

TROLLEYBUS

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February 2022



The Magazine of the British Trolleybus Society



*Trolleybus Systems Modernisation
Book Reviews
BTS 60th Anniversary Celebrations*

TROLLEYBUS

The magazine of the
British Trolleybus Society

No. 727 February 2022

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BTS NOTICE BOARD

Reading Meetings

Held at the Reading District Oddfellows' Hall, 118b
Oxford Road, Reading RG1 7NQ. Admission: Adults
£2.50, Juniors £1.50. Non-members £3.50. Meetings
commence at 19.30. Organised by the BTS. NTA
members welcome.

Friday 4 March

A speaker is being arranged but final details were not
available as we went to press.

Meetings Organiser Graham Bilbé, 12 Belle Avenue,
Reading RG6 7BL. Email
grahamebilbe@btinternet.com

London Meetings

Held at The Model Railway Club, 4 Calshot Street,
London N1 9DA (nearest Underground station: King's
Cross). Organised by the NTA. BTS members
welcome. Start 19.00 – doors open 18.30.

Meetings Organiser John Parkin, 59 Beechwood Court,
West Street Lane, Carshalton SM5 2QA. Email
trolleybus654@aol.com

Wednesday 16 February Closed Trolleybus Systems of
the World, a presentation by Alan Murray.

Bradford Meetings

Meetings are not being held at present.

West Midlands Transport Circle

BTS members are invited to attend WMTC meetings,
which are held on the second Wednesday of every
month at Bradmore Community Centre (Main Hall) in
Wolverhampton. There's a half-time break with tea &
coffee & (usually) biscuits!

Wednesday 8 March P Makinson 'Second Lives'
Looking at vehicles that enjoyed a second useful spell
of service after being discarded by their original
owners. Some German trams in Romania have been
there longer than their original cities!

If you are thinking of attending please email Mike
Richardes for the latest information on timings.

michael.richardes64@btinternet.com

MONTHLY PRIZE DRAW

The winners in the January and February Prize Draws
will both be drawn at the February Reading meeting.

*On the front cover: Braşov's new Solaris Trollinos started entering service in mid-December
and have replaced the last secondhand trolleybuses. Unlike the previous batch they have
Medcom equipment. 2030 was photographed on 16 December.*

[Ede Pattantyú]

BTS News



The Next Ten Years

Last year, the BTS Committee undertook a survey of its membership to plan the way forward for the next ten years. We were delighted with the level of response – almost half the membership completed forms on paper or online. Many of the findings confirmed we were on course and meeting members' needs, but many helpful and constructive ideas were made and we are already using them to shape our future work.

You were very appreciative of Trolleybus – our flagship journal - and made some very good suggestions for future articles: e.g. the history of some UK systems, more technical articles, member profiles, and more on preservation.

The survey showed about a third of you have not provided an email address. Whilst not everyone has a computer, if you haven't told us your email address you won't receive our News and Events newssheet. The newsletter received a satisfaction level of 8.2 out of 10 so you are missing a very useful member benefit.

Our monthly Zoom meetings were well-liked by those who had experienced them and confirmed we should make them a permanent fixture.

Our website came in for heavy criticism and, as a result, we will be launching a new website in spring 2022 which is more modern, more current, easier to navigate and a showcase for the BTS and for trolleybuses.

The final finding, which is a major heads-up, is that a substantial proportion of members have reached retirement age. We need strategies to recruit younger members and to secure the future of the BTS.

Here are four important conclusions we have drawn from the survey:

1. We need a completely new website, developed from scratch. We should include reciprocal links with other organisations, museums etc. and optimise our social media strategy.
2. We must use the information derived from the survey to shape future policy, to reassure members we are listening to them and are working to secure the long-term future of the BTS.
3. We need to be more outward looking and work on a presence outside Sandtoft – at rallies, talks at other organisations etc. We should develop relationships with other museums and preservation societies.
4. We should develop an educational programme speaking at schools and encouraging school visits. At its heart, we can sell 'green' credentials of trolleybuses as a point of engagement

Action on conclusions 1 and 2 are already well under way but we don't have the resources on the Committee to drive 3 and 4 forward. Could you help us?

- We need someone to write and produce a presentation to use in an education programme for schools.
- We need volunteers to attend rallies etc to staff a BTS presence.

We will provide any necessary materials.

Contact me:

publicity@britishtrolley.org.uk
if you are interested.

Paul Dicken

Obituaries

Recently we have lost a number of people who have been members of or associated with this Society over the years. Here we remember them and send condolences to their families and friends.

John Royle

John was a member of the RTS from the mid to late 1960's into the 70's, often attending Reading meetings, and later emigrating to British Columbia, Canada where he initially carried on his trade as a printer but later took to bus driving. He had had a spell of that back in the UK driving for Eastern Counties when he lived in Attleborough, Norfolk. At some stage he had owned the Leyland National demonstrator RRM148M but passed it on to a UK based group as he could not really look after it from Canada.

He died on 8 December 2021 on his 83rd birthday. Roger Clark

John Mawson

John Mawson, author of 'Bournemouth Corporation Transport' (published 1967), passed away peacefully at his home in

Ferndown, Dorset, on Thursday 9 December 2021. The book is still widely recalled and revered as one of the earliest examples of a comprehensive public transport history. David Bowler, a friend of John's for many years, said that several years of deteriorating eyesight and heart problems had made it increasingly difficult for John to keep in touch in recent years. It is believed that John was a member of this Society in its early days.

Doug Barrow

Long-standing Trolleybus Museum at Sandtoft member Doug Barrow passed away on 29 December following a long period of ill health. Doug regularly drove trolleybuses at Sandtoft at one time.

John Hughes

BTS member John Hughes died at the beginning of January after a long period of ill-health. For many years John was an active trolleybus enthusiast and preservationist, notably at the Black Country Living Museum at Dudley. Eric Challenor has written a tribute to his friend which will appear in the April edition of Trolleybus.

BTS 60th Anniversary

BTS 60th Anniversary Weekend 1 & 2 April
Having postponed our 60th anniversary celebration events in Reading last September, we are now planning for them to take place on Friday 1 and Saturday 2 April.

Friday 1 April

Oddfellows Hall, Oxford Road, Reading
Dave Hall will present a look back at our achievements as a Society over the 60 years, as well as some of the mad things we have done over the years and some photos of some of us when we were much younger. We will also remember those people who did so much for our Society who are no longer with us. It will be an interesting and fun-filled evening.

Saturday 2 April

Afternoon A tour using a preserved Reading motor bus will cover all the former

Reading trolleybus routes, starting at 14.00 and finishing around 16.30.

Evening Anniversary dinner at the Penta Hotel, Oxford Road, Reading RG1 7RH, meeting at 18.30 for a 19.00 start. A three-course meal is on offer together with tea/coffee for the price of £35 per person. The full menu was published in the latest News & Events newsletter and may be viewed on the BTS website.

Booking

Places are limited so book now!

Dinner: a £10 deposit is required. Book using the BTS website and pay by PayPal or send a cheque for £10 made out to British Trolleybus Society to Dave Hall, address below.

Bus tour:

Please advise Dave Hall by email at wiltshireman@aol.com, or write to him at 9 Hanover Court, Fieldfare, Swindon, SN3 5BG.

BTSEGM

The EGM was held in Reading on 7 January. Andrew Barton announced that the result of the membership ballots, held in accordance with the Society's Constitution, were:

1. In favour of the BTS Committee's proposal to increase membership rates with effect from 1 April 2022:
 - 26 for, 1 against.
2. To appoint John Savage to the post of Custodian Trustee:
 - 24 for, 3 abstentions

I would like to welcome John to his new role.

Dave Chick
Chairman

BTS Vehicles

Bournemouth 301

As very often happens during restoration projects, the more work that Keith Baynton has done on 301, the more he has found that needs doing!

Tasks that have been completed recently include painting the front exit and staircase areas painted, and dents in most of the lower deck upright window cappings being refaced before painting.

An unusually soft aluminium was used

to make these, the same issue having been found with 297 and 299.

The driver's seat was found to be part-seized and so has been serviced and painted. The front staircase advertising frames and smaller fittings have been refurbished and the main (underfloor) control box cover repainted.

We are expecting 301 to return to Sandtoft later this year, where it will be tested prior to being launched at a Trolleyday.

London 1812

It appears that the long wait for space to become available for 1812 to have its major overhaul is almost over. Our thanks to Robert Williams for making storage space available in the meantime.

Prize Draw Report 2021

The proceeds from the 2021 Draw are helping to finance necessary mechanical work and a repaint to make London 1812 fit for service again. The Draw attracted 44 members, holding a total of 136 shares. Eleven lucky participants (perhaps to their annoyance!) made a profit. However the purpose of the Draw is to provide funds and it made a total of £1,627 towards 1812. The organiser, Andrew Barton, would like to thank the participants for making this possible.

Platinum Jubilee Photograph Captions.

Page 26: Wolverhampton February 1952 saw the entry into service in Wolverhampton of the first of 16 rebodied Sunbeam W4s, numbers 402 to 417, which had been new in 1944/5 with either Park Royal or Weymann utility bodies. Delivery of these vehicles was spread over four months and although a total of 54 Sunbeam trolleybuses were rebodied by Wolverhampton, these were the only ones dealt with by Park Royal, and 411 is seen here entering St James Square on service 5 not long before its withdrawal in 1965

Page 27: St. Helens. One of the trolleybus services withdrawn in February 1952 was that to St Helens Junction. An interesting feature of the route was in Pleasley Cross Lane, where a railway overbridge of restricted height was found. As a result, all trolleybuses delivered to St Helens before 1950 were of lowbridge layout. In that year, however, the first highbridge trolleybuses were delivered to the undertaking. The General Manager, acutely aware of the problems that could arise, devised an arrangement (in his own inimitable style) to prevent any such accidents occurring. As may be seen, on the approach to the bridge, the overhead wires were separated, the nearside (negative) one being considerably lowered so that a power cut-off switch on the roof of a highbridge trolleybus would be activated. In order to keep a record of this feature, on the final day of operation of this service, No. 129, one of the 1935 Leylands that had been delivered with Massey bodies but had been rebodied by East Lancs, was photographed extensively to record the safety feature, despite the fact that as a lowbridge vehicle it did not need the preventative equipment!

Platinum Jubilee: The Trolleybus scene in 1952

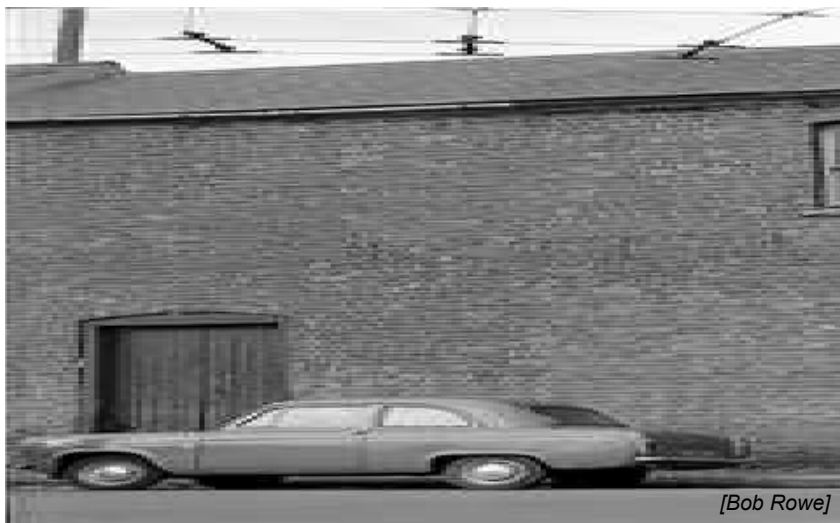
Saturday 2 February saw a large part of the St Helens system operating for the last time. The trolleybus services to Ackers Lane, Moss Bank and the cross-town route from St Helens Junction to Denton Green ran for the last time, leaving only the services to Parr, the Prescott Circulars and the joint route with South Lancashire Transport to Atherton in operation. A strategic review of services in November 1951 had determined that motorbus substitution should take place, allowing them to be extended into newly developing areas.

It may come as something of a surprise to learn that the General Manager at the time was Ronald Edgley Cox, who had been manager since September 1949. He was not to stay too much longer, however, as in July he moved to Walsall. As a result of the changes, the trolleybus fleet was reduced to 40 vehicles, comprising four 1937 Leylands, ten 1942 Sunbeams (intended for

Johannesburg), ten 1945 Sunbeam utilities and 16 post-war Sunbeam and BUTs only delivered the year before. These newer trolleybuses were later to be sold to South Shields and Bradford respectively, when St Helens trolleybus operation ceased completely in 1958.

In Wolverhampton, the first of 16 wartime Sunbeam trolleybuses re-entered service on St Valentine's Day, 14 February, with new Park Royal bodies. Deliveries were then to continue over the next three months.

These trolleybuses, (numbers 402-17) had originally been delivered in 1944/5 with utility bodies. Park Royal had been the sole body builder for all Wolverhampton's post-war trolleybuses, but these new bodies were the last supplied by them to the town, as all subsequent trolleybuses which were rebodied for Wolverhampton were constructed by Roe.





Full descriptions for these photographs are on page 25

Overleaf: Wolverhampton 411 at St James Square

This page: St. Helens 129. and the unusual arrangement at Pleasley Cross Lane, which separates the negative wire over to a new alignment for the low bridge ahead.

Photographs on this page by R B Parr.



Modernisation in Lublin

Jacek Pudło wrote the article and took the photographs

Lublin's trolleybus system has received considerable support from European funds in recent years, which has enabled a big extension of the network. However, some sections have been waiting for upgrades for many years.

One of them was Aleje Racławickie street, which is one of most important streets in the city. Around 15 years ago it was planned to build a tunnel connecting the northern and southern part of the city, crossing Aleje Racławickie. However, this plan was abandoned for financial reasons. It was many years before a new project of street overhaul was prepared.

Finally, in 2020 the work was started. Because many trolleybuses have been equipped with batteries or a diesel power pack, it was decided that overhead wires could be removed during the street refurbishment. Similar decisions had been made in previous years for many other streets.

The wires were removed in mid-2020, requiring most of the trolleybus lines to be served by battery or diesel power pack trolleybuses. An important factor was that in many cases the wireless section covered a substantial part of every single line.

The refurbishment was not only simple street repair, but also a

replacement and improvement of the underground infrastructure. During the work, the old brick street surface from the 1940s was revealed under the asphalt layer dating from the 1980s and 1960s.

The trolleybuses had to use batteries in most cases, which then had an impact on the batteries. Until then, batteries were used heavily for example on new line 150 (bus line 10 conversion), and also on other lines, like 159 or 160. Trolleybus types Ursus CS18LFT, Solaris Trollino 18, Solaris Trollino 12 (diesel power-pack) and Ursus T701 were used on Racławickie street. The Solaris Trollino 12s delivered in 2011, without auxiliary power source, were removed from Racławickie street.

During the investment, not only the street was repaired. New metal traction poles were installed, as well as new overhead wires. The new poles replaced old ones from the 1950s, when the trolleybus system in Lublin was created. It opened on 21 July 1953.

Although most of the work was finished by August 2021, trolleybuses did not use the new wires until 17 November, when the investment was officially finished and accepted.

Overleaf top: This photograph was taken on 21 June 2020, the month that the work started. Half of the old road was removed, old road layers - made of clincker bricks - are clearly visible. The 2018 Ursus CS18LFT trolleybus 3955 built in the former Ursus plant in Lublin is a type unique to Lublin. The wires were removed, so the vehicle is using lithium-ion batteries to cover the distance from Kraśnicka alley to Piłsudskiego alley.

Overleaf bottom. Most of the repair had been completed by August 2021, but some minor details needed to be finished which took a while. The photo taken on 16 October 2021 shows 2020 Solaris Trollino 18 3969. The street is new, as well as steel traction poles of greater height, new LED streetlamps and new overhead wires. The bus lanes were introduced on the whole street, which is a good improvement for public transport.



Prague Powers Ahead

Test running will start this year

Two significant developments in the establishment of a new trolleybus system in the Czech capital occurred during the same week in the first half of January.

Infrastructure construction commenced on Monday 10 January when a public ceremony saw a foundation stone symbolically tapped into place.

On Friday 14 January it was announced that the contract to supply 15 articulated trolleybuses had been awarded to SOR Libchav, which will provide its 18.75 m model TNS 18. The electrical equipment will be supplied by Cegelec of Prague. The announcement had been delayed for several months while DPP's decision was challenged in court on competition grounds. Škoda Electric and Hess also bid for the contract.

Deputy Mayor for Transport and Chairman of the DPP Supervisory Board Adam Scheinherr said, "The first modern trolleybus will start running in trial operation on line 140 at the latest at the end of 2022. We will replace diesel buses with emission-free battery-electric

articulated trolleybuses. We are improving the environment and increasing passenger comfort because trolleybuses offer a smoother and quieter ride."

For Libor Hinčica, Director of Sales and Marketing at Cegelec, this was much more than just a successful sale. As a child, Libor and his family would visit an uncle in Prague who worked in the museum which included the historic 8 Tr trolleybus and would imagine what it must have been like when trolleybuses were operating in Prague. He learned about Prague's trolleybuses and wished that they would return to the city but considered it an unattainable dream. Libor says that he cannot describe the emotion when learning that Cegelec had won the contract. "One of the best days of my life, without a doubt!"

As a trolleybus enthusiast, Libor has led several interesting projects, including the "what might have been" restoration of a 15 Tr in Opava livery and the return of Dayton 9508 to the Czech Republic.



Above: The foundation stone for Prague's new trolleybus service, with the ceremonial hammers waiting to be used. In the background, Prague's only trolleybus, Škoda 24 Tr No. 9508, which is used for training drivers and operating staff. [Dopravní podnik hlavního města Prahy (DPP)]

Trolley:motion Biennial Review

Trolley:motion has published a biennial review of trolleybus operation, taken at the end of 2021.

The total number of trolleybuses worldwide has fallen to fewer than 24,000 operating on 272 systems. This is partly due to the closure of Moscow's large trolleybus system, which at the end of 2019 still operated almost 900 trolleybuses. Three other systems closed during the review period.

Statistics for operations in Russia and Ukraine came from www.transphoto.ru. In Ukraine, the number of operational trolleybuses owned by the country's 43 operators increased to over 3,000 units.

The number of trolleybuses in the EU plus Switzerland and Norway, has risen to almost 5,000 units. Solaris is the top manufacturer, having supplied 35% of the total. In second place is the Swiss company Hess. Škoda Electric equipped over 2,000 units electrically, with Kiepe Electric equipping more than 1,000 units.

Modernisation in Nancy and Brasov

Right: An official artist's impression of the design of Hess trolleybus to be supplied to Nancy.

[Hess AG]



Below: The future of Braşov's trolleybus system had been in doubt before a strong local campaign swung the decision to fleet renewal rather than system closure. Brand-new Solaris Trollino 2032 is seen on 16 December.

[Ede Pattantyus]



Book Reviews

London Trolleybus Depots Part 3 by Hugh Taylor. A4 hardback. Published by Adam Gordon. ISBN 978-1-910654-29-3. Price £44. ISBN 978-1-910654-29-3. Price £44.

Published towards the end of 2021 this is the third in a series of books looking at London's trolleybus depots and consecutive page numbering continues throughout. In this latest volume of over 180 pages the depots involved are Stonebridge, Colindale, Finchley and Wood Green.



There are over 300 photos, the majority in black and white but including some 27 colour images. There are almost 30 full page pictures in both colour and b & w and the author has chosen a number which show to excellent effect the environment in which the trolleybus operated and they also show some of the details of the blinds and overhead fittings. Quite a number of well-known and maybe not so well known photographers have their work included and it would be unfair to single out any individual. What can be said is that the detailed captions, following meticulous research by Hugh, remind us of the complexities of trolleybus operation, London in particular. The number of vehicles accommodated in some depots was quite phenomenal. Whilst many interior and exterior images of depots are shown, the reader is taken "out on the road". We are given details of individual running numbers which would apply to a special bank holiday or Christmas Day short working. Photos of conductors pulling frogs, dewirements and scrapyards are included.

Having enjoyed the nostalgia of a considerable number of monochrome pictures we then turn the pages to find London's trolleybuses in their splendour of the red livery with cream relief bands. Then the icing on the cake (or is it snow on the ground) is the finale of a number of full-page atmospheric pictures of the Stonebridge routes just before they finished in the heavy snowfall of early 1962. The reader is also treated to images of a number of farecharts, timecards and blind displays.

There are some personal reminiscences from the author, when he rode the last trolleybus into

a depot and removed the binds "for safe keeping"! A full chapter details the exploits of John Carwardine and his friend Chris Foyen who would creep into trolleybus depots, climb into the driver's cab and wind the blind so that all the destinations could be recorded – occasionally they were asked to leave before they had completed their task!

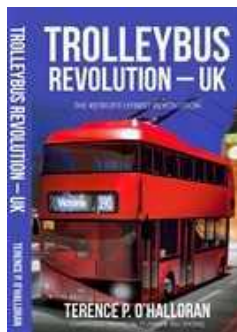
This book is highly recommended not just for the pictures of the trolleybuses themselves but a reminder of a long gone London depicted in the street scenes. Whilst the price may seem high, compare this with buying some 300 individual postcards, sold without the benefit of the detailed captions.

Purchasers are advised to ensure that the book contains the four inserted depot overhead loose-leaf wiring sheets.

John Parkin

Trolleybus Revolution – UK by Terence P O'Halloran. Soft covers 130mm x 200mm. Also available as an eBook. Published by Life Publications Limited, Tiptree, Stainton by Langworth, Lincoln LN3 5BL. www.lifepublications.co.uk ISBN 978-1-80227-179-9 (paperback) ISBN 978-1-80227-180-5 (eBook) Price £12.99

This book is aimed at politicians and influencers rather than enthusiasts and while BTS members will be aware of the advantages of trolleybus operation and the technological developments



happening elsewhere in the world, for most of the people who could influence the commissioning of new trolleybus systems in the UK, the contents of this book will be a revelation.

Author Terence O'Halloran is a BTS member and the innovative element he brings to this

work was shared with members in a letter published in the December edition of Trolleybus; this is his proposal that much of the UK bus rolling stock be retrofitted with trolleybus equipment.

For me, one of the key chapters of this book deals with Bus Back Better, the government's national strategy for improving bus services as

part of the drive to reduce the UK's carbon emissions. This chapter looks at the advantages of the trolleybus with In-Motion-Charging facilities compared to the battery bus and concludes that the former has greater environmental benefit and lower overall cost, mainly because recharging downtime of battery buses means that far more are needed to provide the same level of service.

The author argues that UK bus manufacturers do not have the capacity to build

enough new battery buses to replace diesel on the scale required in the time available and that it would be far more economic and greener to retrofit buses with trolleybus equipment, extending the lives of seven buses for the price of buying one new battery bus.

I hope that Terence's book will provide influential people with a different perspective on a possible solution to the need for rapid progress towards zero emissions.

DGC

Trolleybus Modelling

Model trolleybuses have never been numerous so enthusiasts and modellers will be interested to learn of the following new and forthcoming releases.

Sunrise Models and Transfers have just released their first trolleybus kit, which represents Glasgow Corporation Transport's ten 1958 Burlingham-bodied BUT RETB1 single-deck trolleybuses, Nos. TBS12-21, which were used on service 108 between Mount Florida and Paisley Road Toll, Linthouse or Shieldhall. When it replaced tram service 12 in November 1958 it was the final tram to trolleybus conversion in both the city and in the UK.

The 1:76 (OO-scale) resin model is easy to assemble, comprising a small number of body and chassis parts as well as trolley equipment, etc. Paints and transfers will be required for completion.

Details and contact information can be found on www.facebook.com/G414AF/

Sunrise are also working on models of the 80 BUT9613T Crossley-bodied Glasgow double-

deck trolleybuses (like the Society's TB78) and one of the earlier experimental 'passenger flow' single-deck vehicles.

Little Bus Co. are already accepting orders for their 1:76 (OO-scale) resin model kit of a Bournemouth Sunbeam MF2B Weymann-bodied trolleybus as exemplified by another BTS vehicle, 301. Assembly will be similar to that of the Glasgow single-decker referred to above. This is expected to be a popular model so an early order is recommended.

Details will be shown on the Kits and Transfers page of www.modelbuszone.co.uk shortly but orders can now be placed by email with karl@little-bus.com.

Another new model trolleybus kit in resin features Hull's 'Coronation' Sunbeam MF2B Roe bodied trolleybuses, fleet nos. 101-116, however, it is only available to members of the Model Bus Federation (ref: SKU: MBF2K-08). Details can be found on www.model-bus-federation.org.uk/kits

David Bowler

Right: The Hull Coronation model which has recently been released in kit form.

Below: The Sunrise Models Glasgow RETB1.



Irony of Glasgow Pole Removal

The January edition of Buses magazine reports that while the COP26 global climate conference was in progress in November, with impeccable timing contractors were removing the traction poles at the former Mount Florida terminus of trolleybus route 108 (mentioned in the models news here).

Apparently, the contractors had difficulty removing the poles, which extended much further below ground than they had expected.

MUSEUM & PRESERVATION NEWS

Edited by Jody White



New Zealand

Ferrymead Heritage Park Report by Alan Roi

Bus Park We have been levelling out the area on the west side of the trolleybus shed to form a hard standing area on which to park a lot of our diesel buses. One of our most recent volunteers in the trolleybus crew, Angela - a very proficient digger operator - has done the majority of the levelling. Just before press time, we started shifting buses to this new parking area.

Trolleybus Shed In a recent storm with high winds, the shed lost some roofing iron. This has since been repaired and the shed is now in reasonable condition.

We have continued to prepare for the shifting of trolleybus overhead onto the recently planted poles and are now awaiting approved structural engineering plans from Leyton Chan of MOTAT. Leyton is checking the design that was supplied to us by Allan Nielson, and which he approved from an electrical point of view.

We hope to start serious work along the road soon. We have attached back stays to some poles and also transferred wires to new poles in the depot area. Larry Day continues to overhaul fittings at his home.

Wellington 258 had some electrical problems which we worked through and thankfully, all faults have now been eliminated. There is still more to do, including a full service and the cleaning of the control gear.

Dunedin 79 Work continues on the indicators and other 24 volt wiring, gradually bringing this trolleybus up to scratch. Once we are ready to open the system again, we will be putting 79 through for a COF and hope to use her regularly.

Netherlands

From STA (Stichting Trolleymaterieel Arnhem) Newsletter Thanks to Herman Wilmer

On three Saturdays in the late summer of 2021, 21 August, 4 and 18 September, trolleybuses were exhibited in Arnhem on Velperplein and in the Walburgstraat, opposite the Grote Market, near the old town hall. The goal was threefold: to bring to the attention of the public, to recruit donors and to start fundraising for necessary repairs, and to acquire a trolleybus that was to be withdrawn from service by Connexxion. The action was a success: several hundred passers-by turned up, often with children who were allowed to play driver by sitting on the driver's seat and holding the steering wheel. The passers-by who wanted to sniff the air of the trolley and recount stories about their past with the trolley also contributed to the atmosphere. The regional press also showed interest: TV Gelderland devoted a lot of attention to the first event on 21 August in its afternoon and evening news, while the daily newspaper De Gelderlander published an attractive article about it for the Monday edition.

USA Illinois Railway Museum

The Illinois Railway Museum is the largest railroad museum in the United States. It is located 55 miles (89 km) northwest of downtown Chicago.

According to their website, the Elgin & Belvidere Electric Railway, an interurban line, opened for business in 1907. It had the world's first fully automatic substation, situated in the town of Union. The E&B operated successfully until 1930, when the popularity of automobiles and onset of the Depression brought about their bankruptcy. The tracks were torn up and the interurban cars scrapped.

Known as the Illinois Electric Railway Museum when created in 1953, 'Electric' was removed from the title in 1962. After substantial growth, the collection was moved in 1964 to an empty field east of Union and has since grown to about 450 pieces of equipment. The property has expanded from a 26-acre plot to 100 acres,

while the main line railroad now includes nearly five miles of the former E&B right-of-way and almost four miles of track, and the majority of the train collection is now undercover.

Ahhh, but you must be wondering why I'm including a Railway Museum in this column... Well, besides the personal reason of having ancestry in Illinois, the more pertinent reason is the Chicago Transit Authority trolleybus 9631. Yes, our favourite subject – trolleybuses! This particular trolleybus, built by Marmon-Herrington in 1951, is now owned by – you guessed it! – the Illinois Railway Museum. 9631 was originally part of the Chicago trolleybus system which ran for 43 years – primarily, although not entirely, on the Northwest Side of the city. 9631, a model TC49 with motor 1 GE 1213 was assigned to the North Avenue Garage at North and Cicero Avenues for its entire service and had already been chosen for preservation when Chicago's last trolleybus routes were closed on 25 March 1973. It is now being repainted by an off-site contractor in Elgin. The nearside is about halfway completed; and once the side and the rear end are finished below the belt rail, the upper part is expected to be completed fairly quickly. Congrats to the Illinois Railway Museum!

The Trolleybus Museum at Sandtoft

The Museum will reopen at the end of March and there will be regular Trolleydays until November. The full programme may be viewed at [Open Days – Trolleybus Museum at Sandtoft](#).

Saturday 26 March and Sunday 27 March

On 26 March it will be exactly 50 years since the last trolleybus ran in Bradford, at

the same time bringing trolleybus operation in the UK to an end. This weekend a selection of Sandtoft's Bradford vehicles will be operating. Bradford 844, which was decorated as Britain's last trolleybus, will be on loan for the operating season.

As well as this, and all the Museum's usual attractions, there will be a very special event to formally launch the Toy Museum (see below).

Come along for a great weekend!

Starting the New Season with a Bang!

Despite the informal opening of the Sandtoft Toy Museum from May 2019, we are pleased to announce the much-delayed formal opening by Thomas Forrester, well-known Special Auction Services auctioneer and antiques expert from TV's Bargain Hunt and Antiques Roadtrip programmes, on Saturday 26 March at 12.00 noon. Thomas will then be available to advise on and value visitors' antiques that they might like to bring, nominally limited to two items per visitor, to give everyone a chance! (More may be considered if time allows)

The Toy Museum itself is being extended into an additional room, enabling further displays to be added to the already extensive 'repertoire', which includes toy trains, model buses, trams and trolleybuses, wooden toys, 'A day at the Races', 'The Heyday of Plastic Kits', 'Constructional Toys', Dinky and Matchbox toys, traditional wooden toys, dolls and many others – indeed something for everybody to remind them of those nostalgic childhood years! We are hoping that Thomas will also be available on Sunday 27th for more antiques valuations and are extremely grateful to him for giving up his time for the Trolleybus Museum.

Letter to the Editor

I have been looking through my copies of Trolleybus for 2021 and am writing to congratulate you and the team on your continued splendid efforts to produce the magazine reliably and with such varied content. You all must be very well disciplined. Thanks to Tony Belton the "London Buses for Trolleybuses" story has continued throughout the year. 1961 was a particularly sad year for trolleybus fans as so many routes and vehicles were withdrawn. As a 10-11 year old who occasionally visited the Kingston and Hampton Court districts when shopping or visiting family, I was completely unaware that all this carnage was going on.

The articles on Mexborough and Swinton, Tees-side and Brighton (what a pity Tony Belton missed seeing the Brighton, Hove & District trolleybuses) were really interesting as were those on other specialist subjects. The World and Museum and Preservation News reports have been particularly encouraging over the year and I hope this continues to be the case into the future.

Andrew Henbest

World News

Edited by Bruce Lake



ARGENTINA Rosario

The 60th anniversary of trolleybus line K was celebrated on 3 December with some ceremonial speeches in front of the historic Fiat/Alfa-Romeo/CGE trolleybus. The system opened on 24 May 1959 and line K opened on 3 December 1961.

CZECH REPUBLIC Brno

The new Škoda 27 Trs are

CZECH REPUBLIC České Budějovice

A new 2.4 km trolleybus line connecting the trolleybus depot directly to the rail station area will be erected by Elektrizace železnic. The contract worth CZK 100 million (£3.43 million) should be completed by the beginning of December 2022.

CZECH REPUBLIC Jihlava

changed to one for SOR NS12 bodies.

Because this contract was cheaper than expected, one Škoda 26 Tr without auxiliary battery drive has been ordered, for delivery by November.

CZECH REPUBLIC Mariánské Lázně

A subsidy has been approved



With the arrival of Brno's new Škoda 27 Trs all eight 22 Trs are being withdrawn, but 3601, built in 2003, is being refurbished and will join the historic fleet. Work is seen in progress on 5 January. View of some of the wiring, inset [Dopravní podnik města Brna]

being numbered 3648-3667. After exactly 30 years' service, Škoda 14 Tr 3249 has been converted to a service vehicle for de-icing and lubricating overhead.

DP Jihlava signed a contract for 6 standard trolleybuses in April 2021 with the company Tram for Envi which was to supply Ukrainian Bogdan vehicles powered by Cegelec electrical equipment with in-motion charging. However, because of complications due to COVID the order has been

for the reconstruction of the substation and part of the overhead line.

CZECH REPUBLIC Opava

Three conventional (overhead only) rigid trolleybuses are expected for delivery this year.

CZECH REPUBLIC Ostrava

A very interesting development is that the first order has been placed for a batch of GANZ-Škoda 36 Tr trolleybuses.

These will have Temsa bodies and will also be known as the Škoda T'City. The order calls for twelve 12 metre battery-equipped trolleybuses with an option for a further six. The body for the prototype has already been delivered to Škoda. They will replace the last ten 21 Trs, which date from 1997 – 2002.

The three other bidders were Ekova+Solaris, SOR and Tram for Envi. The competition led to the contract price being roughly one-fifth lower (CZK 203 mill against 252 mill) than estimated. GANZ became part of the Škoda Group a decade ago while 50 % of the Turkish bus manufacturer TEMSA was bought by "PPF Investment Fund" (Netherlands registered but owned by the richest Czech family), the parent company of Škoda Transportation was bought at the beginning of 2021. Despite the number of bidders, the real competition was with SOR and Tram for Envi, as Ekova became a part of Škoda Transportation between the launch and evaluation of the tender.

CZECH REPUBLIC Pardubice

The operator is seeking to buy 10 standard trolleybuses, 4 of them with in-motion charging.

CZECH REPUBLIC Praha

On Monday 10 January DPP formally launched the construction of line 58, the first route for the city's new trolleybus system.

Construction of the overhead line and power infrastructure will take 10 months, with trial operation expected to commence during October this year. At the launch officials posed with a foundation stone

and hammers, with trolleybus 9508 (the ex- Plzeň Škoda 24 Tr) also present. It is used for training drivers and operating staff.

The winner of the contracts to supply articulated trolleybuses for line 58 and double-articulated trolleybuses for line 59, the airport service, was expected to be announced by the end of January.

CZECH REPUBLIC Středočeský kraj

The proposal to introduce an interurban trolleybus line between Prague and Kostelec nad Labem has been withdrawn because of the local residents' opposition. The project for a line from Prague to the twin-town Brandýs nad Labem/Stará Boleslav is not affected by this decision.

CZECH REPUBLIC Teplice

The newly-erected two-lane overhead line on Obránců míru and Bohosudovská was commissioned at the end of October and with the introduction of the new timetable from 1 November line 101 operates via this new route with stops at Trnovany, Bohosudovská and Maršovská. A total of 22 frogs and crossings were installed to connect the direct route to the Anger terminus. There were no road closures during the entire construction period.

Lines 102 and 103 can again be served by trolleybuses and line 105 has reverted to its original route between the intersection of Okružní Street and U Červeného kostela. The road has been redesigned with a central island and this required the complete closure of a 100 m section of Masarykova třída from 27 September to the end of October 2021.

The delivery of five additional battery trolleybuses is expected from May 2022. By then, further overhead will be

erected in Jana Koziny and Maršovská streets, so that the new vehicles can also partially operate bus lines 122 and 123 electrically.

The contract with Arriva will not be renewed when it expires in January 2024 but will be taken over by the newly-established municipal transport company. DP Teplice was privatised in the early 1990s, so DP Teplice will not be established but re-established. Arriva (previously Veolia Transport) employs drivers, workshop staff and management while the infrastructure and vehicles are owned by the city council.

CZECH REPUBLIC Zlín

Operator DSZO has published a tender for four battery trolleybuses. The specification is for a length of 11.5 to 13.5 m and with 24 to 32 seats. A service life of at least 15 years is expected. After the order is placed, delivery must be completed within 440 days. Maintenance and service are also part of the scope of the contract.

DSZO intends to use battery trolleybuses on peripheral routes where it would be uneconomical to install overhead due to the lower number of passengers. The extension of trolleybus line 2 in Otrokovice, from the station to Otrokovice town centre on the other side of the railway line, will be opened this spring. The contractor Elektroline is installing about 900 m of overhead along třída Liberation and ulice Komenského, mostly from existing columns, although some new traction poles are also required. Contractually the work must be completed by 15 April.

FRANCE Limoges

An order is to be placed for four articulated trolleybuses with In-Motion-Charging

capability. The order may be placed by exercising an option on a previous order placed with IVECO Bus and would specify delivery by the end of this year.

They will be used on line 4, displacing the Hess SwissTrolleys, for which another line is being sought. From 6 to 9 December, No. 904 was used on the remaining trolleybus lines 6, 5, 2 and 1 to identify possible problems. Planning of future BRT lines includes battery-equipped trolleybuses as an option.

FRANCE Nancy

Hess has been selected to supply the new fleet of trolleybuses. Elected officials chose the Swiss manufacturer rather than Van Hool on the grounds of "reliability, shorter delivery times and increased capacity".

The order is expected to be for 25 double-articulated vehicles and will be placed during the summer. In early 2023 the Bombardier TVR fleet will be decommissioned and a temporary bus service will be introduced on the line. The new trolleybus service will commence early in 2024.

LITHUANIA Vilnius

Tenders are to be published seeking the supply of 50 new trolleybuses this year, and by 2024 the procurement of a total of 159 new trolleybuses is planned, including articulated, which have only been used in very small numbers here. All are to be equipped with traction batteries for journeys of up to 30 km away from the overhead network. More than half the fleet still consists of Skoda 14 Tr, 14 TrM and 15 Tr high-floor trolleybuses from the 1980s and 1990s. The average age of the current fleet is 22 years.

The Solaris Trollino 24 demonstrator has been used on line 19 and if successful double-articulated trolleybuses may form part of the new order.

POLAND Lublin

Solaris Trollinos 3847 and 3848 are the latest such vehicles to be sent to Tychy.

POLAND Tychy

Lublin Solaris Trollinos 3847 and 3848 have been acquired.

ROMANIA Braşov

The first new Solaris/Medcom articulated trolleybuses entered service on 15 December. It was expected that all 25 (2026-2050) would have arrived by the end of the year. They are intended for use on trolleybus lines 3, 7, 8, 10 and 33. Unlike the previous batch of Škoda-equipped vehicles, the Medcom cars have to be stationary when changing between mains and battery power.

RUSSIA Rostov-na-Donu

Almost 70 trolleybuses were acquired from Moscow, with around 30 trolleybuses procured between 2009 and 2014 forming the rest of the fleet.

Trolleybus operation returned to line 17 on 11 October 2021 after a gap of 23 years, meaning that 12 lines are electrically served. It is intended to rejuvenate the trolleybus fleet by procuring ten battery trolleybuses per year and to expand electric operation again. It had been planned to procure battery-electric buses, but the project has been cancelled following experience with the KamAZ-6282 electric bus purchased in October 2018, which only worked on 23 days due to numerous breakdowns.

RUSSIA St Petersburg

On December 21 the results were announced of three tenders for the supply of 286 trolleybuses. Trans-Alpha of Vologda will produce 166 "classic" (ie without auxiliary power) rigid trolleybuses and 97 equipped with batteries. "Autotechkomplekt" LLC is to supply 23 articulated trolleybuses with auxiliary batteries.

SLOVAKIA Bratislava

The city's public transport operator has announced that the contract for the supply of eleven new 12m trolleybuses has been awarded to SOR. They will be the TNS 12 model and will have CEGELEC electrical equipment. Delivery is to be completed within 12 months. The majority of the trolleybus fleet comprises SOR products, 120 vehicles based on the SOR CityBus with Škoda equipment having been supplied in 2014/2015.

SWITZERLAND Zurich

A new night network was introduced with the timetable change on 12 December, operating on Friday/Saturday, Saturday/Sunday and before public holidays. As part of this, three lines are served by battery-equipped trolleybuses, which cover some long sections in battery mode.

These are the following lines:

- N1 Bahnhofplatz/HB - Hardplatz - Bahnhof Altstetten - Dunkelhölzli (day lines 31 & 78)
- N2 Sihlcity - Strassenverkehrsamt - Helvetiaplatz - Bäckeranlage - Limmatplatz - Zehntenhausplatz - Holzerhurd / Waidhof (day lines 89 & 32 & 62)
- N4 Bahnhofplatz/HB - Sihlquai - Escher-Wyss-Platz - Lehenstrasse - Rütihof (day lines 4 & 13 & 17 & 46).



One of Fribourg's eight MAN/Hess/Kiepe bimodes about to depart for further service in Sarajevo on 4 November. Spot the rainbow!
[Marc Germann]

Additional rewiring funnels have been installed at the main station, Lehenstrasse, Zehntenhausplatz and Altstetten station. Six of the ten existing Swisstrrolley or LighTram (No. 183, 200-208) are used.

A tender calling for the delivery of 13 battery articulated trolleybuses and 13 battery double-articulated trolleybuses includes options for the supply of a maximum of 55 battery articulated trolleybuses and 85 battery double-articulated trolleybuses. The term of the resulting contract will run from 1 October 2022 to 31 December 2032.

UKRAINE Severodonetsk

A working group has surveyed the route of future trolleybus line 9 (Severodonetsk to Lisičansk) in preparation for its opening. Representatives of the transport companies, city administration, state road safety service, road service and the police have developed recommendations on the organisation and safety of the route. At the time of the test run, only one of the Dnipro T203 trolleybuses ordered for this line had arrived (car 301), but the other two were delivered in December. From 16 December, the new vehicles were used on line 8,

partly with the use of batteries for testing.

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Farewell to Târgu Jiu's Rocars

Târgu Jiu was the last Romanian operator of exclusively Romanian-built trolleybuses. With the arrival of a new fleet of Solaris Trollino 12s, these photographs taken by our regular contributor Zdeněk Kresa on 13 September 2021 salute the end of the vehicles which have served since the system opened on 20 June 1995. An article about the system appeared in Trolleybus 686 (September 2018)

On the rear cover, upper: Rocar 217E 3xGW No. 0108 will soon reach the Artego terminus.

On the rear cover, lower. The building in the background is Stadionul Tudor Vladimirescu, a multi-purpose stadium that opened in 2019. Rocar 217E 2x 0117 is seen at Str. Traian.

