THE TRAMVAYS OF BALLARAT

By W. H. Jack and K. S. Kings

This month marks the 75th. anniversary of the opening of horse tramways in the Victorian provincial city of Ballarat. To commemorate these 75 years of continuous horse and electric tramway operation, we present this brief history of the system. The horse tram era is dealt with this month, and will be followed by the electric era, which is naturally divided into Company and Commission sections. So as to keep this article to a reasonable length, certain descriptions have been kept to a minimum, and readers are referred to the accompanying maps and photographs. The rolling stock used on both the horse and electric tramways will be covered in detail in the book "Destination Eaglehawk" which is in course of preparation, and will not be treated likewise here.

Ballarat is the third city of Victoria, being approximately 74 from Melbourne on the main west-bound railway line to Adelaide. The population at present is approximately

created Municipalities in 1857 and 1855 respectively. The former received the status of a Town in 1872, while the latter became a City in 1870. This aituation prevailed until they amalgamated in 1921 to form Greater Ballarat. A third local government district is involved in the history of the tramways, namely the Borough of Sebastopol, which is situated a short distance to the south west from the centre of Ballarat.

In 1885, the Ballarat West City Council decided to ask the State Government for an Order for the construction of tramways in its area. As this was the first such application, some time elapsed while it was investigated and used to lay down the procedure for the future. Approval was given in September, 1886. The Council then called tenders for the construction and operation of certain tramways on stated conditions, but leaving some items, such as motive power, to the tenderers. The Council favoured a cable tramway, but it was found to be too costly, and finally granted the concession to Mr. Edward Thompson,

of Adelaide, to construct a system of horse tramways. & Company was floated in Melbourne with a minume capital of 52,000 shares at £2 each, and 17,000 of these were offered to the public. The routes to be constructed were, briefly;- (1) Sturt Street, from Grenville Street to the Gardens via Sturt Street West. (2) Ripon Street and Wendouree Parade to Gardens. (5) Lydiard and MacArthur Streets. (4) Armstrong and Skipton Streets to the city boundary. (5) Drummond Street South, from Sturt Street to Skipton Street. minut when deemed necessary. The first rail was laid on 18th. October, 1887, and six miles of track were subsequently laid in six weeks. The official opening took place on 21st. December, 1887, when six tramcars conveyed 300 guests from the city to the Gardens and Skipton Physics with a simple deale new The Company for the usual ceremony and banquet.

weigh of Setemberal to estend the Boutle Palleret The Company purchased five acres of land on the north side of Lake Wendourse and men invest, Sabantapoli and thin time ten quaned on in house built a depot and stables, 230 feet x 58 feet, of timber frame mank with corrugated sheet iron sides and roof, together with twenty cottages of four rooms each for drivers and

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stablemen. The trams were built to the Stevenson (American) pattern, being constructed by Duncan and Fraser in Adelaide and assembled in the Depot. They were four wheel, double deck, double ended vehicles, with six windows per side in the lower water deck saloon, which was fitted with longitudinal seating. Access to the top deck was by spiral steircases from each end platform, where the knife-board seat brought the total seated capacity to 44 passengers. Two later trams were built with seven window saloons, heing management and the state of about 14 feet as against 12 feet. The cars weighed about 32 tons, the colour scheme being yellow. An interesting item is that the saloon doors were made by J. M. Jones Sons, Westtroy, N. Y., U. S. A., and carried a builders plate to this effect.

Public service commenced on Monday, 26th. December, 1887, when three trams were in service and were well patronised. The service gradually became established and settled down into a daily routine. For many years, outbound (west-bound) trams used the northern track in Sturt Street while the southern rails were used by inbound trams. The terminus was at the east end of Sturt Street, at Grenville Street. The trams ran from 8.00 a.m. to 11.00 p.m. at intervals of 15 to 50 minutes. Fares were 3d. for three miles, on a basis not to exceed 1d. per mile. It would appear that the venture was not as financially successful as the promoters had hoped. The Ballarat West City Council complained in December, 1888 that the Drummond Street South line had been completed for some months but that the service had not commenced, while in May, 1890, the Company requested the Council to vary their agreement so that the Company's expenditure would be decreased. The Council refused. When the Drummond Street South service, commenced it was run as a shuttle between Sturt Street and Skipton Street with a single deck car. The Company entered into an agreement with the Borough of Sebastopol to extend the South Ballarat service to Queen Street, Sebastopol, and this line was opened mm in April, 1893. East Bellarat. area proudly presented a busy scene of transey life. Six A workshop had

The Town of East Ballarat was also interested in having a tramway system, and on

25th. June, 1888, their Council conferred with Mr. Ellson, of the Blectrical engineering firm of Booth, Ellson and Company, who were then arranging to install battery operated tramcars at Bendige. They inspected the routes, and Mr. Ellson said that he was most impressed with the prospects and was sure that the gradients would not prove difficult for battery electric trams. The Council was very pleased, but history was to prove that Ballarat East would have to wait another 17 years for its tramways. Although an agreement was signed by the Council and Booth, Ellson and Company, the Council was advised in June, 1891, that it was not legally binding, and decided to abandon it. a nystem was subasquantly reintroduced. The Suburday

Battery Tram Trial.

A trial run was made with a Julien system accumulator car on the Drummond Street South line on Friday, 12th. October, 1888, and was arranged by Mr. R. T. Moore who had purchased the rights for using it in Ballarat. The car appears to have been a standard double deck horse tram modified to carry the electrical equipment. It had been assembled in Melbourne, where a demonstration run had been held about a fortnight previously. The bottom panels of the body sides were removed min while the battery trays were installed underneath the saloon seats. There were eight trays, each of four boxes, on the car, there being three ceels per box, thus making a total of 96 cells on the tram. Each cell was about 6" x 6" x 10", and the total energy carried was sufficient to travel between 50 and 80 miles. The motor was placed underneath the body, between the wheels and axles, and drove the latter through a shaft and spur and chain gearing. It is possible that the wheel base was lengthened to accomodate the motor and gearing. The car was run into the city on Monday, 15th., October, and was tested on steeper hills than exist on the Drummond Street South line. It appears to have been successful, but nothing eventuated from it on the Ballarat tramways. It is believed that this car was tried in Adelaide a few weeks later.

Wendouree Depot usually presented a busy scene of tramway life. It A workshop had been built behind the Depot, and the trams were maintained in good condition. The horses were cared for by grooms, four of whom were stationed at Wendourse Depot. Each groom had charge of 12 horses, and each pair of horses had not more than two runs per day, except at busy periods. All horses were spelled in turn, and reserves were constantly on hand. Conductors were uniforms, but drivers did not always adhere strictly, particularly in winter weather when warm, water-proof outer garments were donned. Crews usually worked throughout the day with 12 hours off for lunch and one hour for dinner, and one day off per month. Pares were initially collected by hand and tickets issued, but later bell registering receivers were used, there being a slot for passengers to insert their coins into the small machine. The ticket system was subsequently reintroduced. The Saturday (shopping) might loading on the Sebastopol route was very heavy, and "top" conductors were used on the upper decks and staircases, while an extra car was also used. The Sebastopol (formerly South Ballarat) route commenced from the Town Hall, in Armstrong Street, at Sturt Street. A Sunday morning church tram was run from Sebastopol, initially via Drummond Street South to the Cathedral and later in via Armstrong Street, and was later joined by a similar service from Gardens. The early Depot services South Ballarat services was at Darling Street, but this was subsequently moved to Sebastopol. The former building was demolished as recently as into last May - to make room for a petrol station! The Sebastopol Depot was destroyed by fire me early on Sunday morning, 10th. August, 1909, with the destruction of three trans and thirteen horses. Only two horses were saved.

The horse tram tracks in Skipton Street were used for an unusual purpose on Mine 29th. September, 1892. The heavy engineering firm, Phoenix Foundry, carried out trials of the first of three steam tram motors which they were building for the Bendigo tranways. Two were "large tramcars" were attached, and passengers carried for some two hours. The trials were successful, and the motor duly transported to Bendigo.

A private company constructed Ballarat's first electric power station in Dana Street in 1885, and enlarged it during the 1890's. The Electric Supply Company of Victoria Ltd.

purchased the franchise and laid the foundation stone of the present Wendource power house on 25rd. August, 1904. This company also purchased the horse tramways in 1903 with the intention of converting them to electric traction. This was duly carried out, and will be dealt with in the next section of this history. The number of horse trams on

the roster is in doubt. Initially, 15 were built, and it had been understood until recently that 26 (including the single deck car) were on hand in 1905, including a few not in regular use. Recent research has shown that this figure may not be accurate, because a newspaper report of August, 1902, states that there were 18 trams, while it is possible that approximately 50 existed. The former report could refer to cars actually in use at the time, while the latter figure is arrived at as follows:- 12 were converted to electric trams for future use in Ballarat; eight became trailers to the electric trams in Ballarat; five or six were transferred to Bendigo (also operated by the Electric Supply Go.) as electric trailers; three were destroyed in the Sebastopol Depot fire. The Total is thus 28 or 29 trams. However, these figures have projected us into the next

section of this article, and more will be mentioned about these points in due course.

All that can be said for the moment is that research has not established the number of horse trams on the roster of the Ballarat Tramway Company.

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The Electric Supply Company of Victoria Ltd., having successfully completed negotiations with the City of Ballarat and Town of Ballarat East to install electric transvays in their areas, proceeded to put the work in hand. The official opening took place on 18th. August, 1905, with a ceremony at the new Wendourse power house. The procession of trams conveyed official guests through the city and onto the Mount Pleasant and Victoria Street routes. Upon return to the city, the usual "sumptuous repast" was partaken at the City Hall. The situation regarding electric trackage at this period was: - (1) Victoria Street, to terminus. (2) Mount Pleasant route, to corner of Barkly and Main Streets only, with a horse tram shuttle to the terminus at Cladstone Street for several weeks, pending completion of the overhead wiring. Considerable local pressure succeeded in having this line extended to the present terminus at Cobden Street. (5) Sturt Street and the circuit around the Lake. A horse drawn wagonette was used on the Sturt Street west section for a while pending

Completion of this work. (4) Drummond Street North and MacArthur Street. Addiand Street
North. The Adelaids firm of Duncan and Fraser, which had built the horse trams, received
the contract for the electric tramcars. During 1905, they rebuilt six horse trams and
six electric trams purchased from Sydney into the standard type of Ballarat electric
tramcar. The horse trams were placed on long steel underframes and their saloons
had open ends constructed onto them, while the ex-Sydney cars had their end platforms
lengthened. The latter cars included Sydney's three original electric trams (Nos. 1 - 5)
and three "C" type (Nos. 14 - 16).

The ex-horse trams
were mumbered 1, 4, 6, 10 - 12, Sydney's original cars became Nos. 2, 5 and 7,
while the "C" class were numbered 3, 8 and 9. The cars were painted red and cream, with
numerals in gold leaf and liming in bright blue. "Ballarat Tramways" was painted on
the rocker panels from about 1912, at which time the car numbers appeared on the sides
and aprons. Six more horse trams were converted in 1906 and were numbered 15 - 18. All

these trams were approximately 32 ft. long, and were powered by two 30 h.p. motors.

The ex-horse trams seated 32 passengers and the ex-Sydney cars 36 passengers. Messrs.

Duncan and Fraser also completed two eight bench open summer cars in 1906. They seated

40 passengers, were powered by two 35 h.p. motors, and weighed about 9½ tons each.

Although the electric trams served the northern, western and eastern sections of Ballarat, services to the south - Sebastopol, from the Town Hall, and the Drummond Street South shuttle - were still operated by horse trams. The latter service was converted to electric trams in 1907, being operated from the city terminus. The horse trams were withdrawn from Skipton Street and Armstrong Street South during 1909, and, while Skipton Street, between Darling and Rubicon Streets, was being converted to electric trams, passengers were conveyed between the Drummond Street South electric trams and the Sebastopol horse trams by horse drawn drags and wagonettes. This section was operated by electric trams from 1911. Lengthy negotiations were necessary between the Company and the Borough of Sebastopol before agreement was reached to replace the

remaining horse trams with electric trams, which event took place on 14th. April, 1915, thus ending over 25 years of horse traction in Ballarat. Three new electric trams, called "Sebastopol" cars, were constructed by Duncan and Fraser in 1913. They were semiclosed cross-seat cars, Nos. 21 - 23, powered by two 38 h.p. motors, weighed about 10½ tons, and were 31 ft. long. Fixed seating was provided for 40 passengers, with the conductor using the centre sisle. In summer, seats would be inserted across this sisle, increasing the seating capacity to 50 passengers, and necessitating the conductor using the footboard. However, after a while, this practice ceased, and the cars ran as 40 seaters. As mentioned previously, eight ex-horse trams were retained as trailers to the electric trams in Ballarat. These cars included one of the seven window seloon trams, the other of which was amongst those sent to bendigo. Trailer operation proved advantageous in heavy traffic for many years, but finally ceased in 1927. The ex-horse cars were sold, except one, which continued in an unusual role until about 1955.

It was used as a bicycle trailer. The early morning crews naturally signed on at the Depot, but their afternoon relief men took over from the city office. Many of the former men cycled to the Depot, and their machines were loaded into the trailer and towed into the city behind a passenger tram near the end of their shifts. The trailer later returned to the Depot behind another passenger tram loaded with the bicycles of the afternoon shift men, ready for when they finished work near mid-night. This service was taken over by a motor track.

Grenville Street, at the eastern end of Sturt Street, was the city terminus. A large waiting room was constructed there for passengers, and indicator clocks advised the departure times of trams on the various routes. The waiting room, which was constructed on the roadway beyond the end of the central plantation, was removed in 1923 to ease the movement of traffic. A pointsboy was employed to assist the reversing of trams shunting here, and to ride Lydiard Street North trams up the hill to change the points

through-routing, but Grenville Street reasined the city terminus for all lines. A mor for them (and then re-set the switch for the straight track). The Company introduced timetable was introduced in 1924, and remained in fures for many years. Driefly, then one-man operation in 1915, except on the bench cars. About this time, No. 10 was fitted services were:- Gardens, via Ripon Street, and Gardens, via Con with a windshield at one end, and it was subsequently decided decided that it was alterrate care, such 30 minutes during successful and that all cars, except Nos. 19 and 20, should be fitted with this protection 50 minutes at might. with an additional survice to Rubs at both ends. The original destination signs were an iron plate hung over the apron. Street in the afternoon to give a 18 minute headmay. Lydiard : In 1911, four sided revolving boxes were fitted to the canopies, with bulls eye glass Drummond Direct North: 50 nimster throughout. Flatoria Street and Roust Pinsount: ench colours for night use. Coloured enamel route plates, carried on the front upper end of the afternoon and overing only. the cars as well as on the sides above the centre windows, were used from 1913 to 1934. Sebastopel, Victoria Street, Mannt Pleasant and Igdiera Street North received to minute Revolving linen signs were introduced in 1921, being accomodated in squarish h a tran every 50 minutes. Both the Cardons routes upright boxes fitted on the end canopies. The safe-working on single track sections was perently to allow for variations to the lake-side governed by hand staffs, without tickets. A water tram, built by the Brush Company, was ther conditions and yarious aporting functions, plantes, sto. purchased in 1907. It was stored, out of use, at the back of the Depot, about 1918, and erliament constituted a body to develop electricity product was scrapped in 1925. an viotorie, using the huge deposite of brown evel in the corbers part of the State.

Although the general operation of the trams has been regular and generally uneventful over the years, some points are worthy of note. Shortly after the electric trams opened, a phenomenal snow storm, in August, 1906, made it impossible to commence running until noon. On the Tuesday after Easter, 1917, when the Eureka Pagent was being staged at the Eureka Stockade, on the occassion of the Back to Ballarat celebrations, all 23 trams were in use. At one stage, 22 trams were sent into the eastern estage section of Ballarat, and only one tram remained to serve the rest of the system! During the 1920's, the tramways suffered from unrestricted competition from privately operated motor buses. About 1924, the Company actually purchased a small bus from a man who was running it in competition to the Mount Pleasant trams, and subsequently used it on this route and the Victoria Street line in an effort to counter the competition. State Parliament eventually legislated to give power to local Councils to license privately operated motor buses on specified routes under certain conditions, and this greatly eased the problem. A number of experiments were tried over the years at through-routing, but Grenville Street remained the city terminus for all lines. A new timetable was introduced in 1924, and remained in force for many years. Briefly, these services were: - Gardens, via Ripon Street, and Gardens, via Convent (Sturt Street West), alternate cars, each 30 minutes during the morning, 20 minutes during the afternoon and 30 minutes at night. Sebastopol: 20, 24, 20, with an additional service to Rubicon Street in the afternoon to give a 12 minute headway. Lydiard Street North: 20, 12, 20. Drummond Street North: 30 minutes throughout. Victoria Street and Mount Pleasant: each 20 minutes throughout. On Sundays, trams ran during the afternoon and evening only. Sebastopol, Victoria Street, Mount Pleasant and Lydiard Street North received 20 minute services, and Drummond Street North a tram every 50 minutes. Both the Gardens routes are shown as at "regular intervals", apparently to allow for variations to the lake-side headways due to differing weather conditions and various sporting functions, picnics, etc.

In 1918, State Parliament constituted a body to develop electricity production in Victoria, using the huge deposits of brown coal in the eastern part of the State.

the State Electricity Commission of Victoria, as the body became known, elso had the task of unifying existing sources of electricity and its distribution. This involved the plant and equipment of the Electric Supply Company of Victoria Ltd, who, as previously mentioned, operated the Wendource power house and supplied Ballarat with its electricity. Initial negotiations between the Company and the Commission took place in 1925, but, as the Company's franchise did not expire until 1931, the rate of progress was limited. Although the Commission was an electricity manufacturing and supply body, it intimated that, if necessary, it would include the transvays in its purchase of the Company, even though it did not consider itself a transvay operator and, at the time, was not vested with power to operate the transvays. Further negotiations took place, including a conference with the Ballarat City Council on 25th. October, 1923, and the terms for the purchase of the Company (including the transvays) by the Commission were eventually agreed upon, on 24th. June, 1929, and duly retified by Parliament in December, 1929. The purchase date was set as lat. July, 1931, but the date of expiry

of the franchise was altered to 50th. June, 1934. During this period, the Commission was to supervise the operations of the Company, who were to continue their normal operations. The Commission was also required to provide funds for any necessary capital works, which were to be approved by Parliament. Also, in December, 1929, Parliament passed an Act giving the S. E. C. power to operate transvays, and further detailing their protection from competitive bus operators. In due course, the aforementioned progressively came into being. During 1932 and 1935, the S. E. C. conducted a detailed investigation into the condition of the transvays (and also those at Bendigo and Geelong, which were included in the above arrangements). Ballarat's electric transvays system was nearly 30 years old, and required quite a deal of attention to track, overhead and relling stock. The costs and advantages of rehabilitating the system, compared with alternative methods of transport, were probed, and it was decided that the best solution would be to reconstruct the system to a reasonable standard, which would assure

speed completion of the job, and the trams serving the Victoria Street and Mount
Pleasant routes were isolated for several days. Much of the old and worn grooved rail
was replaced with 80 lb. "T" rail with a grooved strip bolted on, but the remainder
was reconditioned and remained in use. The special work was repaired by welding where
possible, and only replaced by new units when necessary. Considerable attention was
also bestowed upon the overhead, and much new trolley wire was string. On 28th.
August, 1937, an extension of 45.5 chains was opened to the Cemetery gates
on the Lydiard Street North route, following local pressure. This was the only major
change made in the system after the Sebastopol electrification in 1913, and was officially
opened by tramcar No. 32 (see later).

Having dealt with the transition period from Company to Commission, and the subsequent rehabilitation of the track and overhead, we must revert to the late 1920's to follow events relating to the rolling stock. The two open summer cars, Nos. 19 and 20,

shelaide colours for some time. No. 24 was the first air by

were fitted with 21E trucks in 1929, but this was not successful, and they were withdrawn about February, 1930. The Company decided to acrep Nos. 10, 15, 18, 19 and 20 later in the same year, and they were replaced by purchasing five single truck trams from Melbourne. The "new" trams were typical single truck open combination cars, having been classed "M" on the M. & M. T. B. system. They became Ballarat Nos. 24 to 28, and their ends were later altered to the local design to allow one-man operation. In 1931, five more cars were scrapped - Nos. 8, 9, 11, 15 and 14 - and replaced by a further batch of five similar trams from Melbourne. They were numbered 29, 18, 19, 20 and 16. These ten trams were painted red and cream, like the older cars. The green and cream colour scheme, with cream rocker panels, was introduced on No. 27 in March, 1935, while the present green and cream colours appeared on No. 16 about April, 1946. The S. E. C. had planned to operate the system with these ten "new" trams plus the remaining older cars, and made no provision for additional "new" cars in their rehabilitation estimates.

However, these plans were altered. Nos. 2, 4 and 6 were scrapped in 1932, No. /6 in 1935,

and Nos. 5 and 7 in 1934. No. 23 was converted to a carborundum scrubber and track cleaning car in 1954 by removing the seats and substituting a large water tank and fitting the necessary holders and levers to the truck frame. In 1935, Nos. 1, 3, 12, 17, 21 and 22 were withdrawn, and removed the last of the old cars from the passengers roster. Their replacements were four more cars from Melbourne, which received Nos. 50 to 53, and four from Geelong (which originated from Melbourne), and which were numbered 11 to 14. All these cars were of the same type, and arrived during 1935 and 1936. A further combination cars, with straight sill and semi-closed ends, arrived from Melbourne in 1936, and was numbered 22. It was later renumbered 29, and the first No. 29 was renumbered 17. The roster thus numbered 19 trams and, as Melbourne did not have any more single truck cars surplus, the S. E. C. purchased three trams from Adelaide. They were also single truck open combination cars, but with a longer saloon - five windows as against four in the ex-Melbourne cars. They arrived in December, 1937, and ran, unaltered, in Adelaide colours for some time. No. 24 was the first air brake tram in Ballarat.

By 1958, all cars, except Mos. 22, 25 and 29, had been converted for one-man peration on the design which still prevails. Ballarat thus entered the war period with a fleet of 22 quite good trams, of which only three were two-man cars. They carried heavy loading for several years, and survived the shorteges of materials and maintenance remarkably well. The man-power shortage necessitated the employment of Conductresses between 13th. September, 1942 and 9th. July, 1946, a maximum of 25 being on the job at one time. During the war, the trans were one-man operated before 11.00 a.m. and after 8.00 p.m., but, from 8th. April, 1946, Conductors were provided at all times. The timetable was 20 minutes on all lines, except View Point, and had been introduced with the opening of the Lydiard Street North extension in 1937. A system of through routing was also introduced, and Grenville Street, generally speaking, was deleted as a City terminus, except for short-working cers. The new arrangement was:- Victoria Street to Gardens, via Sturt Street West; Mount Pleasant to Gardens, via Drummond Street Worth; Lydiard Street North to Sebastopol; Lydiard Street North to Rubicon Street (later Grey Street); City to View Point; City (Main Street) to Sturt Street West. Trolley wheel operated colour light signals were initial introduced on the Bridge Street section in 1937, and then on the Victoria Street and Mount Pleasant routes. The Sebastopol. Lydiard Street North, and both Gardens routes were equipped thus in 1938, leaving the View Point route only worked by hand staff.

No. 22 collided with an Army truck in Drummond Street South on 28th. July, 1944, and was badly damaged. Although preliminary work on repairs had been started, it was decided to scrap this car when the M. & M. T. B. The offered maximum traction bogie tramears for sale. The first such car arrived on 19th. October, 1945, and ran its trials three days later. It entered service a week later, being the first double truck tram in Ballarat. It was numbered 22 - the fourth tram of this number in Ballarats - being remembered 57 in 1951 (in order to consolidate bogie cars from number 34). It was scrapped in 1955 following severe damage in an accident with a large semi-trailer truck. A second bogie car arrived a few days later, and was numbered 15, being renumbered 36 in 1955.

Two more bogic cars were purchased in 1947, being numbered 34 and 35. Nos. 23 and 29 fell into disuse, but were not scrapped until 1951 and 1950 respectively. Three further bogic trams arrived from Melbourne during 1951, and were numbered 38 to 40. On 6th.

October, 1952, some one-man operation was introduced during slack periods. Bogic car No. 58 was altered to permit such running, and was out-shopped in February, 1955.

However, the employees Union rules forbad one-man operation of (large) bogic trams, and this car has never been run as a one-man vehicle. When the S. E. C. closed its tramway system at declong early in 1956, three bogic trams (originally ex Melbourne) were transferred to Ballarat, and entered service as Nos. 41 to 45. These cars enabled single truckers Nos. 16 and 24 to be scrapped in 1956 and 1957 respectively. Quite a quantity of spare parts and materials were also received from Geolong, including some good second hand rail. Some of the latter was used to re-rail the single track in Bridge Street, early in February, 1957, the work being carried out after midnight.

During the late 1950's the rolling stock consisted of single truck trams and nine bogic cars. As Ballarat had a sufficiency of the former, and the S. E. C. 's other system at Bendigo was short of this type, it was decided to transfer two single truck cars from Ballarat to Bendigo and replace them with one bogic car from Bendigo. This movement took place early in October, 1960, when Nos. 19 and 25 left Wendourse Depot and Bendigo's No. 1 arrived. The latter car has had a remarkable history. It entered service with the Hawthorn Tramways Trust in April, 1916, probably as No. 13. It was taken over by the M. & M. T. B. in 1919, and subsequently numbered 119. It was next sold to the S. E. C. and became Geelong No. 35 in January, 1948. When this system closed, it was transferred to Bendigo in March, 1956, and numbered 1 - the only bogic tramcar in Australia to carry this numeral. With its transfer to Ballarat, it has thus worked over five systems under three owners. It carries Ballarat No. 37. The car roster at Ballarat is thus 15 single truck and 10 bogic trams, plus one track cleaning car.

The S. E. C's. transcars have been vulnerable to being struck by moterists at night for many years now, probably due to poor street lighting in the Provincial cities and the use of much single track. Four tail-lights, one in each corner of each apron, were fitted in 1952, and operated in conjunction with the headlight at the other end of the car. White reflective tape was fitted, in 1953, to the aprons and bumpers, as an additional means of identification. However, accidents continued to happen at intervals, so it was decided to add to the trams' "defences" canopy was fitted at the top of each apron, drilled with six holes, and fitted with four white and two red light globes. This eanopy, the bumper and the fascia strip about the destination box were painted with stripes. The four white globes cast a very good illumination down onto the apron and shine straight out through the holes, thus heavily reinforcing the headlight. The rear of the tram shows the two red lights from the canopy (thus completing the circuit with the front four lights) as well as the two abovementioned apron tail-lights. All cars were thus fitted in 1961, and, at last, the socident rate has dropped to almost nill

Several, minor emendments have been made to the track layout over the years. All the original loops have been relocated and some additional ones installed, while a parking loop was installed on the southern track at the eastern end of Sturt Street, probably during the reconstruction period in the middle 1950's. The loop on the view Point line, near the Power House, was broken in 1955 and a switch used at the head of the new outside road at the Depot, which was completed in March, 1954. This road is called No. O road. The parking loop at the Gardens (a short distance south of the Gardens passing loop), had its points removed in 1950. Its switches were normally set for the straight road, and were not sprung as in the case of passing loops.

THE TRAMWAYS OF BALLARAT

(Continued)

By W. H. Jack and K. S. Kings.

Last month we marked the 75th. anniversary of the opening of horse tramways in Ballarat with the first portion of this article, which dealt with the horse traction era. We continue now into the period of electrification and operation by the Electric Supply Company of Victoria Ltd., and then the purchase and operation, up to the present time, by the State Electricity Commission of Victoria.

serve their City for a long while yet.

The foregoing article has been based on records and data in the collection of Mr. W. H. Jack, supplemented by material from Mr. K. S. Kings' files. References used include the S. R. C. Annual Reports, Ballarat "Courier", Ballarat "Star", Ballarat City Council Annual Reports, "Destination City" and "Destination Eaglehawk" (which is still in course of preparation by Messrs. D. J. Richardson and K. S. Kings). The authors wish to record their thanks to Messrs. C. R. G. Field and K. McCerthy for their assistance, and to past and present S. E. C. Tramway employees: Messrs. D. Irvin, L. J. Denmeed, W. J. Lyons, and the late A. V. Mawby and late . Hodgson.

Friday, 2nd., February, 1962, cast a dark shadow over Ballarat, as the S. E. C. announced that it would petition State Parliament to close its tranways at Ballarat and Bandigo. Local reaction was adverse, and opposition steadily grew and became organised. Protest meetings and deputations have been organised but, to date, the Government has not committed itself either way, and the S. E. C. has not tabled its formal application in Parliament. The surface picture is calm, and political observers feel that no action will be taken before May, 1964 - when the next # State elections are due to be held!

Meanwhile, the trams continue to run and serve the people of Ballarat. Maintenance of rolling stock and track continues; trams are still being overhauled and painted; and visitors marvel at the system as a whole. Indeed, some recent travellers from abroard have found it difficult to believe the remarkably high standard of appearance of all trams in the fleet, and their praise for the Depot staff has been considerable. The tramways of hallarat are seventy five years old, and it is to be hoped that they will be spared to

THE TRAMWAYS OF BALLARAT

(Continued)

By W. H. Jack and K. S. Kings.

Last month we marked the 75th. anniversary of the opening of horse tramways in Ballarat with the first portion of this article, which dealt with the horse traction era. We continue now into the period of electrification and operation by the Electric Supply Company of Victoria Ltd., and then the purchase and operation, up to the present time, by the State Electricity Commission of Victoria.