

LIONSHEART

Number 39

MARCH 1996

The Editor's Bit

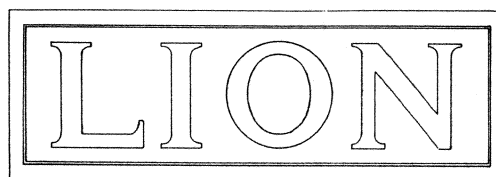
I received some mild but useful criticism recently as a direct result of the Model Engineer Exhibition. I was so proud of the drawing that I'd produced for the OLCO stand that I hadn't checked the lettering on the Lion nameplate or on the drawing headline. As the original drawing progressed, I tended to leave in chain dot those items that I had not measured accurately from the prototype, as an indication that work in that area was still required. So it was with the nameplate. However, when the need for a drawing at the exhibition became apparent, I took a copy of the drawing in progress (so easy with computer aided draughting), changed most of the chain dot to solid, blacked in the nameplate lettering and printed it off. The tender, which I have not begun to measure yet was copied onto the print with black biro from a Charles Taylor-Nobbs drawing on page 440 of Model Engineer dated 19th April 1985. The whole lot was then blown up on an industrial plan printer (really just a giant photocopier) and sent to Peter Gardner, who took it, with every model displayed on our stand, up to Olympia.

No sooner had the exhibition opened it seemed than I received a letter from David Barton of Ipswich, pointing out that the 'N' on my drawing had a serif where no serif should be. Mr Barton, a former lecturer in graphic design, very kindly drew for me a correct nameplate (from a photograph), which I reproduce here, along with my rather inadequate early attempt. It's obvious which is correct, when you see them side by side. My thanks to Mr Barton for this useful contribution and no, he has not joined OLCO, though he knows a man who has (Welcome, Lionel Waldrige, of Ipswich MES.). To those who have purchased the part finished GA of Lion and are waiting for your free update, I will correct the error before sending out more prints.



MINE

In this issue...



A GOOD ONE

(by David Barton)

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Now it's official - the AGM this year is confirmed for Saturday, 18th May at 4.00pm at the Lion Inn and Stores, Waters Upton, about 7 miles along the A442 north of Telford in Shropshire. A photo and brief details of venue appeared on page 11 of the last issue of Lionsheart. The meeting will be followed by the Annual Dinner at 6.30pm, early enough for those who need to get home to leave at a reasonable time. Our hosts will be Chris and Terry Arnold and the price for the four course meal will be £9.00. Chris tells me that the menu will be "Lionised"! (And it is, see next page). This should be a very good evening out. Places to stay?.....Charles has given me two addresses-

- a) Robert and Virginia Evans, Single.....£18.00
Church Farm, Twin bedroom..£15.00 per person;
Rowton, Double en-suite bedroom....£18.00 per person.
Telford. Tel: 01952 770381.

- b) The Travelodge, Whitchurch Road, Telford, @ £34.00/room. Tel:01952 246534.

Of course, wherever we go for our AGM, we try to choose a location which offers local items of interest to members. Shropshire is no exception. Five miles South of Telford is the very interesting area known as The Ironbridge Gorge Museum, through which flows the river Severn. The bridge itself is well worth seeing, being cast locally, but there are so many things to see that perhaps the list below is the best way to show what is available.

There is plenty to see on the Saturday before the AGM if you so wish but before we get to the list, let me say that those who visit any of the Ironbridge museums on Saturday should meet at 3.00pm at the exit from Blists Hill Open Air Museum. Those with cars should help to transport those without to The Lion Inn. At the back of this newsletter you will find a questionnaire which will include questions on transport requirements and availability among other matters. See pages 7 & 8 for train and bus times, which have been taken from the Telford Public Transport Guide. Ring Shropshire Traveline 0345 056785 for confirmation of times closer to the date. And now, The List..... Entry prices given below are for adults, senior citizens and children respectively to individual sites. However, "Passport" tickets are available for £8.95; £7.95 & £5.30. These are valid indefinitely until each site has been visited once. See pages 4 to 6 for maps, etc.

Blists Hill Open Air Museum

(Working Steam Engines on the Saturday of our visit). - £6.20; £5.20 & £4.00;
Coalport China Museum - £3.20; £2.70 & £2.00;
Jackfield Tile Museum - £3.20; £2.70 & £2.00;
Coalbrookdale Iron Museum(inc. Rosehill & Dale House) - £4.00; £3.50 & £2.50;
Tar Tunnel - £1.00; £0.80 & £0.50;
Museum of the River - £2.00; £1.80 & £1.50.

All are open from 10.00am until 5.00pm, most have free car parks and cafe and restaurant facilities are available at Blists Hill and Coalbrookdale. Don't forget - If you intend to visit more than two items it may be worth getting the "passport" ticket(Even if you can't get round it all this weekend, you can use it later). For further information, contact -

The Ironbridge Gorge Museum,
Ironbridge,
Telford, Tel. 01952 433522 weekdays,
Shropshire, 01952 432166 weekends.
TF8 7AW.

I should add that we hope to organise a visit to the site of Abraham Darby's smelting works at Coalbrookdale on the Sunday. We may see some casting activity. Charles is enquiring as to the possibility of getting sets of Lion wheel castings done, but to date I have no further information. Anyone interested should give Charles a ring on 01948 663710.

O.L.C.O.
AGM
MAY 18th

LEEK AND POTATO SOUP

The genuine Ealing studio recipe devised to douse lineside fires during the filming of "The Tiffid Thunderbolt"

HOMEMADE PATE

An 1888 Todd Kitson and Laird recipe found useful for caulking a leaking boiler.

=====

RUMP STEAK

A locally supplied steak cooked in an upturned banjo dome of A8 no. 2582 "Sir Hugo"

SALMON STEAK

Salmon raised in a GWR water tower and fully grown in Princes Graving Dock.

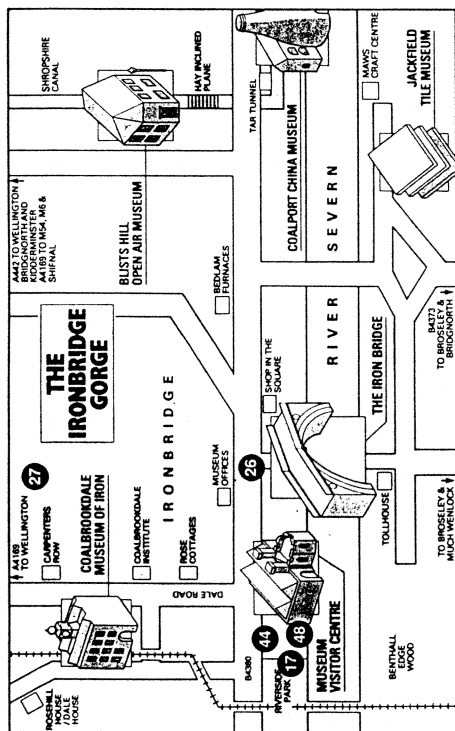
MIXED GRILL

"Tender" pieces of meat griddled on a regulation fireman's shovel wiped only with LMS cotton waste.

Why not finish your meal with sweets or cheese & biscuits then coffee with mints served on the brakevan verandah.

A Lion – Sized Appetite production

Tourist Information and Places to Visit



INDUSTRIAL HERITAGE
 Museum of the River
 Museum of Iron
 Blis Hill Open Air Museum
 Tar Tunnel
 Coalport China Museum
 Jackfield Tile Museum
 Rosehill House
 Dale House

ABBEYS, CASTLES & RUINS

- 1 Acton Burnell Castle
- 2 Bridgnorth Castle
- 3 Buildwas Abbey
- 4 Haughmond Abbey
- 5 Lilleshall Abbey
- 6 Much Wenlock Priory
- 7 Shrewsbury Abbey
- 8 Shrewsbury Castle
- 9 Whiteclad Priory
- 10 Wroxeter Roman City

CHURCHES

- 11 Church of St Bartholomew, Tong
- 12 Church of St Chad, Shrewsbury
- 13 Church of St Mary, Acton Burnell
- 14 Church of St Michael, Madeley
- 15 Church of St Nicholas, Newport
- 16 St Mary's Church, Shrewsbury

COUNTRY PARKS & GARDENS

- 17 Dale End Park
- 18 Granville Country Park
- 19 Hawkstone Historic Park & Folies
- 20 Hodnet Hall
- 21 Telford Town Park

MUSEUMS

- 22 Bridgnorth Costume & Childhood Museum
- 23 Daniel's Mill
- 24 Energy Education Centre
- 25 Ironbridge Gorge Museum
- 26 Ironbridge Toy Museum
- 27 Open Air Museum of Steel Sculpture
- 28 Rowley's Museum

FARM ATTRACTIONS

- 29 Hoo Farm Animal Kingdom
- 30 Ray's Farm Country Matters
- 31 The Wrennas Collection

SHOPPING

- 32 The Telford Centre
- 33 The Victorian Arcade, Shrewsbury
- 34 Wellington Market

STATELY HOMES

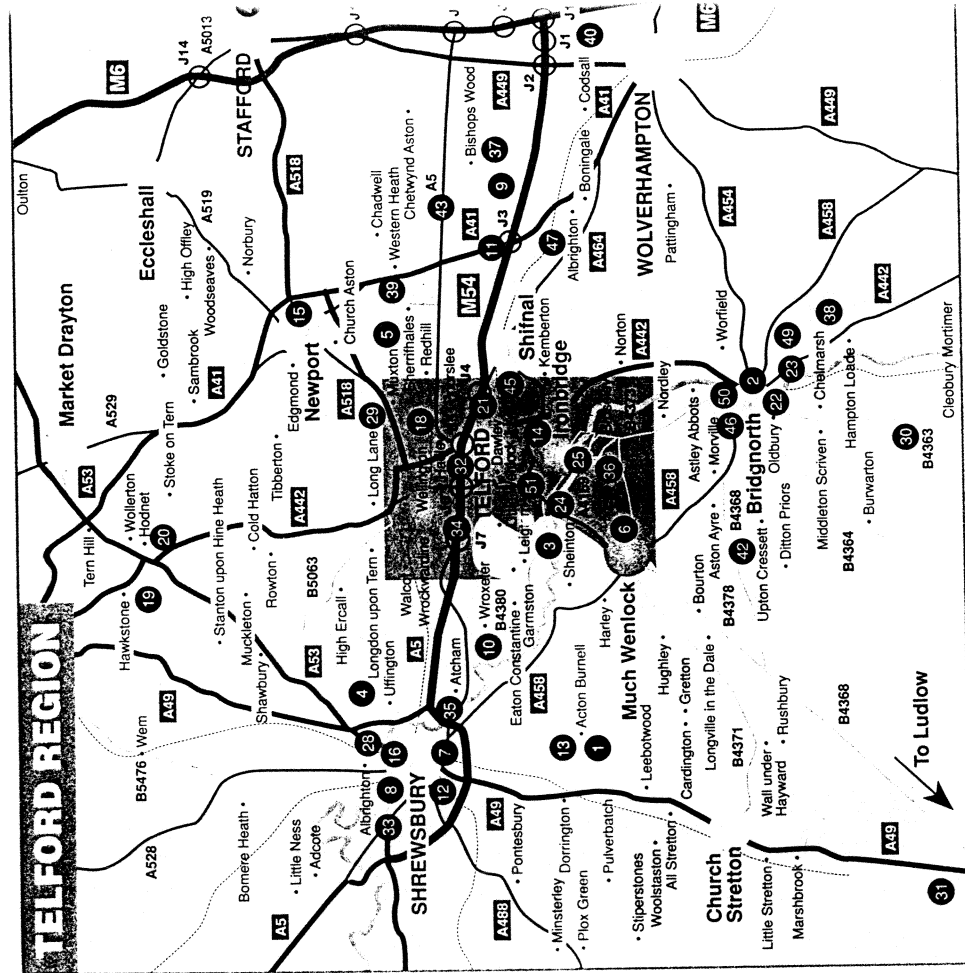
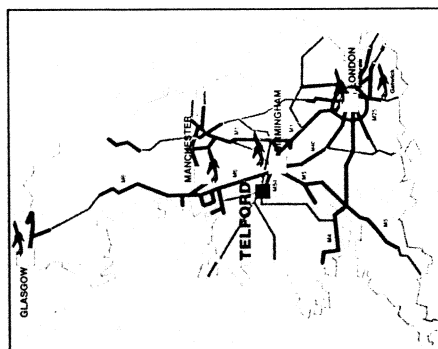
- 35 Attingham Park
- 36 Bentall Hall
- 37 Boscombe House
- 38 Dudmaston Hall
- 39 Lilleshall Hall
- 40 Moseley Old Hall
- 41 Shugborough Hall
- 42 Upton Cressett Hall
- 43 Weston Park

THEME PARKS / ATTRACTIONS

- 44 Underwater World
- 45 Wonderland

TRANSPORT & TRANSPORT MUSEUMS

- 46 Bridgnorth Cliff Railway
- 47 Coalbrookdale Museum
- 48 Ironbridge Gorge River Trips
- 49 Midland Motor Museum
- 50 Severn Valley Railway
- 51 Telford Steam Railway



TOURIST INFORMATION CENTRES

The Ironbridge region is covered by a network of local Tourist Information Centres, where you can find fully updated details of all local events and attractions. This is where you'll find out about special exhibitions and festivals, and in most centres you can book your tickets for a wide range of local events.

IRONBRIDGE

The Wharfage, Ironbridge.
 Tel: 01952 432166
 Open: Weekdays Mon-Fri 10.00am-5.00pm; Sat 10.00am-4.00pm; Sun 11.00am-4.00pm
 Summer: 9.00am-6.00pm

BRIDGNORTH

The Library, Lacey Street, Bridgnorth.
 Tel: 01746 703535
 Open: All year-round Mon/Tue/Wed/Fri/Sat 10.00am-5.00pm; Sun 11.00am-4.00pm
 Summer: 9.00am-6.00pm

THE TELFORD CENTRE

Information Centre, The Telford Centre
 Tel: 01952 291570 Fax: 01952 291793
 Open: All year-round Mon-Sat 9.00am-6.00pm; Sun 10.00am-5.00pm

SHREWSBURY

The Music Hall, The Square, Shrewsbury
 Tel: 01743 350700
 Open: All year-round Mon-Sat 10.00am-5.00pm; Sun 11.00am-4.00pm

MUCH WENLOCK

The Museum, The Square, Much Wenlock, Shropshire, TF13 6HR
 Tel: 01952 727679
 Museum open: April-end Sept. Not open weekends until June, July & August.

WOLVERHAMPTON

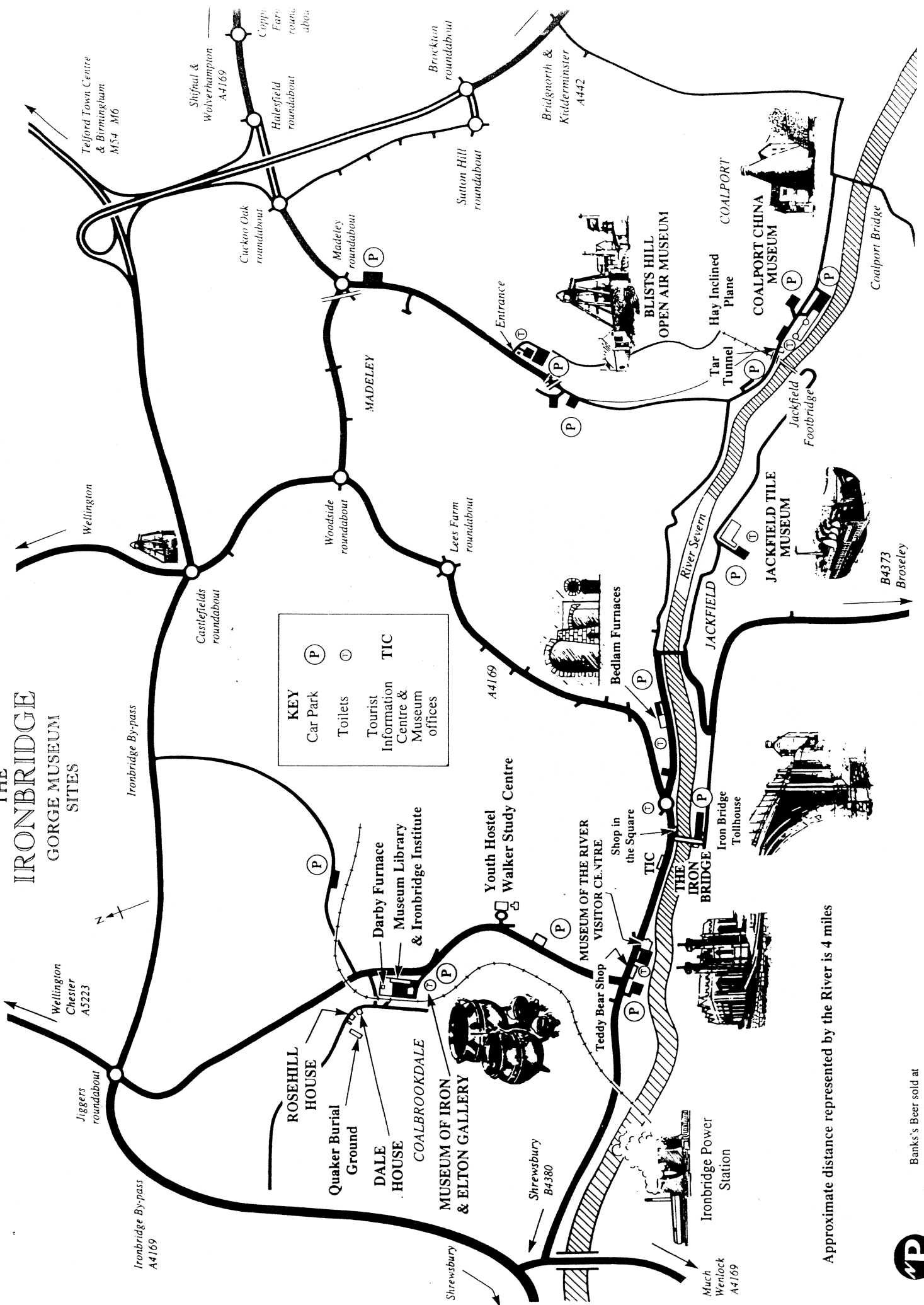
1 Landan Court, Tan Bank, Wellington
 Telford TFI LHE

TOURIST INFORMATION POINTS

SHREWSBURY
 The Music Hall, The Square, Shrewsbury
 Tel: 01743 350700
 Open: All year-round Mon-Sat 10.00am-5.00pm; Sun 11.00am-4.00pm
 Summer: 9.00am-6.00pm

TIC open April-Oct 10.30-1.00pm, 2.0-5.00pm weekdays, Sun 10.30am-2.00pm during June/July & August.

THE
IRONBRIDGE
GORGE MUSEUM
SITES

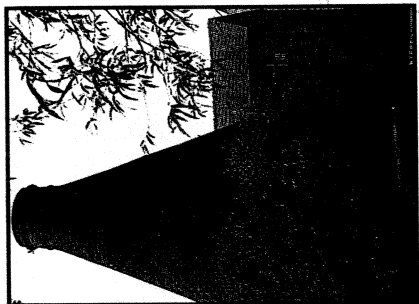
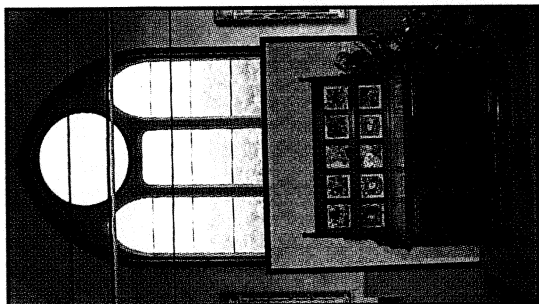
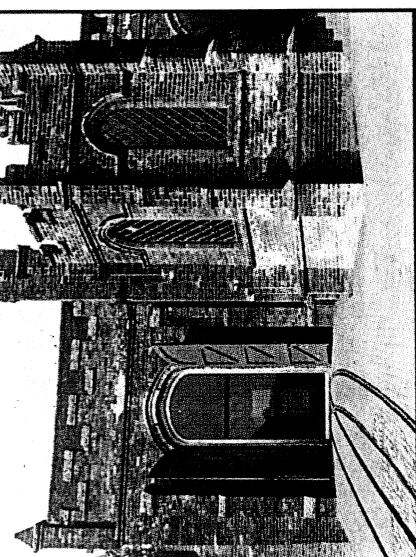


Approximate distance represented by the River is 4 miles

Banks's Beer sold at
The New Inn & The Forest Glen
at Blists Hill

National Power

A PASSPORT TICKET ADMITS TO ALL MUSEUMS



184

180

180

180

NS Not Saturdays

U Stops to pick up only

•

25.09.95

180

180

180

180

180

P Departs 10 minutes later on Mondays to Fridays

25.09.95

180

BIRMINGHAM - TELFORD - IRONBRIDGE - SHREWSBURY

X96, 96
Hotspur Midland Red, Timeline, Williamsons

Mondays to Saturdays

Operator:	WIL	WIL	WIL	WIL	SB	WIL	WIL	WIL	SB	WIL	WIL
Service No:	X96	X96	X96	X96	HOT	X96	X96	X96	TML	X96	X96
Code:	NS		S		F	NS	S		NS	S	NS
BIRMINGHAM, Bus Station, Stand 20	..	..	0945	1045	..	..	1245	1445	..	1745	1845
Birmingham, rear of Coach Station	..	..	0947	1047	..	..	1247	1447	..	1747	1847
TELFORD TOWN CENTRE, Bus Stn, Std H	0720	0930	1030	1130	1237A	1330	1330	1530	1630	1830	1930
Randlay, Brands Farm Way	0723	0933	1033	1133	..	1333	1333	1533	1633	1833	..
Stirchley, Churchway	0725	0935	1035	1135	1247A	1335	1335	1535	1635	1835	..
Blists Hill, Museum Entrance	..	..	1043	..	..	..	..	1543	1643	..	..
Madeley, Court Street	0733	0943	1048	1143	1255	1343	1343	1548	1648	1843	..
Woodside, Elizabethan Inn	0740	0950	1055	1150	..	1350	1350	1555	..	1850	..
Ironbridge, Museum of the River	0746	0956	1101	1156	1301	1356	1356	1601	1656	1856	..
Buildwas, Bus Shelter	0753	1003	1108	1203	1308	1403	1403	1608	1703	1903	..
Leighton, Kynnersley Arms	0757	1007	1112	1207	1312	1407	1407	1612	1707	1907	..
Eaton Constantine	0800	1010	..	..	..	1410	1410	..	..	..	..
Wroxeter, Roman Town	0807	1017	1117	1212	1317	1417	1417	1617	1712	1912	..
Atcham, Mytton and Mermaid Hotel	0810	1020	1120	1215	1320	1420	1420	1620	1715	1915	..
SHREWSBURY, Bus Station	0830	1035	1135	1230	1335	1435	1435	1635	1730	1930	2000

Code:

A Service 974
F Fridays only
NS Not Saturdays
S Saturdays only

SB Shropshire Bus - subsidised
by Shropshire County Council
T Tuesdays only
() Timing point served out of normal order

Operator:

HOT Hotspur Midland Red
TML Timeline
WIL Williamsons
02.01.96

For service on Sundays and Public Holidays, see overleaf

For alternative services between Telford and Shrewsbury, see routes 80, 81, 84

For alternative services between Birmingham and Shrewsbury, see routes 520, 521, 522

Days or Public Holidays

For alternative services between Wellington and Wolverhampton, see route 892

WOLVERHAMPTON - TELFORD - IRONBRIDGE - WELLINGTON

894, 895
Elcock Reisen, Tellus Midland Red

Mondays to Saturdays

Operator:	TEL	SB	SB	SB	SB	TEL
Service No:	893	895	895	895	896	894
Code:	NS				W	
WOLVERHAMPTON, Bus Stn, Std 1	..	0855	..	..	1430G	1730
Priories, Powell Road	..	0923A	..	..	..	..
TELFORD TC, Bus Stn, Std H	..	0930	1130	1430	..	1800
Hollinswood, Dallamoor	..	..	..	..	..	1803
Randlay, Centre	..	..	..	..	..	1805
Stirchley, Churchway	..	..	..	..	..	1808
Brookside, Burford	..	..	..	..	..	1810
Madeley, Court Street	0813	0940	1140	1440	1510H	1818
Blists Hill, Museum Entrance	..	0944	1144	1444	..	..
Coalport, Riverside Avenue	..	0948	1148	1448	..	..
Woodside, Elizabethan Inn	0819	..	..	..	1520	1824
Ironbridge, Museum of River	0825	0955	1155	1455	1525	1830
Coalbrookdale, School Road	0830	1000	1200	1500	..	1835
Coalbrookdale, Sunnyside	..	..	..	..	..	..
Horsehay, Cross Roads	0834	1004	1204	1504	..	1839
Lawley, Church	0844	1009	1209	1509	..	1844
Wellington, Regent Street	..	..	..	..	..	1851
WELLINGTON, Bus Station	0854	1017	1220	1520	..	1854
Wellington, Wrekin Hospital	..	..	1222S	1522	..	..
Wellington, Falcon Hotel	..	..	1225S	1525	..	..

Code:

A Not Saturdays
G Services Salop Street NOT Bus Station
H Serves Hills Lane and The Maddocks
NOT Court Street
S Saturdays only

NS Not Saturdays
SB Shropshire Bus - subsidised by
Shropshire County Council
W Wednesdays only

Operator:

ELC M H Elcock & Son
ELR Elcock Reisen
TEL Tellus Midland Red
02.01.96

No service on Sundays or Public Holidays

For alternative services between Wellington and Wolverhampton, see route 892

I announced on page fourteen of the last issue of Lionsheart that we were planning to hold Lionsmeet '96 in Bristol on the 11th or 18th of August. Unfortunately, Bristol are busy on every Sunday during August so we have fixed the date for Saturday, 17th August, still in Bristol. Bristol have a ground level 7 1/4" track of 1543 feet and a raised 5" & 3 1/2" track of 1644 feet, all with steel rails. Facilities are good and what makes Bristol an undeniable attraction is its setting in a fairly secluded part of the extensive Ashton Park, part of the previous Smythe estate. There are wonderful views to the South, West and East over the city. Brunel's Clifton suspension bridge is within ten minutes walking distance and about 15 minutes drive away is that other Brunel masterpiece, the Great Britain. His train shed at Temple Meads railway station is a little further, near the city centre. There are so many other things to see. Why not make a weekend of it? First though, put the date in your diaries and don't forget, any loco whose prototype was built before 1851(The year of the Great Exhibition) is welcome to come and run on the track, though only Lions are eligible for the trophy. I will give more details in the next issue of Lionsheart.

Of course this meeting should be a trial of titans - the competition between the 7 1/4" gauge Lions of Geoff Wright and Peter Gardner. As you will recall, this meeting was to have taken place last year at Sutton Coldfield, but sadly a combination of rather heavy rolling stock and mechanical breakdown rendered a competition impractical. In any case the results would have been rather difficult to quantify. After all, even a "large" Lion is still quite a small machine, with a tractive effort of only some 30 to 35lbs. True, the 5" Lions are even less powerful, but they were pulling much lighter stock. Anyway, this is a problem which I am sure we can overcome for the Bristol meeting.

Another problem which would be good to overcome would be the rather spartan turnout of competitors at recent Lionsmeets. There must surely be several Lion owners among our readers? Get them out. Dust them down. Make them work for you. They can be returned to their pedestals later - perhaps with a trophy - certainly with memories of a friendly and interesting meeting. If you don't have a Lion, can you borrow one, or persuade one of the competitors to let you have a drive? Think about it. I look forward to meeting you in Bristol.

For details of track plans, how to get there, places to see, places to stay.....see the next issue of Lionsheart. However, to get your adrenalin going and perhaps to set you a challenge, I include below the Roll of Honour of Chairmans Trophy winners to date..

Year	Winner	Venue
1985	David Neish	Guildford
1986	D. Gadsby	Warrington
1987	Jim Mercer	Dinting
1988	---	Not Contested(Why not - anybody know?)
1989	Mike Parrott	Cheltenham
1990	Mike Parrott	Warrington
1991	Mike Parrott	Welling
1992	David Neish	Chesterfield
1993	Bob Davies	High Wycombe
1994	Mike Parrott	Frimley
1995	Mike Parrott(Again!)	Sutton Coldfield

The above as far as I know, were all 5" gauge, but we now have two 7 1/4" Lions. There is a separate trophy for these, a cup, donated by Geoff Wright and David Neish. This was first won by Peter Gardner last year at Sutton Coldfield, as reported in Lionsheart no. 38.

The 65th Model Engineering Exhibition at Olympia

This was OLCO's first presence as far as I know as an actual exhibitor. We took advantage of an offer made in Model Engineer No. 3998, page 139, targetting small societies and the like for whom the effort and expense of providing and manning a stand at the exhibition would be impractical. Under this offer they could enter models in the Loan Section. These would then be stewarded along with the other loan items. I have been unable to find out how many others took up the idea, which to me seems quite a good one. However, there is still the not inconsiderable task of mustering material for the display, getting it there and then collecting and dispersing it afterwards. This unenviable job fell to Peter Gardner, to whom I offer many thanks on behalf of all concerned. Peter drove many miles on our behalf and put in hours of hard work to mount a pretty fair display. I took photos of our stand and hoped to reproduce them here, but photography not being my strong point, I have to confess that on being developed they had all the appearance of an ancient locomotive yard in a pea-souper at night. By the time they had undergone the photocopying process there would have been nothing to see!

Anyway, I did see some people at our stand and have received some correspondence. Also, our membership has increased so all was not in vain. I hope we get the chance to do it next year. Perhaps I'll take up photography in the meantime!

The OLCO stand displayed Bob Grimshaws 3 1/2", David Neish's 5" and Geoff Wright's 7 1/4" Lions, Peter Gardner's Victorian coach driving trolley and Charles Taylor-Nobbs's wheel and other castings. Also on display were the very successful Peter Carr boiler for 7 1/4" Lions and a general arrangement drawing of Lion and tender scaled to about 10 1/4" gauge.

Elsewhere in the exhibition I noticed Jon Swindlehurst's prize winning 5" Lion, spotless as always, but no mean performer as Mike nearly found to his cost at last year's Lionsmeet at Sutton Coldfield. I am intrigued by the blue/grey tinge on the inside surface of the bronze chimney cap. How did you achieve this effect, Jon?

Lionpower by Mike Parrott

Now, after an absence from these pages of several months, I am pleased to include a further article in the Lionpower series, by our most successful Lionsmeet competitor to date. (Come on the rest of you).

It is some time since I wrote for these pages, for a variety of reasons, one being that having been made redundant from British Coal and having acquired a new job, I now have very little free time. Model Engineering has all but ceased, so I haven't had much new material to write up.

I think our Editor was very generous in his description of my performance at last years Lionsmeet. It was one of the worst days out we have had with Lion for many years! Not in any way due to our excellent hosts at Sutton Coldfield I hasten to add, who have made a lovely job of their ground level track, and the site in general. It is many years since I last visited their track, indeed it was one of the first tracks on which I ran Lion when it was completed in 1976/7. In those days there was only the raised track.

I had been having trouble all year with Lion misbehaving. She had lost at least 1.1/2 beats, sometimes 2.1/2, and had developed a tendency to rough running, almost locking up as she went over the dead centres. In the weeks up to Lionsmeet I had had her apart several times. The lost beats were traced to slack in the valve gear, in the right hand side due to a loose rocker shaft bearing, and the left was just worn a little in the die block. Steam pressure in the steamchest was acting on the ends of the valve rods, and keeping all the slack taken up in one direction. At high speed, inertia would help to throw the valves forward to open the back ports, and running would improve. In order to cater for slow speed running, I fitted springs to pull the valve spindles forward against the pressure, as I didn't have time to take the cylinder block out to attend to the loose rocker. This seemed to cure the problem temporarily.

The tight spot on dead centre seemed to come and go, but was felt to be due to a piston unscrewing off its rod. I had always had trouble with the left hand gland blowing, and had tried all sorts of means of preventing the gland from unscrewing. It had been out for so long now that the threads were damaged from rubbing on the front axle, and it wouldn't screw back in at all. I therefore had the left hand piston rod out, and made a new gland with radial holes into which a little bent wire hook drops. The other end of the hook is fixed to the guide bar bolt. The piston appeared to be tight on its rod, and the locking pin was present in the piston rod fixing. I left the right hand side alone as the last time I took the front cover off, it had cracked into two around the edge of the register, the bottom bolt hole being in a separate piece from the rest of the cover. I had refitted it with PTFE tape around the register, which made it steam tight, and I didn't want to disturb it again.

I had also had problems with water supply into the boiler, but that is part of another story!

So we went to Sutton Coldfield hoping that Lion would hold together for one more day, before hopefully I could find some time over the winter to give her some proper attention. Alas it was not to be. She started well enough, and I had a good run on the ground level track in the morning. Towards lunchtime Edward had a go, and came back to report that Lion had lost a beat again. A quick check revealed nothing seriously amiss so we carried on. After a second derailment in the tunnel leading from the station, she was sounding really sick, and we dropped the fire. Upending her in the steaming bays revealed that the weighshaft was bent upwards, lifting the foregear gabs partially out of engagement with the rockers. This is a regular problem on my Lion, as the weighshaft is slung very low to give maximum length to the backgear lifting links. The weighshaft does however prevent damage to the draincocks in the event of derailment. The repair method is to insert a strong bar between the cylinder block and the weighshaft and lever it back straight. Crude but quite effective. I think it was this operation which was shown in the photograph accompanying the article. We steamed up again and Edward had another run. A little later he dragged the engine back in, with the wheels locked solid, and the tender body torn from its mountings. She had locked up on him, and the sudden stop whilst he was resting on the tender had torn it loose from the frame. With the competition about to start, drastic remedial action was required. The lock up was soon tracked down to the right hand cylinder, so the front cover had to come off. Sure enough the piston was well

unscrewed from its rod, but it has two holes drilled in the front face, so a pair of snipe nose pliers was borrowed and the piston screwed up as tight as it would go. More PTFE tape was put round the broken cover and it was bolted back up with a prayer that it would still be steam tight. The tender body has four small brackets riveted to its underside, through which bolts pass to fix it to the frames. Three of these brackets had pulled the rivets out of the tender bottom, so we now had three 1/16th diameter holes in the tank. Water was running out of these almost as fast as we could expect to keep it full on the track. However, the show must go on! My brother produced a funnel which was a lovely tight fit in the tank filler, and a two litre water bottle. Armed with these we reckoned we could keep going. It came as something of a shock to discover that the competition had been doubled in length to twenty minutes!

Eventually my turn came so I selected my load and had a warm up lap or two. The pump decided to fail, and the injector would only work below about 50psi. I started the run, and found I had to take water every second lap. Chris did an excellent job retrieving the water bottle and getting it refilled each time for me. (The natives had been somewhat taken aback in the morning by the way we exchanged full mugs of tea on the run, and I would then whistle up to attract attention before placing the empty carefully on the ground behind where the family were sitting on the next lap.) Fortunately the gradients are not severe on the raised track, and I was able to devote virtually all my concentration on the fire and water levels. The valve events had gone off again (I subsequently found the springs had broken) and for some reason she was shy of steam. Fortunately this helped to keep the pressure in the range where the injector would work, but it required constant vigilance to keep the act together. By the end of twenty minutes I had had enough! I knew I had pulled a greater load than anyone else, but I had no idea how many laps I had done. It just seemed an awful lot! I was somewhat surprised to learn that in spite of such diabolical circumstances I had beaten the rest of the field. Someone said AGAIN.

In case you are thinking that my Lion is now past her best, I can assure you that over Christmas I managed to find time to give her a more thorough overhaul and she is now fit and well again, and ready for Lionsmeet 1996.

Some while ago I started a series on the various aspect where I had varied from the LBSC drawings. I will now pick up the threads again with a look at the Lubricator, and Water Pumps.

I never liked LBSCs position for the lubricator low down in front of the cylinder block, so originally I fitted a very small tank between the buffer beam and the smokebox door. Even so the drive arm and delivery pipe were visible in front of the cylinders. I have therefore copied David Neishs' idea and put a tank under the cab floor. However mine differs in several respects from Davids'. Mine is driven by a fork engaging on a small eccentric turned on the back of the right hand trailing wheel. The tank is filled through a pipe extending out sideways above and behind the trailing wheel. There is a sight glass fitted on the rear of the tank for checking (with difficulty!) how much oil is left. However the tank is large enough for a full days run, so it is not really a problem. An overflow pipe is fitted to the tank, to act as an air vent when pumping oil in. This pipe is arranged in the manner of a Chinese ink well, so that if the engine is upended for maintenance, the oil cannot run out of the

tank. The pump itself is mounted externally to the tank, and is of a type invented by Jim Ewins, and described in Engineering In Miniature. It comprises a ram working up and down between O ring seals which act as metering points. The delivery can be adjusted down to quite small levels, avoiding the dreaded Black Measles usually associated with LBSC type oscillating pumps. Both the original pump, and its replacement are driven by home made roller clutch type drives, rather than ratchet drives.

The water pumps have been the cause of much trouble over the years, and I have several spares lying around the workshop. Originally I fitted two pumps as per big sister, intending not to fit an injector. However I fitted one of those as well, and it has saved the day many a time. The right hand pump as designed by LBSC totally screws up access for the reach rod, so in the last rebuild I dropped this pump out and fitted a new reach rod on a much more direct run. Because of the proximity of the crank webs, the valve boxes cannot be fitted at the highest point of the water space on the pump on the full size, and LBSC copied this feature on his pumps. I had a lot of trouble with the pumps failing to prime, which I put down to an air bubble trapped in the highest part of the pump. I have therefore shortened the barrel slightly and managed to get the valve box on the back end of the pump, just clear of the crank web.

I am one of those people who can never seem to get a clack valve to stay water tight for very long, if at all. Over the years I have tried all sorts of valves. After the initial stainless balls, I made tiny wing valves with O ring seals on the valve. These were satisfactory for a while, but then tended to jam shut. I think I then went back to balls, but then a colleague at the Swansea club seemed to have a lot of success with Schraeder valves. I made up a set of these, and they worked for a while. Eventually the little rubber seals get hammered to bits, or they stick. I have now started using Nitrile rubber balls, which seem to work quite well. You have to make sure that the seat is a little smaller than for a steel ball though, or the ball might get squeezed down the hole! This happened to me once with a commercial pump that I had put a rubber ball in, and was using for a hydraulic test. It was a dickens of a job to get the pump apart and get the ball out!

Membership Renewal

It's surprising how quickly this particular part of the year comes around. However, I hope you are able to give your support for a further year. Don't forget, if you wish to advertise, express a point of view, contribute an article or impart a tip on a topical subject, just drop me a line - my address is at the back of every newsletter. The subscription rates have not increased this year. Please fill in the form which accompanies this issue and send it off to the Treasurer. There are also questions about AGM attendance and transport arrangements. I look forward to meeting you at The Lion Inn on May 18th, or later on in Bristol at Lionsmeet '96.

Lion in Model Engineer

Many of you may be building Lions of various gauges to the "Words and Music" and indeed the drawings of the late LBSC, or Curly to some. Although the data and techniques available now are perhaps in advance of what he offered, his series of articles in Model Engineer still offer the most complete, in fact the only, set of instructions for this locomotive. Below is a list of the articles and the issues in which they appeared, along with correspondence arising. The list is complete as far as I know, but I will be pleased to add to it if any more information should come to light.

Date	Vol/Issue	Pages	Title
16/04/53	108/2708	469	The Titfield Thunderbolt
11/06/53	" /2716	698-701	1. Frames
02/07/53	109/2719	2-5, 8	2. Motion Plate- Wheels
23/07/53	" /2722	95-99	3. Cranks- Rods- Springs
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22/10/53	" /2735	492-495	8. Eccentrics
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03/12/53	" /2741	656-659, 662	10. Reversing Shaft- Links
17/12/53	" /2743	726	-- Letter from M H Cox
24/12/53	" /2744	758-762	11. Gear Lever- Lubricator
14/01/54	110/2747	28-31, 34	12. Boiler
04/02/54	" /2750	124-127, 131	13. Boiler, 5" Gauge
11/02/54	" /2751	160	-- Letter from R F J Pounds
25/02/54	" /2753	214-217	14. Boiler Tubes
18/03/54	" /2756	291-293, 296	15. Dome- 3 1/2" Lubricator
08/04/54	" /2759	381-383, 392	16. Blower- Boiler Stays
29/04/54	" /2765	551-553	18. Regulator- Superheater
10/06/54	" /2768	653-656	19. 5" Gauge Regulator
01/07/54	111/2771	16-18, 20	20. Safety Valves
22/07/54	" /2774	98-100	21. Boiler Fittings
12/08/54	" /2777	198-200, 203	22. Boiler Details
02/09/54	" /2780	274-276	23. The Plumbing Job
23/09/54	" /2783	358-360	24. Injector- Handpump- Clack
14/10/54	" /2786	450-452	25. Finishing Touches
04/11/54	" /2789	534-536, 544	26. Details of the Tender
25/11/54	" /2792	630-633	27. Horns- Axle Boxes- 5" Gauge Tender
23/12/54	" /2795	755-747	28. Tender Brake Gear
30/12/54	" /2795	759	-- L B Parkins "Lion"
15/05/58	118/2973	638-641	"A Lion is Born" by F Few
02/10/70	136/3402	948-951, 978	"Model Lion" by L A Saxby
21/12/73	139/3479	1222-1224	"Modifications" by L A Saxby
06/07/79	145/3612	784-787	"Lubricator" by D A Neish
01/04/83	150/3702	430	Letter from N Smith
20/05/83	" /3705	620-621	Letter from C E Taylor-Nobbs
17/06/83	" /3707	714-719	"Modifications" by K C Miller
01/07/83	151/3708	48	Letter from R F Austin
05/08/83	" /3710	137-139	"Historical Notes" by C E Taylor-Nobbs
21/10/83	" /3715	476	Letter from M Smithers
17/02/84	152/3723	190-193	"Lion's Crown" by K C Miller
03/08/84	153/3734	130-132	"Boiler Origins" by C E Taylor-Nobbs
19/04/85	154/3751	439-442	"Tender Origins" by C E Taylor-Nobbs

A Few Notes on Bellerophon

For those of you who, in spite of your interest in Lion, need a bit of steam in your life, I enclose extracts from a press release sent to me by Chris Smyth of the Vintage Carriages Trust. Bellerophon is well known to the longer serving members of OLCO. Indeed her existence today is due in no small measure to the efforts of our own Vernon Smallwood, who has very ably chronicled her history, including rescue from the breakers torches in the nick of time, in his book "Bellerophon: Haydock to Haworth". A photograph of this unique locomotive appeared in Lionsheart number 37, page 7a.

BLUE PLAQUE AND GUINNESS RECORD HOLDING LOCOMOTIVE VISITS ESSEX
"BELLEROPHON" - THE OLDEST WORKING STANDARD GAUGE LOCOMOTIVE IN BRITAIN
TO VISIT THE ONLY RAIL CONNECTED MUSEUM IN ESSEX AT CHAPPEL & WAKES COLNE

Visitors to the only rail-connected museum in Essex will have an opportunity to travel in railway carriages hauled by an award-winning locomotive. BELLEROPHON, built in 1874 and believed to be the oldest working standard gauge steam locomotive in Britain is making its first-ever visit to the highly popular East Anglian Railway Museum at Chappel & Wakes Colne, near Colchester, Essex, by special arrangement with its owners, the Scania Transport Trust Award-winning Vintage Carriages Trust, whose base is at Ingrow, Keighley, West Yorkshire.

BELLEROPHON is also famed for its appearances on television: last November it was filmed for Programme Five of the forthcoming BBC TV series, A HISTORY OF BRITISH ART, when it was featured with Vintage Carriages Trust's 1876 Manchester, Sheffield & Lincolnshire Railway four-wheeled tricomposite carriage. BELLEROPHON has also appeared in the SHERLOCK HOLMES television series made by Granada TV which starred the late Jeremy Brett.

BELLEROPHON is one of the very few locomotives to have its own entry in THE GUINNESS BOOK OF RAILWAY FACTS AND FEATS, by virtue of it being the surviving example of the first successful use of piston valves in steam locomotives. BELLEROPHON is also the holder of an Institution of Mechanical Engineers Heritage Hallmarks blue plaque for the same reason. The locomotive also won a National Coal Board Steam Heritage Award in 1986. The locomotive was built at the Haydock Foundry in Lancashire to the design of Richard Evans and was used for many years on the Haydock Colliery system.

BELLEROPHON is due to arrive at the East Anglian Railway Museum, Chappel & Wakes Colne, at the end of February, and stay until the end of August. EARM's steaming dates are March 17; April 5,6,7,8; May 5,6,21,26,27; June 2,16; July 2,7,14; August 4,7,11,14,18,25,26,28. BELLEROPHON may not be in use on each of these dates, and visitors are advised to telephone EARM to check in advance of any planned visit. EARM's telephone number is 01206 242524

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Address for correspondence:

Mr J P Hawley,
Secretary - OLCO,
Rock House,
Downside,
Backwell,
Bristol,
BS19 3DH.

Tel: 01275 472023.

With acknowledgements to David Barton.

