



March 2005

STANLEY STEAMER

by Stu Martyn

Inside this issue:

February Meeting	2
President's Report	3
Ground Level Track	5
Adelaide Trams	7
Track Tests	8
Positions Vacant	8

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Andrew Manning	9446 4825
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Newsletter Editor

See Positions Vacant page 8

NDMES
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Stu Martyn in the driving seat of his magnificent full size replica of the Stanley Steamer.

Photo: Stu Martyn

When I first started playing around with steam driven toys some ten years ago I had no idea that one day I'd be the proud builder / designer / owner of a full size Stanley Steamer.

This project would never have seen the light of day if I hadn't managed to track down the builder of a similar replica 1904 Stanley Steamer, a Mr. Kevin Hyde who resides in N.S.W.

Kevin has provided me with sketches and photos of his model and I am forever in debt to him for all his

assistance. Thanks Kev.

The embryo plan was to build my car about half size but Kevin poo-pooed this idea. As he explained, the original was pretty small anyway and if I made it half size it would have to be radio controlled!

He was right on the button and now that I have completed my model, I wish that I'd made it bigger with more leg room. As it is I'm bent up double like a dog making love to a cricket ball!

(Continued on page 4)

CALENDAR OF EVENTS			
General Meeting	Club Meeting Room Vasto Pl, Balcatta	8:00 pm	Friday 11 March
Club Run Day	Club Track Site Vasto Pl, Balcatta	10:00 am—4:00 pm	Sunday 13 March
Public Run Day	Club Track Site Vasto Pl, Balcatta	11:00 am—3:00 pm	Sunday 27 March Easter Sunday
General Meeting— Workshop Outing	Kentin Engineering Malaga	8:00 pm	Friday 8 April See page 3

Minutes of February Meeting

by Milton Smith

FRIDAY, 11TH FEBRUARY 2005

OPENING — The meeting was opened by the President at 8:04pm, and a welcome was extended to members of the Triton Club, and visitor Kaye Raebel.

APOLOGIES were received from the following members:- John Martin, Ron Date, Alan Mathie, Doug Baker and Jim Crawford.

MINUTES OF PREVIOUS MEETING held on 14 January 2005, were read and accepted (Russell Dunn/Bruce Weir-Smith).

MATTERS ARISING FROM THE MINUTES & OTHER MATTERS

By-laws — No action as at present.

20th Birthday of the Club — All matters under control.

Official Opening of the Club Building — Because of the presence of members of the Triton Club, this was deferred.

AMRA — The proposed use of a ground level track was not favoured by AMRA. The function will be in a larger building this year.

Apology — Dick Langford offered a formal apology for putting club members in a difficult position for forwarding to *Steamlines* a photo showing an under-age person appearing to be in charge of a traction engine. There was some discussion about this, and the following matters were brought up:-

Dick would prepare a précis of the COP and the Insurance Policy.

Are there other Policies which might be used as a basis for making changes to our policy and COP so that under-age drivers can be given the opportunity to become interested in our activities.

Dick would write an article for AME that would set out some parameters.

The experiences of UK and US clubs which have different policies, and which seem to allow under-age drivers, under supervision, was raised.

The members expressed total confidence in the editorial action of Jim Clark, the *Steamlines* editor. This was shown and carried by acclamation.

The current age for the issuing of a licence is 15 years.

TRITON CLUB — Lloyd Little (Acting Triton Club Chairman) addressed the meeting, indicating that they are looking for a permanent home, and put a general proposal to share our clubroom. They have about 40 members. Because of sawdust, use of the workshop was not contemplated, but the idea of having a separate building on the east end of the present building was floated. A suitable

building in a suitable location might allow for storage of our rolling stock. In any case council approval would be needed. C. Chapman and A Manning proposed that the NDMES Committee continue negotiations.

SITE MAINTENANCE — How can the work load associated with keeping the grounds up to a good standard be shared? One suggestion was that projects be planned and that a specific project would enable members to “tender” for such a project. It was suggested that the committee look into planning for projects and bring back some proposals to the next meeting.

OTHER BUSINESS — It was mentioned that Blackgates Engineering in the UK had apparently ceased trading.

MODEL ENGINEERING — **Milton Smith** showed his boiler with the throat plate bronze brazed to the boiler barrel.

Steve Reeves, who always seems to be doing something, presented the following:- A rolling chassis for the tender of a 71/4” *Rainhill*; A jig for proving the contour of the wheels; A wheel turning jig to help prevent chatter; A wheel which had split when being forced onto its axle, and a water filter.

Andrew Manning is building 2 3/2” G *Tiches*, and showed the valve gear parts. He also showed a small vice specifically modified for holding small parts. A 2mm step milled on the jaw facilitated this.

Phil Gibbons showed 2 small boilers made some years ago that were for sale (contact Phil). At present they do not have certification.

Bob Tanner, a steam boat enthusiast, showed a beautifully made steam siren, which he had built with help from Stu Martyn. A dividing head was used to make the turbine rotor. The siren does a good job in the scaring of swans.

Russell Dunn brought along a split pattern for wheels fitted with 2 different sized dowels which made errors in alignment impossible. 2 large lost wax castings for a pinion and drive gear set showed the excellent results obtainable. A sand cast aluminium pattern for a bogie side frames was also on display.

It was mentioned that Jeff Clifton knows of a person in Dawesville who does fine sand castings, and that Clive Jarman is setting up to do lost wax castings.

CLOSURE — The meeting was closed by the President at 9.35pm.

Milton Smith

President's Thoughts for March

by Dick Langford

The last few weeks have been very busy ones for your Society, with some of the events that have occurred helping to establish us favourably with our most important benefactors, the City of Stirling. Our 20th birthday celebration on Sunday 13 February 2005 was a quiet but pleasant run day at Balcatta. A magnificent fruit cake, iced with the Society's badge and sporting 20 golden candles appeared after we had enjoyed a sausage sizzle lunch. It was duly cut by your Society's oldest member, Denis Lord, who gave me the impression that he was well versed in the art of cake cutting. We had some visitors from the South West Model Engineers Association in Bunbury who enjoyed their visit to us.

On Thursday 24 February we had the pleasure of a visit from Mr Tony Vallelonga, the Mayor of the City of Stirling, who formally opened our Clubroom and Workshop building. It was great to see so many City of Stirling people at our site on this occasion. In addition to

the Mayor, two Freeman of the City, our Society Patron Mr George Strickland JP, and Mr Ron Stone, and one of the Councillors from the Hamersley Ward (in which our track is located), Mr Sam Popovski, were present. Mr Lindsay Delahaunty, the City's Chief Executive Officer and about eight other Council Officers made the Council's presence strong. With everyone gathered under the station canopy, after a few words from your President and His Worship the Mayor, the building was declared "OPEN" and the commemorative plaque was unveiled. This will be fixed to the building shortly. The Official Party, Society Members and guests then moved into the building, inspecting the kitchen, workshop and library before mingling around the food and drinks upstairs.

Our public run day also featured a couple of birthdays. Ron Date turned 70 and Vince Devine turned 60 on this day. So there was more cake cutting etc. Happy birthday, Ron and Vince. This run day was very well patronised and again all our guests enjoyed themselves. It must be a good time for birthdays – we have a child's birthday party on 6 March; this is his family's second birthday party at our track site.

Our night meeting on Friday 8 April will be at Ken Austin's factory in Malaga. Ken will be demonstrating his computer controlled machines among other things. More details on this interesting night will be available at our March meeting — *see notice & map on this page*.

Lots of effort has been devoted to making our site look great. We want to keep it looking like this, or better, so pick yourself a tree or two and come along and help them grow. The workshop has also benefited from a substantial clean out and needs to be kept clean. Again, your help would be appreciated.

Our public run day for March is Easter Sunday and we have decided that we will have this day as our normal public run day, so invite your friends. Our public run day in April also falls on a long weekend. This time it is the day before Anzac Day. Again we have decided to hold a public run day as usual.

Last, but not least, we have decided that the 2005 Sand Gropers' Gathering will be held at Bunbury again, on Saturday and Sunday October 8 and 9. So plan a trip to this great event.

The way that all our Society events have progressed over the last few weeks has made me proud, but also humble, to have the privilege of leading our fine Society. I thank you all for your support.

Dick Langford
President.

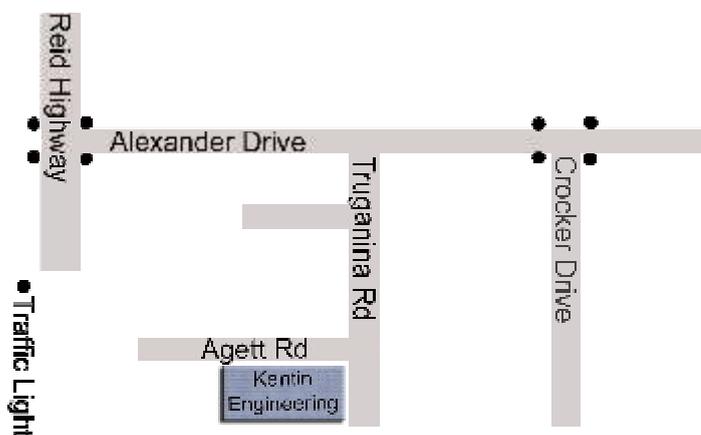
APRIL MEETING WORKSHOP VISIT

As a special event to add some further interest to the "show and tell" type meetings, the April General Meeting will be held at the workshop of Ken Austin, at:

Kentin Engineering, Unit 5, 36 Truganina Rd, Malaga.
(see mud-map below).

Ken is involved with a number of model engineering projects, including two 5 inch gauge locomotives and a couple of traction engines. The traction engines are serious model engineering! Ken has also assisted other members in their activities, including Stu Martyn with his Stanley Steamer replica as described in this issue.

Come along and enjoy this meeting with a difference. Please ensure that you wear closed-in shoes to comply with workshop OSH requirements.



Stanley Steamer Replica

by Stu Martyn

(Continued from page 1)

There is only room for one passenger and the vehicle is best described by Rudyard Kipling who owned one as being: “*as flimsy as a wicker basket mounted on stilts.*”



Francis Edgar Stanley [F.E.] and his twin brother Freelan Oscar [F.O.] started building steam powered road vehicles sometime about 1897 in the U.S.A., well ahead of Doble and White who also built steam cars in this era. After F.E. built the first car at the age of 48 in 1897, he and his brother F.O. spent the next 20 years designing and building Stanley cars. A consortium of dealers continued from 1917 to 1924. Did you know that a new Doble cost more than a Rolls-Royce? Also did you know that in spite of the fact that they wrote many articles about steam cars the Poms never built a steam car?

And did you know that in 1906, using a chassis a little longer than mine (and Kev's), fitted with a bullet shaped body called the Rocket and driven by F.E.'s driver, a Mr. Fred Marriot, at Ormond Beach, Florida, broke (for the first time) the two-miles-in-a-minute barrier and set a land speed record of 127.659 mph in Jan 26? The same week that they set the new record they managed to get it up to 190 mph before crashing it. The driver evidently survived, as did the original engine which is still on display in a museum at Kingfield, Maine, U.S.A..

Blokes in those days had hair on their chests, unlike their modern emulators who would need to spend months perusing their insurance policies and even then I doubt they would have the intestinal fortitude to attempt a feat of this magnitude let alone having the “nous” to adapt steam to a road vehicle!

The land speed record stood for four years until it was broken in 1910 (by a measly 4 mph) by a petrol-engined suck-squeeze-bang-push (i.e. 4 stroke) vehicle.

The original Stanley family emigrated from England to the U.S.A. in 1600 settling in Massachusetts and thence moving to Maine. Primarily self-educated and self-trained, F.E. Stanley made his fortune in 1880 by creating a dry plate formula for making photographic images to assist his sister, Chansonetta {a renowned photographer} in her flourishing business. F.O. joined him in business in 1884. Together they went on to invent and patent a dry plate coating machine which provided further funds for steam car development.

After the Stanley Motor Carriage Company went out of business in 1924, F.O. Stanley and his nephew Carlton Stanley went into the violin making business together. By the time Carlton stopped producing them in 1953 he had made and sold over 500 violins. As if these deeds weren't impressive enough, both Francis Edgar and Chansonetta Stanley also produced much sought after portraiture. Now that's one talented family!

The original Stanley engine developed 10 HP. Mine only produces about 4HP, since to comply with AMBSC Boiler Codes my boiler pressure can't exceed 100 psi, whereas the Stanleys worked at about 300 to 400 psi, and my stroke and cylinder bores are smaller. When a full condensing system was introduced in about 1918 Stanleys had a range of 400 miles.

Full hand written records are still available in the archives on all the Stanleys ever built which is a bit more than one can say about other vehicles built in that era. The original boilers were wrapped in piano wire for extra strength and fired with a petrol pilot light – the main burners were fuelled by kerosene.



Driver's eye view of controls and gauges. Note the authentic brass lamps, originally from a London cab. Photos: Stu Martyn

Ground Level Test Track

by Kevin Bradney

It was a "Stinking Hot Day" and it was mentioned on the news as being a 38 degree day when Steve Reeves, myself and James Giddens (J.D.) went to work on converting my portable 7¼ inch track to accommodate the inclusion of the 5 inch gauge rail into the existing sections.

Steve had a few "lifted" sections of his 5 inch scale track to which we all got stuck into — angle grinding it into single lengths and then welding it into its new place in order to get it ready for the club "Fun Day" which was held on Sunday 9th January 2005. The photos show the preparations for the day.

I brought my "ex" Cohunu Park carriage and my first 7¼ inch project called "Bumble Bee" along to the "Fun Day" for anyone to have a ride on (at which it went well). Our portable track sections worked terrifically, with the working of a "Heistler" and two carriages being test run at the tracksite (*see report & photos on page 8*).

Phil Gibbons brought along his "Rainhill" loco and I was allowed to enjoy a drive along mine (and Steve's) track sections. We will be bringing it back for future club run days for another run along the track sections.

Steve Reeves is currently restoring a few locos for a few people, one loco belongs to Jeff Clifton and the other one is of a 5 inch scale "PMr" class for someone else. Steve and J.D. are also building a "Rainhill" loco each and will have them ready one day??

Kevin Bradney



Above: The 'experts' checking it all out — over a cup of tea of course!

Right: A small sample of the final product—concrete sleepered track.

Photos: Dick Langford



Above & right: Putting the test track together at Steve Reeves' place.

Photos: Kevin Bradney



Right: Steve Reeves busy assembling the test track on site at Balcatta for the test run.

Photo: John Shugg



Stanley Steamer Replica (cont)....

by Stu Martyn

(Continued from page 4)



My buggy is LPG fired and uses two boilers connected in parallel so as to comply with AMBSC Codes. Total heating area is approximately 24 square feet. When one considers that about 6 square feet of heating area will theoretically give 1 HP, I should get about 3 to 4 HP out of my machine. My engine is almost a direct copy of the original except I did not go to the

trouble of using linear bearings in the crossheads as were fitted to the Stanleys.

The engine is a double acting, simple, twin cylinder type using Stephenson valve linkages and outside admission D valves as per the original. Bore is 2 inches – stroke 3 inches. The engine is directly coupled to the differential with the gear ratio being in the order 1 is to 2. The guts of the diff. came from a Datsun Sunny, the wheel rims came from Honda 750 cc. motor cycles as did the tyres. The rest of the machine was fabricated either in my shed or at Ken Austin's workshop.

The body is made up from marine ply. I did my own upholstery (which is why it looks a bit tatty) and I proved to myself yet again that I'm not a painter! The finished colour is Burgundy, which I think looks the period. Stanley cars only came in one colour and that was Brunswick Green, but I didn't find out about this until I had finished the project. Ah, well, it happens.

I should like to thank the following friends for their contributions and help in building my Stanley:

Ken Austin—for the use of his equipment in machining the larger bits; Clive Chapman—help in building the boilers and for providing me with an extensive library from which I managed to locate the necessary technical data; Tony Jones – milling the D valves; Tony's son Simon—for demonstrating his skill in the use of the English Wheel and making to shape the seat frame and the wheel mudguards; Brian Lawrie—providing copper scrap and various bits of steel; Allan Mathie—introducing me to the weird and wacky world of upholstery and for the donation of two genuine lamps which commenced their life on a London Hansome cab;

Lindsay Lochardt—my model engineering friend who has recently moved from Victoria to WA and who has given me the guts of an old caravan from which I can make a trailer to transport the Stanley; Dave Hunter—who sold me a pair of cast iron cylinders and pistons which I believe were from a model steam truck he decided not to build (lucky me!); Dave Proctor (AME Managing Editor)—introduction to Kevin Hyde without whom this project wouldn't have flown; Ernie Redford—providing me with details of suppliers – especially copper pipe; Rupert Condick—fellow worker at Whitmans Park and expert on all things Stanley; Ian Allison—together we nussed out how to confine the explosive “poof” of burning LPG and direct it's energy into heating the boilers rather than the surrounds!

I take the following sentence, which forms part of a paragraph written by the editor of “The Automobile” in the November 1989 issue and which I feel sums the situation up much better than I could: *“we should all be appreciative that there are people who are willing to master the art, not just of driving, but of maintaining [my words – ‘and building a replica’] of such vehicles so that we can see what was; what might have been; and what in the future may be again”*.

In closing, it's a shame the founders of our club didn't have the foresight to set aside an area dedicated to the use of road vehicles such as mine. Members should be aware that our exorbitant annual fees (made that way by our insurance) lump us members with a Claytons cover which doesn't extend outside of our Club's boundary. In order to remain covered by the current insurance I've had to join the Bunbury Club which has ample space on which to run my Stanley.

Stu Martyn



Vintage Trams in Adelaide

by John Nicolson

I have just returned to Canberra after several weeks in Adelaide. My wife Jenny and I went there to attend to some family business. While in Adelaide we travelled from Victoria Square in the city to Glenelg and return on a coupled pair of "H" class or Glenelg trams as these cars are commonly called. They were in beautiful condition and looked most attractive in their dark red and cream livery. These cars are now just over 75 years old, the first having been used on trial runs in November 1929. They are the heaviest trams to be used in Australia apart from the prototype "H1" car that was to be the first of 40 new cars in 1952 when it was decided to close the Adelaide tramway system.



Tram No 364 in the Victoria Square Adelaide City terminus.

Photo: John Nicolson

Fortunately, the Glenelg line was saved by public pressure. The line itself was converted from a broad gauge steam railway to a standard gauge electric tramline in 1929. The line was re-laid with second hand railway rail in the late 1970s early 1980s and all level crossings were equipped with railway type flashing lights and boom gates. At that stage sufficient cars to run the line were being refurbished to serve until now. In the late 1980s trolley poles were removed and the cars were fitted with pantographs. About the same time a new depot was constructed part-way along the line at Morphettville to house the cars.

Cars return to the depot by one leg of a triangle, and enter traffic via a second leg with the mainline being the third leg. Opening of the depot with its triangle served another purpose. It enabled cars to be reversed each day, thereby eliminating the problem of uneven flange wear that was caused by most of the curves on the line being left handed to cars facing Glenelg.

The trip to Glenelg was full of nostalgia for me as my earliest memory of travelling on the big cars was of an occasion in about 1941 when, as a six year old I was taken to Glenelg on a coupled set by my grandfather who was then in his eighties. A particular reason for travelling on the Glenelg cars while in Adelaide was that those currently in regular service are shortly to be replaced by modern low floor articulated cars, and the line is again to be re-laid, this time to modern "light rail" standards using new rail and concrete sleepers.

Some of the cars now in use will be held in reserve for peak periods while all of the remaining cars including those that were never refurbished will be scrapped. If the group at Whiteman Park want a pair of cars, now is the time to start making approaches, if they haven't done

so already. The AETM Museum at St Kilda north of Adelaide has at least one example of every type of Adelaide car ever used as well as several former Melbourne cars that were built in Adelaide. The museum has at least two examples of H class cars. The Museum is well worth a visit. The standard of restoration is excellent.

Details of the H Class cars: typical high speed interurban car based on American practice.

Number built: 30, Road Numbers 351 to 380.

Built: 1929 by Pengelley & Co, SA.

Originally built with weak field taps to allow high speed running. Originally fitted with trolley poles to run on trolley wire supported by catenary to permit high speed running with minimal risk of de-wirement. The catenary and the weak field taps were removed in the post WWII period and speed was limited to 40mph.

Motors: Originally 4 x 60 HP Dick Kerr, later fitted with 4 x 65 HP English Electric.

Mass: 23.1 tons, Length: 56' 4", Width : 8' 6 $\frac{1}{2}$ "
Height: 11' 9 $\frac{5}{8}$ "

I found Russell Dunn's article on the Latvian Railways fascinating as all of the modern (post 1925) steam locomotives of the broad gauge South Australian Railways were built with dished wheel centres to enable easy conversion to Standard Gauge. The aim was to reverse the wheel centres on the axles and refit the tyres to convert them. Thanks again for an interesting newsletter.

John Nicolson



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GROUND LEVEL TRACK TESTS

by John Shugg

On Sunday 9 January 2005 Steve Reeves brought along around 27 metres of 7.25 & 5 inch gauge test track. The track was built by Kevin Bradney and Steve Reeves (*see page 5*). A five inch gauge rail had been welded into the track sections just prior to the event. It was an historic first, a ground level temporary test track, set up to give members a taste of the future delights of ground level operations at the "Stirling Miniature Railway".



Left: Russell Dunn
Above right: Phil
Gibbons.

Phil Gibbons' "Rainhill" and Russell
Dunn's Heisler were steamed up and
were operated on the track for
several hours, and looked great, as
you can see from these photos.

Photos: John Shugg

John Shugg

LIBRARY UPDATE

Members may like to know that there are now quite a few issues of the American magazine "Modeltec" in the library, together with a complete set of plans to construct a 1.5" scale 2 or 3 truck Shay using the well known Ken Schroeder castings. There are also some books on prototype geared locomotives.

Thanks to Russell Dunn.

POSITIONS VACANT

Wanted — Newsletter Editor for Steamlines to compile, print and distribute the Society's newsletter.

I have produced 52 issues of Steamlines during the past 5 years, and now it is time for a change.

There are templates for the newsletter documents, a current mailing list, plus materials for several future articles available.

Contact the President or Secretary for details.

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