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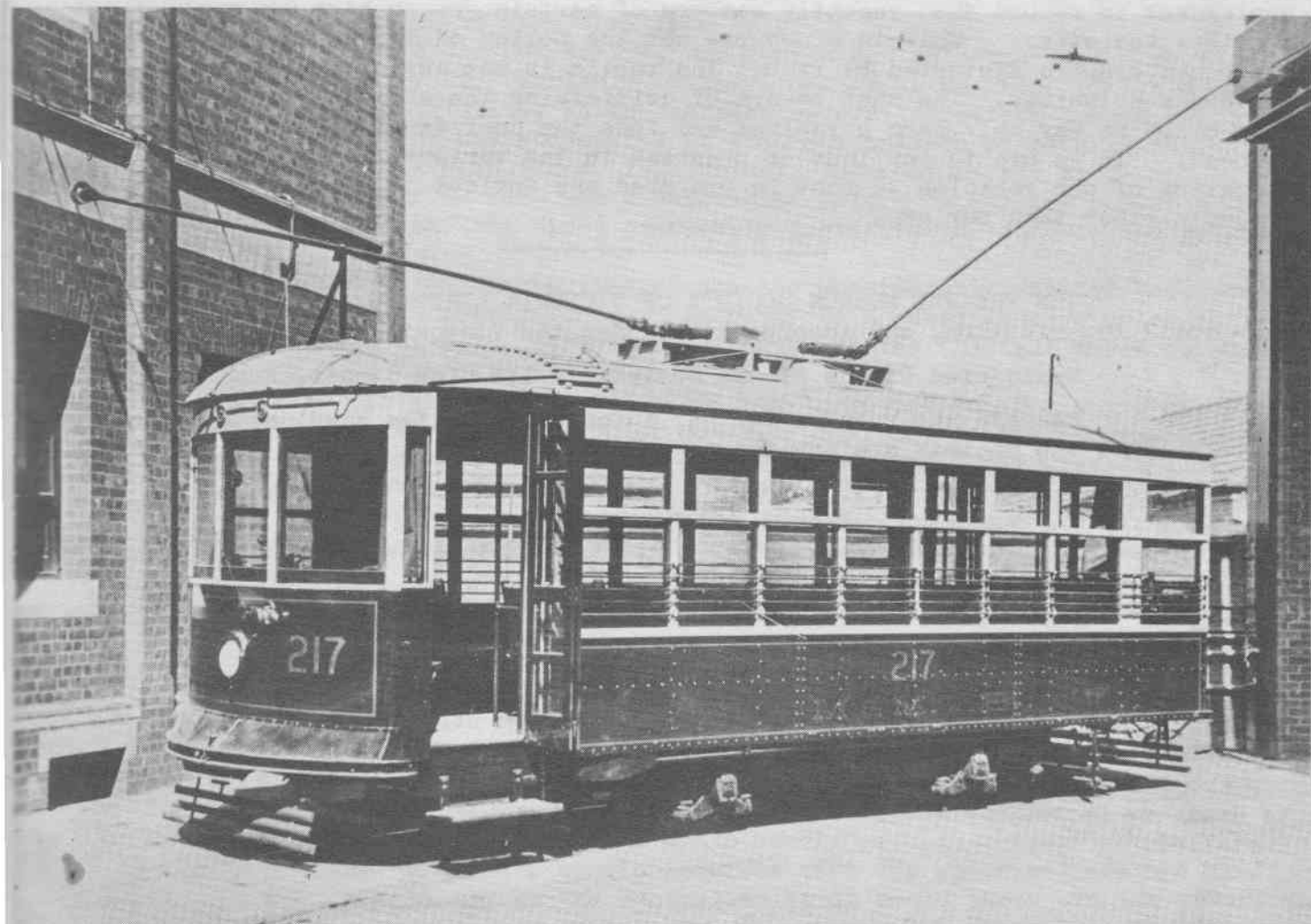
RUNNING

JOURNAL

VOL. 4

OCTOBER 1967

No. 2



THE TRAMWAY MUSEUM SOCIETY OF VIC. LTD.

REGISTERED OFFICE:
141 HIGH ST. PRAHAN 3182

VOL. 4
No. 2

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EDITORIAL.

At a time when the transport scene is changing rapidly it is good that various groups are working to ensure that a cross section of vehicles of the past survives with many in working order. Thus we have societies devoted to the preservation of motor cars, trucks, buses, railway locomotives and rolling stock, horse drawn vehicles, steam vehicles and in our case, tramway equipment. Fortunately most of these groups are working in co-operation which will strengthen us and assist in convincing the public that we are performing an essential task. It is therefore unpleasant to record that recently members of certain groups have denounced the aims of other societies. This is of course not the policy of the groups in question and their members are disturbed by it but the public is not aware of the facts and draws its own conclusions. We must beware of criticising the efforts of others since in many cases we may only harm ourselves and lose the confidence of those whose support we need. If we are to continue to progress in the various fields of preservation and operation of our vehicles we must be prepared and anxious to co-operate and assist in projects other than our own.

THE TRAMWAY MUSEUM SOCIETY OF VICTORIA LIMITED was founded in 1963 as a non-profit organisation, and incorporated under the Victorian Companies Act 1961.

Registered Office of the Society :- 141 High Street, Prahran, 3181.

Readers who require further information on the aims and objects or membership of the Society are invited to contact :

Mr. Barry E. George,
Membership Promotion Officer,
16 Saladin Avenue,
GLEN WAVERLEY, 3150.

Telephone No. 2327608.

Front cover photograph of Birney 217:

Birney tram No. 217 is shown at Malvern Depot ten days before it was moved to Hawthorn Depot. A few fittings, such as destination boards, have yet to be installed.

By courtesy R.W.O. Pearson.

THE BIRNEY SAFETY CAR AND IT'S USE IN AUSTRALIA

By MALCOLM ROWE

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Numbers in brackets () refer to references appended.

THE BIRNEY SAFETY CAR.

In 1916, many streetcar systems in the U. S. A. were in the 20 to 30 years age group. Cars and track were beginning to show their age, but finances were generally short. As they had done before, and would do several times more, the managements sought a miracle to save them from ruin.

Their miracle did not arrive, but many a system achieved a temporary reprieve due to a design by Mr. Charles O. Birney, designing engineer of the Stone and Webster Management Association, which operated several streetcar companies.

The Birney car was successful in its combination of several notions then in vogue. It was a single truck, lightweight, one-man, safety car.

The single truck idea was a calculated return to earlier concepts (bogie cars were standard at this time) presumably justified on economic and weight grounds.

The light-weight properties of the car considerably reduced both power costs and track maintenance requirements. In reply to a questionnaire prior to the Atlantic City Convention of 1919, streetcar companies stated (3) that power consumption was down 51.2% to 1.5 K. Whr/mile.

One-man operation was the obvious way to reduce running costs as, even then, crew wages were a large proportion of costs. In reply to the aforementioned questionnaire 89.2% of companies (83 out of 93) reported that their crews' reactions to one-man operation had been favourable!

In those early years the name most frequently attached to Birney's, and their similar contemporaries, was "Safety Cars". The Birney was referred to as the 28' 0 $\frac{1}{2}$ " Safety Car. Apparently the protagonists of the Birney car felt that the public would fear inattentiveness of an "operator" who had the dual responsibility of driving and collecting fares.

Their fears appear to have been unfounded, but safety equipment remained a standard feature on new Birneys. Doors and brakes were interlocked so that doors could not open, nor the coupled step drop down, while the car was in motion. Similarly, if the door was open, and the step down, the car could not move. (This feature appeared on the A. E. C. Regal Mark VI bus for the M. & M. T. B. as late as 1964!).

The following extract, a masterpiece of understatement, serves to describe another safety feature, the "dead-man's handle"--

"The dead-man's handle requires that the operator have his hand constantly on the controller or it would throw off the power. Similarly, if power were so thrown off, the brakes would be

automatically applied and sand fed to the track, and, when the car comes to a stop, the doors, previously held securely closed by air pressure, are made available for manual operation to form emergency exits if desired". (whew!).

The American Electric Railway Association produced the following accident data. (4)--

Operation.	2 Man.	1 Man.	%Reduction.
Number of Accidents.	45	32	29
Cost.	\$10,699	\$7,541	34
Personal Injuries.	83	44	47
Collisions with other Vehicles.	207	196	5.17

(All monies in this section are in American Dollars).

Asked whether any accidents were traceable to one-man operation, six out of eighty four companies replied -- YES, but added that the operator had failed to observe the "rules".

Purchase price of the safety cars varied from \$4,500 to \$7,000, but was generally \$6,000. They could be purchased on the basis of 20% cash and the balance in equal monthly instalments with interest at 7% on deferred payments covering a period of five years. This arrangements must have aided many small companies to purchase the cars. One wonders how many companies failed within the five years -- or had cars repossessed!

The number of cars purchased steadily increased in the four years following 1916 and then declined as can be seen from the following table (5).

YEAR,	1916	1917	1918	1919	1920	1921	1922	1923	1924
Orders for New Cars.	187	280	644	1383	1699	565	772	312	103
Progressive Total.	187	467	1111	2494	4193	4758	5530	5842	5945

In 1919, 69% of all city cars ordered in the U. S. A. were Birney cars!

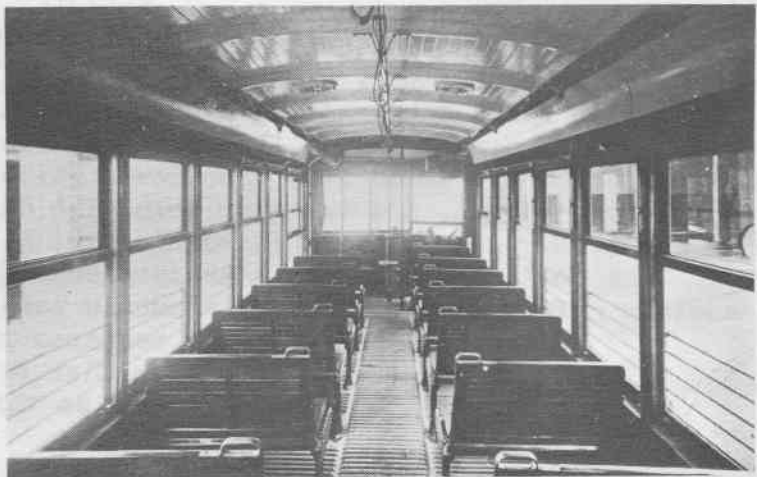
The decline of the Birney cars was due to several factors. Initially, sales dropped off as the market became saturated. The single truck notion was their downfall in many cities, where they were used in peak traffic--for which they were not designed. They were, understandably, unable to handle the heavy peak traffic.

By the 1940's, the only Birney cars in service were working low-load shuttle services etc. and these soon disappeared.

BIRNEYS IN MELBOURNE.

On the morning of June 5th., 1924, a small number of people was present in Power St., Hawthorn to witness the first run of a Birney Safety Car in Australia. No. 217, in chocolate and cream livery, with two trolley poles and a destination board reading "BRIDGE RD" was tested and demonstrated to the gentlemen of the press. The press were particularly struck by the large windows which gave "an uninterrupted view of the landscape".(6).(See picture below).

Interior view of Birney 217, taken at Malvern Depot just prior to the tests that were carried out as described in the paragraph above. Note the round fare register at the far end of the left hand side advertising panel.



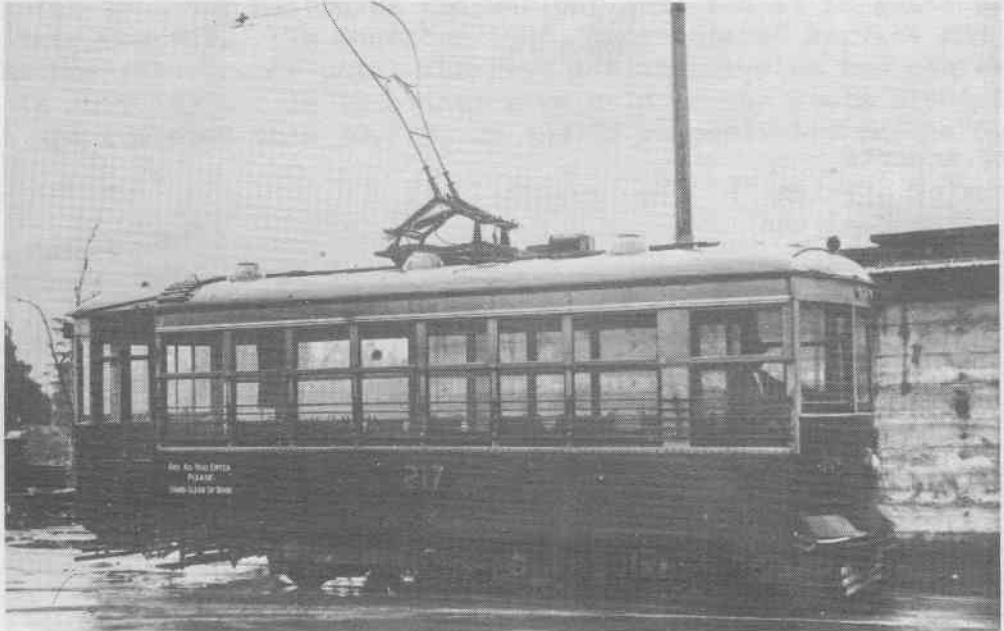
M. & M. T. B. Photo.

Five days later, on June 10th., 217 went into regular service on the Power St. - Hawthorn Bridge shuttle service. It seems likely that 218 entered service on the following day.

The cars were an immediate success. It was reported (7) that: "the one man trams recently placed in operation on the Power St. line at Hawthorn had given complete satisfaction.....The construction of the cars is comfortable" (!?).

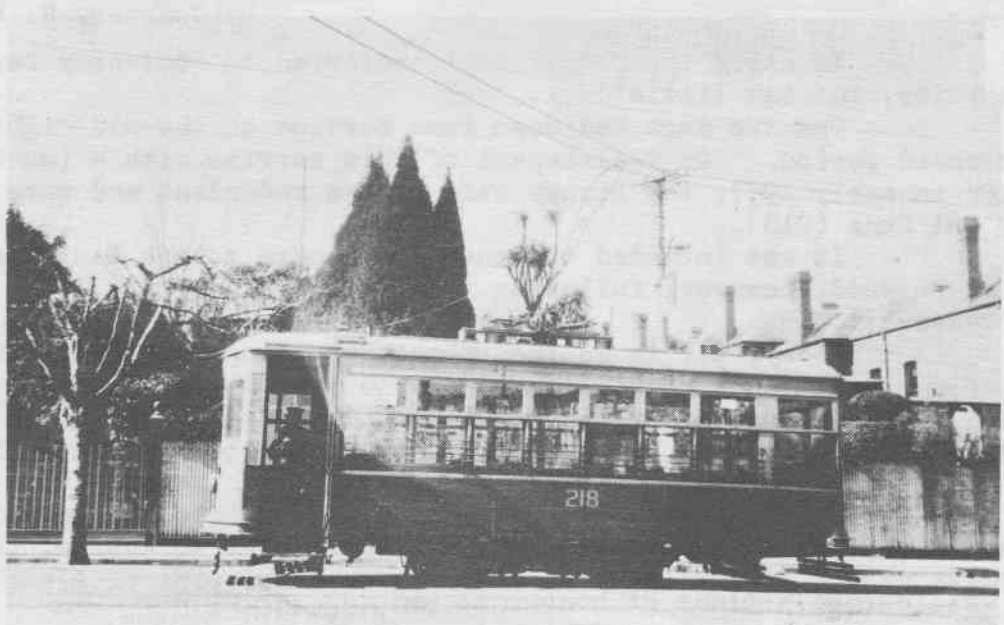
However, by this time, an important change had been made to the cars. On 19th. and 20th. of September the cars, in turn, had their trolley poles removed and a single bow collector fitted.

*The Brill Birney,
No. 217 undergoing
electrical tests in
Hawthorn Depot
just after the "BOW"
collector had been
fitted to it's roof.*



Tramway Museum Society of Vic. Ltd. photo.

*The St. Louis Birney,
No. 218 photographed
in Power Street near
Burwood Road.*



M. & M. T. B. photo.

OCTOBER, 1967.

"RUNNING JOURNAL"

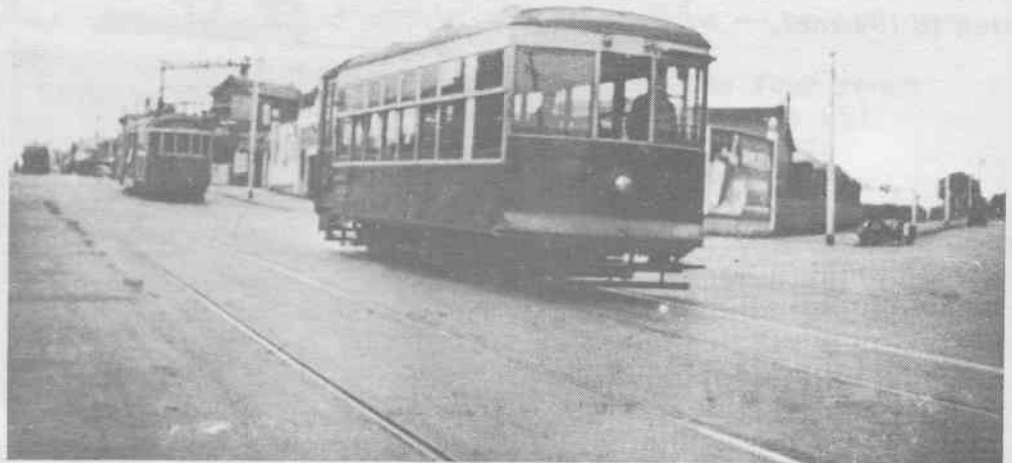
PAGE 6.

Trials with these were not successful, (the collectors apparently 'bounced' at high speed), and the cars were later fitted with a single trolley pole each. (Probably in mid 1927).

At this time, the Birneys were no longer Melbourne's only safety cars. Seven X1 class cars had been completed and Y class No. 469 was about to enter service. All of these cars and the later X2 and Y1 class cars can trace their origins to X class No. 217 and X class No. 218.

When 217 test ran in June 1924, it was suggested by the press that 218 might enter service on the Point Ormond section. In 1928 both 217 and 218 were transferred to Glenhuntly Depot to operate the Point Ormond shuttle service, a task they shared with an X2 or sometimes an X1 car in later years. From 1928 until the mid 1950's the Birneys provided a reliable service on this section.

No. 217 departs
Elsternwick Station
for Point Ormond one
day in May, 1939.



By Courtesy R. W. O. Pearson.

In early 1956, 217 was transferred to Footscray Depot for the RUSSELL ST. service, but saw little duty.

The two cars had seen some service on the all-night tram services over an extended period. On replacement of this service with a (much-curtailed) bus service in early 1957, the Birney cars became redundant and were withdrawn in April (217) and June (218).

It was intended to donate both cars to the Deaf and Dumb Childrens' Home at Burwood, however, following representations by the A. E. T. A., 217 was held for preservation.

Today, 217 is in the process of being restored to it's pristine condition of that June morning in 1924 when it made it's first run along Power Street. 218 has recently become surplus to the requirements of the Victorian School for Deaf Children Kindergarten at Burwood. T. M. S. V. has been asked to help in the disposing of the car from the Kindergarten.

Finally, it must be said that these cars have not distinguished themselves as magnificently as (for instance) that magnificent workhorse, the W2, has. However, they have proved sturdy and efficient little cars, part of a world wide caste, and have well earned a place of honour in an operating museum.

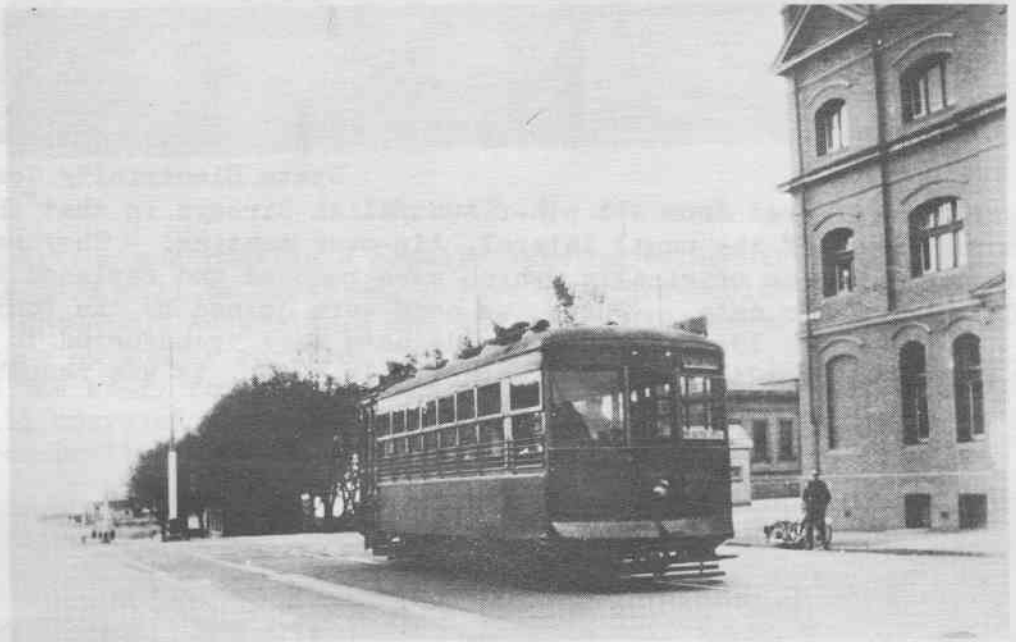
OTHER AUSTRALIAN BIRNEYS.

Two other tramway concerns have operated Birney Safety Cars in Australia, in three cities.

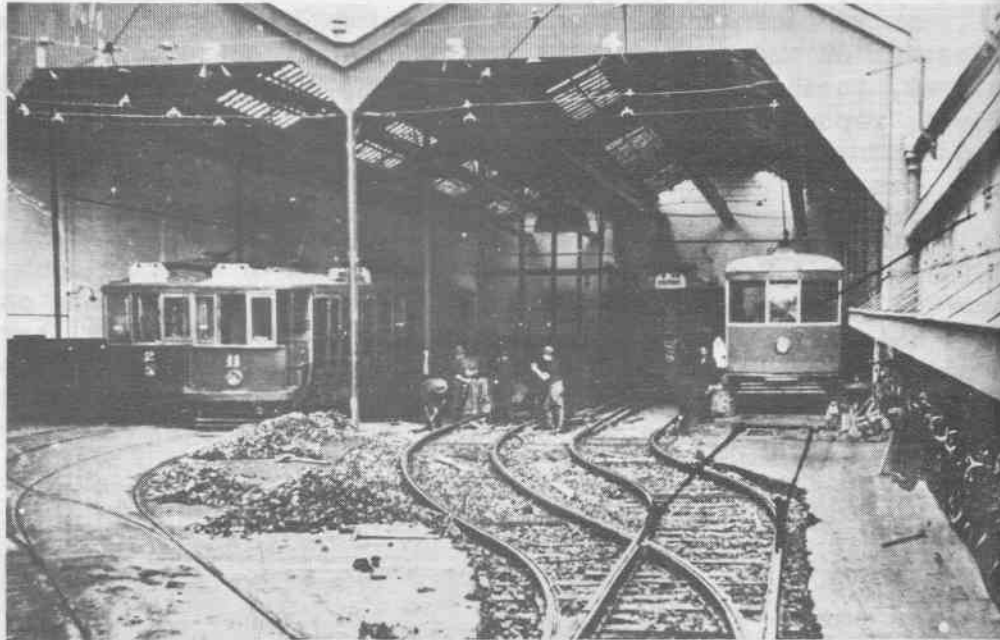
In Adelaide, the Municipal Tramways Trust possessed four Birneys classed "G" and numbered 301 to 304. They operated on the isolated Port Adelaide system, to the north-west of the city. The four cars were assembled at the Port Depot, reportedly (8) at a unit cost of only £820 (\$1640).

It is uncertain whether the Adelaide cars ever had two trolley poles, as did the Melbourne and Geelong cars as no photograph of them as such is known to exist. They arrived about a year later than the Melbourne and Geelong cars and it is quite possible that they differed in this respect. In December 1925, they entered service and were used principally on the Rosewater route until the Port Adelaide system was converted to trolley bus operation in July 1935. In 1936 they were sold to the State Electricity Commission of Victoria who numbered them 30, 29, 27 and 28 respectively on the Geelong roster.

At Geelong, Birney No. 27 was photographed by Mr. R.W.O. Pearson at the corner of Moorabool Street and Brougham Street in Sept, 1940.



The Melbourne Electric Supply Co. operated the tramways of Geelong in 1924, when two Brill Birney cars, numbered 14 and 15 were assembled at Geelong Depot.



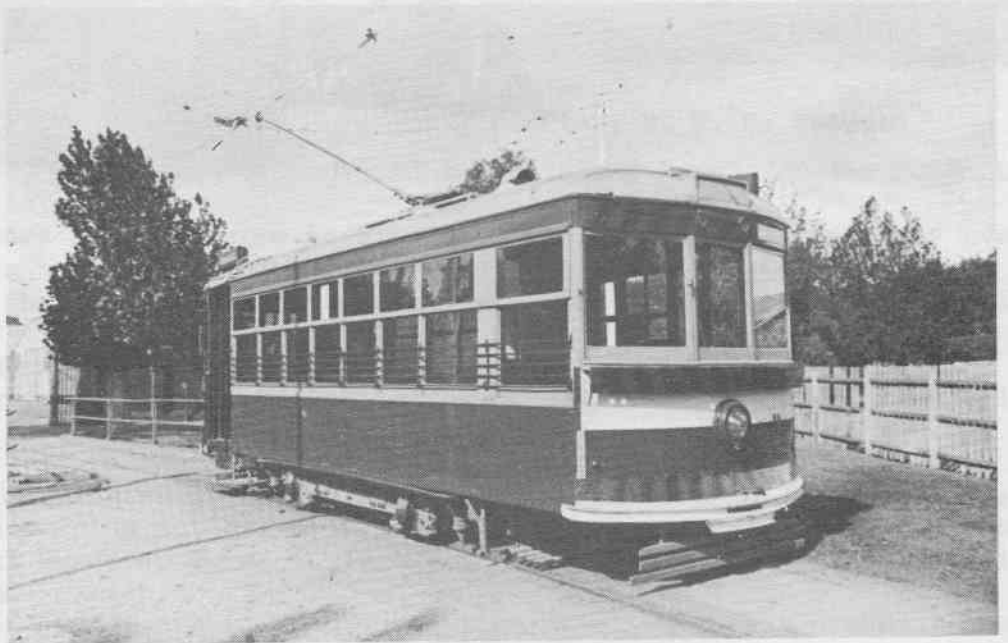
This June, 1924 view of Geelong Depot shows, on the left hand side, some of the cars already in service; in the middle of the picture are workmen installing special work for extra roads, whilst on the right a Birney is being assembled.

State Electricity Commission of Vic. photo.

14 and 15 differed from all other Australian Birneys in that they had longitudinal seats instead of the usual lateral, tip-over seating. They were probably fitted with two trolley poles originally, which were removed and replaced with single trolley poles at a later date. These two cars were joined by the four from Adelaide in 1936.

In 1947 the ex-Adelaide cars were transferred to Bendigo, to be followed by 15 and 14 in 1948 and 1949 respectively. No. 14 was renumbered 11 in Bendigo.

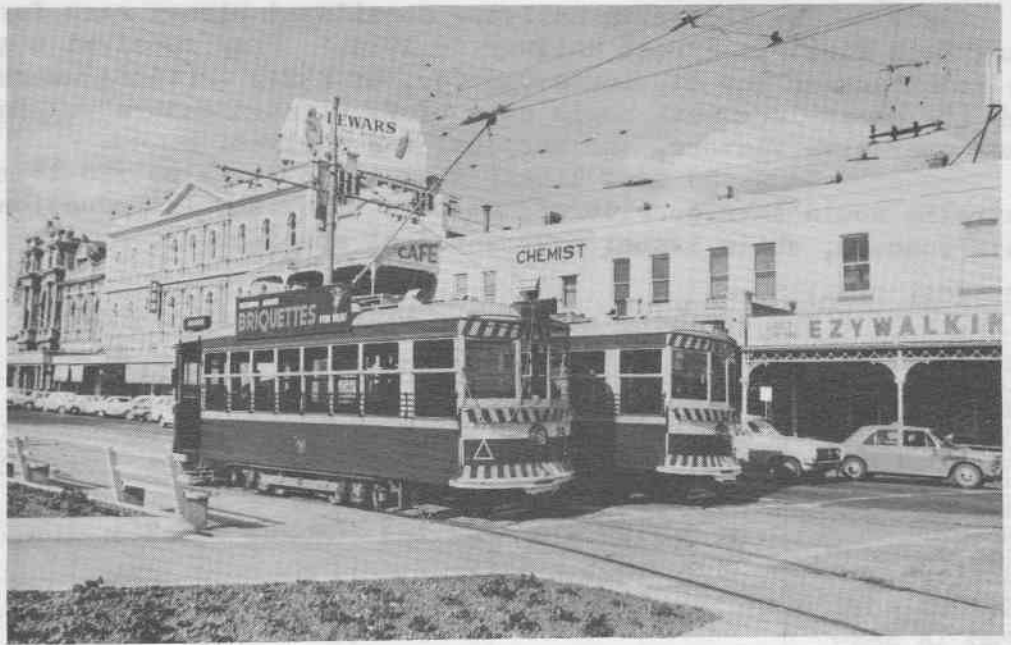
*Bendigo Birney No. 11
pauses at the Depot
entrance. April 1967.*



T. M. S. V. archives.

Since then, No. 27 has met with an accident and been scrapped. No. 15

met with a similar accident and is unlikely to be repaired. However, Nos 28, 29, 30 and 11 still operate, mainly in the evening and on Sundays.



Two Birneys - No. 29 bound for North Bendigo and No. 30 for Golden Square - wait at Charing Cross for connecting trams from Eaglehawk and Quarry Hill one very pleasant Sunday afternoon, 3rd September, 1967.

T. M. S. V. archives.

They are in quite good condition and provide a capable service to Bendigo. It is unlikely that any of these cars will be scrapped, unless a severe accident befalls them, as trolley museums throughout Australasia and the world have asked that they be held for preservation - when no longer required for service!

To complete the story for Australasia, New Zealand operated Birney cars in two cities; Invercargill operated six Brill Birneys until September, 1952 and New Plymouth operated three Brills, which had four doors (one on each corner), until July, 1954.



Birney Tram No. 9 in Devon Street, New Plymouth, New Zealand, 1948.

Alexander Turnbull Library, Wellington, New Zealand.

PROPOSALS.

There was, (9), in 1920, a proposal to obtain a fleet of 30 Birney cars for Sydney, but this was rejected, chiefly on "political" grounds.

The Victorian Railways considered Birney cars for their Sandringham - Black Rock Electric Street Railway in 1924. They received a quote from Noyes Bros., the local agents for St. Louis Car Co., of £3242 - (\$6484) which was considered rather high (by comparison with bogie cars of V. R. manufacture). Because of this, and other operative factors, the proposal was shelved.

It seems most likely that all other electric tramway operators in Australia would have considered, at some time, the introduction of Birney cars, for their success, while transitory, was most spectacular.

TECHNICAL DETAILS.

The following table, for which I am much indebted to Keith Kings, includes details of the cars and some key dates.

CAR No. (last).	217	218	11	15	27	28	29	30
BODYBUILDER.	BRILL	ST. LOUIS	BRILL	BRILL	BRILL	BRILL	BRILL	BRILL
TRUCK.	79E1	*St.L. 7	79E1	79E1	79E1	79E1	79E1	79E1
SEATING.	33	33	30	30	32	32	32	32
MOTORS.	GE.264	WH 510	GE 264	GE 264	GE 264	GE 264	GE 264	GE 264
TARE, (ton).	8.2	8.5	7	7	7	7	7	7
PREVIOUS Nos.			14		303	304	302	301
<u>DATES IN SER--</u> <u>VICE.</u>								
MELBOURNE.	10/6/24	11/6/24						
PORT ADELAIDE.					26/12/25	26/12/25	16/12/25	16/12/25
GEE LONG.			27/8/24	29/9/24	17/1/36	24/1/36	6/2/36	30/1/36
BENDIGO.			-/6/49	-/-/48	16/12/47	30/10/47	13/7/47	13/7/47
STORED.	16/2/57	16/2/57		24/4/59	-/7/56			
DISPOSED OF.	*21/8/58	10/7/57			31/7/58			
<u>MILEAGES.</u>								
MELBOURNE.	717469	826785						
PORT ADELAIDE.					200598	203648	195522	185785
GEE LONG.			416863	399578	202773	184600	188362	195787
BENDIGO.			***	66736	53134	***	***	***
TOTALS	717469	826785	***	466314	456505	***	***	***
OPERATOR (last).	MMTB	MMTB	SEC	SEC	SEC	SEC	SEC	SEC

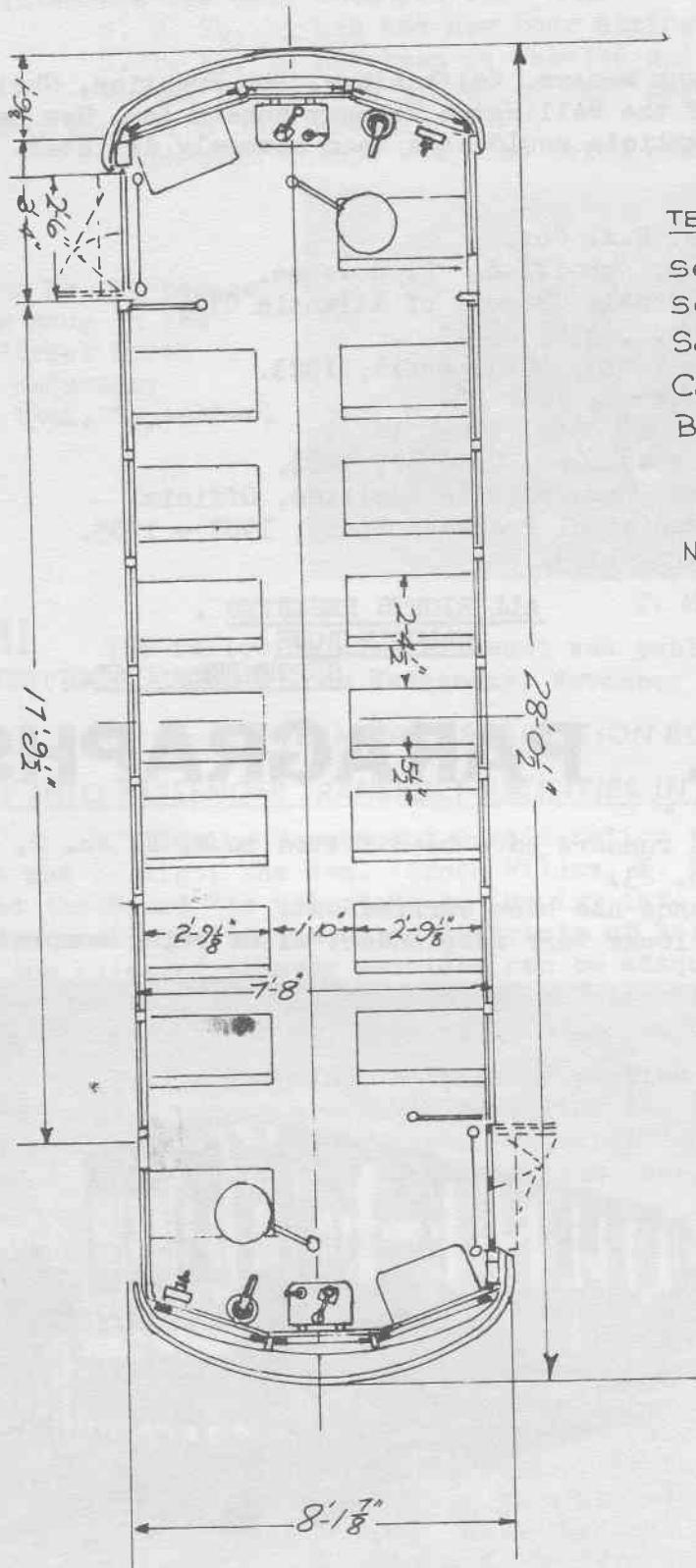
* Rebuilt for and reclassified as MMTB No. 4.

** To T. M. S. V. (A. E. T. A. initially).

*** Still in Service.

The following details apply to all the cars :-

LENGTH 28' 0 1/2".
 HEIGHT 10' 9".
 WIDTH 8' 1 7/8".
 WHEELBASE 8' 0".



FLOOR PLAN

CLASS X No 217

TECHNICAL DATA.

- Seating capacity 33.
- Seat colour - Maple.
- Seat type - Brill "Waylo" reversible.
- Controllers - G/E.K63.G.
- Body type - "J"

Note. The above data does not necessarily apply to other cars of this type.

DRAWN / C. ANDREWS 10/67.
Based on M.M.T.B. drawing R.2462.

Regrettably, this is not a complete coverage of the subject. This is partly due to lack of time for further research but mainly due to shortage of information, particularly in certain areas. I would appreciate hearing of any errors or doubtful points in this article and suggest that they be communicated directly or through R. J.

FINALLY, I would like to thank Messrs. Keith Kings, Bob Prentice, Chris Andrews and Alan Smith, Secretary of the Wellington Tramway Museum Inc. New Zealand, without whose able assistance this article would have been severely depleted.

REFERENCES.

1. The Birney Car, Dr. H.E. Cox.
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3. Electric Railway Journal, "Report of Atlantic City Convention, 1919", p 318.
4. Tramway and Railway World, 19th. April, 1923.
5. Electric Railway Journal, Vol. 65.
6. The Herald, (Melbourne), 5th. June, 1924.
7. The Argus, (Melbourne), 2nd. October, 1924.
8. Development of Street Transport in Adelaide, Official History of the Municipal Tramways Trust, 1907 - 1965.
9. Tram Tracks, February, 1949.

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MALCOLM ROWE.

SEPTEMBER, 1967.

PROVINCIAL PARAGRAPHS

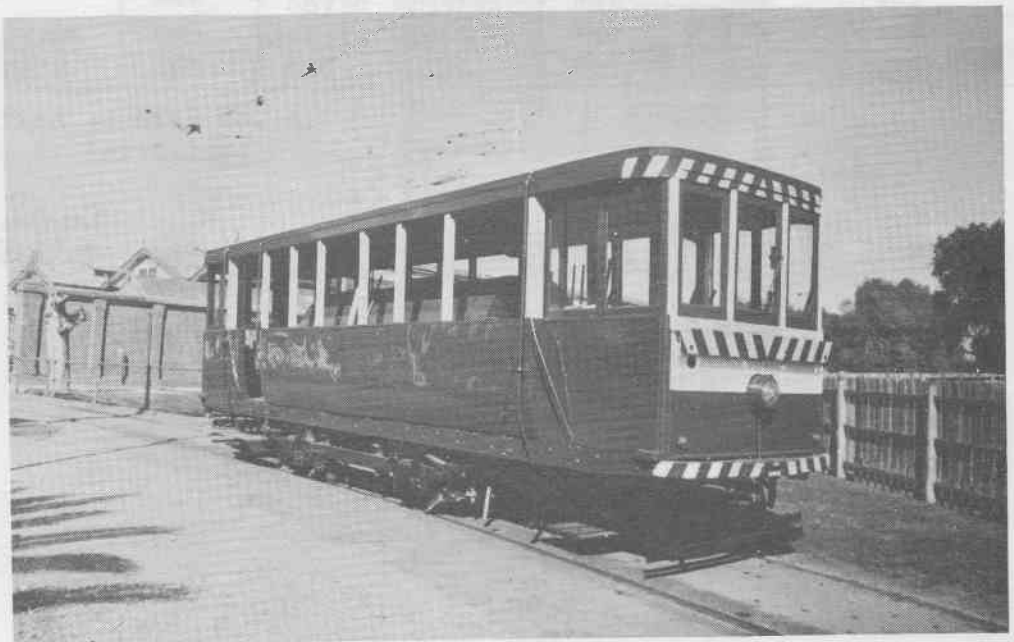
BENDIGO. AUGUST, 1967.

New weather blinds and runners have been fitted to M. T. No. 2, also a new set have been fitted to M. T. No. 23.

General track maintenance has been carried out.

The track cleaner car looks very resplendent after being completely repainted:-

The outside roof of the track cleaner has been painted Bungalow cream whilst the interior roof has been stripped & repainted in Cumberland Stone. S. E. C. Tramway panel green plus safety stripes completes the repaint.



BALLARAT.

SEPTEMBER, 1967.

M. T. No. 40 was in the paint shop for a body overhaul including new ply lining to the ceiling of the drop centre plus of course, a re-paint. General truck maintenance was also attended to.

S. T. No. 11 has had new body stringers fitted and body overhaul done.

S. T. No. 28 has been re-wheeled and truck adjustments done.

At the Depot, new pieces of rail have been inserted into the "O" road curves that lead from No. 1 road.

Track maintenance was also being carried out. (see picture below):-



M. T. tram No. 39 passes a welding gang on the Lydiard Street North route on Wednesday morning, 13th. September, 1967.

T. M. S. V. archives.

FLASH!

The following advertisement was published in "THE COURIER, BALLARAT" and "THE ADVERTISER, BENDIGO", on Wednesday, November 8, 1967.

TRANSPORT REGULATION BOARD

ENQUIRY INTO PASSENGER TRANSPORT FACILITIES IN BALLARAT URBAN DISTRICTS.

Following Government consideration to public passenger transport in Ballarat and Bendigo, the Hon. Vernon Wilcox, M. P., Minister of Transport, has requested the Board "to undertake an inquiry into the public passenger transport facilities available in the urban districts of Ballarat and Bendigo and, in particular, whether the existing tramway services can be adequately replaced by buses." The Board proposes to hold such an inquiry in Ballarat and Bendigo at dates and places to be announced later; however, this will not occur until early 1968.

In the meantime, interested parties desirous of making submissions to the Board in this matter are asked to advise the Secretary to the Board or, alternatively, the Board's Regional Officer, Municipal Centre, Howitt Street, Wendouree or the Board's Regional Officer, Public Offices, Hargreaves Street, Bendigo, as early as possible.

Corner of Lygon and Princes Street,
CARLTON, 3053.

B.P. Kay,
Secretary.

TOUR TOPICS

Our last excursion was held on Sunday the 10th. September, 1967. It was an all day affair with the lunch period in Footscray. We used two single truck cars - "T" Class, No. 180 and X2 Class No. 676. An enjoyable day was had by all with the high light of the outing occurring late in the afternoon. Suffice to say that the gang on R 10 did a very good job with a sticky situation. The able gang under Leading Hand Matt DICKINSON really had the job well in hand within a few minutes. Our thanks are due to Mr. R. Drummond, Traffic Manager; Mr. R. Williams, Charter Department; Mr. J. Biffa, transport, and others in the Depots. We thank also our drivers for they all combined to make the day perfect.

"T" - 180 & "X2" - 676
photographed in Montague
Street, South Melbourne,
at St. Vincents Gardens.
Sunday, 10/9/67.



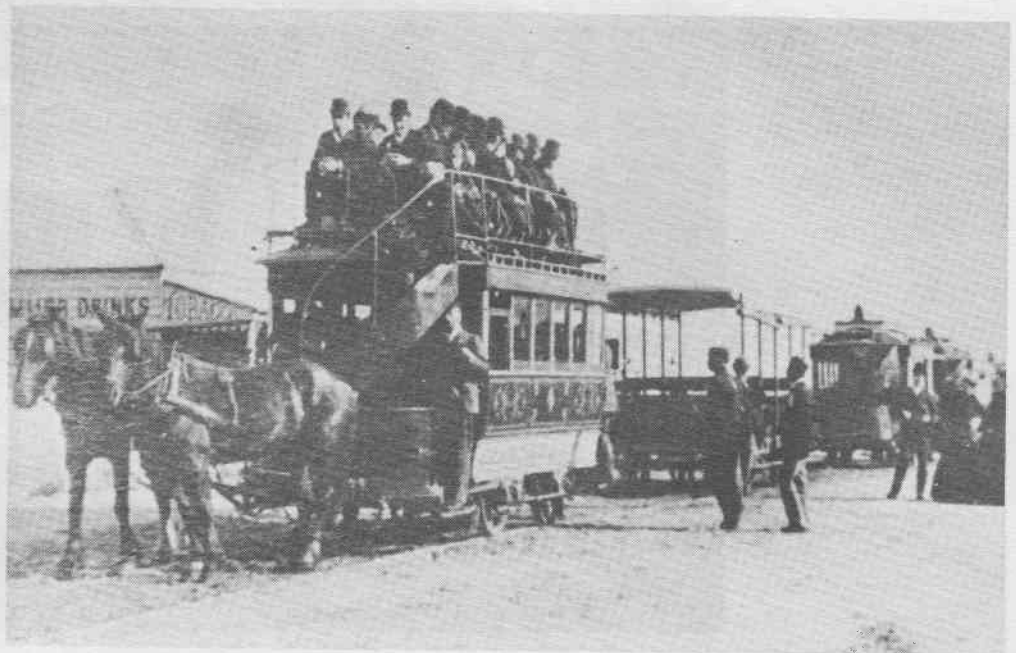
K.S. Kings photo.

180 and 676 pose for
the photographers in
the reserved track
between West Maribyr-
nong and Footscray.
Sunday, 10/9/67.



Photographed by S.J. Vine.

A busy time in 1905 at the interchange point - corner of Tramway Parade and Bodley Street, Beaumaris, for the staff and horses of the Beaumaris Tramway Company Limited. The front car is about to depart for Cheltenham Station, whilst the other cars are held in reserve for a rush period. Note the second car, a crossbench type, nicknamed a "mutton car".

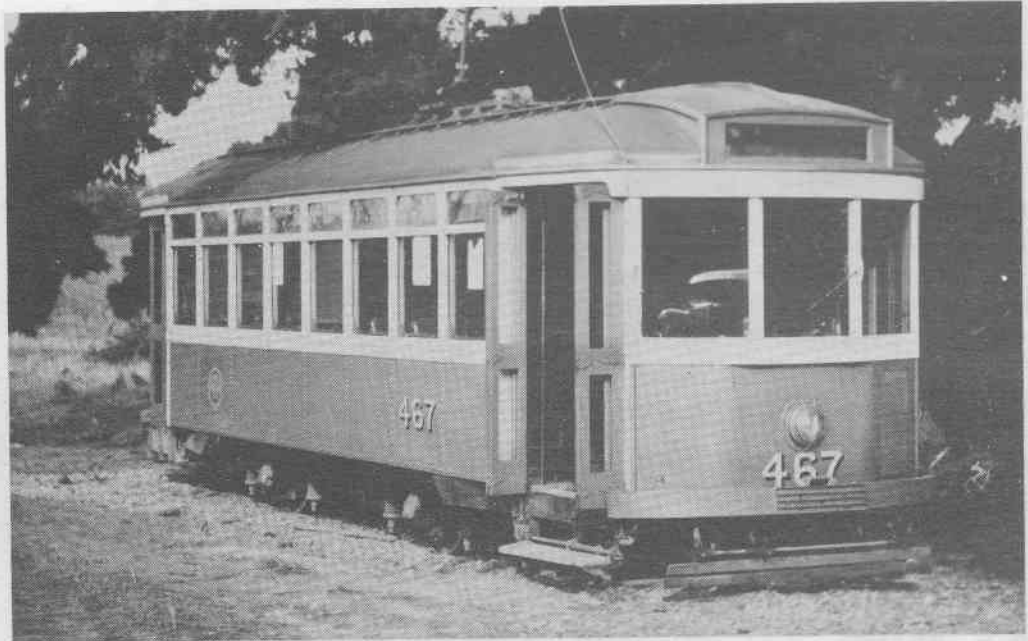


By courtesy Beaumaris and District Historical Trust.

Hawthorn Tramways Trust maximum traction tram No. 19 turning into Camberwell Road at Camberwell Junction. The large "C" on the front of the car is the destination classification - in this case :
Camberwell (Burke Rd).



T. M. S. V. archives.



This is X1 467 in open storage. Your help is needed to maintain this car and to build an operating museum. Contact Bob Prentice or Peter Stoneham for details.