COBHAM HALL

LONDON BUS MUSEUM MAGAZINE

The Journal of the London Bus Preservation Trust, Cobham Hall, Brooklands

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Please note that this address cannot be used for visits in person, which should be via the main entrance.

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Contents

FRONT COVER PICTURE

Having a great day at London Bus Museum's TransportFest on Sunday 22nd October 2017. David Kinnear (right) is wearing an authentic Victorian bus conductor's uniform. Joanne Moore is up top in the driving seat while grooms Jorja Deacon and ex-jockey Derek Morrell stand on either side of Beatrice and Vespa (they're Percheron Cross carriage horses).
(Tony Drewitt)

The views expressed in this magazine are those of the individual contributors. They are not necessarily the views of the London Bus Preservation Trust Ltd., its Trustees, Directors or Officers, London Bus Museum Ltd., its Directors, or the Editor.

ITEMS FOR THE MAGAZINE

Please send contributions for the magazine to the Editor at michaelhcbaker@ com, or by post to the Museum at the address opposite.

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From the Editor

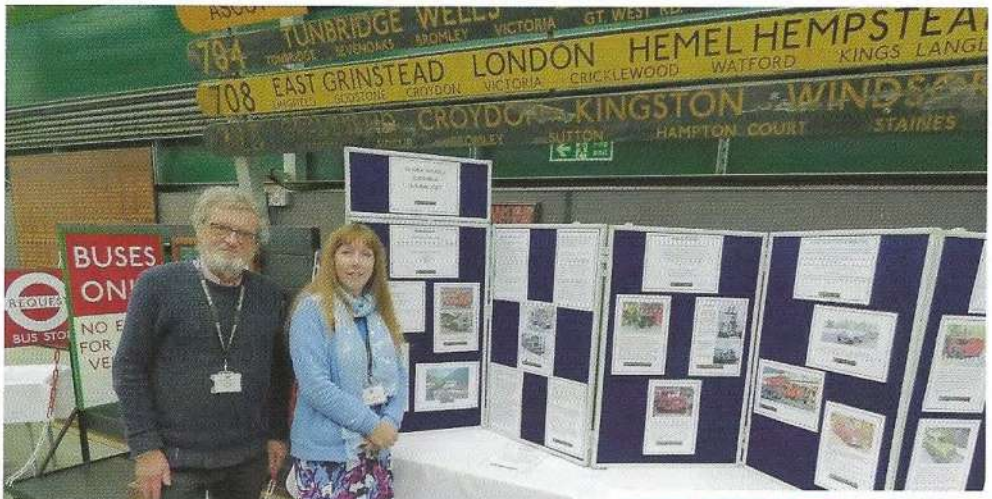
'If You Build It He Will Come'

'Service Vehicles and Commercial Vans', the title of our Autumn event on 22nd October, was, perhaps, a bit of a mouthful. It was a theme mooted by members sometime back and which certainly appealed to your editor. But what of the general public? After all you can't really offer rides on a tractor used to push trams around depots any more than you can on a mobile crane. But to quote Kevin Costner in that lovely 1989 film 'Field of Dreams', in which a voice tells him that if he builds a field the Chicago White Sox team of seventy years earlier will appear, - sorry if baseball is not your thing, but stay with us and we'll get to the point - enthusiasts, the general public and the vehicles did come to the London Bus Museum on a bright, sunny October day, as the pictures within these pages demonstrate. There were plenty of opportunities to ride on vintage buses, both within and without the site, there were entertainers for children and there was a surprisingly varied and eclectic selection, some real surprises, of those often unnoticed but absolutely essential back-up service vehicles without which the London bus, coach, trolleybus, tram and Underground would not have been able to function over the years.

The book you've all been waiting for 'London Buses - 50 Years of the London Bus Museum' by Graham Smith should be in bookshops by the New Year.

Above: A line up of service vehicles on 22nd October 2017.
Left to right: JJ4379, former STL162 of June 1933, converted to emergency equipment container 832J in May 1950; XGP389W, AEC Militant of 1981, originally War Department, later London Transport, now resident with National Reserve Group at Brooklands; AGX520, 738J, another converted STL, this time STL169, by a coincidence also of June 1933, converted January 1950 to breakdown tender; JXC 2 the Bedford power unit for our mobile canteen; Ford Thames van 1096F of 1959 and Bedford ambulance 1492B of 1968. ***(MHCB)***

Right: A 1937 Fordson tractor heavily modified by London Transport to push its trams around depots. ***(MHCB)***



Left: The splendidly detailed display prepared by John Baggott and Sharon Burton for the 22nd October 2017 event. ***(MHCB)***

Below: A Leyland Bison lorry of 1932 and a Fordson van of 1931 now in the livery of 'Old Motor' magazine. ***(MHCB)***

Left: Three Dennis fire engines. Left to right FJH324 of 1939 originally owned by Watford Rural District Council (remember rural district councils?), 314FLM a London Transport fire department tow truck of 1963, and L882CPC Rapier ex-Surrey rescue vehicle of 1993. ***(MHCB)***

Right: Cravens-bodied RT1499 gave visitors the rare chance to ride on one of the only two preserved versions of this variety of RT. ***(MHCB)***

Above: Unloading DGJ181, 89Q, of 1936, an AEC 4 ton Mercury, withdrawn in 1962, the only surviving LT tower wagon. *(MHCB)*

Right: A tower wagon at work. BYL401 at West Croydon 4th March 1959, dismantling the overhead used by route 654 until the previous day. The turning circle for the 630 remains for a while. Passing is replacement RT3264 of (AL) Merton garage, one of a number of overhauled roof box RTs kept back for the first trolleybus replacement programmes. *(MHCB)*

Left: A view of NS174 on 22nd October with stalls doing excellent business. *(MHCB)*

Below: As is usual at these events, Punch and Judy has a full house. *(MHCB)*

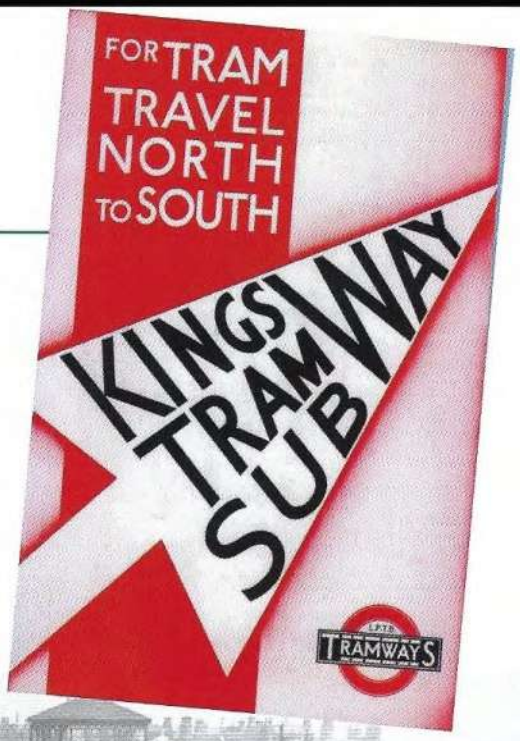
Left: Visitors being conducted around the workshop. *(MHCB)*

1937 - 80 years ago

By 1937 London Transport was well into its stride, moving rapidly to becoming just about the finest and most efficient big city public transport system in the world.

The tram system may have been doomed but it was still carrying vast numbers each day and it was certainly worth advertising. There were those who thought the Kingsway Subway should never have been abandoned (trolleybuses proved unsuitable) but it was eventually swept away in 1952.

(LT)



Vauxhall was, and is, a great traffic interchange. In this picture at bottom left two early STLs, Nos. 435 and 495 can be identified, a more modern one is just visible, top left. The two E1 trams, Nos. 457 and 552 are, as yet, without windscreens, unlike the E3 in the distance working route 31 which has passed through the Kingsway Subway on its way to Battersea. *(LT)*

The final Country Area, front entrance STL was delivered in December 1936. This is an official picture of STL 1464, which by 1937 was working from Crawley garage. *(LT)*

Unique were the twelve Godstone STLs, ordered by Reigate in 1933, but delivered to London Transport. These were essentially of provincial specification with their Weymann, lowbridge bodies,and made the 410 route from Bromley to Reigate their own until well into post-war days. STL1046 pauses at Godstone on a westbound journey.

(Collection)

On the rear cover of this issue we celebrate the repainting into Green Line livery of Q83, one of the two surviving London Transport examples of this unique design. There was also a double deck version and in 1937 Q5 was working from Leatherhead Garage. Q5 was sold in 1946 and saw further service in Scotland. *(LT)*

This is possibly earlier than 1937, a late 1935 vintage C1 trolleybus, No.182 whch looks pretty new, but it's a nice pictureof it being out through its paces, or is it the LT employees who are actually being tested? *(LT)*

1937 saw the withdrawal of the last NSs. The London Transport collection preserved example, NS1995, is seen here at the old Museum of British Transport in what had been Clapham bus garage, in 1969. Here at Brooklandsthe LBPT has NS 174 which is well on its way to restoration to original 1923 condition.

(MHCB)

LBML Retail Operation - A growing business

By Richard Jones

Following the move to the Brooklands site, the trading company's retail business has gone from strength to strength. This has been due to a number of developments and initiatives under the leadership of Gerry Job (MD) with myself, supported by Ian Jackson (formerly Assistant Shop Manager) and a dedicated team of people who help deliver the growing sales.

Mention must also be made of the contribution Stephen Bigg (Non-Exec Director) provides with his advice and support in policy making and planning decisions for LBML.

The sales growth has been both consistent and impressive, moving from an annual turnover base level of approximately £38,000 prior to the move to a figure approaching £70,000 in 2017. This has enabled the trading company to significantly increase its contributions to the Trust.

So a near-doubling of turnover over a period of half a dozen years is quite an achievement, but what have been the main drivers of this progress? Undoubtedly a major contributor has been the introduction of internet trading in the Autumn of 2013, which moved the trading opportunities from open days only at Redhill Road to a 24/7 operation now. This has increased the reach of our offer considerably, and the internet trade has settled at about 25% of total turnover, with over 85% of these sales coming from non-members, many from abroad.

Another key contributor has been our association with Jotus in China from 2014, who have since produced for us seven different excellently detailed and high quality models, all of which have sold extremely well to a specific segment of the market.

A third important and developing opportunity for sales growth has been the reception area counter in Cobham Hall, where many of our visitors take the opportunity to make a purchase as a souvenir of their visit to the Museum. This started as an 'event day only' opportunity, but with the agreement of Brooklands Museum management this is now a seven days a week operation. Thanks go in no small measure to the reception stewards who assist and serve the customers on a daily basis.

So what about the future prospects? These are very exciting, and are to be built upon a very sound business foundation. They include the potential of developing further high quality models with Jotus, identifying development opportunities within the current catalogue as well as investigating new product areas.

So we have much to be positive about, but inevitably developing a business growth of this scale requires the necessary human resources to make it happen. Richard Jones has overseen the impressive turnover growth over the past 10 years, and has decided to stand down from his role as Retail Director with effect from 31st January 2018 to give himself more time to follow his other interests. He will remain a member of the London Bus Museum and will volunteer at Cobham Hall as and when time allows.

Consequently there is an opportunity for someone with enthusiasm and business skills to continue and develop the successful business model established by Richard and the team, thereby generating further sales growth and increasing contributions to support the objectives of the Trust's activities. If you think this could be you, please see the details to the right of how to apply or find out more about the role.

Job vacancies in the London Bus Museum Limited (LBML) retail shop

As you will see in Steve Edmonds' article, the shop is becoming a major contributor to LBM funds. Consequently we are looking to appoint a new team in the retail area as follows:

Shop Manager who:

- controls the placing of purchase orders
- arranges invoice payments
- makes banks deposits
- deals with credit card payments

Event sales staff who:

- Set up stall display
- Serve customers
- Pack away stock etc at the end of the day

Order processing and packaging staff who:

- Collate orders from internet and telephoned sales
- Pack orders for despatch
- Send items by courier or Royal Mail

Counter stock control staff who:

- Maintain reception shop counter display
- Stock up product range from Shop stock
- Request items for reordering from shop Manager

Previous experience in retail may be an advantage but is not essential. Full training will be provided to successful applicants.

Any queries to Gerry Job, Managing Director of LBML either by e mail via the LBM web site or by telephone to LBM on Saturdays and Sundays.

Left: RTL 139 outside Kempton Steam Museum during the Trust's visit there on 18th November this year.

Right: The magnificent triple expansion steam engine built between 1926 and 1929, the largest of its type in the world. The scene is somewhat reminiscent of a German expressionist film - with colour - of the late 1920s.

(Both Colin Read)

The Brighton Connection

By Michael H C Baker

A scene at Brighton station sometime in the 1930s with a tram prominent and a Tilling ST creeping into the picture on the far left. The last Brighton tram ran on 1st September 1939. The remains of one, No.53, survives and is under restoration. ***(Collection)***

On Saturday, 28th October 2017, ST922 ventured, not for the first time, to the seaside to commemorate the 70th anniversary of the withdrawal of the last open-staircase Tilling STs from the streets of Brighton. There was a time when Thomas Tilling operated large fleets of AEC Regents fitted with their own design of body in both London and Brighton. ST922, which, to remind us all, survived through the foresight of the late Prince Marshall who discovered it in a scrapyard after it had finished passenger service with the London Passenger Transport Board in 1946, and had then worked as a mobile staff canteen. Brian Jackson and Geoff Smith were the instigators of its visit to Brighton and although it was always a London bus identical examples, even down to the Thomas Tilling livery, worked in the Sussex seaside town (now a city). This livery disappeared in London with the creation of London Transport in 1933. It survived longer in Brighton, until the formation of the Brighton Hove and District Omnibus Co Ltd, a subsidiary of Thomas Tilling, which in 1938 replaced it with bright red and cream, identical to that of Brighton Corporation. I wonder how many visitors, like myself, did not initially realise that in fact the Tilling company and the Corporation were quite independent of each other. Mind you it did occur to me that there was a rather odd mix of AECs and Bristols but it was only when one peered closely that one discovered the two sets of fleet names and insignia. Brighton had trams which disappeared in 1939, to be replaced by trolleybuses. 52 of these elegant Weymann-bodied AECs which were owned by the Corporation and a further eleven by Brighton, Hove and District. The system closed in June, 1961. Bradford, Maidstone and Bournemouth bought some of the trolleys. Two survive, one in Maidstone livery and the other in Brighton colours.

A Tilling ST turns out of Queens Road by the clock tower into North Street in the heart of Brighton, c.1933. ***(Collection)***

Before looking at the buses themselves let us consider where they operate. Brighton is unique. Many know it as 'London by the Sea' and whilst the locals would fiercely dispute the implication that it is little more than a rather distant, waterside satellite of the capital, the influence of the latter on the former is there for all to see. One only has to read 'Brighton Rock', or see the film which created a star of Richard Attenborough way back in 1947, to appreciate this. Recently the 'Daily Telegraph' declared 'Brighton Rock' to possess 'an unassailable status as one of the greatest British films ever made'. Whether the fact that a number of elderly AEC Regents, although not actually an original

Some 80-odd years after the picture on the previous page, ST922 has just come along Queens Road, down from the station, passed the clock tower, and is making its way down North Street, 28th October 2017. *(MHCB)*

A Brighton, Hove and District ECW bodied Bristol COG5 about to set off for the racecourse in 1938. *(Collection)*

Tilling, appeared in it, as Colin Read, the conductor on the day pointed out to me, helped it gain this status is possible debatable, but they certainly added to its authenticity. In the days when Graham Greene wrote his book, Brighton was both elegant and grand but also possessed a darker side, hence the racecourse gangsters which Pinkie, the character played by Richard Attenborough, typifies. 60 minutes by the all-Pullman 'Brighton Belle' from Victoria which ran between 1933 and 1972 the resort possesses in the Prince Regent's Royal Pavilion what many consider the grandest and most exotic seaside building in the land. Famous actors have always had their homes in Brighton and Hove, whilst

ST922 has visited Brighton several times in preservation days. Here it is passing Redhill on its way to the seaside during the HCVC run of 1970. *(MHCB)*

Two preserved Weymann-bodied Regents. On the left former Brighton, Hove and District FUF63 of 1939, and right, former London Transport STL 2692 of 1946. *(MHCB)*

ladies and gentlemen not married to each other have followed the Prince Regent's example and also set up residence there, both permanent and temporary, back in the days when such behaviour was considered, how shall we describe it, rather bohemian? Brighton has always prided itself on its tolerance, its ability to embrace all faiths, creeds and ways of life, and to wander about the narrow streets between North Street, Grand Parade, Queens Road and the station is to encounter just about every commodity, style of dress, musical and artistic taste imaginable. Not for nothing does Brighton have the only Green Party MP in the land - I spotted from the upper deck of ST922 a nursery called Growing Up Green - claim to be the gay capital of the UK, possess one of the only three seaside Premiership football clubs in the south of England, a much admired university and a recently acquired city status…

Brighton and Hove also has an award-winning bus company, being crowned the Top City Operator in the UK in 2015. . .The company owns some 260 buses and four coaches, nearly all of them carrying the name of a local person of celebrity or note, past and present. Its routes now stretch out beyond the city, having taken over some that were once operated by Southdown, notably the Regency Route between Brighton and Tunbridge Wells, which was also worked by Maidstone and District and the variations of route 12 between Brighton and

Right: ST922 has arrived at Patcham, on the outskirts of Brighton, on 28th October last. *(MHCB)*

Eastbourne, offering stunning views from the top deck across the Downs and the sea.

Before the days of the railway young bucks who could afford to hire a succession of fast horses, would make day trips from London to Brighton, and a hundred or so years later the end of the First World War saw the proliferation of motor charabancs offering day trips to the general public, a hugely popular development which culminated in the market leaders becoming Southdown, of blessed memory, with their elegant two shades of green Harrington-bodied

Above: The preserved Harrington bodied Southdown Leyland TS7 Tiger No.1179 of 1937 pulling out of Pool Valley bus station, Brighton on a wet day in 2012. *(MHCB)*

Right: ST922 has stopped at the Old Steine in the heart of Brighton as a motor cycle combination heads past. *(MHCB)*

Leyland Tigers. There was also room for Timpsons, Grey-Green, Orange Luxury Coaches and a veritable host of smaller concerns all plying the A23 from just about every London suburb to the coast. Today there is still much coach traffic on the Brighton Road and for decades the Trust has participated in the annual Historic Commercial Vehicle run which forms part of the Brighton Festival in May.

The weather was very much on its best behaviour on 28th October. ST922 looked quite splendid in the bright sunshine when it arrived at Patcham village and we set off at

Colin Read "Fares please". ***(MHCB)***

ST922, driver Robin Helliar-Symons in conversation outside Portslade station. ***(MHCB)***

10.30am on its tour of the city, recreating a number of the routes upon which Tilling STs once plied although, inevitably, 70 years of road layout changes meant that there had to be some variation. ST922, as we were reminded in the excellent brochure provided by Brian Jackson and Geoff Smith, at 87 years old is inclined to be a little temperamental and it needed a rest from time to time. Driver Robin Helliar-Symons' patience and unflapability was much admired by all and sundry, both by passengers and the many spectators who watched our progress through the busy streets of Brighton and Hove.

Thomas Tilling put 296 STs into service between 1930 and 1932 and 111 of them worked in Brighton, although six later moved to London. It has to be admitted that by 1932 they already looked somewhat outdated with their open staircase, stepped out front, and boards used to indicate route number and via points - think of the London STLs of a year or two later, such as the Trust's STL441. This of course makes ST922 today all the more attractive, it being greeted with smiles and battalions of mobile phones wherever we ventured. The London vehicles were in the process of being withdrawn, virtually unmodified, on the outbreak of the Second World War but were retained and ST922, for instance, was loaned to Midland Red where it must have felt quite at home amongst that company's highly idiosyncratic and somewhat archaic own designed fleet. Brighton took a somewhat different path, rebuilding many of its Tilling STs, lengthening the chassis, enclosing the stairs, fitting diesel engines in place of the petrol ones, and complete new bodies. The very last original open-staircase ones finished on 31st October, 1947 but open top rebodied ones worked on beside the sea until 1955.

I am most grateful to Brian Jackson for his input on the history of the Brighton STs, but any mistakes are mine.

ST922 beside the sea. ***(Colin Read)***

Membership and Volunteering

By Steve Edmonds

As I write this, LBPT membership is at its highest ever at 882; at a time when we have lost a number of our senior members, either intentionally or against their will. On checking the records, I discovered that no fewer than 430 of our current membership joined the Trust after the launch of London Bus Museum on 1st August 2011. This is more confirmation, should we need it, that we made a top quality decision to move our premises from Redhill Road to Brooklands.

It is also bears testimony to our faithful band of volunteers whose commitment to excellence has laid strong foundations and established our credibility across the range of Museum activity. A good number of members decided to join, having been impressed by what they saw during a visit to the Museum or at one of our events,

Many of you will know Richard Jones, our retail shop manager. He took on the role on a temporary basis ten years ago and has been beavering away, building up the shop's impact through increasing sales so that its contribution to Trust funds has grown significantly. Richard has decided to call it a day after much dedication and hard work, and hand it over to an enthusiastic and energetic new manager with plenty of fresh ideas. If that is you, please see the list of job vacancies elsewhere in this publication and make your application.

It is with much sadness that I must record the passing of John Sullivan; yet another one taken too soon. He was a regular front of house steward from the beginning at Cobham Hall. In due course he willingly sought and took on the Talks coordinator role. His article in the autumn issue of this magazine reflects the amount of effort and enthusiasm he brought to the task. A modest and thoroughly decent bloke, John faced the trial of his illness with courage and dignity. I am glad that he had the foresight to identify a potential successor in the shape of Paul Raven-Hill. John made the time to brief him about the role and I am pleased that Paul has agreed to take it on.

Christmas and New Year is almost upon us and the Museum has much to look forward to in 2018.

Members have their special day dedicated to their interests and needs on Sunday 18th March. The usual fare of bus rides, talks, workshop tours, catching up with old friends and all day refreshments will be available on what promises to be a most enjoyable occasion. If there is anything specific which you would like us to cover at this gathering please let me know.

The members' annual lunch has been provisionally booked for Sunday 21st January at Silvermere's 'Inn on the Lake'. Someone informed me that we have been holding this event at the same venue for forty years, starting long before my time. Does anyone remember the first one I wonder?

The announcement appeared in the last magazine and I have received a few comments regarding the increased cost. I am hoping that this will not deter those who welcome the opportunity to meet up with friends and colleagues to reminisce in a convivial atmosphere whilst enjoying some food and fun. Cheques payable to LBPT Ltd to be received by 12th January please and don't forget a contribution to the raffle prizes.

Volunteering in the workshop at LBM

By Peter Goodfellow

I became a volunteer 16 years ago and was made very welcome and encouraged at that time by John Rawlins and Tony Lewis. My work over those years has been mainly on restorations but I have been lucky enough to have driven most of the museum's buses at events and in service. When I started as a volunteer, all I brought with me was a small box of my home tools and my basic home DIY experience.

What I have enjoyed most has been the camaraderie; it's like a friendly club where apart from enquiring after each other's welfare, there has been lots of friendly witty banter too that has made it a fun place to be.

Come and join us in the workshop for one day a week, usually Wednesdays, whatever your skill level. I have learned a lot of new skills over the years with the help and good advice from Ian Barrett and other work mates and have been involved in many restorations mainly doing bodywork and painting. You would be most welcome and surprised what an enjoyable job it is and what's more you can work at your own pace.

The icing on the cake is to see a restoration job finished and the vehicle back on the road after some three to four years work. It is a thrilling moment with a great sense of accomplishment.

Well, You did ask!

By Mike Lloyd

In LBMM 25, Geoff Latham admits to having designed the Merlin and Swift chassis and asks why the buses were 'an unmitigated disaster.' I was a London Country bus mechanic at Hemel Hempstead, and later Garage Foreman at St Albans, and at the former we had Merlins; indeed, I was there when the last were sent off to a new life with Ulsterbus or Citibus in Northern Ireland. Perhaps I could enlighten Geoff.

Firstly, that chassis frame was lacking in rigidity. This had been shown to me some years earlier when I visited Park Royal and my guide 'bounced' a bare chassis on its suspension; the thing wriggled. That is the best description I can think of as it not only moved vertically as would be expected but twisted longitudinally. This would lead to problems with bodies cracking at the centre and in the case of Merlins equipped with electrically-operated doors, water ingress causing obscure electrical faults preventing door closure and gear engagement. Swifts were equipped with pneumatic door gear as a result of this experience.

The suspension was inadequate. The buses had a curious nodding gait, much more pronounced on the standee versions but something that a number of drivers found caused a vague queasiness after a full shift driving the things.

As delivered, they had hydraulic throttle control. This was not up to the job, and while another HH mechanic developed a cure and tried to persuade the company to adopt it, the fact was that a campaign change to cables had to be undertaken.

SMS369 of Merton (AL) garage at the Mitcham Cricket Green terminus of route 200, 26th July 1977. just before the Merlins were replaced by DMSs. ***(MHCB)***

The brakes were incredibly noisy, such that even the general public complained to us. Now it is true that Hemel Hempstead is hilly territory and the brakes had to be used a great deal, hence quickly overheating and this may have been a factor. However, the only cure we knew was to hose the wheels and hope, and this was at best very marginally successful. These buses had conventional S-cam brakes, but their predecessors, the RT family, RF, RLH and RM all had a brake in which the individual shoes could be separately adjusted ('trammelled') and brake squeal was almost unknown on those types. The SM and MB classes conspicuously lacked this useful feature. A minor mystery was that while they were fitted with automatic brake adjusters, handbrake adjustment was an almost constant requirement, not really a major problem but a great nuisance.

Far and away the main problem, however, was engine overheating. This was a daily occurrence and when it happened, the bus would often throw much of its coolant out via the filler onto any vehicle following closely behind. Worse, however, was that in no small number of cases, the engine oil was also forcibly ejected this way. I leave to the imagination the results, but we often found ourselves cleaning both private cars and the public highway. The fault lay with the design. The radiator was the same as that used on the Reliance and was not particularly large. On the Reliance it faced forwards, admittedly being mounted in the middle of the chassis under the floor, and received a blast of cooling air as the vehicle moved, quite apart from that delivered by the fan.

On the Merlins, the thing was mounted sideways at the rear. There was no cool air flow, the engine compartment was naturally the warmest part of the bus and cooling

Brand new London Country SMS484 of 1970 alongside an engineless RT at Chelsham Garage. ***(MHCB)***

A former London Transport Merlin in Belfast City Centre c.1978. Many Merlins were destroyed in The Troubles. ***(MHCB)***

suffered badly. In addition, the fan was worked by a belt-driven angle-drive unit. These things were of poor quality and regularly failed.

As a staunch supporter of AEC, it pains me to point out that the same chassis frame was used for the Leyland Panther but that vehicle had a front-mounted radiator and seemingly did not have these problems. Why AEC did not adopt that I cannot say; maybe Geoff can.

Of course, there were other problems with LT's MB and SM classes: automatic fare collection systems that didn't work, change-givers that didn't give change, a fiendishly complex heating and ventilating system that was not up to the job (it was not unusual to have a bus with boiling radiator and cold saloon heaters) and the advanced but troublesome light beam and photo-electric cell system to prevent the centre doors trapping any unwary passengers. All these and other problems were of course nothing at all to do with AEC and everything to do with whoever at London Transport drew up the specifications for the various variant types. But what was AEC's problem was the Swifts (the shorter, Swift 505) lacking power. I used these buses from time to time on the 353 Berkhamsted - Windsor service - we didn't have any SMs at HH - and they were almost embarrassingly feeble when fully loaded.

It is well known that both LT and LCBS disposed of both versions relatively early in their lives and certainly when they were much younger than their predecessors. I admit to a sneaking liking for the fully-seated MB, and the classes certainly had a little more character than the Leyland Nationals which replaced them, but they were hard work to operate and really not up to the job that was asked of them.

In fairness to AEC, it is worth mentioning that Blackpool Corporation kept theirs running long after the London area had forgotten them, and colleagues at the North West Museum of Road Transport at St Helens assure me that the Swifts operated in that town, which had no radiators at all but were fitted with the 'Compass' heating system, gave no problems and were well liked. Anecdotal evidence also suggests that our cast-offs were much more successful in Northern Ireland than on home territory.

Hope this helps, Geoff!

Further correspondence on the subject of the Merlins appears on page 18.

London Country SM459, Stevenage 2nd May 1972. ***(Collection)***

Something entirely different!

By Roger Stagg

Having 'launched' the externally refurbished Q83c at Transportfest thanks to the generosity of Mike Beamish, one of its virtually schoolboy rescuers so many years ago, it's now in its short-lived but handsome 1938 Green-Line livery of route L to near the Museum at Great Bookham. It would be great to now be able to refurbish the interior from its post-1948 bus livery to that of Green-Line too. For those who will no doubt write to me saying that the livery does not correspond exactly to that on the Corgi model please note that Corgi put the livery into that of a 6Q6 with a Park Royal body rather than Q83's BRCW body which features an AEC triangle preventing the Green-Line transfer across the front panel. The model also shows the speed and weight on the nearside whereas it should correctly be on the offside. Photos of Green-Line Q's in this period show so many variations, in black & white of course, that everybody will be right and everybody will be wrong. Nuff said.

When I wrote in the last edition of this magazine I offered to try changing the subject from buses alone to something entirely different.

It's almost 57 years ago in the week before Xmas 1960 and I am summoned into the Chief Engineer's office at the first floor corner of Park St. and Mount St. W1, to be told that I have been 'selected' to undertake a special assignment that the Chairman had agreed the firm would undertake. I would, on the 1st of January, be transferred to the island of Barbados to deal with the emergency design and reconstruction of part of a sugar mill that had been destroyed by fire a month earlier. There was no "would you like to?" etc. I was unattached and obviously naïve. "Get a bus up to the Hospital for Tropical Diseases and get whatever jabs they say you need". I suppose I was excited but had never heard of the place so on the way I called into Claude Gill's bookshop in Gees Court off Oxford St. to find out. Barbados, a small island in the Eastern Caribbean, British (for another six years anyway), economy - sugar 95%, molasses 5%, tourism 0%. Small airport Seawell, no deep water harbour (about to be constructed), no TV.

1st January 1961 and my parents see me off from Heathrow on a BOAC Britannia to the Azores, the following day across the Atlantic to Bermuda where the Hillman Minx taxis all featured fringed parasol type covers on the roof to reduce the heat. Then on the next day it's onward to Barbados via Antigua. Here the plane left to continue its six day journey to Buenos Aires via Trinidad, Caracas, Bogota, Quito, Lima, La Paz, and Santiago. Within six months Boeing 707s would take over and Barbados would be reached the same day.

Arrival in Barbados was a little confusing, the heat in Bermuda seemed negligible in comparison and in Antigua was confined to the walk between plane and terminal. Now it hit like a hammer. Tired and confused I discovered a welcoming party was arranged with unlimited amounts of a really nice refreshing fruit squash, my introduction to rum punch! Fortunately I was not due to arrive at Porters Sugar Factory near Holetown St. James for two days which allowed 48 hours of worshipping the porcelain altar at my stay at the Island Inn (still in existence next door to the now famous Brown Sugar restaurant). Here I would get my first experience at close quarters with 3in. long cockroaches and lots of lizards, all of which were co-habitants of my room.

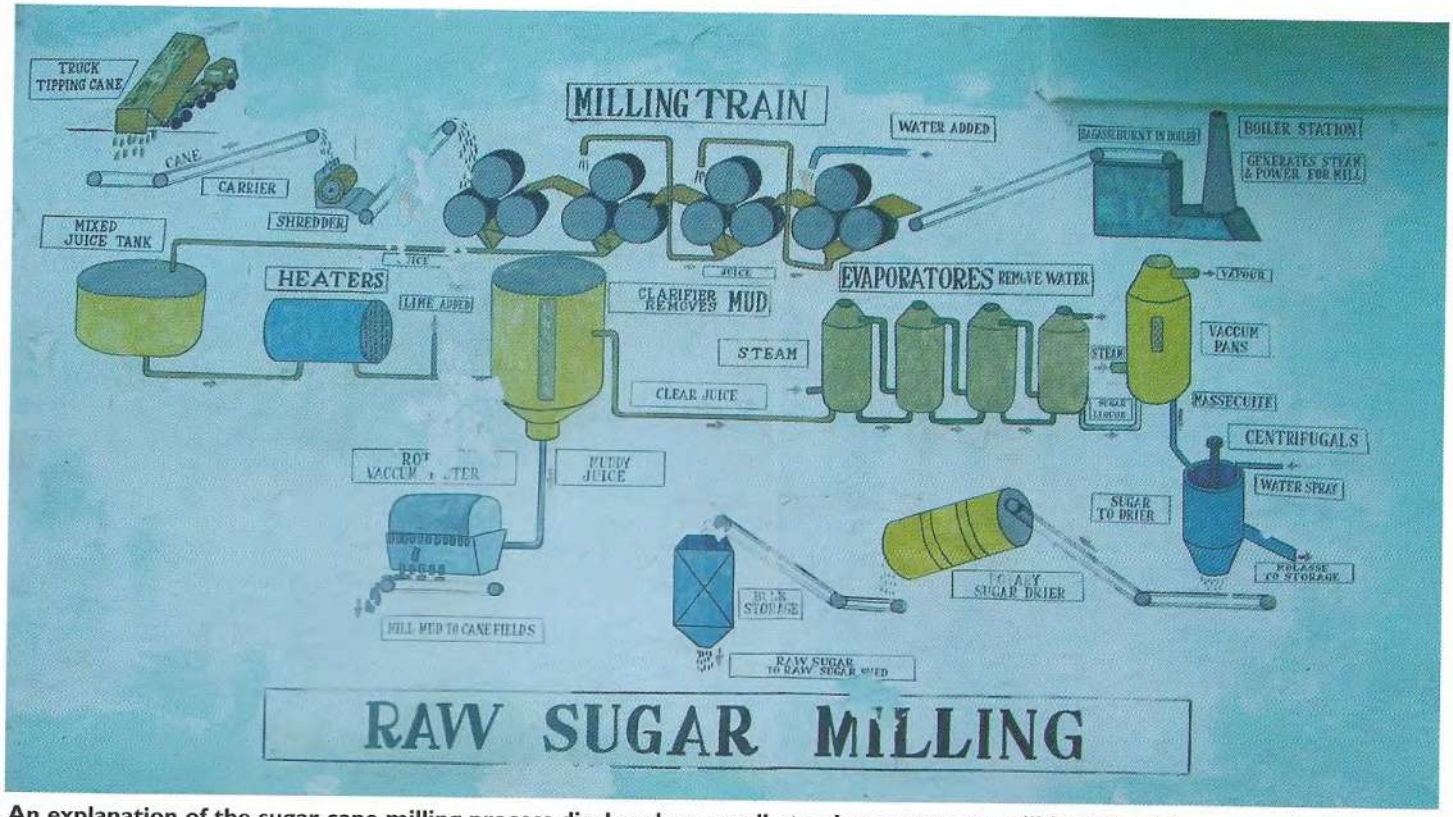
I'll not bore readers with the mundane works of designing and erecting a large span roof covered with second-hand corrugated iron, suffice to say that by the 1st March as the Barbados Foundry completed the repairs to the machinery below, the roof was deemed complete and I thought I could go home. These things however do not happen easily.

On my first day of being sober I caught the bus, an open sided toast-rack Bedford O type into Bridgetown. I had asked at the hotel to make a phone call home to let my parents know of my safe arrival but was advised that calls 'out of island' could only be dealt with at the Cable & Wireless office in Broad St. so I ventured forth. Now I was to find that as a European expat it was de rigueur to be properly dressed when going into Bridgetown; linen suit, tie and pith helmet. I had none, just a blue suit far too heavy for the tropics, and certainly no money to purchase any.

I walked into the C&W office and said I needed to call England, gave the number and was told I could make a 3 minute call from the box opposite. I paid the fee, the equivalent of about £25 now and walked to the box only to be called back and told that the call would be at 2pm in ten days' time. In the meantime I could if I wished send a cable advising of my arrival and impending phone call to be delivered as a telegram in the UK. This method of communication was to remain until my final departure from Barbados in 1967. This must seem unbelievable to today's population so used to 24/7 instant communication anywhere in the world but we had only just ceased having to get an operator to connect any call outside of your local area in the UK.

The production of sugar in Barbados and, for that matter throughout the Caribbean, bears little relation now to that of the methods in the 1960s which had been virtually unchanged from the Victorian era. Sugar plays but a small part of the economy now, tourism being the main 'export'. Most of the arable land was covered by sugar cane and converting the growing cane to raw sugar gave employment both in the fields and the factories over only about four months of the year reduced from the six or so in the 1940's due to a limited degree of additional mechanisation. Cutting would commence in January and most factories would be shutting down by the end of May. Production in both field and factory was labour intensive. Cutting a field would be followed by burning then planting the following year's crop. Unemployment, bad during the first six months of the year, was absolutely dreadful in the second half.

Great Britain along with most of its First World neighbours has a sweet tooth but before the end of the



An explanation of the sugar cane milling process displayed on a wall at a dormant sugar mill in Cuba. The process is very similar to that described by Roger Stagg at mills in Barbados. This and the following pictures were taken during a visit to various Cuban sugar mills in 2015.

(John Villers)

16th century sweetness was derived from honey rather than sugar so was mainly unknown by the poor who represented by far the greater percentage of the population. The description for most men was 'agricultural labourer' essentially subsistence level employment. Major changes were to sweep the civilised world by the need for food and the need for cheap (free) labour fed and led the slave trade. Readers interested in how this came about are directed to 'The Hungry Nation' by Lizzie Collingham, an eye-opening book that may in parts make the reader feel ashamed to be British. In short Britain became dependent upon sugar in everything and in so doing created the situation where land was being stripped of trees etc to make way for sugar cane wherever in the world the climate was right.

Initially cane was cut and transported by donkey to a windmill where it would be chopped into sections and fed into a what is essentially a three-roller mangle that would squeeze out the juice. The juice would be transferred to large cast-iron pans around 6ft diameter where it would be boiled by burning the crushed cane. Normally there would be three boiling pans with the juice being ladled from one to the next as it reduced in volume. Finally the thick grey syrup would be ladled into sugar loaves, lightly fired terra cotta pots shaped like a 2ft 6in. long artillery shell point downwards and hung. The syrup, mainly molasses, would ooze from the pots until the hard sugar residue was left. It bore no relation to sugar as you know it now. It had to be broken with hammer and chisel for use. The sugar loaves would be transported by ship to the UK.

The modern sugar factory was developed in the early/mid 19th century when steam power was properly developed. Most of the factories in Barbados in the 1960s were built in and around the 1850s by British (mainly Scottish) engineers, and worked on a continuous 24 hour process throughout the season. All were worked by one or two twin cylinder compound steam engines driving huge lines of cast iron gears up to 8ft diameter and kept in motion by a 30ft diameter flywheel. Steam or belt drives from the flywheel worked the pumps that transferred liquids from the water storage pond to the boilers, to the syrup runs, between boiling pans and to the evaporator stills as well as operating any other machinery and, eventually, generators for lighting. By the dawn of the 1930s heavy oil engines by Mirrlees and Blackstone of Glasgow and Lincolnshire were providing generator power for lighting and electric pumps. With the exception of centrifuges to remove molasses from the crystal sugar added in the 1950s, these factories were unchanged from new until they began to close down in the late 1970s. The central power was, however, from start to finish steam produced by between two and four large Yorkshire boilers built by Babcocks in Renfrew and fed continuously from the sugar cane waste, bagasse (pronounced burr gas).

Four Square, the last steam-driven factory, closed in 2004, production having moved to just two 'super

factories'. As more land was turned to agriculture to produce vegetables for the expanding tourism market and levies on sugar into the UK were introduced following membership of the EEC Barbados cane sugar declined.

Cane was traditionally cut in the fields by gangs of men wielding razor sharp machetes and serious accidents involving loss of limbs were a daily occurrence. The gangs would load donkey carts by which their pay was calculated and these would trundle off to the factory that the plantation owner had selected. I can only speak in detail about Porters but all the factories worked in the same way. On arrival an overseer would decide the quality and volume of the delivery. Once agreed a crane would offload the cane into the yard where it would be piled up to 30 or more feet high. From this point the process would begin.

Cane would be dropped from the grab on the crane into a huge steel hopper around 20ft square and 10ft deep with a sloping bottom where the cane would gravitate down to the rotating knives (is this where a certain author got some of his tortuous ideas for 007 to escape from with seconds to spare?). The knives would cut the cane into pieces about a 9' long and they would be picked up by a conveyor that transported them up from yard level to first floor around 20 feet higher where they would fall into the syrup bath. This is a continuous wooden trough 2ft. deep around four to five feet wide and 150 feet long and filled to around 18' deep with boiling water/syrup. At intervals in the trough are up to six sets of 18' diameter serrated rollers, each made up of two bottom rollers and one top between the bottom two. The conveyor will drop the now scalded cane between the top and bottom rollers, all driven by the massive gear wheels, crushing the fibrous cane and squeezing out the juice. Each successive set of rollers has finer serrations and are tighter together. Between each set of rollers boiling water is added and at the final set of rollers the syrup is collected and pumped back to join the syrup emerging from the first set. Syrup from all but the last is collected and drained to the lime tank. The boiling water is added at the same volume as is sent to the lime tank to keep a constant syrup level in the trough. At the last set of rollers the cane fibre (bagasse), now virtually dry, is removed by conveyor and fed to the boilers as fuel. All this happens in temperatures well over 120F amongst revolving flywheels and gears beside troughs of boiling sugar and with no handrails or guards. Health and Safety regulations were yet to arrive.

The lime tank, a large hopper receives the syrup and sacks of lime are added which assists in precipitating the impurities made up of mud, small fibres and ANYTHING else that went in with the raw cane. It is the colour of dirty washing-up water. The syrup is now heated and discharged into the settling tank where the precipitated mud sinks to the bottom and the 'clearer' syrup rises to, and is collected from the top. The mud passes to a rotary filter where it is washed with boiling water and the liquid removed by vacuum and the semi-dry mud discharged to be returned to the cane fields. The residual liquid syrup is pumped back to the rollers, or where a vacuum centrifuge is used to remove mud, direct to the evaporators. The syrup from the settling tank is classed as 'clear juice' but it's far from clear, now being a mid-brown.

The evaporators - there could be up to five - are effectively stills where the syrup is boiled by internal steampipes and the steam rising from concentrating the syrup is used to heat the next tank, the pressure being successively reduced at each tank and the steam returning to the pond. Finally the syrup passes to the boiling vessel where it is again heated and concentrated, the steam being condensed back to water outside the vessel and returned to the pond. The resultant syrup, now a thick mixture of molasses and sugar crystals is pumped to cooling baths where it is constantly stirred by rotating paddles until it is ready to be pumped to the centrifuge, essentially a spin dryer. In small batches of around 150lbs the mass is spun at 1500rpm where the molasses is run out and the dry brown sugar is then fed onto a conveyor. The sugar is loaded into covered trucks and goes to the storage building at the docks (pre-1964 it was shovelled into sacks and sent out to ships by lighter) where it will be transferred to bulk carriers and most would end up at Tate & Lyle to be washed of all molasses and goodness, bleached white and become just pure sucrose. The molasses is tankered away and used to manufacture rum, industrial alcohol or used for cattle feed.

The new factories are highly automated and what cane is still grown is harvested by machine. The processes are unchanged but take place in safe and clean conditions, run by diesel or electricity (visitors are welcome at Portvale Factory in St. James). Take a good sniff at some granulated cane brown sugar and imagine the smell ten times greater. It's still with you after a whole weekend of showers; it enters the skin but smells better than diesel fuel!

Some third world Caribbean countries still have these types of factory as do parts of the East Indies. Many now do not produce sugar at all but go direct from the boiling process to making rum by distilling the raw syrup. Visit River Antoine rum factory in Grenada where the process is 90% unchanged from that of when it was built in 1765. No big steam engines as a water wheel still provides the power.

Still fancy that extra spoonful in your cuppa?

Letters

Dear Editor, I'd like to respond to Geoff's letter regarding the AEC Swift. I am the fourth generation of my relatives who actually worked at Southall. Jack Doyle was the first, who was an uncle of my late mother's, although I'm not aware which department he was employed. Stafford 'Tim' Luck was the second, who was my late father, who for the most part was employed as clerk of works foreman until 1976. Colin Luck was the third, who is my brother, who was employed in the computer block until 1968, when he emigrated to the USA. I was the fourth and was employed as an apprentice electrician, qualifying, and leaving the factory also in 1976.

After leaving AEC, I decided I wanted to experience actually driving an AEC vehicle, so I passed my PSV test at London Transport's Chiswick central driving school, and then drove Routemaster buses out of Uxbridge LT garage on the route 207 past the factory for four years. The RM was a very rugged and reliable bus and performed so well, that over those four years I only experienced possibly four to five breakdowns, usually injectors, all repaired at roadside, and one puncture.

My biggest regret was that I hadn't applied earlier to join LT, as I had not only missed out on driving two other fine vehicles, that of the AEC RF and RT types, and also the AEC Swift, although I had travelled on it as a passenger. Personally, I think the Swift, like the RM, had a technique to driving it smoothly and successfully. Shifting the gears manually, and allowing for pauses between changes, as I did with the RM, was the key to satisfactory driving. This way also allowed for the brake band around each gear to adjust and take up any slack.

As for engines, it must be common knowledge, that AEC engines were developed in partnership with Ricardo Engineering to produce an engine that would not only start, but also perform under all conditions, unlike modern engines which require heater plugs to start. AEC built vehicles to customers' specifications, unlike again, modern buses which are 'off the peg'. Which brings me to the point of the 'Boris bus' which, even allowing for inflation, does not equate to £300k per bus, when the last AEC RM off the production line in 1968 only cost in the region of £7k. Clearly the taxpayer is being ripped off somewhere!

'TA1' is a classic example of a vehicle which shouldn't be in the museum's collection. It was an 'off the peg' offering from Alexander Dennis, and was not built for London, and as I have personally witnessed in my present job of bus driver, its class of bus the 'Trident' has been very unreliable resulting in frequent 'tow-in's' by Sovereign recovery lorries!

AEC was founded for a purpose, to build exciting and reliable buses for the capital, something which the likes of AD, Volvo, Scania, Benz, have clearly failed to do and within a reasonable cost too!

And - food for thought -. If AEC had taken out a world patent on the name of the Swift, they could have taken Suzuki to court over breach of a copyright name!

David Luck

Dear Editor, There are many who would be equally damning about the DMS, which LT started scrapping even before the last ones had been delivered. And yet with subsequent operators, they apparently worked successfully for many years. There seems now to be a view that it was the LT engineering regime which failed them, rather than the buses failing LT. As Peter Hendy has often said, LT management in the 1970s seemed to have lost the vision and versatility of earlier generations, and it would not be surprising if an established rota and overhaul system, evolved for the ultra-reliable RT and RM, was not adequately adapted to the needs of the new vehicles. I understand that problems were encountered in putting the DMSs through the Aldenham overhaul process - one wonders whether they were designed for this.

As regards the Merlins and Swifts, it may well be that the story has some similarities. Certainly their service lives were wastefully short, and a majority were scrapped rather than sold on; of those that did find buyers, few were for service use on the mainland (a fleet went to Belfast and many went overseas). Certainly the operational issues had not been thought through, with cases of buses being physically unsuited to the roads they had to travel, and that can't be laid at the door of the manufacturer. However, I have read about problems with bodies flexing (quite possibly due to LT's requirement to have a centre exit) and engines overheating, so whether their mechanical unreliability with LT or their two-door format put off subsequent buyers is unclear. So I await responses with interest!

Peter Osborn

Book Review

The Pride of Bucks A&D - Neil Lamond with assistance from John Hutchinson

96pp, 231x176mm, 129 illustrations (17 colour and 4 sketches), softback, Hawkes Design and Publishing, £14.99

ISBN 978-09554707-9-0

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The author was drawn to investigate the short history of the Amersham and District Motor Bus Company when his interest was aroused by an accident that had occurred in his now home village of Ley Hill, Buckinghamshire.

This, his first book, is based on considerable investigation of the Company's operation between its formation in 1919 and subsumation into London Transport in 1933. He was fortunate to locate company records and, by advertising, relatives of personnel involved in the management and operation of the bus fleet, who related details of their relatives and supplied many of the photographs.

While providing much detail of the vehicles and routes operated, the attention given to the local and social history related to the operation of the mainly rural network provides an enjoyable read.

Brian A L Jones

Newly repaintedQ83c sparkles in the Autumn sunshine, 22nd October, 2017. *(MHCB)*

Country Area RLH44 was converted to a uniform distribution vehicle No.581J in 1971. It worked for London Country until 1983 when it passed into preservation and in 1990 passed to its present owners, Timebus. Seen on 22nd October 2017, it is being passed by a 1935 Brough Superior 1150 with an Alpine Grand Sports Tourer sidecar. *(MHCB)*