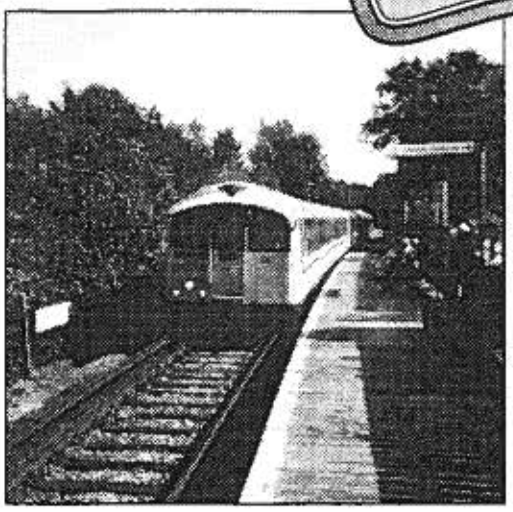
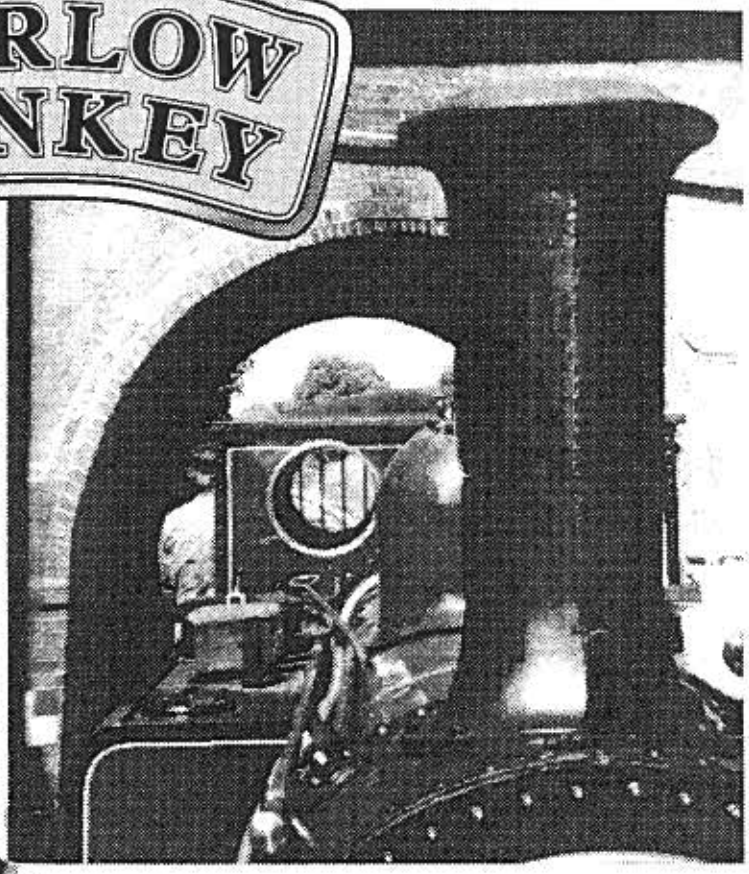
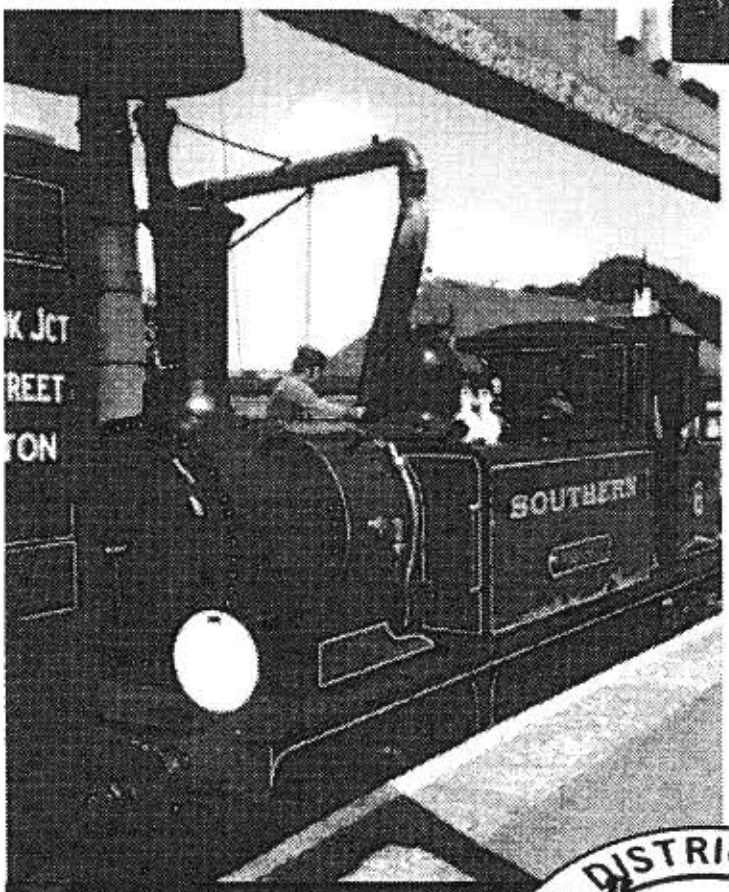
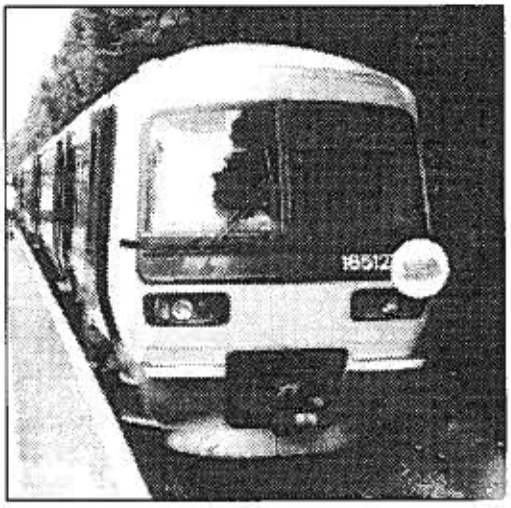
THE MARLOW DONKEY









Edition
86
October 1998

THE MARLOW & DISTRICT RAILWAY SOCIETY

Contents
Holiday 1998
Southern Vectis
Class 66 in Close Up

COMMITTEE

CONTENTS

FRONT COVER PHOTOGRAPHS: *Top Left: IOW ex. Underground unit approaching Smallbrook Junction Station 5/7/98. Bottom Left: IOW Steam Railway No.8 Freshwater taking freshwater! Both photos: Mike Hyde. Top Right: No.8 Freshwater from the train 5/7/98. Eddie Lewcock. Bottom Right: Pacer 143609 at Merthyr Tydfil on the 1052 to Penarth 25/6/98. Alan Costello*

Latest Copy Date for next issue of The Marlow Donkey End November 1998

EDITORS DETAILS

Donkey Editor, John Tuck, 35A Danywern Drive, Winnersh, Wokingham, Berks RG41 5NS

Tel:0118 978 8225 Fax: 01628 485080 or E-mail john@hkz.co.uk

TIMETABLE

FORTHCOMING MEETINGS

All meetings are held at:
Royal British Legion, Station Approach, Marlow at 7.45 for 8.00 pm.

1998

Thursday 19 November	INDIA REVISITED	Dr Brandham
Thursday 17 December	CHRISTMAS SOCIAL	

1999

Thursday 21 January	PHOTOGRAPHIC EVENING	
Thursday 18 February	AGM & SALES	
Thursday 18 March	FILMS	Frank Banfield
Thursday 15 April	DIESEL	Derek Wright
Thursday 20 May	LONGMOOR	Keith Catchpole
Thursday 17 June	BRANCH LINES	Chris Gammell

DAY TRIPS 1999

TBA	DIDCOT EVENING	Car or Coach
Sat.24 or Sun.25 April	SOMME RAILWAY	Car
Sunday 4 July	Romney Hythe & Dymchuch	Coach
September	North Norfolk	Train

CHAIRMAN'S NOTES

As a mainly rather dismal summer turns to autumn our Society has begun a new series of evening meetings at the Legion and I am pleased to tell you that most "slots" for 1999 are filled. Plans are afoot for outings next year, although it was a shame that the excellent IOW trip this year was so poorly supported. The steam line is an excellent example of what preservation is about, our train had a superbly restored 4 wheeler rescued from odd sites being hauled by a freshly reboilered "Terrier". Portsmouth itself has changed dramatically in recent times, with large museum areas of interest to most people!

Evening meetings for the coming year will maintain our high standard of speaker enjoyed in the past with the Christmas Quiz being organised by Tim Speechley.

Our thanks are due to those several members who set up the relics and photos and also operated the miniature railway at both the Marlow Donkey and Court Gardens celebrations, it all helps with our publicity. Fortunately our membership is holding up unlike some rail organisations like the Mid Hants who have suffered a dramatic drop.

No one must be complacent about the future fortunes of our Society but we do seem to be progressing steadily along the track for the future.

E. W. Lewcock, Chairman.

RAILWAY ROUNDABOUT

Adrian Shooter will be giving another of his popular lectures in High Wycombe entitled "Engineering Excellence 1898 - 1998" on 3rd November at 19.30hrs. Admission by ticket only, obtainable from the Wycombe Swan Theatre Booking Office.

"It fell off the back of a lorry" is the vernacular for stolen goods being resold to the public, however it is not often that it happens to a steam locomotive. Some of you may have noticed that the American style Sandy River 2 - 6 - 2 tender locomotive fell off the back of its lorry on the A595 near Millom earlier this year. "Taking to the Road" with a vengeance.

If anyone is interested in the engineering and technical aspects of David Wardale`s work, a new book published by him privately should be interesting reading. Amongst other things he designed "The Red Devil" Class 26 locomotive on the SAR and later he worked with the Chinese and is close friends with Ing.L.D. Porta. The book is published by Highland Printers, Inverness at present and it runs to 1000 copies but it should be stressed - that it is highly technical.

Anyone thinking of travel in India by rail may be interested to read how local thieves have assisted in an upgrade of the rail technology! The traditional Cast Iron Brake shoe is worth a bit in the Indian scrap market so now the Indian Rail Authorities pay a premium for composition brake blocks imported from Westinghouse Air Brake Company in USA.

They might be calling for Ed Burghart`s assistance in Europe soon! Apparently rail freight in Europe has dropped from 31.8% of all tonnage in 1970 to 14.9% in 1994. Amongst other problems were incompatible Signal Systems, power supplies, loading gauges and communications problems. To counter this a series of 17 new "Freightways" have now been started, the first from the North Sea to Italy and these offer a 20% increase in overall speed.

E.W. Lewcock.

CHILTERN TURBO VISITS CHINNOR

Alan Costello

On 6th June a 3 coach Chiltern Turbo unit (165039) visited Chinnor on clearance tests. This was for a day's service over the line to give local people the chance to ride in a set. On 25th July a 2 coach unit (165024) arrived and ran hourly trips from Chinnor to just short of Thame Junction from 1100 to 1600. Free rides were given to almost 400 people mostly from the area.

Meanwhile the L & Y 0-6-0 returned north on the 16th July to the Shackerstone Railway. Unfortunately its replacement from Pontypool was cancelled due to urgent repairs. This left the railway without a steam engine until the 'Thomas'weekend (8-9 August). More frantic phone calls produced the possibility of 3 steam engines arriving by October, in time for the steam and diesel gala on the 18th. At the time of writing (early August) first to come should be a 0-4-0 Barclay but this will only be capable of hauling 2 coaches. Next to come, by early September, is a 57xx pannier tank from Tyseley and finally at the beginning of October 0-6-0ST Bagnell-Lamport No. 3.

HOLIDAY 1998

Alan Costello

After 2 years in North Wales, this year we moved south and stayed just north of Brecon. Preserved railways are not very common in Southeast Wales, so visits were less than recent years.

20 miles south of Brecon is Merthyr Tydfil where Richard

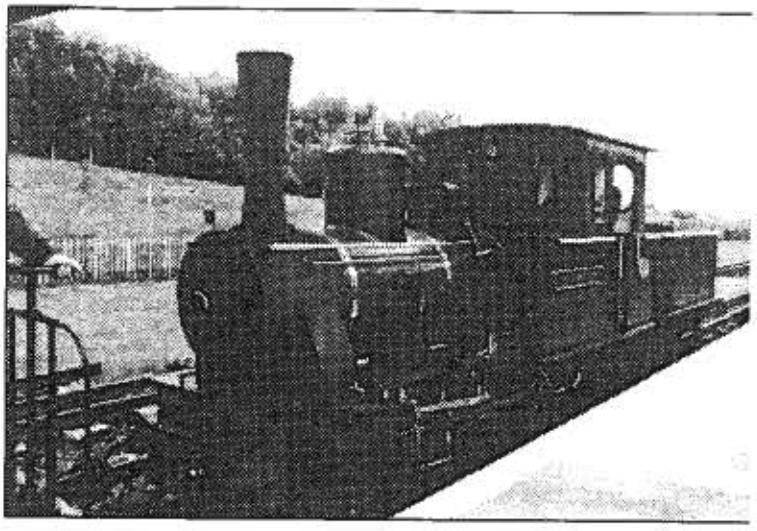
Pacer 143609 at Merthyr Tydfil on the 1052 to Penarth

Trevithick ran the first steam engine in 1804 at a local iron works. A map of the G.W.R. in 1947 shows extensive lines around the town, serving the local iron works and collieries, as well as the towns and villages of the area. All that is left now is a single line from a single platform at Merthyr running south providing an hourly service to Cardiff. Two viaducts still remain and a tunnel where the steam engine worked

Just to the north of Merthyr at Pant, is the headquarters of the Brecon Mountain Railway. The title seems a bit odd to me as it is not at Brecon and it does not go up a mountain. Below the car park of the Railway is a filled in tunnel but three smoke escape 'pepper pots' can still be seen. The tunnel was part of the Brecon & Merthyr Railway, and most of the two foot gauge line is built on its former track bed. The railway closed in 1964 and the new line opened in 1980, after a fight to buy the former trackbed from the local farmers. After a recent extension was opened, the line now runs along the edge of the Taf Fechan reservoir giving views of the Brecon Beacons. Further plans are to extend the line another two miles through the highest tunnel in the country at 1313 feet to Torpantau. Motive power on the line at present is shared between an East German 0-6-2 well tank (built 1908) with an auxiliary tender, and a Baldwin 4-6-2 built in 1930

brought over from South Africa. In the workshops undergoing an extensive overhaul is a 2-6-2 + 2-6-2 Garrett built in Germany in 1928. The whole journey takes 65 minutes. There is a non-stop run to the end of the 31/2 mile line where the engine runs round. On the way back there is a twenty-minute stop, where people can stretch their legs or even stay to catch the next train. A line worth visiting but only in decent weather.

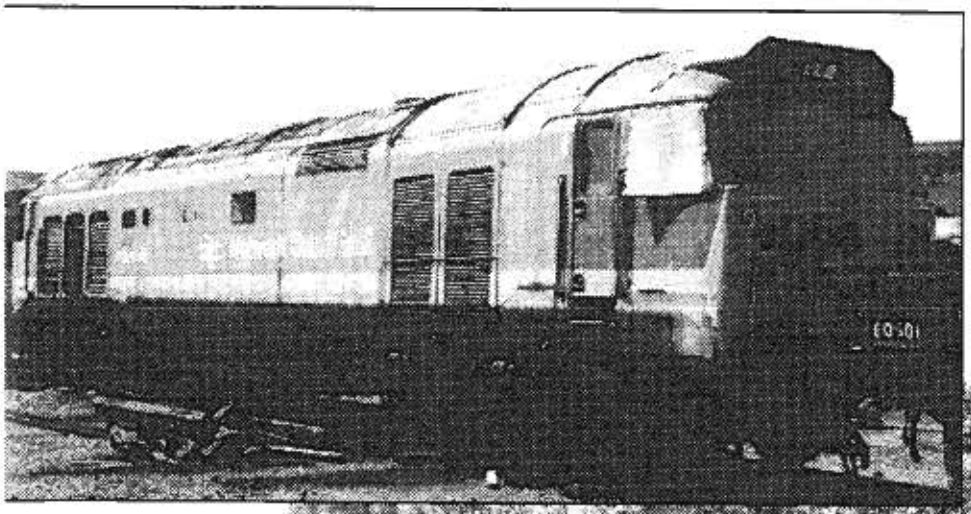
Further east is the Big Pit mining museum. Guidebooks say you can combine a trip there with a visit to the Pontypool and Blaenavon Railway that is adjacent to it. What they don't say is that the railway is only open on Summer Sundays. So a visit to the site found it fenced off and locked up. By looking from the outside it was possible to see some of their collection. Ex GWR locos seen were 2-8-0's 2874 and 3855; 0-6-2T 5668 and 'Hall' 5967. A number of industrial steam and diesel locos were also there. Ex-BR diesels included three Class 50's 50029/30/43 in well weathered Network SouthEast livery, together with a 2 car Class 119 DMU set.



Graf Schwerin-Lowitz arrives at Pant

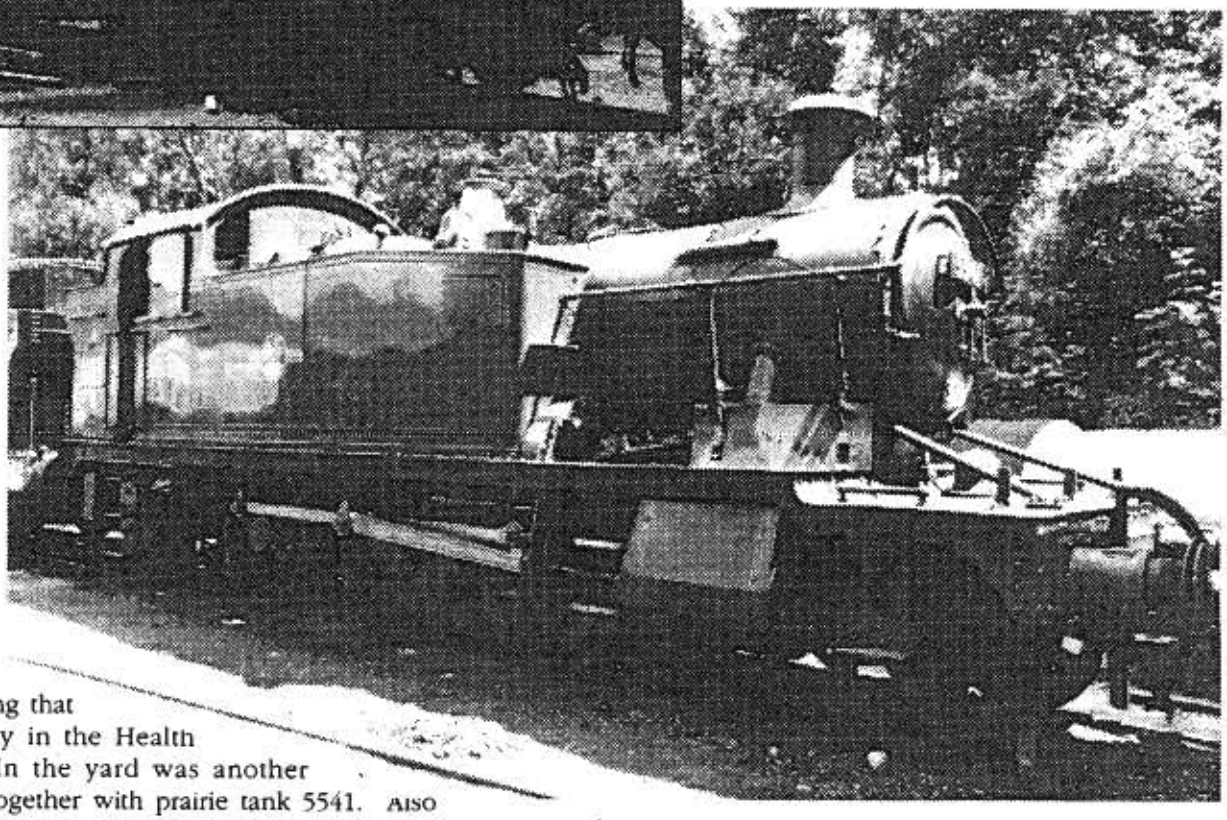
the signal box could be seen controlling the semaphore signals and one of the two half barrier level crossings that it looked after. The train then returned to Norchard. The station is built in a former colliery yard with the line to Parkend behind and above it. When the line is extended to Parkend the station will either have to be moved, closed or trains will have to reverse in and out.

For half the journey, the views from the train are obscured by trees (well it is the Forest of Dean) but that should not discourage anybody from travelling on the line.



50030 at Blaenavon

Our last visit was to the Dean Forest Railway, though not in Wales, it is west of the Severn. On arrival at their base at Norchard, 0-6-0PT 9681 was taking on water before going to the head of a four coach train. As we had thirty minutes to spare, I had a look round the engine shed, which is allowed (something that is becoming a rarity in the Health and Safety days). In the yard was another pannier tank 9642 together with prairie tank 5541. Also there was two Class 108 DMU's 50619 and 56492. Partially under cover were the frames of the only remaining ex Taff Vale 0-6-2 tank built in 1897. Inside the shed was another prairie tank 5521 and a DMU coach 51914. The inevitable industrial locos were also there. After returning to the station we joined the train for its 15-minute trip to Lydney Junction. Whilst the engine was running round the train,



Prairie 2-6-2T 5541 on shed

There is a very good shop and small museum. Future plans as well as the extension is a building of a second platform at Lydney.

IDENTIFY THE LINE UP **SOLUTION**

by Keith Brown

Early on a Sunday morning there was a line up of seven locomotives protruding from a G.W.R. engine shed.

From the following clues, and your knowledge can you identify the wheel arrangement and designer of each of the seven locomotives reading from left to right?

	Wheel Arrangements							Shed Roads						
	0-6-0	0-6-0T	2-6-0	2-8-0	2-8-2T	4-6-0	4-6-2	1	2	3	4	5	6	7
Churchward	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗
Collet	✗	✗	✗	✗	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗
Dean	✓	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗
Fowler	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓
Hawksworth	✗	✗	✗	✗	✗	✓	✗	✗	✓	✗	✗	✗	✗	✗
Robinson	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗
Stanier	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✓	✗	✗
1	✗	✗	✗	✗	✓	✗	✗							
2	✗	✗	✗	✓	✗	✗	✗							
3	✓	✗	✗	✗	✗	✗	✗							
4	✗	✗	✓	✗	✗	✗	✗							
5	✗	✗	✗	✗	✗	✗	✓							
6	✗	✗	✗	✗	✗	✓	✗							
7	✗	✓	✗	✗	✗	✗	✗							

Designers

Shed Roads

Clues

1) The ancient Dean goods was on road 3.
2) The two end locomotives were not built with tenders or designed by Hawksworth.
3) It was a Duchess pacific to everyone's surprise on road 5.
4) Robinson - Churchward designed the tender locomotives with two leading pony wheels.
5) The 2-8-2 tank is positioned three lower than the road that the Chuchward locomotive is positioned.
6) Fowler designed the tank loco with the least wheels.
7) Robinsons & Hawksworths locos are not positioned next to each other.
8) Churchwards mogul is in an even numbered road two places to the left of the Robinson.

Road	1	2	3	4	5	6	7
Designer	Collett	Hawksworth	Dean	Churchward	Stanier	Robinson	Fowler
Wheels	2-8-2T	4-6-0	0-6-0	2-6-0	4-6-2	2-8-0	0-6-0T

Most likely shed: Shrewsbury

WESTERN GALLERY **SOLUTION**

Keith Brown

A devotee of the Class 52's arranged his twelve favourite photographs of these fine machines on the wall in a block as in the diagram below. From the following clues can you identify the name associated with the remaining eleven prints as our photographer has already affixed 'Glory' in position C2.

Clues

1) 'Prince' is the identity of the photograph in position D2.
2) 'Leviathan' is two places to the left of 'Yeoman' but not in horizontal row 3.
3) The caption for photograph B3 is not 'Consort'.
4) 'Emperor' is not adjacent to 'Glory' in any direction, including diagonally.
5) Photograph A3 has an odd number of letters to its identity.
6) 'Buccaneer' and 'Hero' are both hung in corner positions, the former being in the same horizontal row as 'Duchess'.
7) 'Marksmen' is immediately below 'Sovereign' and immediately to the right of 'King'.

Identities

Buccaneer, Consort, Duchess, Emperor, Hero, King, Leviathan, Marksman, Prince, Sovereign and Yeoman.

	A	B	C	D
1	*Leviathan*	*Sovereign*	*Yeoman*	*Hero*
2	*King*	*Marksman*	*Glory*	*Prince*
3	*Emperor*	*Duchess*	*Consort*	*Buccaneer*

SO YOU WANT TO RIDE ON A DIESEL MULTIPLE UNIT

How often when you purchase a book costing all of £9.00 are you then given a supplement with a further eleven pages to bring the book you have bought up to date. Wait for it, not only a supplement this time, but in addition a further separate page to replace one currently in this new book. You may think I am labouring the point but this is what happens when one purchases the Great Britain Passenger Railway Timetable. (24th May to 26th Sept 1998) When I brought this large volume home, which now contains 1944 pages as against 1784 last summer, my wife suggested it would make a good doorstop. The extra page, which was because, after page 1028 the following pages were 1129 & 1130 followed by 1031 etc. The separate page contained the information that should have been printed on pages 1029 & 1030. Incidentally pages 1129&1130 were printed a second time and bound in their correct position. Somebody must have felt pretty silly when this error was pointed out to him or her. Even after all this the publishers, Railtrack plc must have thought their problems were over. Oh no they were not, for in table 134 one could, if you believed what was printed, travel from Paddington to Bristol Temple Meads in only 49 minutes. In the same table but with eastbound directions they had got it correct and instead of Paddington had

used Cardiff Central as the starting point. This represents overall speeds in excess of 145 miles per hour including station stops.

The reason for my purchasing this publication was to review the variations between this Summer and last Summers train services, particularly in respect of the new services that the various franchises were introducing to capture more of the traffic for their own coffers. What are very interesting when studying these tables are the footnotes that accompany the various tables. A few of the new companies are now extending journeys beyond their usual termination points thus making one train set responsible for two services. This is all very well if everything is running to time but any delays are compounded as the journey progresses. I have ignored all Virgin cross-country services and in this article concentrated on D.M.U. services in England & Wales. What really started me off was the introduction by NorthWest Trains (N.W.T) of a daily service once again from Blackpool North to London (Euston) as well as services to and from Rochdale and Manchester Airport from Euston.

Dealing with NWT first, their Blackpool North departure at 0627 is non-stop from Leyland to Warrington Bank Quay where it is attached to the 0643 from Rochdale which picks up at Manchester Victoria and Newton ñle-Willows only. Due to objections by Virgin West Coast and Silverlink this train is only allowed to set down at Tamworth at 0846 and at Watford Junction at 10.05 resulting in an arrival at Euston at 10.32. In addition they run four other services from Manchester Airport and a further one from Manchester Victoria to Euston each weekday. On Saturdays NWT run two services from Manchester Airport to Euston. In the northern direction those businessmen coming from Blackpool & Rochdale can leave Euston as late as 2010 and still be home before midnight. All very commendable to NWT. I understand Class 158ís and Class 322ís units are used for these services.The 322ís were the former Stansted Airport dedicated units. All theses services are booked via the Northampton loop.

Central Trains (CT) have reintroduced services to Stansted Airport on an hourly basis. This is where the longer journeys really do come in to their own. There are two services from Aberystwyth at 0540 & 1129 to Stansted Airport and one return journey at 1327 from the airport to the welsh resort. 284 miles with a journey time of six hours and thirty-one minutes for the fastest from Aberystwyth. Other longish through workings by CT is two Gt.Malvern to Stansted Airport workings in the eastbound direction and again eastbound only, a Hereford to Cleethorpes service. If one really fancies travel by a single Class 153 then try Skegness to Hereford via Derby & Birmingham New Street or Skegness to Shrewsbury that takes ten minutes short of five hours. Could I recommend you take your own cushion to make these journeys that little bit more comfortable?

Anglia Trains (AT) have now introduced a direct service from Sheringham every day of the week in both directions, although there are three southbound services but only two a day northbound.

Regional Railways North East or to give them their new title Northern Spirit (NS) have introduced two odd one way only services as through trains. They are a Huddersfield to Carlisle and a Sheffield to Morecambe. Both these are evening services and one is left to speculate if these are indeed for the benefit of their customers or are they the method to position sets in their correct positions for the next days services after maintenance etc has been performed.

Both Wales & West (WW) and the Cardiff Railway Co. who run the Cardiff Valley lines are located in Brunel House Cardiff. Both companies also share Cardiff Canton maintenance facilities so it is not surprising that their services are getting more integrated. There is now a Weston super Mare to Aberdare service as well as a Treherbert to Paignton and a new Weymouth to Maesteg working. Barry Island has direct services this summer with Portsmouth Harbour on a Saturday and with a direct service to Birmingham International and from Birmingham New Street to Barry Island on a Monday to Friday basis. I do hope somebody has explained to Mr & Mrs Taffy that they must make their own way from International to New Street for their return. They also have the opportunity to go Birmingham New Street on a Sunday but when they return these passengers must change trains at Cardiff Central to reach Barry.

I have left the best to last. Thatís best in terms of hours on train and mileage but not if you are the unfortunate that has to make the journey by necessity. It is a Sunday service, which I think, falls in to the category of a positioning move as it takes two sets from Pembroke Dock to Holyhead and Manchester Piccadilly. They are split at Crewe. The Holyhead journey is of 365 miles and of eight hours and forty-two minutes duration, that is if it is on time at Holyhead. Come to think of it, it may actually be quicker going in the clockwise direction by boat steaming through Cardigan Bay. Should you be brave enough to sample the sea going route then please let me know how times compare.

You will I hope agree with me that at last some effort is being made by the franchisees to cater for the needs of the travelling public whether it is for business or pleasure purposes. Let us now hope that Railtrack can soon produce a timetable that is free of errors.

125TH ANNIVERSARY OF THE DONKEY

No, not the magazine but perhaps one day John !! Here we are looking at ëthei Marlow Donkey, the branch from Bourne End (originally called Marlow Road) and the thriving metropolis of Marlow on Thames. A lot has been written about the branch ñ but what about the through line to Wycombe ? Although it is touched on in a few books and pictures do exist, maybe an appeal to the public not to throw out old photos (or Granny) they find in the attic might produce some interesting studies.

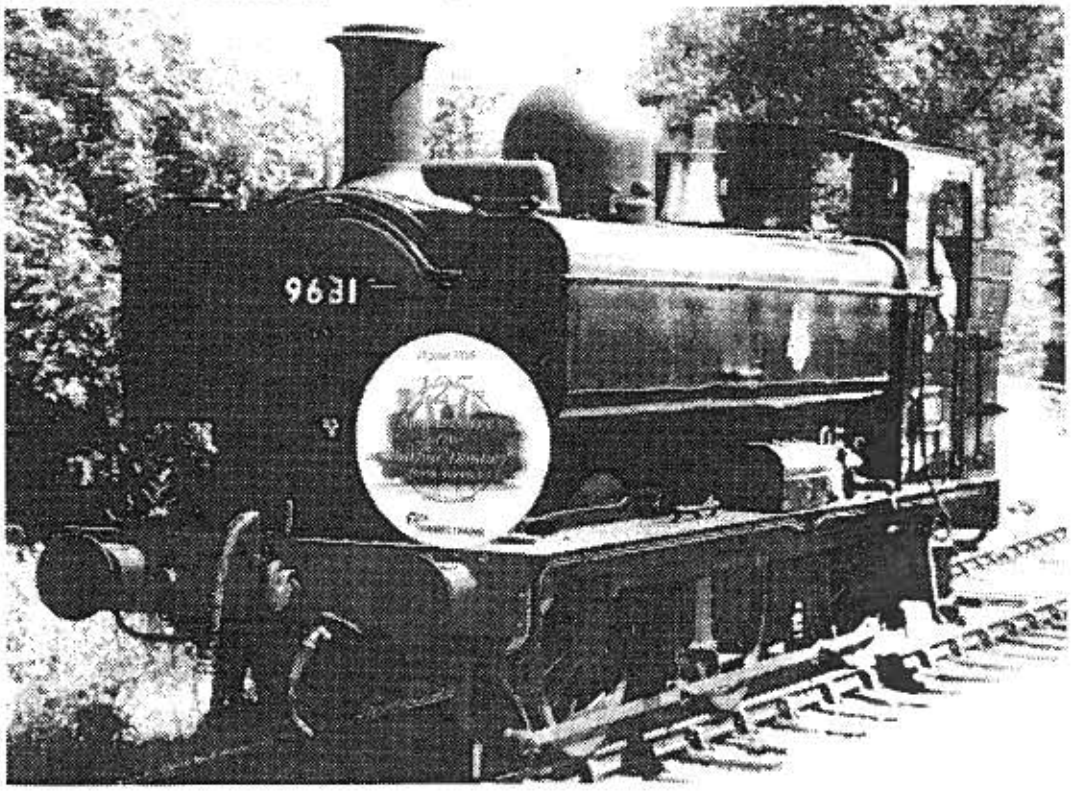
However on the weekend of 27th/28th June 1998 your railway society was represented on Bourne (Again - sorry) End station with a display of artefacts and an excellent storyboard by Mike Walker. Other members presented themselves from time to time and entertained the public but it was a quiet day due to some tennis event and a football match on TV.

The turbo looked splendid, at least from the buffer end due to poor paintwork on the unit the other end, displaying the excellent headboard designed by John Tuck (your Editor) celebrating the event. The design also appeared on the souvenir tickets handed to paying passengers on the day.

Julian Heard took a run through to Maidenhead and just missed the Deltic which crepted up quietly behind him. Mike Hyde took the leg to Marlow (for a change!) and exercised his recently acquired Senior Railcard. Whereas Mike Walker engaged the MMRPA member in polite conversation until the timely intervention of Concorde overhead at precisely 1.25 pm. (it was actually 1.37 but literary licence and an unfortunate headwind must be allowed). How MW arranged for the flypast is yet another one of those little mysteries of which he apparently disclaims all knowledge. Nevertheless, you ask, surely he could have arranged for an HST set to be on duty! (the connection is rather obvious isn't it ? - and is nothing to with possibly the first Virgin being in Marlow for years - okay, it could have been a GW set but that would have spoilt the joke).

For the record the Marlow branch opened on 28th June 1873 (that was so that we could get the 125 anniversary in this year) in time for the Regatta when special trains were run. Its good to see both institutions survive. 1,700 tickets were sold in the first week so considering there was little alternative public transport in those far off days, except for Mr Shanks, you may wonder whether it was ambitious or not for Thames Trains to print 1,000 special anniversary tickets.

Mike Hyde



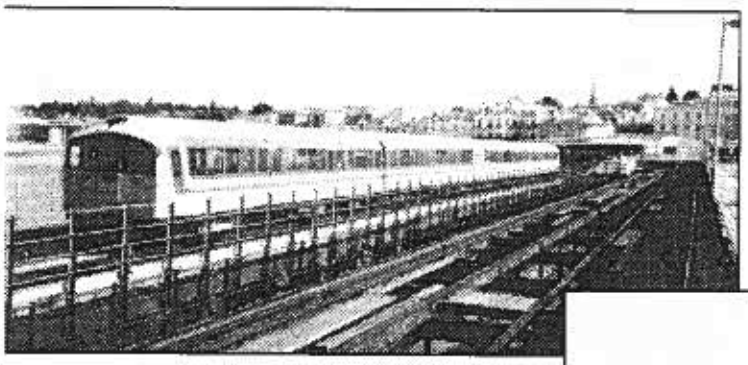
You all missed this one!

Actually Pannier 9681 runs round train at Lydney Junc.

Photo: John Costello

SOUTHERN VECTIS - VENI VIDE NIL VICI

Waiting for us at Smallbrook Junction was FRESHWATER, a Stroudley Terrier tank, No.8 of The Isle of Wight Railway Company, shining in its recently outshopped Southern green plus three period carriages. These carriages are original vehicles of the island though refurbished to a high standard and sitting on former goods frames. What a splendid performance the little Terrier gave all day being the only engine in steam. Up to Wootton and back to the junction via Haven Street, its only mid point resting place and watering stop.

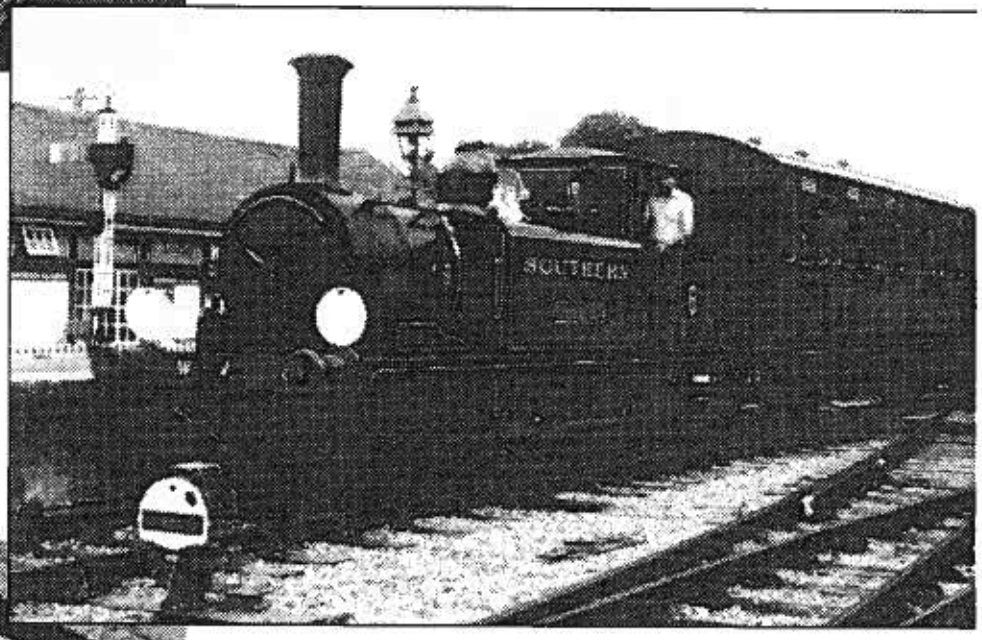


Ryde Pier 5/7/98 by Mike Hyde

It strange to think that W8 was on static display outside The Hayling Billy public house for 13 years after service on the island from 1913 to 1979. Following an extensive overhaul and lots of loving care she is looking better than ever. Certainly, from a postcard purchased on the day at Haven Street (in a very well equipped shop and adjoining museum) showing her on Ryde Pier, she looked very grimy and well used (asW35) in 1963.

Will steam ever get back to the pier? To Ryde St John's Road perhaps, which is a current ambition of the railway, but no further since the height in the tunnel thereafter is restricted following electrification of the line and the raising of the trackbed. I will make much mention the ex LT stock on the 'main line' except to record we appeared to do most of our travelling on 007 (class 483 unit) and viewed a number of other units in the sidings, apparently most out of use. A debate did ensue on the merits, or otherwise, of reusing discarded Jubilee stock. Dare I say that one member even suggested using diesel locomotion. Another legged it to the depot to record his finding for posterity.

Apart from watching No.8 running up and down the line, a pleasure in itself, the guided tour of the shed and yard was most interesting. No.11 (1878 ex LBSCR No. 40 Brighton) formerly at Butlins Pwllheli before returning to the island in 1973, was on view. Saddle tank No. 198 Royal Engineer, on loan from the regimental museum in Chatham, was hoped to be steamed for the summer. Invincible and Ajax were in pieces and 02 class Calbourne No.11 (exW24) was standing as gate guard by the station. A number of diesel shunters were in the yard and some very interesting trucks including guards/baggage vans used for luggage sent on ahead in the old days.



No.8 Freshwater and Vintage Train by Eddie Lewcock

One policy the IWSR has adopted is to paint wagons in the old style but with modern company names, thus attracting sponsorship for advertising. As at many other railway sites, space is at a premium but what there is, is well used and the IWSR with their limited volunteers and eight paid staff in the workshop and office, appear to run a tight ship. Certainly, with few exceptions, they use what they have or its under repair or refurbishment. No lost causes are taken on and nothing is totally discarded.

The thanks from our party of 26 to Gordon Rippington for arranging the event and in glorious weather. Sea crossings presented no problems but old jokes about Freshwater you cant drink and Cowes you can't milk are out...Mike Hyde

No.8 Freshwater by Mike Hyde

CLASS 66 IN CLOSE UP

Mike Walker

Recently I had an opportunity to study the new General Motors built Class 66 locomotive in detail at Toton depot at the invitation of EWS. Much has already been written in the British railway press about these new machines but in some respects these reports are misleading, hopefully what follows will make things clearer.

At first sight the Class 66 is an updated Class 59 in EWS livery but in truth the similarity is skin deep for internally it is a completely new machine with virtually all the major components replaced or updated. In fact it has more in common with the Irish Rail Class 201. The locomotive, which is known to GM as model JT42CWR (the Class 59's are model JT26CW-SS), shares its body shell with the Class 59 (and between cabs, the Class 201) and is built on one of GM's standard export locomotive platforms to which the builder has followed its usual practice of attaching the equipment required by the customer from a standard inventory. It's a bit like ordering a car and specifying what optional extras you want. The British railway press has also suggested that it is a close relative of the latest US models such as the SD80MAC or SD90MAC but in fact there is no directly comparable locomotive currently in production in the USA. Only the control system is shared with the SD70.

The first major component change is the engine where the 3,300hp 16 cylinder 645E3B of the Class 59 is replaced by a 3,200hp 12 cylinder model 710G3B. The 710 series is a development of the earlier 645 series and was introduced in the mid 1980's. It retains the 645's two-stroke operation and 9.0625" bore but increases the stroke from 10" to 11". The larger capacity, improved efficiency and better turbocharging allows the same horsepower to be developed with four less power assemblies thus reducing costs and fuel consumption. The same engine is fitted in the IR 201's and there they have suffered from crankshaft failures. This is problem is unknown elsewhere with the 710 series which is widely used in North America in 12, 16 and 20 cylinder forms. It is to be hoped that the problem does not carry over to the Class 66.

One of the design criteria laid down by EWS was to increase the range. One of the things which does not impress Wisconsin Central is the way EWS's current locomotives have to keep being refuelled due to their relatively small, 800-900 gallon tanks. In the modern world the nearest fuel point may well belong to a train operator other than EWS who may charge a premium irrespective of the unit downtime incurred. As a result the Class 66 has a capacity of 1800 gallons but this presented GM with a major design challenge. Fuel is heavy and to keep the locomotive within the RA7 classification (22 tonne axle load) of the existing Type 5's, GM had to look at weight reduction. Apart from the frame, engine and fuel load, the next heaviest components are the rotating electrical machinery. Originally GM had intended to use basically the same AR11 main alternator and D77 traction motors as used in the Class 59 and most of the current US dc drive locomotives. However these would have exceeded the maximum permissible weight. So GM looked through its parts inventory and selected lighter, lower rated components normally used for lower powered export locomotives, namely the AR8 main alternator and D43 motors. Although lower rated than those in the Class 59 they still have more than ample capacity to handle any train EWS is physically able to run.

The locomotive control system is a considerable advance over the Class 59. That was a rather primitive design based on the 1970's SD40-2 with the control system of the '80's SD50 grafted on including the now legendary Super-Series wheel slip control but was largely obsolete when new. Well, time and technology move on and the Class 66 features the very latest GM state-of-the-art computerised control system. At its heart is the EM-2000 central processing unit. This box of chips controls every function on the locomotive. It can be likened to a modern fly-by-wire aircraft where the pilot tells a computer what he wants the aircraft to do and the computer decides on the most efficient way of doing it.

The EM-2000 controls the engine fuel injection and management, alternator and motor excitation and the wheelslip control. This latter builds on the principles established by Super Series but is far more sensitive giving even greater tractive effort figures, the Class 66 is rated at 90,000lbs maximum, 57,000lbs continuous. It also monitors all the locomotive systems continuously and can be down loaded to assist maintenance. In modern US locomotives the EM-2000 provides touch-screen VDU's in the cabs replacing conventional gauges and switches and can transmit diagnostic data to it's home terminal to alert of problems before they become serious. EWS has elected to keep virtually the same cab layout as the Class 59 in the interests of standardisation.

The ultra sensitive wheelslip protection leads to the fitting of what is perhaps the most noticeable external difference from the Class 59, the bogies. The Class 66 is fitted with a version of GM's HTC-R radial, or self-steering bogie. First developed for the latest generation high-horsepower locomotives this bogie allows the axles to steer into a curve thus ensuring that each axle is always square across the track. In conventional bogies the outer wheel is always skidding along faster than the inner wheel. The EM-2000's wheelslip detection is so sensitive that this confuses it! Radial bogies also have the advantage of reducing rail, tyre and flange wear. Originally GM had intended to use the standard domestic HTC-R as it had the domestic HT-C on the Class 59 but it was found necessary to revise the design to keep it within our structure clearance gauge and save weight. The result is virtually a new bogie design.

66001 arrived in the UK at Immingham on April 18th after a trans-Atlantic voyage from Albany New York, up the Hudson River. It was towed from the factory at London, Ontario, by a Canadian Pacific SD40-2. On arrival it was unloaded and after a GM technician had been aboard to load the computer software cards and done some checks, it was fired up and soon moved under its own power to Immingham depot. Initial commissioning took place there followed by a visit to the RTC at Derby the on to Toton from where it started its main testing. By the time I got to inspect it on June 19th it had been in operation every day and done many miles of light engine and test train operation and even a couple of revenue runs. Up to that time it had acquitted itself admirably, meeting or exceeding all performance expectations without developing a single fault. Old time EWS staff thought back to the troublesome introduction of some earlier designs!

By mid-June it had still to receive final Safety Case and Railtrack approval as there were concerns in some quarters about EMI (Electro-Magnetic Interference) being produced by the EM-2000 system despite test results from GM. This was resolved shortly after and 66001 went into revenue service on July 10th working on the Llanwern - Port Talbot ore trains. It is intended to move the locomotive around for the next few months to see how it performs long term in a variety of operations.

Another myth surrounding the Class 66 is that is to be EWS's new "top gun" heavy haulier, displacing all before it. This is not the case. The role of the 66's is to operate fast, medium to heavy trains which are currently the preserve of the Class 56 and 58's. These will in turn be cascaded down replacing, as a priority the non-Res 47's then the 31's and older 37's. The heaviest stone and coal trains will still be the domain of the Class 60 which, now its troubles are being overcome, is regarded as the EWS "Muscle Machine". Both the Class 60 and Class 59 have considerably greater tractive efforts than the 66 and are geared for 60 mph top speed compared to the 66's maximum of 75mph.

Production of the remaining 249 has begun. The 66002 is at the Association of American Railroads' (AAR) test centre at Pueblo, Colorado for extended testing and is not expected in the UK until October. 66003-66006 were due to arrive in early August followed by 66007-66014 later that month. For the duration of the contract, GM have chartered the MV Stella Mar for its exclusive use. Capable of taking up to 11 locomotives at a time, it is expected to make one round trip from Halifax, Nova Scotia, to Newport in Wales every four weeks. EWS and GM hope that once things get swinging they'll be able to catch up and get in extra trips. The completed locomotives will be moved from London to Halifax (that's in Canada!) in solid trains led by Canadian National locomotives.

Whilst talking to EWS engineers I brought up the subject of the Class 67. This is again a stock GM design which is currently being manufactured for Israel. Known as the JT42HR, it will feature the same engine and alternator as the 66 but may use higher rated traction motors as it's a Bo-Bo design. It is to be built by GEC-Alsthom at it's works at Valencia in Spain - the former Marcosa plant. This GEC-Alsthom-GM joint venture is driving US railfans nuts as they cannot come to terms with the fact that our GEC has no connection with their GE - GM's only and fierce rival in the locomotive business.

Asked what it will look like, EWS were reluctant to say, mainly because they genuinely don't know. "Probably a bit like this but with more sloping cabs - it's up to GM" was what I was told. The Project Engineer went on to explain that they don't care, "it's just sheet metal to keep crew and machinery dry. What we care about is cost, performance and reliability". You can't argue with that. That's why the Class 66 is a 59 clone - the tooling was there so why incur costs and delays just for cosmetics.

It seems that this could be giving Virgin some sleepless nights. They have ordered 36 locos for their push-pull trains. They will be identical to the 67's but with only one cab. Virgin also want them to match perfectly their trains but this sends the cost through the roof. Suggestions by Virgin that EWS's should match theirs to reduce Virgin's costs have met a cool response as it would severely increase the cost of the EWS units. Watch this space!

Finally, the more informed among you may wonder why EWS didn't go for the latest ac motor technology. Well there are several reasons, not least a real problem with EMI - the biggest problem in getting Class 92's, Eurostar and Networkers approved, but equally important is the weight penalty. The complex solid state inverters and control gear are extremely heavy and even in the US where it's been traditional to ballast a Co-Co to 180-200 tons, both GE and GM are faced with trying to keep locos down to 200 tons! Also, in a diesel locomotive the complexity only pays for itself in very heavy, slow speed operations such as 14,000 ton coal trains, it would be over-kill in the UK.

The Class 66 is important to GM as well as EWS. Not only is it the largest British locomotive order since the 'sixties (that's if the 37's and 47's ordered as one lot) but it is also GM's largest export single order and possibly their largest ever as the much trumpeted BN order for 350 SD70MAC's was only an intention, the actual orders were for smaller quantities. Getting the number 968702-250 stamped on 66250's worksplate will need some care!

Some may lament the fact that the 66 is an North American product but in truth EWS had no alternative. Recent experience with Classes 56, 58, 60 and 92 has shown the weakness of the British manufacturers largely due to the small size of the market. WC on the other hand is an exclusively GM operator and it was only to be expected that they would want to draw on GM's experience. We wait to see if this confidence is justified.

25 YEARS AGO

Roger Bowen

Going into the Autumn of 1973 there was a mixture of developments with the introduction into service of the prototype HST train and 'PEP' units on the Southern, with contraction such as the stopping of work on the 'Picc-Vic' connection line in Manchester due to a financial crisis. Nothing new in this world!!

The summer had seen the centenary of the Marlow Branch, organised by the Marlow ñ Maidenhead Passenger Association. A number of our own members were involved and can say more than I can as I did not live in this area then. Suffice to say on a very wet 15th July three locos, 6998 'Burton Agnes Hall', 6106 and 1450 were involved in running a number of trains between Maidenhead and Marlow.

Renumbering of BR locomotives took place 25 years ago and the now familiar two digit class numbers and the three digit loco number was introduced.

Government plans for proceeding with the Channel Tunnel were published. In addition to passenger trains a regular service of "ferry trains" for road vehicles would run from Cheriton north west of Folkestone to a point south west of Calais. An international passenger station was proposed at Saltwood, Kent and a freight yard at Sevington, on the outskirts of Ashford. It was hoped that the main work on the tunnel would start in 1975 with completion in 1980. A high-speed rail link, built to the Berne loading gauge was proposed from the tunnel to White City in London.

In the autumn of 1973 British Railways received approval from the Minister for Transport Industries to introduce High Speed Trains on the Paddington - Bristol / South Wales routes. The first train was due for delivery in the Autumn of 1975. Authority was given for the construction of 27 HST sets.

Details were released of the new 'Trams' for the Tyneside Metropolitan Railway who had received its act of parliament in July 1973. These ìTramsî were two car articulated units to be built by Metro-Cammell Ltd and would seat 80 passengers and carry 120 standing passengers. Traction voltage would be 1000-volt overhead wire.

Mr. John Peyton, Minister for Transport Industries announced on 1st. November that the proposed closure of the Inverness to Kyle line scheduled for 1st. January 1974 would not take place whilst a reassessment of its potential in the light of possible oil developments on the West Coast of Scotland was carried out.

1st. October 1973 saw the closure of the 46 miles of freight only line from Carmarthen to Newcastle Emlyn, Lampeter and Felin Fran (Green Grove Sidings) the last train, of loaded milk tanks, left Felin Fran Creamery behind class ë37í No. 6876 for Lampeter and Carmarthen. September 11th saw the closure of the last section of the railway of the Mersey Docks and Harbour Company.

Loco watchers on the Western Region were particularly active in recording the whereabouts of the class ë35í or Hymek locos that had by late 1973 been reduced to ten. On September 22nd nine of the ten were recorded as follows. 7001 and 7028 double heading the 'Hymek Commemorative' railtour 7017 was on a Worcester to Paddington train, 7018 on the 08.15 Paddington to Barnstaple, 7026 on the 06.53 Paddington to Birmingham. 7011 and 7022 were on shed at Worcester and 7029 on shed at Reading, whilst 7016 was on freight work in the Reading area. The other hydraulic class, the ë52sí remained very much in use on Paddington to West of England services but the line of condemned examples at Laira continued to lengthen.

10 YEARS AGO

Roger Bowen

From Marlow Donkey No.46 June1988

From the 'Marlow Donkey' Numbers 47 & 48, September and December 1988

The 1988 Club excursion was by road motor to the Dean Forest Railway. Unfortunately bad weather affected the trip. However a better day was experienced on a visit to the Docklands Light Railway.

It was reported that the Minister of Transport had given approval to the joint BR/BAA £190 million project for a high-speed rail link between the Western Region main line near Hayes and Heathrow Airport.

A class '31' ventured on to the Marlow branch on 7th August with brake vans to check radio reception on the line.

The main articles in the September issue were one about the Bicentennial of Australia and its railways on a visit by Robert Young along with one by Mike Walker on Australian loco power.

In the Autumn BR commenced a major modernisation programme on both lines served by Marylebone. The terminal itself was being renovated and a new servicing depot being constructed for the new class '165' trains. The latter would be delayed due to no less than six manufacturers failing to tender for them. The main articles in the December 'Donkey' was a loco profile on the class '50s' by Mark Hopwood and an outline of the Railways of Reading by Mike Walker to commemorate the scheduled opening of the new station in January 1989.

BOOKSHELF

Alan Costello

RAILWAYS OF THE ISLE OF PORTLAND

Martin Smith — Irwell Press — ISBN 1-871608 82-1

Although there were only nine miles of line, the island had five railway companies plus the Admiralty running them by the beginning of this century. The first railway was opened in 1826 and carried Portland stone from the quarries down a 1 in 7 gradient to a pier and had a 4'6" gauge. It started on the level with wagons hauled by horses until cable took over. The loaded wagons were used to haul the empty ones back up the slope. The line from Weymouth to Portland (opened in 1865) and the extension to Easton (opened in 1902) were owned by two separate companies but remained independent until 1947 although they never owned engines or rolling stock. The GWR and LSWR provided these, with mixed gauge to Portland for a time. Like a number of lines goods traffic continued after the closure to passenger services (1952) until 1965. The lines are described in detail using 25" Ordinance Survey maps produced in the 1920's to show the routes, some remains of which, can still be seen today.

BRADSHAW GUIDE 1853

Peter Kay — ISBN 1 899890 23 8

A few years ago, Peter Kay published a reprint of Bradshaw's 1850 edition. He has now issued the February 1863 copy, but has edited out the adverts and shipping timetables to keep the size of the book down. It is a photocopy of the original book but he has enlarged it to 125% for easier reading. Maps in the centre of the book show the rail network at the time together with lines that were soon to open. By 1863, most of the main lines had been opened, but there were still a number of branch lines to be built. The only local line was a branch off the London-Bristol line at Maidenhead and Taplow to Marlow Road (now Bourne End) for Great Marlow to High Wycombe and to Thame. In the planning stage was an extension to Oxford and a connection from Princes Risborough to Aylesbury, which at that time was at the end of a line from Cheddington Junction. Most timetables give a list of fares. A number of the timetables appear complicated, but once you understand the notes at the beginning things become clear.

THE GREATEST RAILWAY JOURNEYS OF THE WORLD

Max Wade-Matthews — Lorenze Books — ISBN 1 855967 692 8

According to the sub title this is a look at the world's best loco journeys - but Bedford-Bletchley? Reports are very concise e.g. Brussels to Kowloon is covered in four pages, half of which are pictures. Lines from North America to South Pacific are covered. Modern trains such as TGV and Eurostar are included as well as scenic routes of the southern continent. About 100 journeys are described and the glossy book is well illustrated with 700 mostly coloured photos.

TRAINS ANNUAL 1963

G. Freeman Allen — Ian Allan

After looking at the early days of the A4's the Callender and Oban line is looked at in detail. The oil trains from North Thameside follows. The Western Region is represented by an article covering 50 years on the Paddington to Plymouth line. The next twelve pages look at Manchester's Victoria and Exchange station, which at the time had the countryís longest platform connecting them. The centre spread is a reproduction of Terence Cuneo's painting of Clapham Junction. The SE&CR in 1907 finishes the book. The only foreign railway to be covered is the iron ore railway in Lapland that runs between Kiruna in Sweden to the Norwegian port of Narvik.

A-Z OF RAIL REOPENINGS

Railway Development Society — Warwick Printing Co. Ltd. — ISBN 0 901283 13 4

This is an update of a booklet printed in 1992. Since then another 60 stations have reopened making the total 314 since 1953. All the stations are listed in alphabetical and chronological order. A list of relocated and temporary stations follows. New passenger lines (either former freight only or newly built) are then given. The next 50 pages give proposed new passenger lines and stations.