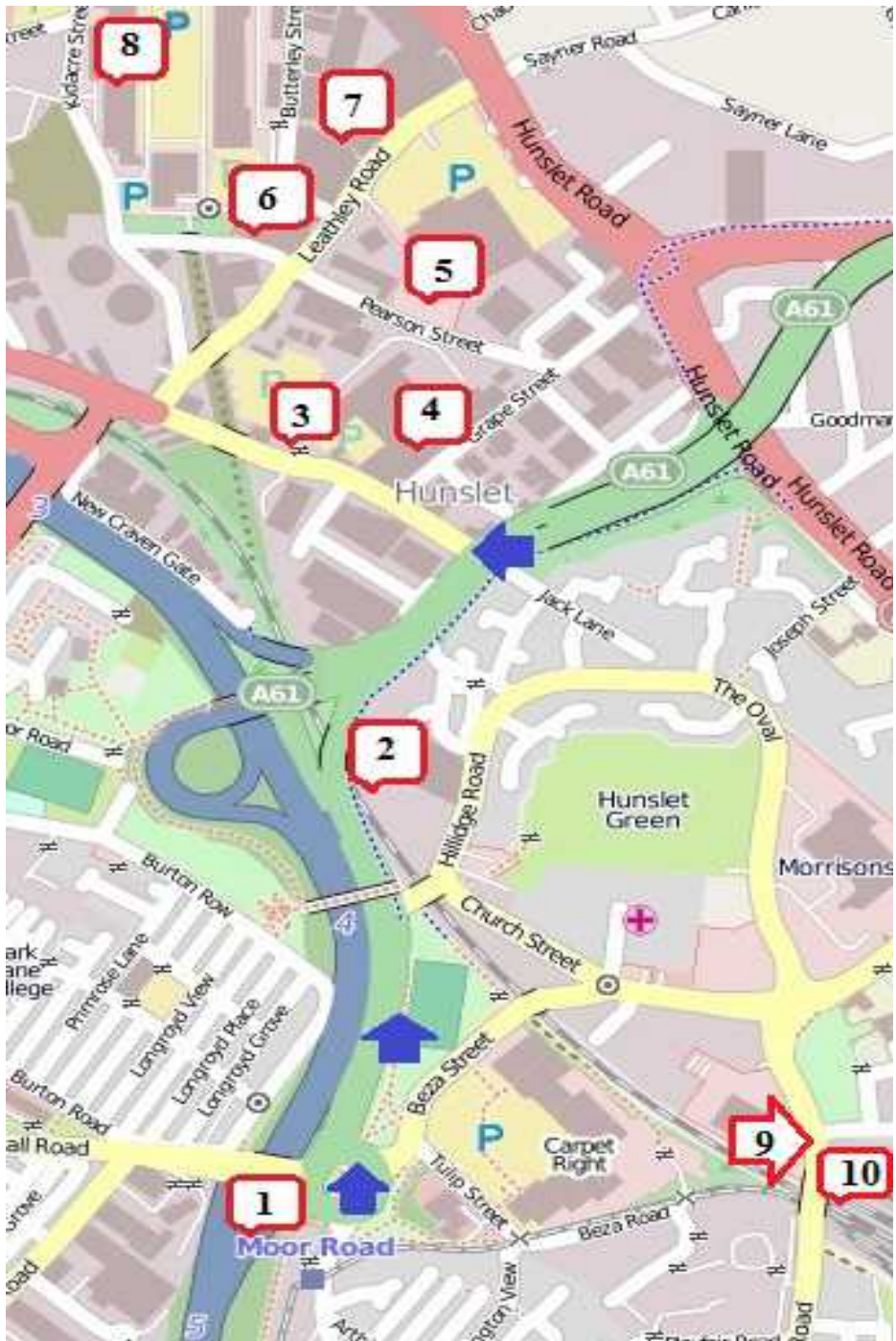
Below Left – the site back in 1975 as demolition of the former **Hudswell Clarke** (right) and **J&H McLaren** (left) works had begun. (Picture Sheila Bye)



Hudswell Clarke produced locomotives here from 1860 to 1972 and J&H McLaren produced traction engines, stationary engines and latterly diesel engines from 1877 to 1959.

From here continue alongside the A61 until you reach the traffic lights at the junction with Jack Lane.

Even today a view of Jack Lane epitomises the local engine making history. Four works existed here across the road from each other and there were two more works on the street behind. On Jack Lane (3) the grand offices of the Hunslet Engine Co (seen on the front cover) and Manning Wardle still stand, the Hunslet offices are marked with a blue plaque. (Details of the blue plaques to look out for in this area can be found at the rear of the booklet) These works produced locomotives from 1864 to 1995 and 1858 to 1927 respectively. On the opposite side of the road were the front of the Hudswell Clarke and J&H McLaren works and their offices, though sadly nothing survives of these works except for a section of wall alongside the railway line seen above, this was once part of McLaren's works.



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Above – A forlorn Manning Wardle offices and gates in recent times. (Photo Kris Ward)

Above – Jack Lane in the 1975 with the former Manning Wardle offices, then in use by the Hunslet Engine Co, and the Hudswell Clarke works across the road (Photo Sheila Bye)



Right – Blue plaque on the site of McLaren's Midland Engine Works (Photo Kris Ward)

Being the last engine works in use in the area more survives of Hunslet's works. Turning on to Grape Street (4) the large modern factory building now belonging to Schneider was the final erecting shop of Hunslet, the original erecting shop was alongside it. This was the result of a modernisation of the works in the early 1990s. Though the company had survived 130 years as a locomotive builder the market for locomotives had shrunk considerably and the company was turning more to mainline passenger trains for work. As well as building the Class 323 electric units the company carried out other passenger stock work such as collision repairs.

The Hunslet Engine Co acquired many other engine makers during downturns in the industry, having a family tree that takes in much of the UK's independent locomotive manufacturers. The company survives to this day but is now part of the Wabtec owned LH Group based at Barton Under Needwood with only an office now remaining in Leeds.

Note the 1864 date above the door of the Hunslet offices (seen on the cover of this booklet). These offices were actually built years later but the date the works was founded was shown on the building. Note the railway lines in the road. Many Hunslet products were dispatched via their mainline connection down to the old Midland Railway mainline we crossed earlier .

Below – A class 323 being shunted across Jack Lane in the later days of the Hunslet Engine works in the 1990s (Photo Andrew Johnson). The shunter is typical of those produced by Hunslet from the late 60s to the mid 80s.



Around the back of the Hunslet Engine Co works on Pearson Street (5) we see what remains of one of the earliest engine works in the Hunslet area, the archway that was once the entrance to the Railway Foundry.

As mentioned earlier, the first engine works in Hunslet 'The Railway Foundry' was established in 1837 by **Todd, Kitson & Laird**. They built a small number of locomotives including *Lion* for the Liverpool & Manchester Railway but the firm was very short lived as the partners split to establish two new firms, **Shepherd & Todd** and **Kitson & Laird**.



Shepherd & Todd carried on under the Railway Foundry name on the south side of Pearson Street, the arch from which we can still see. Kitson & Laird established the Airedale Foundry on the north side of the street. It is possible that the arch may have been from the original 1837 Todd, Kitson & Laird works and *Lion* may have left the works from this very archway. The building was definitely the Railway Foundry in 1847, being shown on maps at that time.

The building was superseded by more modern works and ended up being bought by Kitson, who used it as a pattern store. One important claim to fame this building has is that Charles Parsons, working for Kitson & Co at the time, had a workshop in this building. Parsons developed the steam turbine, though this work was completed in Newcastle where he moved in 1884. He sensationally demonstrated his steam turbine powered ship '*Turbinia*' unannounced at a Navy review in front of the Prince of Wales and Lords of the Admiralty in 1897, attempts were made to intercept it but nothing could match its speed.

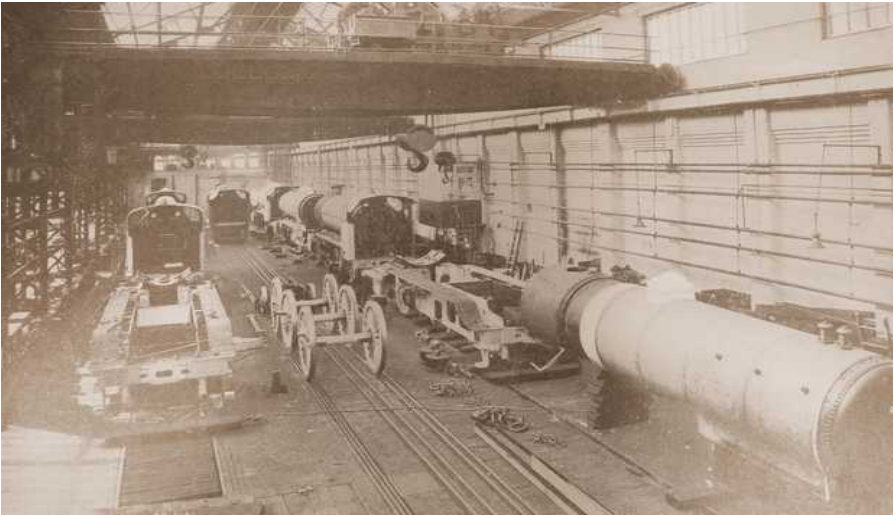
The Railway Foundry had a few changes in management becoming **Fenton & Craven** and most notably **E.B.Wilson**. The success of the E.B.Wilson firm in supplying standard designs of locomotives quickly in the boom of the 'Railway Mania' saw the Railway Foundry becoming the largest engine building firm in the world. Variations of their popular '*Jenny Lind*' class loco were sold to local railway companies and overseas railway systems alike. Despite their success, a dispute with shareholders saw the company wound up in 1858 and most of the designs and workforce transferred to the new company Manning Wardle, established next door by a works manager who foresaw the collapse at Wilson's.

The site was sold off in lots, being the largest engine works at the time no single buyer could be found. It was largely this breaking up of the Railway Foundry that saw so many firms operating in the area. Hunslet Engine Company originally occupied part of the Wilson works, though over later years they modernised the works many times replacing these original buildings. Hudswell Clarke established their works in 1860 on a pretty much vacant plot from the Railway Foundry's land, also adopting the 'Railway Foundry' name for their works. J&H McLaren's 'Midland Engine Works' was also built on part of the Wilson site.

Charles Todd established another works the 'Sun Foundry,' this went on to become the works of **Carrett & Marshall** and most notably **Hathorn Davey**, a major manufacturer of stationary engines particularly noted for their pumping engines. The company were taken over by **Sulzer Pumps** who established a new works to the south of the city which remains in use to this day. The site of the Sun Foundry is now occupied by a car showroom on Dewsbury Road, nothing remains of the works.

Meanwhile Kitson & Laird became **Kitson, Thompson & Hewitson** and later **Kitson & Co** producing thousands of locomotives in the Airedale Foundry. While Leeds is noted more for industrial locomotives many large mainline locos were built in the Kitson works. The company went into receivership in 1934 during a downturn across the manufacturing industry. The firm were restructured and came out of receivership in 1937 but were very much downsized and ceased locomotive production in 1938, making only components. The works was used during the war for arms production and after the war it was bought by J&H McLaren and renamed the 'Airedale Works' as they expanded to meet the demand for diesel engines.

J&H McLaren became part of the Hawker Siddely group, though with the Airedale Works in need of modernisation it was closed in 1959 as part of a rationalisation within the group. A small part of the firm lingered on for a further six years producing specialist fabrications in the part of the works known as the 'California Shop'. The only surviving part of the once vast Kitson Works (see the map on the back page) is the former 'V Shop', subsequently McLaren's 'California Shop', on the corner of Leathley Road and Ivory Street (6), now a carpet showroom. If the showroom is open look inside, though the building has been modernised on the outside, inside the iron columns and roof supports can still be seen along with the offices looking out across the old shop floors.



Above – Picture of the Kitson works in a company catalogue from the 1920s, note there are a number of Great Northern Railway locomotives under construction



Above – The former 'V shop' of Kitson & Co (Photos Kris Ward)

Slightly further along Leathley Road is the former Locomotive Works of **John Fowler & Co** (7). John Fowler revolutionised the application of steam power to agriculture in the 1850s and 1860s. His earliest designs were constructed by several firms including Kitson, Thompson & Hewitson. Success in shows and competitions created demand for his ploughing engines and in the early 1860s he established his own works alongside the Kitson works with help from Kitson's financial backer Hewitson. The company went on to be one of the largest producers of ploughing engines, traction engines and steam rollers. They also produced locomotives, mostly narrow gauge for plantation use. The firm were keen to develop internal combustion products and steam was abandoned in the 1930s. They went on to produce crawler tractors and petrol and diesel shunters. Despite these developments the company nearly went bankrupt around the same time as Kitsons, however they narrowly avoided bankruptcy and in the end were nationalised to keep the

works running and producing tanks for World War II. After the war the firm was sold back in to private hands, ending up with T.W.Ward. T.W.Ward had also acquired Marshalls of Gainsborough and merged the two similar companies to form Marshall - Fowler. The crawler tractors became 'Track Marshalls' complementing Marshall's popular 'Field Marshall' tractor range. Loco production continued until 1968, and the works closed altogether in 1974.

Most of the works site was situated on the opposite side of the road. It was here that the agricultural and road machines were made. A plaque in the Costco car park marks the site of the main works.

The surviving building (below) housed the locomotive department. If the doors are open look inside, railway lines to several gauges are still set into the floor



Above - The former Fowler Locomotive works today (Photo Kris Ward)

Above - Works photo of the Middleton Railway's Fowler 3900002 at the back of the same building in 1945 (Photo Middleton Railway)

The Crown Point Retail Park occupies the site of the former Hunslet West Goods Depot, John Fowler and Kitson & Co had rail connections to this depot. Look out for the bridge on Jack Lane that once crossed the railway access to it. On one of the walls next to each end of the bridge the cut out for a diamond shape plate can still be seen, these were signs forbidding heavy vehicles such as traction engines from crossing the bridge, quite an inconvenience considering two of the biggest builders of traction engines were located either side of the bridge.

It was in the Hunslet West Goods Depot that the London Midland and Scottish Railway experimented with the use of diesel shunters as early as 1932. Most of the shunters trialled were built in Hunslet including our own LMS 7051.

Also in Hunslet, but about 400 meters off the edge of the map to the east on Pepper Road (follow Midland Road and turn right at the end), **Mann's Steam Cart & Wagon Co**

and **Yorkshire Patent Steam Wagon Co** produced steam lorries (9). The Mann and Yorkshire works buildings survive and remain in industrial use, in fact the Yorkshire works now produces many door components for railway rolling stock manufacturers under current owners **Pickersgill Kaye**.



The Yorkshire works was heavily rebuilt over the years but the Mann works on Pepper Road, now belonging to metal working firm **A.Taylor**, is still quite a good complete example of an old works building with the offices building fronting on to Pepper Road and the works behind it.

Left – The former Mann Steam Cart & Wagon Co works on Pepper Road, the Yorkshire works was behind it down the road on the right of the picture. Both works are marked with blue plaques.

A bit of railway engineering still taking place in the Hunslet area of Leeds is the Midland Road depot of Freightliner (10), built in recent years on the site of part of the Leeds Steel Works. This location was chosen as it is close to the Stourton Freightliner Terminal. Sadly the locomotives are now all American, though it is interesting to note that Pickersgill Kaye, in the former Yorkshire PSWCo works supplied the American locomotive builder EMD with door locks for the class 66's.



Above – Freightliner's Midland Road depot. Note the Mann works in the background.

In this part of Hunslet, on and around Balm Road a couple of other notable manufacturers began their careers. **Charles Roe**, the famous bus body maker began in a rented mill building constructing trailers for locally made traction engines before new found success in bus body making led him to move to a new works close to his home in Crossgates. Aviation pioneer **Robert Blackburn** also began business on Balm Road before moving to the Olympia works in Roundhay and eventually to Brough as Blackburn planes increased in size and in numbers. A couple of notable engineering firms of this part of Hunslet were **Henry Berry** and **Clayton, Son & Co**, though nothing now remains of their works. Claytons were part of the same group as Yorkshire PSWCo and supplied boilers for their steam lorries, they also supplied mill boilers and many of the boilers used in steam

cranes built in the Rodley area of Leeds.

Other Engine Making Around Leeds

Though the engine making industry was largely centred on Hunslet there were also a few more engine makers around Leeds. In Armley **Greenwood & Batley** produced electric locos amongst the vast range of machinery they made, nothing survives of their works, nor the works of **Leeds Forge** who produced railway wagons and rolling stock. **Thomas Green** produced steam locos, steam trams, traction engines and road rollers just north of the city centre on North Street, their grand office building survives to this day and is marked by a blue plaque. The Thomas Green office building was in fact built as a hotel, the Smithfield Hotel, to serve a marketplace that stood opposite.



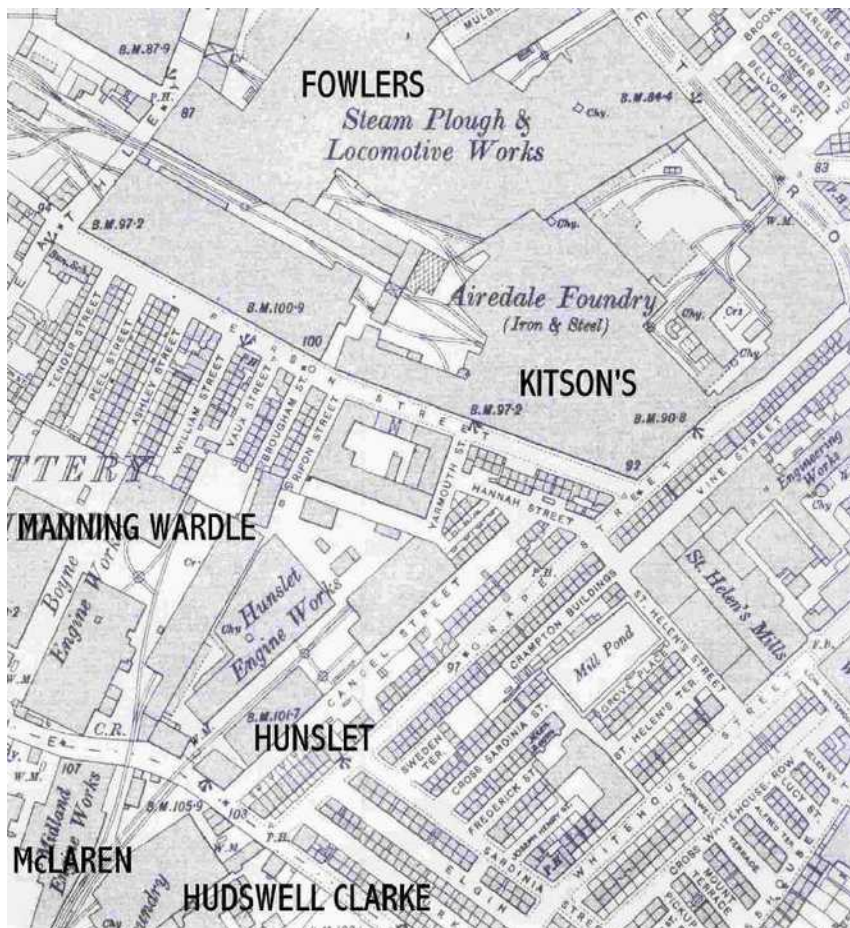
Above – Thomas Green's works in the 1920s

On Town Street in Rodley to the west of the city **Thomas Smith** and **Joseph Booth** produced steam, diesel and electric cranes. Many of their cranes were rail mounted and a few examples of these can be seen at the Middleton Railway. For a time Booths also produced electric trucks and locos. The former Smith works survives in industrial use. It is interesting to note that with Smiths and Booths producing very similar cranes at one time there was a large wooden partition between their works yards so that one firm could not see what the other was assembling.



Above – The former Thomas Green works offices.
Left – The former Thomas Smith works.

Below – Map of the engine building area of Hunslet in 1908 (Based on an Ordnance Survey Map – Crown Copyright) If you can pick up a copy the Godfrey Edition Old Ordnance Survey Map of South Leeds (ISBN 0-85054-250-2) it is a great companion for exploring the old sights of the area.



Blue Plaques around Hunslet

Whilst walking around Hunslet you will notice that a few of the former engine works are marked with Leeds Civic Trust blue plaques, a great help in seeing the sights in this booklet, on the next couple of pages are more details on these so you don't miss any. Leeds Civic Trust have so far installed over 150 blue plaques on historic sights around Leeds. More information about Leeds Civic Trust can be found on their website <http://www.leedscivictrust.org.uk/>



Map © OpenStreetMap contributors

1. Middleton Railway

Leeds Civic Trust blue plaque on the front of the Engine House building- "THE MIDDLETON RAILWAY Began nearby in 1758 to carry coal from Middleton Colliery to Leeds by horse-drawn wagon. The world's first commercially successful steam locomotives, designed and built by Matthew Murray and incorporating John Blenkinsop's patent rack wheel, started work here on 24 June 1812."

2. Hunslet Engine Co

Leeds Civic Trust blue plaque on the surviving works office building- "THE HUNSLET ENGINE COMPANY Was the longest-lived firm in this dynamic area, building over one-third of the 19,000 locomotives produced in Leeds for passenger and freight trains, factories, docks, mines, tunnelling and plantations throughout the world. 1864-1995"

3. J.&H.McLaren's Midland Engine Works

Leeds Civic Trust blue plaque on the surviving pillar of bricks from former works- "MIDLAND ENGINE WORKS J&H McLaren produced steam rollers, traction and ploughing engines on this site until 1938. From 1926 they were Britain's first volume maker of high-speed diesel engines, transferring to the Airedale Works, Hunslet Road in 1946. Their products were exported worldwide. 1876-1959"

4. John Fowler's Steam Plough & Locomotive Works

Leeds Civic Trust blue plaque- "JOHN FOWLER The Wiltshire-born Quaker engineer erected his Steam Plough Works here in 1861. Some of its buildings still stand opposite on Leathley Road. He developed the first practical method of mechanical ploughing using a cable system powered by steam engines. This system was exported worldwide. 1826 – 1864"

5. Mann's Patent Steam Cart & Wagon Co

Leeds Civic Trust blue plaque on the surviving works office building- "MANN'S PATENT STEAM CART & WAGON COMPANY LTD Steam-powered road vehicles were built here. Previously Mann & Charlesworth Ltd of Dewsbury Road, the company produced unique designs of steam carts, rollers, wagons and tractors. 1899 – 1929"

6. Yorkshire Patent Steam Wagon Co

Leeds Civic Trust blue plaque on the surviving, but somewhat rebuilt, works building "YORKSHIRE PATENT STEAM WAGON COMPANY Steam road wagons featuring Yorkshire's characteristic traverse-mounted boiler were made here from 1902 until 1937. Later part of the Hestair Group, the firm then specialised in diesel-powered tankers, municipal gully emptiers and road-sweepers. 1900 – 1971"

At present there are no plaques on the former Manning Wardle works offices next door to those of Hunslet Engine Co (MW on the map), the last remaining part of Kitson's works on the corner of Leathley Road and Pearson Street (K) or the archway of the Railway Foundry on Pearson Street (EBW). The demolished works of Hudswell Clarke (HC), Sun Foundry (SUN) and Kitson (K) are also shown on the map. Perhaps in time more of these buildings will also be marked

Much more information about Leeds engine making can be found on www.leedsengine.info a dedicated site about our local engine making.