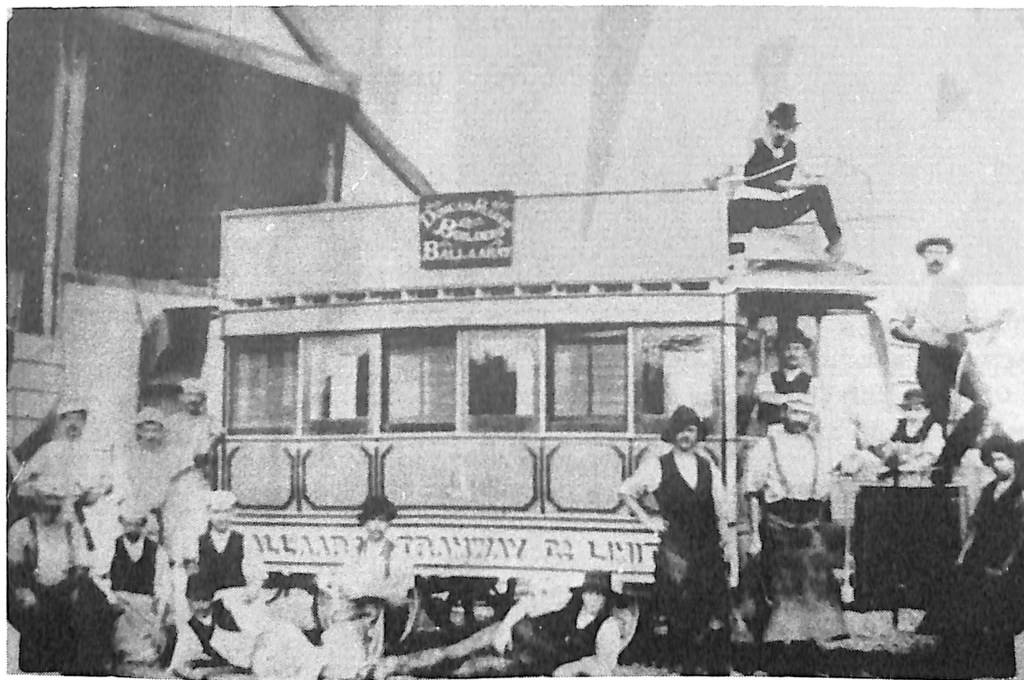


# HORSE TRAM No.1

## Progress Report

Horse Tram No.1 was one of fifteen similar cars built in 1887 to begin Ballarat's horse tram service. The cars were built in Adelaide by the firm Duncan and Fraser, then dismantled and sent across to Ballarat, where they were re-assembled.

The Ballarat Tramway Company's horse tram service was officially opened on December 21, 1887 and regular services commenced on Boxing Day, 1887. Horse car lines radiated around the prosperous gold mining town of Ballarat.



The cars were open top double deckers seating 44 (22 on each deck), with a spiral staircase at each end. They were usually pulled by two horses with an extra horse often being used to help the cars up the hill in Sturt Street between Grenville and Lydiard Streets. The cars were licensed to carry 46, but often 80 people or more were packed on board, thus placing a tremendous burden on the horses. Horse tram operation was also hard on the traffic staff, who worked long hours in all types of weather, standing on an open platform.

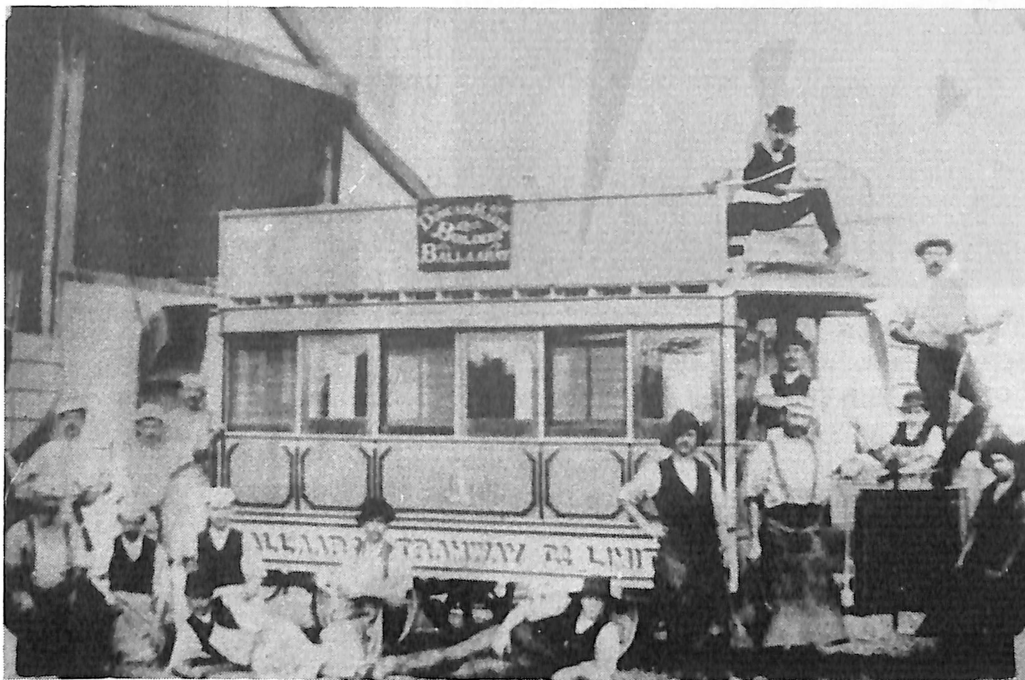
Although the horse trams were slow, and never in danger of exceeding their eight miles per hour speed limit, they were an improvement on what had gone before. A tram travelling on rails gave a smoother ride than horse buses and cabs traversing the rough roads of the day. This is what we are intending to re-create. By providing mass transport to outlying areas, the horse trams boosted land prices and encouraged development, also helping city businessmen by bringing large numbers of people into town for shopping.

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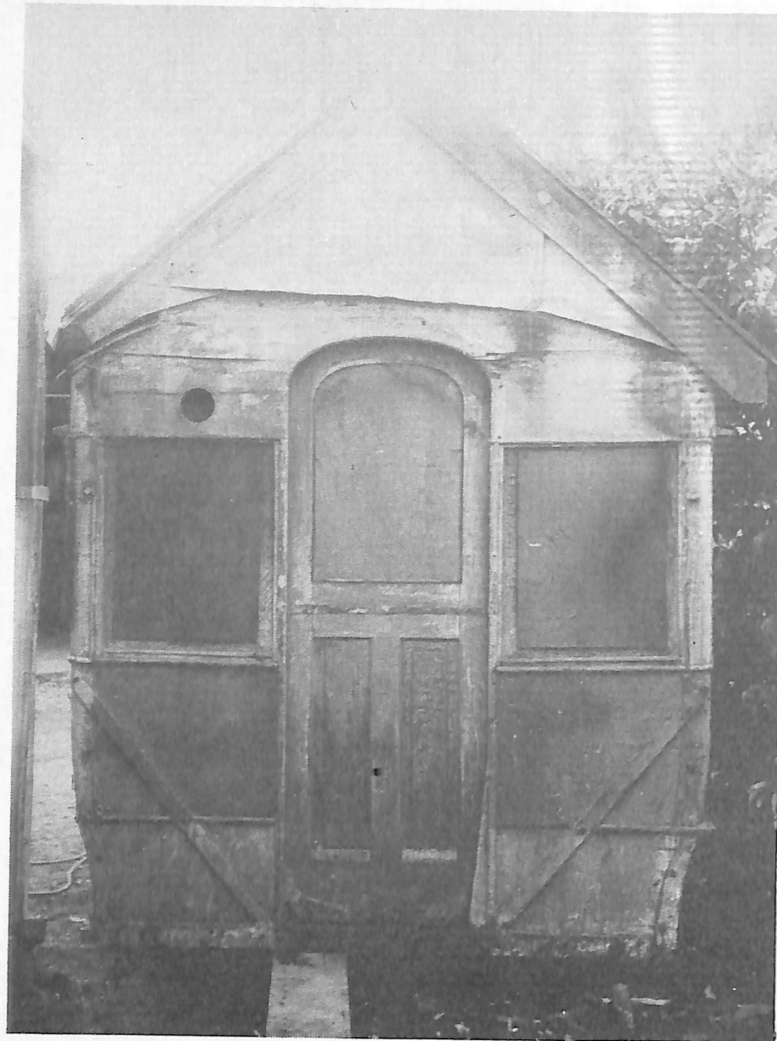
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When found at its Ballarat East resting place the tram had been well preserved for 50 years.

In 1902 the Electric Supply Company of Victoria bought the Ballarat Tramway Company, and began converting the horse tramway to electric traction. The electric tramway service opened in August 1905, but the southern service to Sebastopol remained horse drawn for several more years. The horse tram service in the Borough of Sebastopol was finally electrified in 1913.

Some of the horse trams were retained in Ballarat for use as trailers to the electric trams, and some were sent to Bendigo for the same purpose. They were used as trailers during the busy periods until the late 1920's.

All the horse trams had been scrapped by the mid 1930's. Several horse tram bodies were sold to property owners in the Ballarat district and half a century later **Horse Tram No.1** is the only one known to have survived.

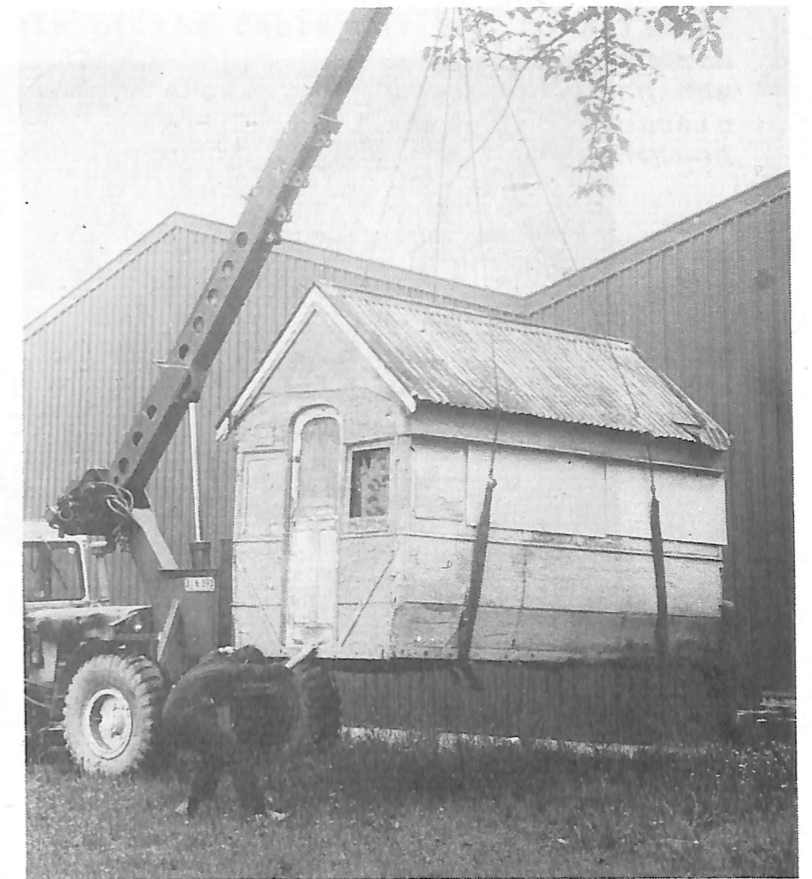
#### THE BALLARAT VINTAGE TRAMWAY

With the exception of the vast Melbourne system, a tourist line in Bendigo and one line in Adelaide, trams have disappeared from the streets of Australian cities. However, in the area around the Ballarat Botanic Gardens tourists can experience tram travel, as it used to be, in one of Ballarat's most scenic areas.

Unlike most tram museums, which are sited off-road, the Ballarat Vintage Tramway operates the old Ballarat trams on part of the street trackage of the former Ballarat Tramway system. Thus the tourist experiences "real" history.

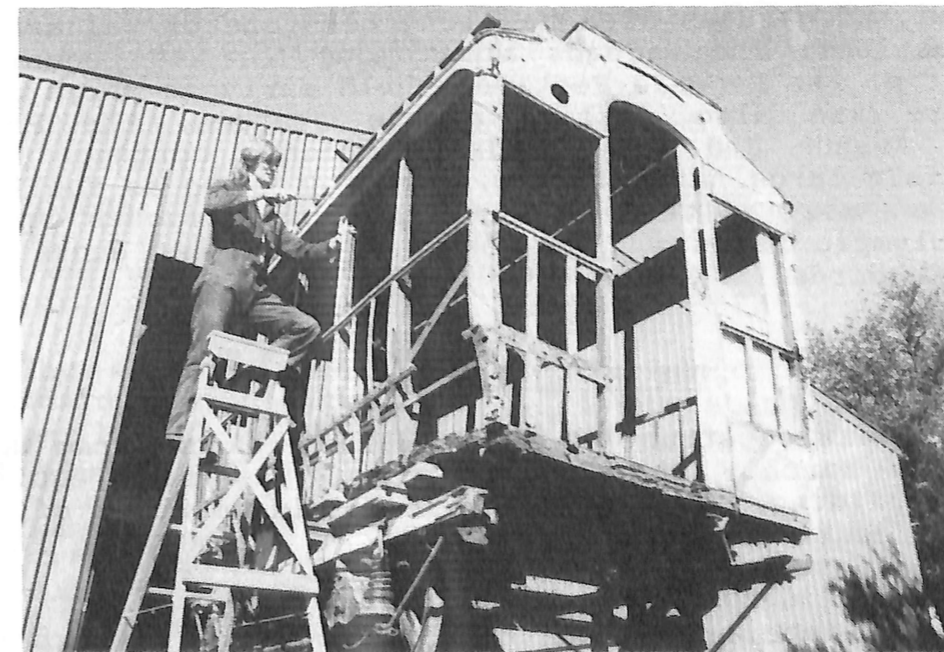
Ballarat's tramway system which at its peak totalled 25 kilometres of track, began operations as a Horse Tramway in 1887, and electric trams were introduced in 1905. The system was taken over by the State Electricity Commission in 1934, and over the next twenty years the SEC bought second-hand trams from the Melbourne and Adelaide tramway systems. These antique trams became very popular both with the locals and visitors alike. The tramway system was closed in September, 1971 and was replaced by a bus service.

In mid-1971, a few months before the system closed, a group of enthusiasts from Ballarat and Melbourne formed a volunteer group, the Ballarat Tramway Preservation Society, whose aim was to preserve the track around Lake Wendouree as an operating museum. The Society acquired six trams from the SEC, and was allowed to retain a 1.2 kilometre section of track in Wendouree Parade, through the Botanic Gardens Reserve. A small depot was built south of the Gardens, and trackwork and overhead wire was placed in position to connect with the retained street track. In December 1974 the Ballarat Vintage Tramway commenced passenger carrying operation.

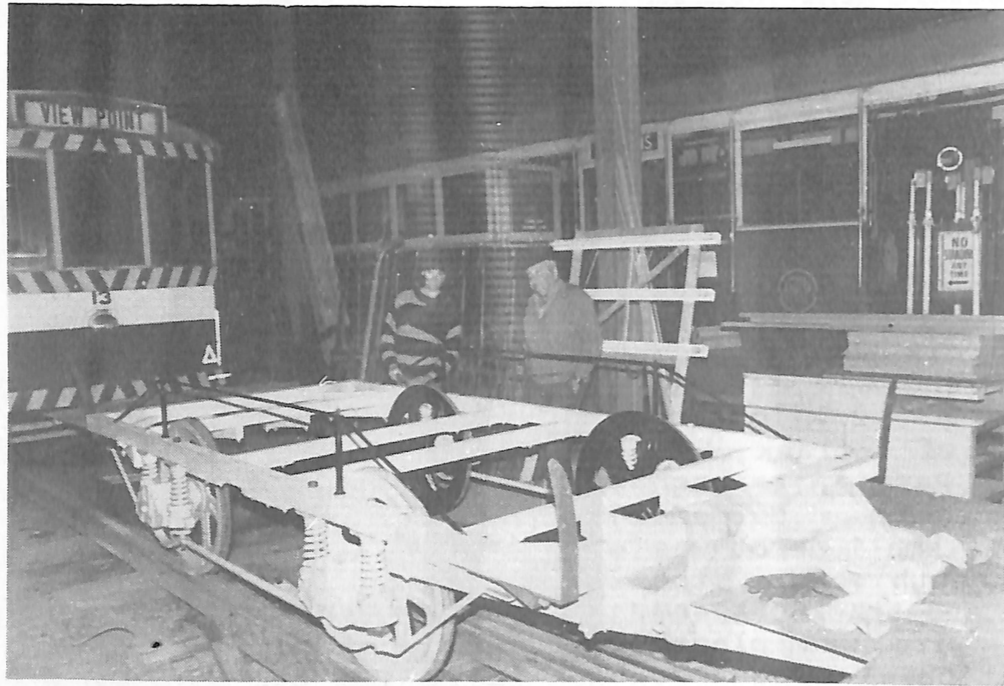


Horse Tram No.1 arrives at the Depot.

The Society has come a long way since 1974. Some of the groups which obtained Ballarat trams after the system closed eventually made their trams available to the Society. The electric tram fleet now consists of 12 Ballarat trams built between 1913 and 1920, plus two Melbourne trams built in the early 1930's. In addition the Society recently obtained the body of former double-deck horse tram No.1, built in 1887, which is currently awaiting restoration.



Shortly after its arrival at the Depot No.1 has been fully stripped back to its framework in readiness for thorough restoration.



The frame of the Horse Tram takes shape atop a Melbourne Cable Tram truck.

The original three track depot has been extended, and incorporates workshop facilities. A museum display is located inside one of the trams, and this display was recently recognised in the Victorian "Museum of the Year" awards.

A ride on one of these antique trams recalls the days when trams were a common means of transport for workers, students and shoppers in many Australian cities. The varnished woodwork interiors are a reminder of a bygone era in craftsmanship. On one side of the line are the Botanic Gardens, on the other side Lake Wendouree.

The lake and gardens area has long been one of Ballarat's main attractions. The Gardens are famous for its begonias, focal point of the Begonia Festival, held early in March each year. There are also Italian marble statues, the Prime Minister's Avenue and Adam Lindsay Gordon's cottage. Lake Wendouree is a large natural lake, formerly known as Yuille's Swamp. It was used as the venue for the rowing events during the 1956 Olympic Games and is the home of swans, ducks and other marine birds.

#### THE WORK TO DATE

Work on the reconstruction of Ballarat's **Horse Tram No.1** commenced in March. The underframe of the car required complete rebuilding, as none of the remaining members of the saloon, or centre portion, of the car frame was in a condition to be reused.

It was most interesting to see the new frame being built at the depot, virtually as if a new tram was being built. As is typical, it was built upside down with the timber used being obtained from Robert Sim Building Supplies of Ballarat.

As there were no remaining frame members to show how the frame was built, the visit of the Cable Car Set to Ballarat was particularly useful. Inspection of the trailer showed how the various members of the frame and the end extensions were arranged. Darryl Hawksworth of the Swiss Mountain Hotel, Blampied who restored cable trailer No.171, advised our team on how to cut the members and attach them.

Meanwhile, the body of Horse Tram No.1 was dismantled to ascertain the condition of various members. As expected, the corner pillars required full replacement, because of extensive deterioration of these important members. The bases of all the intermediate side members had rotted away. Only one of these members, which form the window guides, required total replacement and this was cut out. For the other members, new pieces of wood were grafted onto the lower portions.

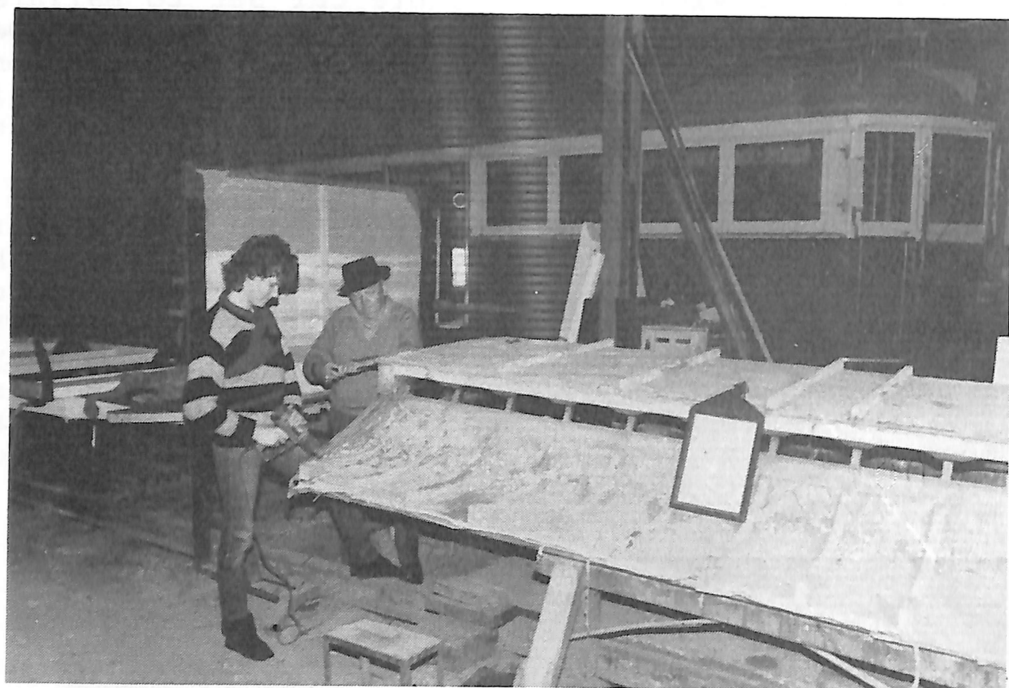


David Macartney and Garry Wood of our Horse Tram restoration team are seen here assembling the brake rigging.

Sovereign Hill's coach builder is cutting out the new corner pillars. They have provided extensive advice and allowed us to use the bandsaw and various other tools to prepare other pieces.

The window frames from the original car were beyond a standard suitable for use in an operating car. New window frames have been prepared at a Ballarat joinery. Beading for the windows was also prepared.

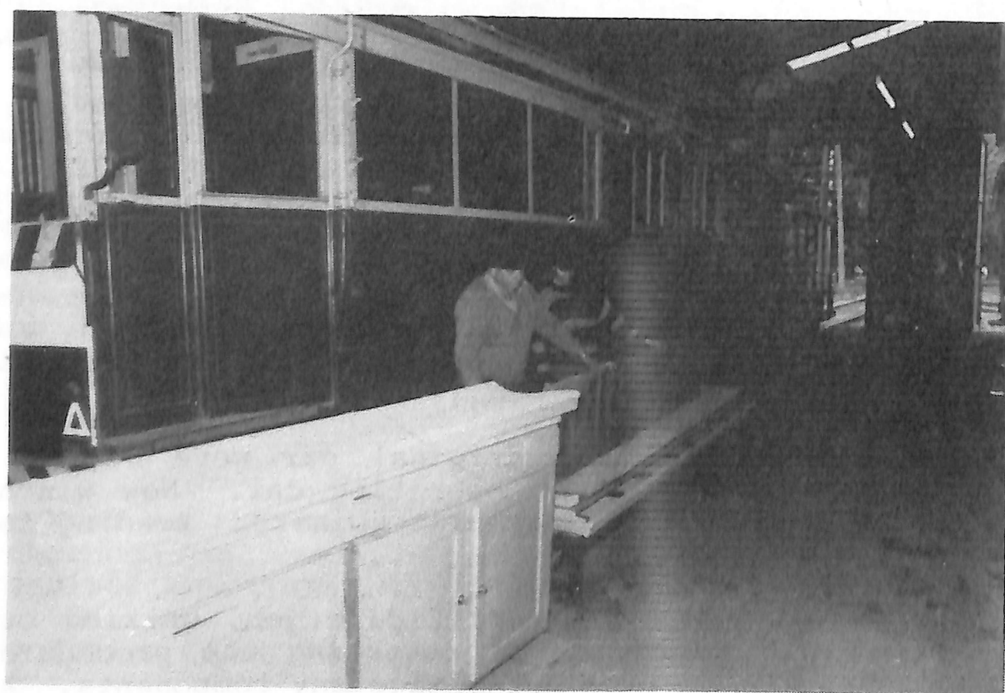
Dismantling of the car was a difficult job, working out how the car was put together and reversing the procedure. Care was necessary in order to not damage any components. As more members were removed, the car became more rickety. Finally with some difficulty and ingenuity the roof was lifted off the body and onto the ground.



Another member member of our Horse Tram restoration team, Jackie Edwards, is watched by member Bob Prentice as she removes paint from the roof.

The cable car truck was completely dismantled, as the wheel base had to be adjusted. While this was done, the various components were cleaned up, primed and painted using paints supplied from Haymes Paints.

When the wheels were ready, the frame of the car was turned right way up, united and fixed to the wheels.



Both sides of the Horse Tram have been removed for restoration and are shown here after being undercoated

The drawing of the Horse Tram did not show, in detail, the underfloor layout of the platform extensions. These are more rounded than on a cable tram trailer. Ian Seymour of AETM's Adelaide Museum, supplied a sketch and the necessary details to complete this section.



David Macartney preparing mortices for Horse Tram No.1.

Work carried out at the same time that the underframe was being prepared includes preparing two of the four side panels which are suitable for reuse. This involved the removal of all the old paint, repeated sanding and filling, and finally undercoating. Two new side panels are to be purchased to replace the unusable panels.

The top deck seat has also been prepared, reusing seat components from electric car No.39. This seat has been sanded and prepared for painting.

The tram roof is in very good order, excepting two areas. In one part, a small fire once occurred, and some of the roof slats were damaged. In the other part, a cupboard was cut into the car, by removing a portion of the roof.

This damage will require some new roof members to be prepared. A complete roof member, which consists of internal and external portions has been removed. This will be sent to Tasman Industries in Echuca who will bend the new timbers. When this work is completed, the roof will be recanvassed.

Following the bolting of the the frame to the wheels, the various bracing members between the frame and the axle boxes were installed. A decision was taken to install the cable car braking system, which gives some form of a separate truck.

When the horse car was built, all the loads and shocks were carried fully by the body. In a cable car, additional bracing between the wheels and the body was added to absorb the shocks of running in traffic. The designers and builders of the horse tram probably found their cars were falling to pieces and needed additional bracing. As we intend to operate the car in service, it was thought wise to incorporate the various bracing members to give strength and longevity to the body. With this bracing the car frame is certainly a lot stronger.

The brake mechanism has also been installed. The brake was obtained from car 461 which was dismantled by the Society last year in the Melbourne suburb of Camberwell. The car was donated to the Society by the Wycliffe Bible Translators. Although the brake was obtained from a cable car, it is virtually identical to the one originally used on the horse trams.

The sides of the car are to be reinstalled next. In this portion of the work, about 50% of the original car is to be reused, while in the roof of the saloon, some 75% is able to be reused.

The work so far has been performed primarily by Society members, Jackie Edwards, Dave Macartney and Garry Wood, who are working on a casual basis for the Society. Garry has been turning his hand to new tasks and teaching himself new skills, joining both wood and metal to form the new frame. Our industrious team has spent some 600 working hours on the project to date.

Haymes Paints, a Ballarat manufacturer of paints, including the Heritage Series has generously donated all the paint required for the project.

As some promised Federal Government support has not been forthcoming we will not be able to have the car finished for the actual centenary of Ballarat's trams, but we hope to have the car ready sometime during the Bicentenary year. Any further sponsorship or donations will help to accelerate this worthy restoration project. Donations to the Society of \$2.00 or more are fully tax deductible.

#### SPONSORS

The Horse Tram No.1 restoration project is being sponsored by:

Telecom Australia  
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