

Eastern National and the Setright Machine David Harman

Many members will remember the Setright Speed machine, used by Eastern National to issue tickets for over 30 years. In fact, Eastern National's association with the Setright goes back further than you may imagine. The following is an account of that association.

Henry Roy Setright was an Australian precision engineer who had been involved in the design and manufacture of racecourse totalisator equipment in his homeland. With the prospect of 'pooled betting' (which had originated in France as the "pari-mutuel") and the idea of the totalisator (a device to record bets and issue a betting slip) becoming legal in Britain (which eventually occurred in 1928), Setright had come to London in the hope of selling "tote" machines here.

Harry Setright 'hedged his bets', so to speak by also working with another Australian, George Bethell, in designing a portable ticket issuing machine for use on buses and trams. The London General Omnibus Co. had issued a specification for such a machine and this had attracted a lot of interest. Automatic Ticket Issuers Ltd was formed to make and sell what was termed the "Trambus" machine, an early ancestor of the Setright Speed.

However, the "Trambus" proved unsuccessful, as did Setright's attempt to gain a foothold in the totalisator market. Undaunted, he acquired the "Trambus" patents and set up in Ufton Road, Kingsland, N1, to make the "Setright Fare Register", for which he found three ready customers: Westcliff-on-Sea Motor Services Ltd. (13 machines), Manchester Corporation Transport Department (4 machines) and The Borough Services of Southend (14 machines). The Setright Fare Register stamped the fare, stage etc. on a blank card inserted in the machine.



Setright Registers Ltd. was formed in 1931 with French financial backing, and sales of the Setright Fare Register progressed. In Essex, Westcliff bought further machines, and new customers included Edward Hillmans Coaches, Benfleet & District, Rayleigh Motor Services, Rochford & District and Ashdown's Saloon Coaches.

Left: Westcliff Setright Fare Register (c1931)

Below left: Examples of early tickets:

Left: Eastern National Setright Fare Register ticket issued through an ex-Hillmans machine CX;

Middle: Westcliff Setright Fare Register ticket issued through machine W8 (prewar);

Right: Eastern National 2/4d Setright Fare Register ticket issued through ex-Borough machine B10 and cancelled through Westcliff Setright Speed WMS16 (1949 or so);

Bottom: Benfleet & District 4½d Setright Fare Register Workmans Return ticket through Canvey machine C2?, cancelled in machine 7G (possibly ex-Hillmans).



By 1934, the long-range Setright LR.D model (the "insert Setright") had been developed, principally for the Scottish Motor Traction group - a substantial customer. The first new Setrights appeared with Eastern National around this time as they bought a handful of machines for the office issue of weekly tickets at the Park Street Bus Station in Luton and at the Vauxhall Works in Dunstable.

Right: Westcliff insert Setright LR.D c.1935. It had an E number, like the prewar Setright Roll Ticket Registers of Westcliff but why is not known. As the machine is in almost new condition, I suspect it was little used.

Eastern National had also acquired quantities of the earlier Setright Fare Register by virtue of the takeover of the Edward Hillman concern by the LPTB, Eastern Counties and EN in 1933, and the purchase of The Borough Services Ltd. (which ran as an EN subsidiary until 1940) and the Aylesbury Omnibus Co. Ltd. in the same year.

Westcliff, then independent of the Tilling Group, was a good customer of Setright's and they were among the first to buy the Setright Roll Ticket Register. This was a short-range predecessor of the Setright Speed, developed from the "Trambus". The Setright Speed itself is reputed to have been designed just before the War principally to meet the requirements of the Tilling Group. Pre-production models were supplied in early post-war years to Eastern National and Westcliff among others, and the first production machine, WMS01 was received by Westcliff around 1948 as part of a small batch.

Hicks Bros. Ltd. followed (replacing the Willebrew system) and then, Eastern National. Machines could only be supplied in small quantities because of the extreme shortages of raw materials in the post-war years.

Early machines had a fare range up to 12s 11½d but this was later extended to 19s 11½d. Whilst ordinary fares, even returns did not go much above 5/-, the higher range was required for weekly tickets, then sold on-bus as card tickets printed through the slot on the front of the Setright.

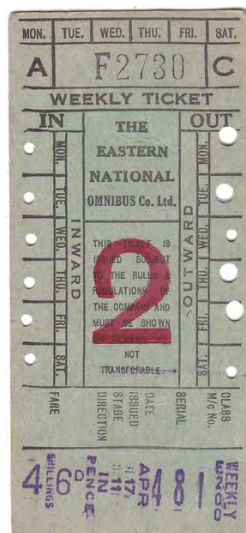
Up until the advent of the Setright Speed, Eastern National was in the slightly unusual position of having three/four ticket systems on the go at the same time! The early "insert" Setrights inherited from Borough, Hillmans and Aylesbury Omnibus were eventually concentrated on the Grays area. The cumbersome Williamson Willebrew* system was used in the Chelmsford, Colchester, Halstead areas at least, whilst the old bell punch system with rack of tickets and Williamson punches was used elsewhere. The small number of long-range "insert" Setrights for weeklies at Luton continued in use until replaced by two specially-adapted Setright Speeds, E421 and E422.



Contrasting weekly tickets:

Left: Eastern National insert Setright weekly ticket for Luton area, issued through office machine A01 (wartime). These existed in a great range of colours, varied week to week to deter fiddling. Those with a colour stripe were not available for travel on the Luton side of Dunstable Town Hall, Hitchin (Bancroft) or Toddington, The Green.

Right: Eastern National 4/6d Setright Speed weekly card issued through E200 (early 1950s). Not sure what "2" indicated, maybe random code to stop fiddling. [not to same scale as illustration on the left]



The takeover of Hicks Bros. by the BTC in 1950 and its placing under EN control, and the transfer of Westcliff to EN control in 1952, accelerated the need to institute a common system, and further batches of Setright Speeds were ordered for both Westcliff and Eastern National. This programme was complicated by the Westcliff acquisition of the City Coach Company Ltd. City had been a user since pre-war years of the "insert" Setright and a large number of machines passed to Westcliff. These continued in use for a period but to standardise on the Setright Speed, the newer of the redundant insert machines were sold to Wilts & Dorset MS and Lincolnshire Road Car.

Over the years, Eastern National bought regular batches of new Setright Speeds. It is believed that these further machines were to allow conversion from the system of "one machine per duty", the machine being issued at start of duty and returned with takings at end, to that of "one machine per conductor", and the ability to pay-in via a night-safe. This allowed a saving in depot cashier staff who henceforth could work normal office hours and who checked machines only on a periodic basis.

Machines supplied are thought to have been: WMS01-WMS248 - new to Westcliff
H01-H48 - new to Hicks Bros.
E001-E1595 - new to Eastern National.

However, the transfer of Westcliff to EN control in 1952 was counter-balanced by the transfer of the Midland Area to United Counties, and a quantity of Setright Speeds (Exxx and WMSxxx series) passed to UCOC at that time.

More recently, Eastern National bought some Setright Speeds from Southend Corporation, rendered surplus by the latter's gradual conversion to Almex A. These machines, in the Sxxx series, were identical in specification to EN's own machines.

In connection with the computerisation of Setright machine records, all second-hand machines were given new "case numbers" (on the front casing), although they still printed their original number on tickets. The system was:

- ex-Southend machines renumbered in the 7xxx series; thus S023 became 7023.
- ex-Hicks machines renumbered in the 8xxx series; thus H03 became 8003.
- ex-Westcliff machines renumbered in the 9xxx series; thus WMS132 became 9132.

A great variety of rolls existed for the Setright Speeds and space permits only a brief mention. Suffice to say, nearly all the established printers of Setright rolls (termed "coils") supplied Eastern National at one time or another: Bell Punch (later, Control Systems), Williamson's of Ashton, Glasgow Numerical Printing (GNP) and National Cash Registers (NCR).

For many years, Bell Punch (brown rolls) supplied the southern depots, WG, BD, BN, HH, CY and SD, and Williamsons (primrose rolls), the central/northern depots, CF, MN, BS, CR, HD, CN and DT. The split ordering may have been connected with unexpired contracts relating to the old Willebrew system but was certainly still going in the 1960s long after the Willebrews had gone. Perhaps someone forgot this and just kept ordering from Williamsons.

One unusual feature of the brown Bell Punch rolls was the red stripe on the back. This was quite distinct from the red or purple stripe that appeared on the front to warn conductors that the end of roll was nigh. The red stripe [on the back] is thought to have been intended to make it difficult for passengers to erase the cancellation mark on returns. Later the stripe was replaced by commercial advertising.





A classic EN Setright Speed, E001 (c.1948), with insert slot and slot where return tickets could be inserted and cancelled with the machine details.

Another quirk was the brief appearance of a variety of different colour rolls from Williamsons from about 1960 onwards: green, pink, lilac, white, dark blue and dark orange in addition to the usual primrose. The reason for this is not known with any certainty but it may have been connected with paper shortages or perhaps an overstock of coloured paper at Williamsons, prompting some sort of “special offer”. Crosville Motor Services, another Williamson customer, also enjoyed a colourful Setright roll interlude at around the same time.

The dark blue and the dark orange rolls were not entirely suitable as the machine-printed text was difficult to read, and the latter appear to have been withdrawn and placed in store (which see later).

Two other events that had a bearing on the Setright machines were the introduction of one-man operation, a protracted exercise that took place over many years, and decimalisation which occurred overnight in 1971. One-man buses were fitted with Setright motor-drives which speeded up ticket issue by a small margin. Decimalisation required modifying the machines which, given the large fleet of these, involved a gradual conversion process from 1968 onwards.

In the lifetime of the Setright Speed with Eastern National, four other ticket systems were used:

1) In 1964, the old Westcliff “D” service (Southend - London) was converted from pre-booking to “pay on the coach” and became the famous X10. With the introduction of the coach FLFs, increased custom was anticipated and indeed occurred. EN decided for reasons unexplained that a different ticket system should be employed by X10 coach conductors - a return to the old Insert Setright. Some elderly insert Setright Registers were obtained from Wilts & Dorset and a set of three card tickets for use in them was printed - single (white), period return (lilac) and day return (yellow). One might have thought that Wilts & Dorset would have dug out and returned the old City Coach machines (CYxx series) that they obtained from Westcliff in 1952/3, but instead, they found some Cxxx series machines that had been ordered by Cumberland Motor Services but cancelled before delivery, and subsequently sold on by Setright’s to a number of other operators, including W&D.

Most of these had a short life on the X10 because in 1963, Eastern National inherited 34 insert Setrights with the takeover of Moore Bros (Kelvedon) Ltd. These were numbered MB01-32 and Z27-Z28. These replaced the earlier insert machines on the X10 and six of the Cxxx machines were sold on to Osborne’s of Tollesbury.



Below: Eastern National X10 insert Setright period return ticket issued through ex-Moores machine MB01 and cancelled through MB11.

Later, the X10 became one-man operated and Setright Speeds replaced the insert machines. As X10 returns could be used to return over common sections of other (stage-carriage)

routes, principally the 151/251 (but not vice-versa), tickets needed to be recognisable as issued on the X10. Thus, the deep orange rolls were brought out of storage and put into use. When the stock of these was used-up, Control Systems supplied pink rolls to serve the same purpose.

2) Two other on-bus systems used were the Almex A and the Setright Keyspeed. A number, thought to be six, Almex A machines were in intermittent use from 1960 onwards mainly for statistical purposes as they incorporated a paper audit roll. They were allocated initially to Chelmsford and Basildon.

3) Three Setright Keyspeeds were tried in 1974 at Brentwood. This was an electro-mechanical machine designed for OMO, which printed on plain rolls. It was not a success with EN or with other users. See example of a 3p ticket **right**:

4) A Setright Multiset self-service machine was installed at Kings Cross Coach Station for the issue of tickets for the coach-air services. This did not last long. (see EBN 522, October 2007 – available on-line at our Archive website).



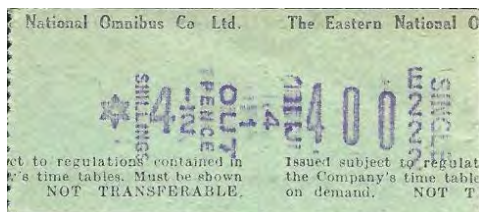
The beginning of the end for the Setright Speed with Eastern National came with the trial purchase in 1984 of 13 Microsystem Design Wayfarer electronic machines.

These were allocated to Bishop's Stortford. These printed small tickets on thermal paper. The trial was successful but when more general conversion to ETM (electronic ticket machines) came a year or so later, it was to the uprated Wayfarer II system with ballistic (dot-matrix) print mechanism.

When the Wayfarer conversion programme was completed, the Setright finally bowed out – except perhaps on the open-top Bristol KSWs that lingered on into the 1990s – can anyone confirm, please?

More examples of different coloured ticket rolls:

Both are pre-decimalisation, for 4½d and 2/- respectively, but with subtle differences in details – can you spot them?



* For a little more on the Willebrew system, see the article in EBM Extra 9, page 19 (in relation to Viceroy Coaches).

Further reading: *From White and Red to Green: A Ticket History of the National and Eastern National bus companies*, Martin Eastale, Transport Ticket Society, 2019, ISBN 978-0-903209-88-5.



Ticket illustrations here are sized to be legible in the magazine and are not actual size or all to the same scale. All illustrations are from David's very extensive collection, plus a couple from the Group's archives.

Finally, how to wear your Setright with pride. We've used these pictures before, cropped from an Eastern National recruitment leaflet showing conductress Jeanne Cunniffe, but worth reprising here. Some conductors choose to wear theirs much more low slung!

