



May — June 2010

My 1 1/2" Allchin

by Laurie Morgan

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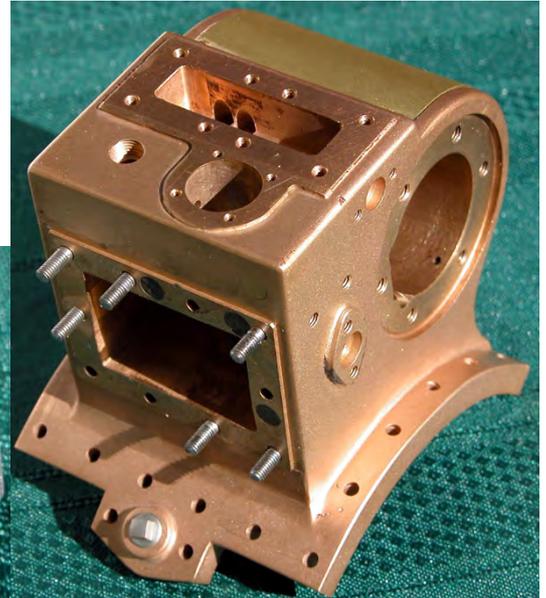
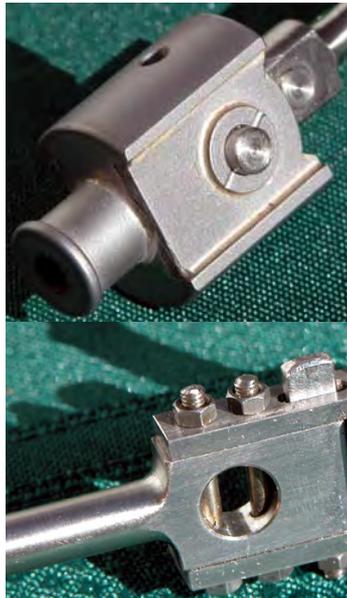
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Started in 1997 and not finished yet, you could call me slow but persistent. This size of Allchin to W J Hughes' design is close to scale and quite detailed, and to someone who isn't a machinist and will never be one (me) it's a difficult model.

Making something over this period of time also has disadvantages. Why is it that something I made last week doesn't fit the mating part I made 5 years ago – especially after I have spent some time finding it!

Connecting rod big end, guide and cylinder block of Laurie's Allchin Traction Engine.

All photos: Laurie Morgan

It's getting to the stage when by propping all the bits together, closing one eye and squinting it almost looks like a traction engine. The boiler was made about 12 years ago, the wheels about 10, and the hornplates twice, about 8 years ago.

(Continued on page 5)

CALENDAR OF EVENTS

General Meeting	Club Meeting Room Vasto PI, Balcatta	8:00 pm	Friday 9 July
Club Run Day	Club Track Site Vasto PI, Balcatta	09:00 am — 2:00 pm	Sunday 11 July
Public Run Day	Club Track Site Vasto PI, Balcatta	10:00 am — 2:00 pm	Sunday 25 July
Public Run Day	Club Track Site Vasto PI, Balcatta	10:00 am — 2:00 pm	Sunday 29 August
General Meeting	Club Meeting Room Vasto PI, Balcatta	8:00 pm	Friday 10 September

May General Meeting

The May General Meeting was held on Friday 14 May 2010 at the Lindsay Adams Meeting Room commencing at 8:00pm, chaired by Andrew Manning.

The full Minutes of Meeting are enclosed with Steamlines as a separate Supplement for members. Some highlights of general interest are reproduced here.

Model Engineering:

- **Ken Austin** showed a 5 inch gauge loco that is for sale and had photos of several others available. These are built to a very high standard by a South African acquaintance of Ken's.
- **Laurie Morgan** displayed a finely detailed Stuart Turner No. 9 stationary engine that he had built some years ago.
- **Ron Collins** explained and showed members how he has arranged the ease of removal of super-heaters from his Speedy being built. These are removed via the use of 'Y' junction banjo fittings and detachable union fittings. A very good arrangement.
- **Clive Jarman** brought along his completed Edwin and provided information on the single tube gas fired boiler arrangement.
- **Richard Turner** had the completed cylinder mount for his traction engine. Richard explained how he had mounted it, on an angle-plate, to a 12 inch face plate using Loctite then used very light cuts.
- **Ken Austin** gave a short talk on how the Baldwin cylinders he displayed had been fabricated.
- **Paul James** showed the completed 3½ inch gauge Heilan Lassie boiler he had made with assistance from Clive Chapman and Phil Gibbons. This boiler barrel is 4½ inches diameter, incorporates a 3 inch combustion chamber and is 22 inches in length. Phil explained to members the assembly procedure pointing out that the front tube plate tubes were the very last soldering job to be done in order to prevent any tube sagging.
- **Andrew Manning** described the method used to make the new NRV for the Klipspringer injector inlet. Andrew also showed some jigs and tools he had made for use on his lathe.
- **Peter Harding** had his first small turning project he has completed and made mention that he had not done any turning since his days at school. Well done Peter.

Meeting closed at closed at 10:00 pm.

Members enjoyed tea and coffee and a good yarn.

Paul James
Secretary

June General Meeting

The June General Meeting was held on Saturday 19 June 2010 at the Lindsay Adams Meeting Room commencing at 11:10am, chaired by Andrew Manning.

General Business:

Andrew Manning thanked all for their efforts in making AMRA a great success again this year. The display attracted a great deal of interest with the possibility of several new members. John Martin mentioned that a post mortem was underway and Steve Reeves has started compiling a list of improvements for next year.

Possibilities mentioned by members present: an ongoing DVD presentation, some identity advertising including a club site map and operating schedule, water tower and tunnel. Any ideas for improvement to John or Steve.

Andrew circulated a site map showing long-term suggestions for our site and requested members input ideas as we would like to put together a long term plan in order to prevent uncertainty and provide direction.

Possible Future Events:

BMX State Titles in November, BMX National Titles in March 2011 and National Machinery Preservation Society Rally in September at Fairbridge.

Model Engineering:

- **Clive Jarman** showed members a Gauge 1 Edwin design loco he had running at AMRA.
- **Richard Turner** made mention of the availability of 50% silver solder he is able to source if anyone wishes. He also had a pair of antique adjustable locking pliers and a ½ inch outside micrometer for members to view.
- **Andrew Manning** displayed a machine jig he had made to hold a dividing head while machining its base.

Meeting closed at 12:20pm.

Paul James
Secretary

OFFERS WANTED

At the May General Meeting it was agreed that we would sell off the small high speed drill press and the small surface grinder — any offers?

Ken Austin has donated the large surface grinder to the Society. We agreed to also dispose of this as we do not have the workshop space to use it. If you would like it, or you know someone that would like to make an offer for the machine, please let the Secretary know.

For more details, please contact either Paul James on 9457 7175 or Andrew Manning on 9446 4825.

President's Report for May — June

by Andrew Manning

The Society has had a really busy 6 weeks or so. It all started with our May public run day when we were packed out, a result of the change in advertising strategy. The day was sunny and not too cold. Passengers were lined up to the end of the station with 4 engines in service, really all we can handle on the elevated track. We had 15 members attending on the day which allowed a good rotation of tasks and time for a yarn. All of the locos ran well, but I continue to have issues with my injector.

AMRA followed the next weekend. We had put some time into modifying the trailer to securely accommodate the track and fencing — this worked well and made the two cycles of loading and unloading much easier and quicker, as did the good turn-out of members to help. Our display of model engineering was the best I have seen from the Society and was a real attraction. It was impressive to see what members are doing and it was, I am sure, only a fraction of the models and equipment we have built or are working on.

As usual the train rides were flat out all three days. Thanks to all of the members who gave up time over the long weekend to mount the display. During the weekend lots of ideas were floated and written down on how we could improve our display and attract members and public to our home ground. Steve Reeves and John Martin are looking for a couple of interested members to work with them to review the ideas and start planning for next year's AMRA which will be the 35th.

The June grounds day saw a great turn out of members and chainsaws. We have cleared most of the dead shrubs and trees from the top of the tunnel mound — still more to be removed. The mound and the area around the tanks is quite large and under-utilised. Any ideas from members as to how we could best use the area?

Right: Waiting crowds.

Below: Would you take a ride with this man? Paul Costall on Firefly.

Photos:
Andrew
Manning



We had a great afternoon birthday party on 20 June, which went well and saw Paul Costall's 38 in revenue service.

Sunday 27 June started off particularly cold as we (Ian Huxtable mainly) set up the grounds for the public run day. George Palmer replaced blades on the mower and mowed the picnic area and surrounds. The public started arriving before 10am and continued rolling in until after 1pm. It was a great crowd, and patient while waiting for a ride. We started off with 4 locos on the track, 3 Blowflies and the 38. Again we had a great turn out of members.

Within 30 minutes of starting passenger hauling the 38 lost a pin from its valve gear and Firefly's wheel refused to turn. I was having trouble with Klipspringer and thinking about not running it when this happened. The battery loco was quickly put into service and I managed to get my loco into service reasonably quickly. John Haggarty offered to make a new pin for the 38 and just after 12 midday the 38 was back in service. By 3pm it was starting to cool down and all of our guests had departed. We were packed away and locking up the grounds just after 3pm.

Lastly, one of our guests on that Sunday commented: "What a lovely venue you have and how nicely it is maintained. It's a real credit to your members." A visitor from another club also commented how pleasant and relaxed our run days were.

The last six weeks have been really rewarding to see so many members enjoying themselves operating the railway, having a talk and continuing to maintain and improve the grounds.

On Tuesday 29 June Dean Brennan came along to the work day to instruct us on the manufacture of concrete sleepers. There is a little more to the process than I thought. Thanks Dean. We are underway with sleeper production, only 980 to go.

**Andrew Manning
President**

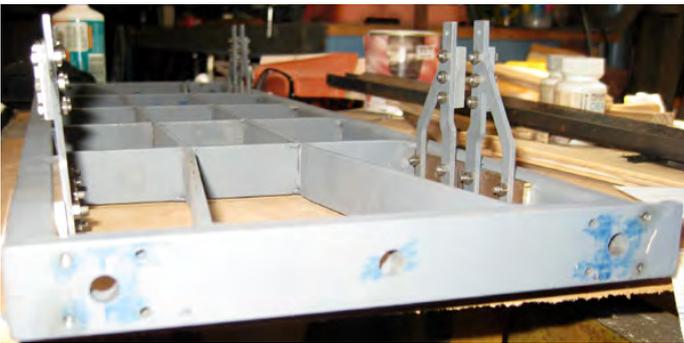


Prelude to Construction of a TOAD (cont)...

by Tony Jones

Continued from the March-April issue of Steamlines.

The running gear. I had a stock of suitable discs for the wheels so they were duly machined, with the traditional 5 holes which I believe is to indicate that the wheels are turning during heavy braking. I even found a complete axle so a second was soon made. One area that made me feel like putting it into the 'too hard basket' was the axle box trees (they look like trees) which are very complicated to cut by hand. These are the plates that the axle-box slides up and down in, fastened to the chassis, as shown below.



I discussed it with Ron Collins who kindly took my AutoCAD drawing and organised to have it laser cut out with Unique Engineering. Two perfect sets were cut out in no time at all, 8 to the set. Each of these trees has 8 holes drilled to take 6BA hex. bolts and be a good fit. It became obvious that accurate drilling jigs were required. These were duly machined and put into use to get the pleasure of all bolts being a good fit.

It took 3 hours or more to make a wooden pattern from a clay model of the intended axle box I made months earlier. Sand had to be prepared for the mould. It was ground the hard way on the top of my steel bench, then sieved to obtain a fine grained sand. Some clay and linseed oil was added. This was prepared in the week leading up to Christmas. The mould box (the drag) was then packed with 9 pits to take the axle boxes.

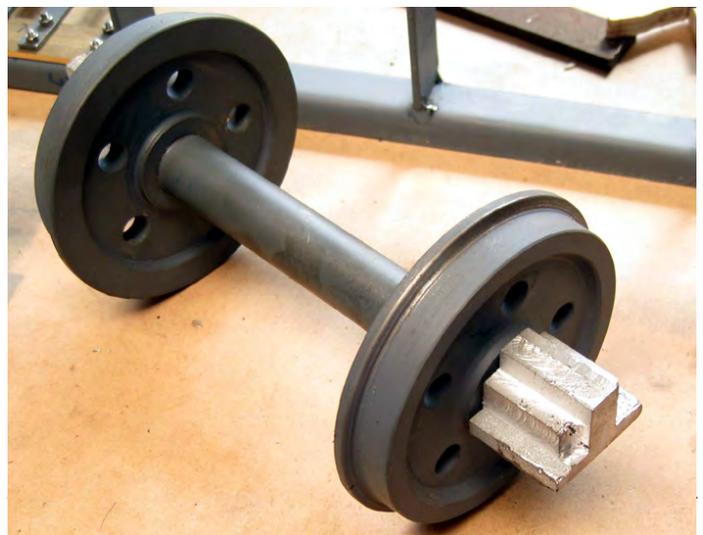
We always make spares. Some difficulty was found with the sand being a bit sticky. The small flanges on the pattern dragged grains of sand away but were modelled up with a trowel afterwards.

On Christmas Eve early in the morning it was cool, so I thought: this is it. I checked the blower, taking it apart to toss out the resident spiders and their webs, then a new switch needed to be fitted as the electrical connections were in a bad state. It was tested and a cloud of dust was duly created. Aluminium of the correct grade was made ready to be put in the crucible. The previous Sunday paper said Total Fire Ban — no backyard activities involving fire, but it had to go ahead.

I laid out the garden hose. I picked up all the dead banana leaves and other debris. I put the monk's hat on top of the chimney and took a last look skywards for cruising helicopters. Matches were found and put to the kerosene soaked pinewood. It lit up straight away, creating a terrible amount of smoke, more than you see in the steaming bay on run-day. I was crapping myself looking skyward again for those eyes in the sky. I need not have worried as the gentle breeze wafted the smoke through the lemon tree and thick vines so that crabby neighbours couldn't see where it was coming from.

This soon passed as soon as the charcoal took over, no smoke was produced. As the fire was increasing its heat, I dropped in a nugget of alloy plus some pieces of inlet manifold. I mixed in some Collie coal to stretch the charcoal out but still no visible smoke. Things were really glowing now so my leather apron and gloves were put on and the tongs made ready. The dross was scraped away and 1 hour from light up I was pouring metal into those pockets in the mould. By 9am it was all over.

Eventually the blobs of alloy were removed, and found to be far from perfect but as they were oversize I later spent days machining all over to produce some usable axle boxes. In retrospect I would have spent less time if I had cut them from solid stock. The best part was the only expense was the electricity for the milling machine.



NEWS ITEMS WANTED

As always, I really do need more items for Steamlines.

How about a few words and photos showing your current project? Or an article about somewhere you've been? Or a short article on how you solved some workshop problem? Please email your material to:

jimclark@hardwareandsoftware.com.au

or post c/o Secretary, PO Box 681, Balcatta, WA 6914

Progress on my 1½" Allchin (cont)...

by Laurie Morgan

The cylinder and its attachments have received my undivided attention recently but most bits are now completed with considerable relief.

Whoever said this hobby was relaxing was lying and I'll meet him behind the bike sheds to sort 'im out!

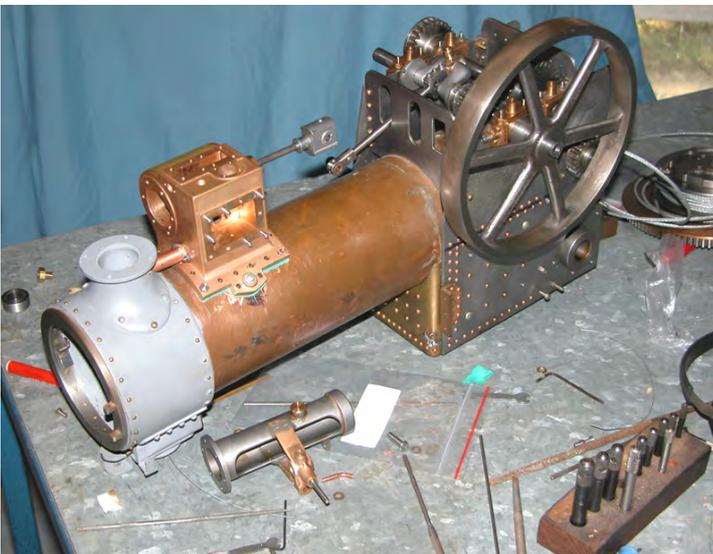
I have completed the governor except for where I have to cut ¼ inch ball bearings in half, drill and tap one half 12BA and mill a 3mm groove across the other. Should I question my sanity now or after? I know it can be done because I saw Ken Austin's larger and perfect version but I think I might start with a dozen balls so I can end up with three good ones....

Only a few more years to go now!

Laurie Morgan



Above: The trunk guide. Yes, the Araldite is all part of the grand design and part of Hughes' "words and music".



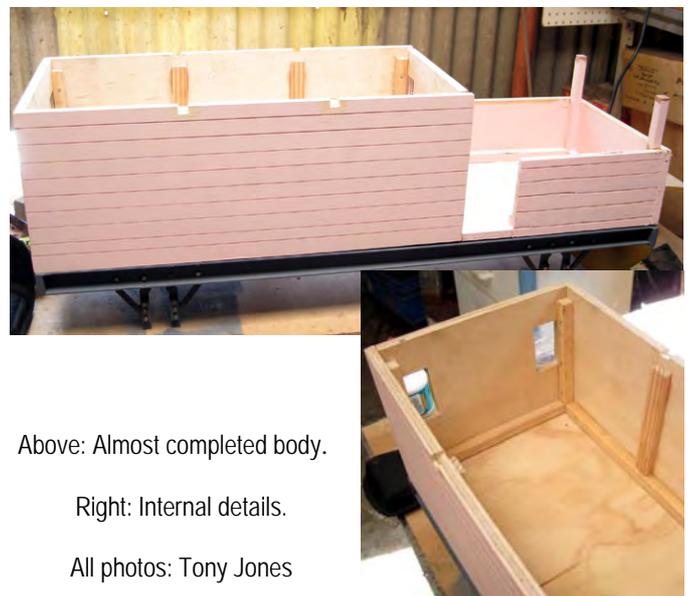
Prelude to Construction of a TOAD (cont)...

by Tony Jones

A while back I bought a sheet of 9mm plywood and cut out the panels for the body. Each panel was machined to size and then grooves had to be cut to simulate planks of wood. This was done on my router table using an expensive TC vee tool and looked quite impressive when it was finished. Also 12mm square was bought to reinforce all the corners, fastened with panel pins and Aquadhere glue. When it was all assembled it was quite a rigid job. The roof trusses were cut out on the bandsaw from remaining bits of ply and small halving joints were carefully cut out. It is now waiting to be glued up.

Four buffer acorns were machined ready to fabricate on the holding plates. The work remaining is stainless steel buffer heads and stems, coupling hooks and leaf springs, and of course there is the drab paint to be applied.

Tony Jones



Above: Almost completed body.

Right: Internal details.

All photos: Tony Jones

New Ground Level Track Tested

by John Shugg

Never mind the Official Opening Ceremonies! The Ground Level Track was unofficially opened on Sunday 28 February 2010.

Amazing how quickly word spreads about the new track we have now! The last welds were still hot (nothing to do with the weather) after joining the rails to complete the outer circuit of track when we had visitors arrive from Bunbury, on our Public Run Day, 28 February, to try out the new line. None of the 17 members of the public present on the day had a ride on the GLT.

The Prindiville's magnificent "Elidir" barely tested the new 'Fowler' hoist (see article on page 7). "Bridget", Nigel and Pauline Sales lovely little loco, and Elidir were both in the steaming bay raising steam. Did someone say, compressed air?? Then after getting the "go" to run anti-clockwise, the locos set out. Elidir, first off, was coupled up to the Hutt trolley (we won't mention the fencing wire) and Tony Jones was given a ride behind the first ever loco-hauled train around the finished ground level circuit.



Above: First Circuit completed. One finger salute from Tony Jones?

Below left: Nigel and Pauline Sales behind Bridget at the SW curve in the track.

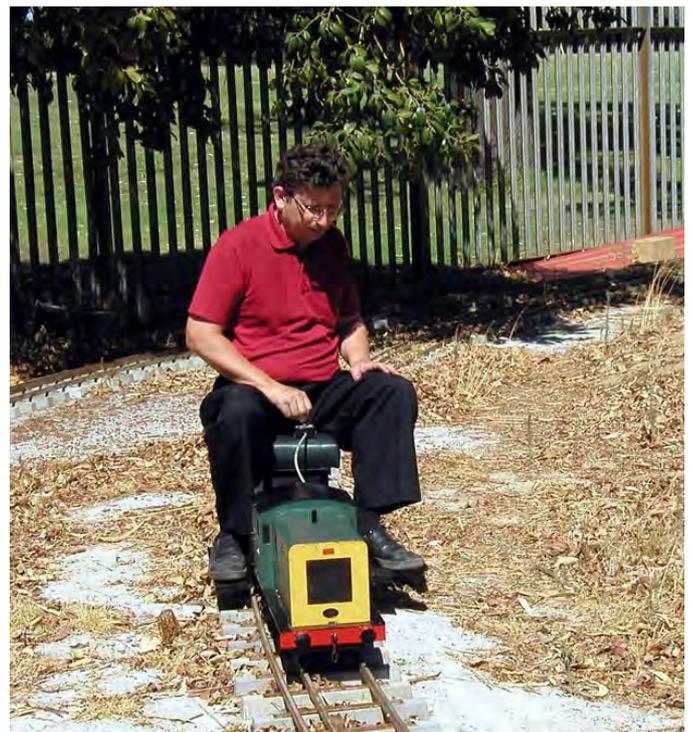
Below right: Steve Reeves reversing from the turntable to the main line for the first 5"G test run. Photos: John Shugg

Jonesey deserved that first ride. Tony welded most of the rails with a little help from his co-workers. He had a co-passenger, on that first circuit, who seemed pre-occupied with something between the riding cars.

Steve Reeves ran his battery diesel too, to test the five inch gauge track. The steam locos were driven in turn by several club members who reckoned the track was fine. The track stood up to the test quite well. Well done to the track building crew!

The GLT is NOT yet open to general running, at the time of this writing.

John Shugg



The 'Fowler' Scissor Lift

by John Shugg

Back on 17 December 2009, we proudly took delivery of a magnificent hydraulic Fowler Scissor Lift from Ron Collins' workshop. A very generous Christmas present, indeed, for the Society!

What started life as a single ram, compressed-air hoist was totally re-engineered and transformed (at great expense) into a twin ram hydraulic lifting hoist, with a rather unique side-traverse hoist, with a multi-gauge rail bridge on the top deck.

Paul James and Clive Chapman later prepared the formwork for two substantial concrete pads for the lift's mounting feet to sit on, and the Concrete Taxi was called in and provided the necessary 0.4 cubic metre concrete mix.

The lift's height can be adjusted from box trailer level to table-top tray height of a typical light truck. The lifting capacity is more than sufficient to accommodate any 7¼" gauge loco that could negotiate our 15 metre radius turntable off-road. The rails on the turntable deck will traverse left and right, so your trailer backing accuracy, if any, will not (hopefully) be a challenge for you.

John Shugg



Top: A general view of the lift.

Above: The lift shown partially raised. Note the wheeled table to provide left/right traverse of the track across the deck. The pump is located on the right. Photos: John Shugg

FOR SALE



Paul Meadwell has these 7¼" gauge bogies for sale at \$2000. They are the Budget Bogie design from Queensland.

Please contact Steve Reeves on 0408 955 692 for details.

Sandgroppers Weekend & Traction Engine Rally

South West Model Engineers are hosting this very popular annual event once again at their track in Forrest Park, Bunbury, over the weekend of 13-14 November. An outing not to be missed!

Combined with the Sandgroppers Weekend will be the first "Western Australian" Miniature Traction Engine Rally. Let's make this an occasion to rival the "big one" held every year in the Eastern States. So if you have a traction engine of any size or description, or at any stage of construction, how about dusting it off and bringing it down to show.

Please contact Steve Reeves on 0408 955 692 for Traction Engine Rally details. Contact Ian Morrison on 9725 2206 or Jeff Clifton on 9725 1994 for registration details for the Sandgroppers Weekend.



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UK 2009 Model Engineering Show by Dave Burman

Right: The show venue with trader's stands being perused by the 'grey-haired brigade'.

Below: 'Grosvenor', one of the locos built by LBSC, was on show.

Photos: Dave Burman



In December I attended The Model Engineering Show held in the main stand facilities of the Sandown Racecourse located about 15km South West of London. The show is organised by the publishers of the Model Engineer magazine. In the past it has been considered the premier model engineering show, at which all the major awards are awarded for outstanding models.

In the past few years, you have the impression that the organisers have rested on the past glories and the show has deteriorated to an extent that other shows have proved to be more popular, in particular the Harrogate and the Midlands show.

During the last two years the show was held at the Ascot racecourse, a most unsuitable venue. After their experience of the 2007 show many of the traders refused to attend the 2008 show and there was a distinct lack of stands at the 2008 show. Even many of the clubs did not show up with stands. It did not help that the person tasked to

organise the show resigned two weeks prior to the show. I attended the 2008 show on the Saturday morning and the place was empty — it's the first time that I have attended this show when I did not have to view exhibits and stands peering under somebody's armpits (if you know me and my lack of height you will understand what I mean).

The new editor of the magazine, David Clark, pledged that he would improve the show and bring it back to its previous status. Therefore the 2009 show was much improved. The show was well attended and consisted of trade stands with the likes of Blackgates Engineering and Reeves selling a wide range of products for live steam. There were large stands displaying the wares of Warco and Chester Tools who specialise in lathes and milling machines from the Far East (or Near East for you). There were numerous smaller stands selling offcuts of all types of materials, fixings, laser cut parts and tools.

Not too many club stands, but certainly more than the previous year. All exhibitions now have an outdoors display showing working models of traction engines. The outdoor display is certainly an act of faith considering our changeable weather, but on the day there was bright sunshine although it was a bit cold. A selection of pictures will be included in the next issue of Steamlines.

Dave Burman



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