

**The uncovering of some Barry Works maintenance records from the 1950s provide an interesting view of the operations of this lesser known Western Region workshop at that time.**

Barry is synonymous in enthusiast circles for its role in providing a high proportion of the motive power for today's heritage railways, courtesy of Dai Woodham and the space available to him at Barry Docks. Those docks were quite unusual in South Wales being provided by a railway company rather than built independently of the company providing rail services.

The Barry Docks & Railway Company was incorporated in 1884 due to dissatisfaction among the South Wales shippers and coal traders at the inability of Cardiff Docks and the Taff Vale Railway to keep pace with the rapid expansion of the coal trade.

The first dock, and connecting railways opened on 18 July 1889 being a very late comer on the South Wales scene. Various system expansions took place up to 1905 but even at its height the Barry Railway owned only 70 route miles.

It built its own locomotive stock and accordingly required works facilities which were provided at Barry adjacent to the main motive power depot. Over 150 engines have been in Barry Railway's ownership and 148 of these passed into GWR ownership when the Barry company became a constituent of the GWR.

As well as the motive power, the GWR inherited all the infrastructure including the works which being relatively modest it might have been anticipated would close sooner rather than later. However this was not to be.

The GWR works structure was of course, headed by Swindon with major overhaul work also being entrusted to Wolverhampton. These were joined by Barry, Caerphilly from the Taff Vale and Oswestry from the Cambrian. A third tier of support were the 'works' provided at each 'A' depot such as Newton Abbot and Ebbw Junction.

Few Barry Railway engines survived to pass into British Railway ownership and all had been withdrawn by the time the records to hand started in 1954. By this time, despite Caerphilly Works still being operational, Barry was carrying out work on ex Taff Vale and a range of GWR types.

Unfortunately only a proportion of the records for the 1954-1956 period are available to form the basis for this article being for engines up to the middle of the 56XX series. It would seem that Barry worked almost exclusively on the six-coupled tank classes other than 56XX and 66XX locos and thus the records cover around 50% of the total fleet that might pass through the doors. As will be seen from the data in Table 1 engines might be received at the rate of up to three per week. An average stay appeared to be two to three weeks and this ties in well with reports in the Railway Observer of the time which list around eight engines in works at any one time. That said, recorded visits to Barry were rare compared with other Western Region Works.

The works continued with steam repairs until the end of 1959 before taking on wagon repairs which kept it occupied until 28 December 1963 when wagon repairs were transferred to the former steam shed which had just closed for that purpose.

So what can we deduce from the records?

Firstly, as well as the various Pannier classes (it is not known if the 84XX class visited the works) it appears to have handled some of the small engines which inhabited Danygraig and Swansea East Docks depots as well as 14XX and 56XX classes along with the afore mentioned Taff Vale types. The works sheets also mention the 42XX type on the parts list but no records are to hand that show any visits in the 1954-56 period.

The sheds represented are, as might be expected, those in South Wales but Worcester, Kidderminster, Gloucester, Hereford, St Phillips Marsh, Swindon and Westbury were also represented. The real stranger on the patch was 0-6-0PT 1626 from St Blazey with 1428 from Southall being another long distance traveller

The actual documents to hand are from the Copper Shop and comprise of three hand written but duplicated sheets for each engine. (Swindon reference document 2270). The first two measure no less than 19.5" x 14" with the third a more modest 14" square.

The record is a Piecework Order and is specific to Barry despite the Swindon reference. Interestingly right at the start of the recording period in April 1954 there was a change to the sheets for two reasons. The sheets carry an issuing reference and at the outset this was 1/14 changing almost immediately to 1/15 due to a price increase for all jobs. As we shall see later each job was priced to the farthing and the cost increases were a farthing up to 2/-, 1/2d then up to 4/- rising to the dizzy heights of 2 1/2d above 12/-. There was obviously a stock of old forms and such was the attention to detail (and possibly the time available ) that on some sheets in excess of one hundred prices have been amended in ink in an excellent copper plate hand writing. At almost the same time as the cost changes took place the shop Chargeman (as it is called on the sheet) changed from A B Sydenham (works number 340) to H A Smart (number 149). Smart then remained in charge at least till the end of the record period in November 1956.

Every repaired or replaced item (dealt with by the Copper shop) is costed on the sheet. Thus for example we have under the main heading 'Pipes Description':-

		PW No.	Price
Steam Heating Copper 1"	Repair	H19	1/0 1/2
Steam Heating Copper 1 1/4"	Repair	H19	1/0 1/2
Steam Heating Iron 1"	Repair	H19	1 0 1/2
Steam Heating Iron 1 1/2" & 1 3/4"	Repair	H19	1 0 1/2
Steam Heating Copper & Iron	Alter & Refit	H20	2/6
Steam Heating Copper 1"	New	H21	3/4 1/2
Steam Heating Iron 1"	New	H21	3 4 1/2
Steam Heating Iron 1 1/2" & 1 3/4"	New	H27	2 10 1/4

The level of detail is clearly evident and yet there is a anomaly straight away- why is a new iron pipe of 1 1/2" or 1 3/4" cheaper than the 1" version?

The sheet goes on to show the number of each component repair or renewal for each locomotive on a week ending basis. The sheet should also show the actual date

when work started and the final inspection date but this information is often omitted.

Appended to two records are additional documents that appear to be parts requisitions from Swindon Works. The reasons for these are not evident. A complete 'one off' is an internal Copper Shop docket for a 'hand repair' to the chimney of 5605 at a cost of 10/8.

What all the precise accounting brought to the railways is unclear. Given the time that all the record keeping must have taken it is difficult to believe that it was cost effective. Maybe it was a case of that old adage 'Penny wise, Pound foolish'

Table I Locomotive arrivals – Barry Works

Week Ending	Loco Number	Home depot
3/4/54	4636	Westbury
	4694	Danygraig
10/4/54	3656	Llantrisant
	4641	Kidderminster
17/4/54	3739	Swindon
8/5/54	376	Cardiff East Dock
	1611	Neyland
	5604	Landore
12/6/54	362	Cardiff Cathays
10/7/54	1406	Gloucester
21/8/54	5605	Merthyr
28/8/54	4667	Cardiff Cathays
18/9/54	3708	Pontypool Road
	5613	Treherbert
3/10/54	347	Cardiff Cathays
23/10/54	4614	Kidderminster
6/11/54	397	Abercynon
18/12/54	1605	Worcester
	3711	Aberbeeg
25/12/54	3755	Cardiff Canton
5/2/55	1602	Neyland
26/2/55	357	Barry
	3781	Danygraig
5/3/55	3720	St Phillips Marsh
12/3/55	399	Abercynon
2/4/55	4632	Merthyr
16/4/55	386	Abercynon
30/4/55	5601	Cardiff Cathays
14/5/55	5624	Tondu
22/5/55	1615	Barry
28/5/55	378	Cardiff Cathays
4/6/55	1601	Neyland
9/6/55	3735	Westbury
14/7/55	1607	Llanelly
20/8/55	5607	Treherbert
27/8/55	1609	Llanelly

10/9/55	4659	Gloucester
	4692	Barry
8/10/55	1452	Goodwick
	4626	Cardiff East DOck
22/10/55	390	Barry
3/12/55	5609	Barry
10/12/55	5619	Barry
17/12/55	4601	Barry
7/1/56	5623	Abercynon
14/1/56	387	Barry
21/1/56	1428	Southall
3/3/56	1633	Llanelly
	4686	Cardiff East Dock
10/3/56	1144	Swansea East Dock
24/3/56	1637	Neyland
7/4/56	1102	Danygraig
	4634	Cardiff Cathays
28/4/56	5418	Gloucester
5/5/56	1639	Gloucester
19/5/56	4684	Llanelly
26/5/56	1644	Llanelly
16/6/56	4678	Hereford
23/6/56	5616	Swansea East Dock
14/7/56	1630	Gloucester
28/7/56	1463	Bristol Bath Road
4/8/56	1409	Gloucester
	3719	Llanelly
18/8/56	4631	Cardiff East Dock
15/9/56	5615	Merthyr
22/9/56	1626	St Blazey
29/9/56	3797	Landore
6/10/56	1421	Ebbw Junction
27/10/56	1601	Neyland
	4699	Neyland
10/11/56	3694	Cardiff Cathays

Table 2 Decimal Equivalentents

¼- Farthing	0.1p
½ Halfpenny	0.2p
1d One Penny	0.4p
1/- One Shilling	5p

Locomotive Records.

No 357

Copper shop record opened 25 February 1955

Final examination 8 March 1955

Items for attention

		Code	Cost each	Qty
Air Pump Pipes 1 1/4"	Repair & Anneal	B59	1/1 1/4	5 off
Steam Brake Pipes 3/4" or 1"	Repair & Anneal	B59	1/1 1/4	1 off
Steam Heating pipe copper 1"	Repair	H19	1/0 1/2	1 off
Collar for above	New	P32	6 3/4	1 off
Injector Waste pipe	Soften, test & Repair	I 12	1/6 1/4	2 off
Melt off flanges on above		P93	6 1/4	2 off
Lubricator pipe 3/8" or 1/2"	Repair	P68	3 1/2	1 off
Copper end, new for above	Braze on	P85	6 3/4	1 off
Axlebox syphon 1/2" or 5/8"	Repair	P130	5 1/2	5 off
Melt off flanges on above		P93	6 1/4	2 off
Flange up to 2 1/2" dia	New	P88	2/0 1/2	3 off

No 1102

Copper shop record opened 6 April 1956

Final examination 14 April 1956

		Code	Price each	Qty
Injector Copper Feed pipe 2"	Soften, test and repair	I 12	1/6 1/4	2 off
Flange Brass for above	Melt off	P90	2 1/2	2 off
Flange up to 2 1/2" dia for above	New	P88	2/0 1/2	2 off
Injector Waste pipe	Soften, test & Repair	I 12	1/6 1/4	2 off
Melt off flanges on above		P93	6 1/4	1 off
Flange up to 2 1/2" dia for above	New	P88	2/0 1/2	1 off
Sand Pipe	Repair	S30	1/2	4 off
Melt off flanges on above		P93	6 1/4	2 off
Flange up to 2 1/2" dia for above	New	P88	2/0 1/2	3 off

It appears that the locomotive did not leave the works at this time as there is then a docket from Swindon Works for additional items. This was raised on 4<sup>th</sup> May and the items were inspected on 12 May. They no doubt then had to go to Barry for fitting. These items are detailed below.

		Code	Price each	Qty
Blower Pipe	New	P15	5 1/4	1 off
Collar on above	Fit	P85	6 3/4	1 off
Smoke box pipe	New	S82	2/5 1/2	2 off
Flange for above	Braze on	P89	2/5 1/2	1 off
Coal Water pipe	New	P82	8 3/4	1 off
Lubricator pipe 1/2"	New	P68	3 1/2	2 off
Coal Water Pipe	Fit new end	P85	6 3/4	1 off

No 1463

Copper Shop record opened 27 July 1956  
Final Examination 11 August 1956

		Code	Price each	Qty
Air Pump pipe 1 1/4"	Repair & Anneal	B59	1/1 1/4	2
ATC Signal pipe 1" copper	Repair	P43	8 3/4	2
New copper end for above	Braze on	P85	6 3/4	1
ATC Signal pipe 3/8" copper	Repair	P68	3 1/2	3
Steam Brake pipe 3/4" & 1"	Repair & Anneal	B59	1/1 1/4	2
Collar for above	New	P32	6 3/4	1
Saddle for above	New	S1	1/1 1/4	1
New copper end for above	Braze on	P85	6 3/4	1
Steam Lance pipe	Repair	P43	8 3/4	1
Flange for above up to 2 1/2" dia	New	P88	2/0 1/2	1
Blower pipe 1"	Soften & Repair	B5	5 1/4	2
New end copper for above	Braze on	P85	6 3/4	1
Ejector Vacuum SB pipe 2 1/4"	Soften & Repair	E2	1/1	2
Flange Brass for above	Melt Off	P90	9 1/2	2
Flange for above up to 2 1/2" dia	New	P88	2/0 1/2	2
Ejector Vacuum SB pipe 2 1/4"	Alter & Refit	E19	5/01 1/2	1
Drip pipe	Repair	E8	5	7
Steam Heating pipe 1" copper	Repair	H19	1/0 1/2	6

Collar for above	New	P32	6 ¾	1
New end copper for above	Braze on	P85	6 ¾	1
Flange Brass for above	Melt Off	P90	9 1/2	1
Flange for above up to 2 ½" dia	New	P88	2/0 1/2	2
Injector Feed Pipe 2" Copper	Soften, Test & Repair	I 12	1/6 1/4	9
Collar for above	New	P32	6 ¾	2
Saddle for above	New	S1	1/1 1/4	1
Flange Brass for above	Melt Off	P90	9 1/2	6
Flange for above up to 2 ½" dia	New	P88	2/0 1/2	6
Injector Waste Pipe	Soften, test & Repair	I 12	1/6 1/4	2
Iron pipe 1"-2 ½"	Bend	P100	1/7 1/2	2
Iron Pipe 1 ¼"-1 ½"	Weld	P42	10 ¼	2
Flange Iron	Melt Off	P93	6 1/4	1
Flange for above up to 2 ½" dia	New	P88	2/0 1/2	1
Injector Waste Pipe	Alter & Refit	I 10	5 1 1/2	2
Sand Box steam pipe	Soften, Clean & repair	S82	2/5 1/2	2
Sand Box steam pipe cones	Braze on	S100	4/5 1/4	4
Cylinder Cock Pipe	Repair	C113	5 1/4	1
Coal Water Pipe ½"	Repair	P82	8 3/4	2
New end copper for above	Braze on	P85	6 ¾	2
Lubricator pipe 3/8" & ½"	Repair	P68	3 1/2	9
New end copper for above	Braze on	P85	6 ¾	4
Lubricator pipe ¾"	Repair	P125	8 3/4	6
New end copper for above	Braze on	P85	6 ¾	4
Condensing Pipe ½"	Repair with new end	P120	1/ 3 3/4	2
Pressure Gauge pipe 3/8"	Repair	P68	3 1/2	3
New end copper for above	Braze on	P85	6 ¾	2
Steam Whistle pipe ¾"	Repair	P43	8 3/4	2
New end copper for above	Braze on	P85	6 ¾	1
Sand pipe	Repair	S30	1/2	4
Flange Iron	Melt Off	P93	6 1/4	2
Flange for above up to 2 ½" dia	New	P88	2/0 1/2	4
Brake Gear Vacuum pipe 2 ¼"	Repair	B75	1/5 1/2	5
Flange for above up to 2 ½" dia	New	P88	2/0 1/2	2
Helmet Dome	Repair	D9	2/4	1
Safety Valve Cover	Repair	S7	1/7	1

No 4692

There is no Barry Works sheet available for this locomotive. However there is a Swindon docket raised on 29 September 1955

		Code	Price each	Qty
Feed pipe Copper	Repair	I 12	1/6 1/4	1 off
Flange up to 2 1/2" dia for above	New	P88	2/0 1/2	2 off
Injector Waste Pipe	Repair	I 12	1/6 1/4	2 off
Iron Pipe	Weld	P42	10 1/4	2 off
Waste Water Flange	remove	P93	6 1/4	1 off
Flange up to 2 1/2" dia for above	New	P88	2/0 1/2	1 off
Steam Heat pipe 1 1/2"	new	H19	1/0 1/2	1 off