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Barrowmore Model Railway Journal

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Published on behalf of Barrowmore Model Railway Group by the Honorary Editor: David Goodwin, "Cromer", Church Road, Saughall, Chester CH1 6EN; tel. 01244 880018. E-mail: david@goodwinrail.co.uk

Contributions are welcome:

(a) as e-mails or e-mail attachments;
(b) as a 3.5in floppy disk, formatted in any way (as long as you tell me if it's unusual!); disks can be provided on request;
(c) a typed manuscript;
(d) a hand-written manuscript, preferably with a contact telephone number so that any queries can be sorted out;
(e) a CD/DVD;
(f) a USB storage flash drive.

Any queries to the Editor, please.

The **NEXT ISSUE** will be dated June 2007, and contributions should get to the Editor as soon as possible, but at least before 1 May 2007.

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Copies of this magazine are also available to non-members: a cheque for £6 (payable to 'Barrowmore Model Railway Group') will provide the next four issues, posted direct to your home. Send your details and cheque to the Editor at the above address.

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The **cover illustration** for this issue is of tramcar no.3002 at the Connolly Station terminus of the Tallaght line in Dublin. This tramway system (known as "Luas"), opened in 2004, is proving to be a tremendous success, both financially and in public passenger transport terms; extensions are being planned. Usage has increased over the first two years of operation from zero to over 26 million passenger journeys per annum. The first trams in Dublin used a gauge of 5ft2$^{3}/_{16}$in (roughly the same as the standard track gauge used by railways in Ireland), but the last remaining tram line closed in 1959 and since then there has been such a vast increase in road traffic that something had to be done. Traffic at busy times in Dublin (with average speeds of 2mph) got so bad that it was quicker to walk than to drive or get a bus! The 'something' started out with the DART (Dublin Area Rapid Transit) which was an extension to the main line railways, similar to Merseyrail here, and which started in the 1980s. The success of the DART electric trains had an influence on the thinking that led to the Luas electric trams, although it is a completely separate system, and has a track gauge of 4ft8½in. The next remedy being considered for road congestion is a 'Metro' system, mostly underground in the centre of Dublin but running above ground further out; but this is in the future. (Photograph by David Goodwin, 23 May 2006).

Forthcoming events

(2007)
3 Mar. 2007: Llanbedr 7mm running track. (See Editor for details).
10/11 Mar. 2007: Kidderminster show.
13 Mar. 2007: "Thomas Brassey: railway builder and contractor" by John Whittingham (HMRS meeting at 'The Stork Hotel' Birkenhead – see Editor for details).
17/18 Mar. 2007: Nottingham show.
24/25 Mar. 2007: Alexandra Palace (incl. "**Johnstown Road**").
7 Apr. 2007: Llanbedr 7mm running track. (See Editor for details).
7/9 Apr. 2007: York show.
10 Apr. 2007: "Researching and modelling Preston Station" by Mike Norris (HMRS meeting at 'The Stork Hotel' Birkenhead – see Editor for details).
21/22 Apr. 2007: S4 North, Wakefield.
5/6 May 2007: Liverpool show. ("**Johnstown Road**" is appearing).
12/13 May 2007: ExpoEM, Bletchley.
26/27 May 2007: Aylesbury show ("**Mostyn**" is appearing).
2/3 June 2007: DEMU showcase, Burton-upon-Trent.
9/10 June 2007: Chatham show.
21/22 July 2007: Welsh National Model Railway Exhibition (Colwyn club), Llandudno.
11 Sept. 2007: "Colour light signalling" by Dave Larkin (HMRS meeting at 'The Stork Hotel' Birkenhead – see Editor for details).
29/30 Sept. 2007: Scaleforum, Leatherhead.
5/7 Oct. 2007: Manchester show.
9 Oct. 2007: "The deadly tablet: the Abermule disaster, 1921" by David Burkhill-Howarth ((HMRS meeting at 'The Stork Hotel' Birkenhead – see Editor for details).
19/21 Oct. 2007: Blackburn show (**"Mostyn"** is appearing).
26/28 Oct. 2007: Merseyside show.
13 Nov. 2007: "Signalling for dummies" by Harry Leadbetter (HMRS meeting at 'The Stork Hotel' Birkenhead – see Editor for details).
17/18 Nov. 2007: Tyneside show, Gateshead.
23/24/25 Nov. 2007: Wakefield show.
1/2 Dec. 2007: Warley show, N.E.C.
8/9 Dec. 2007: Wigan show.
11 Dec. 2007: "Cambrian Coast Express, 1972, and other Stan Roberts slides" (HMRS meeting at 'The Stork Hotel' Birkenhead – see Editor for details).

(2008)
12/13 Jan. 2008: St.Albans show (**"Mostyn"** is appearing).
3/4 May 2008: Liverpool show.

(The Editor welcomes details of other events of railway interest for this column)

Our web-site address is: www.barrowmoremrg.org.uk

[In October 2006 we were privileged to be able to visit a big ex-MoD depot at Long Marston in Warwickshire, temporary home to stored HSTs, Mk.3 coaches, etc. The same site also has the headquarters of the Stratford on Avon and Broadway Railway Society, and excerpts from their web-site (www.stratfordbroadwayrailway.co.uk) are reprinted below ...]

Stratford on Avon and Broadway Railway Society

About the Stratford Broadway Railway Society

The Stratford Broadway Railway (SBR) has been working at Long Marston for over 10 years, with the aim of reinstating the line between Stratford upon Avon and Honeybourne for main line connection.

We are currently looking for volunteers to join us. There are lots of opportunities for volunteers to work on our various restoration projects, which include carriages, wagons and steam and diesel locomotives. In addition to this there are various types of buildings and workshops to maintain.

We are also looking for people to show support by joining our society as members. As a member you will receive our magazine which will keep you up to date with the ongoing work, dates of forthcoming open days and access to the site outside public dates.

Currently we are open to volunteers on Tuesdays and Saturdays, although other days can be arranged. We are open to all ages although guests must be accompanied by a member to obtain access to the site.

The History of Long Marston

Reprinted from " Shakespeare Express", Issue 14, Autumn 1999, and Issue 25, Summer 2004

The three words "Clear The Ports" spoken in 1940 by the then Prime Minister, Winston Churchill, started a sequence of events that would forever change part of rural Warwickshire by the establishment of the first really large Engineer Stores Depot in the United Kingdom. During the evacuation of the British Expeditionary Force from Dunkirk and other French ports the south coast ports soon became completely congested with military stores. Something had to be done to solve the problem before they were overwhelmed. The country was scoured for a suitable site and widespread reconnaissance led to the selection of Long Marston as the site for this important facility. The local conditions made the site difficult to locate from the air. It was also served by the Great Western Railway - with access to two main lines at Honeybourne to the south, and through Stratford upon Avon to Birmingham and Leamington Spa to the north.

The first 300 acres of virgin farm and marshland were speedily requisitioned and the 1st Engineer Stores Depot, as it was then known, began to appear. An internal rail system was essential, and this commenced operating in 1940, run by a section from 192 Railway Operating Company RE. By September, Bailey Bridge components and other essential equipment was contained in 715 railway wagons awaiting storage space.

In 1941, the running of the Detachment was taken over by a section from 154 Railway Operating Company RE; by the end of the year accumulated congestion had been overcome. By 1942 the Depot possessed 45 miles of track, 155 acres of stacking space, 435,600 square feet of covered storage and many miles of roadway. The railway was constructed and maintained by a gang of 110 platelayers. From then onwards Long Marston provided operational storage for the full range of RE equipment for campaigns in Italy, southern Asia and northwest Europe. In the month of December 1944, a total of 10,027 stores wagons were handled by the Detachment. During the construction of the depot at Long Marston the sub-depot at Honeybourne and other local facilities the traffic on the line was so high that regular civilian services were suspended as the line was given over to the construction and military traffic. This caused severe problems for the personnel who worked on the depot as with the train services suspended and no bus service the only method of getting to the depot was by bicycle. Until accommodation was provided on the depot many of the staff had a long and tiring journey to work and back.

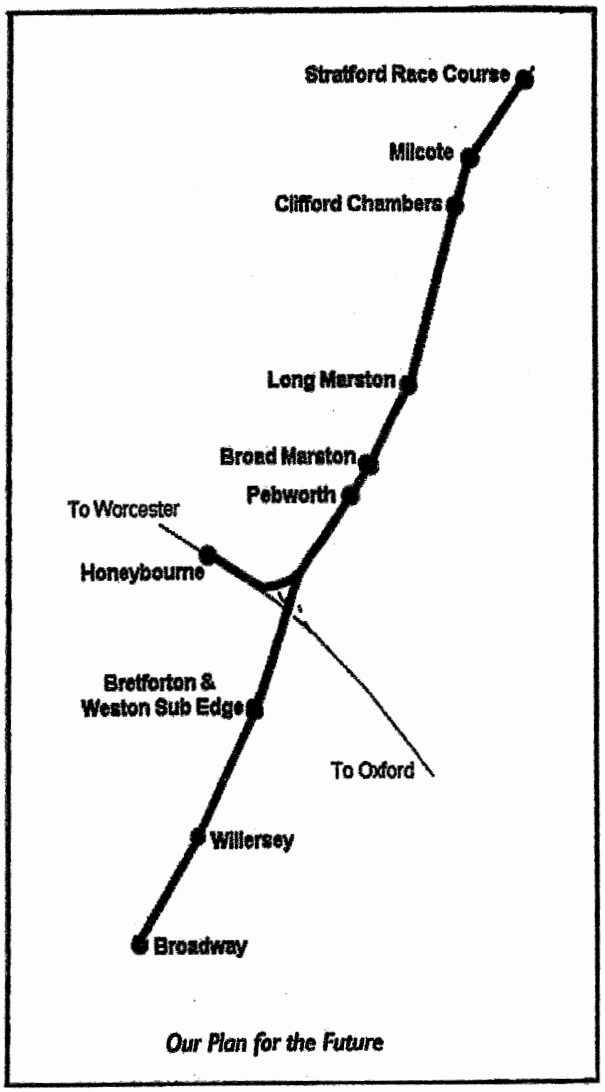
During the Second World War, the Detachment was manned by about 200 men, some of whom married local girls and continued to work there until they retired in the early 80s. The Depot was then served by seven 0-6-OST steam locomotives. Long Marston also controlled sub-depots at Honeybourne, Kingham, Moreton in Marsh and Ashchurch. Traffic, was naturally very heavy; incoming traffic averaged 300 wagons per day and at one period, twelve special trains were being marshalled daily and handed over to the GWR en route to various UK destinations.

The depot and the sub-depots played a full part in supporting Operation Bolero and the subsequent Operation Overlord. Operation Bolero was conceived in late 1941/early 1942 and its function was to ensure that American troops and equipment could be brought into the UK to support the subsequent invasion. In 1941 the British Military planners were working on a plan called Operation Roundup, this was for an attack at Le Havre during the middle of 1942. Although this operation never came to fruition, the need to move American equipment became more apparent. To support Operation Bolero the Honeybourne sub-depot at Sheenhill was handed over to the Americans. It became one of the main American medical stores depots. Although controlled by the Americans, the locomotives were supplied and serviced by the main depot at Long Marston. The locomotives allocated to Sheenhill were kept busy and were coaled and watered on site and only returned to Long Marston for maintenance work that could not be carried out on site.

Our Intention

The prime catalyst behind the formation of the Stratford on Avon & Broadway Railway Society (SBRS) has been the urgent need to save the last remaining original section of the Stratford-Cheltenham line, namely the Honeybourne-Long Marston branch. Nearly three miles in length, the branch was retained by British Rail after the line's closure, to provide a rail link between the Army's Engineers' Resource Depot at Long Marston and the Oxford-Worcester (Cotswold) line.

With the base now closed, and sold to a property developer, the SBRS aims to promote the reinstatement of the railway from Stratford upon Avon to Honeybourne, whilst preserving the existing Greenway and its facilities.



Our Plan for the Future

Transportation for Stratford

Stratford upon Avon is one of the most-visited tourist destinations in England after London. The vast majority of the town's visitors currently arrive by road. This has led to congestion on the town's roads and overcrowding in its car parks. Restoring the rail link southwards from the town to Honeybourne will provide a distinctive and attractive alternative for travelling to Stratford upon Avon.

Regeneration for Honeybourne

The aim of the Society is to operate the line as a Community Railway, as well as running heritage steam passenger and freight trains.

This would require a new interchange station at Honeybourne with Park-and-Ride facilities, and new intermediate stations at Long Marston, Long Marston Airfield, and Milcote.

Our intention is to regenerate Honeybourne as the focal point of the new railway and to provide an attractive, well-maintained and staffed station for the village.

The Society's Base

The SBRS is based at Long Marston, on the former MoD Camp, where our collection of carriages, wagons, industrial steam locomotives, and industrial diesel locomotives are under restoration.

The SBRS plans are to acquire the Long Marston exchange sidings and marshalling yard site as our main base, and reinstate the Honeybourne rail triangle.

Railway Heritage

Although Long Marston ceased to be a Ministry of Defence depot in 1999, the railway yard has the potential to become a major rail heritage centre covering the history of the region's many railways and of military railways in general. The SBRS seeks to realise that potential.

Saving the Honeybourne-Long Marston Branch!

Following the closure of the Stratford-Cheltenham route, the branch provided a rail link between the Oxford-Worcester main line and the MoD Depot at Long Marston. However, its future was always in doubt. Following the sale, the branch now faces a more secure future.

This important stretch of line is not only a vital link in the scheme to reinstate the Stratford-Cheltenham line, but also a superb railway facility. As well as connecting with the national rail network at Honeybourne, it offers exceptional servicing and shed facilities at its terminus. All of this must be saved.

We launched our "Save the Branch" campaign in July 1995 and since then we have established a thriving operational base at Long Marston. At present we are gathering and restoring locomotives and rolling stock in readiness for the commencement of revenue-earning activities.

"Thurstaston - prototype locomotive and freight stock"

by Bryan Johnson

Part 2: Wagons Overview

Freight trains running over the branch would be either through trains or local pick-up goods.

The line was used as access route for Birkenhead Docks as an alternative to the Green Lane – Canning Street approach. It was especially suited to destinations at the west end of the dock complex. These through freight services would not serve the goods yards on the branch, only stopping when required for operational reasons, such as to cross another train.

The local freight service would call at the yards along the line. As the line was originally built to serve commuters going to Birkenhead and Liverpool, so the local freight aspect was really an add-on to the passenger service. All the stations had some form of general goods facilities, the largest being the goods shed at Heswall. Many also had a cattle dock allowing the movement of livestock, but this traffic is likely to have ceased before nationalisation.

Local Sources and Destinations

There were few industries along the route of the branch that would generate any significant volume of freight traffic. Those that there were include:

Neston	Historically, Mealors of Ness, a farm machinery manufacturer, distributed finished equipment through Neston station.
Parkgate	The Wirral Colliery would have sent coal until its closure in 1928. I believe that there was a tar distillery or similar factory in the area. Fish would have been despatched from the local fishing industry.
Thurstaston	Little local freight, but the yard was used for rail - road transhipments.
Kirby Park	The goods loop served the local coal merchants and a timber yard
Moreton	Not strictly on the branch, but a local destination other than the docks. The Cadbury's factory received empty vans and coal via the branch.

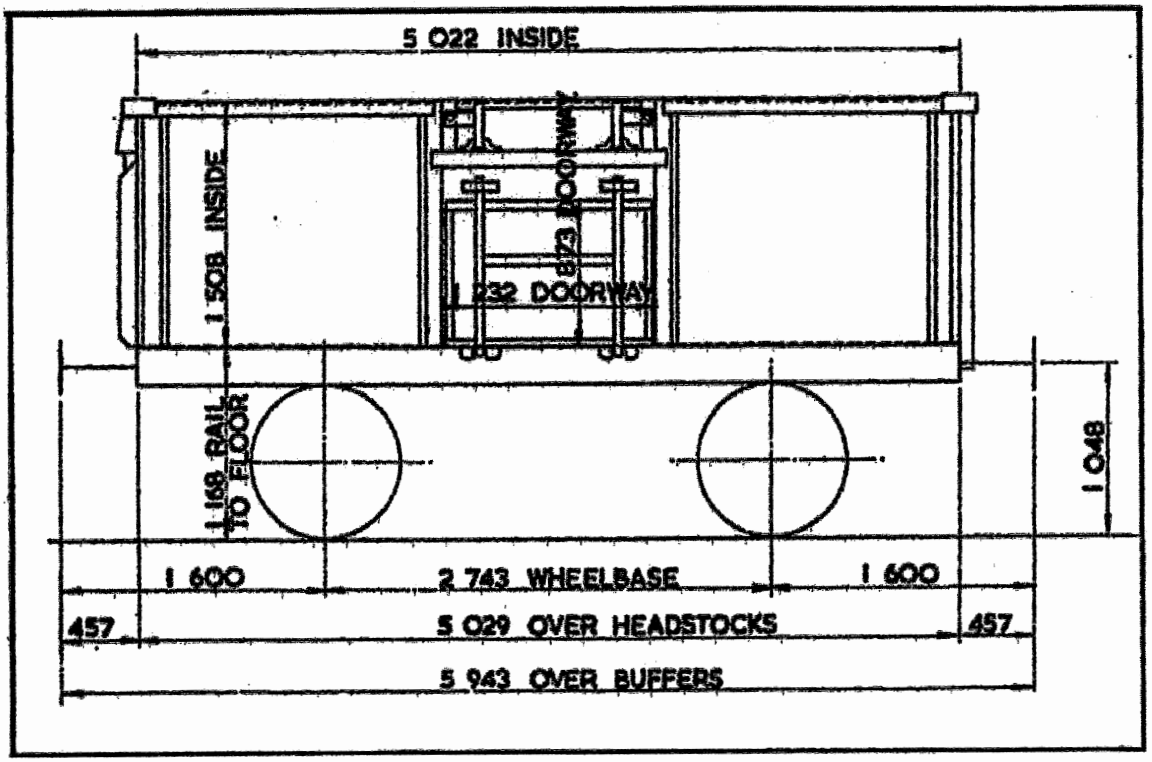
Each station would have handled small amounts of local traffic, mainly agricultural. Incoming would be agricultural supplies and coal supplies for the local coal merchants, the main outgoings were milk and potatoes.

Wagon types: Mineral

As with many other routes, mineral traffic was one of the mainstays of freight traffic, and was carried in variants of the ubiquitous 7 plank wooden bodied mineral wagon.

In the early period following nationalisation, the majority of wagons would have been wooded bodied, with either wooden or steel underframes. Many of these would be ex-Private Owner wagons which had been taken into a common pool during the war and never returned to their original owners. Moving nearer to closure, the wooden bodied

wagons, especially those with wooden underframes, would have been replaced by the steel 16T minerals built in large numbers by British Railways.



[British Railways diag.1/108 steel coal wagon – about a quarter of a million were built following nationalisation]

In the photograph in the *Railway World* article [6] of West Kirby station taken during the war, the loop is filled with a train made up of wooden bodied mineral wagons. The nearest wagon is a Southern Railway 8 plank mineral, in the later livery with the small letters at the bottom left hand corner. The 6th wagon has the letters S C, which was the Private Owner livery for Stephenson Clarke.

The video sequence of wagons being unloaded at Thurstaston in the *Railways of the Wirral* video [7] shows a number of wooden bodied mineral wagons, most of which look worn out.

The short freight train in the photograph from 1952 identified earlier in the *Railway World* article [6] shows a mixture of wooden and steel bodied wagons. The larger 21T steel mineral looks to be a British Railways built wagon, and so would have been very modern at this time as these were only introduced in 1950/51.

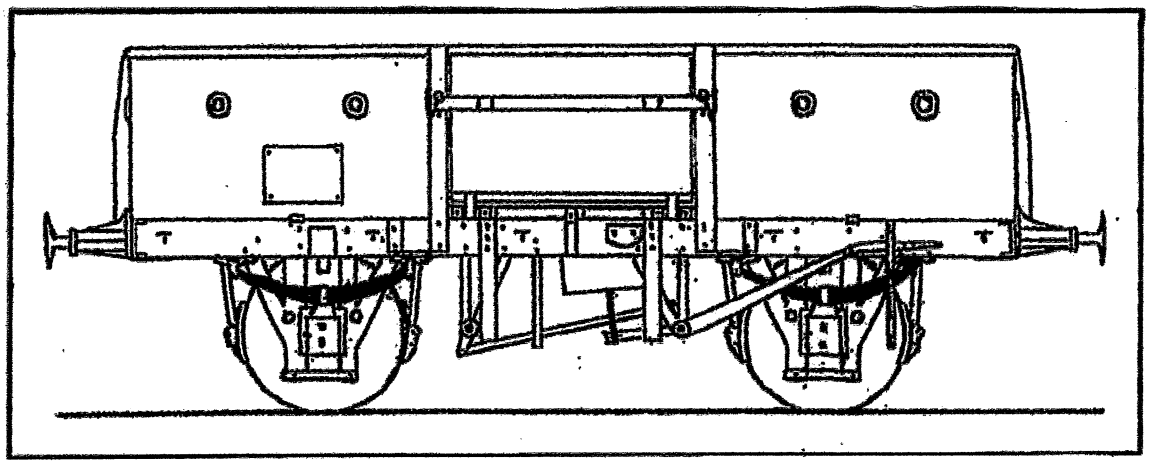
By the time the line closed, steel appears to have replaced wood as both wagons in the final freight from West Kirby were steel 16T minerals.

One more specialised mineral wagon is shown on page 26 of the *Railway Stations of Wirral* [2] book. On the right of the lower photograph, a coke wagon is just in frame. This is an 8 plank wagon, with 3 additional raves. This is about as big as coke wagons got; wagons normally had only 2 raves.

Open

Open wagons were the normal vehicle for non-mineral traffic that did not specifically need to be protected. The usual wagon would have a wooden body with one to six planks, although some ex-LNER wagons had steel sides. Where some protection was appropriate, the open wagon could be covered with a tarpaulin.

Dramatic evidence of the use of ex-LNER steel sided wagons is shown in the



[LNER-design steel open]

photograph of the aftermath of the collision at Thurstaston. This appears on page 10 of the *Walking, cycling and riding along the Wirral Way* [5] booklet and shows a mangled wagon immediately behind the Fowler 0-6-0T.

Vans

During the period, vans were relatively specialised vehicles, with open wagons normally sufficing. The vans used could be a mixture of pre-nationalisation and British Railways built vehicles. As time went on, the proportion of traffic moved in vans increased relative to opens. The aerial photograph of West Kirby on page 41 of the *Railway stations of Wirral* [2] book thought to be taken around 1958 shows more vans than opens in the joint station's goods yard.

In the photograph of the Ivatt 2-6-0 at Thurstaston in 1960, a solitary GWR ventilated van can be seen in the goods yard. Also, trains of empty vans passed over the line on their way to Cadbury's at Moreton.

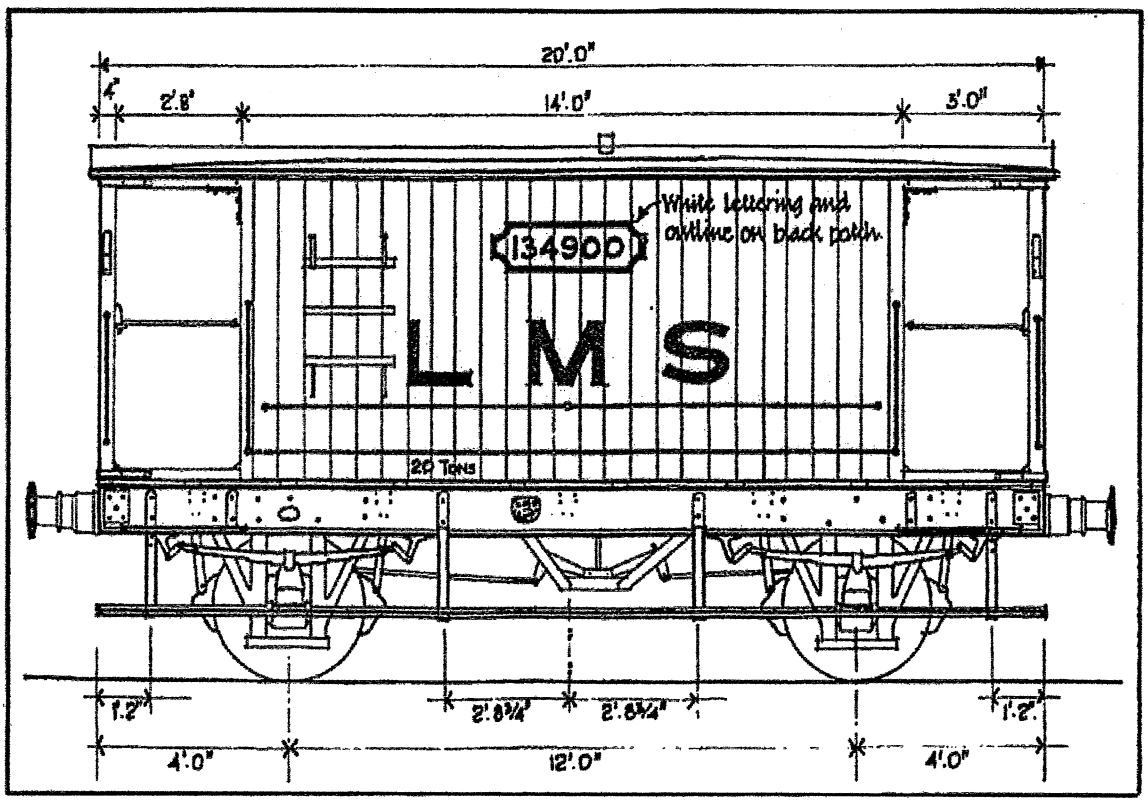
The photograph of the 10am freight at Hadlow Road in 1961 in the 'Working the line' section of *The Hooton to West Kirby Branch Line and the Wirral Way* [1] book shows an ex-LMS (or possibly LNER) van with a single sliding door.

The last freight train from West Kirby had an ex-GWR van as the third wagon in the train.

Brake vans

A variety of brake vans has been recorded working on the line.

The brake van in the photograph from 1952 in the August 1986 *Railway World* [6] is an early LMS brake van, which I think is a D1659 from 1927. The brake van recorded in the guard's record sheet mentioned earlier is M284815, so this could be the same vehicle.

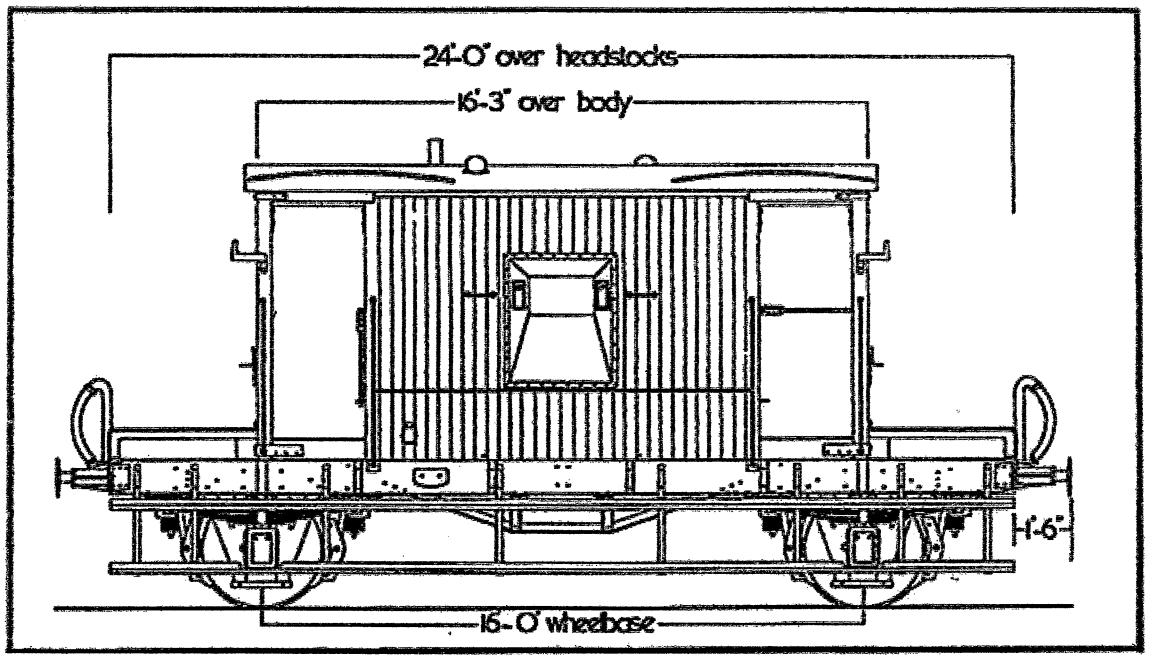


[LMS D1659 goods brake van]

An un-published photograph shows a later style LMS brake van.

The standard GWR Toad also appeared, one being used for the demolition train shown in the photograph in *The Hooton to West Kirby Branch Line and the Wirral Way* [1].

In later times, the standard BR brake van was also used. B952504 is shown in an



[British Railways standard brake van]

unpublished photograph of a demolition train.

I think that an ex-LNER van appeared on the line as well. The photographs of the last freight train from West Kirby does not show much distance between the van and brake van bodies. This leads me to think that this may be a short wheelbase LNER van, rather than a long wheelbase LNER or British Railways van.

Miscellaneous

Whilst minerals, opens and vans served the majority of traffic needs, there was other traffic requiring special vehicles.

The photograph of the 10am freight at Hadlow Road in 1961 in *The Hooton to West Kirby Branch Line and the Wirral Way* [1] book shows a 7 plank mineral, a van, and a tank wagon. The tank on this is not full height, and just about reaches the same height as the mineral wagon. This, coupled with the top of the tank end being visible beyond the end of the van leads me to think this wagon had two small tanks side by side on the underframe. This could then be a modern version of the older, square tanked tar wagons, and so may have worked from the Parkgate tar distillery.

Train composition

There are relatively few photographs of freight trains on the branch with most photographers seeming to concentrate on the normal passenger service and any special trains. Some that do exist have been mentioned earlier in the identification of wagon types; here I have tried to record the train composition.

1952 freight

Position	Wagon identification
1	6 plank wooden bodied open, probably ex-LNER
2	7 plank wooden bodied mineral
3	Steel bodied 16T mineral, no top doors, probably ex-LMS
4	Welded steel bodied diagram 1/107 21T mineral, no top doors
5	6 plank wooden bodied open, probably ex-LNER
6	8 plank wooden bodied mineral, end door at rear.
7	D1659 LMS Brake van, possibly M284815

1962 final freight from West Kirby

Position	Wagon identification
1	Welded steel bodied diagram 1/108 16T mineral, top doors
2	Welded steel bodied diagram 1/108 16T mineral, top doors
3	Wooden bodied van, ex GWR
4	Brake van, probably ex LNER Toad

1962 final freight from Hooton

Position	Wagon identification
1	5 plank wooden bodied open, with tarpaulin covering the load
2	5 plank wooden bodied open, with tarpaulin covering the load
3	7 plank wooden bodied mineral
4	Wooden bodied van, appears to have single sliding door rather than double hinged doors
5	Wooden bodied van
6	Wooden bodied van, probably ex LMS as it has roof vents
7	21T steel bodied mineral wagon, as there seems to be two sets of side doors
8	7 plank wooden bodied mineral
9	BR Standard Brake van

Further details

I have set up a web site showing plans and progress in detail, this can be accessed at http://www.thurstaston.fsworld.co.uk/layout_head.htm. This includes photographs of stock constructed so far.

I would be happy to hear any corrections or additional information resulting from this article, either through the e-mail link in my web site or through the editor. This especially applies to the guesses I have made along the way.

I would also like to thank all those who have helped me towards these articles and the layout, either directly or indirectly.

References

These identify the sources for the photographs showing trains on the line.

	Title	Author	Date	ISBN
1	*The Hooton to West Kirby Branch Line and the Wirral Way*	Merseyside Railway History Group	1982	0 904582 04 3
2	*Railway stations of Wirral*	Merseyside Railway History Group	[1993]	1 899241 02 7
3	*A portrait of Wirral's railways*	Roger Jermy	1987	0 907768 17 2
4	*Shed side on Merseyside*	Ken Pearce	1997	
5	*Walking, cycling and riding along the Wirral Way*	Ian & Marilyn Boumphrey	1996	1 899241 06 X
6	*Railway World* article	Rex Christiansen	August 1986	ISSN 0033 9032
7	*Railways of the Wirral*	On-Line Video		
8	Slide number BRW 1318	Colour-Rail		

Twilight of the Siphons

by David Goodwin and Richard Oldfield

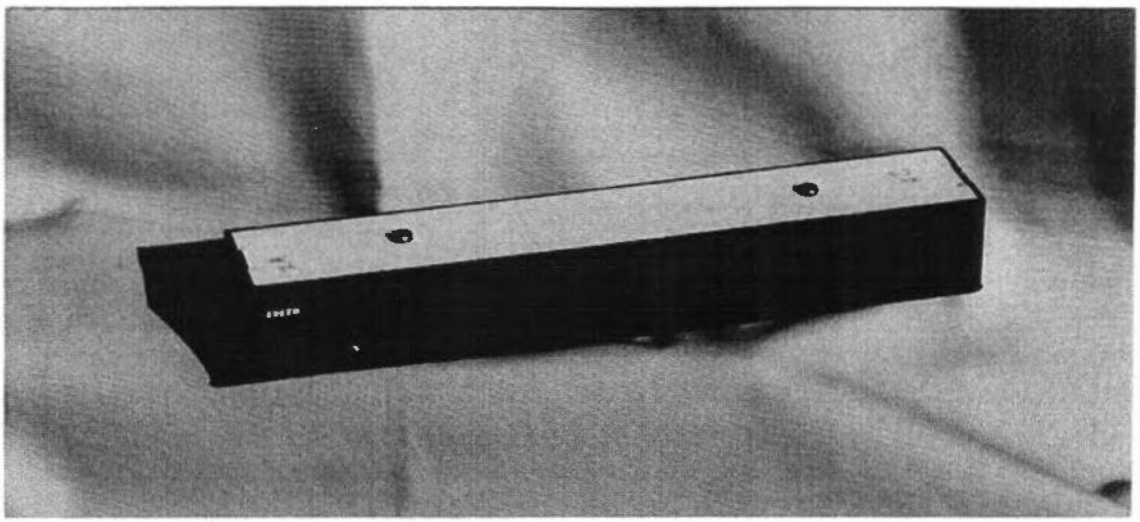
Part 2: the underframe – with help from Peter Lawson

(Note that there are good drawings of underframes in [4] and [23], listed at the end of this article).

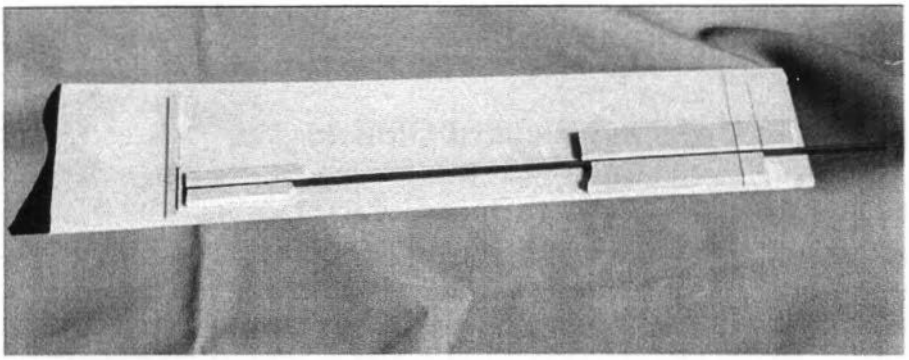
Dismantling comes first of course. Body sides and roof are one moulding, with the underframe attached by two screws which pass up through the underframe 'floor', through a spacer and into pillars projecting downwards from the roof. The screw heads are accessed by swivelling the bogies to one side, and unscrewing separates the two major parts of the model; the distance piece and the steel ballast weight come loose at this stage. Remove the bogies by pressing together the top sides of the bogie pivots and pulling them off the underframe. The gangways can be un-clipped - one side at a time - and pulled off. I always mark components with a fine-tip permanent felt marker so that if necessary they can be re-assembled the original way round.

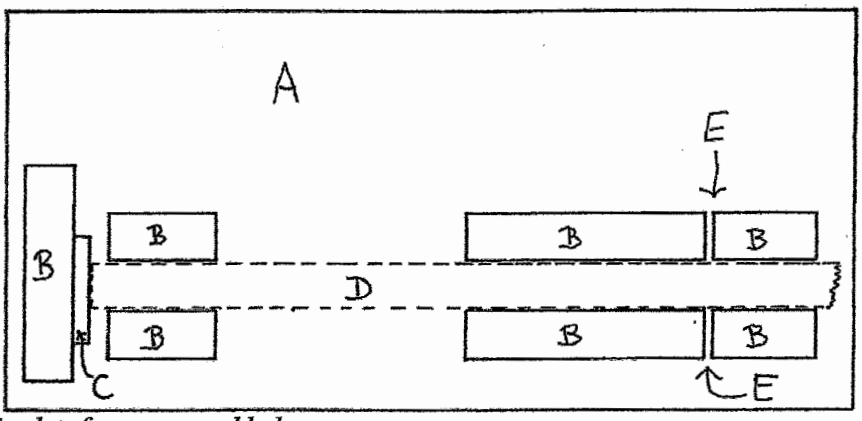
Peter Lawson of the Chester Model Railway Club had 'super-detailed' several Siphon Gs some years ago, but I started off this project by trying to use as much of the Lima model as possible. But it soon became obvious that Peter's solution to the problems inherent in the r-t-r underframe was the only sensible course: he had elected to scrap Lima's offering and to scratch-build replacements. This may seem drastic, but in the light of experience does save time overall: so throw away the entire underframe. Everything from the body down will be new!

From 2mm or 3mm thick polystyrene make a new 'floor' to fit inside the body: start with a rectangle just over 198mm x 32mm, make recesses 12mm x 0.5mm in the ends (to clear the raised mouldings on the backs of the gangways), and then file the sides down until it is a good sliding fit. Drill two 1/8" holes, 112mm apart, to take the original screws which held the underframe to the body.



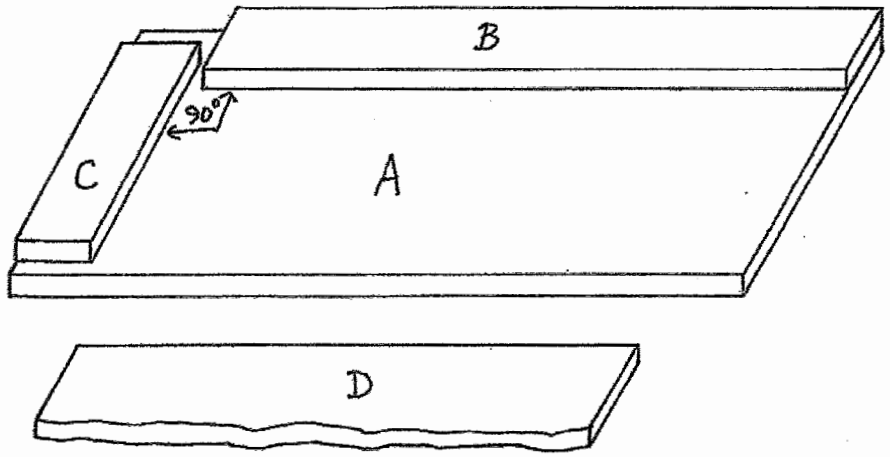
The new solebars are from 3mm brass channel [10], each 198.5mm long. If you are making more than one example of the new underframe, it is worth making a simple plastic cutting jig to ensure that the solebars are all the same length (see diag. U/1).





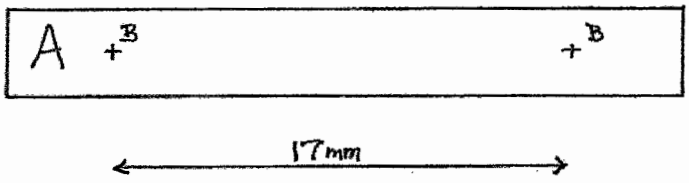
Diag.U/1:
A: scrap plastic card about 280mm x70mm; B: plastic strip about 3mm thick and 5mm wide, glued to base to make sliding fit for brass channel; C: plastic spacer glued on to make length C-E measure 198.5mm; D: space for brass channel solebar stock; E: slots for razor saw blade.

The solebars are tinned on their inner faces and soldered to a 29mm wide x 85mm long piece of brass, about 0.25mm - 0.5mm thick. Use a simple wooden jig (yes, another one!) and solder the 29mm-wide sheet to the middle of the brass channel solebars. The jig is illustrated in diag. U/2.



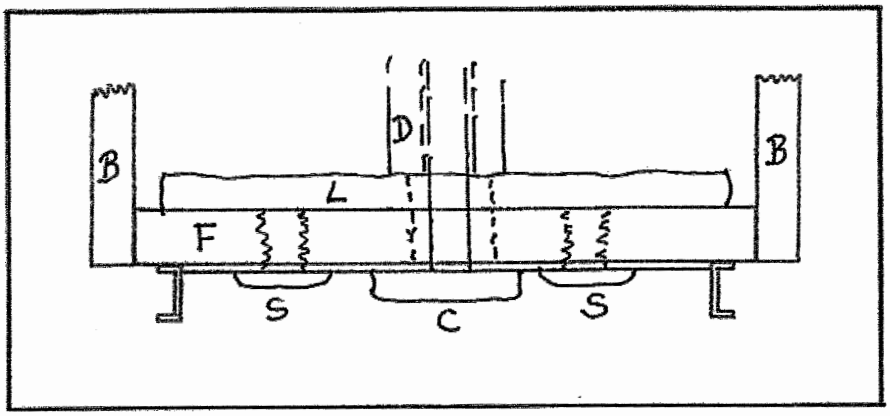
Diag. U/2:
A: flat wood about 250mm x 70mm; B: strip wood about 5mm thick with one straight edge; C: strip about 50mm long, glued at 90° to piece B; D: wooden straight edge, for holding brass components together while soldering.

From brass or nickel-silver strip about 5mm wide and 0.25mm - 0.5mm thick, make two 'stretchers' to fit across the ends of the underframe. Drill these distance pieces as shown in Diag. U/3, so that the soldered brass element of the underframe can be positively located with relation to the plastic 'floor' by means of 10BA screws; it will also correct any distortion of the solebars which may have resulted from the soldering.



Diag. U/3: *A: 29mm long x 5mm strip, of nickel silver or brass, about 0.5mm thick; B: clearance holes for 10BA fixing screws at 17mm centres.*

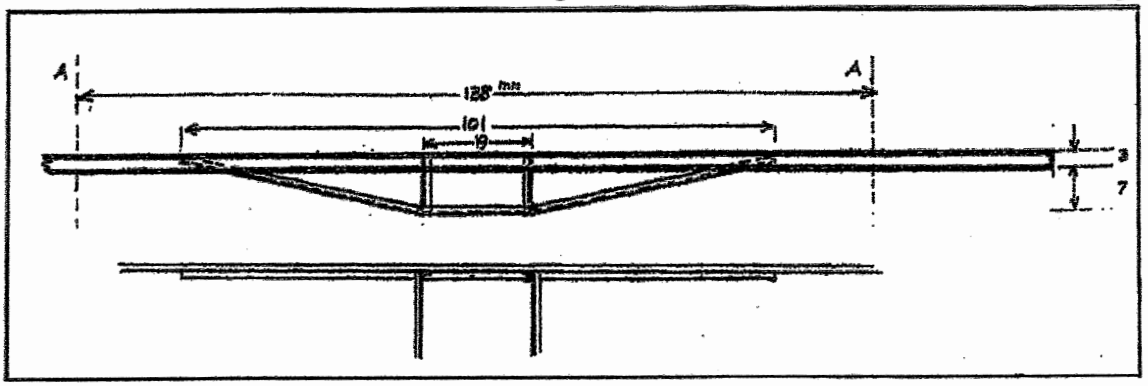
Included in the Jackson-Evans detailing kit are brass etches intended to overlay the plastic of the original headstocks; these thin and flimsy overlays should have the footsteps cut off them (only earlier Siphons had these steps), and then be tinned on the backs and soldered to bases of 3mm wide x 0.008" nickel silver or brass strip which is then trimmed to size. The holes for the buffer guides present in the overlay should be continued through the 3mm strip with a 2.25mm drill. A 1.3mm hole is also drilled at the centre of the slot for the draw hook. The brass etch also includes draw-plates, the slots of which are widened with a fine file and they are then soldered in place on the headstock. Solder the headstocks in place across the ends of the solebar channels
The underframe is fastened to the new plastic floor piece with 10BA screws passing



Diag. U/5: *Part section through van*
B: body sides;
C: central u/f to body screw;
D: original plastic distance piece;
F: plastic floor;
L: lead weight glued to floor;
S: screws holding underframe to floor.

through 1.7mm holes into tapped 1.3mm holes in the plastic, as in Diag. U/3, and one screw in the centre of the brass plate separating the two solebars. Drill 1.3mm holes in the metal first, transfer the hole positions to the plastic then enlarge the holes in the metal. The new floor/underframe is itself fastened to the body using the original self-tapping screws, passing through a weight and the original moulded plastic distance piece. We made the replacement weight from a rectangle of flashing lead (buy it from a builders merchant) about 30mm x 150mm x 1.5mm.

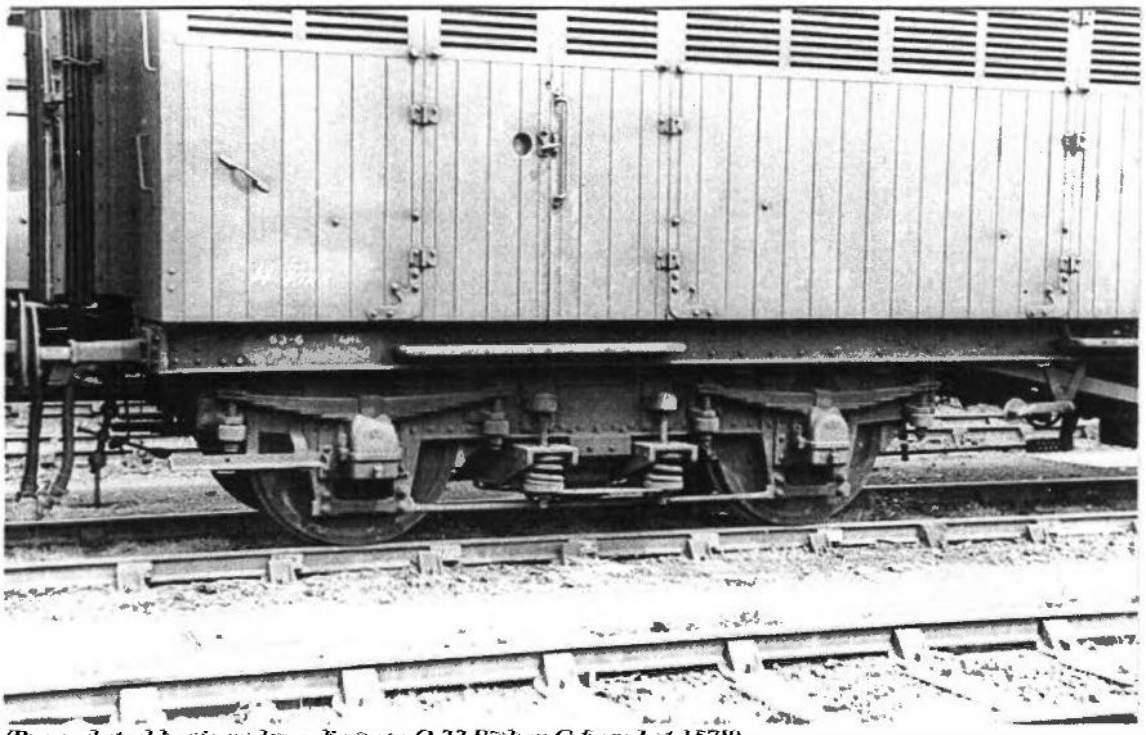
The truss rods were perhaps the most challenging part of the whole project. Siphon G truss rods were of different designs for different diagrams but luckily by the time the later O.33s and their derivatives were built, they had been standardised, and a diagram (Diag.U/3.2) is provided. In reality, the raw material (brass angle) should be between the commercially-available sizes of 1mm and 3/64in, but we thought that the smaller size looked better. Each side of the trussing should be similar so that the cross-trussing



Diag. U/3.2 *Trussing:- A – A: bogie centres.*

(each piece about 28mm long) can be applied easily after the side trussings have been soldered to the backs of the solebars. This implies jig construction, and this is how we proceeded: how the brass is to be soldered will affect the jig construction and material. We used a resistance soldering unit (RSU) so that heat transfer from the work into the jig was minimal - so we made our jig from aluminium, with angled pieces just super-glued in place. With an RSU, as with traditional methods, it does help if the components are pre-tinned (with an old-fashioned iron!). Solder each side sub-unit to the backs of the solebars, and then attach the cross-trussing.

The next things to change are the bogies and wheels: here, apart from the fact that the Lima bogie centres measurement is wrong, the problem is that the floor of the Lima product is lower (nearer the rail) than on the prototype, so that it is impossible to fit correct diameter wheels without increasing the buffer height by about 1.5mm - an unacceptable level. The O.33 and O.62 prototypes were mostly fitted with 9ft wheel-base pressed steel bogies of Great Western design which had 3ft7½in diameter wheels;



(Pressed steel bogie under a diagram O.33 Siphon G from Lot 1578)

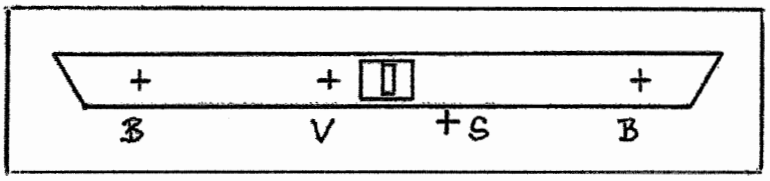
the Lima model has 8ft6in wheel-base British Railways bogies, fitted with 3ft wheels to get the buffer height about right. The only acceptable course is to scrap both the wheels (completely wrong) and bogies (impossible to alter). Replace the bogies with MJT [6] parts: their coach compensation units (9ft - cat.no.2222, 8ft6in cat.no.2223) look rather 'Heath-Robinsonish' but actually work well; they are finished off with brass pin-point axle bearings and cosmetic bogie sides (described later). 14mm coach disc wheels must be obtained to suit the gauge you are working with. The MJT compensation units include an instruction sheet.

The male part of the press stud which is used by MJT to attach the bogie is soldered to a piece of brass shim about 0.25mm thick and then fastened to the plastic floor with small screws. Plastic distance pieces (try about 0.25mm or 0.5mm) are glued between the metal shim and plastic floor - this eases the swivelling of the bogies on uneven track.

A dozen vans in Lot 1578 had second-hand 8ft6in ex-articulated stock bogies, and these are available from Coaches & Castings [8]. But most O.33s and O.62s had 9ft pressed steel bogies, and cosmetic side frames are available from a number of sources: I

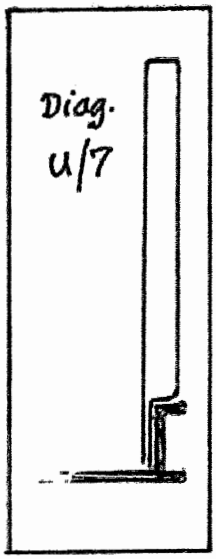
decided the best were those cast in white metal by A.B.S. and available from Mainly Trains [13] (cat.no. 284, - more expensive than some others but worth the extra in terms of time saved). They need the backs to be flattened with a file, and a small amount of cleaning-up. Enlarge and deepen the clearance holes for the pin-point bearings in the back of the side-frames with a drill slightly bigger than 2mm (say 2.25mm), using the drill in a pin-chuck to help avoid making the holes right through the white metal and into your hand! Glue the side frames in position (use a thin smear of Araldite Rapid). The white-metal brake blocks which come with the bogie side frames are so 'fiddly' and indeed only just visible on the finished model - that it is better to leave them off! But they could be fitted using glue (a slow acting super-glue or similar adhesive) and holding the blocks in tweezers until the glue grips.

There are two brake/steam pipes just below each headstock. You can buy castings in white-metal or brass, or you can make your own. Diag. U/4 shows their positioning: the brake pipes need small holes (try 1mm) drilled in the headstocks, but the steam heating through-pipes come out from below the bottom edges of the headstocks, and are attached by gluing behind the headstocks.



Diag.U/4 *B: Buffer centres (scale 5ft8in); V: vacuum pipe position; S: steam pipe position.*

When you replace Lima's bogies, you also abandon their tension-lock couplings - no bad thing in my view! But they do have to be replaced, and the best choice is more prototypical coupling hooks together with a representation of screw-link couplings. The draw-hooks used are another MJT product [6], sold under cat.no.4951. Model screw-link couplings are also available as etched brass frets made by Roxey [11], and others; Exactoscale [14] make some working (!) couplings, incorporating 0.5mm thread screws. Note that bends in the links can be made around the shank of a 1.5mm drill. Remember that the tommy-bar hangs down when the coupling is in use. Assemble the draw-gear before gluing in place with Araldite Rapid.



There are four foot-boards attached to the solebars on each side. We used 20mm lengths of 3mm x 1mm brass angle, soldered to the solebars using an RSU and solder paste. To make things really tricky, the vans had vacuum pipes fitted along the solebar on the on the side opposite the dynamo; the pipe ran outside the solebar behind and between the footboards! We modelled this feature with three lengths of 1mm polystyrene rod (Plastruct MR-40) cut to fit exactly between the foot boards (around 30+mm); use Plastic Weld to glue them in place - it will hold them to the metal and eventual painting will re-enforce the joints.

The brakes fitted to three of our vans were of the lever type. The V-hangers and the levers were part of the Blacksmith O.62 etch. The lever guides can be bent from thin brass strip (about 0.7mm x 0.25mm) as in Diag.U/7:

Diag. U/7 *(Lever guide: about 12mm long, with 10mm visible below the solebar; the brake levers are 23mm long, and the slot in the guide is 1mm wide. Bottom of guide is at the top of the diagram).*

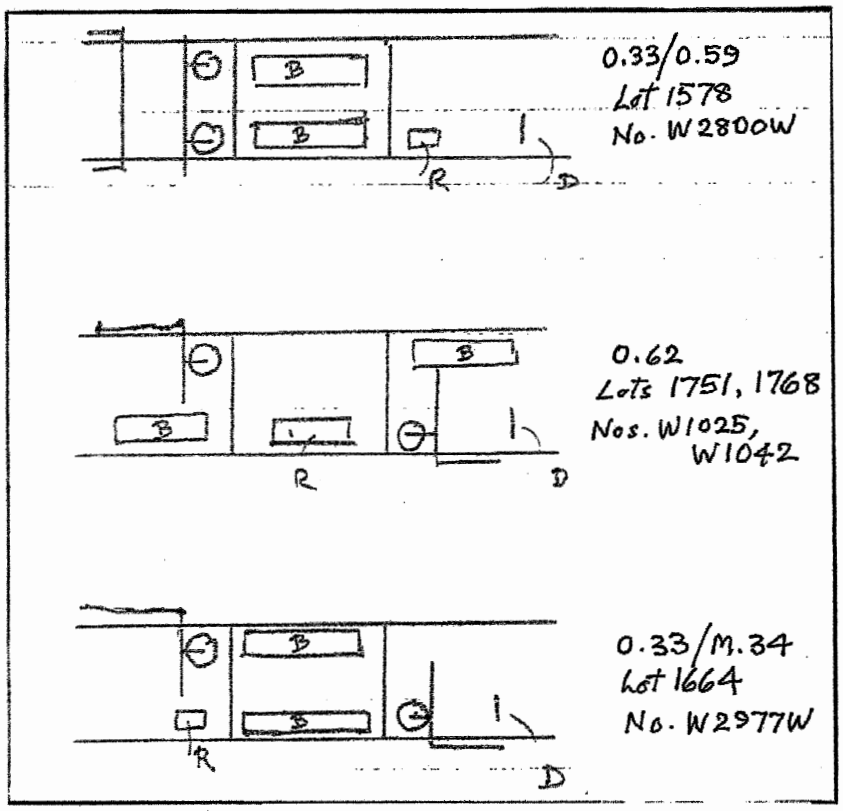
The V-hangers are soldered on in pairs, 80mm from the right-hand headstock; the one

of each pair next to solebar will need bending slightly to clear the trussing, and the inner one is 20mm inboard. They are joined by a 0.5mm brass wire cross-shaft, to which the vacuum cylinder actuating lever is attached. The cylinders themselves lie more towards the centre of the van.

Solder the lever guides to the backs of the solebars, 64mm from the right-hand headstock each side.

The fourth van (no.2800) still had the Great Western-type D.C. either-side brakes, and the parts for these are on the Jackson-Evans [19] etch. Bend the V-hangers to clear the trussing and glue on the smaller hangers next to the backs of the solebars 67mm from the headstock on the end furthest away from the dynamo, and directly opposite to each other; these are joined by a 0.5mm thick brass wire cross-shaft, to the ends of which the two D.C. brake hand levers are attached. The larger pair of V-hangers are glued to the backs of the solebars some 84mm from the same end, and similarly joined by a cross-shaft to which the two white-metal vacuum cylinders and actuating levers are attached. The vacuum cylinder bodies lie towards the van centre-line.

Dynamos, battery boxes etc.: these differ between vehicles from different diagrams and different lots, and there were three different designs covering the four models we made!



Diag. U/8:
Rough sketch diagram showing layout of: battery boxes (B), regulator boxes (R), dynamos (D), vacuum cylinders and brake levers.
<u>As seen from above.</u>

These components are mostly available as white metal castings from firms such as A.B.S. and Mainly Trains; but battery and regulator boxes are easy enough to build up from scrap plastic card – look at photos: they are basically rectangular boxes, which don't need backs, with shallow detail glued to the front from yet more scrap Plastikard!

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Notes

[0] Thanks for helpful suggestions to Malcolm Genner, Dave Greenly and Reg How (the "Manafon Mills" group); the late Jack Slinn; Peter Lawson (Chester M.R.C.)
[1] Blacksmith Models, 5 The Spinney, Copped Hall, Camberley, Surrey GU15 1HH; tel. 01276 25770. www.blacksmithmodels.com
[4] *Great Western Railway Siphons...* by Jack N.Slinn and Bernard K.Clarke; Historical Model Railway Society, 1986; ISBN 0 902835 10 6. (This originally appeared as a series of articles in the H.M.R.S. Journal; in book form it may still be available from second-hand booksellers or through your local public library; it is possible that it may be reprinted in the future).
[6] MJT Scale Components are now marketed by Dart Castings, Kingsclere, Chestnut Way, Stoke Mandeville, Bucks. HP22 5UY; tel.01296 612415. www.dartcastings.com
[8] Coaches & Castings, 98 St Mary's Park, Chapel Lane, Wythall, Birmingham B47 6JX.
[10] Small tools and modelling materials can be obtained from bigger model shops, or by mail order from traders such as Squires Model & Craft Tools, 100 London Road, Bognor Regis, West Sussex PO21 1DD (tel. 01243 842424); Mainly Trains [13] below; or Eileen's Emporium, PO Box 14573, London SE19 2ZH (Roger Sawyer, tel. 020 8771 3366).
[11] Roxey Mouldings, 58 Dudley Road, Walton-on-Thames, Surrey KT12 2JU; tel. 01932 245439.
[13] Mainly Trains, Unit C, South Road Workshops, Watchet tel. 01684 634543. www.mainlytrains.com
[14] Exactoscale Ltd, 20 Waterson Vale, Moulsham Lodge, Chelmsford, Essex CM2 9PB (tel. 01245 263779; www.exactoscale.co.uk).
[19] Jackson-Evans, 4 Dartmouth Road, Wyken, Coventry CV2 3DQ.
[23] *Great Western Railway "Siphon G" (1929 wide type)* by S.M.Hunter, IN "Model Railway News", February 1953. (Drawings of inside frame G diag. O.33).

(to be continued ...)

Letters to the Editor

[Part of a letter from subscriber **Stan Yates of Rhyl**:] "... Good to see the article by Eric Power. I've haven't seen or spoken to him in over a year. I've some additional information for him on steam railmotors at Birkenhead:
1929 RM 56 From Birkenhead to Swindon 4 weeks ending 15/7/29 for conversion to trailer
RM 95 From Birkenhead to Swindon 4 weeks ending 28/8/29 for conversion to trailer
1930 RM 98 From Croes Newydd to Birkenhead 4 weeks ending 18/1/30 (Could even have been in 1929!)
1931/2/3 RM 98 At Birkenhead until returned to Swindon
Source for the above - GWR Locomotive Registers, held at the Kew Public Record Office (RAIL 254 series)

All of the steam railmotor allocations are recorded in these registers. I've information from 1901 to 1919 and 1929 to 1959. Due to family commitments, I've not been back to study the period from 1920 to 1928.

Eric quotes a different date for the allocation of RM 98 to Birkenhead. This is not necessarily a contradiction. It could easily be explained by late reporting of the transfer to HQ at Swindon.

The steam railmotors were replaced by autotrains, with Class "2021" 0-6-0PTs and Class 48xx" 0-4-2Ts as motive power. These engines were in turn replaced by Class "64xx" 0-6-0PTs and later still by Class "14xx" 0-4-2Ts."

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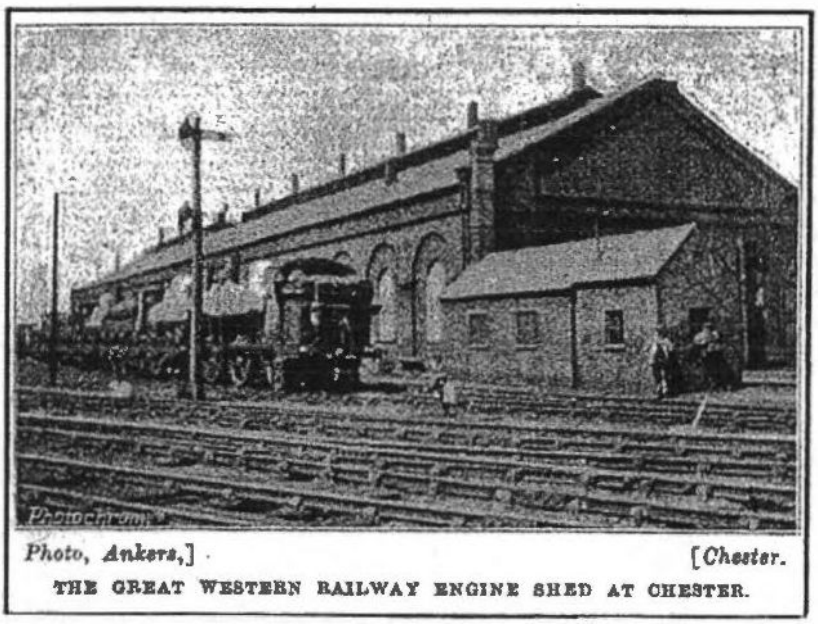
(More letters on page 26)

A BRIEF RESUME OF THE STATE OF CHESTER WEST IN ITS LATTER DAYS AS A STEAM SHED

by the late J. M. Dunn (Shed Master at Bangor 1944 – 1958)

(Edited by Tony Robinson from the unpublished manuscript prepared for a projected second volume of Max Dunn's memoirs)



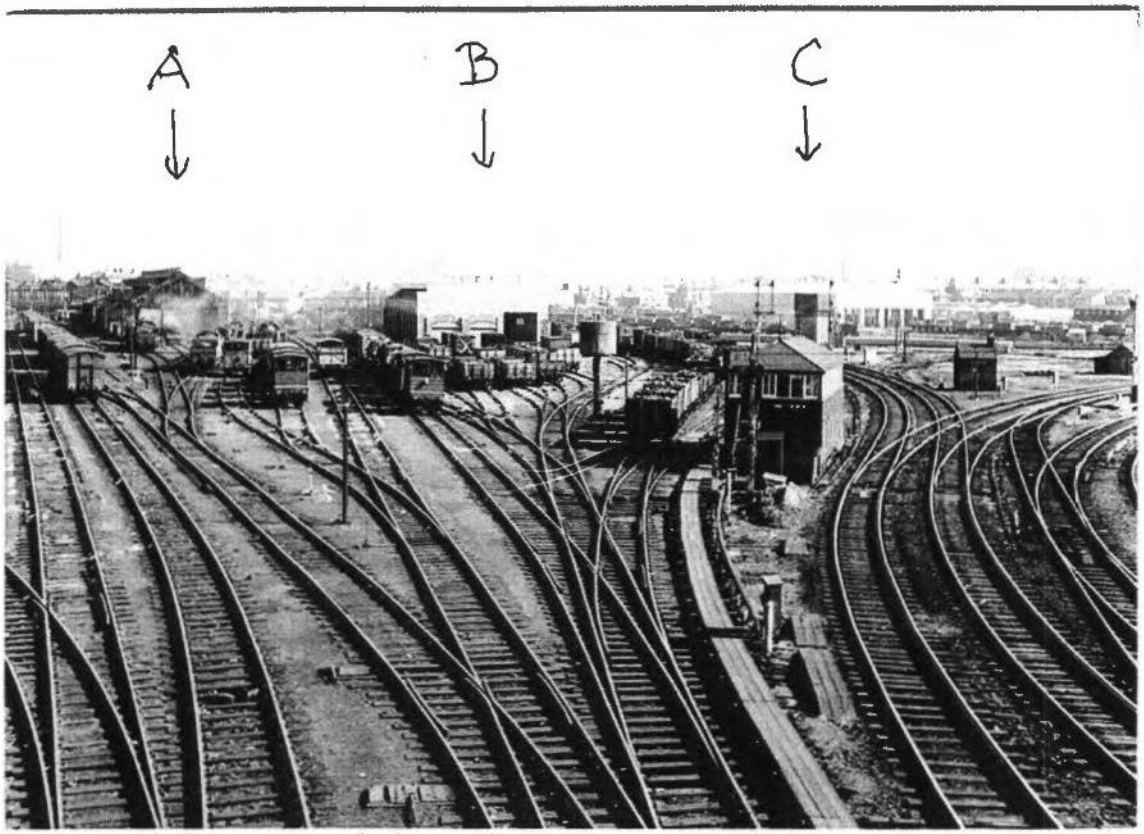
Photo, Ankers,] *[Chester.*

THE GREAT WESTERN RAILWAY ENGINE SHED AT CHESTER.

The shed in earlier days, as pictured in the "Railway Magazine", September 1905 issue

I have referred in adulatory terms to a Great Western running shed (Old Oak Common) to the detriment of a nearby one belonging to the London and North Western (Willesden) and now there is an opportunity to make amends. After one of the periodical stirrings of the British Railways pudding, the Western Region (G.W.R.) shed at Chester came within the province of the London Midland (L.N.W./L.M.S.) District Motive Power Superintendent at that city and I had the opportunity on 19 March 1958 for having a look round. Never have I seen such a place. There were two sheds, one of which was used as a repair shop and had recently had a new roof. The other was a running shed with three through roads and one wall side was cluttered-up with springs, firebars, superheater elements etc., all in disarray and liberally sprinkled with ashes and scraps of food, bits of paper and such like refuse. The other wall side had several doors leading into various apartments and most of the doors were defective in one way or another, some hanging on one hinge, others having no means of fastening and so on. The Locomotive Shed Master and his chief clerk shared the same office and the various clerks sat in various corners all over the premises. I do not think any of them were together. The whole place was dark and dismal. Apart from the gauge of the track and the size of the engines it was exactly like Boston Lodge in 1955 before the Festiniog Railway Society took over. Outside there was a hand operated engine hoist with several rusty pairs of wheels and axles. There was also an electric coaling crane which lifted tubs of coal on to the engines.

The repair shop also had three roads, one of them through, and with its new roof was nice and light. Here again were huge quantities of spares especially spring-link bolts,



[Looking south from a train on the former Cheshire Lines track on Brook Lane bridge near Chester Northgate station, in Summer 1959; Northgate station closed in October 1969 and the site was re-developed. Photograph by Sid Wainwright.
'A' is the ex-Great Western shed; 'B' is the shed re-roofed in 1957; 'C' is Chester No.5 signal box.]

all rusty like the rest of the stuff. The only engine in was a 4-6-0 'Hall' class having a valve and piston examination.

[The former G.W.R. shed on 7 August 1976, with class 128 parcels DMU no. 55994 standing outside, while a class 101 and a 108 lurk inside. From a photo by Edgar Richards].

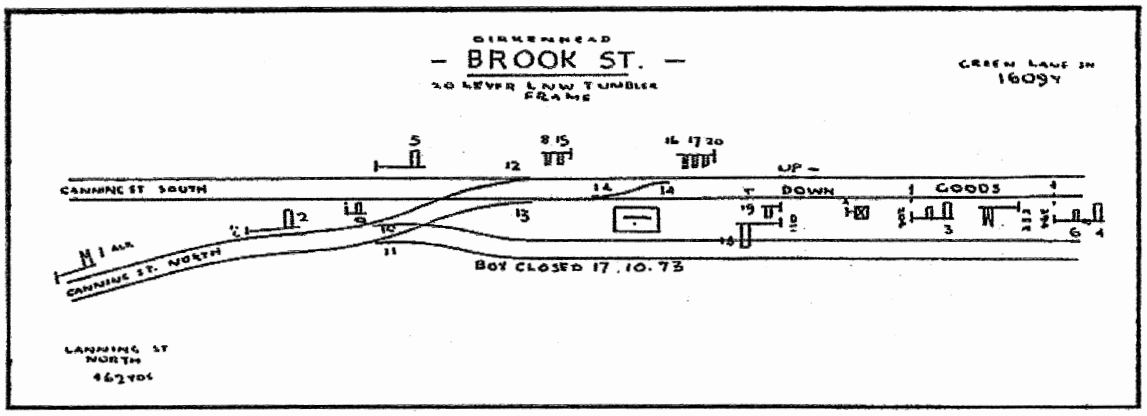
It seemed hard to realise that this was at one time – some fifty or sixty years ago – the fascinating 'live' locomotive museum described so vividly by the late Mr E L Ahrons [note 1]. He said that it almost seemed as if there must have been some understanding between the Civic Authorities and the G.W.R. Locomotive Department that any engines stationed at their shed at Chester should match the ancient appearance of that beautiful city. He added that a visit to that

shed on a Sunday afternoon when all its inhabitants were at home was an education in locomotive history.

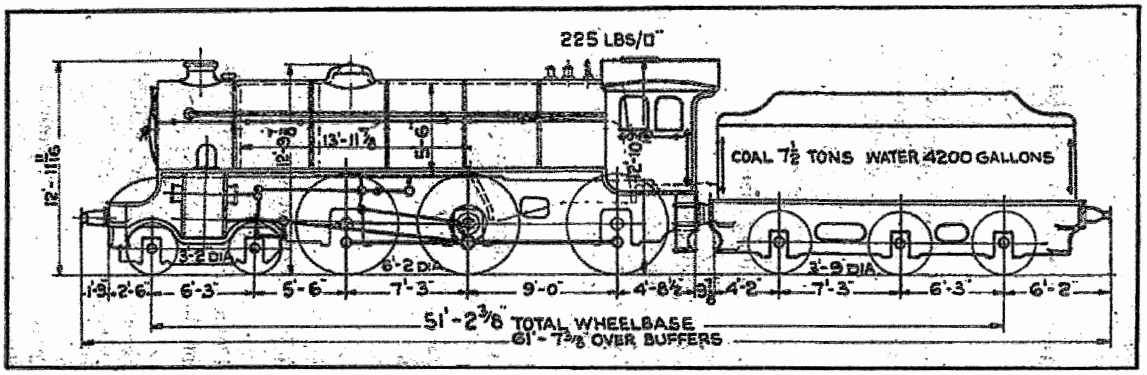
Notes
[1] *Railway Magazine*, August 1916 page III.
[2] *Reflections on a railway career: from LNWR to BR*, by J.M.Dunn. Ian Allan, 1966.

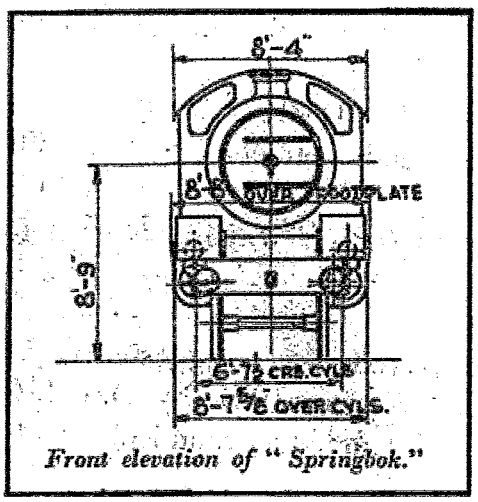
"Bongos to Birkenhead"
by Eric Power

In the early days of British Railways (late 1940s – early 1950s) there was a daily freight working of an L.N.E.R. B1 4-6-0 locomotive to Birkenhead docks with export goods from Dringhouses (near York), with crew changes at Healey Mills and Warrington. These engines were introduced in the early 1940s, and some were named after types of antelope – hence the nickname for the class. Usually arriving between 7.00 and 9.00am, the train would be taken down to the 'Suff' (as it was known by enginemen – note 1) which was the two left-hand tracks to the docks down by the Brook Street signal box



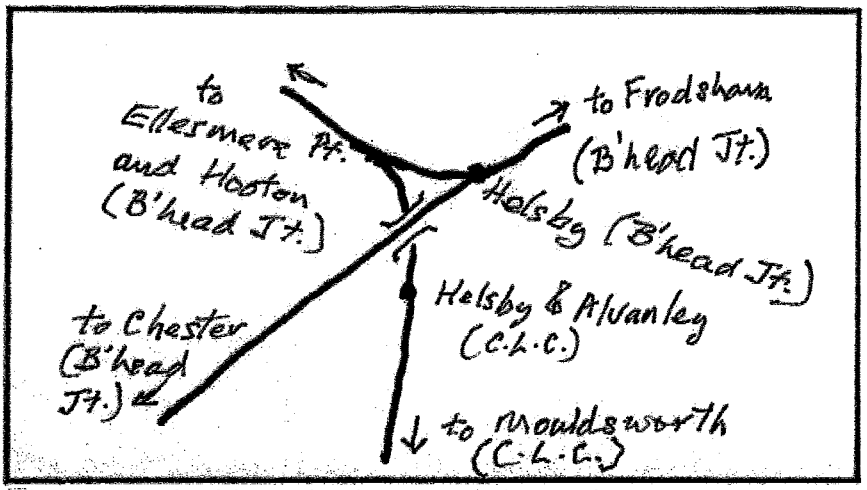
area. This was a stacking or marshalling area where goods trains arrived and queued in the order in which they were required at each dockside quay. This was where the 'chalkers and markers' got to work on each vehicle before the train was broken down for each quayside destination, then hauled away by the dock shunters to the various quays, thus releasing the B1 for further duties during the layover period whilst at



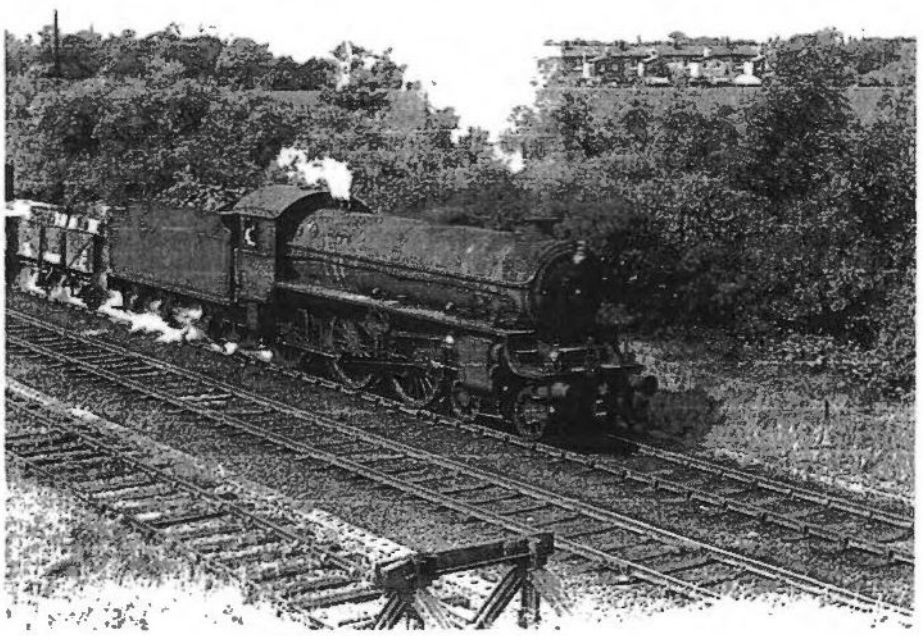


Front elevation of "Springbok."

Birkenhead. These engines were frequently noted on the 'girls train' [note 2] which was a 'workmans' [*sic*] train from Rock Ferry to Helsby & Alvanley with the mainly female workforce of the B.I.C.C. Helsby factory where they alighted at the station, near to the factory. This was an unusual working, for the empty train now had to reverse out of the Mouldsworth single track branch line (over half a mile). And presumably reverse into the branch for the afternoon return working.



[The location of Helsby & Alvanley station before its closure in 1964; the single line track to Mouldsworth Junction was lifted only a few years back]


No. 61259 passing the ballast hole siding at Hooton, travelling towards Warrington from Hooton South Junction, in July 1963 (photograph by Peter Lawson).

Although not 'best liked' by Birkenhead crews due to some of the controls being awkward and out of place (compared with their own engines), these locomotives were frequently seen on shunting duties at Stanlow and Ellesmere Port yards.

The return daily working of these engines departed Port Sunlight sidings at 5.15pm with a full rake of Lever's Palvans, running as a fast fitted freight (up to 60mph). This first leg of the journey to Warrington could have a train crew of either Warrington or Birkenhead men.

There was at least one occasion when a B1 piloted the early morning 'Hooton Docker' down to West Kirby.

(I am indebted to Birkenhead drivers Colin Woodside and the late George Drew for their help – nothing was ever too much trouble!).

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Notes
[1] The 'suff' or more properly 'sough' is described in *The Birkenhead Railway (LMS & GW Joint)* by T.B.Maund (R.C.T.S., 2000; ISBN 0 901115 87 8).
[2] The 'girls train' is described on pp87-90 of Alan Wilkinson's *Railways across mid-Cheshire* (Foxline, c2000; ISBN 1 870119 66 5).
[3] Thanks for extra information to Peter Lawson and Bob Miller.

"Mostyn Mutual Improvement Class (MIC)"

by Dave Millward

As a relative newcomer to the "Mostyn" crew I've taken a while to feel sufficiently familiar and comfortable within the group to voice an observation that I'd hitherto kept to myself. Having had the benefit of over 15 years of railway employment experience, mostly in frontline ops, where safety is paramount and there are often several layers of protection to guard against human error, I was a little puzzled to see the group spend 25-75 hours creating a marvellous piece of stock only to take unnecessary risks with it, when it came to operating. I understood the need to entertain the audience at exhibitions by keeping the trains moving. However, unless this was to be at a train-set level then there was a need to 'ape' BR operating practices (for prototypical as well as precautionary reasons). BR didn't invent an operating system for fun or to waste money, theirs evolved over 100 years or so, to what it is today. Studying "Mostyn" in action I could see little or no protection from risky operating practices/risk of collisions due to an absence of 'a common operating policy' and/or safeguards. Understanding of BR rules and regulations in relation to e.g. signalling was demonstrably patchy and coupled to the absence of an appropriate forum to discuss individual understanding.

I could see that as the traffic level and complexity of "Mostyn" could only increase, so would the need for discipline and a common level of understanding/practice

amongst its operators. Also a 'ladder' is required to allow new operators to 'get up to speed' with current operating practices. There didn't seem to be any point in 'reinventing the wheel' so I discussed with Richard how we might apply 100 years of BR experience to "Mostyn", which would improve our levels of realism and professionalism at a stroke, simply by using original BR publications. The trick being to keep everyone advised and focussed on the same issues.

The idea of an MIC is not new, firemen/secondmen had no official training course in the early seventies, they were expected to learn the driver's job on a day-to-day basis and then 'go before the Inspector' to pass out as a driver. MICs were a sensible way of bringing the trainees together to talk about the rules and regulations that the Inspector would be questioning them on (no - we don't need an Inspector!). Doing this 'on line' in 2006/7 is even easier and from the comfort of our armchair. Thus, I am selecting the parts of the publications that are appropriate and coupling them with an 'operating policy' in a 'working document' fashion, that is continually open to debate and amendment. The aim is to reduce the number of operating incidents, through shared understanding and an increasingly common level of ability and confidence.

(to be continued)

Progress on narrow-gauge stock for "Johnstown Road"

Some readers will be aware that there is to be a narrow-gauge aspect to the extension we are currently building for "Johnstown Road": a 2ft4in gauge privately-owned quarry line arrives at the quayside on the left hand side of the layout. Rolling stock for what is admittedly a fictional industrial railway is planned to be appropriate to both the era (1908) and part of the country (coast of North Wales). It is planned as a granite quarry line, but (like for instance some other narrow gauge industrial lines in Wales) also serving other local industries. Motive power so far completed is a Wrightlines kit for a (non-working) DeWinton vertical boiler locomotive, made by Richard Stagg. Gavin Liddiard is attempting a working outside-cylinder 0-4-0 industrial steam engine, and the Editor plans to make another 0-4-0 industrial based on a pre-group 'pug', for use as our 'spare'.

So far we have 37 wagons, built or in progress, by Bob Miller and David Goodwin:
four wooden open mineral wagons (nos. 22, 37, 38,and 40);
one iron open mineral wagon (no. 12);
two four-wheel single bolster wagons (nos. 5 and 6);
one covered gunpowder wagon (no. 90);
eleven flat (slab) wagons (nos. 7, 8, 9, 11, 13, 14, 15, 18, 21, 29 and 44);
one brake van (no. 2);
one covered van (no. 78);
sixteen miscellaneous opens (nos. 26, 30, 34, 35, 42, 45, 47, 51, 56, 57, 58, 59, 60, 63, 64 and 69).

Anyone tempted to make narrow gauge stock is invited to avoid these running numbers!

Tuam station, near Galway in the west of Ireland, in May last year. The line was closed in 1976, but the legal framework for rail transport in the Republic requires the infrastructure to be left in place for several years. 'Just-in-case' has happened, and plans to re-open the Western Rail Corridor (from Limerick to Castlemorris) are well advanced. A lesson for the U.K.?

Letters to the Editor (continued)

[Letter from subscriber **Simon Caldwell from Dewsbury** in West Yorkshire]:

"Thank you for sending me the 'Barrowmore Model Railway Journal' over the past year. I have much enjoyed reading each issue. My subscription will now have expired, so I enclose a cheque to the value of £6.00 to cover the next four issues.

I'm sure you will recall 'Pennine Wagons', the mail order business supplying limited-edition N Gauge model railway wagons, which I set up a year or so ago along with my colleague Barbara Corrison. You were kind enough to provide us with a substantial amount of information about private owner wagons and their liveries which has proved invaluable to us. I am pleased to say that our business has got off to a steady start. You may well be aware that a few months ago we added two new wagons to our range; a 7-plank open wagon and a steel bodied van, both in the distinctive livery of Seddon's Salt of Middlewich. Any of your readers who might he interested in these wagons can find out more details, and see some photographs, on our website www.penninewagons.co.uk . I should mention that our mutual friend Richard Neale [local R.C.T.S. area secretary] was of great assistance to us in furnishing information about the Seddon's wagons and their livery.

We are now in the process of considering potential new liveries for our next commission, and wondered if your readers might have any interesting suggestions. We are looking for authentic and distinctive wagon liveries, preferably (although by no means essentially) from the North of England or North Wales. At present the only two types of wagon available from our suppliers, Dapol, are a 7-plank end-door open wagon and a steel bodied gunpowder van, so we are looking for liveries appropriate to these. However Dapol are bringing out a 20t steel mineral wagon and a 21t hopper wagon, so any liveries which might he suitable for either of these would also be of interest. We would particularly like to hear about authentic liveries for the gunpowder van, but any and all suggestions for any of these wagon types would he very gratefully received. Readers can contact us at 34 Leith Court, Dewsbury, W.Yorks WF12 0QP, or by e-mail at admin@penninewagons.co.uk . We look forward to hearing from anyone who would like to see their favourite livery reproduced in N Gauge!"

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SATURDAY 21st APRIL 2007

A SPECIAL EXCURSION TRAIN TO TOTNES AND THE SOUTH WEST with OPTIONAL STEAM TRIP TO BUCKFASTLEIGH via THE MARCHES LINE & THE BEAUTIFUL DEVON COAST

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For those alighting at Exeter there will be time for a leisurely visit to this compact and interesting city for sightseeing or shopping. At **Newton Abbot** you may catch a local train (fare payable on the day) to the English Riviera resorts of Torquay or Paignton. You may also want to fit in a visit to the Paignton & Dartmouth Steam Railway. **Totnes** is a delightful small town on the banks of the River Dart, just the right size for exploring on foot, and there may be a chance of a cruise on the river. Optionally take a ride on the **South Devon Railway** (supplement and 400yd walk) where a steam train will take you seven miles up the **Dart Valley** to **Buckfastleigh**. Or continue to the naval city of **Plymouth** for a short visit while our train is serviced. There will be time to visit the city, or walk in Drake's footsteps on the Hoe.

Expected arrival times are approximately 12noon (Exeter), 12.45pm (Totnes) and 13.45pm (Plymouth). Leaving around 4pm (Plymouth), 4.45 pm (Totnes) and 5.30pm (Exeter), return times are expected to be mid to late evening.

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News from MSE and Wizard Models

As of 12 December 2006, Wizard Models, 51L and Chowbent (4mm) changed ownership. They are now owned by Andrew Hartshorne of Model Signal Engineering. After eight years Peter Heald, who set up Wizard Models, has decided to move on and return to work as a metallurgist. He wishes to thank former customers and visitors to Wizard Models and expresses his best wishes to Andrew and the combined venture, and is confident that modellers will get the same attention to detail from Andrew as they have under his ownership. Peter has decided to fill the empty time created by the sale of Wizard Models with some modelling projects of his own [but will still be supplying us with sulphur wagon kits for "Mostyn"], reflecting his interests in wagons and freight in both the pre-Grouping and modern eras.

By the time you read this the Wizard Models online shop should the fully functional, with the MSE, Sprat & Winkle and D.G. Couplings ranges added to it. UK customers should note that a standard P&P charge of £2.00 per order is now payable, regardless of value or weight.

Model Signal Engineering
PO Box 70
BARTON upon HUMBER
DN18 5XY

Phone/fax: 01652 635885
E-mail: andrew@modelsignals.com
Web: www.wizardmodels.co.uk

Editor's page

Some more recently-acquired railway books:

First generation DMUs in East Anglia, by John Brodribb. Ian Allan, 2006. ISBN 0 7110 3139 8. £12.99.

British railway first generation DMUs in colour, for the modeller and historian, by Stuart Mackay. Ian Allan, 2006. ISBN 0 7110 3156 8. £14.99.

The men of 7A & 6G loco shed: Llandudno Junction, 1920s till 1966, by D.R.Williams. Gwasg Carreg Gwalch (Llanrwst), 2006. ISBN 1 84527 099 1. £9.00.

Wagons of the early British Railways era: a pictorial study of the 1948-1954 period, by David Larkin. Kestrel, 2006. ISBN 0 9544859 8 X. £13.00.

The railway dictionary: an A-Z of railway terminology, by Alan A.Jackson. 2nd ed., Alan Sutton, 1996. ISBN 0 7509 1137 9. £18.99.
(this is all there is room for!)

The 'Sea Venom' incident, 1954: a (little bit!) more

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and on Wednesday Cadet Howells, who had a broken right thigh, cuts and bruises, was transferred to Chester Royal Infirmary.

Venom on freighter

Another aircraft in the news was a Venom jet fighter which grazed the tender of a freight train when coming in to land at Hawarden aerodrome on Friday.

The plane was attempting to land after getting into difficulties and the test pilot spotted a train carrying stone from Penmaenmawr to Hawarden Bridge Steelworks. The pilot, Mr. J. H. Phillips, of De Havilland, was able to lift the aircraft sufficiently to scrape it over the tender before "pancaking" it on to the airfield. Mr. Phillips was accompanied by Mr. Anthony Chalk, of Rhydymwyn, as observer, and both were taken from the extensively damaged plane to Moston Military Hospital, Chester, with spinal injuries.

The hospital states that the condition of both Mr. Phillips and Mr. Chalk is "quite satisfactory."

At the Infirmary this (Friday) morning, Howells was said to be "fairly comfortable."

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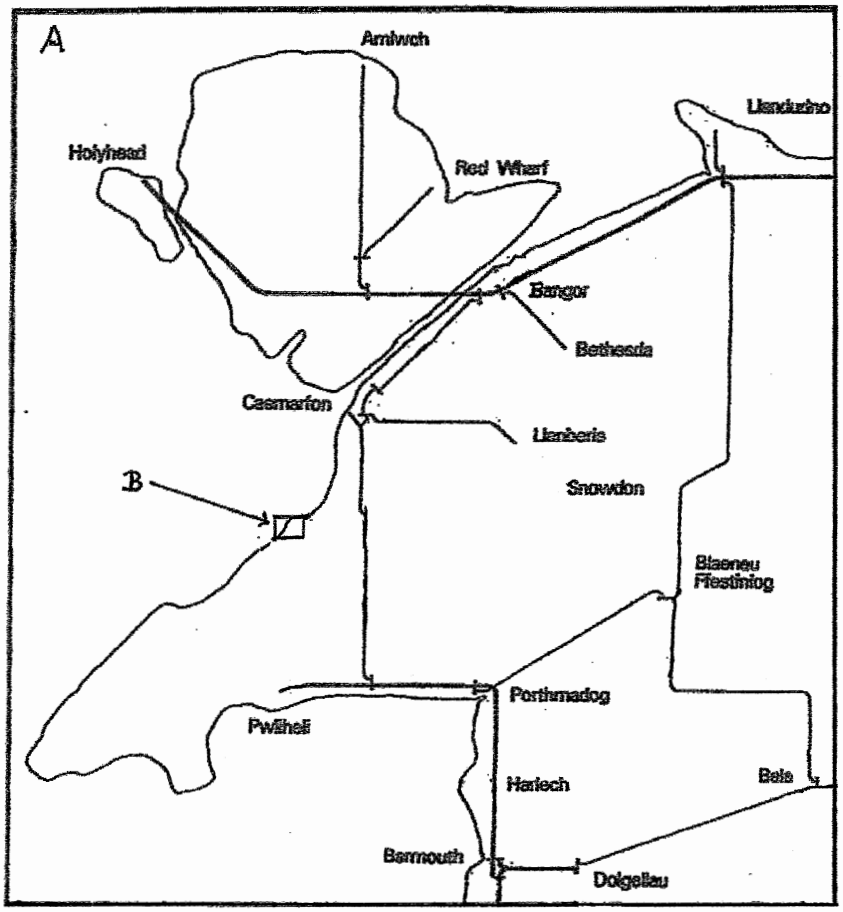
LABOUR QUEEN

This paragraph formed the end of a report in the Chester "Chronicle" dated Saturday 24 July 1954, of the crash of a 'Chipmunk' trainer aircraft in the Dee estuary in a separate incident: Howells was one of the crew of the 'Chipmunk'. And the identity of the locomotive that savaged the 'Venom' is still a mystery! But there are still other lines of inquiry being followed:-
John Dixon has spoken to Derek Williams (author of "The men of 7A and 6G locoshed") and he says the engine crew involved were (driver) William 'Chips' Hughes and (fireman) William 'Nappy' Roberts, from Llandudno Junction shed. Both now deceased, but Derek knows several retired Jcn men with good memories who may know more, and he will quiz them when next they meet.
Stan Yates of Rhyl has a relative who is an aviation history enthusiast and Stan has promised to see if he can suggest information sources.

"The Trevor Quarry Railway"

by Philip Hindley

Trevor [Trefor] Quarry is situated on the northeast face of Garn For, the westernmost of three peaks that form Yr Eifl Mountain, also known by its anglicised name as 'The Rivals'. The central peak, Garn Ganol, is the highest at 1849ft and the third peak, Tre Ceiri, is the location of an Iron Age hill fort. To the northwest the mountain drops down sheer cliffs to the sea and to the southwest is a small valley leading down to the sea. This is Nant Gwytherin, the site of an abandoned quarry village that is now home to the Welsh language teaching centre. There were several other quarries nearby.

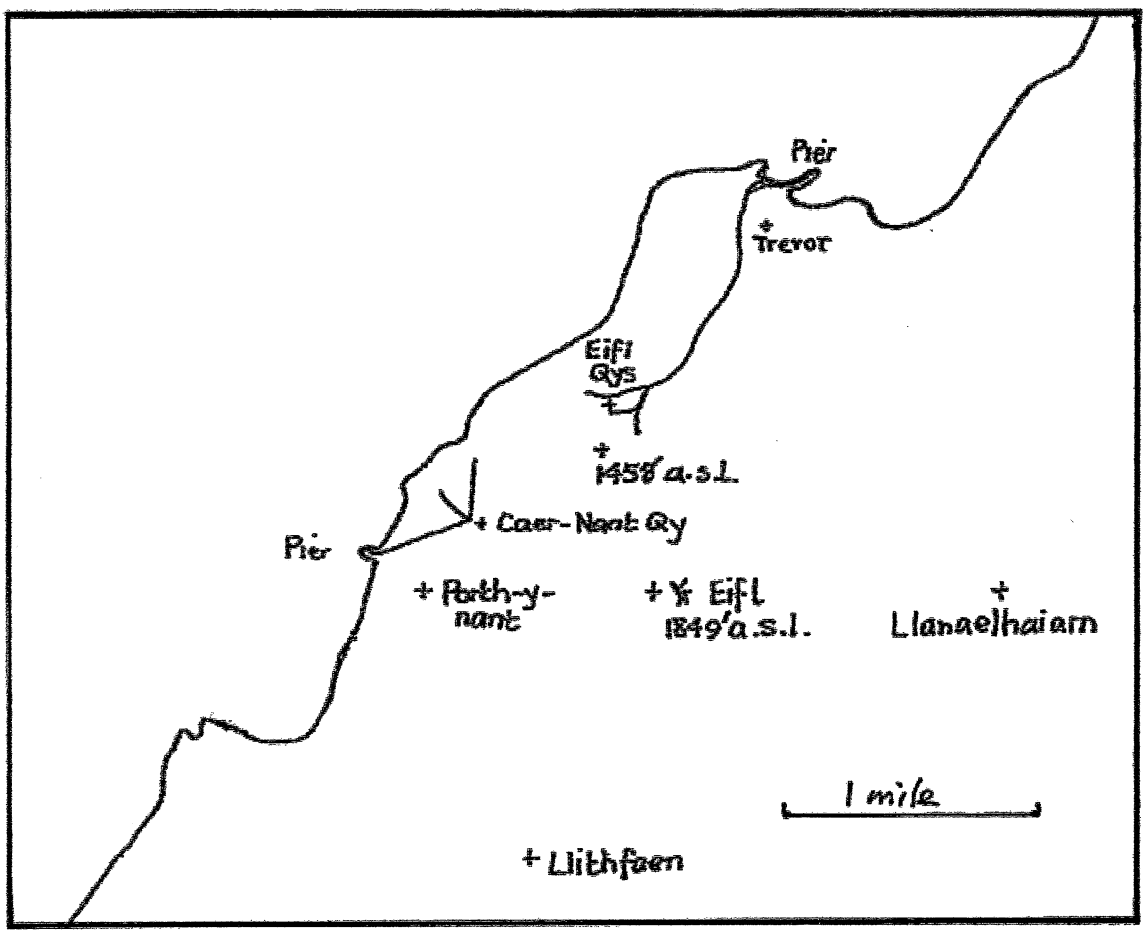


(Map A: diagram of the main public railways in North-West Wales; Map B is on the next page)

The stone at Trevor is granite and occurs in different colours of pink, grey and blue-grey, the latter being very suitable for monumental and architectural work. Among the more unusual applications for the stone was the production of curling stones and rollers for paper and paint mills and cocoa grinders.

The origin of Trevor Quarry lies in the proposals to establish a port for the Irish mail service to Dublin in the early years of the 19th Century, when Porth Dinllaen on the Lleyn Peninsula was proposed as an alternative to Holyhead. Samuel Holland, better known for his involvement in the Festiniog slate industry, foresaw the need for large quantities of stone for the new harbour works and opened the Gwylwr Quarry, close by the proposed site at Porth Dinllaen. The harbour scheme was of course not proceeded with, but Gwylwr Quarry remained in production for about 90 years. After opening Gwylwr, Samuel Holland also noted that Yr Eifl Mountain, some 5 miles to the northeast, contained a source of equally good stone and he hired some sett-makers from Penmaenmawr to start a quarry, which was named after his foreman Trevor Jones. The

quarry was opened in 1850 and subsequently developed in a series of levels, or banks, eventually totalling nine, the highest being just below the summit of Garn For. In 1855 Samuel Holland sold the quarry to Messrs Hutton and Roscoe, trading as the Welsh Granite Company and which became a limited company in 1864. In 1911 the Welsh Granite Co. Ltd. was amalgamated with the Darbishires and Brundrit Quarries at Penmaenmawr to form the Penmaenmawr & Welsh Granite Co. Ltd.



(Map B)

Stone was despatched from the quarry by sea, the boats being beached and loaded at low tide. The beach nearest to the quarry must have been too steep for this operation, so a 2ft gauge railway approximately 1½ miles long was constructed from below the quarry to a loading point on the less steeply inclined beach to the northeast. Apparently the tracks extended onto the beach below high water to facilitate the loading of boats. Later a stone pier was provided where the setts could be stacked ready for loading. The quarry was connected to the railway by an incline worked by chains, which were constantly breaking and damaging the wagons. In 1866-7 a new longer rope-worked incline was constructed from the quarry to connect with the railway, and this reduced the length of the level section by more than half. At the foot of this incline were later established the quarry offices and workshops. In 1873 a DeWinton 0-4-0 vertical boilered locomotive was acquired to replace the horses used on the railway, a second similar locomotive being acquired in 1876.

By 1900 the quarry had been developed with six banks. The main incline connecting with the railway to the pier extended up to 1 Bank, the level below, named 0 Bank, being connected to this incline with turnouts. Inclines then ran up from 1 Bank to 2 Bank, and 2 Bank to 3 Bank. Above 3 Bank were two inclines, one up to 4 Bank the other directly up to 5 Bank. Originally the main production was setts and these were dressed by hand on each quarry level in long rows of open fronted sheds before despatch down the inclines. However as the use of setts for road making declined production turned to crushed stone and a crushing mill was constructed in 1914 on 0 Bank, fed with stone from 1 Bank above. To transport the crushed stone from the mill hoppers on 0 Bank a new arrangement of the quarry inclines was required. The incline from 1 Bank to the pier line was now split into two separate inclines with a new brake drum part way, appropriately named New Brake, and a new incline constructed from New Brake to 0 Bank alongside the existing incline. From the top of this incline tracks led directly under the mill hoppers where the wagons were loaded. To handle the increasing output of crushed stone, a new timber jetty was built at right angles to the existing stone pier in 1914 and this enabled the loading of ships up to 1,200 tons. In 1925 a 3000 ton reinforced concrete storage hopper fed by an inclined conveyor from a wagon tippler was built on the stone section of the pier, to speed the loading of ships. Three tracks ran under the hoppers for loading wagons, which were then run out through some rather complicated track-work at the right angled bend onto the timber jetty. Loaded wagons ran along tracks on the outside edges of the jetty to moveable chutes running on rails to direct the stone into the ships hold and empty wagons were returned to the hoppers on tracks in the centre of the jetty.

From the pier the railway ran along the shore, crossing a stream by a bridge, and then turned left away from the shore through nearly 90 degrees. On the inside of the curve were sidings and a loop line serving a stocking ground for the storage of stone and on the outside, alongside the shore, were at one time mason's sheds and a blacksmith's shop also served by a siding. The line then passed through fields, crossing the lane to Morfa Farm by a gated level crossing, and entered the office yard at the foot of the incline to the quarry. A short branch ran from here to the edge of the village, but by 1914 this had been shortened to a siding serving a coal store. At the bottom of the incline were the offices on the east side of the line and the locomotive shed and workshops on the west side. The locomotive shed was built of stone with a slate roof and the track passed through the shed into the works yard beyond. Between 1914 and 1921 the area between the locomotive shed and about two thirds of the way to the Morfa Farm level crossing had been developed as a stone stocking ground served by sidings. The coal store was still served by a siding and there was a road loading dock and overhead crane gantry. By 1938 a brick plant and tar macadam plant had been constructed in the yard. In the quarry itself, after 1900 a further incline was added above 5 Bank up to 6 Bank, and on 5 Bank a level line approximately 200 yards long round the south east side of the mountain led to the foot of an incline up to 7 Bank followed by a further incline up to the highest level, 8 Bank. In 1930 a compressor house was built alongside this line on 5 Bank with an adjoining locomotive shed, which still remains in a derelict condition. A stone factory was established on 0 Bank with saws, polishing machines and sand blast facilities. This level was linked with 1 Bank by a single track winch-worked incline used to lower stone blocks down or raise any surplus stone produced on 0 Bank for crushing in the mill.

In 1900 a new Bagnall 0-4-0ST named ISABEL joined the two DeWinton locomotives on the pier railway. The next locomotive was acquired new from Hunslet in 1912, an 0-4-0ST named BETTY. This was similar to the "large quarry" class locomotives supplied to Penrhyn Slate Quarries, but fitted with a cab. It was illustrated in "Narrow Gauge & Industrial Railway Modelling Review" Issue No.64. The two DeWinton locomotives were then redundant and both had been scrapped by 1914. About 1920 a Kerr Stuart "Darwin" class 0-4-2ST was obtained second-hand and named MICHAEL, having been built in 1917 for the Ministry of Munitions. In 1921 a 'new' locomotive was obtained from Kerr Stuart, this being a rebuild of a War Department 4-6-0T originally built by Hunslet in 1918 but delivered with Kerr Stuart builders plates. This locomotive was named MARK. The final steam locomotive known to have worked on the railway was the most unusual. In 1905 a foreman at Darbishire's Penmaenmawr Quarries named Redstone built a 2ft gauge miniature vertical boilered locomotive, which was used for pleasure purposes on a short line in the gardens of the Darbishire's home at Penmaenmawr. It was based on the 3ft gauge DeWinton locomotives in use at Penmaenmawr Quarries, and hence had inside frames rather than the outside frames used on 2ft gauge DeWintons. In 1920 Stephen Darbishire became the manager at Trevor Quarry and brought the locomotive over to Trevor. It was used on the pier for about a month in 1922, after which it lay idle for about a year before being taken to Stephen Darbishire's home at Trevor where it remained until his death. In 1972 it was acquired by A.J.Hills and is now among his collection of locomotives at the Brecon Mountain Railway. Although this was only a small locomotive with limited tractive effort, its use in an area normally worked by hand is said to have demonstrated the value of locomotive haulage for this lighter traffic and led to the introduction of petrol locomotives, which ironically later replaced the larger steam locomotives.

The first new petrol locomotive was a Simplex type, acquired in 1925 from the Motor Rail & Tram Car Co. Ltd. Other similar locomotives were obtained new and second-hand, some of the latter possibly before 1925. The later ones were supplied as diesels and some of the earlier petrol locos were fitted with diesel engines. A total of nine Motor Rail locomotives have been identified, and there is believed to have been two other Simplex type locomotives, which may have been F.C.Hibberd & Co. Ltd. rebuilds of Motor Rail locomotives, as that company supplied spares to Trevor in 1929. In 1941 two 20hp Hunslet diesel locomotives were acquired new, and three other similar locomotives were acquired second-hand. Finally there were two Ruston & Hornsby diesel locomotives, both acquired second-hand. Unlike the steam locomotives, the petrol and diesel locomotives were used on the quarry levels, and eventually replaced the steam locomotives on the railway to the pier. The Bagnall locomotive ISABEL was scrapped in 1930. The Kerr Stuart MICHAEL was apparently still in use in 1931 when spares were supplied, but had officially been scrapped (perhaps just withdrawn from service) by June 1932. The 4-6-0 MARK was advertised for sale in 1929-30, but probably later scrapped at Trevor. By 1937 only BETTY remained, and by then no doubt only as spare to the two petrol locomotives which were then also residents of the office yard locomotive shed. In 1940 BETTY was sold to dealers Thos.W.Ward Ltd., who resold to the Brymbo Steel Co. Ltd. After overhaul at Brymbo Works it went to work at the Hook Norton Ironstone Quarry in Oxfordshire where it joined another North Wales exile, the Hunslet 2-6-2T RUSSELL from the Welsh Highland Railway.

The wagons used at Trevor Quarry were of two main types, breaker wagons and mill wagons. The breaker wagons were the most common and numbered 138 in 1952. They were of timber construction with 7in x 5in timber frames 8ft long outside the wheels and extended to form buffers. Wheels were 1ft 2in diameter on a 2ft 9in wheelbase. The bodies comprised fixed ends and one side only, size 6ft 6in long x 4ft 3in wide x 2ft 3in high, with 3in thick side and end planks and a 1½in thick timber floor. The open side facilitated hand loading of setts, and when stone for the mill had to be carried larger stones would be stacked across the open side and smaller stones loaded behind. These wagons were also used for larger blocks of stone destined for the stone factory on 0 Bank, for which the side and one end would be removed. The second most numerous wagons were the mill wagons, used to carry crushed stone from the mill hoppers to the pier, and which numbered 60 in 1952. These were basically breaker wagons fitted with a top hinged door across the open side and raised ends to prevent spillage on the inclines. They travelled down the inclines in sets of four wagons and were tipped on simple tipping tables, which rotated a short length of track by about 45 degrees. There were also some substantial timber tip wagons built on similar frames to the breaker wagons, possibly for unloading stone at the stockpiles where there were no tipping tables, and small steel rubbish wagons, similar to those used in slate quarries, for taking waste material to the tips. Finally amongst the redundant wagons stored on the shore after closure of the pier railway were noted two steel 'V' skip wagons.

All stone was hand loaded at the quarry faces into rail wagons until about 1950. Mechanical loading was then introduced with a diesel powered face shovel and Aveling-Barford dump trucks, and all stone production concentrated on 5 Bank. The dump trucks fed the stone into a new primary crushing mill, built on 5 Bank in 1950-52, which reduced the larger size stone loaded by the face shovel into a size which the existing mill on 0 Bank could accept. Initially stone from the new primary mill was transported to the 0 Bank mill by rail down the inclines. However in 1953 a new system was introduced in which the stone travelled down by gravity in a system of chutes to a loading station on 1 Bank, from where the stone was taken the short remaining distance to the mill by rail transport. This continued until 1961, when dumpers replaced rail haulage on 1 Bank from the loading station to the mill. Rail transport was retained for a time after 1950 on 5 Bank for stone required for monumental work. A new stone saw house was built on 5 Bank at the same time as the primary mill and sawn blocks of stone were then transported down the inclines to the stone factory on 0 Bank.

In 1959 the inclines from the 0 Bank mill to the office yard and the railway to the pier were converted into a road. This resulted from the successful demonstration of a Foden dump truck on the 1 in 3.7 gradient of the inclines. Two dump trucks were acquired and took over the transport of crushed stone from the mill hoppers down to the office yard, where it was used in the brick plant or stockpiled for reloading into road transport, and to the storage hopper at the pier. Road transport could also now have direct access to the stone factory on 0 Bank. Rail transport remained for the short distance from under the pier hopper to the pier until that was replaced by a conveyor belt in 1962. Most of the remaining track in the quarry was removed about 1961. By 1967 the only track left was a short length at the top of the incline from 1 Bank to New Brake, which was used with one breaker wagon and a winch for moving equipment in and out of the mill.

Several of the Trevor diesel locomotives have survived into preservation. Readers might be familiar with the small diesel locomotive mounted on a plinth with a slate wagon in the centre of Blaenau Ffestiniog. This is not from the local slate quarries as one might expect, but is actually a former Trevor Quarry locomotive.

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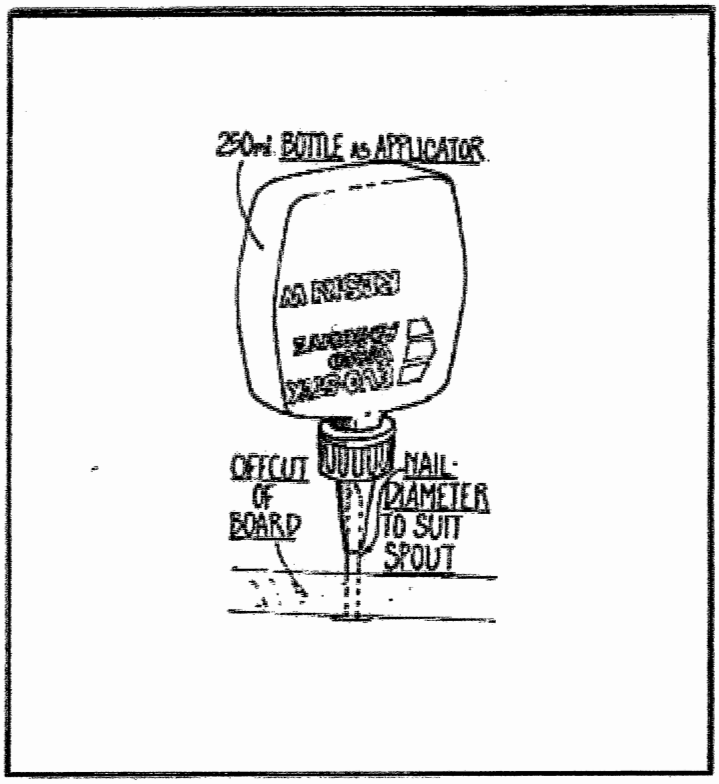
Workshop notes, no.12



The Cochrane glue inverter: This may sound like a strange animal to find lurking in the pages of "BMRJ", but believe me, it's invaluable to we modellers. When I was a member of the Merseyside Model Railway Society we were commissioned by the Borough Council to build a large 4mm scale museum diorama of part of the Birkenhead Woodside area, including the station. At 19ft x 11ft, this was a pretty substantial model, and the supporting structure was an extensive and involved piece of carpentry involving an awful lot of pieces of wood. Most of the pieces needed to be stuck together, for which purpose we mostly used PVA Evostik 'Resin W' woodworking glue – several gallons of the stuff in total.

As a glue, this works brilliantly, but it does have one major snag: the contents of the container settle unerringly and, it seems, quite rapidly, to the bottom of the bottle between each use. Oddly enough, however, when gravity is called upon to get the goo back up the spout of the bottle, things move a good deal more slowly. Indeed, with the pot less than half full, we found we were spending more time waiting for the thick contents to dribble oh so very slowly down the sides of the bottle and into the applicator

spout than we were getting on with the gluing. This is probably made worse by the fact that with the container inverted, air has more of a problem getting into the bottle to replace the draining adhesive than is the case when things are 'right way up'.
It was a Woodside group member, Frank Cochrane, who came up with the obvious solution to the problem: Keep the bottle inverted at all times. This is simply accomplished by taking a piece of scrap board, big enough to provide a stable base for a full and inverted bottle of Resin W (we used the 125ml or 250ml size for ease of application) and hammered a wire nail of a diameter appropriate to the hole in the spout, through the middle of it. The glue bottle was simply parked spout-down on this nail while not in use, keeping the stuff stoppered up but ready for action. If you can find a stainless steel nail, this will avoid rust staining the glue.
While we may have used a 125ml size bottle to apply our Resin W, we certainly didn't buy it in such small quantities. A 2.5litre can of this admirable adhesive costs about £16, whereas the going rate for the 125ml size starts at £2.98 in discount D-I-Y stores. Two and a half litres at that rate would cost you about £59, so it's well worth the hassle of refilling the small bottle, bought for the sake of its nozzle, from a larger container - even if you don't need to buy the stuff by the gallon.

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