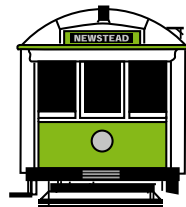




**THREE AUSTRALIAN
‘BIRNEY’ style STREET CARS
(Melbourne “X1” class)**

Price on application
(other options on page 6)

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**NEWSTEAD
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AUSTRALIA

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FOR SALE
Three rebuilt Australian 'Birney'-style streetcars

NEWSTEAD TRAMCARS, based near Melbourne, Australia, offer for sale three 32 seat streetcar saloons single truck streetcars. The streetcars are in the process of frame-up reconstruction and restoration to **better-than-new** standard (with car 466 now complete and ready to ship). The streetcars are backed up with **complete after-sales technical support** and a **catalogue of spare parts!**

The three streetcars are part of a group of ten "X-1" class cars constructed by the Melbourne and Metropolitan Tramways Board between 1926 and 1928. The "X-1" was designed as an improved version of the US type Brill (USA) Birney cars. The car features four folding doors (at each corner of the car) and carries 15 more passengers than the standard "Birney" configuration.

The streetcars are being rebuilt under contract by the Bendigo Tramways (www.bendigotramways.com) in its fully-equipped streetcar workshop. The vendors are committed to the highest quality product, which includes accreditation to run in Australia, and which will meet all US operating requirements (including the APTA Heritage Trolley Vehicle Equipment Standard).

The running gear consists of newly constructed truck frames fitted with wheelsets and traction motors from standard Melbourne "W2" streetcars, (the type now running in San Francisco, Memphis, Seattle and other U.S. cities). Rebuilt airbrake and control equipment are also sourced from the Melbourne "W2" cars.

An operating benefit to you of the "X-1" design is the four sets of driver-operated pneumatic folding doors – one at each corner of the car. Loading can be from either side and/or end of the car. Large windows and walk-over upholstered seats make the "X-1" an ideal transit or sight-seeing vehicle. Everyone faces the front! These streetcars can be one-person operated, with room for an optional fare box (not included).



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The “X-1” streetcar is a versatile vehicle, operable in all weather conditions. It lends itself to both right-hand AND left-hand drive running. The walk-over seating, and the absence of internal bulk-heads affords every passenger excellent forward views. The gleaming varnished Pacific Maple and Blackwood interiors will enhance the historic feel of this sturdy (steel-framed) piece of streetcar history.

Supplied are easy-to-read step by step manuals for preventative maintenance, periodic maintenance and operation.

Your early order of one or more of these streetcars would enable your agency to customize the vehicle to your specific requirements. Options include (but are not limited to):

- Company color scheme;
- Turn indicators, brake and marker lights (fitted to 466);
- P.A. system;
- Seat upholstery fabric and color (light brown transit-grade vinyl fitted to 466);
- Single or dual trolley poles, with either carbon insert shoe or wheel collection;
- Pantograph;
- Driver vigilance (deadman) equipment.

Paint and varnish surfaces are finished to automotive standard.

The X-1 streetcar provides a smooth, quiet ride in a comfortable, roomy historic vehicle! Safety has been of paramount importance for the operating systems of these rebuilt streetcars. Turn indicators, brake and marker lights are now fitted to 466. Independent control of each of the four doors is at the flick of a switch– at either end. A lock-out switch prevents tampering. Further, an electrical interlock prevents the car operating under power when the doors are open.

Additional support for the purchasers of these cars includes our phone/email technical Help Desk, and a comprehensive catalogue of spare parts. Included in the purchase are the services of a technical staff member who will do the final assembly, commissioning and training of your maintenance and operational staff inquiries. Overnight is our maximum response time for help inquiries!

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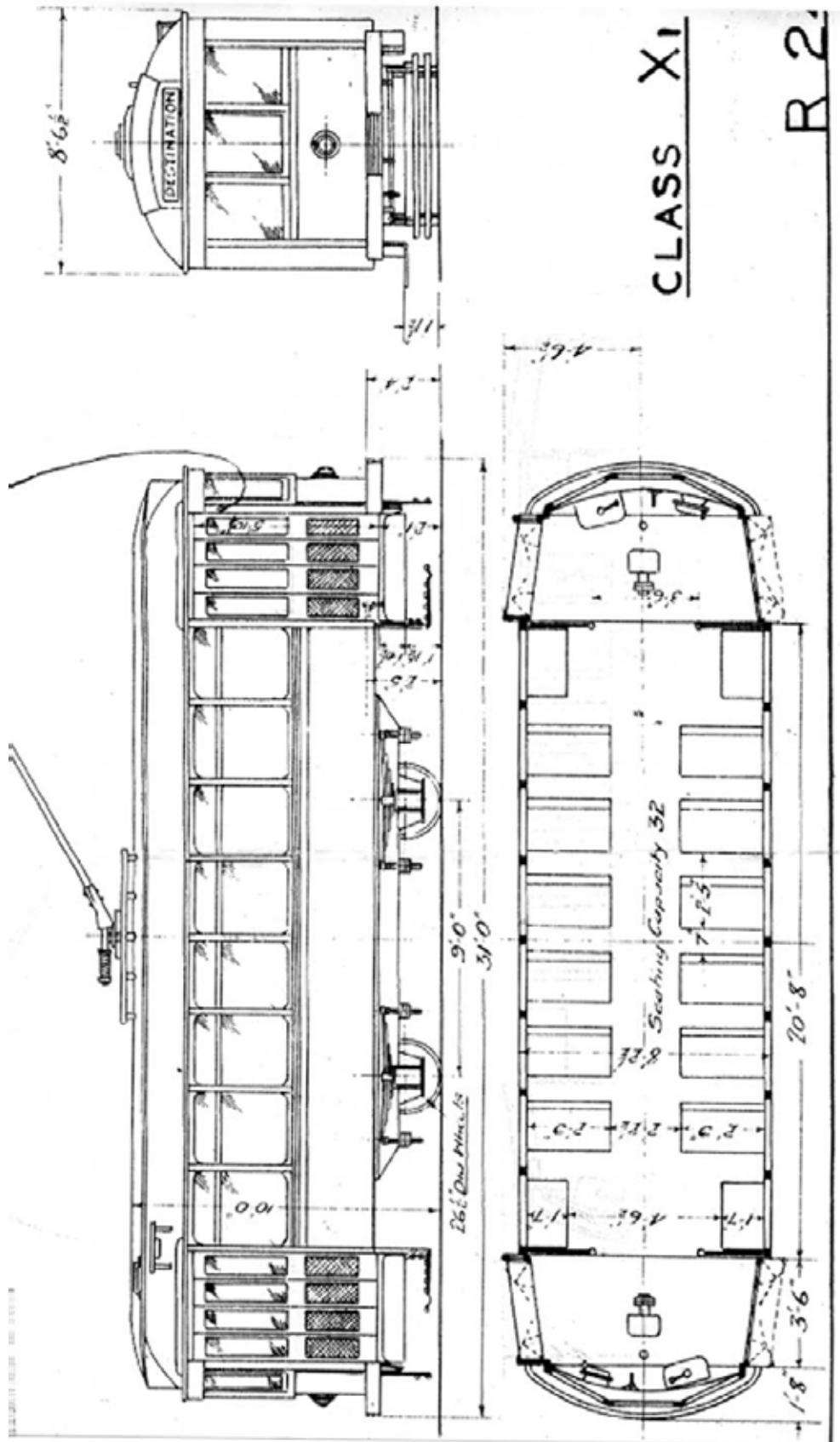
SPECIFICATIONS

Type of body:	Enclosed single truck.
Frame construction:	Steel frame and body panels with wood floor and roof
Original builder:	Melbourne & Metropolitan Tramways Board, Vic., Australia.
Date:	1926-28
Rebuild date:	Bendigo Tramways, 2002-03.
Passenger capacity:	32 seated, 32 standing.
Weight:	22,848 lbs. (10.4 metric tonnes).
Length:	31'0" (9.448 metres).
Width:	8'1" (2.463 metres).
Height (over roof):	10'0" (3.048 metres).
Operating speed:	30 mph (48.6 kph).
Braking rate:	Four feet/sec./sec. @ 10 mph (1.22 metres/sec./sec. @ 16.1kph).
Motors:	Two 40 hp (29.8kW) 600 volt DC Metropolitan Vickers MV101.
Gearing:	Double-helical.
Truck:	Melbourne type 2B (2 axle, fabricated).
Wheels:	Four x 26.5" (0.673 m.) diameter solid disc wheels with tires.
Controllers:	Two x General Electric K35JJ.
Line switch	General Electric type DB/976A line breaker
Braking:	Normal:- Pneumatic; Emergency: - Motor braking (dynamic); Parking brake: - Manual ratcheted wheel/cable.
Compressor:	One General Electric CP27.
Compressor governor:	General Electric "L" type.
Air operating range:	60 - 70 psi (413.7 - 482.7kPa).
Motorman's valves:	Westinghouse type W (self-lapping).
Sanding equipment:	Pneumatic. Foot button actuated.
Windshield wipers:	Pneumatic.
Doors:	Four. Pneumatic, bi-fold with folding steps. Equipped with propulsion system interlock.
Seats:	12 x upholstered tip-over; Four x upholstered fixed.
Power collection:	Trolley pole with harp.
Low voltage electrical:	12 volt DC for external lighting and P.A.
Safety Fender:	Underbody automatic type with trip gate and drop-down tray.
Audible Warning/Communication	Gong (underfloor) conductor's signal bell at each end.
Headlights/Markers:	600v headlights, and 12 volt DC L.E.D. markers, brake lights and turn indicators at each end.
Roof construction:	Longitudinal Baltic pine tongue and groove boards, covered with painted "Durum" acrylic roof treatment. Underside - varnished.
Destination Signs:	Roof-mounted roller curtain type.

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STREET CAR PLAN



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PURCHASER'S OPTIONS

OPTION 1

You purchase the car at the lowest price on-site at Bendigo, Australia

OPTION 2

Another option is an all-up price landed CFR in your nearest Port - with all the transport, shipping, insurance, port charges and other hassles wholly attended to by Newstead Tramcars Pty.Ltd.

Price for C.F.R. at ALL other ports -	on application
Price landed on your tracks -	on application
Price modified to your requirements -	on application

Color scheme:	Finished to your requirements.
P.A. system:	Internal/external speakers w/ microphone handset at each operating position
Wheelchair access:	42" entry doorways. (33" wheelchair clearance). Portable external aluminium ramp supplied.
Wheelchair capacity:	Currently, two wheelchairs. Removal of further seats if required.
Roof equipment:	To requirement. Two trolley poles, with trolley retrievers and/or hold-down hooks or pantograph.
Roof treatment:	"Durum" acrylic roof treatment to 466. To requirement.
Destination indicators:	Multiple-destination roller curtain to requirement.
Seats:	To requirement. Upholstered transit grade vinyl seats fitted to 466. Other upholstery type or wooden seats available as options.
Driver's seats:	To requirement. Swivelling, height-adjustable upholstered fitted to 466.
Trolley poles:	Wheel or carbon-insert shoe.
Driver vigilance equipment:	

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Photo: Train Hobby Publications



SPARE PARTS AVAILABLE

Only available to the purchaser of the streetcars, and for replacement on these streetcars. The parts are available immediately FOB Bendigo. Prices on application. We have in stock replacement parts for all components of these streetcars.

Controllers:	General Electric K35JJ.	US \$22,500 ea.
Wheel/axle sets:	26.5" (0.673 metre) diameter disc wheels with tires	US \$3,350 per axle
Motors:	Metro Vickers MV101.	US \$33,500 ea.
Compressor:	General Electric CP 27.	US \$13,400 ea.
Compressor governor:	General Electric "L" type.	US \$5,600 ea.
Folding door motors:	Peters pneumatic type.	US \$1,700 ea.
Windscreen wiper motors:	Trico pneumatic type.	US \$670 ea.
Trolley base:	M&MTB twin spring (modified US15 type).	US \$3,360 ea.
Trolley pole:	Steel pole filled with carbon-insert shoe or wheel.	US \$1,790 ea.
Other items:	On request, depending on availability.	

These parts are available complete or in individual components. Additional technical/maintenance and operation information is immediate, by contacting:-

Newstead Tramcars

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Sales Manager

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email: lm@newsteadtramcars.com



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NEWSTEAD TRAMCARS

Australia is a huge source of old streetcars and parts. For many years, the proprietors of NEWSTEAD TRAMCARS (Len Millar and Darren Hutchesson) have been acquiring parts from retired Melbourne streetcars and parts for eventual reuse. NEWSTEAD TRAMCARS is therefore well placed to respond to an increasing world-wide demand for heritage streetcars.

NEWSTEAD TRAMCARS was established in 2000, because we recognised the need for “as new” heritage streetcars in both the local and overseas markets. NEWSTEAD TRAMCARS produces only the highest quality restored streetcars, completely rebuilt to perform reliably for decades to come! This claim is backed by readily accessible technical expertise, and a full catalogue of spare parts. This back-up guarantee can only be made because NEWSTEAD TRAMCARS applies the highest quality control to the rebuild process.

Len Millar and Darren Hutchesson between them have over 40 years of experience in the field of preservation, restoration and operation of heritage streetcars.

Len has (since 1969) been variously a member, Life Member, Board Member, Secretary and/or President of the Tramway Museum Society of Victoria (Bylands, Vic.), the Ballarat Tramway Museum Inc., the Bendigo Trust (trading as Central Deborah - Bendigo Tramways), the Australian Railway Historical Society; and the Castlemaine and Maldon Railway Preservation Society (trading as the Victorian Goldfields Railway).

He has been principally responsible for the restoration of “X-1” trolley 467, “W3” No.667 and “W4” No.671 at the Bylands and Ballarat streetcar museums. He has been employed as a driver of a London-style double deck bus doing City circuits of Ballarat for tourists. More lately he was Operations Co-ordinator of the Bendigo Tramways, from January to August 2002. He is a qualified driver at the three streetcar museums above. His professional career since 1961 has been as a property appraiser (valuer) with the Australian Government.



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NEWSTEAD TRAMCARS (cont'd)

Darren Hutchesson has been actively involved in the preservation, maintenance and operation of streetcars at the Ballarat and Bendigo precincts since 1994. He is now Traffic Manager of the Bendigo Tramways, with day-to-day responsibility for the timely operation of that city's tourist streetcar operation.

Darren has had significant experience at Bendigo in planning and carrying out the commercial restoration of several streetcars, including Milan "Peter Witt" No.1692; Sydney "R" class streetcars 1808 and 2001, Sydney "R1" No.1951 and Melbourne "W2" No.249.

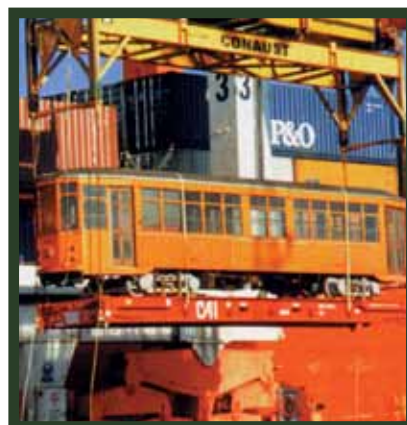
Trolleys 249 and 2001 were stripped and rebuilt from the frame up, in a very tight time-frame, for the prospective entrepreneurs of a line in the national capital, Canberra. The project was notable for its quality and speed.

All of the streetcars restored by the Bendigo Tramways are duly accredited under the stringent requirements of the Victorian Government's Rail Safety legislation, as actively audited by its Department of Infrastructure.

Personal or written testimony as to the very high standard of Bendigo Tramways' work can be obtained from Mr. Howard Clark, Chairman of the Sydney Tramway Museum (telephone + 61 (0) 409719159) To date, four major re-builds have been carried out by Bendigo Tramways for the Sydney Tramway Museum - Milan No.1692, Sydney 1808 and 2001 and Melbourne 249.

Newstead Tramcars is attuned to the needs of the heritage streetcar operator. Reliability and longevity are of paramount importance. Newstead Tramcars can solve your streetcar problem with the highest quality product, backed up by a guarantee of after-sales service - in both technical advice and spare parts.

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Milan #1692 being unloaded at Melbourne 2001.
(Photo: P&O Nedlloyd)



Melbourne "W2" cars 512 and 518 in Seattle, USA.
(Photo: Alan W. Styffe, "North American Light Rail Annual", 1992)



HISTORY OF THE X-1 STREETCAR

The Melbourne and Metropolitan Tramways Board (M&MTB) built ten “X-1” class streetcars between 1926 and 1928 at its Preston Workshops. The single truck streetcars were developed from the two “Birney” streetcars imported by the M&MTB from the US in 1923.

The principal difference between the American “Birney” and the Australian derivative is that the “X-1” streetcars are of a solid, more substantial steel sub-frame construction and have four doors - one at each corner. These unique features offer a major operational advantage, allowing loading/unloading from either side of the street.

When originally placed in service, the ten “X-1” streetcars were equipped with “Birney”-style deadman handle brake valve equipment, and painted in the M&MTB’s then-new livery of green panels, cream window framing and a light stone roof. The interior woodwork and ply panelling were varnished. The cars were equipped with upholstered seats and brass window sashes.



The “X-1” streetcars were used on the isolated western suburban system of Footscray for most of their lives. Eight of the streetcars also operated on the main Melbourne system as “all-night” cars for various lengths of time between 1954 and 1957. As such, their territory was extensive.

Cars 466 and 467 were also used as standby “Tourist Cars” from 1927 to 1936. Between 1930 and 1936, all of the “X-1” streetcars were fitted with fare boxes to assist driver-only operation.

All ten “X-1” streetcars were withdrawn and stored on the closure of the Footscray system on March 10, 1962. 467 was presented complete to the Australian Electric Traction Association, and it is preserved in running condition at the Bylands Museum of the Tramway Museum Society of Victoria.

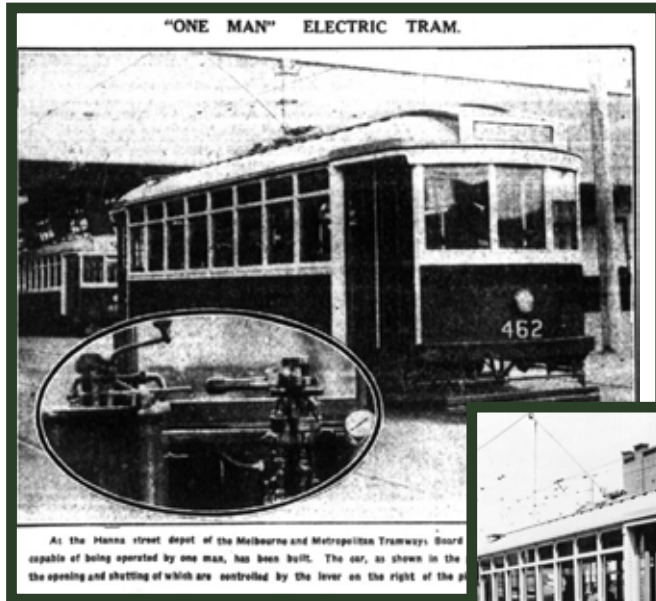
The bodies of the other nine “X-1” streetcars were sold in 1962.

Between 1995 and 2001, Newstead Tramcars purchased the bodies of 460, 463 and 466. A formal agreement has been entered into with the Bendigo Tramways, to restore the three bodies to “better-than-new” operating condition. It is these three streetcars that are offered for sale. Car 466 was competed in 2003 and subsequently underwent extensive testing on the Bendigo and Ballarat streetcar systems.

Above photo: X-1 car 467, Gordon Street, Footscray.
Photo: Noel Reed (Transit Australia Publishing)

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Snapshots of "X-1" streetcars - 1926 -1963 -2003



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Top left photo: M&MTB

1962 era colour photos courtesy of Train Hobby Publications



TERMS OF TRADE

Your purchasing dollar travels a long way if you purchase one or more of these streetcars!

25% Deposit. Balance to be paid prior to shipment.

Purchase the car on-site, at Bendigo, Victoria, Australia.

Another option is an all-up price landed CFR in your nearest Port - with all the transport, shipping, insurance, port charges and other hassles wholly attended to by Newstead Tramcars Pty.Ltd.

the purchase prices includes:

- Road transport from Bendigo to the Port of Melbourne;
- Insured sea transport to your selected port;
- All Australian customs and other taxes;
- Commissioning by our technical staff at your location;
- Two weeks of training for your servicing and operating staffs (manuals supplied);
- 24 hour Help Desk by phone (over-night response time)

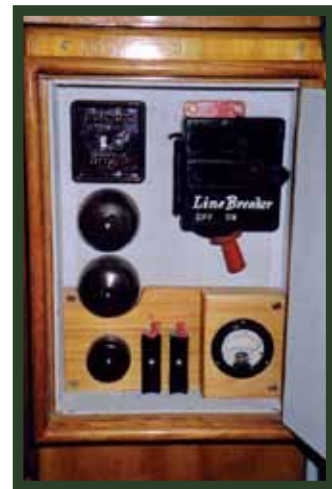
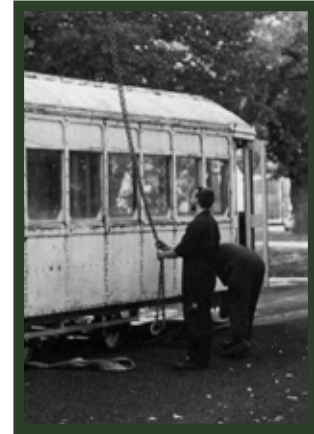
Should you wish, we can quote an all-inclusive price **landed on your tracks!** Leave all the worry and fuss to us! The streetcar will be delivered to you shrink-wrapped in plastic, uncovered, commissioned and your staff fully trained - for an all-inclusive price! We will include a box of consumable spare parts, i.e. controller fingers and segments, trolley harp carbon inserts, motor brushes, etc. Should a traction motor become defective within two years of the date of purchase, we will exchange it for a reconditioned one - at **our** cost! (Conditions apply).

And Newstead Tramcars will reimburse an overseas purchaser US \$6,000 towards the cost of sending your representative to Bendigo to inspect the car. (Conditions apply).

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REBUILDING "X-1" 466



From farm resting place to re-building at Bendigo Tramway workshops.

Top right photo: Dennis O'Hoy

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