The Circular

BRADFORD RAILWAY CIRCLE 2021

THE CIRCULAR - 2021

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Photo courtesy of Tom Ickringill

THE CIRCULAR

Bradford Railway Circle **No.396 – 2nd Quarter, 2021**

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Editorial

The Editor's apologies again, for the very late arrival of the Circular. One reason is that hardly anybody has sent in any material – so he delayed publication (without significant result) and has subsequently had to rely on other sources to fill out the magazine. One of these sources is the very first Circular (February 1946: just over 75 years ago), and articles describing steamy shed visits to Manningham and Low Moor have been chosen. We have bound volumes of old Circulars in BRC Archives, and there are some excellent articles, often deeply researched. Note that even from the very beginning, the Hon. Editor was issuing a plea for contributions – and in order to keep our magazine running 75 years on WE DO STILL NEED ARTICLES!!! So – gentlemen – please stir your memories and let me have some more pieces for the Circular.
Secondly the Editor had a major computer problem, and reconstruction of files & document layouts has been difficult. Fortunately, material submitted by email is always available, thanks to BT, so The Circular has been rebuilt and returned to service.

Since Peter wrote his Secretary's Page, Sedbergh Community Centre have been in touch regarding possible reopening and availability for meetings. The Circle Committee will be meeting shortly (via Zoom) to consider the situation, and we will advise all members as soon as matters are clearer. Is this the light at the end of the tunnel, at last?

And don't forget – more articles (and photos), please!

From Circular No.1 (1946)

Visit to Manningham LM&SR (20E) locomotive shed on the 16th. December 1945.

This visit was the Circle's first outdoor event and some ten members were present. Before the party proceeded to the shed the 9-20 a.m. ex-Ilkley arrived hauled by a class 4P 2-6-4T No. 2683, one of the late Mr.Fairburn's contributions.

In the shed were twelve locomotives. Most were "dead" but class 4P 2-6-4T No.2340 was in steam and later provided the high-light of the visit for it took out a ballast brake and truck to a coach off the road in the carriage sidings.

Class 4P Compounds Nos.1043/4 and 1048 were inspected and they afforded an opportunity for comparing the Deeley and Fowler versions of these famous engines. Class 3F 0-6-0T No.7419 and class 3F ex-Midland 0-6-0 No.3783 were both undergoing repair; they had been in collision a few days previously in Valley Road goods yard. There were also two ex-L&YR Aspinall class 2P 2-4-2T's, Nos. 10631 and 10714, bearing building plates dated 1890 and 1895 respectively. It was noted with a twinge of regret that the only Midland chimney in evidence was that of 2340; apart from those on the two L&YR tanks all the others were of Stanier's design. Other locomotives noted were class 1P ex-Midland 0-4-4T No.1255, class 2P ex-Midland 4-4-0 No.432, class 5XP 4-6-0 No.5605 "Cyprus", & class 4F 0-6-0 No.4413.

For the antique lovers were the previously mentioned ballast brake and truck, both ex-Midland The brake bore plates marked "Midland Railway Co Builders Derby 1876" and was complete with wooden brake blocks!

The engine roster board was also explained.

Although grimy with thoroughly inspecting the locomotives the party was quite happy and all voted unanimously that the proceedings had been an unqualified success.

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Visit to Low Moor LM&SR (25F) locomotive shed on the 30th. December 1945.

Some twelve members assembled at Bradford Exchange station where a corridor coach of GCR origin with matchboard body sides, and a GWR corridor vehicle with clerestory roof were noted. The party travelled to Low Moor on the 9-20 a.m. Liverpool train with a Class 5 Mixed Traffic 4-6-0 No.5214, a Low Moor engine, in charge.

On arrival the party was joined by a member from Wyke and then made its way to the shed- a new concrete structure built on the parallel road principle.

Nine classes of locomotives were in evidence, 39 in number, and although not a few were of Fowler and Stanier design there was a distinct L&YR flavour.

The first thing of interest was a wheel skimming lathe and the leading drivers from Compound No.1185 which stood a few yards down the road just beyond the lifting legs. Unfortunately the lathe was not being operated but the party were afforded the opportunity of noting the somewhat cramped space on the driving axle.

Passing out into the yard where most of the engines were standing, after examining those in the shed, a rather strange looking vehicle of L&NWR origin was noted. It was rather like a flat roofed cattle truck with a couple of metal drums or barrels on the top. It had a somewhat dilapidated appearance and painted on each side was "For use in Morley Tunnel". The building plate bore the legend "LMS Earlestown 1889".

Outside there was much of interest. One or two boilers were being washed out; the motion had been removed from a mogul, and there was an ex-L&YR 3F 0-6-0 No.12257 with full elliptical springs on the tender. Just behind this was a travelling crane with ex-Midland six wheeled clerestory passenger brake van coupled to one end

and ex-L&YR six wheeled passenger brake on the other.

The coaling plant- one of the most modern concrete variety- was also visited and after a dizzy climb the party reached the top where a good view was to be had. Whilst on the top an empty truck was brought up and tipped for the party's benefit. Once more on the ground, class 4P 0-6-0 No.4038 arrived, incidentally with Midland tender, and in a twinkling 17 cwts. of coal were shot aboard.

Goods stock items of interest in the sidings included several LM&SR 20 ton brake vans, one long LM&SR brake with water ballast tank, two ex-Midland six wheeled 20 tonners, an ex-CR, two ex-L&NWR, a GWR 30 ton bogie bolster wagon with a large lathe on board, and a WD bogie wagon built at St.Rollox.

To round off the activities. There on one road the following were discovered in consecutive order: Ex-CR six-wheel bogie "Grampian" corridor brake third, ex-G&SWR Bogie third compartment, ex-GER bogie corridor third brake, then one or two standard LM&SR bogie corridor coaches and, at the other end, an LM&SR bogie corridor third brake bearing plates marked "LMS Built Derby 1945". A hasty inspection of these coaches was made and the party were favourably impressed with the new LM&SR vehicle, particularly with the bright furnishings and splendid Empire (Canada) woodwork. But a trace of austerity was noted in the rough casting of the ash trays and table sockets.

During the visit there was considerable photographic activity.

The return journey to Bradford was made on the 1.7 p.m. (a local train) hauled by class 4P Compound No.1068 from Normanton (20D) running tender first.

The following locomotives were noted in the shed and yard in addition to those mentioned:

Class 2P 2-4-2T's Nos.10711/31, 10840/1/86; Class 2P 4-4-0s Nos.585/9. Class 3P 2-4-2T No.1095

class 4P 4-4-0s Nos.1104/89/99; class 5 4-6-0s Nos. 5062, 5204/7/8/9/11/12/21 and 5338; class 3F 0-6-0s Nos. 12104, 12217/37/55, 12354, 12410, 12422/7; class 4F 0-6-0 No.4471; class 5F 2-6-0s Nos. 2700/96, 2828/63; and class 7F 0-8-0s Nos. 9579, 9623/62.

Important Note! When writing articles for this journal members are asked to take into consideration the law of copyright and not to submit items copied directly from other sources. Further reference will be made to this in the next issue.

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Please remember we want to hear from YOU. This is the journal of the Bradford Railway Circle and all members are invited to make use of it by sending along queries and advertisments, or by contributing items.

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The seating accomodation at "The Centre" leaves a great deal to be desired, as those members who have stood around for a couple of hours on meeting nights will have gathered! Can YOU do anything to help us out of the difficulty?

What about that old chair in the attic or the cellar; or the garden seat which is hiding beneath the lumber in the hut? Have you decided to "withdraw" that rather dilapidated basket chair in the spare bedroom? If you have we would like it!

We draw the line at railway track "chairs", Sedan chairs and Bath chairs, but otherwise any old chair or stool would gladden our hearts! Don't worry if it's in bad condition - we'll do our best to repair it and it will serve its purpose.
Now start thinking about it!!

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Yorkshire Railway Quiz - Answers Bill Jagger

The answers to the challenge are in BLUE. Note that the quiz was for fun only, no submission of answers, no prizes.
For this, Yorkshire includes the current boundaries as well as all three Ridings.

1 Which railway ran a passenger service with two passenger-bodied Ford 1-ton trucks adapted for rail use?
Derwent Valley Light Railway

2 Which then operational railway company escaped nationalisation?
Derwent Valley Light Railway, or Easingwold Railway

3 A place labelled on an old OS map as "County Lunatic Asylum" had an electric railway - where was it?
Menston

4 A railway system had locomotives which ran on wool grease. Where was it?
Esholt Sewage works

5 Lineside cottages at Pilmoor have a stone shield reading G. N. E. R. Co 1843 - what do the initials stand for?
Great North of England Railway Company

6 The ownership of the Nidd Valley Light Railway was unique in the UK - in what way?
It was owned and run by a local authority - Bradford

7 Which Yorkshire town had the first funicular cliff lift in the UK?
Scarborough – South Cliff Lift – opened 1875

8 The Greenwich Meridian passes through only one (now defunct) line in Yorkshire - near which station?
Patrington - Hull to Withernsea line

9 The South Yorkshire Joint Railway was made up of how many pre grouping companies?
Five - GC, GN, L&Y, Midland, NE

10 What happened to Kilton Viaduct?
Converted to an embankment by tipping

11 Which viaduct had a wind gauge at one end?
Staithes – Whitby to Middlesbrough line

12 Where is there a bridge on an old railway now an official footpath and cycleway which used to swing but now is fixed?
Naburn – old East Coast Main Line

13 Where is there a bridge on an old railway now an official footpath and cycleway which still swings?
Wilmington over the River Hull

14 Where was a new railway viaduct opened in 1974?
Skinningrove / Carlin How - on the line to Boulby mine

15 Where is Yorkshire's reputedly oldest tramway / railway viaduct?
Flockton – built 1770s

16 A main line railway project was abandoned after only a viaduct and minor works were completed. Where is the viaduct?

Tadcaster

17 A railway abandoned part way through construction is known as Paddy Waddell's Railway. Which open station is near its southern end?

Glaisdale

18 Which main line railway project was abandoned after the initial 9 miles were opened?

Midland Railway West Riding lines

19 The furthest north The Great Northern Railway got on its own lines was where?

Keighley goods yard

20 The furthest north in Yorkshire The Great Central Railway got on its own or joint lines was where?

West Riding Junction, Wakefield

21 The furthest north The Great Eastern Railway got on its own or joint lines was where?

Black Carr Junction, Doncaster

22 The infamous / famous George Hudson is buried where?

Scrayingham – NW of Stamford Bridge

23 Which Locomotive Superintendent of the Leeds & Selby Railway went on to found a major railway manufacturing business.-. In Lancashire?

Richard Peacock – Beyer Peacock of Gorton

24 Severus Junction is the only junction in the UK named after a Roman Emperor - where is/was it?

NW York

25 An early railway roundhouse survives at Holbeck - which railway company built it?

Leeds & Thirsk

26 Who designed the roundhouse above?

Thomas Grainger

27 One railway line which entered Yorkshire from a neighbouring county had one station in Yorkshire and departed into a neighbouring county. Where was the station?

Sedbergh

28 Few station buildings are physically moved - name the current locations of two.

Murton Park (DVLR) , Ingrow (KWVR)

29 Where did the two above come from? (one alas is a mile outside Yorkshire !)

Wheldrake, Foulridge

30 Where in Yorkshire was Cannon Street station?

Hull – the H&B terminus

31 The current station at Starbeck opened in 1848 - what was it originally called?

Harrogate

32 A town had three stations - Baghill and Monkhill were two - what was the third called?

Pontefract Tanshelf

33 There is a replica zero mile post at York station - How many lines are measured from it?

10

34 Which station was originally called "Tunnel "?

Actually “Tunnel Inn” Grosmont

35 The world's longest seat is at Scarborough station - how long is it - in yards?

152

36 Where was Leeds (Whitehall) station?

on the Down Whitehall Line just off Springwell Road in Holbeck,

37 Which line was Portsmouth station on?

Copy Pit

38 Which line is Clapham station on?

Little North Western – Skipton to Carnforth

39 Which line was St Paul’s station on?

Halifax High Level – GN and L&Y joint

40 There were four pre-grouping companies serving Dewsbury each on its own lines - which were they?

GN, L&Y, LNW, Midland

41 Which Yorkshire city no longer has a station?

Ripon

42 What is the highest platform number at Leeds station?

17B

43 Which station on the national network - still open - is only accessed by a footpath crossing a field?

Commondale

44 A large hotel was built adjacent to Bolton Percy station, it had a relatively short life - why?

It was the starting point of the Stagecoach service to Tadcaster and Harrogate – 8 years later the railway went there.

45 Leeds Central station was a joint station between which pre-grouping railway companies?

LNW, L&Y, GN, NE

46 The pillars supporting the east end of the Queens Hotel in Leeds have twelve shields of various places on them. What connects them?

All the places the LMS had railway hotels

47 Where was Adolphus Street station?

Bradford – GN terminus

48 Which standard gauge line was the highest in Yorkshire?

Rosedale Railway Ingleby Incline top – 1370ft

49 Where was a twin track 700 yard tunnel opened out and replaced by a cutting and a single arched tunnel of 110 yards (approx.) both accommodating 5 tracks?

Richmond Hill east Leeds

50 Golden Acre Park in Leeds had a miniature railway with two steam outline diesel locomotives. Where are they now?

North Bay Railway, Scarborough

Further information

Q37 - Portsmouth station was in Lancashire and the Railways referred to it as such, but Portsmouth was in the West Riding for election purposes and is now in Calderdale - West Yorkshire.

Book Reviews Ian Button

1. Gresley and his Locomotives – L & N E R Design History, by Tim Hillier-Graves

There is no doubt that Herbert Nigel Gresley was a man of many parts - a leader and a scientist, with a innovative mind. He accumulated talented engineers around him and moulded them into a skilled team to design & improve the locomotives & coaching stock of the railway companies he worked for. Gresley also worked closely with other leading engineers in the UK and abroad, to discuss, develop & test potential improvements – these refinements leading to the highly regarded locomotive types that we know him for today. As a moderniser, he was a proponent of locomotive testing centres (before the LMS Rugby testing station was available, P1 2001 had to go to Vitry in France for tests) and in favour of electrification (the Woodhead trans-Pennine route and the London-Shenfield scheme).

The list of locomotive types that Gresley is known for is very long – while with the GNR he was responsible for the O2, K3 and A1 types (these are the later LNER designations), then for the LNER the P1 (1925) & P2 (1934) 2-8-2's, the W1 ("Hush-hush" No.10000) of 1929 and its rebuild in 1937, and of course the A3 4-6-2 of 1928, and the A4 4-6-2 of 1935. There were also the U1 Garratt (1925), the J38 & J39, D49, and B17, and many other successful designs such as the V1 & V3 tanks, V2 & V4 tender engines, and the K4, N2 & N7 classes.

This really is an excellent book, with eloquent, well-written, very readable text. It is based especially on the researches of the author's uncle, a locomotive design engineer, who collected a vast amount of information about Gresley and his team. The team included the modest and largely unsung Bert Spencer, who was Gresley's Technical Assistant from the 1920's and is the source of much useful information. The late Ronald Hillier amassed a number of scrapbooks documenting the lives and recollections of the many members of Gresley's close staff, with much personal correspondence which is unique and previously unpublished. He also witnessed many significant events in LNER history, such as the P2 launch and Silver Link's record run in 1935. It would have been interesting to know a little more about Hillier's own story,

as well as Gresley's – perhaps his nephew can include some material in a future reprint?
Besides using his uncle's collection, the author was lucky in uncovering some very important additional sources in antique shops and online auctions, and he also made good use of search facilities at the NRM and National Archives. Armed with all this fascinating material, the author dives deep into the life of Nigel Gresley and his team. The book is divided into the following chapters:
Ch.1. No One Man – 21pp. The author discusses how the achievements of a celebrated leader often depend on the efforts and insights of members of his supporting team. To expand this theme, he provides biographies of Gresley's assistants at various stages of his career.
Ch.2. Time, Place, Influence & Opportunities (1876-1911) – 35pp. This covers Gresley's early life, up to his appointment as Locomotive Engineer of the GNR. There are details of his parents, his upper-middle-class early life & education, and developing career (LNWR apprenticeship at Crewe, LYR at Newton Heath, mainly dealing with carriages & wagons), and discussion of his predecessors and mentors such as Webb, Aspinall & Ivatt.
Ch.3. Gresley's New World (1912-22) – 30pp**.** This chapter deals with Gresley's time with the GNR before, during & after WW1, developing 2-6-0's and 2-8-0's, and refining three-cylinder designs and valve-gear. Gresley's contacts with other leading engineers were helped by his joining several professional institutions. For example, due to the number of local loco builders, Leeds had its own branch of the I.Loco.E., and Gresley became its first Chairman in 1918. During the war, Doncaster produced armoured trains and hospital trains, but locomotive work concentrated less on building and more on designs, and the first Pacifics (later A1) appeared after the war. However, the war showed that Britain would be better served by fewer larger railway companies, and the grouping into the "Big 4" was planned.
Ch.4. A Time of Politics and An Age of Science (1922-28) – 45pp. Young and innovative, Gresley was the natural choice as CME of the LNER in 1923. He used scientific experimentation to improve designs, and he collaborated with scientists from other disciplines, whose ideas he realised were relevant to the railway industry, as well as with locomotive engineers in other countries – for example, Chapelon in France. Freight traffic was growing, and to haul longer trains Gresley developed his P1 Mikados, but the longer trains were not suitable for the line's passing loops. The Beyer-Garratt U1 was designed as an experiment to reduce double-heading, but was also not particularly successful, and there were locomotive exchanges with the GWR (Castle vs. A1). The A3 Pacifics (including Flying Scotsman) and B17 "Sandringhams" appeared, and publicity developed as an important tool in promoting the LNER and its locomotives.
Ch.5. A Necessary Distraction (1929-31) – 24pp. Gresley was badly affected by the tragic loss of his wife to cancer in 1929, and to help him recover, he and his daughter visited Canada. He came back somewhat refreshed, having seen some new ideas in practice, such as oil-firing and boosters. The author uses this chapter to describe the evolution of the high-pressure 4-6-4 (W1) "Hush-hush" No.10000, although its design & development had begun in the mid-'20's. The intensive testing and modification of

the locomotive must have helped take Gresley's mind off his loss, and its 1930's rebuilding with a normal boiler and various streamlining modifications also occupied him fully.

Ch.6. A Master At Work (1932-34) – 29pp. Gresley's success grew, and more A3s appeared. The P2 (2-8-2 express passenger), was designed tested & modified, but it wasn't successful, due to overheating and high coal consumption. Gresley's team researched streamlining, and the author discusses examples on the Continent.

Ch.7. Speed, Competition, Art Deco, Aerodynamics and the Science of Publicity (1935) – 33pp. It must be rare for a biography to dedicate a whole chapter to a single year of the subject's life, but this was the year of the A4, so there is much exciting and interesting material to deal with. Rivalry with the LMS for high-speed services to Scotland culminated with the development of Gresley's most famous class, the A4 Pacifics, and their introduction on the fully streamlined "Silver Jubilee" service with its modern, luxurious articulated stock.

Ch.8. Fete and Feted (1936-41) – 45pp. By now famous, Gresley was a leading figure in many engineering institutions, and he was knighted in 1936. Further developments of the NER/GNR electrification schemes had been shelved owing to the economic situation in 1923, but now Gresley thought it time to look beyond steam, beginning with the Trans-Pennine Woodhead route and the London-Shenfield suburban service. The success of the A4s encouraged Gresley to test streamlining of other classes, such as the W1, P2s and Sandringhams, and his team developed the V2 2-6-2 and K4 2-6-0 designs - both very successful. After nearly 20 years as Gresley's assistant and having played an important, if under-acknowledged, part in Gresley's successes, Oliver Bulleid moved to the SR in 1937 and was able to put his name to his own innovative ideas. Gresley could see war with Germany threatening, and the competition for the world speed record led to Mallard's winning run in 1938. However, having reached this pinnacle, locomotive development was constrained by war, and Gresley's health began to decline through heart disease, and unfortunately he died in 1941 at the age of 64.

Epilogue The author considers Gresley and his reputation, and comments on criticisms expressed by other locomotive engineers – he concludes that these criticisms are somewhat unfair in not allowing for the circumstances in which Gresley was working – such as the depredations of WW1 and the Depression of the 1930's.

The book concludes with pages on sources, photo credits, and an index.

Regarding the photographs – there are about 300, all extremely interesting and well captioned. Besides general pictures of Gresley's colleagues and the designs they realised, there are examples of design sketches for locos that never materialised, as well as pictures taken on various memorable dates. One picture shows an Art Deco-style poster of an A4 quoting the maximum speed as 125mph. We usually remember the record as 126mph even though that speed was only maintained for less than a mile, and Gresley himself never acknowledged the higher figure. Perhaps the 1936 German record (124.5 mph by a lightly loaded and specially built Borsig 4-6-4), and the subsequent war led to a little bit of propaganda to suggest a clear lead by Britain . . . ?

With glossy paper, the binding and overall production quality are well up to Pen-and-Sword's usual excellent standard. The book would have benefited from additional

proof-reading to correct a small number of typographical errors (occasionally, 01 & 02 instead of O1 & O2 for the 2-8-0 classes, and "Bullied" instead of "Bulleid"). In the review copy, many of the photos are printed very dark, though this is probably just a single aberration.
In conclusion, this work is a superb biography, a must-have for LNER steam enthusiasts, and recommended reading for all railway-lovers. It is also reassuring to be told that the Hillier collection (both generations) will find its way to NRM archives in due course. Highly recommended!

Gresley and his Locomotives – L & N E R Design History, by Tim Hillier-Graves, Pen & Sword (Locomotive Portfolio series) 2019, 295 pages, ISBN 1526729938 - £40. www.pen-and-sword.co.uk

2. The Metropolitan-Vickers Type 2 Co-Bo Diesel-Electric Locomotives: From Design To Destruction, by Anthony P. Sayer

Many readers will know Terence Cuneo's famous painting of a pair of Co-Bos on the "Condor" fast freight service from Glasgow to London (also reproduced on the cover of Triang-Hornby catalogue no.18 of 1972). This book gives the history of the twenty members of the class in considerable detail.
Much has been written about the twenty "MetroVicks" – in fact, the amount written about them must be disproportionate to the size of the class (just 20 locomotives). But it generally concerns the difficulties with their design, construction & operation. A great deal of effort & cost was expended in resolving initial design problems and, after they proved unreliable in service, in trying to improve them, but they were never a success, and only lasted a few years, apart from D5705 that survived into preservation. The locomotives even caused problems for half of their photographers, as there was no number easily visible from a right-hand-side front three-quarter position – it was at the left-hand end of each side.
After introduction and initial service on St.Pancras-Manchester expresses, the MetroVicks' use on the "Condor" (CONtainers-DOor-to-doR) only lasted about a year, as traffic reduced and their place was taken by the reliable Sulzer Type 2 diesels (D50xx) on shorter lighter trains. The class were mostly stored in 1960-61 at Cricklewood & Derby, before considerable rebuilding was undertaken by Metropolitan-Vickers at their Dukinfield (Manchester) works. This work mainly involved stronger crankcases, cylinder-heads & pistons for the unreliable 2-stroke engines – Crossley's marine engines were very good, but the idea was not really suited to locomotive work that involved variable speeds and loadings. Attention was also required to engine vibration and the consequent oil, water & fuel leaks & fumes; as well as to train heating boilers and the fragile design of cab windows. Braking systems were good, as were Metropolitan-Vickers own traction motors & electrical systems, and the class achieved modest success after redeployment in 1961-63 to Barrow-in-Furness for shorter passenger & freight services. Unfortunately, the move rendered irrelevant some of their original (and problematic) design features, such as the through passage for multiple working on the Condor, and the associated electrical connections. However, engine problems persisted to some extent, and another rebuilding was

considered. After some design & development work, this plan was abandoned late in 1967, as uneconomic for such a small class, and the locos were all withdrawn by 1968.
The MetroVicks of course visited Yorkshire on the Condor (running via the Settle-Carlisle line, Leeds and Sheffield; and there was even one sighting on the Calder Valley line.
This book delves in great detail into the peculiarities and somewhat tortured lives of these engines – the author has done much original research using official BR management, design and operating archives, including all the engine history cards, and by accessing spotters' & photographers' sightings and notes. This detailed work would have been a much less manageable task had the class been much larger!
There are many chapters - twenty-four in all: too many to list in full. Perhaps some which are basically lists/tables and cover the whole lives of the class, might have been placed as appendices, and other very short chapters might have been combined with others. But it is always good to place photos of interesting features alongside the relevant technical information, and that is how the author has arranged it – some chapters with brief text are very well illustrated to compensate. There is a useful bibliography, but sadly no helpful Index.
The 180-odd photos give an average of 9 shots per locomotive – and the quality is generally excellent, with detailed captions to point out significant points. Many locos appear to have been misidentified by the original photographers (often because of the missing front-right-hand number) - but the author's knowledge of the detail differences between locos has helped him to correct errors or suggest alternatives.
In conclusion, this book works very well in two ways. Firstly, in illustrating how not to develop a new design – it was a period of great change & uncertainty in BR as the organisation struggled to plan the switch from steam to modern traction (too fast by some opinions, too slow by others!). Then Metropolitan-Vickers chose a diesel engine of known unreliability; and, searching for a compromise between weight and power, they tried a novel design (3-axle bogie at one end, two-axle at the other). BR rushed to complete the construction; there were questionable decisions (driver door in main body, not in cab); and conflicting forces (the BR design consultant was also employed by MV). It was fortunate that awareness by BR senior engineers, of problems with similar engines in Ireland & Australia, helped to avoid the mistake growing larger and persisting longer.
Secondly, the author has provided a plethora of technical details, dates and locations about all the members of this enigmatic and sadly problematic class of diesels, that many enthusiasts probably wish they had seen more of. This is the reference book that tells us everything we need to know.
Production quality of the book is, as always with Pen & Sword, excellent.

The Metropolitan-Vickers Type 2 Co-Bo Diesel-Electric Locomotives: From Design To Destruction, by Anthony P. Sayer – Pen & Sword 2020: (Locomotive Portfolios Diesel & Electric series)
272 pages, over 180 photos ISBN 1526742810 Price £40 www.pen-and-sword.co.uk

3. Great Western 0-6-2 Tank Classes – Absorbed & Swindon-designed Classes, by David Maidment.

In July 1922 many railways in South Wales were absorbed by the GWR, in advance of the 1923 grouping. The five major lines were the Barry, Cardiff, Brecon & Merthyr, Rhymney, and Taff Vale Railways, and there were a number of smaller companies. These railways had arisen mainly to transport coal from the mines in the Welsh valleys to the docks at Barry, Cardiff, Penarth, Newport, Swansea and Port Talbot, but they also took coal to local ironworks, and handled excursion traffic as the resorts of Barry Island and Porthcawl became popular. In those days the Welsh valleys were busy industrial sites - the railways had started with small locos, such as 0-6-0T types. However, as coal traffic increased at the turn of the 20th century, and trains became longer and heavier, 0-6-2T types were built in moderate numbers by all the companies, and in 1922 the GWR inherited a large variety of engines, incorporating them with some difficulty into their numbering scheme and their maintenance plans. Introductory pages deal with the engineers – good brief biographies are given for T H Riches (Taff Vale Railway Locomotive Superintendent 1873-1911) and Cornelius Lundie (Rhymney Railway Chief Loco Superintendent 1872-1905), but the author apologises for the fact that little is known about many of the other companies' engineers.

The first five chapters cover the 0-6-2T locomotives of the above-listed major companies, in turn – Barry Rly. (16 pages), Cardiff Rly. (10 pages), Brecon & Merthyr (22 pages) Rhymney (37 pages) and Taff Vale (52 pages); and the sixth chapter (13 pages) describes those of other smaller companies – Alexandra Docks & Railway (Newport), the Neath & Brecon Railway, Port Talbot Railway, and the Rhondda & Swansea Bay Railway. The building and rebuilding of locos is covered in some detail, together with their renumberings by the GWR at various dates, and their duties. Most of the locos were side-tanks, though some were saddle-tank designs and others were fitted with pannier-tanks by GWR after absorption. Boiler changes were often associated with changes to water-tanks, coal-bunkers, cabs, chimneys and safety-valves, so the variety of shapes resulting is enormous. Some of the locomotives were originally quite unusual – for example, in order to minimise watering stops, the 1905 (Kitson) Cardiff Railway locos had side-tanks that extended forward right to the front of the smokebox, with sloping tops to assist forward visibility by the crew – a very odd-looking design; and the Barry Railway had some American-built (Cooke 1899) examples. But later refitting with Swindon boilers tended to give the locos a much more standardised appearance, though subtle details remained visible and are carefully pointed out by the author in the photographic captions. Nearly all of these absorbed locos were designed for freight or mixed-traffic work, but several passenger 0-6-2T designs were built and are included.

Chapter 7 offers 60 pages dealing with the GWR 56xx and 66xx classes – 200 locomotives designed & built between 1924-1928 to deal with the specific motive power problems of the 1920's. These problems arose for two reasons- firstly, the GWR's own fleet of locomotives had suffered from low maintenance during the First World War, as Swindon works had been partly converted for munitions production. But secondly, the Welsh companies had (except for the Rhymney) skimped on

maintenance prior to the 1922 mergers, so the GWR found the inherited locomotives to be often in very poor condition. There were no locos in the GWR fleet suitable for the Welsh valley lines which often had tight clearances, so once a limited repair/rebuild programme of absorbed Welsh engines had been completed in 1923-25, Collett's design was quickly put into production. Unfortunately, the demonstration of the first loco off the production-line proved an embarrassing disaster, as a design fault caused the loco to fail in front of the assembled dignitaries! This was hushed up and the problem was quickly rectified, and the 200 locos were completed: 150 at Swindon and 50 by Armstrong Whitworth. But then the Great Depression of the 1930's resulted in 600 Welsh coal mines closing due lack of demand, so many of the original engines were withdrawn, and were replaced by the new classes.

Chapter 8 covers the eleven ex-GWR 0-6-2T locos that have been preserved – two of these are ex-Taff Vale – TVR class O2 no.85 of 1899 is in fact on the Keighley & Worth Valley Railway. The other nine are in various stages of preservation, up to & including fully-restored operational condition, at heritage lines around the country.

The Appendix gives the dimensions, drawings and statistics of all the types covered, with listings of every locomotive – dates built & withdrawn, reboilerings & mileages (where known), etc.

About the classes – The 0-6-2T type obviously played a vital role in the coal traffic of South Wales, and thus in the economy of the region. Perhaps great power was not vital, as the heavy coal trains were running downhill to the docks (they almost always ran chimney-first in that direction) but they were sturdy enough to return with all the empty wagons (bunker-first). Other GWR classes such as 2-8-0T (42xx, 52xx) and 2-8-2T (72xx) were only able to run on a more limited set of routes. The 0-6-2Ts were also used for local passenger services until BR and ex-GWR 2-6-2T locos took over in the mid-1950's – they were ideal for the many workmen's trains that the miners used, as well as for local services from the valleys down to Newport, Cardiff, etc. Although chiefly allocated to South Wales sheds, they were found in many parts of the GWR and the later Western Region of BR.

About the book – This is primarily a photographic work – the text amounts to less than a quarter of the content. As the author explains, his own railway career in South Wales post-dated the operations of the original Welsh locomotives, and he only experienced the 56xx and 66xx classes personally. And as the 0-6-2Ts were dedicated mainly to freight work, the author could not discover logs of thrilling runs such as we find in many of the author's other books in this series, nor offer many interesting anecdotes about their operation. Nevertheless, this book is a very comprehensive account of types that are rather under-represented in the railway literature, and as such is highly commended as helping to fill that gap. The photographs are excellent in quality, with many full-page enlargements - the older pictures are often extremely sharp, probably taken with field cameras, and the quality of production is excellent, as always with Pen-and-Sword titles, with glossy paper that reproduces them extremely well. The photos come from various sources – society archives mainly cover the older types, and enthusiast photographers such as the author's friend John Hodges have captured many of the workings of the last decade of operation by the Swindon locos -

these also are of excellent quality and pictorial composition. The captions are very informative, with dates, locations and significant features being mentioned.
Your reviewer found very few shortcomings - the maps of the absorbed company lines lack scales, and perhaps more information about some of the hardly-known engineers could have been gleaned from census records and family-history research websites. A greater proportion of text, as opposed to photographs, might be appreciated (for example, about operational workings). Unfortunately, the separation of short amounts of text between long sections of photographs does break the reader's flow of thought and understanding to some extent, but there is no easy solution for this – at least, it keeps the information about each class close to the relevant photos. Anyway, as a pictorial and historical record of the several hundred locomotives in scope it is a book that will be much appreciated by enthusiasts of steam days in Wales, as well as by followers of the author's titles in the Pen-and-Sword "Locomotive Portfolios" series.

Great Western 0-6-2 Tank Classes – Absorbed & Swindon-designed Classes, by David Maidment. 284 pages, c.300 photos. Locomotive Portfolios series, Pen and Sword Transport 2020, ISBN 1526752050 price £30 www.pen-and-sword.co.uk

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Meeting Reports — Philip Lockwood

21st April 2021 – A Yorkshire Railway Quiz, by Bill Jagger (report by Ian Button)
Tonight, Bill gave us the answers to the quiz he submitted in the last issue of The Circular. The answers were very well illustrated with pictures of the various locations featured in the quiz. It was generous of Bill to have mentioned when setting us the quiz, that internet sources could be consulted – so enterprising Googlers got a-Googling and found "many cheerful facts". There were no references to "a very small second-class carriage", and perhaps it is as well that it was not a London Railway Quiz – otherwise Bill might have mentioned "Sloane Square and South Kensington stations". *[Readers mystified by these references might care to research the works of Messrs. W S Gilbert & Arthur Sullivan – this editing business needs lightening up sometimes – Ed.]* Anyway, the interesting facts and excellent photos all made for a very enjoyable meeting – thank you, Bill.

19th May 2021 - 2019 Britain Before Lockdown, by Peter Holden
Tonight as the title explains Peter gave a talk on his travels just before everything virtually arrived at the buffer stops. His first picture showed a Belgian train which although not the subject of tonight's presentation might well be part of a future talk. We started with journeys to the West Country before moving to a number of journeys on the Southern system. Nearer home a selection of Blackpool tram pictures showing mainly the heritage fleet. Peter explained that the fare for these is about double the fare on the modern fleet, for this reason the trams were fairly quiet. Another of his jaunts usually starting with breakfast in Brighouse before travelling via Wakefield to Sheffield, the plan being to travel on the Train-Tram. These proved to be out of

service due to a power failure. In April - a chance to travel on a Azuma test train from Hull to Kings Cross, the first section from Hull using diesel power. In June - meeting up with a couple of retired Belgium railway staff for travels to the Romney, Hythe and Dymchurch railway before moving on to the Kent and East Sussex railway. Moving back north with a ride to Whitby with the preserved SR "Schools" class locomotive.
A holiday to Scotland with Kay to visit Inverness and Fort William where an opportunity was taken to ride the steam train to Mallaig.
The final few images were taken at Neville Hill with the refurbishment of the HST power car part of the record breaking train.
A most interesting meeting with a surprisingly large number of steam pictures for one of Peter's shows. Thanks, Peter, for putting this together.

HST 43 102 at Neville Hill, Leeds – 18 February 2021 Peter Holden

5th June 2021 - A Russian Journey, by Ian Button

This evening's Zoom presentation by Ian was of a journey overland from Huddersfield to Lake Baikal in Russia, remarkably costing just £388 pounds for three weeks.. Ian explained that the idea came about after being present at a talk by Frank Robertshaw about a journey to Leningrad.
The tour made in 1986 was arranged by Yorkshire Tours, a somewhat unusual tour company, and started from outside Huddersfield railway station at midnight. The initial travel was by motor coach. Instructions for participants included: "Bring enough food for three meals, and, your own cup"! Tea making en-route was with a camping stove at lay-bys. Travelling overland by coach, Ian finally arrived in Budapest where he had a twelve hour wait before boarding the Moscow train, so he

and some others chartered a taxi with a German-speaking driver for a few hours to see the sights of Budapest. On the train again, and en-route a night-time change of gauge from the standard western gauge to the Russian broad gauge, all done without having to de-train! Things noted along the way, lady track workers plus crossing keepers with an assortment of signalling signs. An obelisk marked the border between Europe and Asia, and the event was celebrated with a sherry party in the somewhat cramped sleeping car berth!
The group eventually arrived at Lake Baikal after a five day journey from Moscow. An interesting fact is that Lake Baikal holds one fifth of the earth's fresh water.
A fascinating journey made many years ago but well remembered by Ian, and accompanied by interesting pictures mostly taken from the train.

A rough shunt on the edge of Baildon Moor Michael Leahy

Secretary's Page Peter Holden

Sadly, we appear no nearer to recommencing our meeting presently. Hopefully, we may have some better news following Monday 19th July. We will have to wait and see. The new Health Secretary (who remembers him from Thunderbirds?) is all for removing all the present restrictions. As said already, we will be stepping into uncharted territory when / if we recommence our indoor meetings.

Hopefully you are all getting out of the house a bit more now? Perhaps doing a bit of train spotting - after all there are plenty of steam specials running and the freight trains from Swinden Quarry appear to be quite frequent, compared to the one a day to Hull as was not that long ago.
The Staycation Express is also running again this year, although I have to say for those traveling north from Skipton, the times are not at all favourable. Last year one could have a good day out in Appleby. This year you can have an hour or so in Carlisle! It is to be an HST this year also rather than the loco hauled stock of last year.
On the rail network things are certainly becoming much busier, some trains are back to normal loading now. What becomes the new normal we will have to wait and see.
What about these Hitachi trains cracking up already!! I did say all along they were rubbish. I can report, the cracks are quite large, so if you are on one careful not to fall through the holes in the floor! Add to this, it took them 15 months to repair the Azuma that ran into the back of a HST approaching Neville Hill. This at a closing speed of around 8mph derailing 4 coaches. (The HST drove away from the scene. The power car was withdrawn due to being no longer needed, the rest of the train was back in service the same week following a few checks.
We still have many people scared to catch a train, not sure when or if they will return, coupled with this of course is the new "work from home trend" this is certainly having a very detrimental effect on passenger numbers and of course the income for the railway operators.
Thus, our wonderful government has decided to re-hash the continuing debacle and take yet more control! Does not bode well.
One of the things to be very careful about is the so called "Smart Cards" and "simplified ticket choices" This can very easily mean more expensive! My advice is if you are not certain you are getting the cheapest ticket, go see the person in the booking office. If you don't not only may you be ripped off, there soon will be no person in the booking office.
Update from last issue. There are to be some redundancies at Neville Hill. Sadly my role in the stores is deemed too vital! However, I am very busy at the moment having to work through this situation.
As some of you are aware we have held a few Zoom Meetings recently. I for one have enjoyed them thoroughly. Hopefully, we can book a few more to see us through for now. PLEASE DO put yourselves forward to do a zoom presentation. It does not have to be a full 90 minutes.

Please keep an eye on our website for further updates.

Best Wishes.
Peter

43 046 at Neville Hill, Leeds – 28 July 2021 Peter Holden

Circle Diary 2021

Please watch the website http://www.bradfordrailwaycircle.co.uk **.**
All meetings are off until further notice.

C - Copy date for *The Circular* – two meetings prior to …
P – Publication – last meetings of March/June/September, & last before Christmas

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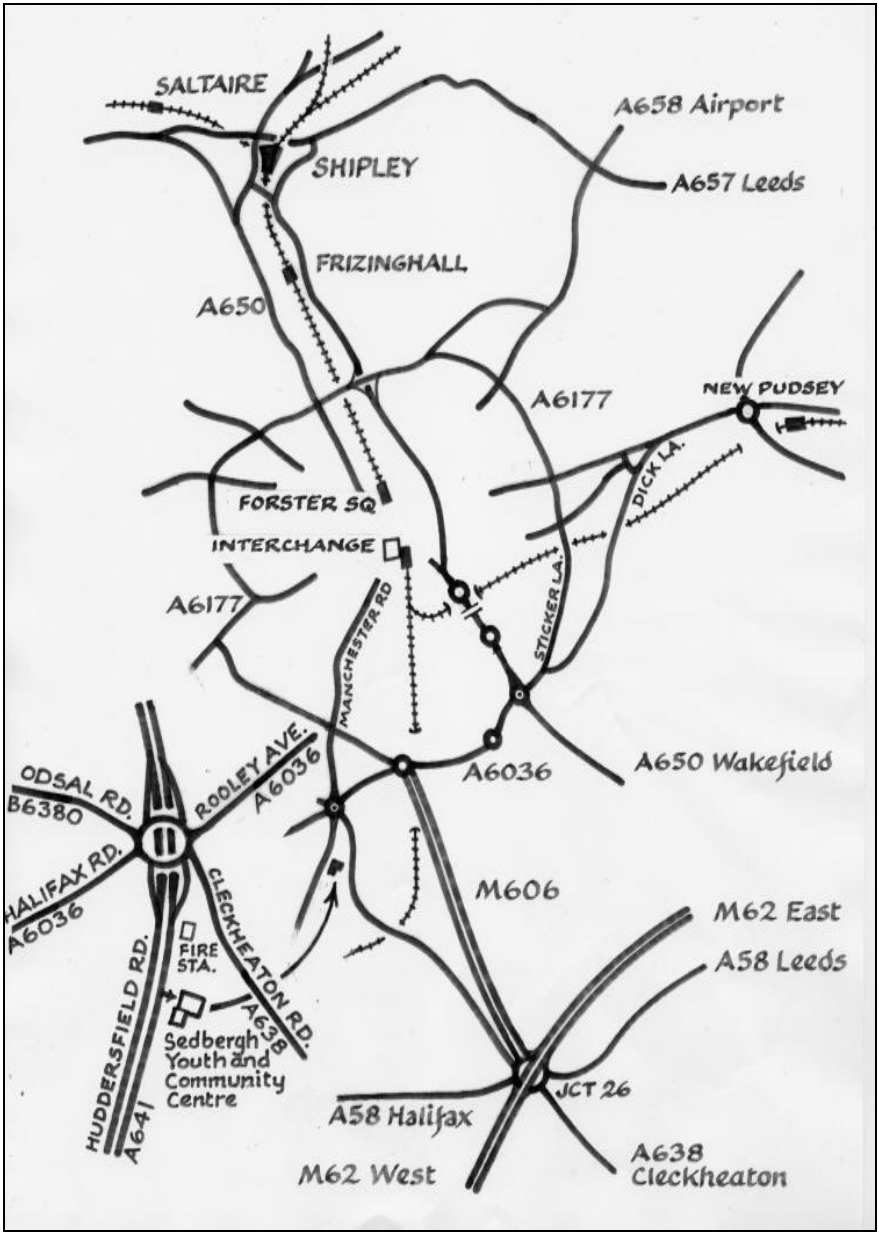
Ben's Bits

Andre Chapelon – French locomotive designer extraordinaire
During WW1 a certain aerial observer was spending up to 16 hours a day in a hot-air balloon basket. On one day, four balloons around his were destroyed – without this sort of luck Chapelon would not have survived to become the foremost steam locomotive designer in later life.
Chapelon was noted for Pacifics – one of 1930's vintage developed 3400hp and weighed 91 tons (160 tons with tender) and had the highest power-to-weight ratio of any steam locomotive of the time. Its power was even above the 3300hp of the English Electric "Deltics" of the 1960's.



Map by courtesy of John Holroyd

Bradford Railway Circle meets at 7.30pm on alternate Wednesdays.
For more information, see website www.bradfordrailwaycircle.co.uk