M.d.C. ENGINEERING SUPPLIES Phy. Ltd. 118 QUEEN ST.

TEL. M 3078 (2 Lines) MELBOURE

icket ssue Modernised

'T.I.M.' (TICKET-ISSUE MACHINES) LTD.

46 ASHCROFT ROAD, CIRENCESTER, GLOS. Telegrams & Telephone: CIRENCESTER 400



The T.I.M. System in Transport

THE T.I.M. SYSTEM stands for simplified fare collection with increased speed of issue, reduction of work for the Ticket Office Staff and easier inspection *en route*.

It has been operated on every kind of route and under all types of conditions for over 15 years, and during this time the lessons we have learned have enabled us to improve each successive model while retaining the basically sound features which have been the foundation of our success.

The war years during which we were not permitted to manufacture gave us the necessary breathing space to re-design several components which we had long felt could be improved.

Machines, 100 of which cost approximately the same as one double-decker bus, pay for themselves in from one to three years and are guaranteed for 10 years.

The system is very flexible, over 200 undertakings, some of them overseas and no two exactly alike, use it, and issue over 9,000,000 tickets per day, which we think bears out our claim that the "T.I.M." System is the most economical, flexible, speedy and reliable in the world.



General Advantages

Among the outstanding advantages of the T.I.M. System as applied to Public Transport are:—

- (a) A saving of up to 75 per cent. on the cost of tickets.
- (b) Simplification of Conductors' Way-bills and simplification and speeding up of inspection on vehicles.
- (c) Prevention of waste ticket stocks, due to change or extension of route, changed stages or fares.
- (d) Economy in the Ticket Office due to the reduction of work in making up ticket boxes.
- (e) Saving of time when issuing and receiving machines at the commencement and termination of a tour of duty.
- (f) Increased speed of issue, ensuring a rapid collection of fares; speeding up of services and elimination of lost fares.
- (g) The validity of the ticket can be immediately checked: first, by the date of issue, and further by the serial number, which corresponds to the number of the Total Counter meter. Only one serial number is used throughout the whole range of tickets.

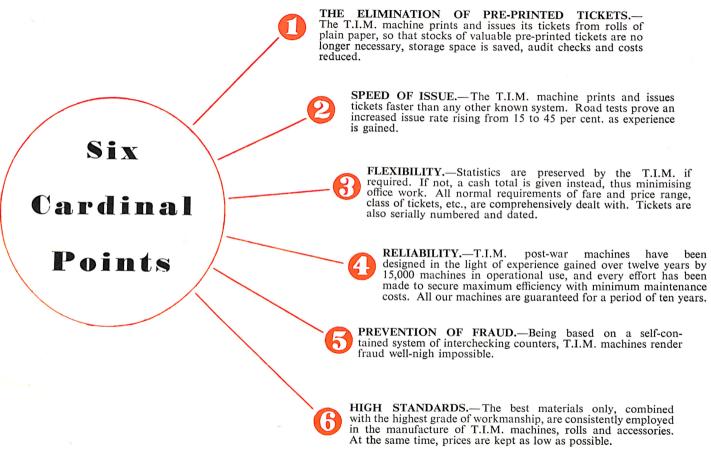
RETURN TICKETS

The three methods usually followed in dealing with "Return" tickets can all be employed with the T.I.M. System:—

- (1) The defacement of the return ticket by the cancellation punch or canceller, which also perforates the identity of the punch itself, or a number corresponding to that visible on the canceller.
- (2) The issue of an exchange ticket of corresponding value, when the surrendered return ticket will count to the conductor as cash.
- (3) The issue of a no-value ticket in exchange for a previously issued return ticket, which is then taken out of circulation.

OTHER USES OF T.I.M.

In addition to its uses in Transport, the T.I.M. System is readily adaptable to the issue of tickets at baths, parks, garages, recreation grounds, zoological gardens and other enterprises, and the same advantages of economy, elimination of valuable pre-printed ticket stocks, preservation of full statistical records, are present in these spheres.



Basic Features

A System in Itself

The T.I.M. is a self-contained, compact, portable machine. It issues a clearly printed ticket (size $3\frac{1}{4}$ in. by $1\frac{1}{2}$ in.) from a roll of plain paper contained in a magazine, which is easily reloaded in under five seconds.

Range of Fares

Any 12 fare values are provided, which are separately registered, indicating the total number of tickets sold at each value.

Classes

Any six classes are provided, such as "Ordinary," "Workman's," "Child's," "Midday," "Return," etc. All are individually registered.

Stage Boarded

One hundred stages Nos. from 00 to 99 are provided. These are manually controlled by a single knob, a special feature being the provision of a clearly readable indicator by which the Conductor can readily confirm the stage at which the machine is set.

Date and Route Number

Both these items of information are provided and are easily altered by the ticket office staff, or *en route* if preferred.

Records

Each of the 12 fares is recorded on its own individual meter. Each of the six classes is recorded on its own individual meter. In addition, the machine is fitted with a Total counter which gives the number of tickets issued and registers up to 99,999.

Counters

The counters are so mounted that a defective one can be exchanged extremely quickly, being mounted on bearer rods. Each individual set of counters requires only the undoing of two screws to remove it and these counters have been tested to give over 12 years' normal service.

Inker Unit

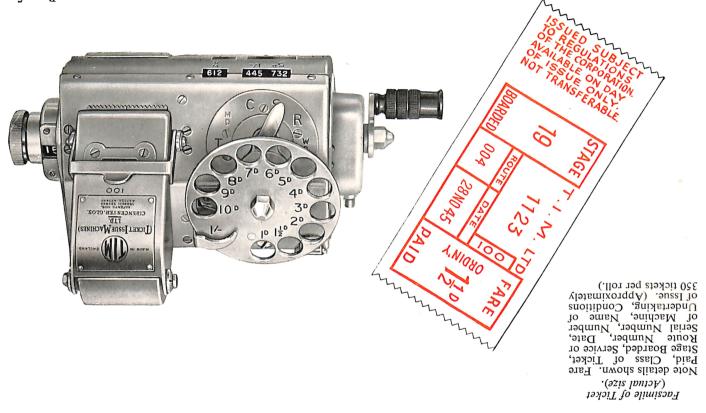
A single large roller and improved frame adjustment ensure even distribution of ink on the type plate. Removal of the roller itself can be easily effected.

Recent Modifications

Improvements in design made by our research engineers as a result of experience gained include:—Incorporation of new Handle Stop, Removal of Magazine Wire Guard, Simplification of Spool Case Clamp; redesigning of the Pressure Roller to ensure perfect printing and free running of the paper; incorporation of Bed and End Plates in one part, giving greater rigidity to the machine; enlargement of apertures and provision of "Perspex" windows; improved positioning of Dial Finger Stop and strengthening of Mainshaft, avoiding possible distortion through misuse.

The Tickets

Tickets are printed from a roll of plain paper with an absorbent, quick-drying surface. They are complete and bold in character and all relevant information is easily read. Two warning lines, a preliminary green warning on approximately 10 tickets, and final red warning on three or four tickets, indicate the approaching end of the roll.



The T.I.M. 12 for City Services

Model 12.c FOR MINIMUM OFFICE WORK

This Model is an adaptation of the T.I.M. "12" designed for those undertakings prepared to forgo statistics and requiring the maximum reduction of Ticket Office work.

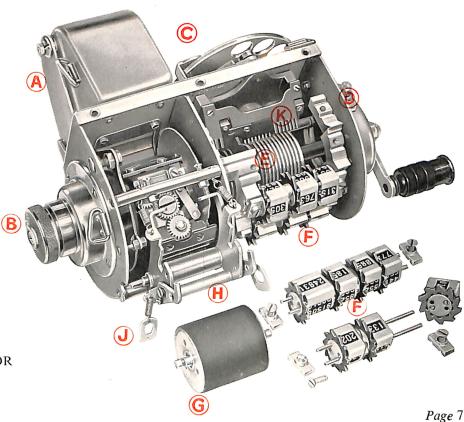
A Cash Total in Units (duplicated for check) is provided instead of the individual registers for each fare value. The maximum fare is 12 times the basic unit, i.e. if $\frac{1}{2}$ d. occurs in the fare range, 6d. is the maximum fare available; if not, 1d. may be taken as the basic unit and the range extended to 1s.

On this model only two classes of ticket are individually registered, though six classes remain available, and in all other respects this machine has all the features previously described.

The T.I.M. 12

View of the Machine partly dismantled, showing Counter Assembly, Inker Unit Assembly and other recent modifications.

- MAGAZINE COVER
- B STAGE BOARDED KNOB
- C DIAL FINGER STOP
- D HANDLE STOP
- E RECORDING GEAR
- (F) COUNTERS
- G INKER ROLLER
- (H) INKER FRAME
- J INKER TENSION SPRING
- K RECORDING GEAR LOCATOR
 ON DIAL CASTING



Long Distance Routes

The T.I.M. Major

This model meets the special requirements existing in the operation of Long Distance Routes. The T.I.M. Major serves those undertakings which operate outside or in conjunction with what are normally known as the City Services, and the Ticket Rolls and many of the spare parts are common to both models, the operation of which is almost identical.

Range of Fares

The outstanding characteristic is the large fare range provided. There are 71 values—from $\frac{1}{2}$ d. up to 4s. 11d., giving $\frac{1}{2}$ d. rises up to 1s. and thereafter 1d. rises to the maximum fare. The "married" ticket is eliminated and the number of passengers carried is shown on a separate totals counter.

Classes

Six classes of tickets are provided, any two of which may be registered.

Stage Boarded

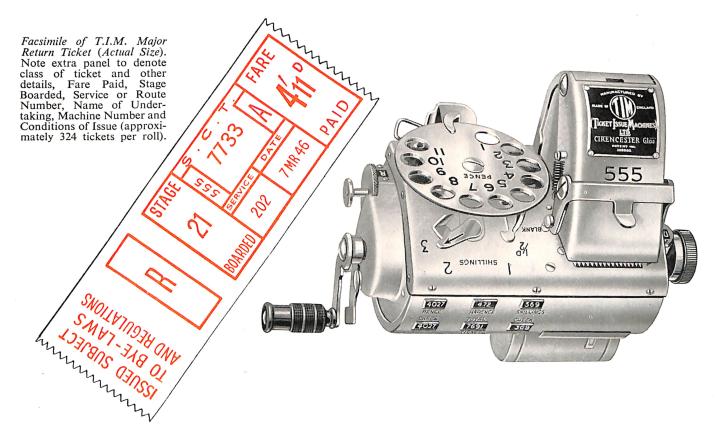
Date and Route Numbers are as provided on the T.I.M. 12.

Records

Owing to the wider range of fares, the separate fare records have been abandoned; instead there is shown a cash record in units. There is a unit meter for halfpence, pence and shillings respectively, and as a check on these, there are duplicating meters for pence and shillings.

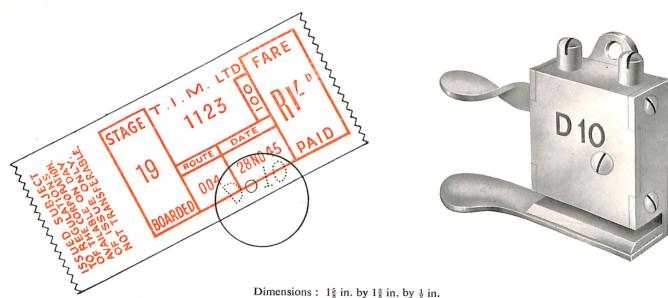
This is the only machine in existence which provides within itself a double check on the cash records.

The T.I.M. Major for Coach Services



T.I.M. Cancellation Punch

The cancellation of a Return Ticket which is left in the passenger's possession is effected by defacing the ticket by means of the T.I.M. Cancellation Punch. This is attached to the harness provided with the T.I.M. machine, and in addition to defacing the ticket perforates the identity of the cancellation punch, which tallies with the machine number with which it is being used.



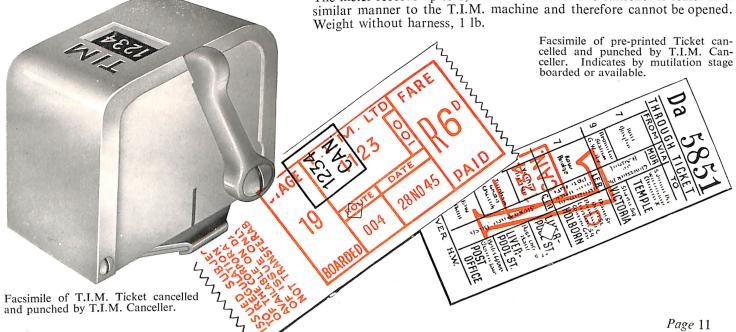
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T.I.M. Canceller

Many Transport Undertakings have requested us to produce a combined printing and cancelling device, and we have designed the T.I.M. Canceller which not only mutilates the ticket but overprints it with identity letter and serial number to meet this requirement.

Trafficking in dead Return Tickets is rendered impossible and the use of a ticket on any other than the proper journey is prevented, since the printed number must tally with the number shown on the Canceller Counter. which reads up to 9,999.

The meter records up to 1,000 cancellations. The canceller is sealed in a



Stands for Machines



It may at times be desired to issue tickets from a kiosk or booth at terminal or heavy loading points to relieve pressure on the vehicle where short-distance passengers are being dealt with.

Stands for this purpose holding the machine firmly though allowing its easy removal are available, and give the operator the maximum freedom to deal with change, etc., and can also be used for P.A.Y.B. purposes.

Special Machines

We are prepared to design and produce special ticket machines to meet customers' requirements, such as Pay As You Board equipment, giving different coloured tickets or single coloured tickets.

Single Value Machines

Single Value Machines are available at a cost of £16. These print Conditions of Issue, Serial Number, date and one fixed value. Additional data can be provided at extra cost.

Ticket Rolls

The price of Ticket Rolls varies according to the quantity ordered by the customer and is dependent on the controlled price of paper. It is usually quoted in shillings per 1,000 rolls. The average price at present is equivalent to approximately $3\frac{1}{2}$ d. per 1,000 tickets.

The only rolls recommended for use in the T.I.M. Machines are those supplied by the Company. The continued use of these rolls extends the period of guarantee from two years to ten years, and qualifies the user for a discount on spare parts.

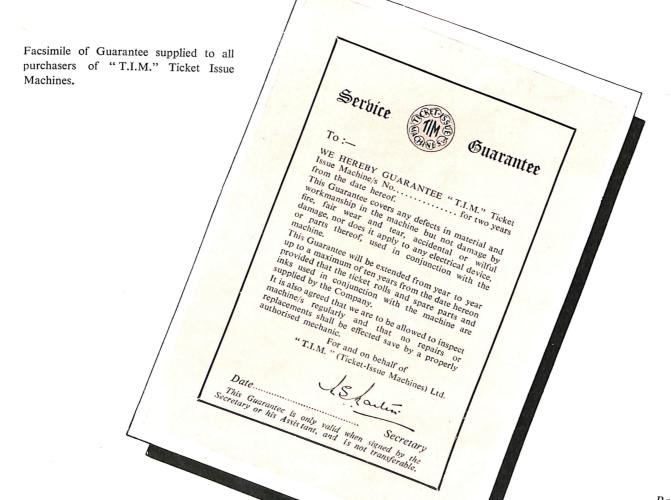
Servicing

All machines require servicing and T.I.M. machines are no exception to this rule.

In the case of transport undertakings, the usual procedure is for the transport company to purchase a small stock of spare parts and to send a mechanic to our works for a thorough course of instruction, which lasts three or four days.

Thereafter, in the event of a mechanical breakdown, the mechanic will replace the defective parts and order a replacement for his stock, the transaction being carried out under our guarantee in so far as faulty workmanship or materials are involved.

In cases where the number of machines in use does not justify the training of a mechanic, machines may be sent to our works, where they will be quickly repaired and returned, and a report submitted where necessary.



Users

Aberdare U.D.C.
Aberdeen Transport Dept.

Accrington Transport Dept.
Alexander, W., & Sons, Ltd., Falkirk.

Barrow-in-Furness Transport Dept.

Blackburn Transport Dept.

Blackpool Transport Dept.

Bombay Electric Tramways.

Bradford Transport Dept.

Burnley, Colne and Nelson Joint Transport Committee.

Cardiff Transport Dept.

Chesterfield Transport Dept.

Coras lompair Eireann.

Coventry Transport Dept.

Darlington Transport Dept.

Devon General Omnibus & Touring Co.

Dublin United Tramways Co. (1896), Ltd.

Dundee Transport Dept.

Durban Tramways and Motors Dept. Eastern Counties Omnibus Co., Ltd.

East Midland Motor Services, Ltd.

Ebor Bus Co., Mansfield.

Edinburgh Transport Dept.

Glasgow Transport Dept.

Great Yarmouth Transport Dept.

Hull Transport Dept.

Hyderabad State Railway

Lancaster Transport Dept.

Liverpool Transport Dept.

London Passenger Transport Board.

Lowestoft Transport Dept.

Middlesbrough Transport Dept.

Morecambe & Heysham Transport Dept.

Nigerian Railways.

Northampton Transport Dept.

Nottingham Transport Dept.

Omnibus & Tramways de Lyon.

Oxford City Services.

Portsmouth Transport Dept.

Preston Transport Dept.

Rawtenstall Corporation Motors.

Reading Transport Dept.

St. Helens Transport Dept.

Salford Transport Dept.

Sheffield Transport Dept.

Southend-on-Sea Transport Dept.

South Wales Transport Co., Swansea.

Southdown Motors, Brighton.

Stockton Transport Dept.

Swindon Transport Dept.

West Riding Automobile Co.

West Yorkshire Road Car Co.

Wilts & Dorset Motors, Salisbury.

Wolverhampton Transport Dept.

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